

# **Report to Committee**

To:

Planning Committee

Date:

May 30, 2018

From:

Wayne Craig

Director, Development

File:

RZ 17-773703

Re:

Application by GBL Architects Ltd. on behalf of Keltic (Brighouse) Development Ltd. for Rezoning at 6340 No. 3 Road from " Land Use Contract 062 " to "High Density Mixed Use and ECD Hub (ZMU37) – Brighouse Village (City Centre)"

#### Staff Recommendation

- 1. That Richmond Zoning Bylaw 8500, Amendment Bylaw 9859 to:
  - a) create the "High Density Mixed Use and ECD Hub (ZMU37) Brighouse Village (City Centre)" zone;
  - b) rezone 6340 No. 3 Road from "Land Use Contract 062" to "High Density Mixed Use and ECD Hub (ZMU37) Brighouse Village (City Centre);" and
  - c) discharge "Land Use Contract 062," entered into pursuant to "Techram Securities Ltd. Land Use Contract Bylaw No. 3366, 1977" (RD50359) from the Title of 6340 No. 3 Road;

be introduced and given first reading; and

2. That staff be directed to prepare a service area bylaw to provide district energy services to the development at 6340 No 3 Road.

Wayne Craig

Director, Development

(604-247-4625)

WC:jd

Att. 7

REPORT CONCURRENCE						
ROUTED TO:	Concurrence	CONCURRENCE OF GENERAL MANAGER				
Law Affordable Housing Childcare Recreation Services Project Management Real Estate Services Engineering (Sustainability) Transportation	व व व व व व व	h Eneg				

#### **Staff Report**

## Origin

May 30, 2018

GBL Architects Ltd., on behalf of Keltic (Brighouse) Development Ltd., has applied to the City of Richmond to create the "High Density Mixed Use and ECD Hub (ZMU37) – Brighouse Village (City Centre)" zone, and to rezone the property at 6340 No. 3 Road from "Land Use Contract 062" to a new site-specific zone, "High Density Mixed Use and ECD Hub (ZMU37) – Brighouse Village (City Centre)" (Attachment 1), in order to permit the development of a commercial, office, residential and institutional use development in the City Centre's Brighouse Village. The proposed zoning amendment bylaw includes discharge of Land Use Contract 062. The application includes an offer by the developer to design and construct an Early Childhood Development Hub (ECD Hub), at its sole cost, and to transfer the facility to the City, along with access to parking and loading.

Key components of the rezoning proposal (Attachment 2) include:

- A podium and tower form of development with two levels of below-grade parking, ground level retail uses, one office tower and three residential towers and a podium level Early Childhood Development Hub (ECD Hub).
- A maximum floor area ratio (FAR) of 4.007 and a maximum height of 47.0 m geodetic.
- A total floor area of approximately 53,794 m<sup>2</sup> (579,034 ft<sup>2</sup>) including approximately:
  - o 2,784 m<sup>2</sup> (29,967 ft<sup>2</sup>) of commercial space.
  - o 9,621 m<sup>2</sup> (103,560 ft<sup>2</sup>) of office space.
  - o 39,624 m<sup>2</sup> (426,509 ft<sup>2</sup>) of residential space.
  - o 1,765 m<sup>2</sup> (19,000 ft<sup>2</sup>) of ECD Hub space.
- Approximately 546 residential units including:
  - o approximately 519 residential units.
  - o 27 affordable residential units.
- LEED Silver equivalent design with LEED ID+C Gold certification for the ECD Hub.
- DEU connection-ready and transfer of the on-site low carbon energy plant to the City.
- Widening of No. 3 Road and of Cook Road and provision of public right-of-passage (PROP) statutory rights-of-way (SRW) on the north and east sides of the site, various storm and sanitary sewer upgrades and frontage improvements.

The proposed transfer of an on-site low carbon energy plant to the City will enable immediate service by LIEC and connection to the City's District Energy Utility system in the future. A Service Area Bylaw for the subject site will be brought forward, in a subsequent report from Engineering, for Council consideration before adoption of the rezoning bylaw.

#### **Findings of Fact**

A <u>Development Application Data Summary</u> (Attachment 3) is provided for comparison of the proposed development with the proposed site-specific bylaw requirements.

### **Existing Site and Development**

Existing Site and Development: The subject site is located in Brighouse Village of the City Centre (Attachment 4) on the east side of No. 3 Road between Cook Road and the future Bus Mall site. It is comprised of one lot and currently is developed with low-scale commercial uses and surface parking.

Existing Housing Profile: The subject properties were not previously developed with residential uses.

## **Surrounding Development**

Surrounding development includes:

To the North: Adjacent, an undeveloped City lot subject to an application (DP 11-593871) to

construct a Bus Mall adjacent to the Brighouse Canada Line Station in keeping with the City Centre Area Plan (CCAP). This application is in process and will be the subject of a separate report to Council. To the north of the Bus Mall site, a recently-constructed mixed commercial and residential use development on a site

zoned "Downtown Commercial (CDT1)" (DP 11-584010).

To the East: Across the north-south City lane, at 6411 Buswell Street, an existing, low scale

commercial and office use development. This site is part of the Bus Mall

development application noted above, and will provide SRWs connecting the Bus Mall with Buswell Street. Adjacent to the subject site, at 8171 Cook Road, is an

existing, low scale commercial and office use development.

To the South: Across Cook Road, existing, low-scale commercial buildings with surface

parking.

To the West: Across No. 3 Road, the Richmond Centre Mall site, which is zoned "Downtown

Commercial (CDT1)" and is subject to an Official Community Plan (OCP) amendment application (CP 16-752923) to adjust land use and form of development policies, as well as a Development Permit application

(DP 17-768248) for the first phase of mall redevelopment and new mixed use

building development. This application is in process and will be the subject of a

separate report to Council.

#### **Related Policies & Studies**

# Official Community Plan/City Centre Area Plan

Official Community Plan: The Official Community Plan (OCP) designates the subject site as "Downtown Mixed Use". The proposed rezoning is consistent with this designation.

City Centre Area Plan: The City Centre Area Plan (CCAP) Brighouse Village Specific Land Use Map designates the subject site as "Urban Centre T6 (45 m)". The proposed rezoning is consistent with this designation.

### Other Policies, Strategies & Bylaws

Floodplain Management Implementation Strategy: The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204 for Area "A". Registration of a flood indemnity covenant on Title is required prior to final adoption of the rezoning bylaw.

Aircraft Noise Sensitive Development Policy: The proposed development is located in Area 2 (aircraft noise sensitive uses may be considered) on the Aircraft Noise Sensitive Development Map. Registration of an aircraft noise covenant is required prior to rezoning adoption.

Mixed-Use Noise, Canada Line Noise, Commercial Noise and City Centre Impacts: The proposed development must address additional OCP Noise Management Policies related to mixed-use, Canada Line, commercial and ambient noise, as well as other impacts of densification. Requirements include provision of acoustic consultant reports recommending residential sound attenuation measures and registration of associated noise covenants prior to final adoption of the rezoning bylaw. Provisions will be added to the mixed-use noise covenant to address noise from the ECD Hub indoor and outdoor facilities.

#### Consultation

*Public:* A rezoning application sign has been installed on the subject property. Staff have not received any comments from the general public in response to the sign. Should the Planning Committee endorse this application and Council grant first reading to the proposed rezoning, the application will be forwarded to a Public Hearing; where any area resident or interested party will have further opportunity to comment. Public notification for the Public Hearing will be provided as per the *Local Government Act*.

Ministry of Environment and Climate Change Strategy (MOECCS): With respect to potential site contamination, MOECCS has issued a release for the City to approve rezoning and demolition. The applicant is required to expand this release before rezoning adoption to include Development Permit and Subdivision. As the proposed rezoning includes dedication of land to the City, a Certificate of Compliance, Final Determination or alternative legal instrument with associated indemnification must also be provided prior to rezoning adoption, as outlined in the rezoning considerations (Attachment 5).

TransLink: The site is adjacent to the terminus of the Canada Line at Brighouse Station and the future Bus Mall. TransLink has confirmed that the property owner has entered into an Adjacent and Integrated Development (AID) agreement for formal review and has worked cooperatively to date.

#### **Analysis**

#### Proposed Zoning Bylaw Amendment

A new site-specific zone, "High Density Mixed Use and ECD Hub (ZMU37) – Brighouse Village (City Centre)", is proposed. It addresses land use, density, density bonusing, height, siting and parking and loading requirements. Key details of the proposed zone and the associated rezoning considerations are discussed in the report. The rezoning considerations are attached (Attachment 5) and a signed copy is on file.

#### Infrastructure Improvements

The proposed rezoning will contribute to utility, transportation and park infrastructure improvements as described below. Additional details are provided in the Servicing Agreement section of the rezoning considerations (Attachment 5). Detailed design will take place through the Servicing Agreement process.

# Engineering

City Utilities: The developer is required to undertake a variety of storm sewer and sanitary sewer frontage works. Included are:

- Up-graded lane drainage to meet City standards.
- A new sanitary sewer on Cook Road running through to Buswell Street.
- New street and/or pedestrian lighting on the roads and pedestrian statutory rights-of-way (SRW).

Relocation of existing sanitary sewers within the development site is subject to a separate Servicing Agreement application (SA 17-769245). Discharge of the five existing sanitary sewer SRWs is a consideration of the separate Servicing Agreement application, and must be completed prior to final adoption of the rezoning bylaw.

Development Cost Charges (DCCs): In Engineering's 2016 DCC program, there are:

- DCC credits available for 146 m of sanitary sewer between manhole SMH842 in Cook Road and manhole SMH775 in the north-south aligned right-of-way bisecting the development site under 2006-CC-1122.
- No available DCC credits for the storm or water works for this development.

Third Party Utilities: Requirements include undergrounding and/or pre-ducting of private utility lines and location of all private utility equipment on-site.

#### **Transportation**

*No. 3 Road Frontage:* Required back of curb improvements on No. 3 Road will necessitate a dedication and will include a boulevard wide enough to accommodate trees and bus stop infrastructure, development of an off-street bike lane to enhance cyclist safety, a buffer strip/greenway with a second row of trees, and, a 3.0 m wide sidewalk.

Cook Road Frontage: Improvements will include road widening and back of curb cross-section elements similar to No. 3 Road (a boulevard wide enough to accommodate trees and bus stop infrastructure, development of an off-street bike lane, a buffer strip/greenway with a second row of trees, and, a 3.0 m wide sidewalk). A dedication is required.

Bus Mall Frontage: A 4.0 m SRW PROP is required along the north property line to supplement the approximately 3.0 m sidewalk to be constructed on the adjacent Bus Mall site. This will be combined with SRW PROPs in favour of the City on the north-east and north-west corners of the site (overlaid on the SRWs provided to TransLink by the applicant).

North-South Pedestrian Mews: A SRW/PROP is required to accommodate a 6.0 m wide north-south pedestrian mews running from Cook Road to the Bus Mall site. This intended to add connectivity for users of the Canada Line and the Bus Mall and will be landscaped.

Kiss and Ride: An SRW/PROP is required over the north-east corner of the site to provide for a 437.6 sq. m. "kiss and ride" facility serving the Canada Line and Bus Mall. This will provide for approximately seven parking spaces for passenger pick up and drop off by taxis and private citizens.

*Traffic Signals:* The developer is required to install signal and associated facilities at the new Cook Road access and provide modifications of the signals at the Cook Road/Buswell Street and the Cook Road/No. 3 Road intersections to accommodate road widening and realignment.

Where eligible, Development Cost Charge (DCC) credits will be applied to the required improvements. All other improvements will be funded by the developer.

Preliminary functional road drawings demonstrating the proposed road improvements have been provided (Attachment 6). Design development of the back of curb cross-sections will occur through the DP and SA processes.

## **Amenity Contributions**

The CCAP Implementation Strategy includes density bonusing and other measures to support the development of community amenities. The proposed rezoning includes contributions to community amenities as outlined below. Staff note that all contributions are based on rates at the time of writing and will be subject to indexing adjustments, should the rezoning not be adopted within the relevant applicable time periods.

Child Care and Community Facility: The proposed rezoning is located in the Brighouse Village Specific Land Use Map "T6" and "Village Centre Bonus" areas and is subject to the T6 Child Care and Village Centre Bonus provisions requiring contribution of floor area or cash-in-lieu for development of child care and/or community facilities. In the case of this development, Community Services staff propose that the contribution be taken in the form of floor area and that the floor area be used for a combined child care and community service facility, generally described as an Early Childhood Development Hub, to serve the Brighouse Village area of the City Centre. This use of the density bonus contribution for an ECD Hub is consistent with the 2017-2022 Richmond Child Care Needs Assessment and Strategy and the City Centre Area Plan and leverages opportunities inherent in a large mixed-use development located at the centre of Brighouse Village and adjacent to the Canada Line Station and Bus Mall.

The proposed ECD Hub would combine child care programs and child and family services programs in a facility with approximately 1,765 m<sup>2</sup> (19,000 ft<sup>2</sup>) of floor area. The density bonusing provisions used to derive the developer's floor area contributions to the ECD Hub include:

- for "T6 Child Care", 1% of the proposed residential floor area minus affordable housing floor area (377 m<sup>2</sup> f0.01 x (39,624 m<sup>2</sup> 1,981 m<sup>2</sup>f1); and
- for "Village Centre Bonus Community Facility", 5% of the Village Centre Bonus floor area (671 m $^2$  [0.05 x 13,425 m $^2$ ]).

The combined floor area of these two contributions is 1,048 m<sup>2</sup> (11,281 ft<sup>2</sup>), which is 717 m<sup>2</sup> (7,718 ft<sup>2</sup>) less than the optimum facility size noted above. The developer has proposed an additional voluntary contribution of 717 m<sup>2</sup> (7,718 ft<sup>2</sup>) to address the shortfall. Staff support this proposal and have been working with the applicant to expedite the staff review process in recognition of this significant community amenity offer.

The ECD Hub facility is proposed to include space for up to four child care programs as well as offices and multi-purpose spaces for child and family development services. The facility may also be used for after-hours community purposes (e.g. outside of the normal operating hours for the ECD Hub). The facility will be located on the third floor of the development, in the southwest corner of the site, and will have its own entry system from No. 3 Road and the parkade (Attachment 5 - Schedule 4). Outdoor space will be provided for the child care programs in the podium courtyard and, for the child and family development space, in the podium courtyard and overlooking No. 3 Road. Ancillary functions, such as bicycle storage, parking, loading and waste management, will be provided on various levels of the parkade. The required vehicle parking for the facility includes 22 staff spaces and 19 client spaces, as well as a designated space for a van or small delivery truck. These will be located on the ground and upper levels of the parkade, directly adjacent to the ECD Hub access lobbies. Additional parking spaces are provided for the after-hours community use of the facility within the shared non-residential / residential visitor parking area. Program and technical requirements are outlined in the rezoning considerations (Attachment 5) and detailed in the Brighouse Village Early Childhood Development Hub - Terms of Reference (Attachment 5 – Schedule 5).

In addition to contributing floor area to the facility (including the facility proper, ancillary facilities, such as parking, and outdoor space), the developer will undertake the design and construction of the facility, to a turnkey level of finish, at the developer's cost. Once completed and deemed acceptable, the facility will be provided to the City, at no cost, primarily in the form of an air space parcel. Ancillary facilities not practically included in the air space parcel will be secured with easements/statutory rights-of-way and associated cost sharing terms.

Further to contributing the facility, the developer will provide a project management fee based on 5% of the anticipated construction cost of the contributed floor area (e.g. minus the supplementary contributed floor area) in order to support the City's involvement in developing the facility program and construction documents, construction review and providing other input, as necessary. A Construction Agreement will be required to secure completion of the facility to the City's standards. If the Construction Agreement has not been signed before rezoning, a No Build Covenant will also be required. Registration of a No Occupancy Covenant, including terms regarding occupancy of the development and transfer of the completed facility to the City, is also a consideration of rezoning. The detailed conditions of the amenity contribution are provided in the rezoning considerations (Attachment 5).

Community Planning: The proposed rezoning is subject to a community planning implementation contribution which will be deposited into the City Centre - Community Planning and Engineering account for future community planning initiatives (a minimum of \$161,919.94 calculated using the proposed floor area  $[53,794 \text{ m}^2 \text{ x } \$3.01/\text{m}^2]$ ).

Public Art: The rezoning must address the Richmond Public Art Policy and proposes a voluntary cash contribution in lieu of installation of a site-specific artwork by the applicant. The applicant is working with staff to develop a combination of works that would support the City's "art walk" concept for No.3 Road and highlight the Brighouse Village Centre. The Public Art Plan will be subject to Council approval. The contribution will be secured through the rezoning in the form of a cash deposit (a minimum total of \$404,812.20 calculated using the proposed floor areas, excluding the ECD Hub community amenity floor area and the affordable housing floor area,  $\int (14,170 \text{ m}^2 - 1,765 \text{ m}^2) x \$4.84/\text{m}^2 + (39,663 \text{ m}^2 - 1,983 \text{ m}^2) x \$9.15/\text{m}^2]$ ).

Affordable Housing: The CCAP Implementation Strategy, in conjunction with the Affordable Housing Strategy, provides for density bonusing to achieve affordable housing in residential and mixed-use developments. The rezoning application for the proposed development was received prior to July 24, 2017 and is subject to grandfathering of the five percent affordable housing contribution rate. A total of 27 Low End Market Rental Housing (LEMR) units, with a combined floor area of 1,981 m<sup>2</sup> (21,323 ft<sup>2</sup>), are proposed and allocated as follows.

#### AFFORDABLE HOUSING SUMMARY

Unit Type	Affo	Project Targets (3)			
	Minimum Unit Sizes	Current LEMR Maximum Rents (1) (2)	Total Maximum Household Income (1) (2)	Unit Mix	# of Units (3)
Bachelor	37 m <sup>2</sup> (400 ft <sup>2</sup> )	\$811	\$34,650 or less	15%	4
1-Bedroom	50 m <sup>2</sup> (535 ft <sup>2</sup> )	\$975	\$38,250 or less	33%	9
2-Bedroom	69 m <sup>2</sup> (741 ft <sup>2</sup> )	\$1,218	\$46,800 or less	26%	7
3-Bedroom	91 m <sup>2</sup> (980 ft <sup>2</sup> )	\$1,480	\$58,050 or less	26%	7
TOTAL		N/A	N/A	100%	27

- (1) Denotes 2017 amounts adopted by Council on July 24, 2017.
- (2) Subject to Council approval, total annual household incomes and maximum monthly rents may be increased annually by the Consumer Price Index.
- (3) 50% of affordable housing units shall meet Richmond Basic Universal Housing (BUH) standards or better.

The units will be secured with a Housing Agreement which will include the following terms: clustering of units in one area of the development; tenant access to indoor and outdoor common amenity areas; and, provision of affordable housing parking spaces at no additional charge.

Accessibility: The applicant proposes to include the following accessibility unit types in the development.

## ACCESSIBILITY SUMMARY

Туре	Affordable	Market	Intent	Standard
Aging in Place	13	330	- support mobility and usability	Per OCP
Adaptable + Basic Universal Housing (1)	14	206	- renovation potential for wheelchair plus added floor area for manoeuvering	Per BCBC and RZB
Barrier Free (2)	-	-	- move in with wheelchair	Per BCDH
Total Units	27	536		

- Includes Aging-in-Place
- (2) Includes Aging-in-Place, Adaptable and Basic Universal Housing

#### Sustainability

District Energy Utility (DEU): Under typical rezoning considerations, developments are required to be ready for connection to the City's DEU system. In this case, the applicant is proposing to construct and transfer the low carbon energy plant to the City at no cost so that the Lulu Island Energy Company (LIEC) can provide immediate service to the customers and the equipment can be integrated into the future DEU system for this neighbourhood. This servicing opportunity is consistent with the City Centre DEU due diligence analysis, which will be brought forward to Council in early 2019. While the City Centre DEU due diligence analysis is being completed, this interim servicing strategy will secure the customer base for the immediate implementation of GHG emissions reduction. LIEC staff have completed the business plan

whereby LIEC can service new customers from the on-site low carbon energy plants at competitive cost to customers for the same level of service. The applicant is working with LIEC staff to ensure the design of the system and equipment will be compatible with the future system. Mirroring the process of affordable housing strategy, the transfer of the energy plant to the City will proceed only if Council adopts a new Service Area Bylaw which will be provided for Council consideration in a separate report. Otherwise, the development will be built as "DEU-Ready". Details are provided in the rezoning considerations (Attachment 5).

Sustainability Rating System: The proposed development is expected to achieve Leadership in Energy and Environmental Design (LEED) v4 Silver equivalency. The applicant has provided a preliminary checklist and will incorporate the recommendations into the development and Building Permit drawings, where relevant. The ECD Hub, as a City-owned facility, is expected to achieve LEED v4 ID+C Gold Certification for Commercial Interiors.

# Site Access, Parking and Loading

Site Access: Proposed pedestrian access to the site includes storefront entries, an office lobby at the corner of No. 3 Road and Cook Road, residential lobbies on the ground level on No. 3 Road, Cook Road and the north-south pedestrian mews, and an exclusive ECD Hub lobby on No. 3 Road. Vehicle and truck access is proposed to be provided from Cook Road, where there will be a new traffic signal to manage the vehicle and pedestrian movements at the intersection. A second car entry will be located on the east side of the site and will be accessed via the existing City lane that runs west from Buswell Street. Truck and waste management loading spaces are proposed to be grouped near the Cook Road access. An extra high drive aisle is provided between the loading area and the lane access, in order to support its use by trucks when the east-west lane is realigned and widened in the future.

Parking and Loading Rates: Bicycle parking rates are proposed to be consistent with the current bylaw requirements except as follows:

- the required Class 1 spaces for the ECD Hub are proposed to be specified based on anticipated staffing numbers rather than a floor area rate; and
- the required Class 2 spaces are proposed to be calculated at reduced rates due to the proximity of transit and opportunities to share amongst the varied on-site uses.

Vehicle parking rates are proposed to be consistent with the current bylaw requirements for commercial, office, residential and affordable residential uses. Required parking space numbers (rather than rates) have been established for the ECD Hub child care and community services uses in conjunction with actual facility programming. Parking necessitated by after-hours community use of the ECD Hub by the community (approximately 8 spaces) will be provided within the shared commercial/visitor parking area. The applicant has proposed adjusted rates for loading vehicles that include waiving of the requirement for large size truck spaces as there are no large format retail spaces, and, a reduction in the number of medium size truck spaces as these can be shared between non-residential (including the ECD Hub) and residential uses. The ECD Hub program has requested an additional small loading space to accommodate a passenger van that would be located close to the ECD Hub entry system. The alternative bicycle and vehicle parking and loading requirements are reflected in the draft site-specific zone provisions.

Transportation Demand Management (TDM) Measures: The applicant is not proposing a TDM reduction but is proposing to provide TDM measures nonetheless. The proposed measures are detailed in the rezoning considerations (Attachment 5) and include:

- Provision of the end-of-trip bicycle facilities (showers and changing rooms for the office building) and maintenance tools located in the bicycle storage area.
- Provision of bicycle maintenance and repair facilities for each residential tower.
- Provision of on-site public kiss & ride area for pick-up/drop-off near the Canada Line Brighouse Canada Line Station and the proposed Bus Mall.
- Provision of one-year, two-zone transit passes for the ECD Hub staff (maximum 25).
- Provision of two car share spaces within the parkade to be operated by a car share operator.

*Electric Vehicle Charging:* Consistent with Council Policy, effective on April 1, 2018, 100% of the residential parking spaces (excluding visitor spaces) are to be provided with an energized outlet for electrical vehicle charging.

#### Tree Retention and Replacement

The applicant has submitted a Certified Arborist's Report and Tree Survey (Attachment 7) which identifies on-site and off-site bylaw-sized trees that may be affected by the proposed development.

*On-site Trees:* There are 13 existing trees on site (eight Sweetgum and five Pine trees). None are in good condition and all interfere with the proposed development. Staff recommend that all be removed and replaced at a 2:1 ratio. Two trees located on the adjacent property at 8171 Cook Road will require tree protection.

## Development Form and Character

The CCAP includes a variety of policies intended to shape development to be liveable, functional and complementary to the surrounding public and private realm. Those policies most critical to the development concept (Attachment 2) at the rezoning stage are reviewed below.

Public Adjacencies: The project has public frontages on all four sides and the proposed design concept provides for street animating uses at ground level and above. The massing of the development will intersperse podium and tower forms and provide for low podium heights on the No. 3 Road and Cook Road frontages. This will improve scale and light conditions on the streets, as well as enhance the visual connection to the ECD Hub indoor and outdoor facilities on the third level. The Bus Mall frontage will be lined with retail uses and will be overlooked by residential uses. The pedestrian mews will include a residential tower lobby, a landscape-lined passage and residential uses above. The No. 3 Road and Cook Road intersection, the focus of the Brighouse Village Centre, will be marked with a signature office tower.

*Private Adjacencies:* Because the proposed development has public open space on all four sides, it is well separated from existing and future development on nearby private properties. Consequently there are no immediate adjacency impacts. The property at 8171Cook Road is relatively small by City Centre Area Plan (CCAP) standards. The applicant has provided a viability study that demonstrates the property will be developable.

Massing: The applicant has proposed a four-tower massing concept that is intended to:

- Optimize space, light access and noise reduction for the ECD Hub child care outdoor space.
- Provide for towers with adequate separation and outlook.
- Enhance liveability for podium-oriented units with views through to the streets.
- Add to the rhythmical line of towers that is developing along No. 3 Road to the north and south.
- Create common outdoor spaces that will benefit from southern and western sunlight.
- Develop different identities for the office tower and the residential towers.

Amenity Space: The proposed outdoor amenity space includes enhanced public realm space on the ground level, separate child care and residential use outdoor areas on the podium and commercial and residential use spaces on the transition areas between the mid-rise and high rise components of the development. Indoor amenity space is provided for the residents on the third level and opens directly to the podium outdoor space.

Design Development: The form and character of the proposed development, as well as functional details related to on-site public realm design, parking, loading, waste management, on-site utilities, rooftop equipment, pedestrian weather protection, DEU, CPTED, LEED, indoor and outdoor amenity space, landscape, accessibility and acoustic requirements, will be assessed in more detail during the Development Permit Application process. The proposal will be expected to respond to comments arising from Council consideration of the rezoning, as well as, from staff, Advisory Design Panel and Development Permit Panel review.

#### Financial Impact or Economic Impact

As a result of the proposed development, the City will take ownership of developer contributed assets such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals. The anticipated operating budget impact for the ongoing maintenance of these assets is \$16,000. This will be considered as part of the 2019 Operating Budget.

With respect to the ECD Hub, it is anticipated that an operating budget impact (OBI) of approximately \$115,396.20 (based on today's costs) will be needed to fulfill landlord maintenance responsibilities for a nominal lease with a non-profit society. The Council approved non-profit operator will be responsible for operating costs. The estimated OBI, revised to reflect the costs of the day, will be included in the City's future Five Year Financial Plan to commence in the year the facility becomes operational. Other potential financial impacts may include: an annual permissible tax exemption for a future non-profit operator seeking relief from paying property taxes for a City leased facility; and \$35,000 for legal fees for conveyance of an air space parcel and advertising required in advance of leasing the facility to a non-profit. The source of funding for these costs would be an existing City-wide child care project budget.

#### Conclusion

The application to rezone the property at 6340 No. 3 Road to a new site-specific zone is consistent with the City Centre Area Plan Specific Land Use Map provisions including a maximum density of 4.007 FAR and a maximum height of 47.0 m. The mix of uses will contribute to a lively City core and the design of the development, with its emphasis on creating an animated and connected public realm on all sides of the development, will enhance the experience of the Brighouse Village Centre. Contributions, such as the kiss & ride, will improve civic functionality. Contributions to affordable housing will increase housing options for City residents. Most significantly, the contribution of an Early Childhood Development Hub for Brighouse Village will provide much needed child care and child and family development services for those living and working in the neighbourhood.

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 9859, be introduced and given first reading.

Janet Digby, Architect AIBC

Planner 3

(604-247-4620)

JD:blg

Attachment 1: Location Map and Aerial

Attachment 2: Development Concept

Attachment 3: Development Application Data Sheet

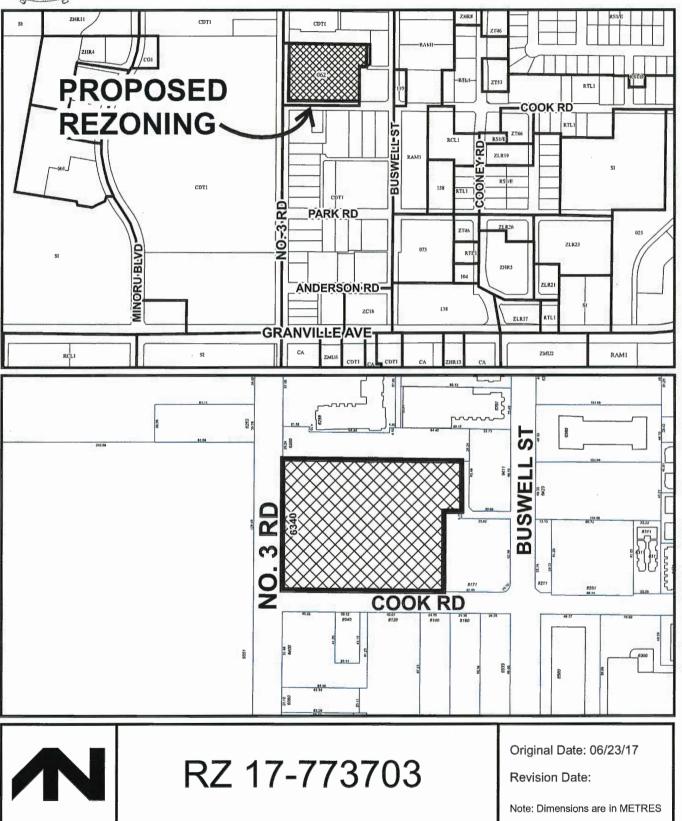
Attachment 4: Brighouse Village Specific Land Use Map

Attachment 5: Rezoning Considerations

Attachment 6: Preliminary Functional Road Drawings

Attachment 7: Tree Survey









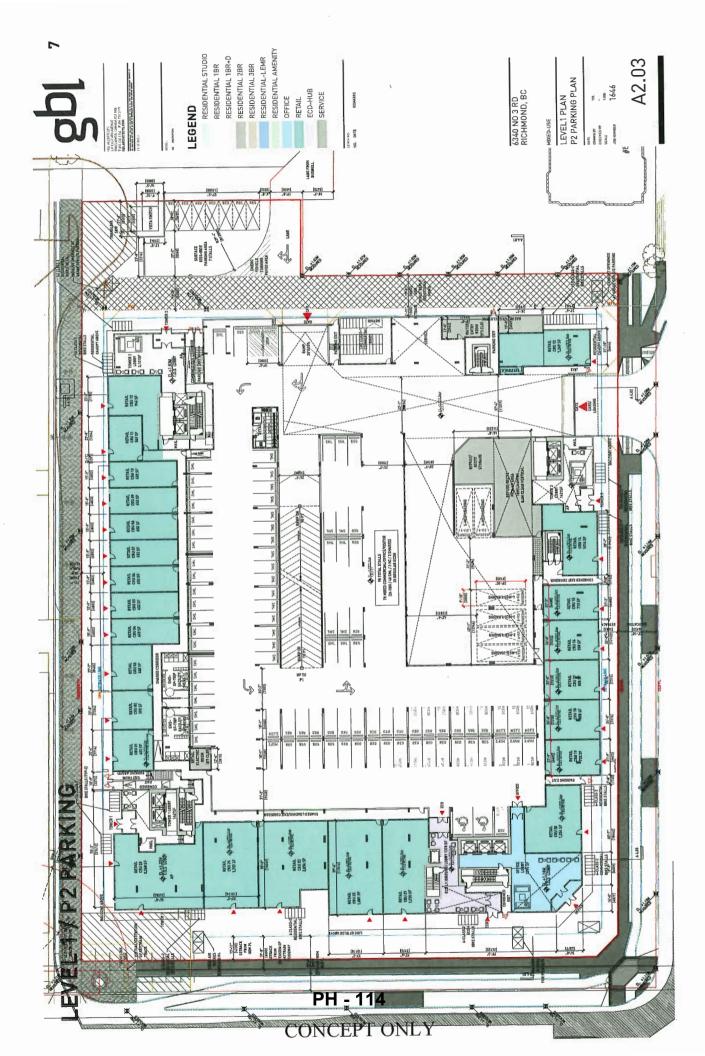


RZ 17-773703

Original Date: 06/23/17

Revision Date:

Note: Dimensions are in METRES

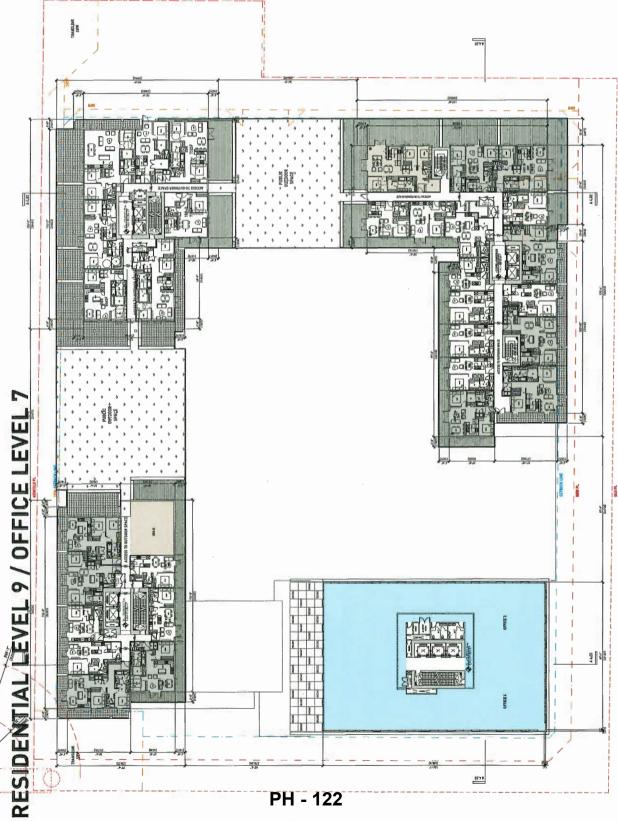


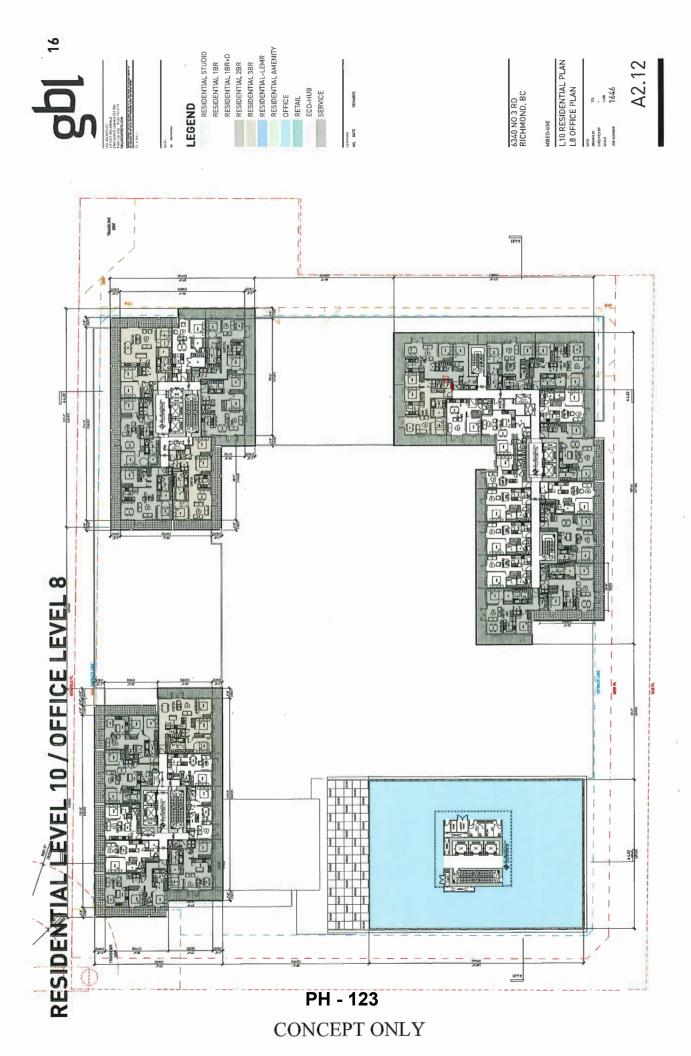


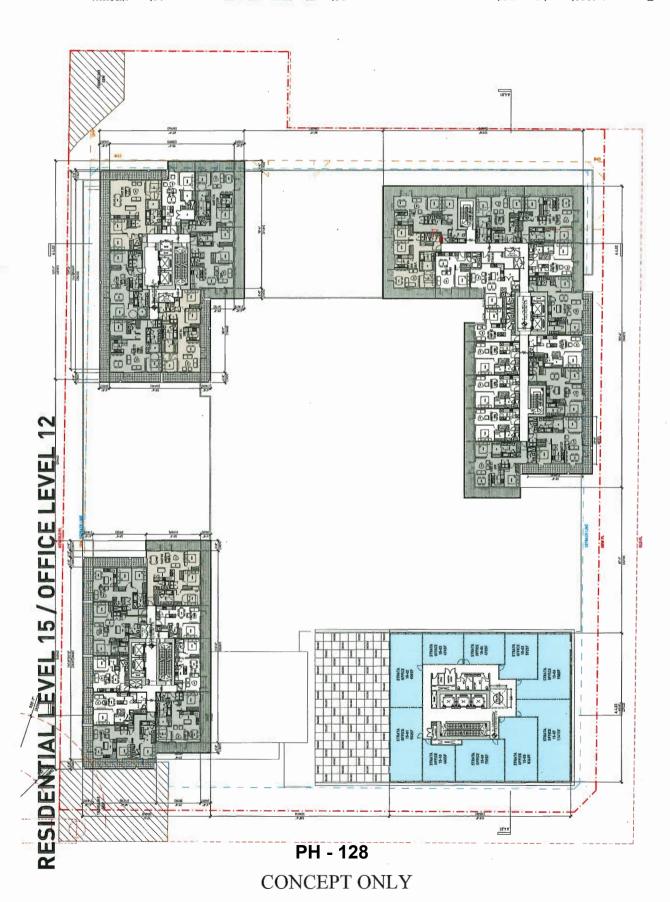
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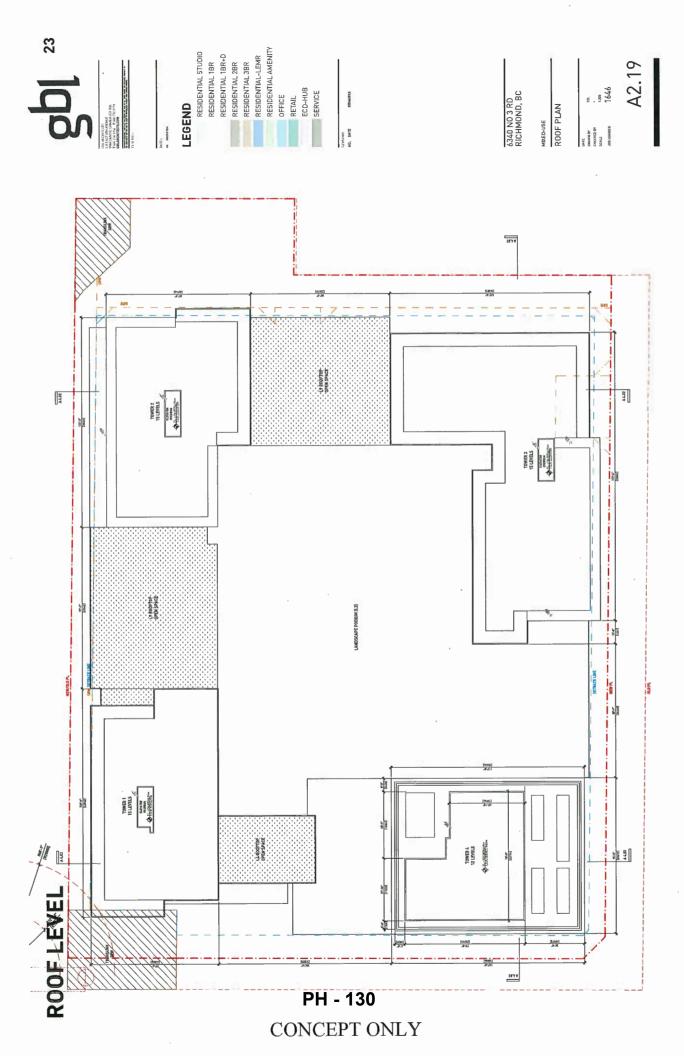
L9 RESIDENTIAL PLAN

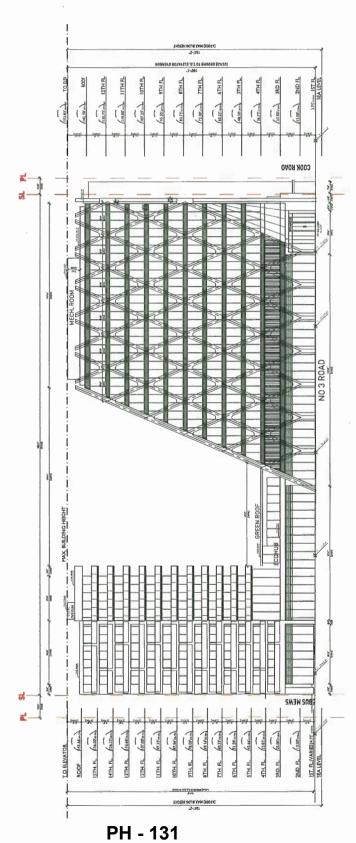
L7 OFFICE PLAN 6340 NO 3 RD RICHMOND, BC



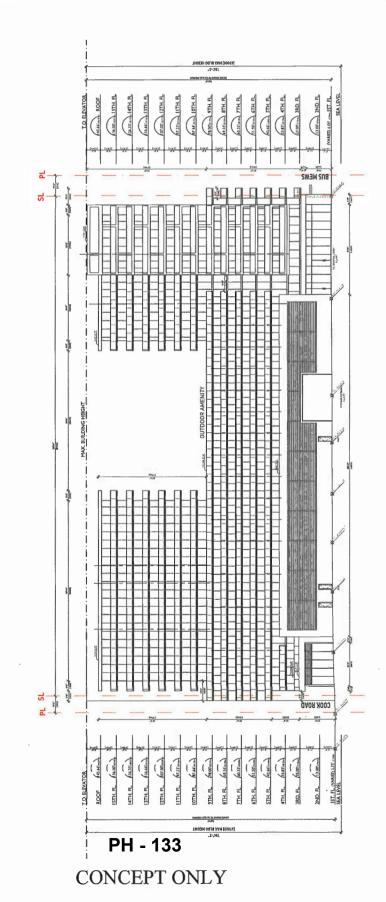


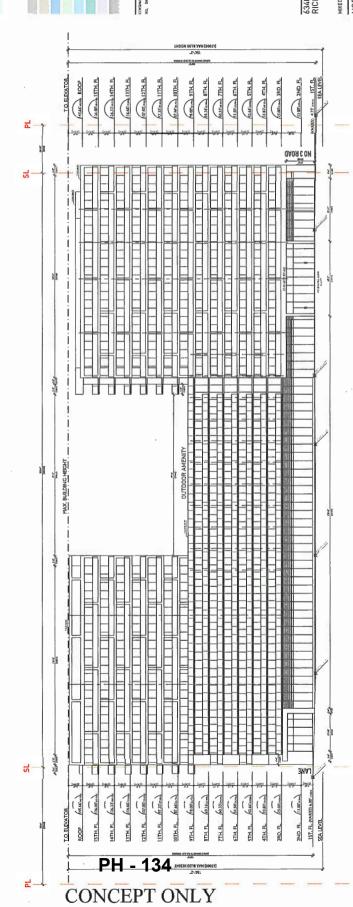




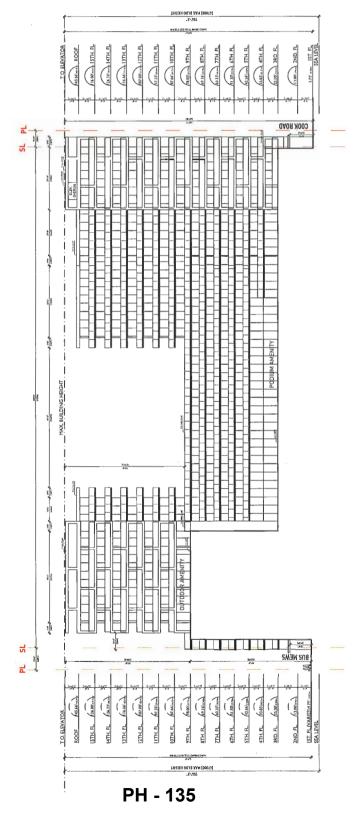


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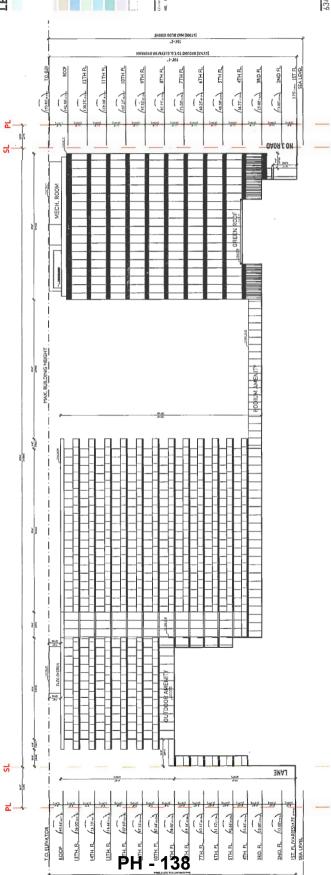
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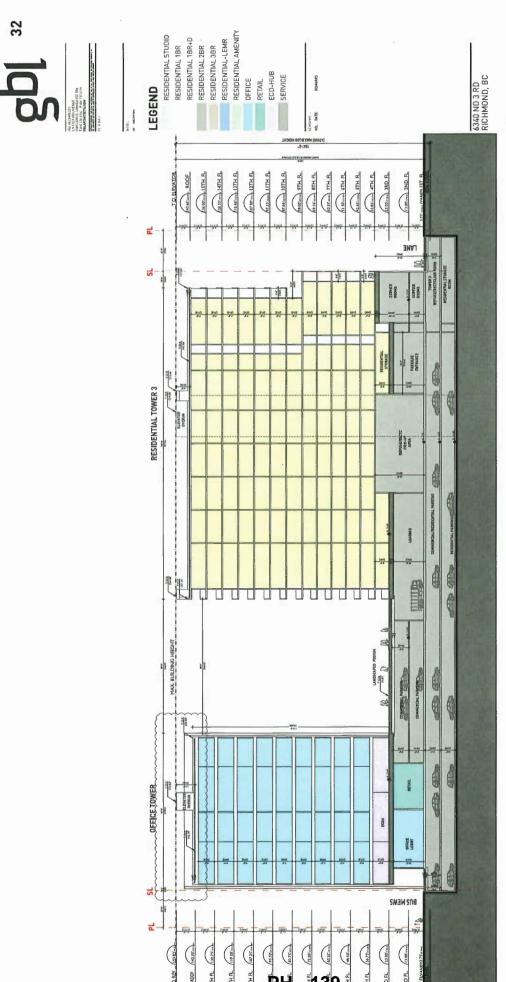
30 RESIDENTIAL STUDIO
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MIXED-USE
INTERIOR EAST ELEVATION

6340 NO 3 RD RICHMOND, BC





CONCORPS PRODE ONLY

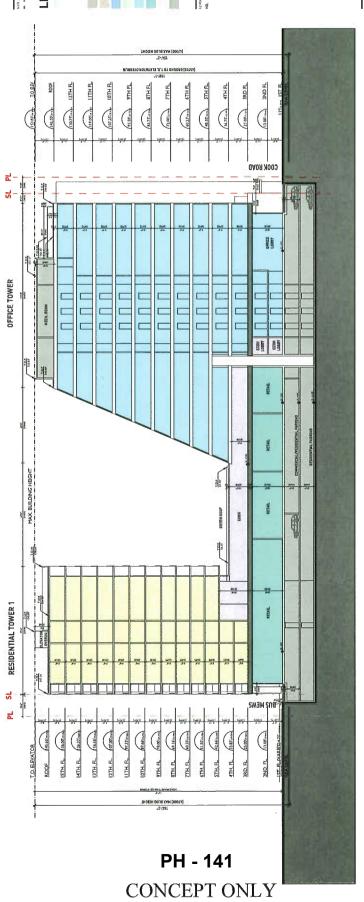
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SECTION 1
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RESIDENTIAL-LEMR RESIDENTIAL AMENITY RESIDENTIAL 18R+D
RESIDENTIAL 28R
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6340 NO 3 RD RICHMOND, BC

MIXED-USE SECTION 2

53.83'mm 4TH, FL \$1.50'mm 6TH, FL 69.16 mm 8TH. FL. 933 HTH. FL. S RESIDENTIAL TOWER 2 MAX. BUILDING HEIGHT RESIDENTIAL TOWER 3 CORRÍDOR CORRIDOR PL SL PH-2-751 140





# **Development Application Data Sheet**

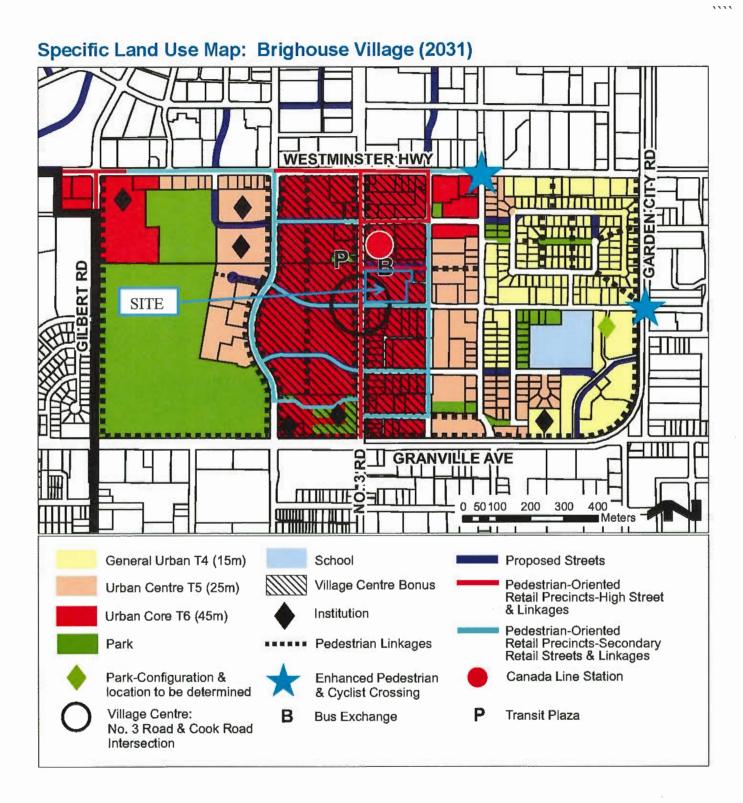
**Development Applications Department** 

RZ15-694855	
Address:	6340 No. 3 Road
Applicant:	Keltic (Brighouse) Development Ltd.
Owner:	Keltic (Brighouse) Development Ltd.
Planning Area(s):	City Centre – Brighouse Village

RZ15-694855	Existing	Proposed
Site Area:	14,484 m <sup>2</sup>	12,999 m²
Net Development Site Area:	N/A	13,425 m <sup>2</sup>
Land Uses:	Commercial	Mixed Use
OCP Designation:	Downtown Mixed Use	Downtown Mixed Use
Area Plan Designation:	Urban Core T6 (45 m)	Urban Core T6 (45 m)
Zoning:	LUC 062	ZMU37
Number of Residential Units:	nil	546

RZ15-694855	Bylaw Req't	Proposed	Variance
Floor Area Ratio (FAR):	4.007	4.007	n/a
Floor Area per FAR:	53,794 m <sup>2</sup>	53,794 m <sup>2</sup>	n/a
Lot Coverage:	90%	74%	-
Lot Size:	12,600 m <sup>2</sup>	12,999 m <sup>2</sup>	-
Lot Dimensions:	n/a	n/a	-
Setback – No. 3 Road:	4.0 m	4.2 m	-
Setback – Cook Road:	3.0 m	3.0 m	
Setback – Interior Side Yard (north):	4.0 m	4.0 m	-
Setback – Rear Yard (east):	6.0 m	7.5 m	-
Height Dimensional (geodetic):	47.0 m	47.0 m	-
Off-Street Parking Spaces – Residential Unit:	519	572	-
Off-Street Parking Spaces – Affordable Housing Unit:	24	24	
Off-Street Parking – Visitor (shared):	109	109	
Off-Street Parking Spaces – Commercial (shared):	83	83	-
Off-Street Parking – Office (shared):	135	135	
Off-Street Parking – ECD Hub Overflow (shared):	8	8	
Off-Street Parking – ECD Hub:	41	41	-
Off-Street Parking – Car Share Spaces:	2	2	
Off-Street Parking Spaces – Total:	804	856	-
Loading Space – ECD Hub:	1	1	
Loading Spaces – Medium Size:	6	6	-
Bicycle Parking Spaces – Class 1:	722	722	-
Bicycle Parking Spaces – Class 2 (shared):	69	69	-

Note: Site area and floor area figures rounded.



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# **Rezoning Considerations**

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

Address: 6340 No. 3 Road File No.: RZ 17-773703

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9859, the owner is required to complete the following.

- 1. (Site Contamination General) Prior to rezoning bylaw adoption, submission to the City of a contaminated sites legal instrument (e.g. Certificate of Compliance (CoC) or Final Site Determination (FSD) showing no contamination in the project footprint) or an alternative notice from the Ministry of Environment and Climate Change Strategy that the City may approve the zoning, development, subdivision, and demolition applications.
- (Site Contamination Dedicated Land) Prior to rezoning bylaw adoption, submission to the City of
  sufficient information and/or other assurances satisfactory to the City in its sole discretion to support the
  City's accepting the proposed dedicated land. Such assurances could include one or more of the
  following:
  - a) a contaminated sites legal instrument (e.g. Certificate of Compliance (CoC) or Final Site Determination (FSD) showing no contamination in the dedication lands);
  - b) evidence satisfactory to the City, in its sole discretion, that the lands to be dedicated to the City are in a satisfactory state from an environmental perspective; and
  - c) the registration of a legal agreement on the title to the Lands which provides that:
    - i) no occupancy of any building on the Lands shall be granted until such time that the Owner/Developer has satisfied the City in its sole discretion that the lands to be dedicated to the City are in a satisfactory state from an environmental perspective and a contaminated sites legal instrument has been obtained for the proposed dedication lands; and
    - the Owner/Developer shall release and indemnify the City from and against any and all claims or actions that may arise in connection with those portions of the lands being dedicated to the City being contaminated in whole or in part.
- 3. *(Subdivision)* Registration of a subdivision plan for the subject site that satisfies the following conditions, generally as shown in the sketch survey plan (Schedule 1):
  - a) dedication of approximately 5.75 m. along the No. 3 Road frontage for street widening, subject to final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the City;
  - b) dedication of approximately 6.95 m. along the Cook Road frontage for street widening, subject to final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the City;
  - c) dedication of approximately 0.41 m. along the mid-site east-west property line to contribute to the extension of the east-west lane from Buswell Street, subject to final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the City; and
  - d) dedication of 4 m. x 4 m. corner cut (road dedication) No. 3 Road / Cook Road intersection (northeast corner).

Note: All Builders Liens on the subject properties must be removed before the subdivision and registration of covenants can occur.

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- 4. *(Statutory Right of Way)* Granting of a Statutory Right-of-Way(s), generally as shown in the sketch Statutory Right-of-Way(s) plan (Schedule 2) and subject to final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the City, including:
  - a) public right of passage for pedestrians, bicycles and emergency services, City services and thirdparty utility services vehicles;
  - b) approximately 175.4 m<sup>2</sup> at the north west corner of the site, blanketing the portion of the TransLink Statutory Right-of-Way(s) that will be within the new property lines;
  - c) approximately 4.0 m. parallel to the north property line adjacent to the future Bus Mall site;
  - d) approximately 6.0 m. parallel to the east property lines, configured to run from Cook Road in a direct line toward the Bus Mall site;
  - e) a 3.0 m. x 3.0 m. corner cut at the intersection of the 4.0 m. and 6.0 m. portions of the Statutory Right-of-Way(s) noted above;
  - f) two 3.0 m. x 3.0 m. corner cuts at the parkade access on the east side of the development; and
  - g) a 3.0 m. x 3.0 m. corner cut on the west side of the 6.0 m. north-south pedestrian mews at Cook Road,
    - and to include:
  - h) agreement to provide adequate below grade structure to support all Statutory Right-of-Way(s) functions, including possible use by emergency services vehicles and waste management trucks;
  - i) agreement to accommodate fire truck access and manoeuvring as determined through the Development Permit, Building Permit and/or Servicing Agreement processes;
  - j) design and construction, including but not limited to universal accessibility, decorative finishing, landscaping, lighting and utility infrastructure (e.g. fire hydrants), as well as, safety measures related to the vehicular and/or pedestrian use and/or crossing of the Statutory Right-of-Way(s), as determined through the Development Permit, Building and Servicing Agreement processes;
  - k) design and construction, at owner's cost; and
  - 1) maintenance and repair, at owner's cost.
- 5. (Statutory Right of Way) Granting of a Statutory Right-of-Way(s) in favour of the City over Statutory Right-of-Way(s) Plan EPP57357 and EPP57356 for purposes described in any current or future agreements between the City and TransLink, which may include construction and/or maintenance of road and equipment (reference Schedule 2).
- 6. (Statutory Right of Way) Granting of a Statutory Right-of-Way(s), generally as shown in the sketch Statutory Right-of-Way(s) plan (Schedule 3) and subject to final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the City, including:
  - a) public right of passage for pedestrians, bicycles, public and emergency services, City services and third-party utility services vehicles;
  - a) approximately 437.6 m<sup>2</sup> in the north eastern corner of the site for a kiss and ride facility; and to include:
  - b) agreement to provide adequate below grade structure to support all Statutory Right-of-Way(s) functions, including possible use by emergency services vehicles and waste management trucks;
  - c) agreement to accommodate fire truck access and manoeuvring as determined through the Development Permit, Building Permit and/or Servicing Agreement processes;
  - d) design and construction, including but not limited to universal accessibility, decorative finishing, landscaping, lighting and utility infrastructure (e.g. fire hydrants), as well as, safety measures related to the vehicular and/or pedestrian use and/or crossing of the Statutory Right-of-Way(s), as determined through the Development Permit, Building Permit and Servicing Agreement processes;
  - e) design and construction, at owner's cost; and
  - f) maintenance and repair, at owner's cost.
- 7. (Statutory Right of Way) Granting of a Statutory Right-of-Way(s) generally as shown in the sketch Statutory Right-of-Way(s) plan (Schedule 2) and subject to final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the City, including:

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- a) public right of passage;
- b) an area adjacent to the new south property line that is the width of the parkade access and 10.0 m. deep; and
- c) two 3 m. x 3m corner cuts at the vehicle and truck access on Cook Road, and to include:
- d) agreement to provide adequate below grade structure to support all Statutory Right-of-Way(s) functions, including possible use by emergency services vehicles and waste management trucks;
- e) design and construction, including but not limited to universal accessibility, decorative finishing, landscaping, lighting and utility infrastructure (e.g. traffic equipment), as well as, safety measures related to the vehicular use and/or crossing of the Statutory Right-of-Way(s), as determined through the Development Permit and Servicing Agreement processes;
- f) design and construction, at owner's cost; and
- g) maintenance and repair, at owner's cost.
- 8. (Statutory Right of Way) Registration of a restrictive covenant on title or alternative legal agreement(s), to the satisfaction of the City, securing the owner's commitment to provide any additional Statutory Right-of-Way(s) and/or easements, as determined via the Development Permit\* and/or Servicing Agreement\* processes, to the satisfaction of the City.
- 9. *(Flood Construction Level)* Registration of a flood covenant on title identifying the basic minimum flood construction level of 2.9 m. GSC for Area A.
- 10. (Aircraft Noise) Registration of an aircraft noise sensitive use covenant on title addressing noise impacts on residential uses and establishing a Statutory Right-of-Way(s) in favour of the Airport Authority.
- 11. (Mixed-Use Noise) Registration of a mixed use noise sensitive use covenant on title addressing noise impacts on residential uses, including those related to the on-site ECD Hub indoor and outdoor facilities.
- 12. *(Canada Line Noise)* Registration of a mixed use noise sensitive use covenant on title addressing noise impacts on residential uses, including those related to the Canada Line and associated proposed Bus Mall.
- 13. (Commercial Noise) Registration of a commercial noise restrictive covenant on title addressing noise impacts generated by commercial uses and requiring demonstration that the building envelope is designed to avoid noise generated by the internal use from penetrating into residential areas that exceed noise levels allowed in the City's Noise Bylaw and that noise generated from rooftop HVAC units will comply with the City's Noise Bylaw.
- 14. *(City Centre Impacts)* Registration of a restrictive covenant on title noting that the development is located in a densifying urban area and may be subject to impacts that affect the use and enjoyment of the property including, but not limited to, ambient noise, ambient light, shading, light access, privacy, outlook, vibration, dust and odours from development or redevelopment of public and private land in the surrounding area.
  - *Note:* Some of the foregoing noise and impact covenants may be combined at the discretion of the City.
- 15. *(Shared Parking)* Registration of a restrictive covenant on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to ensure that:
  - a) all residential visitor parking spaces are shared with commercial and office uses,
  - b) the ECD Hub after hours (evening and weekend) uses is shared with commercial and office uses;
  - c) all shared parking spaces remain unassigned;
  - d) all shared parking spaces are located on or close to the ground level of the parking structure;
  - e) all shared parking spaces are identified with signage as to their intended usage;
  - f) all shared parking spaces are fully accessible to all users (e.g. entry gate open) during standard business operating hours; and
  - g) all shared parking spaces are fully accessible to residential visitor users (e.g. buzz entry) during nonstandard business hours;
  - h) identify the shared parking stalls in the Development Permit plans;
  - i) identify the shared parking stalls in the Building Permit plans; and
  - j) prior to building inspection permitting occupancy, provide wayfinding and stall identification

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signage for the shared visitor stalls, to the satisfaction of the Director of Transportation.

- 16. *(Shared Loading)* Registration of a restrictive covenant on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to ensure that:
  - a) all loading spaces are shared between commercial, residential and ECD Hub uses;
  - b) all shared loading spaces will remain unassigned;
  - c) all shared loading spaces are located on the ground level;
  - d) all shared loading spaces are identified with signage as to their intended usage;
  - e) all shared loading spaces are fully accessible to all users (e.g. entry gate open) during business hours; and
  - f) all shared loading spaces are accessible to all users (e.g. buzz entry) during non-standard business hours;
  - g) identify the shared loading stalls in the Development Permit plans;
  - h) identify the shared loading stalls in the Building Permit plans; and
  - i) prior to building inspection permitting occupancy, provide wayfinding and stall identification signage for the shared loading stalls, to the satisfaction of the Director of Transportation.
- 17. *(Truck Size)* Registration of a restrictive covenant on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to ensure that the maximum truck size for any truck servicing the site is a medium size truck (e.g. SU9). *(Note: No WB-17 size trucks are permitted.)*
- 18. *(Car Share)* Registration of a restrictive covenant and Statutory Right-of-Way(s) on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to provide a car share facility and car share equipment to a car share operator or the City, at no cost to the car share operator or the City, both as the case may be, the terms of which shall be generally as follows:
  - a) a minimum of two (2) car share parking spaces within the development, along with pedestrian and vehicular access, designed, constructed, equipped and maintained by the owner, at the owner's cost, to be:
    - i) co-located and located on the ground level of the parkade;
    - ii) provided with satisfactory pedestrian access;
    - iii) provided with vehicle access from the lane;
    - iv) designed to be safe, convenient and universally-accessible;
    - v) provided with design features, decorative finishing, lighting and signage, as determined through the Development Permit and Servicing Agreement processes;
    - vi) provided with one EV quick-charge (240 volt) charging station for each car share space for its exclusive use;
    - vii) accessible to all intended users (e.g. general public, car share operator personnel and car share operator members) at no added cost;
    - viii) accessible to all intended users as follows:
      - i. the general public -365 days a year for a time period equalling the lengthiest combination of standard business hours and the standard operating hours of local rapid transit; and
      - ii. the car share operator personnel and members 365 days a year for a 24 hours per day (e.g. code entry);
    - ix) identify the car share stalls in the Development Permit plans;
    - x) identify the car share stalls in the Building Permit plans; and
    - xi) prior to building inspection permitting occupancy, provide wayfinding and stall identification signage for the car share stalls, to the satisfaction of the Director of Transportation;
  - b) terms of agreement between the owner and the car share operator which shall include:
    - i) a minimum contractual period for the provision of car share services of three years from the

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- first date of building occupancy; and
- ii) additional provisions as negotiated by the owner and car share operator (e.g. maintenance, repair and replacement by car share vehicles by the car share operator), or as required by the City, subject to the approval of the Director of Transportation;
- c) supporting submissions provided to the City (Transportation Department) as follows:
  - i) prior to the Public Hearing, a copy of the letter of intent addressed to the owner from the car share operator outlining the terms of the provision of car sharing services;
  - ii) prior to Development Permit issuance, a copy of the draft contract between the owner and the car share operator describing the terms of the provision of car sharing services;
  - prior to building inspection permitting occupancy, a copy of the executed contract between the owner and the car share operator describing the terms of the provision of car sharing services;
- d) a Public Right of Passage Statutory Right of Way, in favour of the City, to secure the car share spaces and the vehicular and pedestrian accesses, subject to the final dimensions established by the surveyor on the basis of functional plans completed to the satisfaction of the Director of Transportation; and
- e) in the event that the car-share facilities are not operated for car-share purposes as intended via the subject rezoning application (e.g., operator's contract is terminated or expires), transfer control of the car-share facilities, to the City, at no cost to the City, with the understanding that the City at its sole discretion, without penalty or cost, shall determine how the facilities shall be used going forward.
- 19. (Bicycle End-of-Trip Facilities) Registration of a restrictive covenant on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to provide bicycle end-of-trip facilities within the development for the shared use of all non-residential users (e.g. commercial and office) generally as follows:
  - a) a minimum of one male facility and one female facility, designed, constructed, equipped and maintained by the owner, each of which shall:
    - i) be fully accessible to all intended users;
    - ii) be easily accessible from commercial Class 1 bicycle parking areas;
    - iii) be fully handicapped accessible;
    - iv) accommodate two or more people at one time; and
    - v) include, at minimum, a change room and lockers, two showers, a toilet, a wash basin and a grooming station (i.e. mirror, counter and electrical outlets);
    - vi) identify the end-of-trip facilities in the Development Permit plans;
    - vii) identify the end-of-trip facilities in the Building Permit plans; and
    - viii) prior to building inspection permitting occupancy, provide wayfinding and stall identification signage for the end-of-trip facilities, to the satisfaction of the Director of Transportation.
- 20. (Bicycle Maintenance and Repair Facilities) Registration of a restrictive covenant on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to provide bicycle maintenance and repair facilities within the development for the shared use of all residential users (e.g. owners, renters and their guests) generally as follows:
  - a) a minimum of one bicycle repair and maintenance station for each residential tower, designed, constructed, equipped and maintained by the owner, each of which shall:
    - i) be fully accessible to all intended users;
    - ii) be easily accessible from residential Class 1 bicycle parking areas;
    - iii) be fully handicapped accessible; and
    - iv) include, at minimum, a bicycle repair stand with tools, a foot pump and a faucet, hose and drain for bicycle washing;
    - v) identify the bicycle maintenance and repair facilities in the Development Permit plans;
    - vi) identify the bicycle maintenance and repair facilities in the Building Permit plans; and

- vii) prior to building inspection permitting occupancy, provide wayfinding and stall identification signage for the bicycle maintenance and repair facilities, to the satisfaction of the Director of Transportation;
- 21. (Bicycle Facilities) Registration of a restrictive covenant on title or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to maintain all required bicycle parking spaces and other bicycle facilities for their intended uses, as well as, securing the owner's commitment to maintain the bicycle parking areas for shared common use.
- 22. *(Transit Pass Program)* Registration of a restrictive covenant on title, or alternative legal agreement, subject to the final approval of the Director of Transportation, securing the owner's commitment to provide a transit pass program, at the owner's cost, generally as follows:
  - a) provide 25 monthly two-zone transit passes for one year for ECD Hub staff;
  - b) extend the program, should it not be fully subscribed within one year, until the equivalent of the costs of the full one year transit pass program has been exhausted;
  - c) provide for administration by TransLink or a management company on behalf of the strata council;
  - d) notify the operator of the ECD Hub of the availability of the transit pass program;
  - e) indicate to the operator of the ECD Hub the availability and method of accessing the transit program; and
  - f) submit a Letter of Credit prior to Development Permit issuance to secure the owner's commitment to provide the transit passes based on 110% of transit pass costs (including 100% for transit pass purchases and 10% for future transit pass cost increases and administration).

    (Note: The remaining funds in the LOC will be released to the Owner/Developer when the 2-zone one year transit pass program is fully subscribed.)
- 23. (District Energy Utility) Registration of a restrictive covenant and Statutory Right-of-Way(s) and/or alternative legal agreement(s), to the satisfaction of the City, securing the owner's commitment to connect to District Energy Utility (DEU) and granting the Statutory Right-of-Way(s) necessary for supplying the DEU services to the building(s), which covenant and Statutory Right-of-Way(s) and/or legal agreement(s) will include, at minimum, the following terms and conditions:
  - a) No building permit will be issued for a building on the subject site unless the building is designed with the capability to connect to and be serviced by a DEU and the owner has provided an energy modelling report satisfactory to the Director of Engineering.
  - b) If a low carbon energy plant district energy utility (LCDEU) service area bylaw which applies to the site has been adopted by Council prior to the issuance of the development permit for the subject site, no building permit will be issued for a building on the subject site unless:
    - i) the owner designs, to the satisfaction of the City and the City's DEU service provider, Lulu Island Energy Company Ltd. (LIEC), a low carbon energy plant to be constructed and installed on the site, with the capability to connect to and be serviced by a DEU; and
    - the owner enters into an asset transfer agreement with the City and/or the City's DEU service provider on terms and conditions satisfactory to the City to transfer ownership of the low carbon energy plant to the City or as directed by the City, including to the City's DEU service provider, at no cost to the City or City's DEU service provider, LIEC, on a date prior to building inspection permitting occupancy of the first building on the site;
  - c) The owner agrees that the building(s) will connect to a DEU when a DEU is in operation, unless otherwise directed by the City and the City's DEU service provider, LIEC.
  - d) If a DEU is available for connection and the City has directed the owner to connect, no building inspection permitting occupancy of a building will be granted unless, and until:
    - i) the building is connected to the DEU;
    - the owner enters into a Service Provider Agreement for that building with the City and/or the City's DEU service provider, LIEC, executed prior to depositing any Strata Plan with LTO and on terms and conditions satisfactory to the City; and

iii)	prior to subdivision	(including Air	Space parcel	subdivision and	Strata Plan	filing), the owner

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grants or acquires, and registers, all Statutory Right-of-Way(s) and/or easements necessary for supplying the DEU services to the building.

- e) If a DEU is not available for connection, but a LCDEU service area bylaw which applies to the site has been adopted by Council prior to the issuance of the development permit for the subject site, no building inspection permitting occupancy of a building will be granted unless and until:
  - i) the City receives a professional engineer's certificate stating that the building has the capability to connect to and be serviced by a DEU;
  - the building is connected to a low carbon energy plant supplied and installed by the owner, at the owner's sole cost, to provide heating, cooling and domestic hot water heating to the building(s), which energy plant will be designed, constructed and installed on the subject site to the satisfaction of the City and the City's service provider, LIEC;
  - the owner transfers ownership of the low carbon energy plant on the subject site, to the City or as directed by the City, including to the City's DEU service provider, LIEC, at no cost to the City or City's DEU service provider, on terms and conditions satisfactory to the City;
  - iv) prior to depositing a Strata Plan, the owner enters into a Service Provider Agreement for the building with the City and/or the City's DEU service provider, LIEC, on terms and conditions satisfactory to the City; and
  - v) prior to subdivision (including Air Space parcel subdivision and Strata Plan filing), the owner grants or acquires, and registers, all additional Covenants, Statutory Right-of-Way(s) and/or easements necessary for supplying the services to the building and the operation of the low carbon energy plant by the City and/or the City's DEU service provider, LIEC.
- f) If a DEU is not available for connection, and a LCDEU service area bylaw which applies to the site has not been adopted by Council prior to the issuance of the development permit for the subject site, no building inspection permitting occupancy of a building will be granted until:
  - i) the City receives a professional engineer's certificate stating that the building has the capability to connect to and be serviced by a DEU; and
  - ii) the owner grants or acquires any additional Statutory Right-of-Way(s) and/or easements necessary for supplying DEU services to the building, registered prior to subdivision (including Air Space parcel subdivision and strata plan filing).
- 24. (Affordable Housing) The City's acceptance of the developer's offer to voluntarily contribute affordable housing, in the form of low-end market rental (LEMR) units, constructed to a turnkey level of finish at the sole cost of the developer, the terms of which voluntary contribution shall include, but will not be limited to, the registration of the City's standard Housing Agreement and Covenant on title to each lot to secure the affordable housing units. The terms of the Housing Agreements and Covenant shall indicate that they apply in perpetuity and provide for, but will not be limited to, the following requirements:
  - a) provide 5% of the residential floor area to affordable housing dwelling units, in perpetuity;
  - b) provide for affordable housing units, of numbers, types, sizes and associated rent and income levels in accordance with the table below:

#### AFFORDABLE HOUSING SUMMARY

. · · · · · ·	Af	fordable Housing Strategy R	Project Targets (3)		
Unit Type	Minimum Unit Sizes	Current LEMR Maximum Rents (1) (2)	Total Maximum Household Income (1) (2)	Unit Mix	# of Units (3)
Bachelor	37 m <sup>2</sup> (400 ft <sup>2</sup> )	\$811	\$34,650 or less	15%	4
1-Bedroom	50 m² (535 ft²)	\$975	\$38,250 or less	33%	9
2-Bedroom	69 m² (741 ft²)	\$1,218	\$46,800 or less	26%	7
3-Bedroom	91 m² (980 ft²)	\$1,480	\$58,050 or less	26%	7 .
TOTAL		N/A	N/A	100%	27

Denotes 2017 amounts adopted by Council on July 24, 2017.

2. Subject to Council approval, total annual household incomes and maximum monthly rents may be increased annually by the Consumer Price Index.

- 3. 50% of affordable housing units shall meet Richmond Basic Universal Housing (BUH) standards or better.
- c) occupants of the affordable housing units shall enjoy full and unlimited access to and use of all onsite indoor and outdoor amenity spaces provided for the residential development as per OCP, City Centre Area Plan, and Development Permit\* requirements, at no additional charge to the affordable housing tenants (i.e. no monthly rents or other fees shall apply for the casual, shared, or exclusive use of any amenities); and
- d) on-site parking, "Class 1" bike storage, and related electric vehicle (EV) charging stations shall be provided for the use of affordable housing occupants as per the OCP, Zoning Bylaw, and approved Development Permit\* at no additional charge to the affordable housing tenants (i.e. no monthly rents or other fees shall apply for the casual, shared, or exclusive use of the parking spaces, bike storage, EV charging stations, or related facilities by affordable housing tenants).
- 25. (Combined Child Care and Community Facility) The City's acceptance of the owner's offer to voluntarily contribute a child care and community services facility, generally described as an Early Childhood Development Hub (ECD Hub), which may be used by the City as child care, community amenity space, or any other permitted use the City, in its sole discretion, deems appropriate. The broad terms of the contribution shall include:
  - a) design and construction of a complete facility (facility proper, ancillary facilities and outdoor space), including the base building and tenant improvements, all to a turnkey level of finish, on the subject site, by the developer, at the developers cost; and
  - b) transfer of the complete facility (facility proper, ancillary facilities and outdoor space), including the base building and tenant improvements, all at a turnkey level of finish, as an air space parcel, to the City, at no cost to the City, and, the specific terms shall include:
  - c) voluntary contribution of no less than 1,765 m<sup>2</sup> (19,000 ft<sup>2</sup>) of floor area (e.g. area that is considered to be floor area for the purposes of calculating density under the Richmond Zoning Bylaw) to the ECD Hub based on the following density bonusing and supplementary contribution calculation:
    - i)  $377 \text{ m}^2$  (4,058 ft<sup>2</sup>) of floor area, calculated as one percent of the residential floor area, excluding affordable housing floor area (e.g. 0.01 x (39,624 m<sup>2</sup> 1,981 m<sup>2</sup>));
    - ii) 671 m² (7,223 ft²) of floor area, calculated as five percent of the Village Centre Bonus floor area (e.g. 0.05 x 1.0 x 13,425 m²); and
    - iii) a supplementary voluntary contribution of 717 m<sup>2</sup> (7,718 ft<sup>2</sup>) less of floor area, to be used for development of the facility proper including program spaces, private access and internal circulation, structure, walls (internal and external), building systems and building services where these elements are typically included in floor area calculations for the purposes of calculating density under the Richmond Zoning Bylaw and are used exclusively for the ECD Hub facility;
  - d) voluntary contribution of additional indoor area from the development, as required for purposes ancillary to the facility use, including, but not limited to, bicycle storage, parking and loading, waste management, access, circulation and exiting, structure, walls (internal and external), building systems and building services, where such area is typically excluded from floor area calculations for the purposes of calculating density under the Richmond Zoning Bylaw or is not used exclusively by the facility;
  - e) voluntary contribution of outdoor area of approximately 1050 m<sup>2</sup> (11,300 ft<sup>2</sup>), the final size and exact dimensions of which are to be determined through the development permit process, including both open and covered areas, neither of which will be considered to be floor area for the purposes of calculating density under the Richmond Zoning Bylaw;
  - f) location of the facility proper and the outdoor space on Level 3 of the development, generally as shown in the location plan (Schedule 4), along with provision for private access (elevator and stair) to and from No. 3 Road (Level 1) and to and from ancillary facilities such as parking and loading, waste management rooms, service rooms, storage rooms and similar areas (multiple levels);

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- g) design and construction of the complete facility, substantially in accordance with the summary requirements listed below and with reference to the attached "Terms of Reference for the Brighouse Village Early Childhood Development Hub" (Schedule 5) which describes, amongst other things, the facility intent, the facility program, reference standards and guidelines, technical requirements, functional requirements, outline construction requirements, involvement of City staff, its representatives, licensing bodies, operators and others of a similar nature, and occupancy and post-occupancy conditions:
  - i) the facility proper to provide for:
    - i. approximately 836 m<sup>2</sup> (9,000 ft<sup>2</sup>) of child care floor area to house up to four licensed child care programs serving children from birth to 12 years of age; and
    - ii. approximately 650 m<sup>2</sup> (7,000 ft<sup>2</sup>) of floor area to house early childhood development and family services programs;
    - iii. approximately 278 m<sup>2</sup> (3,000 ft<sup>2</sup>) for non-program floor area such as access and circulation, structure, walls and storage space; and
    - iv. use of the facility for other community purposes when not being used for the child care and/or early childhood development and family support programs,
    - all of which may be adjusted with design development during the Development Permit process,
  - ii) the ancillary facilities to provide for:
    - i. bicycle storage, vehicle parking and loading for the use of the facility's clients, visitors, guests and staff, available 365/7/24, located within the parkade except where noted otherwise, generally in an area having direct or close access to the facility's private access system, including access from the street where applicable, clearly signed, including:
      - for the child care and community services uses, 15 Class 1 bicycle spaces;
      - for the child care and community services uses, Class 2 bicycle spaces in accordance with the site-specific bylaw and located close to the ground level entry lobby;
      - for the child care uses, vehicle parking for a minimum of 11 staff vehicles and 9 non-staff vehicles (minimum non-staff space size of 2.65m. x 5.5 m.);
      - for the community services uses, vehicle parking for a minimum of 11 staff vehicles and 10 non-staff vehicles;
      - for after-hours ECD Hub parking (approximately 8 spaces), use of the parking within the shared parking areas of the parkade;
      - handicapped vehicle parking spaces provided consistent with the provisions of the Richmond Zoning Bylaw;
      - loading area space for use by a passenger van or similar-sized delivery van, with associated clear headroom and adjacent loading marshalling area (approximate area 5.0 m. x 11.0 m.);
    - ii. access to and use of the shared loading facilities provided on Level 1 of the parkade for the whole development;
    - iii. a separate and exclusive use waste management room with direct access to the facility's private circulation system and provision for waste management removal in conjunction with the overall development's waste management provider; and
    - iv. services rooms and similar facilities, as required to meet functional, technical and operational requirements of the facility,
  - iii) the outdoor program space to provide for:
    - i. approximately 836 m<sup>2</sup> (9,000 ft<sup>2</sup>) for the child care outdoor areas; and
    - ii. approximately 214 m² (2,300 ft²) for the early childhood development and family services programs outdoor area,

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- or, as determined through the Development Permit process;
- design and construction of the facility to achieve LEED v4 ID + C Commercial Interiors Gold Certification, with a focus on providing for robust monitoring and remote control capabilities of the systems and scheduling that are its responsibility and integration of these controls into-the building automation system through open language BACnet interfaces and, further, reference to the principles outlined in the "City of Richmond Building Equipment," Monitoring, and Integration Requirements" administrative procedure;
- v) design and construction of the facility to provide for separate addressing;
- vi) design and construction of the utility systems to provide for, amongst other things:
  - i. connection to the on-site, low-carbon, central energy plant for the purposes of heating and cooling, along with provision for sub-facilities and sub-metering, to the satisfaction of the City;
  - ii. connection to other building utility systems (e.g. electricity), along with provision for sub-facilities and sub-metering, to the satisfaction of the City; and
  - iii. conduit rough in for installation and connection of the City's fibre optic communications system, by the City or its contractor, noting the required conduit size is 2 inches and the outside end point is to be the City Traffic Junction Box location at the NE corner of Cook and No 3 Road:
- h) project development and procurement of approvals subject to the following benchmarks/timelines:
  - i) prior to issuance of a Development Permit for the development, in whole or in part:
    - i. the facility design (facility proper, ancillary facilities and outdoor space) must be resolved to a level typical of the design development stage of a development project, to the satisfaction of the City;
    - ii. the resulting design must be incorporated into the Development Permit application submission; and
    - iii. a preliminary construction cost estimate for facility proper, ancillary facilities and outdoor space, verified by an independent quantity surveyor that is acceptable to the City, must be provided;
  - ii) prior to issuance of a Building Permit for the development, in whole or in part:
    - i. the facility design (facility proper, ancillary facilities and outdoor space) must be resolved to a level typical of the building permit and issued for construction stages of a development project, to the satisfaction of the City;
    - ii. the resulting design must be incorporated into the building permit application submission; and
    - iii. a final construction cost estimate for facility proper, ancillary facilities and outdoor space, verified by a quantity surveyor, must be provided;
  - iii) prior to occupancy of the development, in whole or in part:
    - i. the constructed facility (facility proper, ancillary facilities and outdoor space) must be granted building inspection permitting occupancy;
    - ii. commissioning of the facility (facility proper and outdoor space) must be completed to the satisfaction of the City;
    - iii. occupancy and post-occupancy information for the facility (facility proper and outdoor space) must be provided, to the satisfaction of the City;
    - iv. as-built drawings and Operation & Maintenance (O&M) manuals in soft and hard copy form of the facility (facility proper and outdoor space) must be provided to the satisfaction of the City; and
    - v. a final construction cost for facility proper, ancillary facilities and outdoor space, verified by an independent quantity surveyor that is acceptable to the City, must be provided,

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unless the constructed facility is otherwise deemed acceptable by the Director, Development; the Director, Engineering; the Manager of Community Social Development; and, the Senior Manager of Real Estate Services, at their sole discretion.

- i) registration of a legal agreement(s), which may include, but may not be limited to, the following:
  - i) a "no build" covenant registered on title restricting Building Permit issuance for the whole development, to be in effect until such time as a "construction agreement" is registered on title with respect to the amenity;
    - Note: This requirement may be waived if a "Construction Agreement" is signed before rezoning adoption.
  - ii) a "construction agreement" setting out requirements with respect to the design, construction, supply, installation, approval, and warranty of the Early Childhood Development Hub and related works to the satisfaction of the City, which agreement may include provisions for a statutory right(s)-of-way and/or rent charge and include the terms set out in these rezoning considerations and the "Terms of Reference for the Brighouse Village Early Childhood Development Hub" as well as standard City facilities policies;
  - an Air Space Parcel (ASP) subdivision agreement to facilitate the future creation of an ASP containing the Early Childhood Development Hub, including the facility proper, ancillary facilities and outdoor spaces, to the extent deemed desirable or practical by the City, together with any easement(s) and/or statutory right(s)-of-way registered on title to secure any remaining facilities located elsewhere in the development and intended for the use of the Early Childhood Development Hub, along with terms for cost sharing between the ASP owner (the City) and the owner(s) of the remaining facilities, all in a form and content satisfactory to the City;
  - iv) a purchase and sale agreement to facilitate the transfer of the Early Childhood Development Hub ASP to the City, which transfer shall not occur until the City has, at its sole discretion, accepted the Early Childhood Development Hub works, which acceptance shall not relieve the developer of any outstanding obligations and which shall include an option to purchase for a consideration;
  - a "no occupancy" covenant for the development, in whole or in part, registered on title, to be in effect until such time as the facility has been completed or otherwise deemed acceptable, at the sole discretion of the City, by the Director, Development; the Director, Engineering; the Manager of Community Social Development; and, the Senior Manager of Real Estate Services, in their sole discretion, and has been transferred to the City free and clear of any encumbrances; and
  - vi) a blanket Statutory Right-of-Way, or alternative legal agreement(s), to the satisfaction of the City, securing public access to and egress from the ECD Hub facility (facility proper, ancillary facilities and outdoor space) and any part of the parking facility allocated for the ECD Hub facility use, across and through the drive aisles and pedestrian pathways forming part of the development and securing City access to the development for the maintenance of the utilities and mechanical systems servicing the ECD Hub facility (including maintenance of the City's fibre optic system), which agreement may be replaced prior to occupancy, to the satisfaction of the City, with a replacement agreement and a surveyed Statutory Right-of-Way(s) plan.
- j) submission of cash or other forms of financial security as follows:
  - i) a cash-in-lieu contribution of \$10,000 to fund the complete installation of the fibre optic service by city contractors within the conduit supplied by the developer (e.g. all costs for Civil work upgrades, connection of developer conduit to city systems, fibre cable/splice enclosure and all installation work) (Account # 1315-40-000-0000-0000-CB00026);
  - ii) a project management fee of \$366,643 [equal to 5% of the preliminary construction cost estimate, using the City's "equivalent to construction value" rate of \$6,997/ sq. m. applied to

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- the density bonus floor area portions of the facility only (e.g.  $377 \text{ m}^2 + 671 \text{ m}^2 = 1,048 \text{ m}^2$ )] to provide for the participation of the City or its representatives in the schematic design, design development, building permit, issued for construction, contract administration and related stages of project development (Account # 1315-40-000-00000-0000-CB00026);
- iii) a Letter of Credit (LOC), in the amount of 100% of construction cost estimate for the complete facility (facility proper, ancillary facilities and outdoor space), as verified by a quantity surveyor, to secure the developer's commitment to design, construct, and transfer the Early Childhood Development Hub to the City, with provision for the return of the subject monies as follows:
  - i. no reduction or release until a minimum of one (1) year after the ECD Hub has received final building inspection permitting occupancy;
  - ii. no reduction or release until Provincial licensing has been achieved;
  - iii. retention of the LOC, or portions thereof, at the sole discretion of the City, to rectify deficiencies;
  - iv. retention of the LOC, or portions thereof, at the sole discretion of the City, to ensure the air space parcel (ASP) is free and clear of builder's liens or other encumbrances; and
  - v. retention of the LOC, or portions thereof, at the sole discretion of the City, to complete the facility, should the developer fail in its contractual obligations.
- 26. *(Community Planning)* The City's acceptance of the owner's offer to voluntarily contribute at least \$161,919.94 (100% of the total floor area calculated using the proposed floor area e.g. 53,794 m2 x \$3.01/m²) towards City Centre community planning (CC-Community Planning and Engineering Account # 3132-10-520-00000-0000).
- 27. (Public Art) The City's acceptance of the owner's offer to voluntarily contribute at least \$404,812.20 (100% non-residential floor area and 100% residential floor area, excluding affordable housing floor area, @ \$4.84 and \$9.15 per square meter, respectively, (e.g. (14,170 m²-1,765 m²) x \$4.84/m²+ (39,663 m²-1,983 m²) x \$9.15/m²) towards public art (15% to Public Art Provision Account # 7500-10-000-90337-0000 and 85% to Account # 7600-80-000-90173-0000).
- 28. (Servicing Agreement) Submission and processing of a Servicing Agreement\* application, completed to a level deemed acceptable by the Director of Engineering, for the design and construction of works associated with the proposed rezoning, subject to the following conditions:

# (Engineering)

#### Notes:

a) The Owner/Developer has applied for a servicing agreement at this address (SA 17-769245) to relocate the sanitary sewers currently located within the development site into the roadway in advance of site preparation. This servicing agreement is not related to this rezoning application. As the works included in SA 17-769245 are required to serve the proposed development, and as it is the City's policy to have each application independent, the requirements of SA 17-769245 have been repeated below, marked with an asterix (\*). Should SA 17-769245 not proceed, or if for any reason the scope of SA 17-769245 does not include one of the items below, then these works shall be done through the servicing agreement for this rezoning.

#### Water Works:

- b) Using the OCP Model, there is 823.0 L/s of water available at a 20 psi residual at the No 3 Road frontage, and 407.0 L/s of water available at a 20 psi residual at the Cook Road frontage. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.
- c) Prior to the rezoning staff report being written, the Owner/Developer is required to coordinate with the Richmond Fire Rescue to confirm whether fire protection service is required along the proposed development's Bus Mall and/or lane frontage. If required, install water mains and hydrants to provide fire protection service.
- d) The Owner/Developer is required to:
  - i) Submit Fire Underwriter Survey (FUS) or International Organization for Standardization

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- (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) Review hydrant spacing on all road frontages and install new fire hydrants as required to meet City spacing requirements for commercial land use.
- iii) Provide a right-of-way for the water meter, unless located within the building (i.e. in a mechanical room). Exact right-of-way dimensions to be finalized during the servicing agreement process.
- iv) Obtain approval from Richmond Fire Rescue for all fire hydrant locations, relocations, and removals, as required.
- v) Install a meter for the proposed water service connection.
- vi) Replace the length of AC water main to be disturbed by the proposed sanitary sewer works on the south side of Cook Road. \*
- vii) The developer is required to provide private (developer-owned and -maintained) fire hydrant(s) within the SRW along the Bus Mall frontage of the development site. The fire hydrants shall be served by the onsite water system. The number and locations shall be as approved by Richmond Fire Rescue during the Development Permit and/or Building Permit review.
- e) At Owner/Developer's cost, the City is to:
  - i) Install one new water service connection.
  - ii) Cut and cap all existing water service connections serving the development site, and remove meters.
  - iii) Complete all tie-ins for the proposed works to existing City infrastructure.

#### Storm Sewer Works:

- f) The Owner/Developer is required to:
  - i) Install approximately 50 m. of minimum 200 mm or OCP size lane drainage in the east-west lane, and tie in to the existing storm sewer on Buswell Street via a new manhole.
  - ii) Provide, at no cost to the City, a 1.5 m. x 1.5 m. right-of-way for the proposed storm inspection chamber, if required.
  - iii) Provide a sediment and erosion control plan within the servicing agreement design.
- g) At Owner/Developer's cost, the City is to:
  - i) Cut and cap all existing storm service connections serving the development site and remove inspection chambers.
  - ii) Install one new storm service connection, complete with inspection chamber, to serve the development site. The inspection chamber may be located onsite in a right of way, if required.
  - iii) Complete all tie-ins for the proposed works to existing City infrastructure.

# Sanitary Sewer Works:

- h) The Owner/Developer is required to:
  - i) Cut, cap, and remove the existing sanitary sewers onsite between manhole SMH775 and manhole SMH772. \*
  - ii) Remove, or fill and abandon per MMCD specifications, the existing sanitary sewer in Cook Road between manhole SMH842 and manhole SMH772, and remove both manholes. \*
  - iii) Fill and abandon, per MMCD specifications, the existing sanitary sewer in the future Bus Mall between manhole SMH775 and manhole SMH776. \*
  - iv) Fill and abandon, per MMCD specifications, the existing sanitary sewer along the south property line of the development site from manhole SMH771 to manhole SMH772. \*
  - v) Install a new 250 mm sanitary sewer in Cook Road from manhole SMH842 to Buswell Street, to tie in to the proposed Capital sanitary sewer in Buswell Street. \*
  - vi) Reconnect all existing sanitary service connections to the new sanitary sewer, and provide

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- stubs for future developments where applicable. \*
- vii) Provide, at no cost to the City, a 1.5 m. x 1.5 m. right-of-way for the proposed sanitary inspection chamber, if required.
- i) At Owner/Developer's cost, the City is to:
  - i) Cut, cap, and remove all existing sanitary connections serving the development site. \*
  - ii) Install one new sanitary service connection off of the proposed sanitary sewer in Cook Road, complete with inspection chamber. The inspection chamber may be located onsite if required.
  - iii) Complete all tie-ins for the proposed works to existing City infrastructure.

# Frontage Works:

- j) The Owner/Developer is required to:
  - i) Coordinate with BC Hydro, Telus and other private communication service providers:
    - i. To pre-duct for future hydro, telephone and cable utilities along all road frontages.
    - ii. Before relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
    - iii. 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). Please note that locations of equipment on site may require adjustment of the frontage in plan and in section (typically overhanging structures are not permitted). A functional plan showing conceptual locations for such infrastructure shall be included in the development design review process. 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 architectural plans/functional plan, the servicing agreement drawings, and registered prior to Servicing Agreement 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 2.0 x 1.5 m
      - Traffic signal UPS 1.0 x 1.0 m
      - Shaw cable kiosk  $-1.0 \times 1.0 \text{ m}$
      - Telus FDH cabinet 1.1 x 1.0 m.
  - ii) Provide street lighting along all road frontages according to the following:
    - i. No 3 Road (east side of street)
      - Pole colour: Grey
      - Roadway lighting: N/A (No change to existing lighting in centre median)
      - Traffic Signals @ No 3 Road & Cook Road: N/A (No change to the existing Type 7 lighting.)
      - Pedestrian lighting: Type 8 (LED)
        - 1. Without off-street bike path: Locate lighting @ back of curb INCLUDING 1 pedestrian luminaire, 1 duplex receptacle, and flower basket holders, but excluding any banner arms or irrigation.
        - 2. With off-street bike path: Locate between sidewalk & bike path INCLUDING 2 pedestrian luminaires set perpendicular to the roadway, flower basket holders, and 1 duplex receptacle, but EXCLUDING any banner arms or irrigation.
    - ii. Cook Street (north side of street)

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- Pole colour: Blue
- Roadway lighting @ back of curb: City Centre Type Roadway/Pedestrian Luminaire Pole (LED) Drawing L12.3 INCLUDING 1 street luminaire, banner arms, and 1 duplex receptacle, but EXCLUDING pedestrian luminaires, flower basket holders and irrigation.
- Pedestrian lighting: Not applicable (i.e. no stand-alone pedestrian poles)
- iii. Bus Mall (south side of mall)
  - Pole colour: Grey
  - Roadway lighting: N/A (Bus Mall/TransLink to install roadway lighting.)
  - Pedestrian lighting: N/A (Bus Mall/TransLink to install pedestrian lighting.)
     HOWEVER, if frontage improvements along the subject site require changes to the pedestrian lighting, it should be made to match the location & type installed along the north side of Bus Mall via Fairborne/SA 12-598011.
- iv. Lane @ east side of site
  - Pole colour: Blue
  - Roadway lighting @ back of curb: City Centre Type Laneway Luminaire Pole (LED)
     Drawing L12.1.

#### General Items:

- k) The Owner/Developer is required to:
  - i) Provide, prior to start of site preparation works or within the first servicing agreement submission, whichever comes first, a pre-load plan and geotechnical assessment of preload, dewatering, and soil preparation impacts on the existing utilities fronting the development site and provide mitigation recommendations.
  - ii) Provide a video inspection of the existing storm sewers along the No 3 Road and Cook Road frontages prior to start of site preparation works or within the first servicing agreement submission, whichever comes first. 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 Owner/Developer's cost.
  - iii) 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.
  - iv) 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.

#### (Transportation)

- 1) General Provisions:
  - i) The Owner/Developer is responsible for the design and construction of road widening, behind the curb frontage improvements and traffic signal improvements including but not limited to the items listed in this section.
  - ii) The road widening, behind the curb frontage improvements and traffic signal improvements noted below will be finalized once the final functional road plans are submitted for City review.
  - iii) The back of curb cross-section elements may be adjusted to accommodate functional requirements and/or to establish a more innovative public realm.

- iv) Additional work, typically identified during the detailed design stage of the Servicing Agreement process, may be required.
- v) Above ground hydro/telephone kiosks and other third party equipment must not be placed within any frontage works area including sidewalk, greenway, bike bath and boulevard. A Statutory Right-of-Way(s) on the subject property is to be secured for the placement of this equipment.
- vi) All curb ramps to have tactile surface treatment.
- vii) All road and frontage improvement works are to be completed to the satisfaction of the City before the issuance of occupancy approval(s).

# Road and Frontage Works:

- m) Cook Road between No. 3 Road and Buswell Street
  - i) Scope of Work Design and construction of the section of Cook Road between No. 3 Road and Buswell Street including the intersection of Cook Road and No. 3Road and Buswell Street. Works to accommodate a five-lane cross-section at the intersections, including the site access, are required. A new traffic signal at the site access is required.
    - i. Road works To be finalized based on functional road plan to the satisfaction of the Director of Transportation: Road widening to accommodate a future 5 lane cross-section with new westbound LT lane at No. 3 Road 3.1m to 3.3m, one 4.25m curb lane, 0.15m top of curb, 3m landscaped boulevard with street trees, 1.8m bike lane, 0.5m buffer strip, 2m s/w. The ultimate road functional design for Cook Road is required to establish the interim works and set the new north curb of Cook Road and interim frontage elements with trees and lighting, etc.
    - ii. Frontage improvement works Construction of road widening with full frontage works including landscaped boulevard, off-road bike lane, sidewalk and landscaped buffer strip as noted above.
    - iii. Road cross-section Details of the road cross-section are described below.
    - iv. Traffic signal Full traffic signal upgrades streetscape elements, including but not limited to decorative pavement surface treatment, bollards and place-making elements, etc. to the No. 3 Road /Cook Road intersection is required. Details of the traffic signal works are described under Section 3.0 (a) below.
    - v. Intersection works at Buswell Street Full traffic signal upgrades and streetscape improvements are to be constructed at this intersection. This includes decorative surface treatment of crosswalks.
    - vi. Site Access/Cook Road ultimate 5-legged cross-section with full traffic signalization is required with streetscape enhancements.
  - ii) <u>Functional Design (road works and behind the curb frontage works)</u> A functional design for this road construction project, prepared to the satisfaction of the City, is required. The criteria of the functional design are as follows for all roads and lanes:
    - i. Horizontal/vertical profiles The alignment is to be centered within the city road right-of-way.
    - ii. Road cross-section The lane configuration shall consist of a five-lane cross-section, with three westbound traffic lanes and a raised intersection.
    - iii. Lane widths:
      - o 3.25 m. wide curb lanes;
      - o 3.3 m. wide for other traffic lanes;
    - iv. Frontage Improvements The permanent new curb and gutter on the north side of the road is to be established. From the curb, the frontage improvements include:
      - o Road widening to establish ultimate cross-section.
        - 0.15 m. wide curb;
        - 2.5 to 3.0 m. wide landscaped boulevard planted boulevard with street trees;

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- 1.8 m. wide off-road bike lane;
- 0.5 to 1.0 m. buffer, strip with lighting, street furniture, landscape and street trees; and
- 2.0 m. wide sidewalk.
- v. Cross-section (ultimate) Five 3.25 m. wide traffic lanes (two eastbound and two westbound through traffic lanes and a left turn lane). The frontage improvements described above are to be maintained.
  - Other features: hard landscape features, street furnishings, and streetlights.
- iii) Functional Design (intersection works interim and ultimate road cross-sections)
  - i. No. 3 Rd/ Cook Road intersection Design and construction of the full intersection and a 30 m. long five-lane cross-section north of the intersection including a 20:1 taper section to connect to the four lane section of Cook Road. In the interim condition, additional signage restricting left-turns from Cook Road to the site may be required for operational reasons. All details on traffic signal design to be included in the servicing agreement.
  - ii. <u>Cook Road /Buswell Street</u> Design and construction of the full intersection to accommodate all directional traffic movements for the interim and ultimate five-lane cross-section.

#### n) No. 3 Road

- i) Scope of Work Frontage works are required behind the new east curb of No. 3 Road
  - i. Road works Design and construction frontage improvements.
  - ii. Frontage improvement works Curb and gutter, landscaped boulevard, bike lane, sidewalk and plaza area to the north.
- ii) <u>Functional Design</u> Functional design drawings (interim and ultimate conditions) for this road construction project, prepared to the satisfaction of the City, are required. The criteria of the functional design are as follows.
  - i. Cross-section (interim) The existing east curb of No. 3 Road can be relocated as the bike lane is to be behind the curb in front of the site. Maintaining a minimum 3.25m curb lane width, the cross-section elements, measuring from the new curb: to include the following which is subject to change based on the outcome of the planning study for the No.3 Road public realm:
    - o From new curb. The dedication required is based on the following frontage cross-section:
    - o From existing curb:
      - 0.15m curb
      - 2.5 to 3.0m planted boulevard with street trees,
      - 2.00m bike lane
      - 1.0 to 1.5 m. buffer strip with lighting, street furniture, landscape and street trees:
      - 3.00m sidewalk
  - ii. Rough in for installation of public art along this frontage.
  - iii. The area beyond the above frontage improvements required for the plaza area at the north end of the site is in addition to the frontage dedication.
  - iv. The NE corner of the Cook Rd./No. 3 Rd. intersection to have bike treatment per Transportation direction.
  - v. At the north end of the bike lane at the No. 3 Rd. /Bus Mall intersection, the bike lane will need to transition on back to on street in advance of the intersection.

# o) East-West Lane:

i) Scope of Work – Upgrade of the existing east-west lane to City standard as well a new east-west lane (9m) from Buswell Street to the site's eastern parkade access. Additional lane upgrades of the existing lane connecting to Buswell St. are required and the works will be

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determined through the servicing agreement to bring this lane up to City Centre standard as much as possible. Work may include but not be limited to the addition of special surface treatment pavement, lighting, sidewalk and rollover curb. The section of the east-west lane on the subject site is to be designed and constructed to City Centre standard with treatment and details to be designed through the Servicing Agreement. Special treatment and design elements, such as a raised crosswalk with decorative pavement treatment, signage, etc. may be required along the greenway where it intersects the lane. The Servicing Agreement is to also include the ultimate road functional plan for the east-west lane from Buswell St. to the site access face Buswell Street.

- ii) Functional Design Details on upgrades will be determined through the servicing agreement
  - o From north PL:
    - 0.35m rollover curb
    - Remaining width to existing SPL to have new pavement with streetscape decorative surface treatment and possible rollover curb on south side with improved lighting. A functional lane design is required to determine the upgrades to the lane. The remaining 1.5m of the lane for a 9.0m ultimate dedication will be sought upon redevelopment of the property to the south.

## p) Bus Mall Frontage:

- i) Scope of Work Frontage works are required behind the future south curb of the Bus Mall (See Servicing Agreement 11-598011. Please note the PMT location as the s/w along the north PL will have to meander around it. Temporary adjustments to the existing fence around the Bus Mall site may be required if the subject property advances prior to the Bus Mall project. If the Bus Mall frontage is not complete at the time of construction, additional works may be required to coordinate an interim condition. The interim works are to be included in the Servicing Agreement, and include but are not limited to lighting, sidewalk edge treatment and fencing
- ii) Functional Design Details on upgrades will be determined through the servicing agreement, but include and are not limited to the following:
  - o From the existing south curb of the Bus Mall set by Servicing Agreement 12-598011:
    - 0.15 curb
    - Minimum 7m hardscaped treed boulevard, as per north side frontage.
- q) North-South Pedestrian Mews: 6.0 m. SRW with a 3 m. min. walkway and landscaping on either side (where Fire requirements permit). Details of design to be developed through the Servicing Agreement, including details on but not limited to surface treatment, bollards, lighting, benches, landscaping, etc.
- r) "<u>Kiss and Ride</u>": A functional plan is required to the satisfaction of the Director of Transportation for the layout of the Kiss and Ride area to identify the scope of works for construction. Through the Servicing Agreement, the design details, for pavement marking, signage, lighting, etc. will be determined. The number of parking spaces in the Kiss and Ride area is to be maximized. The Vista switch and other utilities are preferred to be excluded from this area, if technically feasible.
- s) North-West Corner Statutory Right-of-Way(s) PROP: Servicing Agreement to include design of interim works for this area as part of Bus Mall plaza in the case that the subject development advances prior to the Bus Mall Servicing Agreement.

## Traffic Signal/Communication Network Works:

- t) <u>General Provisions</u> Beyond what is specifically identified, the Owner/Developer is also responsible for the design and construction of any of the following elements at a traffic signal device and/or communications network.
  - i) Modify, relocate and/or replace traffic signal poles/bases, conduits, junction boxes, street light fixtures, cable and conductors.

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- ii) Modify, relocate and/or replace traffic signal equipment such as controller cabinet/base, UPS (Uninterrupted Power Supply) and service panel.
- iii) Modify vehicle/pedestrian detection and vehicle phasing including left turn arrows.
- iv) Modify, relocate and /or replace communications conduit, cable and junction boxes.

#### u) Site Access/Cook Road Intersection:

- i) Scope of Work A new signalized intersection is required to City standard. Truck wheel paths are required demonstrating lane width requirements for access and egress movements.
- ii) Functional Design The Owner/Developer is responsible for the design and construction of this traffic signal. Works shall include, but not limited to the installation of conduits, junction boxes, City centre type blue traffic pole and bases, traffic signal heads, illuminated LED street name signs, video detection/traffic cameras, Accessible Pedestrian Signals (APS), UPS (Uninterrupted Power Supply) base and traffic controller cabinet, all components and base. New communications conduit, fibre cable is also required to tie in this traffic signal with City owned communication network. A full set of traffic signal design drawings will be required. The Owner/Developer may have to assign a Statutory Right-of-Way(s) for the placement of some of this equipment (to be identified through the Servicing Agreement phase of the project).
- v) Existing Traffic Signal at No. 3 Road/Cook Road (modification works):
  - i) Scope of Work Additional streetscape elements including decorative crosswalk treatment and architectural bollards at corners. traffic signal upgrades, special intersection treatment or operation as determined through the servicing agreement. Additional works are described in *Traffic Signals* section below.
  - ii) Functional Design The Owner/Developer will be responsible for all costs related to the modification of this traffic signal operation. Works shall include but not limited to new City centre type traffic poles on all corners, as well as light poles, pole bases, video detection/traffic cameras, UPS system and cabinet, new controller cabinet/controller, illuminated LED street name signs and APS and left-turn arrows for southbound and eastbound traffic. A full set of traffic signal modification design drawings will be required. The Owner/Developer may have to assign a Statutory Right-of-Way(s) for some of this equipment (to be identified through the Servicing Agreement phase of the project).
- w) Existing Traffic Signal at Cook Road/Buswell Street (modification works):
  - i) Scope of Work traffic signal upgrades are required for illuminated street name signs and streetscape treatments.
  - ii) Functional Design The Owner/Developer will be responsible for all costs related to the modification of this traffic signal for road widening and frontage works. Works shall include but not be limited to City Centre type blue traffic poles, pole bases, video detection/traffic cameras, UPS system, new controller cabinet/controller, illuminated street name signs and APS. A full set of traffic signal modification design drawings will be required. The Owner/Developer may have to assign a Statutory Right-of-Way(s) for some of this equipment (to be identified through the Servicing Agreement phase of the project).
- x) Provision of a Letter of Credit to secure the completion of the works in an amount determined by the Director of Engineering and Director of Transportation.
- y) Registration of the Servicing Agreement on title.
- 29. *(Development Permit)* Submission and processing of a Development Permit\* application, completed to a level deemed acceptable by the Director of Development, demonstrating:
  - a) design development of the rezoning concept, as necessary, to address:
    - i) form and character objectives noted in the associated Report to Planning Committee;
    - ii) Council directions arising out of Public Hearing;
    - iii) pertinent comments of the Advisory Design Panel;
    - iv) form and character objectives described in the OCP and CCAP Development Permit

- Guidelines;
- v) technical resolution of building services, private utilities, public utilities, fire access, parking and loading and waste management including provision of final utility, fire access, loading, waste management and signage and wayfinding plans; and
- vi) technical resolution of the landscape plans including:
  - i. the protection, installation and/or maintenance (including automatic irrigation) of retained and/or new landscape; and
  - ii. the protection, installation and/or maintenance (including automatic irrigation) of retained and/or new trees:
- vii) provision of twenty-six (26) replacement trees on site;
- b) the owner's commitment to design and construct the development in accordance with rezoning policy, the rezoning considerations and the draft site-specific zoning bylaw, by incorporating information into the Development Permit plans (inclusive of architectural, landscape and other plans, sections, elevations, details, specifications, checklists and supporting consultant work) prepared, stamped and sealed by qualified professionals including, but not limited to:
  - i) statutory rights of way, easements, encroachments, no build areas, agreements and other legal restrictions;
  - ii) flood construction level(s);
  - iii) use, density, height, siting, building form, landscaping, parking and loading and other zoning requirements;
  - iv) stamped and sealed floor area calculation overlays;
  - v) site access locations;
  - vi) horizontal and vertical clearance dimensions for all vehicular circulation, including heights of doors, gateways and other passages;
  - vii) the required shared non-residential parking and residential visitor parking spaces;
  - viii) the required shared loading spaces;
  - ix) the required EV-charging vehicle parking spaces;
  - x) the required car-share parking spaces;
  - xi) the required end-of-trip facilities, including their location, number, size, type and use;
  - xii) the required bicycle maintenance facilities;
  - xiii) identification and wayfinding marking and /or signage for all bicycle, vehicle and truck spaces and associated facilities, with particular attention to ECD Hub staff and visitor needs;
  - xiv) the location of all above ground utility equipment required to be on site including that needed for street lighting and traffic signals as well as that need for third parties;
  - xv) the location of areas reserved for DEU equipment and/or connection facilities and a notation regarding the need for DEU pre-ducting, as applicable in the case of the final DEU strategy;
  - xvi) the required affordable housing units, including their size and location;
  - xvii) the required aging in place, basic universal, accessible, adaptable and/or convertible dwelling units, as noted below, including notation of their associated design features:

Type	Affordable	Market	Intent	Standard	
Aging in Place	13	330	- support mobility and usability	Per OCP	
Adaptable + Basic Universal Housing (1)	14	206	- renovation potential for wheelchair plus added floor area for manoeuvering	Per BCBC and RZB	
Barrier Free (2)	-	-	- move in with wheelchair	Per BCDH	
Total Units	27	536			

<sup>\*</sup> Includes Aging-in-Place

xviii) the required ECD Hub facility including plans of indoor and outdoor facilities;

xix) an accessibility checklist and identification of specific recommended measures to be incorporated into the Building Permit plans, where relevant;

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<sup>\*\*</sup> Includes Aging-in-Place, Adaptable and Basic Universal Housing

- a CPTED checklist and identification of specific recommended measures to be incorporated into the Building Permit plans, where relevant;
- xxi) a LEED checklist for the overall development prepared by a LEED AP to achieve LEED v4 NC Silver equivalency and identification of specific measures to be incorporated into the Building Permit plans to be incorporated into the Building Permit plans, where relevant;
- xxii) a LEED checklist for the ECD Hub prepared by a LEED AP to achieve LEED v4 ID+C Gold Certification and identification of specific measures to be incorporated into the Building Permit plans to be incorporated into the Building Permit plans, where relevant;
- an Acoustic and Mechanical Report with recommendations prepared by a registered professional regarding measures to be incorporated into the Building Permit drawings to achieve the exterior and interior noise levels and other noise mitigation standards articulated in the various noise covenants:
- an Arborist Contract entered into between the applicant and a Certified Arborist for supervision of any 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.
- the required common indoor, common outdoor and private outdoor amenity areas including their location, size and use;
- the location, plans, detailing and specifications of the vertical clearance for the loading area, including the access/egress movement to/from Cook Road and Buswell St.to confirm truck loading movements are satisfied;
- the location, plans, detailing and specifications for landscaping, including but not limited to required replacement trees and irrigation for private and common open space; and
- the location and dimensions of on- and off-site any tree protection fencing illustrated on the Tree Retention/Management Plan provided with the application.
- c) Submission of a letter of credit for landscaping, including required replacement trees, based on 100% of the cost estimate provided by the Landscape Architect, including installation costs, plus a 10% contingency cost.

#### **Building Permit Notes:**

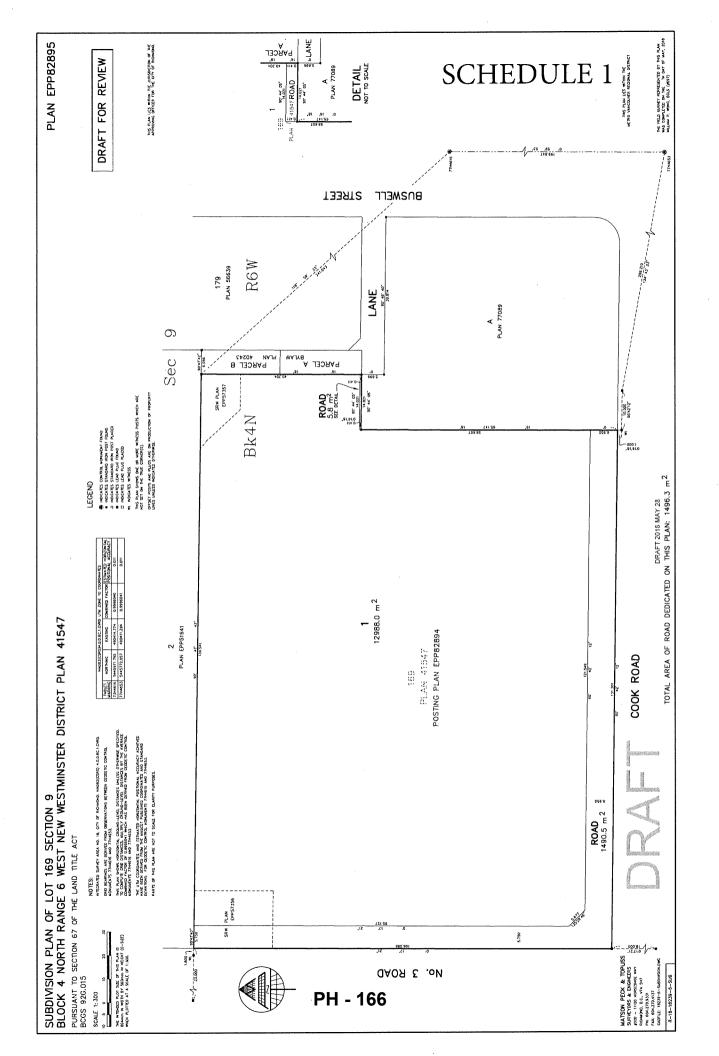
- 1. Prior to Building Permit issuance the approved Development Permit and associated conditions, as well as any additional items referenced in "Schedule B: Assurance of Professional Design and Commitment for Field Review", shall be incorporated into the Building Permit plans (drawings and documents) prior to Building Permit issuance.
- 2. Prior to Building Permit issuance, the applicant is to submit a detailed <u>Construction Parking and Traffic Management Plan</u> to the Transportation Division for approval. The Management Plan shall identify (for each development phase): construction vehicle access, emergency vehicle access, parking facilities for construction workers, staging areas for construction vehicles, areas for deliveries and loading, and application for any lane closures. The Plan will require the use of proper construction traffic control procedures and certified personnel as per Traffic Control Manual for works on roadways (Ministry of Transportation and Infrastructure) and MMCD Traffic Regulation Section 01570.
- 3. Prior to Building Permit issuance the developer must obtain a <u>Building Permit for construction hoarding</u>. 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.
- 4. Prior to Building Permit issuance the developer must obtain and provide to the City TransLink concurrence, in writing, regarding adequate completion or otherwise successful resolution of the AID process.

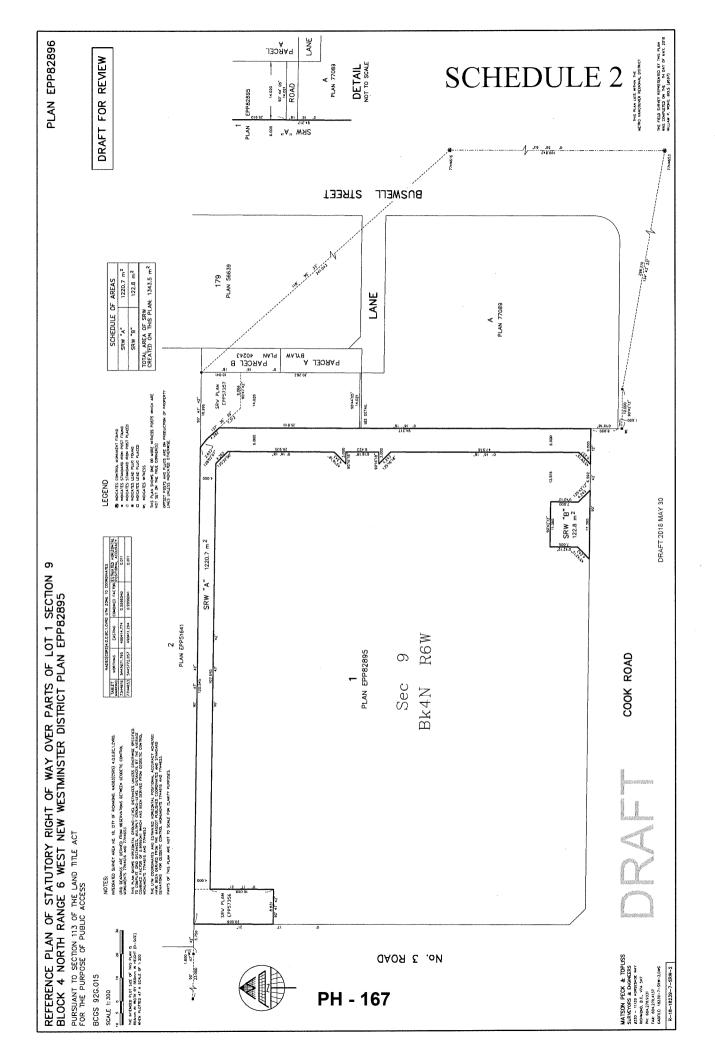
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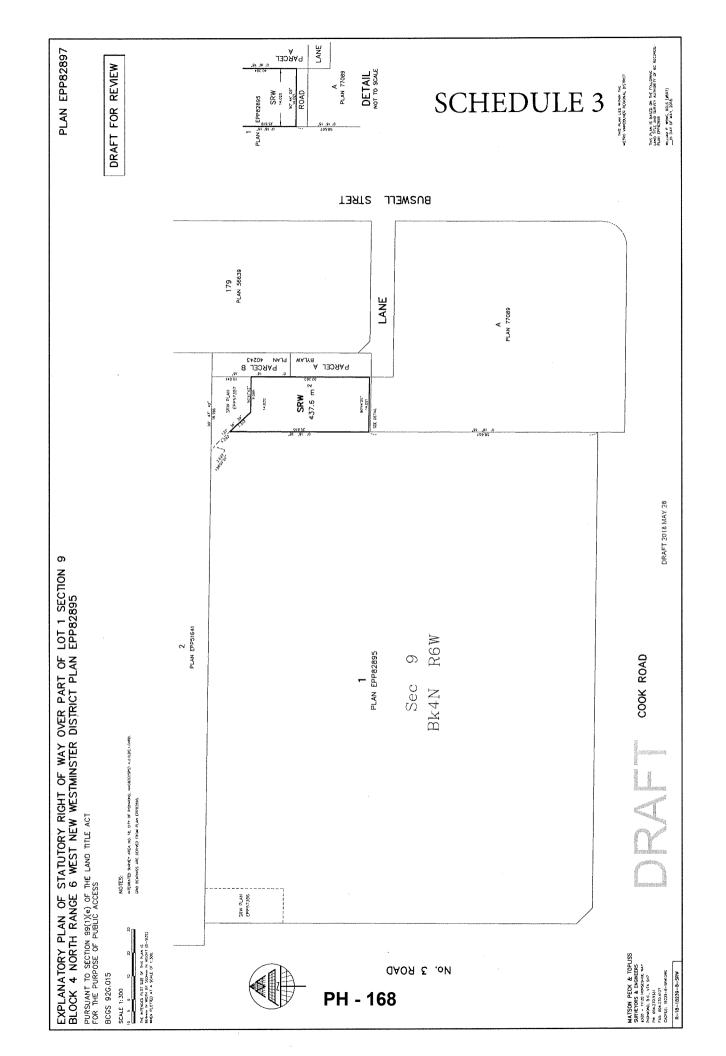
#### General Notes:

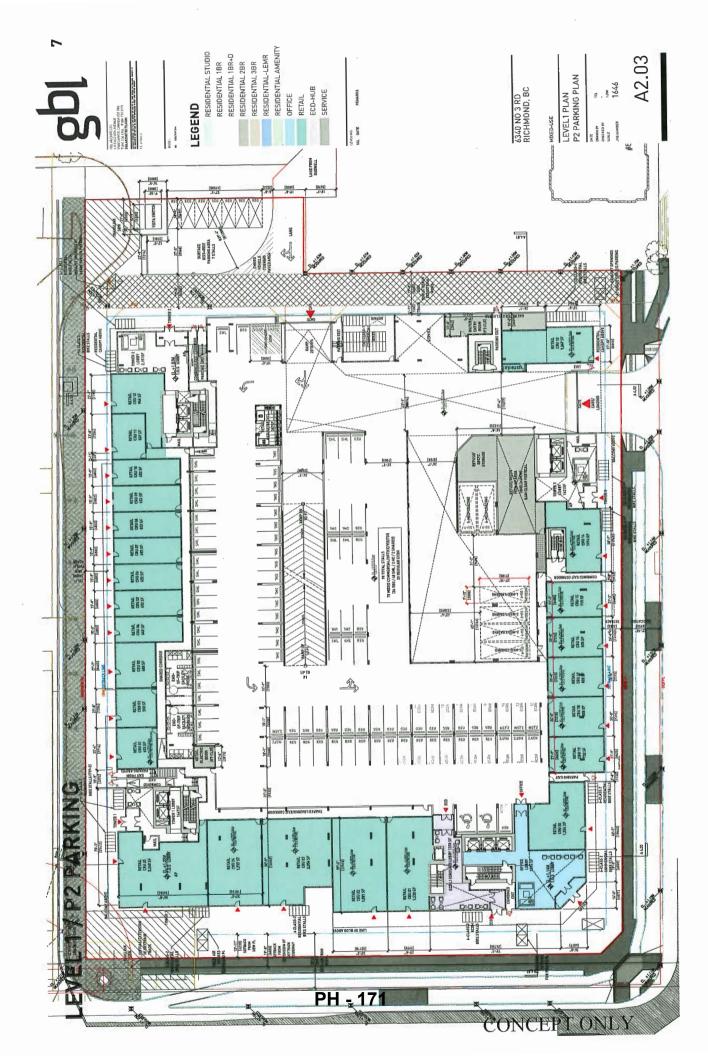
- 1. Some of the foregoing items (\*) may require a separate application.
- 2. Where the Director of Development deems it appropriate, legal agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.
- 3. All agreements 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.
- 4. The legal 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.
- 5. 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, dewatering, 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.
- 6. 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 contain prohibitions on the removal or disturbance of both birds and their nests. Issuance 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 be retained.

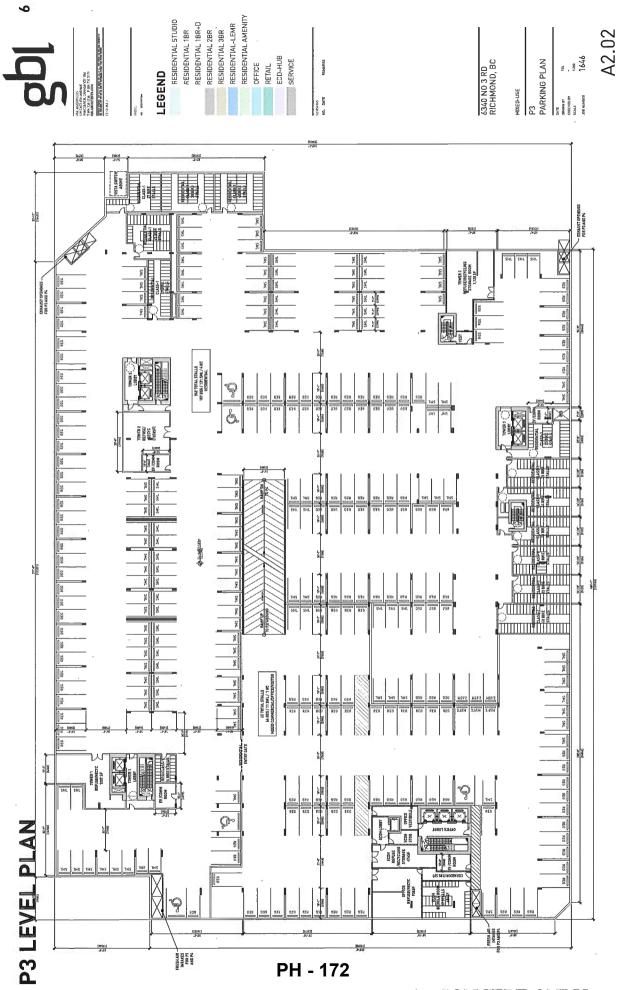
Signed	Date















# TERMS OF REFERENCE FOR THE BRIGHOUSE VILLAGE EARLY CHILDHOOD DEVELOPMENT HUB

6340 No. 3 Road

May 30, 2018



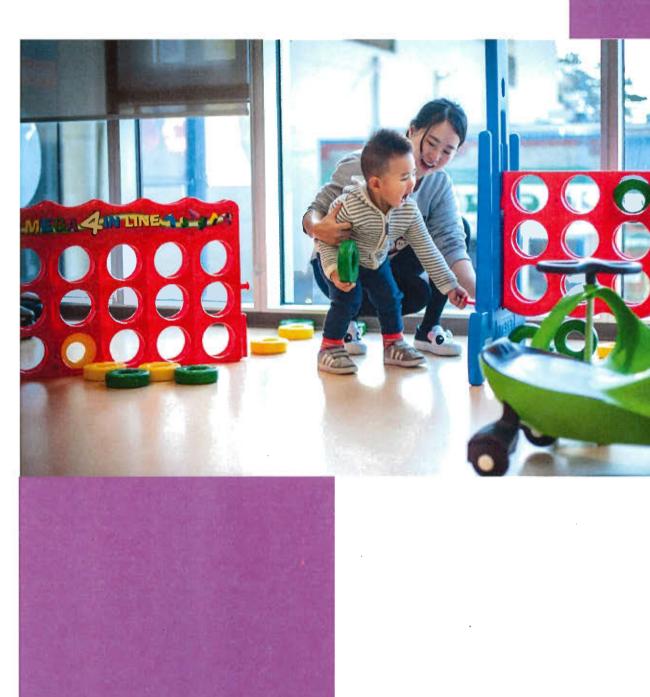
Prepared by: HDR | CEI Architecture Associates, Inc. 500 - 1500 West Georgia Street Vancouver, BC V6G 2Z6 604.687.1898



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APPENDICES





## "Children are not things to be molded, but people to be unfolded."

- Jess Lair



### **OVERVIEW**

#### 1. PREFACE

The City of Richmond Early Childhood Development Hub is an air space parcel within the Keltic Brighouse Village development. **The Early Childhood Development Hub Facility Program document contains:** 

- A summary description of the project including drawings provided by GBL Architects to illustrate the location, preliminary shape and relationship of the air space parcel to the development as a whole;
- A description of the City's expectations, standards and requirements that the facility and outdoor areas must meet;
- A summary of the recommended program areas for each programmatic function (building service areas will be determined by Keltic's design and engineering consultants, in conformance with City of Richmond City owned facility standards);
- Information for designing play areas for children
- Background, reference, and resource material to inform and aid the design of the facility and outdoor playground areas;
- Definitions of key terms

The Preliminary Early Childhood
Development Hub Facility Program
document is to be read in conjunction
with the City of Richmond's <u>City</u>
<u>Owned Child Care Facility Policies</u>
<u>and Guidelines December 2016</u>; and

Vancouver Coastal Health's <u>Design</u> <u>Resource for Child Care Facilities.</u>

In addition to the functional requirements outlined in the facility program document, the facility must meet applicable bylaws, building codes, government acts and health regulations. These include but are not limited to the City Of Richmond's Bylaws, the Government of British Columbia's Building Regulation, Community Care and Assisted Living Act, Child Care Licensing Regulation, Occupational Health and Safety Regulation (Worksafe BC), and the Community Care Facilities Director of Licensing Standards of Practice Safe Play Space.

Related to the child care programs, a provincial child care license from Vancouver Coastal Health (VCH) will need to be obtained by the Council approved operator for the facility. The licensing criteria for the operator extends beyond what is required for City issuance of a final inspection card permitting occupancy of the premises. VCH will only issue a child care license once municipal and fire approval have been granted. They will inspect the facility to ensure that all furnishings, equipment and supplies are on-site to deliver the intended child care programs and that the spaces provided meet the minimum requirements of the BC Child Care Licensing Regulation.

The standards and expectations of Richmond for City owned facilities and the requirements set out in the facility program may exceed those set out in the BC Child Care Licensing Regulation.

The ECD Hub is a parcel of a large Multi-use complex and will become a municipal facility for the City of Richmond. As with any of the city owned facilities, the Hub will be bound to achieve LEED Gold Certification; since the developer is not seeking certification for the whole project it was agreed that the ECD Hub should achieve LEED Gold CI for Commercial Interiors certification. LEED score card for the ECD Hub should be provide with the Rezoning application showing credits being sought. The LEED score card should be updated as project is defined and submitted with other project phase like Development Building Permit applications for review by City staff. Failure to certify the project may result in monetary penalty...

All the project drawings, plans, sections, and elevations have been provided and prepared by GBL Architects and are included for reference only. It is recognized that the size and shape of the air space parcel is subject to change as a result of the design process.

#### 2. DEFINITIONS

#### Air space parcel:

#### Part 9 - Land Title Act

**Definitions:** a volumetric parcel, whether or not occupied in whole or in part by a building or other structure, shown as such in an air space parcel plan.

#### Air Space Plan - Section 14 Land Title Act

- 144 (1) An air space plan must:
- (a) have its side boundary limits consist of vertical or inclined surfaces conforming to or lying within the boundaries of the single parcel referred to in section 143 (1) (b),
- (b) have as its upper and lower limit a horizontal or inclined plane or arc of a circle, or combination of them,
- (c) have a title, identifying the single parcel on the plan referred to in section 143 (1) (b) and indicating that the plan is a subdivision of the whole or part of that parcel,
- (d) have noted on it the geodetic elevation of one corner of the ground surface of the single parcel referred to in section 143 (1) (b) and the geodetic elevation of every corner or angle of the air space parcel,
- (e) include
  - (i) a plot to scale of the single parcel referred to in section 143 (1) (b), and
  - (ii) a 3 dimensional paraline drawing of the air space parcel contained between the planes or arcs and, if the surfaces of the air space parcel are both horizontal and vertical the plan must so state, otherwise all boundaries of the air space parcel must be fully dimensioned for length and direction, and
- (f) contain a book of reference that
  - (i) allots a parcel letter or number to each air space parcel by reference to the lettered or numbered corners of it as shown on the plan, or as otherwise designated by a rule made under section 385 (5), and
  - (ii) states the cubic contents of each air space parcel.

#### For the purpose of these guidelines, the following definitions apply:

Early Childhood Development (ECD) Hub: a facility that is designed for an operator to provide at least two types of licensed child care programs along with space for child and family development services or as a multi-agency service centre offering at least two types of licensed child care programs with child development and

family strengthening services

**F.A.R. Area:** the total area of space allocations as set out and defined in the legal agreement and

zoning bylaw.

Gross Area: the total area of the air space parcel including building services, walls, and circulation per

the Land Title Act Part 9.



### **OVERVIEW**

**Net Area:** the area intended for the purpose/activity of the space not including walls or structure

in interior spaces; In the exterior the net area does not include landscape areas, exterior

walls, structure and functional circulation

**Net Usable Area:** the area intended for the purpose/activity of the space not including walls and circulation,

e.g in front of millwork (refers only to interior spaces)

Total Net Usable Area: the sum of all Net Usable Area

**Total Net Area:** the sum of all the Net Areas

**Licensed Child Care Definitions** 

**Infant:** a child under 18 months of age

**Toddler:** a child between 18 and 36 months of age

**Preschooler:** a child between 30 months of age and school age

**School Age:** a child who attends school, including kindergarten between the ages of 5 and 12

**Group:** a group of children having its own room or rooms which are fully furnished, equipped and

licensed for child care. The groups are further defined as:

Infant/Toddler - consists of a maximum 12 children under 30 months of age

3 to 5 Group - consists of a maximum 25 children at least 30 months of age at the date of

entry and have not yet entered grade one

Preschool - consists of a maximum of 20 children 30 months to school age

School Age - consists of a maximum of 24 children if a preschool child or child in grade one

is present

School Age - consists of a maximum 30 children if no preschool child or child in grade one

is present

**Facility:** a building or portion of a building which houses one or more groups

**Child Care Program:** a full-day program that operates Monday through Friday typically

between 7:00a.m. and 6:00p.m.

**Child Development** programs that support children's social, emotional, physical, and intellectual development

**Programs:** e.g. drop in play, story time, drop in child-focused health services

Convertible Community: multi-purpose space that can be used on evenings and weekends to host meetings, events,

**Space:** and other types of programs that meet community needs

**Family Development** full and part-day family resource and drop-in programs, parenting programs, and wellness

**Programs:** programs.

**Preschool Program:** a part day program for children that provides either morning or afternoon sessions

anywhere between 2 up to a maximum of 4 hours each session

**School Age Program:** a part day program offered before and/or after school. Full day programs may be offered

when school is not in session

**Operator:** the person, or entity, selected by the City of Richmond that manages and operates

the Facility

**Child Care License:** refer to British Columbia's Community Care and Assisted Living Act and Child Care

Licensing Regulation

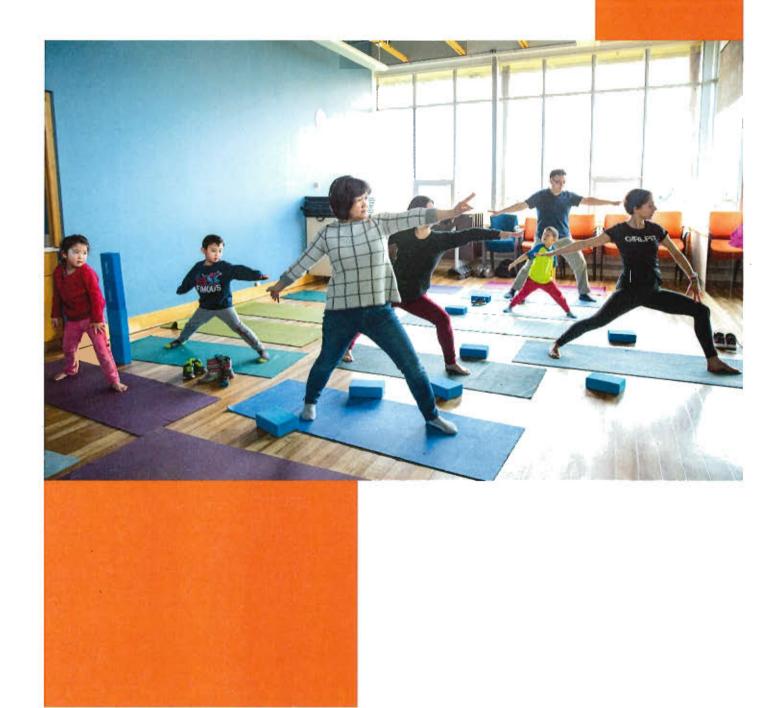
#### Licensed child care statute and regulation references:

Community Care and Assisted Living Act

Child Care Licensing Regulation

## **OVERVIEW**







#### 1. INTRODUCTION

The City of Richmond is committed to the delivery of accessible, affordable and quality child care facilities and to providing these in service hubs particularly in the City Centre, to promote the health and wellbeing of children and families, to help foster overall economic stability and to support growth in Richmond.

Creating high quality, accessible, early childhood development hubs with child care spaces is a Council priority. To deliver the much-needed facilities the City is working with the business community, senior levels of government and the non-profit sector to realize these facilities with new child care spaces and wrap around services for families. Council has directed that new facilities are to be designed and constructed to provide healthy, secure and inspiring environments for children while also addressing the needs of early educators, parents and caregivers.

The Keltic Brighouse Village project is a mixed-use development. As part of the development the developer will deliver the construction an Early Childhood Development Hub to the City of Richmond.

The Early Childhood Development Hub air space parcel occupies areas on the first and second level for access lobbies and on the third floor where most of the program spaces are located. The Hub is accessed from the street and the parking garage thru lobbies where dedicated stair and elevator are located.

The range and variety of programs and services offered at the ECD Hub are intended to serve the community in many ways and will include:

- A licensed combined Group Care Under 36 Months program with 12 spaces for children between the ages of birth to 36 months.
- 2. A licensed Group Care 30
  Months to School Age program
  with twenty-five spaces for
  children between the age of 30
  months to school age (5 years).
- A licensed Preschool Care program with twenty spaces for no more than four hours of care for children between the ages of 30 months to school age.
- A licensed School Age Care program with 30 spaces for children up to 12 years old providing no preschool child or child in Grade 1 is present.
- Child and family development programs serving a various ages.

The Hub may operate seven days a week. The child care component will at a minimum operate five days a week from 7:30am to 6:00pm. Child and Family Development programs may be offered during the day, evenings and on weekends. The Hub will deliver a variety of services to families. Administrative staff, licensed full-time and part-time early childhood educators, program and other support staff, will deliver the services. Families will come in search of information, attend programs; child care parents will come and go when

they drop off and pick up their child, or children; and, community service specialist consultants and personnel will also visit from time to time.

A child will, on average, spend many more hours awake in a child care centre than they will spend in their home. The detail design of the indoor and outdoor environments is important. In addition to ensuring the safety of the children the following core principles will guide their design:

- community/urban design connectivity
- sensitive and thoughtfully detailed connected indoor and outdoor
- play-based learning places
- the fostering of the spectrum of early childhood development
- variety of experiences, noninstitutional in feel and spirit
- efficient functional spaces for the caregivers
- flexibility and adaptability
- best practices in the development of child care facilities
- best practices for sustainable development
- accessible and universal design
- resiliency
- durability
- differentiation between each program

#### 2. KELTIC BRIGHOUSE VILLAGE

Keltic Canada Development (KCD) is proposing to develop a mixeduse project at the village centre of Brighouse Village, as per the City Centre Area Plan. The project is located at 6340 No 3 Road and faces No 3 Road to the west, Cook Road to the south, a new pedestrian mews to the east and a new Bus Mall to the north. The commercial and residential components of the project are designed to achieve Step 2 of the BC Energy Step Code, incorporating 70% renewable energy and allowing for a future tie-in to the Lulu Island Energy Company (LIEC) district energy system.

KCD is proposing the mixed-use 15-storey podium-four tower development to be comprised of:

- Early Childhood Development Hub,
- 543 market residential units,
- 27 non-market low-end of market rental (LEMR) units,
- Shared indoor and outdoor amenity spaces,
- 10 levels of office space,
- Commercial/Retail Units (CRU) along the Bus Mall, No 3 and Cook Roads at grade,
- 2 levels of underground and 2 levels of above-ground parking,

The Early Childhood Development Hub is proposed to be located on the third floor of an office building fronting No. 3 Road in an air space parcel connected to the street and parking levels by a dedicated elevator and stairway. The facility will have dedicated vehicle parking and loading areas plus bicycle parking. The child and family development programs and up to four licensed child care programs will be provided on Level 3.

#### 3. CITY OF RICHMOND EARLY CHILDHOOD DEVELOPMENT HUB

#### Goals

- a. To provide one stop shop service center for families providing them with supports such as licensed child care, early childhood development, family strengthening, and wellness programs. The facility is intended to help enhance children's readiness for school, help families connect with each other and community services.
- Is envisioned to serve as a meeting place. It will also assist economic development by supporting working families.
- To provide a welcoming space for children and families.

## Qualitative Aspects of ECD Hub in Brighouse Village

- a. Visitors to the ECD Hub should have a positive entry experience to the facility from both the street and parking levels (e.g. safe; following the best practices from CPTED Crime Prevention Through Environmental Design and spacious) allowing for movement of people and strollers in opposite directions at peak times.
- b. As some of the services could be directed to families whose children require extra supports, some thought needs to be given to the location of loading zones or near-by parking stalls for the disabled.

- The arrival at Level 3 via a dedicated commercial elevator or communicating stair should be welcoming and provide space for client to sit and mingle.
- d. The Child and Family Development component of the Hub will have office spaces, meeting rooms and large multipurpose room which will include storage room for equipment and a dividing acoustic wall for programming. A commercial kitchen and large outdoor patio will be located in the vicinity of the multipurpose rooms. Storage and other support spaces should be located at the back of the house. An area for parent stroller storage is needed and will be located near the entrance.



- e. The arrival at Level 3 via a dedicated commercial sized elevator with the option of using an staircase should be welcoming and provide space for people to sit. The Child and Family Development component of the Hub should have multi-purpose rooms, a commercial kitchen and an outdoor patio area. Storage and other support spaces should be back of house. Parent stroller storage near the entrance should be considered as well.
- f. Each Child Care Program will be separate and secured spaces. The Child Care Program will include space for Infant / Toddlers; 3-5 age group; Preschoolers and School age group. The activity spaces for each program should have a contiguous relationship to the outdoor play areas. The idea is for children to be able to flow from the indoor activity to their dedicated outdoor play area yet be easily supervised as they play. Some support spaces may be shared (e.g. kitchen, washroom).
- g. The recommended number and size of program spaces, support spaces and other spaces are noted in this document in Section 4 Technical Requirements. The developer's consultants should also refer to the City of Richmond Child Care Design Guidelines, January 2016 and the City of Richmond Policies and Guidelines for the Development of City

- -owned Child Care Facilities, December 2016 and licensing information referenced in the Appendices.
- Circulation corridors within the facility should not separate children's indoor spaces from their access to the outside. Aim to avoid long corridors.
- i. A dedicated elevator will be required. It should be of sufficient capacity to handle tripple, or quad strollers, with high ceiling to accommodate moving furniture and equipment as well as landscape supplies to the gardens on Level 3.
- j. A dedicated garbage/recycling room is required, close to the garbage collection point. Ensure that there is an accessible path to it.
- k. Parking and loading needs to be in a convenient location for pick-up and drop off of children, as close as possible to the elevator. Some staff parking spots are required for staff who will open and close the facility. See the COR Parking Bylaw. City of Richmond parking requirements can be found in the Richmond Zoning Bylaw 8500, Part A Procedures and Regulations: Section 7 -parking and Loading-see 7.7.2.3.General Parking Requirement -Child Care.

## Anticipated Number of Children, Staff and Clients

- 1. Child Care Centre Space
- up to 87 Children
- ages: birth-12 years old
- up to 15 staff
- Early Child and Family Development Program Space
- up to 15 staff (FT and PT)
- up to 100 clients dropping in for services, of those 50 may be children

The ECD Hub will need to comply with Municipal and Provincial regulations. In particular, the licensed child care programs must meet the Child Care Licensing Regulation.

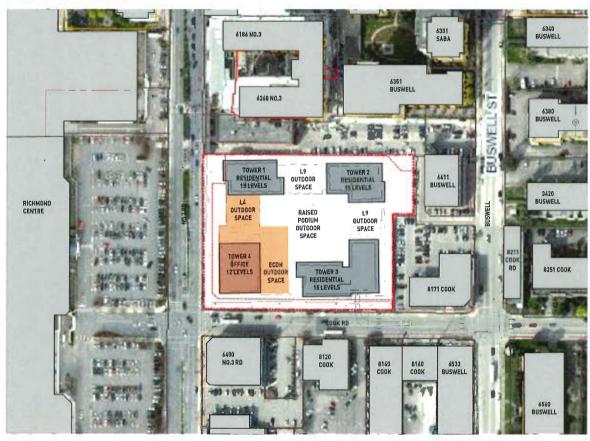
#### **Site Context**





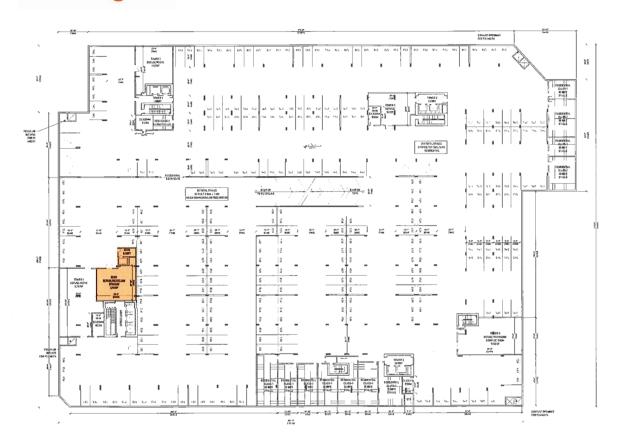


#### **Context Plan**





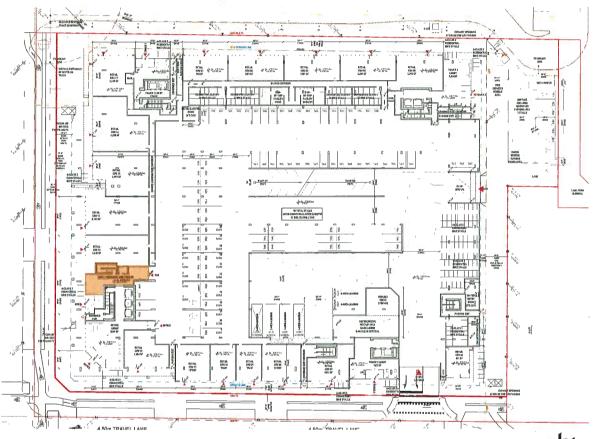
## P3 Parking Plan





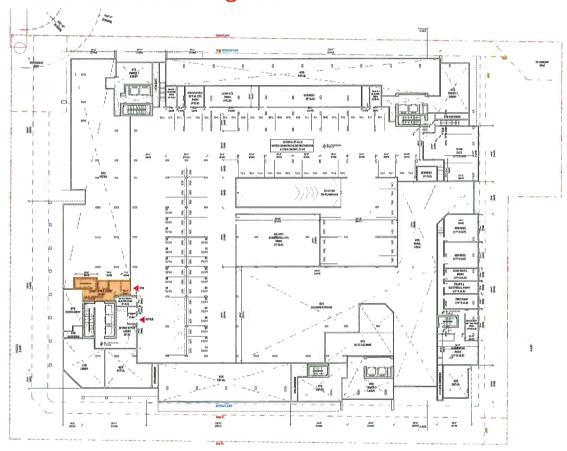


#### Level 1 Plan - P2 Parking Plan



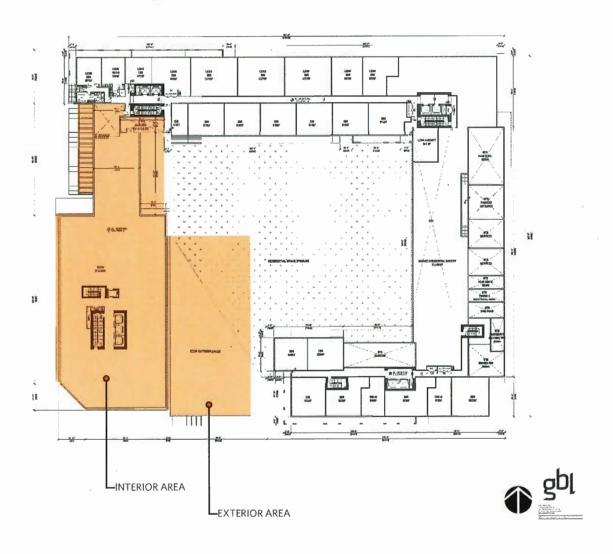


## Level 2 Plan - P1 Parking Plan

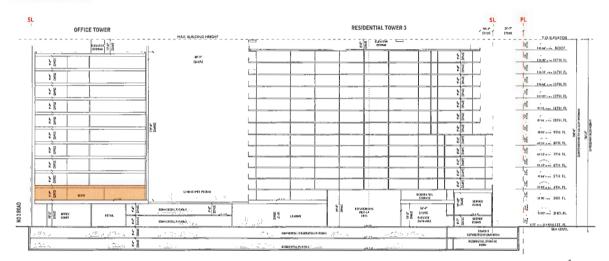




## **Level 3 - Early Childhood Development Hub**



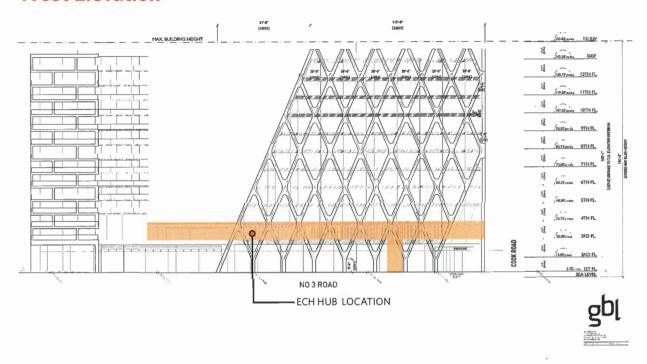
#### **Section**







#### **West Elevation**



#### **3D View**



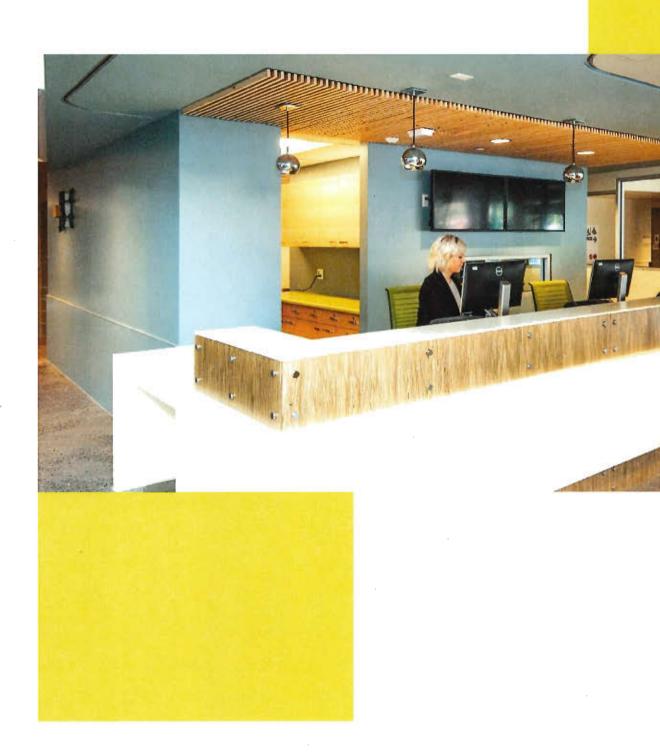


#### **Outdoor Podium Level Daycare - Preliminary Concept**





<sup>\*</sup>Technical guidelines for the ECD hub outdoor space are currently under preparation and will inform design development of the landscape plan.



"The essence of our effort, to see that every child has a chance, must be to assure each an equal opportunity, not to become equal, but to become different - to realize whatever unique potential of body, mind, and spirit he or she possesses."

-John Fischer





### **FACILITY REQUIREMENTS**

### BRIGHOUSE VILLAGE EARLY CHILDHOOD DEVELOPMENT HUB

#### 1. Intent

The Early Childhood
Development Hub facility must:

- a. Have a total floor area of 1,765 m² (19,000 ft²) comprised of the T6 Child Care bonus, the Village Centre Bonus (VCB) and an additional Voluntary Development Supplement to the satisfaction of the City;
- b. Provide space for up to four licensed child care programs serving children from birth to 12 years old (e.g.12 spaces of Group Care Under 36 Months, 25 spaces of Group Care 30 Months to School Age, 20 spaces of Preschool and 30 spaces of School Age Care);
- Provide space for early childhood development and family support programs that include multipurpose rooms that can be convertible for community use in the evenings and on weekends;
- d. Satisfy the minimum recommended sizes for the child care component of the facility as per the City of Richmond Child Care Design Guidelines (or the applicable City policy in effect at the time the facility is to be developed);
- e. Ensure that the child care spaces

- are designed to be licensable by the Vancouver Coastal Health Community Care Facilities Licensing and/or other relevant licensing policies and/or bodies at the time of the facility's construction and in accordance with applicable Provincial Child Care Regulation and BC Community Care and Assisted Living Act;
- f. On an ongoing basis, be both functioning and fully operational, to the satisfaction of the City (see "Performance" under Development Processes/ Considerations);
- g. Provide functional space to meet the City Centre Area Plan objectives for non-residential uses such as a community hub for early childhood development where a continuum of services can be provided; and
- h. Be designed, developed and operated within the spirit of the City's Child Care Development Policy (#4017) which states that:
- The City of Richmond acknowledges that quality and affordable child care is an essential service in the community for residents, employers, and employees.

#### 2. Development Processes/ Considerations

### a. City staff, City representative/Operator involvement:

- The indoor floor plan and the outside play area for the child care facility and for the associated early childhood development and family support area should be developed in collaboration with the City, its representatives (e.g. consulting architect, etc.), and if available at the time of design development, the Council approved non-profit operator.
- To ensure the facility is satisfactory for licensable child care programs, and well designed for early childhood development and family support programs plus convertible community use space resulting, the City, its representative and the operator, if approved, should have input into:
- Space needs and design;
- Operation and function of the facility;
- Fittings and finishes;
- Mechanical, Electrical and other equipment; and
- Related considerations
- b. Child Care Licensing Officer
   involvement The application
   of the Provincial Child Care
   Regulation can vary based on
   the local Child Care Licensing
   Officer's interpretation of
   programs' needs; it is therefore
   essential that the Licensing

Officer be involved with the design and development of the facility from the outset (the City will involve VCH representatives in the review of the design from rezoning through to building occupancy).

- c. Performance As a condition of Development Permit, to ensure the facility will, on an ongoing basis, be both functioning and operational to the satisfaction of the City, the developer will be required, in consultation with the City, its representatives (e.g. architectural and other consultants), the operator, and other affected parties, to define a standard of performance, and the measures necessary to safeguard that those standards will be achievable (e.g., responsibility for maintenance).
- d. Sustainability The ECD Hub is to meet LEED Gold v 4 fir ID+C Commercial Interiors.
- 3. Facility Description
- a. **General Considerations** As noted above (see Intent), the facility must satisfy all City of Richmond, licensing, and other applicable policies, guidelines, and bylaws as they apply at the time of development.

#### For reference purposes

Early Childhood

Development Hub:

- Indoor 19,000 ft² (1,766 m²)
- Outdoor 11,300 ft² (1051 m²)
   maximum to be comprised of:

#### **Child Care Programs**

The minimum net floor area and outdoor play area recommended for the child care component to allow for up to 87 children of various ages (infants to 12 years of age), exclusive of space peripheral to the primary function of the facility, such as parking, elevators and stairs, etc.:

- Indoor floor area 7,835 ft<sup>2</sup> (728.2 m<sup>2</sup>)
- Outdoor area 9,000 ft<sup>2</sup> (836 m<sup>2</sup>)

### **Early Childhood Development** and Family Support Programs

The minimum net floor area and outdoor area recommended for multi-purpose rooms, a commercial kitchen, offices, public washrooms, staff washroom, staff break room and reception area is:

- Indoor floor area 7, 050 ft<sup>2</sup> (655 m<sup>2</sup>)
- Outdoor area 2,300 ft² (213.8m²)

### Internal Walls, Circulation, and Service Areas

It is recommended that there be a space allowance for internal walls, circulation, and service areas such as a mechanical room, electrical room, data/comzmunications room, and a dedicated garbage recycling room:

 Internal walls, circulation, lobbies, and service areas – 4,093 ft<sup>2</sup> (380 m<sup>2</sup>) It is important to note that the above sizes are subject to change based on a number of factors, including policy developments, changes in licensing requirements or the design guidelines, community needs, advice of the operator, and/or other considerations.

- b. Access Safe, secure, and convenient access for children, staff, and parents is key to the viability of an ECD Hub. As the facility will be located above the ground floor, special attention will be required to how the facility is accessed (e.g., by foot, by car, in an emergency), the distance travelled, convenience, and related considerations. Where determined necessary, the City may require that the facility is equipped with special features designed to address the challenges of locating a child care facility in a high-density, mixeduse development including, but not limited to:
- A dedicated, over-sized elevator capable of accommodating triple child strollers, large groups of people, and landscape materials (to be transported to the roof deck play area);
- Parking and loading features required with respect to the ECD Hub entirely on-site and shall include, but may not be limited to, the following:
- For the child care and community services uses, 15 Class 1 bicycle spaces;
- ii. For the child care and community services uses, Class 2 bicycle



### **FACILITY REQUIREMENTS**

spaces in accordance with the site-specific bylaw and located close to the ground level entry lobby;

- For the child care uses, vehicle parking for a minimum of 11 staff vehicles and 9 non-staff vehicles (minimum non-staff space size of 2.65m. x 5.5 m.);
- iv. For the community services uses, vehicle parking for a minimum of 11 staff vehicles and 10 non-staff vehicles:
- v. For after-hours ECD Hub parking (approximately 8 spaces), use of the parking within the shared parking areas of the parkade;
- vi. Handicapped vehicle parking spaces provided consistent with the provisions of the Richmond Zoning Bylaw
- vii. Loading area space for use by a passenger van or similar-sized delivery van, with associated clear headroom and adjacent loading marshalling area (approximate area 5.0 m. x 11.0 m.) and
- Legal agreements are registered on title to secure adequate access in favour of the ECD Hub for shared use of on-site SU-9 loading spaces, to the satisfaction of the City, as determined via the Development Permit\* design, review, and approval processes;
- A dedicated garbage room in

close proximity to the garbage collection area equipped with a mop sink, hose bib and floor drain; and

 Private/secured entry from the fronting public street and private/ secured entry from the parkade.

#### c. Outdoor Space

The outdoor play space for the child care programs must be:

- Provided with covered and open play areas;
- Fully equipped with play structures and other apparatus that meet the requirements of Licensing authorities and are to the satisfaction of the City of Richmond and its approved operator;
- Include outdoor storage for children's play equipment and gardening tools, etc.;
- Landscaped with a combination of hard and soft play surfaces, together with appropriate fencing and access (taking into account the challenges of locating a facility on a rooftop) to provide for a wide variety of activities including, but not limited to, the use of wheeled toys, ball play, and gardening;
- Situated with good access to sunlight for at least three hours per day at winter solstice, two

hours of which should occur during typical playtimes 9:30 a.m. to 11: 30 a.m. or 1:30 p.m. to 4:00 p.m.

- Located where it is protected Atraffic, transit, construction) and ensures good air quality (e.g., protect from vehicle exhaust, restaurant and other ventilation exhausts, noxious fumes);
- Situated where it is immediately adjacent to and directly accessible (visually and physically) to the indoor child care space;
- Safe and secure from interference by strangers and others;
- Situated to avoid conflict with nearby uses (e.g., residential);
   and
- If multiple age groups of children are to be accommodated within the space, demised with fencing and be tailored to meet the various developmental needs of the ages of children being served.

The outdoor space for the early childhood development and family support plus convertible community use space must be:

- Situated so it is contiguous with the multi-purpose rooms;
- Have access to good sunlight;
- Be fully landscaped with planted areas and hardscape areas;



- Include some sun protection; and
- Outdoor storage for gardening tools, etc.

#### d. Noise Mitigation

Special measures should be incorporated to minimize ambient noise levels both indoors and outdoors (e.g., incorporating a roof over part of the outdoor play space to help create an area of reduced aircraft noise, ensuring no mechanical equipment that generates noise, vibration or noxious fumes is placed directly on or above the child care program spaces or in the outdoor play areas).

- e. Height Above Grade The facility is not to be located above the fourth floor of the project, except where this is determined to be to the satisfaction of the City.
- f. Natural light & ventilation The facility's indoor spaces (with the exception of washrooms, storage, and service areas) must have operable, exterior windows offering attractive views (near or far) and reasonable privacy/overlook, as determined through Richmond's standard development review process.
- g. The facility should have an active visual presence from the street,
   e.g., support spaces should
   be placed away from the front

windows on No. 3 Road and spaces such as a multi-purpose room, lounge and reception should be visible.

#### 4. Level of Finish

The ECD Hub must be turnkey and ready for immediate occupancy upon completion (with the exception of loose furnishings, toys, and related items). This includes, but is not limited to, the following requirements:

- Finished floors installed (e.g. vinyl and/or carpet);
- Walls and ceiling painted and wall protection installed;
- Window coverings installed (curtains or blinds);
- A commercial kitchen with fire suppression and servery kitchens fully fitted out, including major appliances (e.g., stove/ovens, refrigerators, microwaves) and cabinets;
- Washrooms fully fitted out, including sinks, toilets, and cabinets;
- Wired for cablevision, internet, phone, and security;
- Non-movable indoor millwork, including kitchen cabinets, cubbies, parent sign-in counters, etc.;
- All outdoor landscaping, including all permanently mounted play equipment and furnishings and an irrigation system;

- Operable, exterior windows; and
- Noise attenuation to the satisfaction of the City.

#### 5. Tenure

Parcel: Air space parcel

Ownership: Developer transfers ownership to the City

#### 6. Legal

As a condition of completing the pending rezoning, legal documents will be required to secure the ECD Hub facility contribution, including a "nodevelopment" covenant, a Letter of Credit, and/or other measures as determined to the satisfaction of the City.



### **FACILITY REQUIREMENTS**









### **FACILITY REQUIREMENTS**

### **LEED CERTIFICATION CONTENT:**

- 1. Summary Prepaired for by Integral Group (email)
- 2. Preliminary LEED Score Card



May 24, 2018

Planning and Development Services City of Richmond

Re: ECDH - Summary of Proposed Sustainability Measures

The applicant and design team are committed to incorporating green building principles into the design and long term operations of the proposed ECDH fit out of the 6340 No. 3 Road. The project will be registered with the Canada Green Building Council's LEED v4 rating system for Interior Design and Construction (ID+C) rating system and will utilize a 60+ point strategy to be equal to a Gold level of design. The following list, along with a LEED checklist, highlights prominent sustainable features which will achieve a preliminary 60 points.

The development will support a Gold level of performance for the ECDH through the following strategies.

#### Sustainable Sites

The development's design densifies the existing site to maximize land usage. The site is located within a short walking distance (50 m) of No. 3 Road and the good variety of amenities at the Richmond Center. This location also provides optimum connectivity to pedestrian, bicycle and public transit options. The No. 3 Road roads offer access to the Canada line, 301, and 340 encouraging building occupants to utilize alternative transportation opportunities, reducing dependence on single occupancy vehicles. The location along transit corridors combined with secured storage for bicycles and electric vehicle charging within the proposed building affords a distinct advantage for carless commuters.

#### Water Use Efficiency

The project will address water management through two design approaches. Firstly, water conservation through low flow plumbing fixtures, the project will be targeting a 35% reduction in the use of potable water through selection of plumbing fixtures.

The fixture flows proposed for the targeted 35% reduction include the following:

- 4.2/ 3 LPF Dual Flush Water Closet
- 1.3 LPM Lavatory (Non-metering)
- 5.7 LPM Kitchen Faucet
- 5.7 LPM Shower

#### **Energy Performance**

The project's goal is to satisfy as many of the prescriptive energy performance criteria as possible. This will be done through a combined effort by both the design team and the daycare provider to identify and implement the necessary measures. At an early stage of design the following measures are proposed to save energy in the ECDH space.

<u>HVAC Systems and Zoning</u>- The space will be designed to identify and provide thermal comfort control to each anticipated thermal zone in the space. This will ensure the thermal comfort can be met for each space type without having to waste energy also conditions other spaces which may not need the same space conditioning.

Interior Lighting Power- The space will be designed to utilize lighting which can demonstrate a minimum reduction of 25% from the ASHRAE 90.1-2010 baseline values.

<u>Interior Lighting Controls</u>- The space will include daylight responsive controls at the perimeter to reduce electrical lighting power when the daylighting is sufficient for the space. The lighting controls will also be fitted with occupancy sensors to ensure spaces not in use will have the lighting turned off to avoid energy waste.

Integral Group | Suite 180 - 200 Granville Street, Vancouver, BC V6C 1S4 +1.604.687.1800 | Integralgroup.com

Equipment and Appliances- The spaces appliances (fridges, dishwashers, etc.) and applicable IT equipment (computers, printers, AV equipment, etc.) will be selected to be EnergyStar certified to ensure they are the most energy efficient equipment available on the market.

In addition to high performance system design, the development will introduce an energy metering scheme for the space to be used in the performance based commissioning of the space to make sure all systems are operation according the performance assumptions targeted for the project.

#### **Building Materials**

Construction waste management will be an integral part of the building process, firstly through source minimization, smart product selection, packaging and transport. Recycled content and regionally sourced materials will be preferred through the selection process, focusing on steel, concrete and glass components, reducing the impact of extracting of virgin resources. These materials retain their high value in the recycling chain and so once the service life of the proposed building comes to an end, re-use and integration into new building materials is a viable option. Furthermore, waste generated on site during construction will be addressed through a comprehensive waste management plan, detailing recycling facilities and documenting the diversion of standard debris from landfill.

To reduce the impacts of the materials used in the fit out of the ECDH, products with Environmental Product Declarations will be used to help disclose and inform the selection of the most environmentally products possible. This will extend beyond the construction of the space and include the selection of the furniture and fittings in the space. The fit out will also be encouraged to consider flexibility and adaptive design to minimize the increased use of materials should the space undergo renovation years after occupancy.

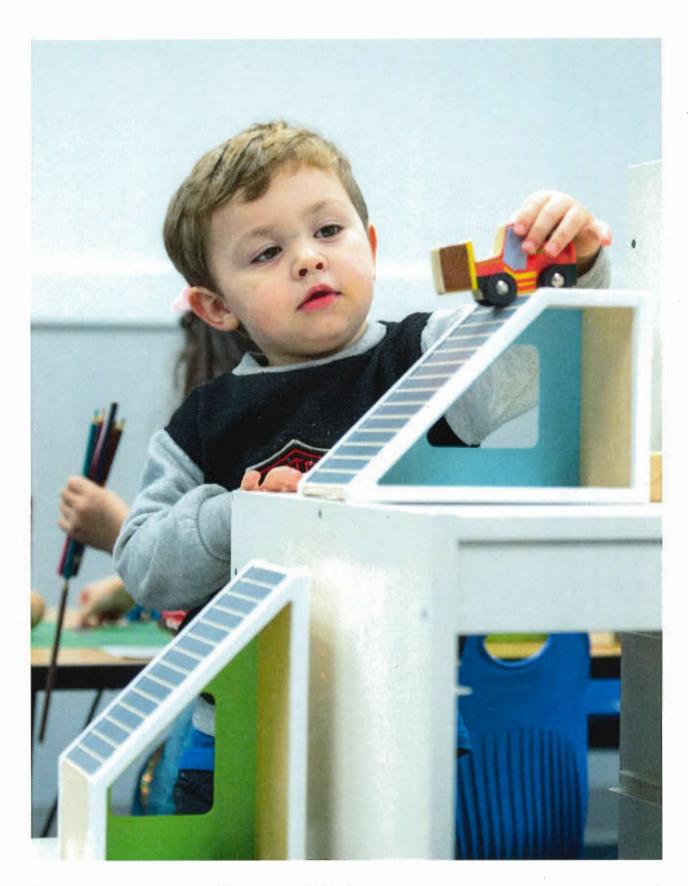
#### Indoor Environment

Outdoor air ventilation will be implemented, adhering to ASHRAE 62.1-2007 to reduce occupant exposure to indoor pollutants by ventilating with outdoor air. Airflow supplied to the space will be monitored to ensure ongoing compliance with the ASHRAE 62.1-2010 ventilation requirements. In densely occupied spaces CO2 monitoring will be provided to alert occupants when CO2 concentrations become too high.

To further improve the indoor air quality of the building, interior finishes and coatings will be specially selected to limit the quantities of harmful volatile organic compounds (VOCs) which would be off-gassed after installation.

Lighting design and views will be optimized in the proposed fit-out of the space.

The above noted strategies support a holistic approach to addressing the requirements of the City of Richmond's sustainability requirements for the ECDH space. Implementing these strategies through design and construction will produce an intelligently designed project capable of delivering enhanced building performance while also improving indoor environmental quality for occupants. A LEED checklist is included with the application for review.







### **LEED v4 for ID+C: Commercial Interiors** 6340 No. 3 Road ECDH- Preliminary LEED Checklist

Credit	Integrative Process	2
0 40 1 2254	on and Transportation	4 b
	on and Transportation	18
	LEED for Neighborhood Development Location	
	Surrounding Density and Diverse Uses	8
	Access to Quality Transit	7
	Bicycle Facilities	1
2 Credit	Reduced Parking Footprint	2
2 4 Water	Efficiency .	12
Priereq	Indoor Water Use Reduction	Required
2 4 Credit	Indoor Water Use Reduction	12
8 12 Energy	and Atmosphere	38
	Fundamental Commissioning and Verification	Required
_	Minimum Energy Performance	Required
	Fundamental Refrigerant Management	Required
	Enhanced Commissioning	5
	Optimize Energy Performance	25
	Advanced Energy Metering	2
	Renewable Energy Production	3
	Enhanced Refrigerant Management	1
	Green Power and Carbon Offsets	2
2 Cnedit	Gledi Fower and Calibut Offsets	2
	als and Resources .	13
-	Storage and Collection of Recyclables	Required
	Construction and Demolition Waste Management Planning	Required
	Long-Term Commitment	1
3 Credit	Interiors Life-Cycle Impact Reduction	4
1 Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1 Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1 Credit	Building Product Disclosure and Optimization - Material Ingredients	2
Credit	Construction and Demolition Waste Management	2
8 7 1 Indoo	x Environmental Quality	17
Percent	Minimum Indoor Air Quality Performance	Required
	Environmental Tobacco Smoke Control	Required
Y Preereq		Required 2
	Enhanced Indoor Air Quality Strategies	
2 1 Creedit	Low-Emitting Materials	3 ,
1 Creedit	Construction Indoor Air Quality Management Plan	1
2 Creadit	Indoor Air Quality Assessment	2
1 Creadit	Thermal Comfort	1
1 1 Creadit	Interior Lighting	2
3 Cre∋dit	Daylight	3
1 Creadit	Quality Views	1
1 Creadit	Acoustic Performance	2
6 0 0 Innov	ation	6
5 Credit	Innovation	5
1 Credit	LEED Accredited Professional	1
3 1 0 Regio	onal Priority	4
1 Credit	Indoor Water Use Reduction (6 points)	1
1 Credit	Enhanced Commi ssioning (5 points)	1
1 Credit	Optimized Energy Use (10 points)	1
1 Credit	Surrounding Dens ity and Diverse Uses (5 points)	1
61 30 35 TOTA	LS Possible Points:	110





### 1. NET ACTIVITY AREA SUMMARY

	3	Min. Net Activity Floor Area to be prov				
Number	Activity	SQ. FT	SQ. M			
P1.1	Vertical Circulation/floor					
P1.1.1	Elevator					
	Garbage and Recycling	886	82.3			
	Loading Bay					
	Visitor Car Parking					
200	Visitor Bicycle Parking - Class 2					
	Building Services					
	Mechanical	\$2-110 t				
- 1	Electrical					
	I/T- Data and Security	1 30				
	Secure Staff Parking	1				
	Secure Bicycle Parking - Class 1		4: CH - C-			
	Vestibule to Parking Garage (non-FAR)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	NET TOTAL	886	82.3			
	CHILD & FAMILY DEVELOPMENT PROGRAM HUB (CFDH)					
	LEVEL 1 - STREET & PARKING ENTRANCE (P2)		- 0			
1.1	Parking Vestibule Entrance (non FAR)					
1.2	Public Street Vestibule Entrance	80	7.4			
1.3	Public Lobby from Street & Parking	500	46.5			
1.4	Interconnecting Stair	160	14.4			
1.5	Elevator	75	6.9			
	SUB-TOTAL	740	68.8			
	LEVEL 2 - PARKING ENTRANCE LEVEL (P1)					
2.1	Vestibule to Parking (non-FAR)					
2.2	Public Lobby from Parking	440	40.9			
2.3	Interconnecting Stair	0	0			
2.4	Elevator	0	0			
	SUB-TOTAL	440	40.9			
	LEVEL 3 - ECD HUB					
3.1	Lobby	300	27.9			
3.2	Reception	200	. 18.6			
3.3	Interconnecting Stair	0	0.0			
3.4	Elevator	0	0.0			
3.5	Office -1	120	11.2			

Number	Activity	Min. Net Activity Floor Area to be provide			
vuiliber	Activity	SQ. FT	SQ. M		
3.6	Shared Office - 2	200	18.6		
3.7	Shared Office - 3	200	18.6		
3.8	Break Out Rooms 2 @ 50	100	9.3		
3.9	Copier and Mail/Paper Storage	90	8.4		
3.10	Meeting Room 1	400	37.2		
3.11	Meeting Room 2	120	11.2		
3.12	Male public washroom (at CFDH Lobby)	100	9.3		
3.13	Female Public Washroom (at CFDH Lobby)	210	19.5		
3.14	Multi-Purpose and Family Activity Room	2,500	232.3		
3.15	Commercial kitchen *	400	37.2		
3.16	Multi Purpose Program storage	160	14.9		
3.17	Storage	100	9.3		
3.18	Staff Room	140	13.0		
3.19	Staff Washroom - Single Occupancy with Shower	110	10.2		
3.20	Staff Washroom - Single Occupancy	40	3.7		
3.21	Men's Washroom (North)	100	9.3		
3.22	Women's Washroom (North)	170	15.8		
3.23	Public Accessible Washroom	40	3.7		
3.24	Janitor	70.0	6.5		
	LEVEL 1 - NET TOTAL	740	68.8		
	LEVEL 2 - NET TOTAL	440	40.9		
	LEVEL 3 INDOOR (CFDH component) - NET TOTAL	5,870	545.5		
	TOTAL ECD Child and Family Development Area	7,050	655		
	FAMILY DEVELOPMENT/COMMUNITY OUTDOOR AREA				
	Outdoor Storage				
	Outdoor Terrace and Gardens	2300	213.8		
	Covered **		7		
	Outdoor				
	NET TOTAL	2300	213.8		
	LICENSED CHILD CARE PROGRAMS AND ADMINISTRATION PUBLIC AND SHARED SUPPORT F				
3.30	Lobby	400	37.2		
3.31	Parent Stroller Storage	70	6.5		
3.32	Parent Meeting	80	7.4		
3.33	CC Office	105	9.8		
3.34	Electrical	100	9.3		
1	Program Stroller Storage	100	9.3		
3.35		45	4.2		
3.36	Accessible Washroom				
	Shower Shared with CFD	0	0.0		
3.37	Janitor & Laundry	75	7.0		

 $<sup>^{\</sup>star}$  Technical requirements for the commercial kitchen are under development and will inform the design development of this space.

<sup>\*\*</sup> Technical guidelines for the ECD hub outdoor space are currently under preparation and will inform design development of the landscape plan.



Number	Activity	Min. Net Activity Floor Area to be provi	
	Was Table 1	SQ. FT	SQ. M
3.38	Staff Washroom	30	2.8
3.39	Staff Room	120	11,2
	NET TOTAL	1125	104.6
3.5	LICENSED INFANT/TODDLER CHILD CARE PROGRAM		
3.51	Cubby and Parent Sign In	152	14.1
3.52	Main Activity Room		
3.52.1	Open Play Area	215	20.0
3.52.2	Table/Art Area	215	20.0
3.52.3	Quiet area	101	9.4
3.53	Small Nap Room	100	9.3
3.54	Large Nap Room	180	16.7
3.55	Large Nap Room Storage	50	4.6
3.56	Shared Kitchen (with 3-5 programl)	100	9.3
3.57	Children's Washroom	80	7.4
3.58	General Storage	86	8.0
3.59	Staff Office	100	9.3
	Staff Counter & Storage	32	3.0
	NET TOTAL INDOOR	1,411	131.1
	INFANT/TODDLER OUTDOOR PLAYGROUND		
	Outdoor Storage	. 86	8.0
	Covered Play	323	30
	Open Area	646	60
	NET TOTAL OUTDOOR	1,055	98
3.6	LICENSED 3-5 CARE PROGRAM		
3.61	Cubby and Parent Sign In	172	16.0
3.62	Main Activity Room		000 -10
3.62.1	Open Play Area	549	51.0
3.62.2	Quiet Room	100	9.3
3.62.3	Table/Art Area	360	33.5
3.63	Gross Motor/ Nap Room	360	33.5
3.64	Gross Motor/Nap Room Storage	50	4.6
3.65	Children's Washroom	118	11.0
3.66	General Storage	100	9.3
3.67	Staff Office	100	9.3
3.68	Shared Kitchen (with I/T Program)	100	9.3
	Staff Counter & Storage	32	3.0
	NET TOTAL INDOOR	2,041	189.7
	3-5 GROUP OUTDOOR PLAYGROUND		
	Outdoor Storage	100	9.3

Number	Activity	Min. Net Activity Floor Area to be provid				
	A THE STATE OF THE STATE OF	SQ. FT	SQ. M			
	Covered Play	628	58.4			
	Open Area	1,256	116.7			
	NET TOTAL OUTDOOR	1,984	184.4			
3.7	LICENSED PRESCHOOL CARE PROGRAM					
3.71	Cubby and Parent Sign In	142	13.2			
3.72	Main Activity Room					
3.72.1	Open Play area	490	45.5			
3.72.2	Quiet Room	100	9.3			
3.72.3	Table/Art Area	210	19.5			
3.73	General Storage	100	9.3			
3.74	Children's Washroom	97	9.0			
3.75	Shared Kitchen (with School Age Program)	100	9.3			
3.76	Staff Office	100	9.3			
	Staff Counter & Storage	32	3.0			
	NET TOTAL INDOOR	1,371	127.4			
	PRESCHOOL CARE OUTDOOR AREA					
	Storage	86	8.0			
	Covered Play	506	47.0			
	Open Area	1,001	93.0			
	NET TOTAL OUTDOOR	1,593	148			
	LICENSED SCHOOL AGE CARE PROGRAMS					
A 7 #7.	Main Activity Room	1195	111.1			
701F C = 2	Cubby and Parent Sign In	202	18.8			
	Washrooms	150	13.9			
	General Storage	100	9.3			
	7 10	100	9.3			
	Staff Office					
	Shared Kitchen (with Preschool Program)	108	10.0			
	Staff Counter & Storage	32	3.0			
	NET TOTAL INDOOR	1,887	175.4			
	SCHOOL AGE PLAYGROUND					
	Storage	86	8.0			
	Covered Play	753	70			
	Open Area	1,507	140			
	NET TOTAL OUTDOOR	2,346	218			
	CHILD CARE LEVEL BUILDING SERVICES & CIRCULATION					
-	Elevator	T.B.D.				
	Interconnecting Stair	T.B.D.				
	Building Services	T.B.D.				
70						
	Mechanical	T.B.D.				



Number	Activity	Min. Net Activity Floor Area to be provide	
	Activity	SQ. FT	SQ. M
	I/T- Data and Security	T.B.D.	
	Corridors/Horizontal Circulation	T.B.D.	
THE DAY	TOTAL	T.B.D.	A SECTION OF THE PERSON OF THE
	SUMMARY OF INTERIOR NET CHILD CARE PROGRAM AREAS	CHEST VALUE	
	Total Net Public and Support Activities	1,125	104.6
200	Total Net Interior Infant Toddler Program Activity Area	1,411	131.1
	Total Net interior 3-5 Program Activity Area	2,041	189.7
	Total Net Interior Preschool Activity Area	1,371	127.4
	Total Net Interior School Age Children	1,887	175.4
	TOTAL	7,835	728.2
L TEN	SUMMARY OF OUTDOOR PODIUM ROOF TOP AREAS		
70560	Total I/T Outdoor Play	1,055	98.0
	Total 3-5 Group Outdoor Play	1,984	184.4
	Total Preschool Outdoor Play	1,593	148.0
	Total School Age Outdoor play	2,346	218.0
	Outdoor Deck- East of MP Rooms	1,500	139.4
,	Outdoor Deck- west of MP Rooms (Family Dev. Space)	800	74.3
	Common Play Area/ Community Garden	2,022	187.9
	TOTAL OUTDOOR AREA	11,300	1051
	SUMMARY OF ECD HUB INTERIOR PRIMARY FUNCTION MINIMUM	NET AREAS	
1st level	Child Care & CFDH Entrance	740	68.8
2nd level	Child Care & CFDH Entrance	440	40.9
3rd level	CFDH Program (3rd Floor)	5,870	545.5
	Child Care Programs	7,835	728.2
	TOTAL INDOOR AREA	14,885	1,383
	gross up factor of 27.5% for circulation and services (does not include identified lobby spaces)	4,093	380
	TOTAL INDOOR AREA (including gross up)	18,978	1,764



### 2. ACTIVITY AREA DESCRIPTIONS

Number	Activity	Programmatic Notes and Requirements	
5 15	ION-FAR AREAS IN PARKING ON LEVEL 1 - PARKING AND FACILITY SUPPORT SPACES		
P1.1	Vertical Circulation/floor		
P1.1.1	Elevator	<ul> <li>Key Function: Access to ECD Hub from Parking and between floors (refer to Appendices)</li> <li>Locate so that there is visual connection to ECD Hub lobbies on each level</li> <li>Elevator to be easily accessible from the loading area to facilitate delivery of items for routine maintenance such as sand and engineered wood chips</li> <li>Elevator to be able to accommodate freight for the purposes of maintaining the play areas (for example: to move heavy loads for sand replacement and top-up) – recommended minimum capacity for 4000lbs</li> <li>The elevator lobby should not open directly into any secure child care space</li> <li>Cab size and layout to accommodate three, 3-position parent strollers and/or the Program's quad stroller – Sizes of strollers vary, but as a guideline, use 1.9m (75") long, by 0.6m (24") wide, by 1m (40") high. Ensure circulation space from entrance to elevator accommodates the turning radius of the stroller</li> <li>Ability to schedule door activation, fob control, times</li> <li>Security camera</li> <li>Hardy wall protection (strollers and playground material delivery will use the elevator)</li> </ul>	
	Garbage and Recycling	<ul> <li>Key Function: Close to garbage and recycling collection point</li> <li>Provide a safe and accessible route from the elevato, no impediments such as columns or parking spaces in front of door or access route.</li> <li>Requires Mop sink, floor drain and hose bib</li> <li>Requires ventilation to remove odours</li> <li>Double solid core doors with heavy duty hardware, hold open, kick plates and door edge protection</li> <li>Occupancy sensor</li> <li>Hardy wall protection up to 42" high for walls that are not cast-in-place concrete or blook</li> </ul>	
	Loading Bay		
	Visitor Car Parking	9 for Daycare + 8 for ECDH visitors = 17	
	Visitor Bicycle Parking - Class 2		
	Building Services	2000 P	
	Mechanical		
	Electrical	·	
4	I/T- Data and Security		
	Secure Staff Parking	11 for Daycare program staff + 21 for ECDH program staff = 32	
	Secure Bicycle Parking - Class 1	72 - 12 - 122	
	Vestibule to Parking Garage (non-FAR)		

Number	Activity	Programmatic Notes and Requirements
	CHILD & FAMILY DEVELOPMENT PROGRAM HUE	(CFDH)
	LEVEL 1 - STREET & PARKING ENTRANCE (P2)	
1.1	Parking Vestibule Entrance (non FAR)	- Function: Entry to ECD Hub from visitor parking  • Independently secured and accessed from this area with FOB or Video enter phone  • Security camera  • FOB / Video enter phone
1.2	Public Street Vestibule Entrance	Function: Inform, direct to activity spaces Function: Access point for public, parents, staff and other community members, delivery and courier personnel. Independently secured and accessed from this area with FOB or Video enter phone Security camera FOB / Video enter phone Walk-off mat ( min. 6' by with of doors with child safe recessed grille)
1.3	Public Lobby from Street & Parking	Function: Inform, direct to activity spaces Accessible from street and parking to stairs and elevators for staff and child care families only with FOB and entry phone before and after hours. Open to public during Child and family Development program hours All Family Development functions secure during non-operational times from Entry Lobby Adjacencies to stairs and elevator Mail box Seating area Wall mounted LCD screen for program info (power /data req'd) Program pamphlets board
1.4	Interconnecting Stair	stairs to meet current Building Code requirements locate stairs near the building entrance; be visual from building exterior and allow for natural daylight within the space make stairs wide enough to accommodate travel in both directions stair risers to be 7" (178mm) maximum with treads to be 11" minimum (280mm) in order to be more comfortable for children provide handrails set at 2 different heights; upper handrail to meet current building code; lower handrail at maximum 28" high (710mm) with a vertical clearance between upper and lower handrail of 9" (230mm) provide slip resistant floor finishes
1.5	Elevator	Key Function: Access to ECD Hub from Parking and between floors (refer to Appendices) Locate so that there is visual connection to ECD Hub lobbies on each level Elevator to be easily accessible from the loading area to facilitate delivery of items for routine maintenance such as sand and engineered wood chips Elevator to be able to accommodate freight for the purposes of maintaining the play areas (for example: to move heavy loads for sand replacement and top-up) – recommended minimum capacity for 4000lbs  The elevator lobby should not open directly into any secure child care space Cab size and layout to accommodate three, 3-position parent strollers and/or the Program's quad stroller – Sizes of strollers vary, but as a guideline, use 1.9m (75") long, by 0.6m (24") wide, by 1m (40") high. Ensure circulation space from entrance to elevator accommodates the turning radius of the stroller Ability to schedule door activation, fob control, times Security camera Hardy wall protection (strollers and playground material delivery will use the elevator)



Number	Activity	Programmatic Notes and Requirements	
	LEVEL 2 - PARKING ENTRANCE LEVEL (P1)		
2.1	Vestibule to Parking (non-FAR)	Function: Entry to ECD Hub from visitor parking Independently secured and accessed from this area with FOB or Video enter phone Security camera FOB / Video enter phone	
2.2	Public Lobby from Parking	Function: Inform, direct to activity spaces     Access from parking to stairs and elevators for staff and child care families only with FOB and video enter phone before and after hours. Open to public during Child and family Development program hours     All Family Development functions secure during non-operational times from Entry Lobby     Adjacencies to stairs and elevator	
2.3	Interconnecting Stair	stairs to meet current Building Code requirements     locate stairs near the building entrance; be visual from building exterior and allow for natural daylight within the space     make stairs wide enough to accommodate travel in both directions     stair risers to be 7" (178mm) maximum with treads to be 11" minimum (280mm) in order to be more comfortable for children     provide handrails set at 2 different heights; upper handrail to meet current building code; lower handrail at maximum 28" high (710mm) with a vertical clearance between upper and lower handrail of 9" (230mm)     provide slip resistant floor finishes	
2.4	Elevator	Key Function: Access to ECD Hub from Parking and between floors (refer to Appendices)     Locate so that there is visual connection to ECD Hub lobbies on each level Elevator to be easily accessible from the loading area to facilitate delivery of items for routine maintenance such as sand and engineered wood chips Elevator to be able to accommodate freight for the purposes of maintaining the play areas (for example: to move heavy loads for sand replacement and top-up) – recommended minimum capacity for 4000lbs     The elevator lobby should not open directly into any secure child care space     Cab size and layout to accommodate three, 3-position parent strollers and/or the Program's quad stroller – Sizes of strollers vary, but as a guideline, use 1.9m (75") long, by 0.6m (24") wide, by 1m (40") high. Ensure circulation space from entrance to elevator accommodates the turning radius of the stroller     Ability to schedule door activation, fob control, times     Security camera     Hardy wall protection (strollers and playground material delivery will use the elevator)	

Number	Activity	Programmatic Notes and Requirements
	LEVEL 3 - ECD HUB	
3.1	Lobby	- Function: Inform, direct to activity spaces  - Arrival from stairs and elevators for staff and child care families before, during and after hours.  - Adjacencies to stairs, elevator, reception, stroller storage  - Community Notice board  - Program pamphlet board  - Security camera
3.2	Reception	Function: Reception, security Adjacencies: Lobby, office, and meeting rooms Reception desk with upstand and storage cabinets under Grommets in counter Outlets for equipment Video monitor and phone Phone Data
3.3	Interconnecting Stair	stairs to meet current Building Code requirements     locate stairs near the building entrance; be visual from building exterior and allow for natural daylight within the space     make stairs wide enough to accommodate travel in both directions     stair risers to be 7" (178mm) maximum with treads to be 11" minimum (280mm) in order to be more comfortable for children     provide handrails set at 2 different heights; upper handrail to meet current building code; lower handrail at maximum 28" high (710mm) with a vertical clearance between upper and lower handrail of 9" (230mm)     provide slip resistant floor finishes
3.4	Elevator	Key Function: Access to ECD Hub from Parking and between floors (refer to Appendices)     Locate so that there is visual connection to ECD Hub lobbies on each level     Elevator to be easily accessible from the loading area to facilitate delivery of items for routine maintenance such as sand and engineered wood chips     Elevator to be able to accommodate freight for the purposes of maintaining the play areas (for example: to move heavy loads for sand replacement and top-up) – recommended minimum capacity for 4000lbs     The elevator lobby should not open directly into any secure child care space     Cab size and layout to accommodate three, 3-position parent strollers and/or the Program's quad stroller – Sizes of strollers vary, but as a guideline, use 1.9m (75") long, by 0.6m (24") wide, by 1m (40") high. Ensure circulation space from entrance to elevator accommodates the turning radius of the stroller     Ability to schedule door activation, fob control, times     Security camera     Hardy wall protection (strollers and playground material delivery will use the elevator)
3.5	Office -1	Private room Window blinds electrical outlets per code 1 telephone 1 data outlet Independent lighting control Locked with access card reader
3.6	Shared Office - 2	Window blinds  e 2 — electrical outlets per person minimum  e 1 — telephone jack per person  e 1 — data outlet per person  Floor data and electrical outlets to allow for open space office layout  Independent lighting control  Locked with access card reader



Number	Activity	Programmatic Notes and Requirements
3.7	Shared Office - 3	Window blinds  1 – electrical outlets per person minimum  1 – telephone jack per person  1 – data outlet per person  Floor data and electrical outlets to allow for open space office layout  Independent lighting control  Locked with access card reader
3.8	Break Out Rooms 2 @ 50	Function: Small meeting space for 1-2 people Visual connection to circulation 1 electrical outlets per room 1 telephone jack per person Window blinds
3.9	Copier and Mail/Paper Storage	electrical outlets per code     1 telephone     1 data outlet     6' long counter, 36" high with upper and lower storage. All counters to have electrical outlets above counter     Task lighting under shelving over work counters     Independent lighting control     Bulletin board
3.10	Meeting Room 1	Function: Small and large meetings, flexible meeting space     Adjacencies: Reception, Street Entry Lobby     Primary Users: Staff, External consultants, Agencies, Community     Independent lighting control     1 Data outlet     1 telephone outlet     Acoustic separation STC 50     Visual connection and blinds for sun control and/or privacy to street and Hub
3.11	Meeting Room 2	Function: Small and large meetings, flexible meeting space     Adjacencies: Reception, Street Entry Lobby     Primary Users: Staff, External consultants, Agencies, Community     Independent lighting control     1 Data outlet     1 telephone outlet     Acoustic separation STC 50     Visual connection and blinds for sun control and/or privacy to street and Hub

Number	Activity	Programmatic Notes and Requirements
3.12	Male public washroom (at CFDH Lobby)	Function: Child and Adult Washroom Location visual connection from Activity Room Drop down stainless steel diaper changing table that supports static loads up to 200 lbs. complete with child protection straps Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel. Tank type toilet with locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and dual flush. Toilets to meet a Maximum Performance (MaP) Test of 500g or better. Flush Valves to be Sloan Dual Flush or approved equal. Sink with lever handles, tempered water set to 38-40 degrees Celsius prior to Occupancy Sink counter at 32" AFF Toilet accessories: Wall recessed paper towel dispenser/disposal, large roll toilet paper dispenser, mirror above counter, soap dispenser Door locks to be inaccessible to 3-5 year olds (56" AFF) and able to be unlocked from corridor To keep in line with industry facility programming, it would be acceptable to group male and female washrooms to create non-gender washrooms provided that: Toilet stalls are enclosed from floor to underside of the ceiling Virinal stalls, if provided, are identified with appropriate signage Number sink or faucets, if communal sink is proposed, meet the building code requirements
3.13	Female Public Washroom (at CFDH Lobby)	<ul> <li>Function: Child and Adult Washroom</li> <li>Location visual connection from Activity Room</li> <li>Drop down stainless steel diaper changing table that supports static loads up to 200 lbs. complete with child protection straps</li> <li>Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel.</li> <li>Tank type toilet with locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and dual flush. Toilets to meet a Maximum Performance (MaP) Test of 500g or better. Flush Valves to be Sloan Dual Flush or approved equal.</li> <li>Sink with lever handles, tempered water set to 38-40 degrees Celsius prior to Occupancy</li> <li>Sink counter at 32" AFF</li> <li>Toilet accessories: Wall recessed paper towel dispenser/disposal, large roll toilet paper dispenser, mirror above counter, soap dispenser</li> <li>Door locks to be inaccessible to 3-5 year olds (56" AFF) and able to be unlocked from corridor</li> <li>To keep in line with industry facility programming, it would be acceptable to group male and female washrooms to create non-gender washrooms provided that:</li> <li>Toilet stalls are enclosed from floor to underside of the ceiling</li> <li>Urinal stalls, if provided, are identified with appropriate signage</li> <li>Number sink or faucets, if communal sink is proposed, meet the building code requirements</li> </ul>



Number	Activity	Programmatic Notes and Requirements
3.14	Multi-Purpose and Family Activity Room	Function: Activity space for a variety of programmed and non-programmed play areas and range of activities for young children with parents Good visual connection to outdoors Adjacencies: Commercial kitchen, public washroom Primary users: Parents with children Accustic moveable wall to divide the room in two activity rooms 1 activity room to have; Art Sink Area with; 10" deep stainless steel art sink with floor mounted sediment trap Zurn Z1180 Solids Interceptor or pre-approved alternate Tempered water set to 38-40 degrees Celsius prior to occupancy Minimum 8' long counter with cabinets above and below, lighting under upper cabinets Acoustics: provide appropriate acoustic surface treatment for interior finishes: Ceiling to meet NRC (noise reduction coefficient) = 0.70 or better, or room design shall meet an equivalent acoustical performance Ceilings are not to exceed 3m (10'0"); should a deviation to this be accepted, additional acoustic treatment is required Doors into Activity Room be glazed in such a way to see in and out of the room, and to see children playing on either side of the door Independent lighting control, Zone lighting, Multi-level switching TV cable Telephone Child proof electrical outlets with childproof and shatterproof faceplates and tamper resistant receptacles Wall protection to 30" AFF Window blinds with manual or electrical control

Number	Activity	Programmatic Notes and Requirements
3.15	Commercial kitchen *	Rey Functions: The kitchen will be used for hot meals and cooking for family events and teaching as part of the Child and Family Development Program.  Adjacencies: Multi-Purpose Room To be accessible from Multipurpose Room and main circulation Space to include pantry Adjustable wire shelving Broom closet with shelving for cleaning supplies Locked with access card reader Kitchen to have ability to close off one or both sides with rolling acoustic closure Work Island W hand sink, coved corners for ease of cleaning LED under cabinet counter lighting to light work surfaces Cabinets to be 1'-6" Max. above countertop (2) Commercial fridges, min. 21 cu.ft. per fridge, energy star rated with environmentally friendly R290 hydro carbon refrigeration, bottom mount compressor Commercial freezers, min. 21 cu.ft., energy star rated with environmentally friendly R290 hydro carbon refrigeration, bottom mount compressor Energy Star rated 26: Wide 4 burner electric stove top with controls on countertop Self Cleaning Wall Ovens (1 to be a convection oven) Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel interior, backflow preventer valve & corrosion resistant pump Commercial 100-200 watt, 2 cu.ft. microwaves, on microwave shelf w/ closed ends Energy Star rated 21 cu.ft. frost free fridge with freezer on bottom (no icemaker) Exhaust hood to meet NFPA 96 standard, seismically braced Stainless steel 2 compartment sink (10" deep), coved corners for ease of cleaning, faucet ledge, commercial grade faucet, high temperature water between 46°C and 48°C Stainless Steel hand sink, coved corner for ease of cleaning, faucet ledge, commercial grade faucet, high temperature water between 46°C and 48°C Provision for garbage/recycling/compost containers incl. 100 sf pantry
3.16	Multi Purpose Program storage	Function: program storage and extra tables and chairs Adjacency: meeting rooms 6' long x 3 x 15" deep shelving to be located above full table and chair dollies Occupancy sensor Program Storage Occupancy sensor Step ladder storage Door to open out Locked with access card reader
3.17	Storage	Function: program storage and extra tables and chairs Adjacency: meeting rooms 6' long x 3 x 15" deep shelving to be located above full table and chair dollies Occupancy sensor Program Storage Occupancy sensor Step ladder storage Door to open out Locked with access card reader

<sup>\*</sup> The list of commercial kitchen equipment will be provided with the technical requirements for this space.



Number	Activity	Programmatic Notes and Requirements
3.18	Staff Room	Key Functions: Staff work room, storage, etc.  12'-0"+ long counter (3-drawer lateral files to fit under) and closed upper cabinet, LED lighting under cabinet  Kitchenette, Dining & Sitting Areas Provision for garbage/recycling/compost containers  Kitchenette to Include:  Stainless Steel Sink, 10" Deep, coved corners for ease of cleaning, complete with faucet ledge, high temperature water between 46°C and 48°C Minimum 6'-0" long counter with cabinets below and above with under counter LED lighting Commerical 110 watt min., 2 cu ft. microwave, on microwave shelf with closed sides Coffee Maker w/ hot water spigot Energy Star rated fridge 17 cu. Ft. frost free with freezer compartment Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel interior, backflow preventer valve & corrosion resistant pump Bulletin Board Data Outlets (2 required)
3.19	Staff Washroom - Single Occupancy with Shower	Telephone Appliance outlets above counter for toaster, kettle, blender, etc. 10 half lockers  Function: non-gender staff washroom with shower for Daycare and CFD staff Adjacency: CFD Staff Room Bench 3 coat hooks Counter with mirror Locked with access card reader
3.20	Staff Washroom - Single Occupancy	non-gender single occupancy     Locked with access card reader     Interior floor drain to be provided. Floor drain to have pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel     Cabinet for personal storage; fixtures and accessories as required

Number	Activity	Programmatic Notes and Requirements
3.21	Men's Washroom (North)	Function: Child and Adult Washroom Location visual connection from Activity Room Drop down stainless steel diaper changing table that supports static loads up to 200 lbs. complete with child protection straps Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel. Tank type toilet with locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and dual flush. Toilets to meet a Maximum Performance (MaP) Test of 500g or better. Flush Valves to be Sloan Dual Flush or approved equal. Sink with lever handles, tempered water set to 38-40 degrees Celsius prior to Occupancy Sink counter at 32" AFF Toilet accessories: Wall recessed paper towel dispenser/disposal, large roll toilet paper dispenser, mirror above counter, soap dispenser Door locks to be inaccessible to 3-5 year olds (56" AFF) and able to be unlocked from corridor  To keep in line with industry facility programming, it would be acceptable to group male and female washrooms to create non-gender washrooms provided that: Toilet stalls are enclosed from floor to underside of the ceiling Urinal stalls, if provided, are identified with appropriate signage Number sink or faucets, if communal sink is proposed, meet the building code requirements
3.22	Women's Washroom (North)	Function: Child and Adult Washroom Location visual connection from Activity Room Drop down stainless steel diaper changing table that supports static loads up to 200 lbs. complete with child protection straps Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel. Tank type toilet with locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and dual flush. Toilets to meet a Maximum Performance (MaP) Test of 500g or better. Flush Valves to be Sloan Dual Flush or approved equal. Sink with lever handles, tempered water set to 38-40 degrees Celsius prior to Occupancy Sink counter at 32" AFF Toilet accessories: Wall recessed paper towel dispenser/disposal, large roll toilet paper dispenser, mirror above counter, soap dispenser Door locks to be inaccessible to 3-5 year olds (56" AFF) and able to be unlocked from corridor  To keep in line with industry facility programming, it would be acceptable to group male and female washrooms to create non-gender washrooms provided that: Toilet stalls are enclosed from floor to underside of the ceiling Urinal stalls, if provided, are identified with appropriate signage Number sink or faucets, if communal sink is proposed, meet the building code requirements



Number	Activity	Programmatic Notes and Requirements
3.23	Public Accessible Washroom	<ul> <li>Function: Child and Adult Washroom</li> <li>Location visual connection from Activity Room</li> <li>Drop down stainless steel diaper changing table that supports static loads up to 200 lbs. complete with child protection straps</li> <li>Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel.</li> <li>Tank type toilet with locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and dual flush. Toilets to meet a Maximum Performance (MaP) Test of 500g or better. Flush Valves to be Sloan Dual Flush or approved equal.</li> <li>Sink with lever handles, tempered water set to 38-40 degrees Celsius prior to Occupancy</li> <li>Sink counter at 32" AFF</li> <li>Toilet accessories: Wall recessed paper towel dispenser/disposal, large roll toilet paper dispenser, mirror above counter, soap dispenser</li> <li>Door locks to be inaccessible to 3-5 year olds (56" AFF) and able to be unlocked from corridor</li> </ul>
3.24	Janitor	Key function: Child care program laundry and janitorial storage Adjacencies: infant/toddler program; accessible from public area by other programs  1 - large capacity stacking washer  1 - large capacity stacking, loading, dryer 3' folding counter open below with cabinets above Minimum 3' sink counter with upper and lower cabinets  10" deep large single stainless sink complete with faucet ledge, high Temperature water and gooseneck faucet with paddle handles Floor mounted mop sink complete with approved backflow preventer valve, high temperature water Interior floor drain to be provided. Floor drain to have pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel Wall mounted hooks for mops Storage area for storing buckets, mops, brooms, vacuum, ladder Shelving for supplies for cleaning, paper products, light bulbs, etc. Wall protection around mop sink
	FAMILY DEVELOPMENT/COMMUNITY OUTDOOR	AREA
	Outdoor Storage	Vented waterproof storage for outdoor play equipment Shelving Occupancy sensors
	Outdoor Terrace and Gardens	
	Covered **	Covered play to be within range of 553 to 655 sf of total outdoor area Frost proof hose bib Close proximity to teh Multipurpose room and commercial Kitchen - activities will spill out into this area during summer and offers covered play opportunities in inclement and hot weather Landscape lighting on light level sensor that can be turned off in evenings when playground is not in use Provide electrical or gas BBQ connection

 $<sup>^{\</sup>star\star}$  Technical guidelines for the ECD hub outdoor space are currently under preparation and will inform design development of the landscape plan.



Number	Activity	Programmatic Notes and Requirements
	Outdoor	Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24 hour equivalent sound level 8' high perimeter glazing at building roof edges Lighting on light level sensor Refer to Roof Landscape and Irrigation Guidelines in City of Richmond's: City Owned Child Care Facility Policies and Guidelines December 2016
	LICENSED CHILD CARE PROGRAMS AND AD-	(Based on 6,484 sf net for primary activity areas)
	MINISTRATION PUBLIC AND SHARED SUPPORT FUNCTIONS	The child care program is located on Level 3 of the development. All points of entry in and out of Daycare program to be secure.
3.30	Lobby	<ul> <li>Function: central access to child care programs; acts as informal gathering, waiting and conversation</li> <li>Accessible only by FOB / video phone from elevator lobby and only during child care program.</li> <li>Adjacencies: Parent Room, child care office, washroom, parent stroller storage</li> <li>Security camera</li> </ul>
3.31	Parent Stroller Storage	Function: Open area to store 15-20 strollers     Adjacencies: Multi-Purpose Children and Family Room; Accessible to all programs     Wall protection     Locked with access card reader
3.32	Parent Meeting	Function: meetings with parents, consultants  'e' counter with storage cabinets below  Tack board  locking with card reader access
- 3.33	CC Office	6' counter desk height with pedestal and upper cabinets     Bulletin board B1
3.34	Electrical	
3.35	Program Stroller Storage	<ul> <li>Function: to store 2 oversize strollers (triple 58" L x 21" W and quads 57" L x 33" W) required to take children on outings</li> <li>Adjacency: Lobby, infant / toddler care program</li> <li>3 wall mounted 15" deep shelves mounted 42" above floor x 8' long</li> <li>wall protection 42" high</li> <li>locking with card reader access</li> </ul>
3.36	Accessible Washroom	H/C with a fold down change table located closer to the Preschool/School Age Program
	Shower Shared with CFD	Bench     3 coat hooks     Counter with mirror



Number	Activity	Programmatic Notes and Requirements
3.37	Janitor & Laundry	Key function: Housekeeping of child care program, laundry, and janitorial storage     Adjacencies: infant/toddler program; accessible from public area by other programs; office; staff room     1 - large capacity stacking washer     1 - large capacity stacking, loading, dryer     3' folding counter open below with cabinets above     Minimum 3' sink counter with upper and lower cabinets     10" deep large single stainless sink complete with faucet ledge, high     Temperature water and gooseneck faucet with paddle handles     Floor mounted mop sink complete with approved backflow preventer valve, high temperature water     Interior floor drain to be provided. Floor drain to have pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel     Wall mounted hooks for mops     Storage area for storing buckets, mops, brooms, vacuum, ladder     Shelving for supplies for cleaning, paper products, light bulbs, etc.     Wall protection around mop sink     Locked with access card reader
3.38	Staff Washroom	Interior floor drain to be provided. Floor drain to have pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel     Cabinet for personal storage; fixtures and accessories as required
3.39	Staff Room	Key Functions: Staff work room, storage, etc.     12'-0"+ long counter (3-drawer lateral files to fit under) and closed upper cabinet, LED lighting under cabinet     Kitchenette, Dining & Sitting Areas     Provision for garbage/recycling/compost containers      Kitchenette to Include:     Stainless Steel Sink, 10" Deep, coved corners for ease of cleaning, complete with faucet ledge, high temperature water between 46°C and 48°C Minimum 6'-0" long counter with cabinets below and above with under counter LED lighting     Commerical 110 watt min., 2 cu ft. microwave, on microwave shelf with closed sides     Coffee Maker w/ hot water spigot     Energy Star rated fridge 17 cu. Ft. frost free with freezer compartment     Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel interior, backflow preventer valve & corrosion resistant pump     Bulletin Board     Data Outlets (2 required)     Telephone     Appliance outlets above counter for toaster, kettle, blender, etc.     10 half lockers

Number	Activity	Programmatic Notes and Requirements
3.5	LICENSED INFANT/TODDLER CHILD CARE PROGRAM	<ul> <li>Program area licensed for 12 children age under 36 months</li> <li>All points of entry in and out of the program to be secure</li> <li>Exterior noise, such as traffic, mechanical equipment or other disruptive noises is to be controlled by appropriate acoustical design of the exterior partitions to meet the allowable noise level for residential living, dining, and recreation rooms as defined in the local zoning by-law</li> <li>Under no circumstances is the exterior noise to exceed a sound pressure level of 45 dB(A) 24 hour equivalent sound level in the interior of the Facility in all spaces occupied by children</li> <li>Interior noise within a child care group is to be controlled with appropriate acoustic surface treatment for interior finishes:</li> <li>75% of ceiling area shall be T-bar ceiling with NRC (noise reduction coefficient)= 0.70 or better, or</li> <li>Alternately the room design shall meet an equivalent acoustical performance</li> <li>Ceilings are not to exceed 3m (10'0"); should a deviation to this be accepted, additional acoustic treatment is required</li> <li>All millwork corners to be minimum 1/8" radius</li> <li>12 Licensed spaces (area based on based on 3.7m2 x 12 x 10.76 =</li> <li>(Based on 75 SF x kids = 900 SF)</li> </ul>
3.51	Cubby and Parent Sign In	<ul> <li>Key Functions: Storage of children's outdoor clothing, personal supplies, extra clothing, Parent sign in and information/communications</li> <li>Adjacencies and visual connection: Lobby, Activity Room, Children's Washroom, Outdoor Play</li> <li>14 cubbies and storage units for each cubby</li> <li>Teacher coat and shoe storage for 3 teachers</li> <li>Parent Sign counter and storage cabinet</li> <li>Bulletin board at Parent Sign In</li> </ul>
3.52	Main Activity Room	Key Function: The interior program play and eating space Adjacencies: cubby, staff communication, kitchen, children's washroom/Staff communication and storage to be near cubby area to allow staff to monitor entry and activity room Includes: Table area, open play area, quiet areas, staff communication, art sink, and art material cabinets Layout of space to accommodate play centres and ancillary functions, visual connection, adjacencies, etc. Look for opportunity to have views between programs to quiet or activity rooms Doors into activity room be glazed in such a way to see in and out of the room, and to see children playing on either side of the door Independent lighting control, zone lighting, multi-level switching TV Cable Telephone Child proof electrical outlets with childproof and shatterproof faceplates and tamper resistant receptacles Thermostat control for each zone Wall protection to 30" AFF Bulletin board at staff communication and storage Window blinds
3.52.1	Open Play Area	
3.52.2	Table/Art Area	Table area (min. 20sm/215SW), art sink, and supply storage  10" deep stainless steel art sink with floor mounted sediment trap Zurn Z1180 Solids Interceptor or pre-approved alternate  Tempered water set to 38-40 deg C. Prior to occupancy  Min. 8' long counter with cabinets above and below, lighting under upper cabinets
3.52.3	Quiet area	<ul> <li>Includes 35sf for Staff Communications and</li> <li>48sf for bottle Warming station with large capacity fridge, counter with stainless steel sink, upper and lower cabinets and microwave</li> <li>Wall Protection to 36" AFF</li> </ul>



Number	Activity	Programmatic Notes and Requirements
3.53	Small Nap Room	Key functions: Nap room for infants and younger toddlers and may be used for other activities if no infants in program Locate away from kitchen, washroom, mechanical equipment, and cubbies Adjacencies: nap room storage Allow 24" between cribs ( 4 cribs in total) Music shelf @ 42" AFF with electrical outlet at 48" AFF Wall scones – dimmable Door to have window at visual connection at adult height, black out blind on door to be located on activity room side No unswitched lights such as security lighting Multi-level switching to be located outside of the room Carbon dioxide monitor Thermostat control Wall protection @ 42" Minimum Sun and blackout window blinds
3.54	Large Nap Room	Key functions: Nap and gross motor play Adjacencies: Main activity room Locate away from kitchen, washroom, cubbies, and mechanical equipment Allow 24" between cots (8 mats in total) Music shelf @ 42" AFF with electrical outlet at 48" AFF Wall scones – dimmable Door to have window at visual connection at adult height, black out blind on door to be located on activity room side No unswitched lights such as security lighting Multi-level switching to be located outside of the room Carbon dioxide monitor Thermostat control Wall protection @ 42" Minimum Sun and blackout window blinds
3.55	Large Nap Room Storage	Key Function: Storage of 1- cot carrier, gross motor play equipment and children's personal nap belongings     Adjustable three rows 15" deep shelves on one wall to start at 30" at one wall AFF (gross motor play equipment stored)     Occupancy sensor     connect with double doors to Activity Room
3.56	Shared Kitchen (with 3-5 programl)	<ul> <li>Open to Activity Room with good visual connection</li> <li>Gate Access from Activity Room</li> <li>Provision for Garbage/Recycling Bin &amp; Compost Containers</li> <li>Two Compartment Stainless Steel Sink c/w faucet ledge, coved corners for ease of cleaning, commercial grade faucet, high temperature water between 46°C and 48°C</li> <li>Minimum 6'-0" Long Counter with cabinets below and above, LED lighting under upper cabinets, cabinets to be 1'-6" Max. above countertop</li> <li>3'-0" Long low counter section for children at 24" A.F.F.</li> <li>Commercial 1000-1200 watt min. 2 cu f.t microwave on microwave shelf with closed sides</li> <li>Energy Star fridge –freezer frost free</li> <li>Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel interior, backflow preventer valve &amp; corrosion resistant pump</li> </ul>

Number	Activity	Programmatic Notes and Requirements
3.57	Children's Washroom	Adjacencies: Visual connection to activity room, kitchen, doors to covered play Gate between children's washroom and activity room Room for two potties (NIC) Stacked Washer and Dryer Exhaust so no smells enter activity rooms — exhaust fan to be below 45 decibels Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind access panel Z-round bowl tank type toilets, 15" high, closed front seats, locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and duel flush. Toilets to meet a max performance (MaP) test of 500g or better. Flush values to be Sloan Duel Flush or approved equal C-children's sink with lever handles, tempered water set to 38-40deg. Coprior to occupancy. Install sinks as close to front of counter as possible Children's sink counter at 18" AFF Wall cabinet for paper storage C-15" deep x 14' minimum shelving for each child's diaper and personal baskets for paper storage Toilet accessories: 1 — paper towel dispenser at accessible height, large roll toilet paper dispenser at each toilet, mirror above counter Toothbrush holder (14 toothbrushes) Change table with: Moveable stairs for children to access Room for laundry hamper and diaper pail No exposed luminaire shining directly onto prone child Single compartment sink complete with a faucet ledge, minimum 300mm (12") deep, with swing tap (gooseneck preferred), paddle handles, and spray attachment Paper towel dispenser
3.58	General Storage	Shelving     Wall Protection to 36" AFF     Locked with access card reader
3.59	Staff Office	<ul> <li>Key function: Staff work area and Infant Toddler Activity Room observation</li> <li>Adjacencies: Main Activity Room</li> <li>one way vision glass from Staff Office into Activity Room</li> <li>Work counter with pedestal under and shelf over with lighting under for one person</li> <li>Bulletin board between shelf and work counter</li> </ul>
	Staff Counter & Storage	<ul><li>Adjacency: staff office</li><li>Counter with lockable storage below and whiteboard above</li></ul>



Number	Activity	Programmatic Notes and Requirements
	INFANT/TODDLER OUTDOOR PLAYGROUND	
	Outdoor Storage	Verited waterproof storage for outdoor play equipment 3 x 15" deep x 6' long metal shelving arm bike Occupancy sensors
	Covered Play	<ul> <li>Directly accessed from Main Activity Area - indoor activities will spill out into this area during summer and offers covered play opportunities in inclement and hot weather</li> <li>Frost proof hose bib</li> <li>Landscape lighting on light level sensor that can be turned off in evenings when playground is not in use</li> <li>Inter-program gates to be equipped with child-proof latches.</li> <li>All gates to be self-closing</li> <li>Covered play to be within range of 600 to 620 sf. of total outdoor area</li> </ul>
	Open Area	provide a good range of play opportunities for each child care program Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24 hour equivalent sound level 30" fence with child proof latched gate between Infant Toddler and adjacent playgrounds Exposure to sunlight for at least three hours per day at the winter solstice, two hours of which occur between 9:30-11:30am or 1:30-4:00pm 8' high perimeter glazing at building roof edges Frost proof hose bib Lighting on light level sensor Refer to Roof Landscape and Irrigation Guidelines in City of Richmond's: City Owned Child Care Facility Policies and Guidelines December 2016 Inter-program gates to be equipped with child-proof latches. Include seating for supervisors Sand play structure to be located away from building All gates to be self-closing Provide shade for each sand play area (either with trellis structure, or with trees) Ensure edible planters are raised Provide a preliminary plant palette, typical cross sections (noting minimum soil depths) and preliminary details/sketches for major elements/structures with the DP submission Include a Cruiser Rail

Number	Activity	Programmatic Notes and Requirements
3.6	LICENSED 3-5 CARE PROGRAM	Licensed for 25 spaces for children 30 months to school age Adjacencies: Cubby, Staff Communication, Kitchen, Children's Washroom. Staff Communication and Storage to be near Cubby area to allow staff to monitor entrance and Activity Room The Preschool/School Age Activity Room may extend into the 3-5 Group Activity Program on weekends and evenings Could share Kitchen with Infant/Toddler program. All points of entry in and out of the program to be secure Exterior noise, such as traffic, mechanical equipment or other disruptive noises is to be controlled by appropriate acoustical design of the exterior partitions to meet the allowable noise level for residential living, dining, and recreation rooms as defined in the local zoning by-law Under no circumstances is the exterior noise to exceed a sound pressure level of 45 dB(A) 24 hour equivalent sound level in the interior of the Facility in all spaces occupied by children Interior noise within a child care group is to be controlled with appropriate acoustic surface treatment for interior finishes: 75% of ceiling area shall be T-bar ceiling with NRC (noise reduction coefficient)= 0.70 or better, or Alternately the room design shall meet an equivalent acoustical performance Ceilings are not to exceed 3m (10'0"); should a deviation to this be accepted, additional acoustic treatment is required All millwork corners to be minimum 1/8" radius
3.61	Cubby and Parent Sign In	Key Functions: Storage of children's outdoor clothing, personal supplies, extra clothing, Parent sign in and information/communications     Adjacencies and visual connection: Lobby, Activity Room, Children's Washroom, Outdoor Play     27 cubbies and storage units for each cubby     Teacher coat and shoe storage for 4 teachers     Parent Sign counter and storage cabinet     Bulletin board at Parent Sign In     Whiteboard
3.62	Main Activity Room	Key Function: The interior program play and eating space Adjacencies: cubby, staff communication, kitchen, children's washroom/ Staff communication and storage to be near cubby area to allow staff to monitor entry and activity room Includes: Table area, open play area, quiet areas, staff communication, art sink, and art material cabinets Layout of space to accommodate play centres and ancillary functions, visual connection, adjacencies, etc. Look for opportunity to have views between programs to quiet or activity rooms Doors into activity room be glazed in such a way to see in and out of the room, and to see children playing on either side of the door Independent lighting control, zone lighting, multi-level switching TV Cable Telephone Child proof electrical outlets with childproof and shatterproof faceplates and tamper resistant receptacles Thermo stat control for each one Wall protection to 30" AFF Bulletin board at staff communication and storage Window blinds
3.62.1	Open Play Area	
3.62.2	Quiet Room	Includes 35sf for Staff Communications and     48sf for bottle Warming station with large capacity fridge, counter with stainless steel sink, upper and lower cabinets and microwave     Wall Protection to 36" AFF



Number	Activity	Programmatic Notes and Requirements
3.62.3	Table/Art Area	Table area (min. 20sm/215SW), art sink, and supply storage 10" deep stainless steel art sink with floor mounted sediment trap Zurn Z1180 Solids Interceptor or pre-approved alternate Tempered water set to 38-40 deg C. Prior to occupancy Min. 8' long counter with cabinets above and below, lighting under upper cabinets
3.63	Gross Motor/ Nap Room	Key Functions: Nap and gross motor play     Adjacencies: Main Activity Room, nap room storage     Locate away from Kitchen, Washroom and Cubbies, mechanical equipment     Allow 24" between cots     Music Shelf@ 42" AFF with electrical outlet at 48" AFF     Wall sconces- dimmable     Door to have window at visual connection at adult height, black out blind on door to be located on Activity Room side     No un-switched lights such as security lighting     Multi- level switching to be located outside room a Carbon dioxide monitor     Thermostat control     Wall protection @ 42" minimum     Window blinds
3.64	Gross Motor/Nap Room Storage	Wall protection
3.65	Children's Washroom	<ul> <li>Adjacencies: Visual connection to activity room, kitchen, doors to covered play</li> <li>Gate required between children's washroom and activity room</li> <li>Room for two potties (NIC)</li> <li>Exhaust so no smells enter activity rooms — exhaust fan to be below 45 decibels</li> <li>Floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind access panel</li> <li>3-round bowl tank type toilets, 15" high, closed front seats, locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and duel flush. Toilets to meet a max performance (MaP) test of 500g or better. Flush values to be Sloan Dual Flush or approved equal</li> <li>3- Children's sink with lever handles, tempered water set to 38-40deg. C prior to occupancy. Install sinks as close to front of counter as possible</li> <li>Children's sink counter at 18" AFF</li> <li>Wall cabinet for paper storage</li> <li>2-15" deep x 14' minimum shelving for each child's diaper and personal baskets for paper storage</li> <li>Toilet partitions stalls complete with doors</li> <li>Toilet partitions stalls complete with doors</li> <li>Toilet accessories: 1 – paper towel dispenser at accessible height, large roll toilet paper dispenser at each toilet, mirror above counter</li> <li>Toothbrush holder (program children number + 2 extra)</li> <li>Room for laundry hamper and diaper pail</li> <li>No exposed luminaire shining directly onto child eyes</li> <li>Single compartment sink complete with a faucet ledge, minimum 300mm (12") deep, with swing tap (gooseneck preferred), paddle handles, and spray attachment set in counter with lower storage</li> <li>Paper towel dispenser</li> <li>Whiteboard</li> </ul>
3.66	General Storage	<ul> <li>Adjustable three rows 15" deep shelves to start at 30" AFF to allow storage of program rolling storage units on one or two walls only</li> </ul>

Number	Activity	Programmatic Notes and Requirements
3.67	Staff Office	Key function: Staff work area and Group 3-5, Activity Room observation     Adjacencies: Main Activity Room, Infant/Toddler program     Shared with I/T program to be directly accessible by each program     One way vision glass from Staff Office into Activity Room     Work counter with pedestal under and shelf over with lighting under for one person     Bulletin board between shelf and work counter
3.68	Shared Kitchen (with I/T Program)	Open to Activity Room with good visual connection Gate Access from Activity Room Provision for Garbage/Recycling Bin & Compost Containers Two Compartment Stainless Steel Sink c/w faucet ledge, coved corners for ease of cleaning, commercial grade faucet, high temperature water between 46°C and 48°C Minimum 6'-0" Long Counter with cabinets below and above, LED lighting under upper cabinets, cabinets to be 1'-6" Max. above countertop 3'-0" Long low counter section for children at 24" A.F.F. Commercial 1000-1200 watt min. 2 cu f.t microwave on microwave shelf with closed sides Energy Star fridge —freezer frost free Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel Interior, backflow preventer valve & corrosion resistant pump
	Staff Counter & Storage	Adjacency: staff office     Counter with lockable storage below and whiteboard above
	3-5 GROUP OUTDOOR PLAYGROUND	Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24 hour equivalent sound level. 3-5 Outdoor Play areas to be interconnected with the Preschool/School Age Outdoor Play to provide expanded play opportunities 30" fence with child proof latched gate between adjacent playgrounds (Based on 75 SF / kid= 1,875 SF)
	Outdoor Storage	Vented waterproof storage for outdoor play equipment     Shelving     Occupancy sensors
	Covered Play	<ul> <li>Directly accessed from Main Activity Area - indoor activities will spill out into this area during summer and offers covered play opportunities in inclement and hot weather</li> <li>Frost proof hose bib</li> <li>Landscape lighting on light level sensor that can be turned off in evenings when playgrounds are not in use</li> <li>Inter-program gates to be equipped with child-proof latches.</li> <li>All gates to be self-closing</li> <li>Covered play to be within range of 630sf - of total outdoor play area</li> </ul>



Number	Activity	Programmatic Notes and Requirements
	Open Area	Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24 hour equivalent sound level provide a good range of play opportunities for each child care program Exposure to sunlight for at least three hours per day at the winter solstice, two hours of which occur between 9:30-11:30am or 1:30-4:00pm 8' high perimeter glazing if at edge of building Frost proof hose bib Lighting on light level sensor Refer to Roof Landscape and Irrigation Guidelines in City of Richmond's City Owned Child care Facility Policies and Guidelines December 2016 Inter-program gates to be equipped with child-proof latches. All gates to be self-closing Include a trike path Include seating for supervisors Sand play structure to be located away from building Provide shade for each sand play area (either with trellis structure, or with trees) Ensure edible planters are raised Provide a preliminary plant palette, typical cross sections (noting minimum soil depths) and preliminary details/sketches for major elements/structures with the DP submission
LICENSED PRESCHOOL CARE PROGRAM      LICENSED PROGRAM      LICENSED PRESCHOOL CARE PROGRAM      LICENSED PROGRAM      LI		Could share Kitchen with School age care group.     All points of entry in and out of the program to be secure
Key Functions: Storage extra clothing, Parent sig extra clothing, Parent sig Adjacencies and visual     Cubby and Parent Sign In     Washroom, Outdoor Play 24 cubbies and storage Teacher coat and shoe Parent/Children Sign co		Cubby and parent sign in  Key Functions: Storage of children's outdoor clothing, personal supplies, extra clothing, Parent sign in and information/communications  Adjacencies and visual connection: Lobby, Activity Room, Children's Washroom, Outdoor Play  24 cubbies and storage units for each cubby  Teacher coat and shoe storage for 2 teachers  Parent/Children Sign counter and storage cabinet  Bulletin board at Parent Sign In
3.72	Key Function: The interior program play and eating space     Adjacencies: cubby, staff communication, kitchen, childred Staff communication and storage to be near cubby area to monitor entry and activity room     Includes: Table area, open play area, quiet areas, staff cosink, and art material cabinets     Layout of space to accommodate play centres and ancill visual connection, adjacencies, etc.     Look for opportunity to have views between programs to rooms     Doors into activity room be glazed in such a way to see i room, and to see children playing on either side of the doc Independent lighting control, zone lighting, multi-level sw     TV Cable     Telephone     Child proof electrical outlets with childproof and shatterp and tamper resistant receptacles     Thermo stat control for each one     Wall protection to 30" AFF     Bulletin board at staff communication and storage     Window blinds	

Number	Activity	Programmatic Notes and Requirements
3.72.1	Open Play area	
3.72.2	Quiet Room	Includes 35sf for Staff Communications and     48sf for bottle Warming station with large capacity fridge, counter with stainless steel sink, upper and lower cabinets and microwave     Wall Protection to 36" AFF
3.72.3	Table/Art Area	Table area (min. 20sm/215SW), art sink, and supply storage 10" deep stainless steel art sink with floor mounted sediment trap Zurn Z1180 Solids Interceptor or pre-approved alternate Tempered water set to 38-40 deg C. Prior to occupancy Min. 8' long counter with cabinets above and below, lighting under upper cabinets
3.73	General Storage	<ul> <li>Adjustable three rows 15" deep, 8' long shelves to start at 36" AFF to allow storage of program rolling storage units on one or two walls only</li> <li>Occupancy sensor</li> <li>Step ladder storage</li> </ul>
3.74	Children's Washroom	<ul> <li>Adjacencies: Visual connection to activity room, kitchen, doors to covered play</li> <li>Gate required between children's washroom and activity room</li> <li>Room for two potties (NIC)</li> <li>Exhaust so no smells enter activity rooms – exhaust fan to be below 45 decibels</li> <li>Floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind access panel</li> <li>2-round bowl tank type toilets, 15" high, closed front seats, locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and duel flush. Toilets to meet a max performance (MaP) test of 500g or better. Flush values to be Sloan Dual Flush or approved equal</li> <li>2- Children's sink with lever handles, tempered water set to 38-40deg. C prior to occupancy. Install sinks as close to front of counter as possible</li> <li>Children's sink counter at 18" AFF</li> <li>Wall cabinet for paper storage</li> <li>2-15" deep x 14" minimum shelving for each child's diaper and personal baskets for paper storage</li> <li>Toilet partitions stalls complete with doors</li> <li>Toilet partitions stalls complete with doors</li> <li>Toilet paper dispenser at each toilet, mirror above counter</li> <li>Toothbrush holder (program children number + 2 extra)</li> <li>Room for laundry hamper and diaper pail</li> <li>No exposed luminaire shining directly onto child eyes</li> <li>Single compartment sink complete with a faucet ledge, minimum 300mm (12") deep, with swing tap (gooseneck preferred), paddle handles, and spray attachment set in counter with lower storage</li> <li>Paper towel dispenser</li> <li>Whiteboard</li> </ul>
3.75	Shared Kitchen (with School Age Program)	Open to Activity Room with good visual connection Gate Access from Activity Room Provision for Garbage/Recycling Bin & Compost Containers Two Compartment Stainless Steel Sink c/w faucet ledge, coved corners for ease of cleaning, commercial grade faucet, high temperature water between 46°C and 48°C Minimum 6'-0" Long Counter with cabinets below and above, LED lighting under upper cabinets, cabinets to be 1'-6" Max. above countertop 3'-0" Long low counter section for children at 24" A.F.F. Commercial 1000-1200 watt min. 2 cu f.t microwave on microwave shelf with closed sides Energy Star fridge –freezer frost free Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel interior, backflow preventer valve & corrosion resistant pump



Number	Activity	Programmatic Notes and Requirements
3.76	Staff Office	Key function: Staff work area and Preschool/School Age Activity Room observation     Adjacencies: Main Activity Room     one way vision glass from Staff Office into Activity Room     Work counter with pedestal under and shelf over with lighting under for one person     Bulletin board between shelf and work counter     Locked with access card reader
	Staff Counter & Storage	Adjacency: staff office     Counter with lockable storage below and whiteboard above
	PRESCHOOL CARE OUTDOOR AREA	<b>企业等等的企业企业的国际企业等等</b>
	Storage	Vented waterproof storage for outdoor play equipment Shelving Occupancy sensors could be shared with older kids
	Covered Play	Covered play to be within range of 506 to 603sf of total outdoor play area
	Open Area	<ul> <li>Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24 hour equivalent sound level</li> <li>Preschool/School Age Outdoor Play to be interconnected with the 3-5 Outdoor Play to provide expanded play opportunities</li> <li>be shared so as to not duplicate play opportunities</li> <li>The two areas will be fenced at a height of 30" with gates and latches</li> <li>provide a good range of play opportunities for each child care program</li> <li>Exposure to sunlight for at least three hours per day at the winter solstice, two hours of which occur between 9:30-11:30am or 1:30-4:00pm</li> <li>Frost proof hose bib</li> <li>Lighting on light level sensor</li> <li>Refer to Roof Landscape and Irrigation Guidelines in City of Richmond's City Owned Child care Facility Policies and Guidelines December 2016</li> <li>Inter-program gates to be equipped with child-proof latches.</li> <li>All gates to be self-closing</li> <li>Include seating for supervisors</li> <li>Sand play structure to be located away from building</li> <li>Provide shade for each sand play area (either with trellis structure, or with trees)</li> <li>Ensure edible planters are raised</li> <li>Provide a preliminary plant palette, typical cross sections (noting minimum soil depths) and preliminary details/sketches for major elements/structures with the DP submission</li> </ul>

Number	Activity	Programmatic Notes and Requirements
	LICENSED SCHOOL AGE CARE PROGRAMS	30 Licensed School Age (Area based on 40 SF x 30 kids = 1200 SF
	Main Activity Room	Key Function: The interior program play and eating space Adjacencies: cubby, staff communication, kitchen, children's washroom/ Staff communication and storage to be near cubby area to allow staff to monitor entry and activity room Includes: Table area, open play area, quiet areas, staff communication, art sink, and art material cabinets Layout of space to accommodate play centres and ancillary functions, visual connection, adjacencies, etc. Look for opportunity to have views between programs to quiet or activity rooms Doors into activity room be glazed in such a way to see in and out of the room, and to see children playing on either side of the door Independent lighting control, zone lighting, multi-level switching TV Cable Telephone Child proof electrical outlets with childproof and shatterproof faceplates and tamper resistant receptacles Thermo stat control for each one Wall protection to 30" AFF Bulletin board at staff communication and storage Window blinds Table / Art area (min. 20sm/215 sf), art sink, and supply storage Unidow blinds Table / Art area (min. 20sm/215 sf), art sink, and supply storage Thempered water set to 38-40 deg C. Prior to occupancy Min. 8' long counter with cabinets above and below, lighting under upper cabinets
	Cubby and Parent Sign In	Key Functions: Storage of children's outdoor clothing, personal supplies, extra clothing, Parent sign in and information/communications     Adjacencies and visual connection: Lobby, Activity Room, Children's Washroom, Outdoor Play     34 cubbies and storage units for each cubby     Teacher coat and shoe storage for 3 teachers     Parent Sign counter and storage cabinet     Bulletin board at Parent Sign In
	Washrooms	Three separate toilet rooms provided to facilitate multi age groups and license requirements for 30 children  Key Function: Child and Adult Washroom  Visual connection to Activity Room  Drop down diaper changing table that supports static loads up to 200 lbs. complete with child protection straps in one washroom only  One washroom to meet code requirements for H/C washroom - grab bars located  Interior floor drain to be provided. Floor drain to have a pre-approved trap primer. The trap primer is to be accessible within the same room as the floor drain behind an access panel  Round bowl tank type toilet 15" high, closed front seats, locked tank with lids, sealed to floor. Provide low-flow, gravity standard, and dual flush. Toilets to meet a Maximum Performance (MaP) Test of 500g or better. Flush Valves to be Sloan Dual Flush or approved equal  Sink with lever handles, tempered water set to 38-40deg. C prior to Occupancy  Sink counter at 28" AFF  Toilet accessories: Wall recessed paper towel dispenser/disposal, large roll toilet paper dispenser, mirror above counter, soap dispenser  Door locks to be inaccessible to 3-5 year olds (56" AFF) and able to be unlocked from Activity Room side  Exhaust so no smells enter Activity Room - exhaust fan to be below 45 decibels  One washroom to meet code requirements for H/C accessibility. Grab bar to be mounted at 27" a.f.f.



Number	Activity	Programmatic Notes and Requirements
	General Storage	<ul> <li>Adjustable three rows 15" deep, 8' long shelves to start at 36" AFF to allow storage of program rolling storage units on one or two walls only</li> <li>Occupancy sensor</li> <li>Step ladder storage</li> </ul>
	Staff Office	<ul> <li>Key function: Staff work area and School Age Activity Room observation</li> <li>Adjacencies: Main Activity Room</li> <li>one way vision glass from Staff Office into Activity Room</li> <li>Work counter with pedestal under and shelf over with lighting under for one person</li> <li>Bulletin board between shelf and work counter</li> <li>Locked with access card reader</li> </ul>
	Shared Kitchen (with Preschool Program)	<ul> <li>Open to Activity Room with good visual connection</li> <li>Gate Access from Activity Room</li> <li>Provision for Garbage/Recycling Bin &amp; Compost Containers</li> <li>3'-0" Long low counter section for children at 18" A.F.F.</li> <li>Commercial 1100 watt min., 2 cu.ft. microwave on microwave shelf with closed sides</li> <li>Energy Star rated 21 cu.ft. frost free fridge with freezer on bottom (no icemaker)</li> <li>Energy Star rated 4 burner 30" wide electric stove (coil burners), with controls at back, self-cleaning oven cycle</li> <li>Exhaust Hood, Energy Star rated, quiet, high exhaust, seismically braced if required, direct vent to outside</li> <li>Dishwasher: Energy Star rated commercial style dishwasher, high temperature, cold water supply only with energy recovery, high temperature sanitizing with built-in booster, stainless steel interior, backflow preventer valve &amp; corrosion resistant pump</li> <li>Broom Closet and pantry wall cupboard with pull out shelves</li> <li>Stainless Steel Double Sink (min. 10" deep) w/ faucet ledge, coved corners for ease of cleaning, commercial grade faucet, high temperature water between 46°C and 48°C</li> <li>Stainless Steel Hand Sink with faucet ledge, high temperature water between 46°C and 48°C</li> <li>Minimum 6'-0" long counter with cabinets below and LED lighting under cabinets, cabinets to be 1'-6" Max. above countertop</li> </ul>
	Staff Counter & Storage	Adjacency: staff office     Counter with lockable storage below and whiteboard above
	SCHOOL AGE PLAYGROUND	(based on 75 SF x 30 kids = 2,250 SF)
	Storage	Vented waterproof storage for outdoor play equipment Shelving Occupancy sensors could be shared with older kids
	Covered Play	<ul> <li>Directly accessed from Main Activity Area - indoor activities will spill out into this area during summer and offers covered play opportunities in inclement and hot weather</li> <li>Frost proof hose bib</li> <li>Landscape lighting on light level sensor that can be turned off in evenings when playgrounds are not in use</li> <li>Inter-program gates to be equipped with child-proof latches.</li> <li>All gates to be self-closing</li> <li>Covered play to be within range of 506 to 603sf of total outdoor play area</li> </ul>

Number	Activity	Programmatic Notes and Requirements
	Open Area	Outdoor play areas to be effectively acoustically buffered from any noise from traffic, mechanical equipment or other disruptive noises to achieve a maximum sound pressure level of 55 dB(A) 24 hour equivalent sound level provide a good range of play opportunities for each child care program Exposure to sunlight for at least three hours per day at the winter solstice, two hours of which occur between 9:30-11:30am or 1:30-4:00pm 8' high perimeter glazing Frost proof hose bib Lighting on light level sensor Refer to Roof Landscape and Irrigation Guidelines in City of Richmond's City Owned Child care Facility Policies and Guidelines December 2016 Inter-program gates to be equipped with child-proof latches. All gates to be self-closing Include a trike path Include seating for supervisors Sand play structure to be located away from building Provide shade for each sand play area (either with trellis structure, or with trees) Finsure edible planters are raised Provide a preliminary plant palette, typical cross sections (noting minimum soil depths) and preliminary details/sketches for major elements/structures with the DP submission
	CHILD CARE LEVEL BUILDING SERVICES & CIRC	ULATION
	Elevator	Key Function: Access to ECD Hub from Parking and between floors (refer to Appendices) Locate so that there is visual connection to ECD Hub lobbies on each level Elevator to be easily accessible from the loading area to facilitate delivery of items for routine maintenance such as sand and engineered wood chips Elevator to be able to accommodate freight for the purposes of maintaining the play areas (for example: to move heavy loads for sand replacement and top-up) – recommended minimum capacity for 4000lbs The elevator lobby should not open directly into any secure child care space Cab size and layout to accommodate three, 3-position parent strollers and/or the Program's quad stroller – Sizes of strollers vary, but as a guideline, use 1.9m (75") long, by 0.6m (24") wide, by 1m (40") high. Ensure circulation space from entrance to elevator accommodates the turning radius of the stroller Ability to schedule door activation, fob control, times Security camera Hardy wall protection (strollers and playground material delivery will use the elevator)
	Interconnecting Stair	stairs to meet current Building Code requirements locate stairs near the building entrance; be visual from building exterior and allow for natural daylight within the space make stairs wide enough to accommodate travel in both directions stair risers to be 7" (178mm) maximum with treads to be 11" minimum (280mm) in order to be more comfortable for children provide handrails set at 2 different heights; upper handrail to meet current building code; lower handrail at maximum 28" high (710mm) with a vertical clearance between upper and lower handrail of 9" (230mm) provide slip resistant floor finishes
	Building Services	
	Mechanical	
	Electrical	
	I/T- Data and Security	
	Corridors/Horizontal Circulation	

# 4









#### 1. Outline of Requirements

#### **Designing for Families and Children**

The design of the Early Childhood Development Hub facility will:

- Provide interior and exterior environments designed to support the development of the children and their physical, social and emotional growth
- Provide interior and exterior environments designed to support staff in their work with Richmond families

The Facility Program document sets out specific functional requirements for the City of Richmond's t Early Childhood Development Hub.

The City of Richmond's Citv-Owned Child Care Facility Policies and Guidelines. December 2016 sets out general requirements for City owned child care facilities.

The Vancouver Coastal Health
Design Resource for Child Care
Facilities (September 2016)
contains detail design information
and recommendations for
licensed child care centres that
is not included in either the
Facility Program or Policy and
Guideline documents.

The references listed in sections 2-6 of the Appendices provide additional information to assist and inform the design of the family centred facility.

In addition to addressing the family/ child-centred design

requirements of the Hub the facility will meet:

- a. Applicable codes and bylaws
- b. Current BC Community Care and Assisted Living Act, Child Care Licensing Regulation for a:
- licensed 12 space Group Care Under 36 Months Program
- licensed 25 space Group Care 30 Months to School Age Program
- licensed 20 space
   Preschool program
- •licensed 30 space School Age Program
- c. Local Community Care Facilities Licensing approval of the facility

#### **Building for Durability**

Other design considerations are durability, livability, security, ease of operation and maintenance of the facility. These will also inform the design, specifications and demands of workmanship. The selection of all materials and finishes and details will address the need for minimal maintenance, durability, health and ease of cleaning. Workmanship, material choices and design will together ensure that a ten year life expectancy of interior finishes, millwork, equipment and fixtures. While the quality of the finishing materials and detailing should endure, they also need to fit the context of a child care facility by providing a warm,

comfortable, inviting and childoriented environment that supports the developmental and daily needs of the children and the staff who work there.

The design goal is to provide a facility that has a look and feel that belies its hardiness and institutional character. The choice of materials and detail design of the facility needs to be of a high standard appropriate for such an intensively used facility. Heavyduty commercial or institutional standards should be applied. In some instances such as the dchild care programs quality residential appliances may be acceptable if they meet the City's performance criteria and if warranties are available for the intended use of the appliance.

Rough materials, sharp corners, uneven surfaces, and trip hazards will attract a very high level of scrutiny by Community Care Facilities Licensing once the building is completed. The goal of delivering a facility with licensable child care program spaces hinges on ensuring these issues do not present themselves at the end of construction.

As-built drawings, manuals, warrantees, guarantees and a separate and complete maintenance manual must be provided as part of the project close-out procedure. Refer to Appendix 6.1 for list and City of Richmond's City Owned Child Care Facility Policies and Guidelines, December 2016.



"To every child:

I dream of a world where you can laugh, dance, sing, learn, live in peace, and be happy."

-Malala Yousafzai

#### **Equipment & Furnishings List**

Activity Number	- Activity	Typical Equipment & Furnishings by Operator
	Level 1 Child and Child and Ch	ild and Family Development Program & ECD HUB ADMINISTRATION
1.3	Entry Lobby Waiting and Eleva- tor Lobby	• Rug 8' x 12' • Soft seating - 2 groupings of 5-6 people • coffee table
3.2	Reception	• Rug 6' x 8'
3.1	Lobby	Soft seating - 1 grouping of 4 people     Coffee table
3.14	Multi Purpose Children and Family Activity Room	
	Eating	• 1 - 48" x 30" table • 6 - 10" high chairs
	Soft Climbing Area	<ul> <li>Playtime island 6' x 6' area</li> <li>Soft tunnel set 6' x 6' area</li> <li>Crawl through tunnel 6' x 1'</li> <li>Soft house 2' x 3'</li> <li>Rainbow arch 37" x 15" x 18" H</li> <li>2 mats - 5' x 5'</li> <li>1 - Shelving unit 48" x 15" x 24"</li> </ul>
	Dramatic Play	<ul> <li>3 - 4 piece Kitchen Set</li> <li>36" x 12" x 24" H shelving unit</li> <li>Low table 28" x 18" x 14" H</li> <li>2 chairs 6" high</li> <li>Child sofa 34" x 18" x 20"</li> <li>Child armchair 23" x 18" x 20"</li> </ul>
	Art/Creative/Sappary	• 1-shelving unit 48" x 15" x 24" • 1- Art easel - 25" x 27" x 48" H • 1 - Water table - 27" x 24" x 20" H • 1 - Sand table - 27" x 24" x 20" H • 2 - Tables 48" x 30" • 6 - Chairs @ 8" high
	Puzzles/Manipulatives	• 2 - Shelving units 48" x 15" x 24" H • 2 - 30" x 30" tables • 2 - mats 5' x 5' • 6 - Chairs 8" high
	Blocks/Construction	• 1 - Shelving Unit 48" W x 15" D x 30" H • 1 - Construction Rug 6' x 8' • 1 - Storage shelving unit 30" x 15" D x 24" H

Activity Number	Activity	Typical Equipment & Furnishings by Operator
	Quiet Area	• 1 - Shelving Unit 36" W x 15" D x 24" H • 1 - Bookstand - 30" x 15" x 14" H • 1 - Rug 6' x 8' • 2 -2 Seater sofas • Cosy seating 48" x 18" x 20" H
	Meeting Rooms	
3.1	Meeting Room 1	36 stacking chairs     lecturn     screen     TV
3.11	Meeting Room 2	• 60" x 30" x 29" H table • 4 - stacking chairs
	Storage	• 2 - Table dollies • 2 - Chair dollies
	Administration	
3.5	Office	- 1 - Desk • 1 - Desk chair • 1 - 36" diameter table • 2 - side chairs • 1 3-drawer lateral file
3.6	Shared Office	3 workspaces with desk, chair and partitions     2 3-drawer lateral filing cabinets
3.7	Shared Office	3 workspaces with desk, chair and partitions     2 3-drawer lateral filing cabinets
3.8	Break Out Room	• 1 - 36"dia table • 2 - stacking chairs
3.9	Copier and Mail/Paper/Storage	Floor size copier Area for Shredding and other disposal containers (4' x 2') Postal machine on counter 2 - printers on counter 6 3-drawer lateral filing cabinets under workcounter
3.17	Storage	• 2 - Table dollies • 2 - Chair dollies
3.18	Staff Room	1 - 48" x 30" table     4 - stacking chairs     3 - seater couch     coffee/side tables

Activity Number	Activity	Typical Equipment & Furnishings by Operator
	Public Area and Administration	
3.3	Lobby	• 4 - Club chairs • Area rug
3.32	Parent Meeting Room	• 48" diamter table • 4 - chairs
3.33	Child Care Office	<ul> <li>2 - Office chairs</li> <li>1 - 36" table</li> <li>4 - chairs</li> <li>1 - 4 drawer lateral file cabinet</li> </ul>
3.35	Program Stroller Storage	• 2 - Quad strollers - 75" long x 24" W x 40" high
3.5	Infant Toddler Program	
3.52	Main Activity Area	
332	Eating	<ul> <li>2 - 30" x 48" rectangular</li> <li>2- Transition Chair with transition table (for infants)</li> <li>12 - 10" high Child Chairs</li> </ul>
A .	Art/Creative/Sensory	<ul> <li>1-Table - 30" x 48"</li> <li>1 - 24" x 24" x 36" Art drying rack (mobile rack to fit into millwork - dimensions to be confirmed)</li> <li>1 - Storage unit 36" w x 15" d x 24" h</li> <li>1 - Art easel 28" w x 25" d x 47" h</li> </ul>
	Manipulatives	• 1-30" x 36" table • 2-Storage units 48" w x 15" d x 24" h • 2-Activity Mats - 48" square
A	Creative	• 1 - Sand 26.5" w x 24" d • 1 - 1 Water table 26.5" w x 24" d • 1 - Light table 24" x 24" x 20" h
7	Dramatic Play	<ul> <li>1 - Toddler Kitchen set - 3-4 pieces includes stove, sink, fridge</li> <li>1 - Dramatic Play Table - 28" x 20" d x 16" h</li> <li>2 - Dramatic Play Chairs - 8" high</li> <li>1 - Dress up storage to hang dress up clothes 25.25" w x 13.75" d</li> <li>1 - Mirror - shatterproof wall mounted</li> <li>1 - Child's armchair 23" w x 18" d x 20" h</li> <li>1 - Child's sofa 34" w x 18" d x 20" h</li> <li>1 - Storage Unit 48" w x 12" d x 24" high</li> </ul>
3.52.3	Quiet Area/Reading	• 1 - Book Shelf - 20" h x 25" w x 11" d • 1 - Adult 2-seater love seat • 1 - Rug approx 4' x 6'
	Climbing, crawling, motor	<ul> <li>1 - Riser kit - Community playthings (starter kit and rectangle or soft gym climbing equipment needs about a 6' radius)</li> </ul>
122 2	Blocks	• 2 - Storage Unit 48" w x 15" d x 20" h • 1 - Rug 4' x 6'
	Staff Communications & Stora	ge• 1 - Desk chair

Activity Number	Activity	Typical Equipment & Furnishings by Operator
	Other	• 3 - Adult Chairs - 14" high • Notice boards
3.53	(Small) Nap Room 1	4 - Compact Folding Cribs 39.6" long x 26" high x 34.25" wide     Music Player (CD player)
3.54	(Large) Interactive Nap Room 2	12 - Cots 40" long x 22" wide x 7" high, or mats     Music player (CD player)
3.55	Large Nap Room 2 Storage	Cot carrier for 12 cots 52" long x 22" wide x 50" when stacked Large motor equipment 14 - Child Bins for child nap storage
3.56	Kitchen	Bottle warmer Coffee Maker Blender Electric Griddle Kettle Food processor Hand held blender Hand mixer Toaster Broom and Dustpan
3.57	Children's WC and Diapering	1 - Laundry hamper with lid     1 - Diaper garbage with lid     1 - Garbage container (one at side of child sink counter)     1 - Change table mat     14 - Diaper storage boxes for each child     2 - Potties (floor plan to allow potties to be on hand at all times)
3.59	Staff Office	<ul> <li>1 - Desk chair</li> <li>2 - Visitor chairs</li> <li>3 - Drawer lateral file</li> <li>4 - stacking chairs</li> <li>3 - seater couch</li> <li>coffee/side tables</li> <li>1 - 48" x 30" table</li> </ul>
	Covered Play (Extension of Activity Area)	Art easel 46" x 22.5"     Sand and Water 35" x 25" w x 17-22" h     Table 24" x 35" x 17" h
3.6	3-5 Group Program Licensed for 25 Children	
3.62	Main Activity Area	
	Eating	• 1 - Table 60" x 30" • 1 - Table 48" x 30"
	Art/Creative/Sensory	1 - Storage Unit 48" w x 15" d x 24" h 25 - Stacking children's chairs - 12" seat 1 - Art Drying Rack 24" w x 24" d x 43" h 1 - Paint Easel island 28" w x 25" d x 47" h 3 - Tables - 30" x 30"
	Sand/Texture	1 - 45" x 24" Sand/Texture Table     1 - Clear Water Table - 35" x 25" x 20" h
	Quiet Area and Reading	See Quiet Room

Activity Number	Activity	Typical Equipment & Furnishings by Operator
	Dramatic Play	<ul> <li>1 - Dramatic Play 28" diamter table and two chairs</li> <li>1 - Kitchen Set - 4-5 pieces with connecting counter 24" long</li> <li>1 - Children's armchair - 25" w x 20" d x 21" h</li> <li>1 - Children's sofa - 36" w x 20" d x 21" h</li> <li>1 - Rug 6' x 4'</li> <li>1 - Community Playthings Dress up unit, mirror or wardrobe</li> <li>1 - Shelving Unit - 48" w x 30" h x 12" d</li> </ul>
	Manipulative Toys	• 2 - Tables 30" x 30" • 1 - Shelving unit 48" x 30" x 12"
	Blocks	• 1 - Shelving Unit 48" W x 15" D x 30" H • 1 - Construction Rug 6' x 8' • 1 - Storage shelving unit 30" x 15" D x 24" H • 1 - Lego table 32" w x 27" d x 18" h
	Staff Communications & Storage	• 1 - Desk chair
	Other	• 4 - Stacking adult chairs - 16" seat • 6 - Stacking children chairs - 12" seat
3.62.2		<ul> <li>1 - Library Rack 37" w x 14" w x 31.5"</li> <li>1 - Adult sofa - 2 seater love seat</li> <li>1 - Rug 8' x 6'</li> <li>1 - Storage shelving unit - 48" x x 24" d x 24" h</li> </ul>
3.63	Gross Motor/Nap Room	• 25 - Cots 52" long - 22" wide x 7" high or mats • Gross motor activity gym toys
3.65		<ul> <li>1 - Garbage container - free standing beside counter</li> <li>1 - Laundry hamper under counter</li> </ul>
3.64	Gross Motor/Nap Room Storage	<ul> <li>2 - Cot carriers for 25 cots 52" long x 22" wide x 50" when stacked</li> <li>Large gross motor/indoor 'gym' equipment</li> </ul>
3.67	Staff Office	2 - Desk chairs     2 - Visitor chairs     3 - Drawer lateral file
3.38	Shared Kitchen	• 2 - Coffee Maker • 1 - Blender • 2 - Electric Griddles • 1 - Kettle • 1 - Food Processor • 1 - Handheld blender • 1 - Hand Mixer • 2 - Toasters • 1 - Broom and Dustpan
	Covered Play Area (Extension of ਮੀਗਾਂਗਾਂਨਾ ਮਾਦਕ)	• 1 - Art Easel 36" w x 24" h
3.7	Preschool/School Age License	d for 20/30 Children
3.72	Main Activity Area	
	Eating	• 1 - 30" x 30" table • 1 - Table 48" x 30"



Activity Number	Activity	Typical Equipment & Furnishings by Operator
	Art/Creative/Sensory	<ul> <li>1 - Storage Unit 48" w x 15" d x 24" h</li> <li>20 - Stacking children's chairs - 12" seat</li> <li>1 - Art-drying rack 24" w x 24" d x 43" h (mobile unit to fit into millwork)</li> <li>1 - Paint Easel island 28" w x 25" d x 47" h</li> <li>3 - Tables - 30" x 30"</li> </ul>
3.72.2	Quiet Area and Reading	• 1 - Library Rack 37" w x 14" w x 31.5" • 1 - Adult sofa - 2 seater love seat • 1 - Rug 8' x 6' • 1 - Storage shelving unit - 48" x x 12" d x 24" h
	Dramatic Play	1 - Dramatic Play Round table and two chairs 1 - Kitchen Set - 4-5 pieces with connecting counter 24" long 1 - Children's armchair - 25" w x 20" d x 20" h 1 - Children's sofa - 36" x 20" x 21" h 1 - Rug 6' x 4' 1 - Community Playthings Dresup unit, mirror or wardrobe 1 - Shelving Unit - 48" x 24" x 24" h
	Manipulative Toys	• 2 - Table 30" x 30" • 2 - Shelving Unit 48" x 30" 12" • Light table 42" x 24" x 24" h
	Blocks	• 1 - Shelving Unit 48" W x 15" D x 30" H • 1 - Construction Rug 6' x 8' • 1 - Storage shelving unit 30" x 15" D x 24" H • 1 - Lego table 32" w x 27" d x 18" h
	Other	• 2 Stacking adult chairs - 18" seat
	Staff Communications & Storage	• 1 - Desk chair
3.74	1	• 1 - Desk chair • 1 - 3 Drawer lateral file • 2 - Visitor Chairs
3.73		The School Age program furniture listed below will be moved into Activity Room and the PreSchool Program furniture will be moved into Storage when Storage/Age furniture is in use:  8 - Chairs 14" high  8 - Chairs - 16" high  4 - Folding tables 60" x 30"  3 - Folding tables 48" x 30"  4 - Storage units 48" x 15" x 36" h  3 - Storage units 48" x 12" x 36" h  1 - Outdoor storage unit 39" x 24" x 44" h  1 - Bookshelf 46" x 13" x 26" h  2 - 36" bean bag chairs  4 - cozy seating 18" x 24" x 24" h
	Covered Play (Extension of Activity Area)	• 1 - Art easel 46" x 22.5"
	Air Space Parcel Service Spac	es
	Garbage Area	240 Litre Garbage Containers - 27.5" deep x 24.5" wide x 43.25" high





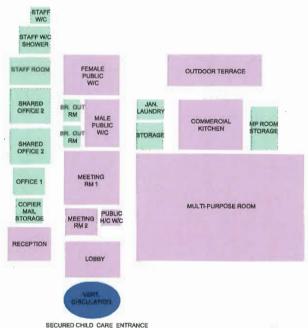


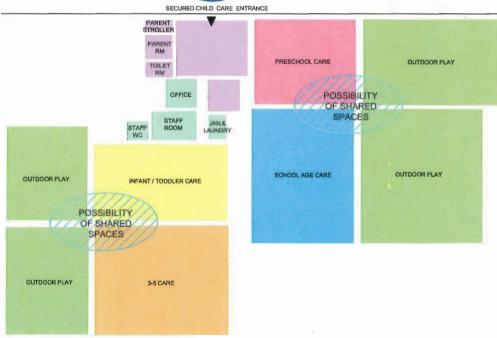




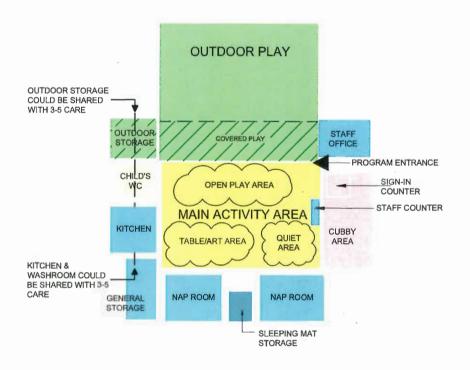


# **Adjacency Diagrams: Overall Program Areas**

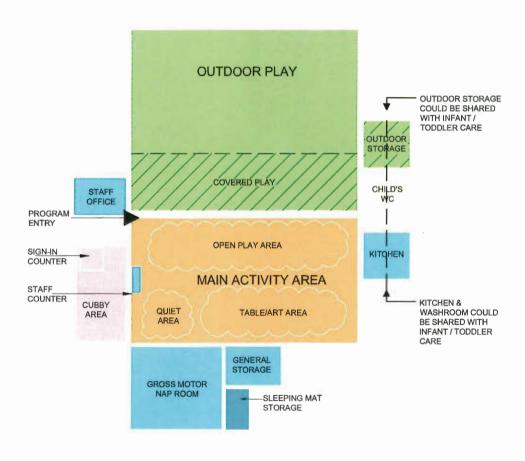




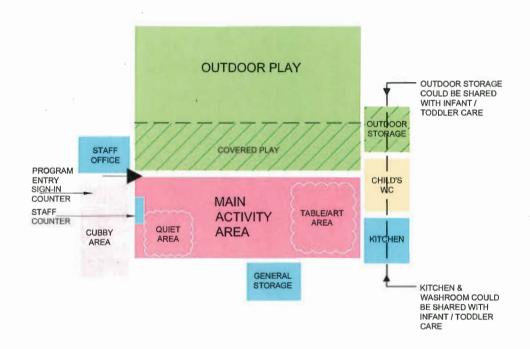
#### **Infant/Toddler Care Program**



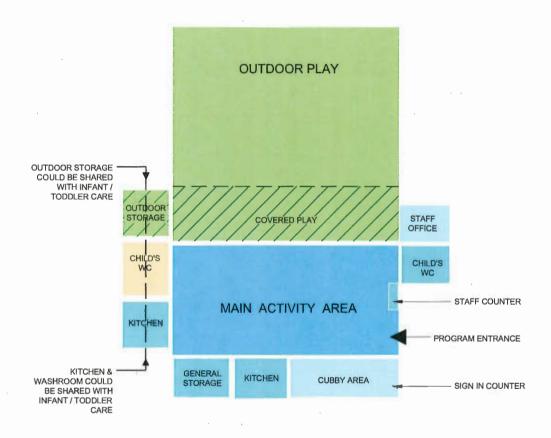
#### 3-5 Care Program



#### **Preschool Care Program**



#### **School Age Care Program**







#### **APPENDICES**

#### OTHER DESIGN GUIDELINES AND RESOURCES:

- 1. Vancouver Coastal Health Design Resource Guide for Child Care Facilities http://www.vch.ca/Documents/Design-resource-for-Child-care-facilities.pdf
- 2. Director of Licensing Standards of Practice Safe Play Space Space https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/child-day-care/safe\_play\_space.pdf
- 3. City of Richmond Policies and Guidelines for the Development of City-owned Child Care Facilities: https://www.richmond.ca/\_shared/assets/PoliciesandProceduresforCity-ownedchildcarefacilities45413.pdf
- 4. City of Richmond Child Care Design Guidelines: https://www.richmond.ca/\_shared/assets/designguidelines43266.pdf
- 5. City of Richmond Building Equipment, Monitoring, and Integration Requirements

#### OTHER USEFUL CHILD CARE DESIGN RESOURCES:

1. Children Height Requirements:

When children are the principal users in a building or facility (e.g., elementary schools), a second set of handrails at an appropriate height can assist them and aid in preventing accidents. A maximum height of 28 inches (710 mm) measured to the top of the gripping surface from the ramp surface or stair nosing is recommended for handrails designed for children. Sufficient vertical clearance between upper and lower handrails, 9 inches (230 mm) minimum, should be provided to help prevent entrapment.

https://inlinedesign.us/handrail-height-requirements-ada





#### **APPENDICES**

#### 1. PROJECT DOCUMENTATION REQUIREMENTS

As-built drawings, manuals, warrantees, guarantees and a separate and complete maintenance manual must be provided as part of the project close-out procedure. Refer to City of Richmond's City Owned Child Care Facility Policies and Guidelines, December 2016.

In brief the following information will be required and should be part of the project's procurement documentation:

- a. Operations & Maintenance (0 & M) Manuals 2 hard copies, 1 digital copy either usb stick, or downloadable;
- b. As-built Drawings 2 hard copies, 1 digital copy same as above;
- c. Warranties to be included with Operations & Maintenance Manuals;
- d. Asset Labelling all mechanical units, electrical panels require labels, detail to be provided
- e. Spare Materials the following spare materials to be provided, amounts to be confirmed:
  - Carpet Tile
  - Paint
  - Sheet Flooring
  - Protective wall covering

### 1. DESIGN CONSIDERATIONS CHECKLIST

The following checklist is an extract from the Vancouver Coastal Health Design Resource for Child Care Facilities Appendix V - Page 24-7 and is provided for information. In some instances the VCH Guidelines differ from those of the City of Richmond. The City of Richmond's requirements take precedence.

# GENERAL CONSIDERATIONS INDOORS:

#### **Natural Light**

 all primary indoor activity spaces have a direct source of natural light equal to a minimum of 10% of the wall space

#### Windows

- child-accessible opening windows must be limited to a maximum opening of 4 in. for low-level windows, (i.e. sill less than 18 in. above floor) use tempered or laminated glass where impact with a window may
- if the window opens into a walkway or play area, provide either a sliding window or restrict window swing out to avoid creating a safety hazard outside
- window covering cords must be out of the reach of children
- all opening windows should be screened
- exterior windows should be at a height that children can see out of

#### Lighting

- provide a minimum lighting level of:
- 30 ft. candles (320 lux) in nap rooms, quiet rooms, and infant activity room
- 40 ft. candles (420 lux) in the 3-5, toddler, and school age activity rooms
- 50 ft. candles (540 lux) in the kitchen and washrooms
- each room has its own light switch/ controls provide two banks of lights on separate switches/controls in activity rooms provide dimmers in quiet rooms and gross motor/nap rooms
- diaper-changing areas must have glare shielding for overhead fixtures
- all fixtures to be properly shielded or use shatterproof bulbs

#### Floor Covering

- floor coverings in kitchens, washrooms, laundry, janitorial closets, and art areas must be smooth, non-absorbent, and washable
- other activity areas should have smooth, non-absorbent, and washable flooring
- nap rooms and quiet rooms should be carpeted
- all edges and base boards must be sealed

#### Heat

- where electric or hot water heat is being used, provide an individual thermostat in each activity room and sleep/gross motor room
- ensure the heating system does not limit the functional use of the space
- all baseboard heaters and radiators must be shielded to prevent child access to sharp edges and/or to hot surfaces

#### **Electrical Outlets**

• child-accessible electrical outlets must be childproof

#### Ventilation

- ensure all rooms are adequately ventilated to remove odours, especially from diapering, laundry, maintenance, and washroom areas
- avoid locating air intakes near sources of fumes (e.g. laneways) or dust
   (e.g. ducting low to the ground)

Counters, Ledges, Shelves and Cabinets

- round off all corners and edges
- all tall cabinets (> 4 ft.) must be secured to prevent tipping

## **APPENDICES**

#### **Telephone Jacks**

• provide a minimum of one jack in each activity room, kitchen, and staff office

#### Doors/Gates

- provide piano hinges on all gates
- ensure doors/gates can be secured in the open position
- provide a locking mechanism on all sliding doors in both the open and closed position (to prevent fingers/ toes being pinched)

#### **ACTIVITY AREAS:**

#### **Activity Rooms**

- provide at adult height, a stainless steel art/clean up sink with a riser tap
- provide a minimum of 3 ft. of counter space adjacent to the sink, with cupboards above and below
- a sediment trap is recommended

Gross Motor/Sleep Rooms (3-5 years of age and Toddlers)

- provide enclosed area for mat storage sufficient for licensed capacity (e.g. a sliding door cabinet)
- mats/cots may be stacked for storage
- provide individual storage for blankets and stuffies

- provide storage for extra clean sheets and blankets
- floor area must allow sufficient space between mats so that staff can move/sit comfortably between mats

Infant/Toddler Sleep Rooms

- provide two sleep rooms for infants to accommodate a total of twelve cribs/mats
- allow 2 ft. between each crib/mat. except where adjacent to a wall or partition a provide storage for extra clean sheets and blankets
- provide a baby monitor

#### **SUPPORT AREAS:**

#### Preschool Washrooms (for 25 children — 3-5 years of age)

- provide a diaper and/or soiled clothing change area with readily access water a provide three toilets sealed to the floor
- provide closed front toilet seats
- provide privacy for one toilet (e.g. using a low partition and 1/2 door)
- provide three hand basins, a maximum 2 ft. high with the bowl placed as close to the front of the vanity as possible and with lever faucets

- hand sink's maximum hot water temperature must not exceed 49°C (120°F)
- provide mirrors over the hand basins a provide back splash at all sinks
- provide location for child-accessible soap dispensers
- provide two paper towel dispensers at child height (ensure location and/or type does not pose risk of head injury) or provide alternate child-accessible storage for paper or cloth towels
- provide a toilet roll holder adjacent to each toilet at child height
- provide shelves at adult height for storage of toothbrushes and other supplies (toothbrushes must not touch each other)

NOTE: If adult-sized toilets are used the bowl should be round and a suitable child-sized seat insert available. A 6 in. step should be provided in front of the toilet.

# Infant/Toddler Washrooms (for 12 children — under 3 years of age)

- provide two 10 in. toilets sealed to the floor
- provide closed front toilet seats
- provide a toilet roll holder adjacent to each toilet placed at child height
- provide two hand basins, a maximum of 18 in. high with the bowl placed as close to the front of the vanity as possible and with lever faucets
- provide location for child-accessible soap dispensers
- hand sink's maximum hot water temperature must not exceed 49°C (120°F)
- provide 1 change counter with cove tops, 3 ft. (length) x 2 ft. (width) x 3 ft. (height) NOTE: If only infants are being cared for provide 2 change counters.
- provide one stainless steel sink
- provide 1 ft. deep open shelves 2 ft. above the change counters
- provide a rack above the sink for storage of sanitizers, etc.
- provide a mirror above the hand basin
- provide a back splash at all sinks

- provide a full length, high quality mirror behind the change counter
- provide a paper towel dispenser in the vicinity of the change sink (ensure the location does not pose a risk of injuring a child while being changed or limit the use of the change counter)
- provide enough open space for two potties
- provide shelves for storage of toothbrushes and other suplies (toothbrushes must not touch each other)
- provide steps for children to access the change table
- provide space for diaper buckets

#### Staff Washrooms

- provide a change counter, wide sink, and storage shelf if no other diaper change counter is provided in the centre
- provide a towel and soap dispenser a provide a back splash at the sink

#### **Staff Offices**

- provide storage shelves/cupboards
- provide space for a lockable filing cabinet a place interior windows to ensure maximum visibility of activity space

#### **Staff Rooms**

 provide individual storage for staff belongings

# Janitorial Closets (may be combined with the laundry area)

- ensure adequate space to store mops, brooms, ladder, cleaning chemicals, and personal safety equipment
- place janitorial sink at floor level; equip the sink with an approved backflow preventer valve
- provide storage shelves
- provide an inside releasing-locking mechanism for securing the door

#### **Laundry Areas**

- provide a washer and dryer durable enough for the number of children enrolled and the volume of laundry
- provide an area for folding clothes
- provide separate storage areas for both soiled and clean laundry
- recommend two washers/dryers when capacity exceeds 37 children

#### **Cubbies**

 provide a sufficient number for the licensed capacity and an extra 20% for part-time children

# **APPENDICES**

#### Storage

 provide adequate storage space for supplies and equipment, both inside and outside

#### **Building Security**

- all gates to be equipped with childproof latches
- provide storage for centre strollers and 3 parent strollers, car seats, etc.
- utilize an appropriate entry security system (e.g. bell, buzzer, intercom, etc. which will operate during program hours)
- ensure all fire alarms, building alarms, speakers, etc. can be heard in the outdoor play space

#### Kitchen

- provide at least 100 sq. ft. (9.3 sq. m.) of floor space. When the capacity exceeds 25 children and a kitchen is to be shared, provide an additional 3 sq. ft. per licensed space
- walls and ceiling surfaces to be non-absorbent, smooth, crack-free, and easily washable
- provide a two-compartment sink plus dishwashing machine which operates with a sani-cycle. If the licensed capacity exceeds 25 children, a commercial dishwasher might be more practical.
- provide a paper towel dispenser and a soap dispenser by the two-compartment sink and hand sink
- provide one refrigerator per program that is equipped with a thermometer

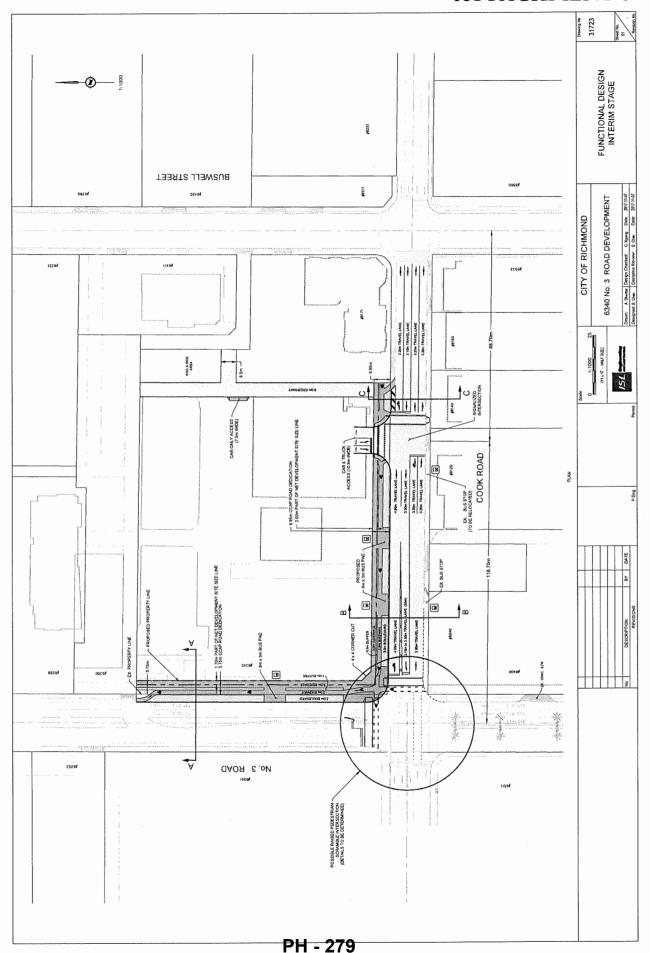
- provide a microwave oven and a domestic stove. A stove canopy exhausting to the outside is required.
- overhead counters should not obstruct views of the activity areas, etc.
- in a multi-program facility, in addition to the main kitchen, provide a small kitchen (approx. 40 sq. ft.) in the infant room to accommodate a full fridge, microwave, and single sink

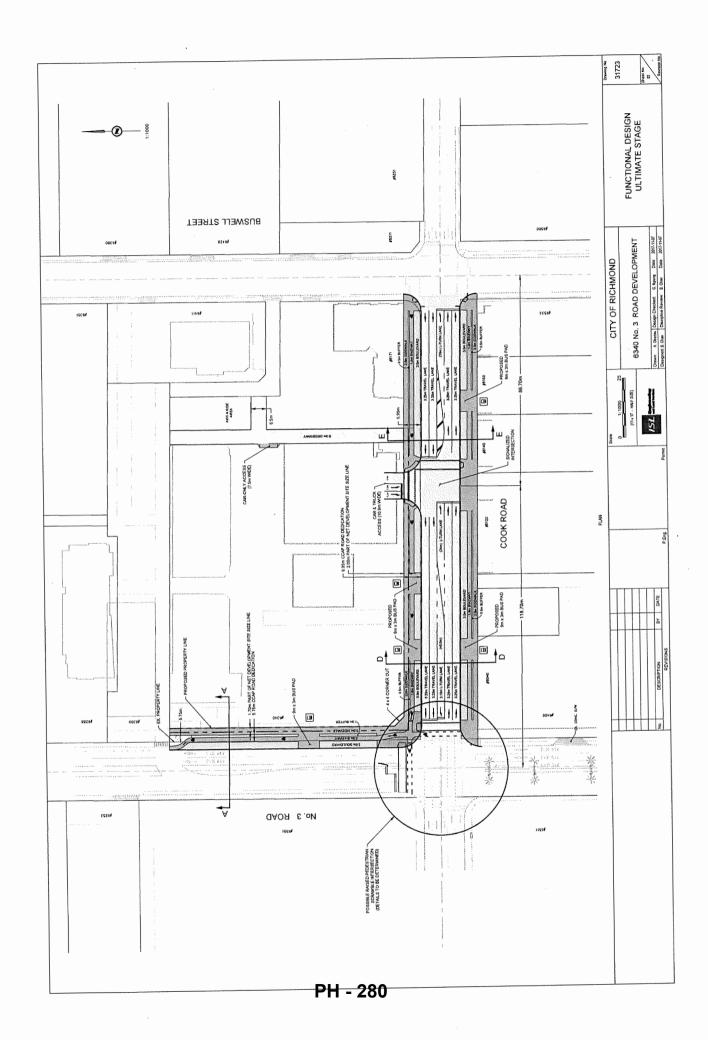
NOTE: If a food permit is required, there may be additional requirements for the kitchen (e.g. additional hand sink, commercial dishwasher, stove hood).

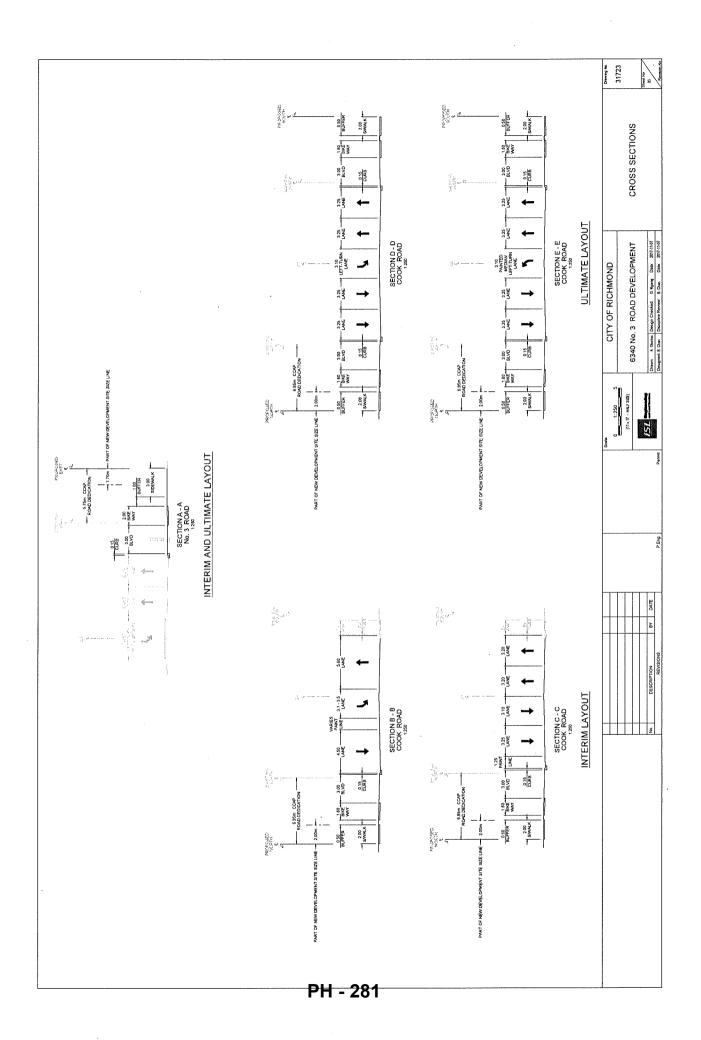


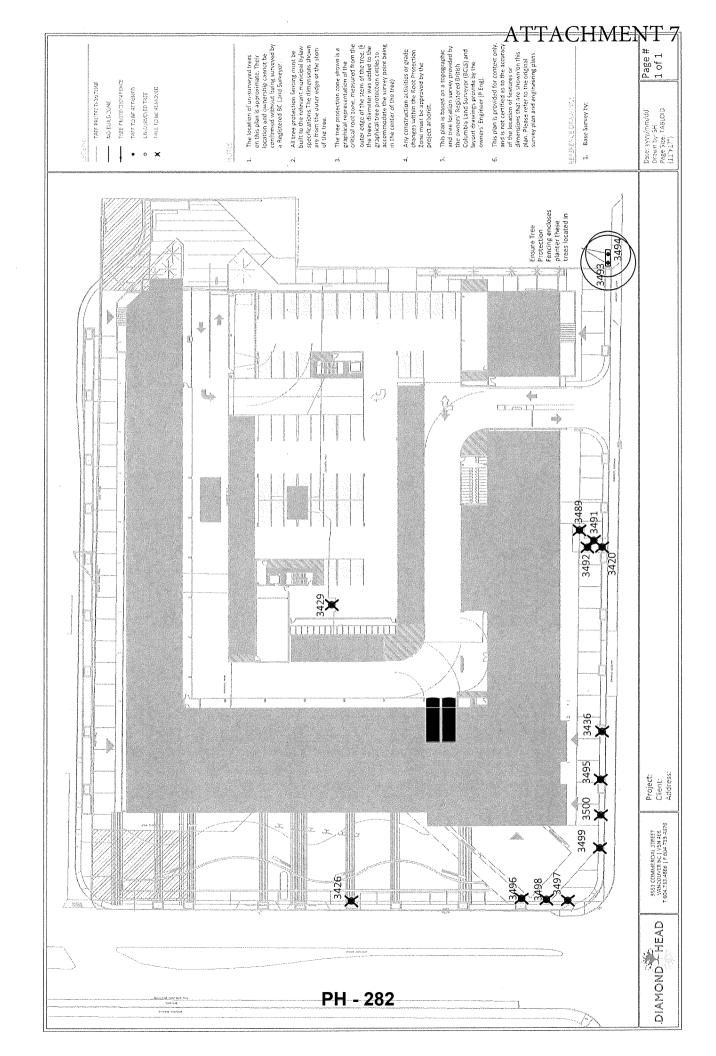
Prepared by: HDR | CEI Architecture Associates, Inc. 500 - 1500 West Georgia Street Vancouver, BC V6G 2Z6 604.687.1898

### ATTACHMENT 6











### Richmond Zoning Bylaw 8500 Amendment Bylaw 9859 (RZ 17-773703) 6340 No. 3 Road

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

- 1. Richmond Zoning Bylaw 8500 is amended by inserting the following into Section 20 (Site Specific Mixed Use Zones), in numerical order:
  - "20.37 High Density Mixed Use and ECD Hub (ZMU37) Brighouse Village (City Centre)

### 20.37.1 Purpose

The **zone** provides for a broad range of **commercial**, **office**, service, institutional, entertainment and residential **uses** typical of the **City Centre**. Additional **density** is provided to achieve, amongst other things, **City** objectives related to the **development** of **affordable housing units**, **office uses** and **community amenities**, including an Early Childhood Development Hub.

#### 20.37.2 Permitted Uses

- amenity space, community
- animal day care
- animal grooming
- broadcasting studio
- child care
- education
- education, commercial
- education, university
- emergency service
- entertainment, spectator
- government service
- health service, minor
- housing, apartment
- library and exhibit
- liquor primary establishment
- manufacturing, custom indoor

- microbrewery, winery and distillery
- neighbourhood public house
- office
- private club
- recreation, indoor
- religious assembly
- restaurant
- retail, convenience
- retail, general
- retail, second hand
- service, business support
- service, financial
- service, household repair
- service, personal
- studio
- veterinary service

#### 20.37.3 Secondary Uses

- boarding and lodging
- home business
- home-based business

#### 20.37.4 Additional Uses

district energy utility

### 20.37.5 Permitted Density

- 1. For the purposes of this **zone**, the calculation of **floor area ratio** is based on a net **development site** area of 13,424.8 sq. m.
- 2. The maximum **floor area ratio** is "2.0" together with an additional:
  - a) "0.1" **floor area ratio** provided that the additional **floor area** is used entirely to accommodate indoor **amenity space.**
- 3. Notwithstanding Section 20.37.5.2, the reference to "2.0" is increased to a higher **floor area ratio** of "4.007" if the **owner**:
  - a) provides 27 **affordable housing units** on the **site** and the combined **habitable space** of the **affordable housing units** is not less than 5% of the total residential **floor area**:
  - b) enters into a **housing agreement** with respect to the **affordable housing units** and registers the **housing agreement** against title to the **lot** and files a notice in the Land Title Office:
  - c) uses a minimum of "1.0" of the additional **floor area ratio** for non-residential **uses** only;
  - d) uses a minimum of "0.007" of the additional **floor area ratio** for **child care** and community services **uses** only;
  - e) grants to the City:
    - i) at least 1% of the value of the total residential **floor area ratio** less the value of the **affordable housing unit floor area ratio**, or 377 sq. m., whichever is greater, toward an 1,765 sq. m. "Early Childhood Education Hub" **community amenity space**;
    - ii) at least 0.05 floor area ratio, or 671 sq. m., whichever is greater, toward an 1,765 sq. m. "Early Childhood Education Hub" community amenity space; and
    - iii) no less than 717 sq. m. toward an 1,765 sq. m. "Early Childhood Education Hub" **community amenity space**,

the whole of which shall be designed and constructed to the satisfaction of the **City** and provided to the **City** in the form of an **air space parcel** prior to occupancy of the **development**.

4. Notwithstanding Section 4.5.1, the following items are not included in the calculation of maximum **floor area ratio**:

- a) common mechanical, heating, ventilation, air conditioning, electrical, telephone and similar type service rooms not co-located with an **enclosed parking** area and not intended as **habitable space**;
- b) unenclosed, above grade, covered **open space** provided for the use of **child care** facility outdoor activities, including deep roof overhang and standalone roof areas, to a maximum of 30% of the combined covered and uncovered **open space** area; and
- c) unenclosed, above grade, covered common **open space** provided for the use of **building** tenants and **building** residents outdoor activity, including deep roof overhang and standalone roof areas, to a maximum of 15% of the combined covered and uncovered common **open space** area.

### 20.37.6 Permitted Lot Coverage

1. The maximum **lot coverage** is 90% for **buildings**.

#### 20.37.7 Yards & Setbacks

- 1. Minimum setbacks shall be:
  - a) from a **road**, measured to the **lot line**, 6.0 m., except that a **road setback** may be reduced to:
    - i) 4.0 m., in the case of No. 3 Road, for portions of a **building** above **finished site grade**, as specified in a Development Permit approved by the **City**;
    - ii) 3.0 m., in the case of Cook Road, for portions of a **building** above **finished site grade**, as specified in a Development Permit approved by the **City**: and
    - iii) 0.0 m. for portions of a **building** below **finished site grade**, as specified in a Development Permit approved by the **City**;
  - b) from a **side lot line**, measured to the **lot line**, 5.5 m, except that a **side lot line setback** may be reduced to:
    - i) 4.0 m., for portions of a **building** above **finished site grade**, as specified in a Development Permit approved by the City; and
    - ii) 0.0 m., for portions of a **building** below **finished site grade**, as specified in a Development Permit approved by the City; and
  - c) from a **rear lot line**, measured to the **lot line**, 7.5 m, except that a **rear lot line setback** may be reduced to:
    - i) 6.0 m., for portions of a **building** above **finished site grade**, as specified in a Development Permit approved by the City; and
    - ii) 0.0 m., for portions of a **building** below **finished site grade**, as specified in a Development Permit approved by the City.
- 2. Notwithstanding Section 20.37.7.1, minimum **setbacks** for parts of a **building** directly adjacent to **City** land or land secured for public use via **right-of-way**, measured to a **lot line** or the boundary of the **right-of-way**, shall be:

- a) where a door provides **access**, 1.5 m or the depth of the door swing, whichever is greater.
- 3. Notwithstanding Sections 4.11 and 4.12, projections into setbacks for architectural features, cantilevered roofs, balconies, awnings, sunshades, canopies, privacy screens or similar building elements located 3.0 m or more above finished site grade may be increased, subject to the depth of the associated setback, to a maximum of:
  - a) for **road setbacks**, 2.5 m., as specified in a Development Permit approved by the **City**;
  - b) for **side lot line** and **rear lot line setbacks**, 2.0 m., as specified in a Development Permit approved by the **City**.

#### 20.37.8 Permitted Heights

- 1. The maximum **building height** for **principal buildings** is 47.0 m. geodetic.
- 2. The maximum **building height** for **accessory structures** is 12.0 m.

#### 20.37.9 Subdivision Provisions/Minimum Lot Size

1. The minimum **lot area** is 12,600 sq. m.

#### 20.37.10 Landscaping & Screening

 Landscaping and screening shall be provided according to the provisions of Section 6.0.

#### 20.37.11 On-Site Parking and Loading

- 1. On-site bicycle and **vehicle** parking and loading shall be provided according to the standards set out in Section 7.0.
- 2. Notwithstanding Section 20.37.11.1, the minimum number of required bicycle **parking spaces** shall be:
  - a) for Class 1, for the combined **child care** and community services **uses**, 15 spaces;
  - b) for Class 2, for general retail, convenience retail, restaurant, office, child care, community services and other non-residential uses, calculated as 0.1 spaces per 100.0 sq. m. of floor area; and
  - c) for Class 2, for residential **uses**, calculated as 0.1 spaces per **dwelling unit**.
- 3. Notwithstanding Section 20.37.11.1, the minimum number of **vehicle parking spaces** for the combined **child care** and community services **uses** shall be:

- a) for the child care staff, 11 parking spaces;
- b) for the child care drop-off/pick-up, 9 parking spaces;
- c) for the community services staff, 11 parking spaces; and
- d) for the community services clients, 10 parking spaces.
- 4. Notwithstanding Section 20.37.11.1, the minimum number of **vehicle parking spaces** required for after-hours community use of the ECD Hub facility shall be 8 **parking spaces** and the **parking spaces** may be provided within the shared non-residential/visitor parking area.
- 5. Notwithstanding Section 20.37.11.1, the **vehicle parking spaces** for **child care** pick-up/drop-off shall be no smaller than 2.65 m. wide by 5.5 m. long.
- 6. Notwithstanding Section 20.37.11.1, the minimum number of truck **loading spaces** is:
  - a) no large size truck **loading spaces** for non-residential **uses** and residential **uses**:
  - b) 6.0 medium size truck **loading spaces** shared between all non-residential and residential **uses**; and
  - c) 1.0 small size van **loading space** with associated marshalling area, to be no less than 5.0 m. wide x 11.0 m. long, for the exclusive and shared use of the **child care** and community services **uses**.

#### 20.37.12 Other Regulations

- 1. Signage must comply with the City of Richmond's *Sign Bylaw 5560*, as it applies to **development** in the Downtown Commercial (CDT1) **zone**.
- 2. **Telecommunication antenna** must be located a minimum 20.0 m above the ground (i.e., on a roof of a **building**).
- 3. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and the Specific Use Regulations in Section 5.0 apply."
- 2. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following parcel and by designating it HIGH DENSITY MIXED USE AND ECD HUB (ZMU37) BRIGHOUSE VILLAGE (CITY CENTRE):
  - P.I.D. 000-586-919 LOT 169 SECTION 9 BLOCK 4 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN 41547

- 3. That the Mayor and Clerk are hereby authorized to execute any documents necessary to discharge "Land Use Contract 062" ("Techram Securities Ltd. Land Use Contract Bylaw No. 3366, 1977" (RD50359)) from the following area:
  - P.I.D. 000-586-919 LOT 169 SECTION 9 BLOCK 4 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN 41547

4. This Bylaw may be cited as "Richmond Zoning Bylaw 8500, Amendment Bylaw 9859".

FIRST READING	JUN 1 1 2018	CITY OF RICHMOND
PUBLIC HEARING		APPROVED by
SECOND READING		APPROVED by Director or Solicitor
THIRD READING		_ JA
OTHER CONDITIONS SATISFIED		
ADOPTED		· .
MAYOR	CORPORATE OFFICE	