

---

**CITY OF VANCOUVER  
DEVELOPMENT SERVICES, BUILDINGS &  
LICENSING**

**DEVELOPMENT PERMIT STAFF COMMITTEE  
MEETING  
October 3, 2018**

**FOR THE DEVELOPMENT PERMIT BOARD  
October 29, 2018**

---

**688 West 41<sup>st</sup> Avenue (Complete Application)  
DP-2018-00633 – CD-1 (1)**

**PO'S/SV/LEB/DL**

---

**DEVELOPMENT PERMIT STAFF COMMITTEE MEMBERS**

**Present:**

J. Greer (Chair), Development Services  
A. Cheng, Engineering Services  
D. Shearer, Park Board  
D. Naundorf, Social Policy

**Also Present:**

P. O'Sullivan, Urban Design & Development Planning  
D. Lee, Development Services  
S. Vishwakarma, Development Services  
L. Beaulieu, Landscape  
J. McAuley, Park Board  
T. Lam, Affordable Housing  
M. Thicke, Facilities Planning & Development

---

**APPLICANT:**

Henriquez Partners Architects  
598 West Georgia Street  
Vancouver, BC  
V6B 2A3

**PROPERTY OWNER:**

7503059 Canada Inc.  
800 Park Place  
666 Burrard Street  
Vancouver, BC  
V6C 2X8

---

**EXECUTIVE SUMMARY**

- **Proposal:** To develop a mixed-use building comprised of one 32-storey tower (Building 3) and one 42-storey tower (Building 4) containing a total of 504 Dwelling Units; atop one podium containing Retail/Office Uses (Levels P1 - 6); all over three levels of underground parking, and a portion of the future 9-acre Park.

\*The Preliminary Development Permit (PDP) application pertaining to the entire site referred to as "**650 West 41<sup>st</sup> Avenue (Oakridge Centre)**" at the time of original Rezoning application; as approved by Council at Public Hearing on March 14, 2014, has now been approved by the Development Permit Board on July 23, 2018. The approval of the PDP formally reconciled differences from the original 2014 Rezoning application and establishes an updated baseline for several key aspects of the Oakridge Centre redevelopment including, but not limited to, overall height, density, form and massing, anticipated uses as per the CD-1 By-law, the proposed Park Concept Plan, provision and distribution of social housing, market rental, and market housing units, and the delivery of a Civic Centre, all to the satisfaction of the Director of Planning, General Manager of Engineering Services, General Manager of the Vancouver Board of Parks and Recreation, General Manager of Real Estate and Facilities Management, General Manager of Arts, Culture and Community Services, and the Director of Legal Services.

---

This is the first (of eight anticipated) formal Development Permit application(s) following the approval of the PDP, and while the specifics of this particular application can be reviewed on their own merit, much of what is being proposed requires staff to revisit what was contemplated through the PDP process.

It is anticipated that this Development Permit application, as well as every subsequent Development Permit application will need to actively address the ongoing design challenges and concerns raised through conditions in the PDP. It shall be recognized that as the redevelopment of Oakridge progresses through the permitting process, the need to promptly address each and every one of the PDP conditions of approval; in addition to the conditions contained within this report, is critical to not only provide staff with a reasonable amount of time for review, but also to maintain the ambitious momentum for a project of this scale and complexity. It should also be noted that many of the comprehensive reports, analyses, and plans requested through conditions in this report and the PDP seek site-wide strategies and require a significant level of detail which may not be available in earlier Development Permit applications given the design, and development of this information is continually evolving. In some instances, provision of these items at a conceptual level may be acceptable.

A large number of conditions provided as part of the PDP remain relevant and were included with the intention of allowing for continued exploration and resolution through a coordinated effort between staff and the applicant team. It is expected that many of these conditions will require renewed analysis upon each successive application and where appropriate, have been repeated in this report; identified in *italics* and prefaced with "[Repeat PDP Condition x.x.]". In some cases, conditions which have been revised and/or updated are expanded upon under the respective group/department it originated from; separately identified in underline and prefaced with "[New]".

See **Appendix A** Standard Conditions

**Appendix B** Standard Notes and Conditions of Development Permit

**Appendix C** Plans and Elevations <https://development.vancouver.ca/688w41st/index.htm>

**Appendix D** Applicant's Design Rationale

**Appendix E** Oakridge Design Guidelines

<https://council.vancouver.ca/20180919/documents/Urgent2-Guidelines.pdf>

**Appendix F** Park Concept Plan <http://vancouver.ca/files/cov/oakridge-information-displays-may-2018.pdf>

**Appendix G** Proposed Sub-Areas Plan

**Appendix H** Building Number Reference Plan

**Appendix I** Preliminary Development Permit – Approved Prior-To Letter

● **Issues:**

1. Improve ground-oriented commercial/retail frontages;
2. Expression of the glazing skin; and
3. Submission of documents requested at the PDP stage pertaining to the overall Oakridge redevelopment.

● **Urban Design Panel: Support with Recommendations**

**DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATION: APPROVE**

THAT the Board APPROVE Development Application No. **DP-2018-00633** submitted, the plans and information forming a part thereof, thereby permitting the development of a mixed-use building comprised of one 32-storey tower (Building 3) and one 42-storey tower (Building 4) containing a total of 504 Dwelling Units; atop one podium containing Retail/Office Uses (Levels P1 - 6); all over three levels of underground parking, and a portion of the future 9-acre Park, subject to the following conditions:

**1.0 Prior to the issuance of the development permit, revised drawings and information shall be submitted to the satisfaction of the Director of Planning, clearly indicating:**

**1.1** design development to improve the ground-oriented commercial/retail frontages and storefronts through performing the following:

- i. reduction of lobby widths on West 41<sup>st</sup> Avenue in order to broaden retail frontage;
- ii. prioritize transparency at the street level to allow for visibility into retail spaces ensuring variety and pedestrian interest in the expression of tenant frontages; and

**Note to Applicant:** Intent is to reiterate PDP Condition 1.7.(i). Storefront glazing and display systems must preserve clear lines of sight and avoid obstructions or excessive use of glazing film.

- iii. consideration for provision of an entry to the retail (proposed department store) from West 41<sup>st</sup> Avenue between gridlines BU and BY.

**Note to Applicant:** Prominent retail frontages should be permeable and inviting from the street with a clearly defined entry. The proposal indicates only two retail entries on the West 41<sup>st</sup> Avenue frontage of the entire Oakridge development. Increased retail presence and activation would be preferred. The prominent lifting wave gesture of the building skin at this location serves as an effective signifier of the proposed department store and would be an appropriate location for an entry. Staff are mindful of the significant drop in elevation from sidewalk level to interior floor level of the proposed department store at this location and the obstacle to pedestrian flow this grade change would present. As a result, this is a consideration condition, not a requirement.

**1.2** design development to increase porosity of the park-facing retail storefront by significantly increasing the size and/or number of entries to better facilitate spill-out uses;

**Note to Applicant:** Consider larger openings utilizing sliding or folding doors to create indoor/outdoor spaces that can take advantage of the good solar exposure of this location on the site.

**1.3** design development to maintain the high quality materials indicated (including the canopy, draping wave forms of glazing, SSG curtain wall, photovoltaics at the roof level, triple glazing, GFRC balcony pods, concealed gutters), and to maintain the level of detailing implied and necessary to accomplish and construct the proposed design aesthetic with exceptional detailing;

**Note to Applicant:** Intent is to follow through on PDP Condition 1.9. See also Standard Cultural Services condition A.1.70.

- 1.4 design development to express the glazed "skin" as a continuous surface over the elevations of the towers and podium and to reduce the prominence of the horizontal banding at the spandrel levels;

**Note to Applicant:** This condition aims to achieve an exterior expression that is consistent with both the veil design intent as described in the application's design rationale and the project renderings that convey the building envelope as an uninterrupted homogenous wrapped skin. The horizontal banding at the spandrel levels currently proposed in the building envelope details of the application would detract from the intended expression. The condition can be satisfied by revising the typical spandrel detail to indicate clear glass in plane with vision panels and maximizing the depth of the spandrel cavity behind the clear glass. This should have the effect of de-emphasizing the spandrel bands on the elevations and prioritizing a consistent wrapped surface of clear glass that flows over the tower and podium. See also Standard Cultural Services condition A.1.70.

- 1.5 [Repeat PDP Condition A.2.1] *provision of a completed groundwater management strategy to the satisfaction of the General Manager of Engineering Services to address the following:*

- i. *for during construction, describe proposed groundwater extraction rates, any proposed infrastructure refurbishments, and a groundwater disposal strategy;*
- ii. *for post construction, describe any proposed groundwater extraction rates, a groundwater reuse strategy and identify opportunities to offset potable water demand; and*
- iii. *demonstrate that the groundwater practices during and post construction do not adversely impact the surrounding neighbourhood, aquifer or infrastructure.*

**Note to Applicant:** A "No Development" Section 219 Covenant has been registered on title of the Oakridge development, to be discharged at such time upon the owner providing the completed strategy and entering into legal agreements as determined necessary by the General Manager of Engineering Services and the Director of Legal Services. Groundwater shall be managed as required by the Vancouver Building By-law, Sewer and Watercourse By-law, and applicable provincial and federal regulations.

- 1.6 [Repeat PDP Condition 1.1] *prior to issuance of the first Development Permit and each subsequent Development Permit, provision of the following to the satisfaction of the Director of Planning, General Manager of the Vancouver Board of Parks and Recreation, and General Manager of Engineering Services:*

- i. *reconciliation of all technical statistics, including confirmation of existing floor area, related exclusions, setbacks, height, parking and loading, to ensure clarity with respect to the development capacity permitted under the CD-1 and anticipated compliance for individual phases;*

**[New] Note to Applicant:** See also Standard Engineering Services condition A.2.35.

- ii. *confirmation of park boundary extents and total park area calculation for approval by General Manager of the Vancouver Board of Parks and Recreation;*

[New] **Note to Applicant:** For all development permit applications, the park boundary shall be shown on an overall park plan and on all landscape drawings at a minimum scale of 1/8" = 1'-0". See also Standard Park Board conditions A.1.46 and A.1.48.

iii. a phased "Construction Management Plan" outlining and including the following:

- a. methods for the retention of existing landscapes and trees during construction.

**Note to Applicant:** The Plan should be coordinated with the Tree Management Plan, and should include, but not be limited to, the location of construction materials, temporary structures, utilities, site access, development phasing and temporary irrigation.

- b. [New] scope of work related to Buildings 3 and 4 and phasing strategy for early Site Works and future phases including, but not limited to the following:

- i. location of construction materials;
- ii. temporary structures;
- iii. utilities;
- iv. site access;
- v. development phasing; and
- vi. temporary irrigation.

- c. [New] an updated arborist report; and

- d. [New] coordinated and accurate excavated area plan(s) across the site including labels indicating clear boundaries and reasons for excavation.

[New] **Note to Applicant:** Tree Plan and any related construction management information should be submitted at same sheet size as the architectural and landscape plans. Further coordination is needed to reconcile the discrepancy between the excavated elements related to utility and road work in the construction management plan and excavated areas labelled in the architectural plans.

iv. plans clearly indicating the scope of construction associated with each and all of the project's current and future development permit applications;

**Note to Applicant:** The intent of this condition is to clarify the anticipated extent of development at each level for each phase of construction up front because the proposed extents of development for each development permit application do not align vertically.

Provide three separate scope-of-work plans clearly delineating the scope for each and all proposed future development permit applications: one overall plan to specify the boundaries of below grade development, one to specify the boundaries of above grade development, and one to specify the boundaries of

*work of the Park. This set of drawings will be required to be maintained and updated as required until completion.*

[New] **Note to Applicant:** These plans shall be fully dimensioned in order to verify the extent of each scope.

- v. *a Public Realm Plan that references, and is consistent with the Public Art Plan, ensuring a clear transition between the public realm and the park as well as providing a seamless and high quality environment for users;*

**Note to Applicant:** *This should include, but not be limited to hard and soft landscaping elements, sidewalk design, new street trees, retained trees, street/site furniture, paving, open space programming and design, lighting, utilities, weather protection and signage/way-finding.*

[New] **Note to Applicant:** This includes further attention, including a public realm material palette for the complete site and site specific details related to Buildings 3 and 4. See also Standard Park Board condition A.1.49.

All site furnishings within the park must be reflective of a consistent, park-wide approach, complimentary to the public realm plan, and to be approved by the Park Board General Manager. This includes general locations of site furnishings as well as specifications for custom and for off-the-shelf site furnishings.

Moveable furniture is to be included in the Public Realm Plan. Park Board staff cannot review the site furnishings in this application until a broader plan has been developed and approved, and until the park boundary is clearly indicated on all landscape drawings.

- vi. *a construction access and traffic management plan;*

[New] **Note to Applicant:** This requires updating and coordination with architectural plans to more clearly illustrate excavated areas.

- vii. *a circulation and way-finding concept plan;*

[New] **Note to Applicant:** This requires refinement and updating at the building scale illustrating connections through the parcel and to the greater landscape and public realm.

- viii. *a signage concept plan;*

[New] **Note to Applicant:** An overall park signage plan is to be provided, including an overall park wayfinding strategy, design guidelines for the signage and preliminary detailed drawings. The plan shall specify the content, graphics, design, and proposed locations of all signage within the park. An overall graphic identity for Park signage; distinct from that of the Oakridge Development, is to be developed for approval by the Park Board General Manager.

The gateway concept shown in the preliminary signage plan includes large structures within the park area which appear to promote the Oakridge Centre brand. This is inconsistent with the approved park plan. Signage within the park must not be a derivative of the Oakridge Centre branding or related commercial activity.

- ix. a lighting plan for the park;

**Note to Applicant:** Consider CPTED principles and avoid any lighting that can cause glare, or other light nuisance to residents and park users.

[New] **Note to Applicant:** Lighting of the park area in this application must relate to a park wide lighting strategy, to be refined through a review process with Park Board staff, and to the satisfaction of the General Manager of the Park Board. Park Board staff cannot review the lighting in this application until a broader plan has been developed and approved, and the park boundary has been clearly indicated on all landscape drawings.

- x. [New] a Construction Management Plan in all development permit applications that clearly indicates that no construction or staging will impact or occur within Tisdall Park; and

[New] **Note to Applicant:** Any proposed construction activity effecting Tisdall Park must have prior approval from the Park Board General Manager. Tree protection fencing must be installed if materials are stored within boulevards containing street trees and/or shrub planting. Pedestrian access must be maintained to and through Tisdall Park at all times during construction of all phases of the Oakridge Centre development.

- xi. [New] a Phasing Plan for all development permit applications shall clearly indicate the transition between interim and ultimate landscape.

[New] **Note to Applicant:** Staff require a clear phasing plan for this application in order to clarify when the interim landscape condition will transition from the interim to the ultimate landscape condition and how this relates to transfer of the park to the Vancouver Park Board.

- 1.7 consideration for design development to introduce an element of randomness into the composition of the pod balconies on the north elevation; and
- 1.8 consideration for design development to utilize curved glazing rather than faceted glazing at the most prominent podium corners, particularly at the areas of small radius such as the northeast corner.
- 2.0 That the conditions set out in Appendix A be met prior to the issuance of the Development Permit.
- 3.0 That the Notes to Applicant and Conditions of the Development Permit set out in Appendix B be approved by the Board.

• Technical Analysis:

688 West 41st Avenue					DP-2018-00633															
Permitted/Required					Proposed - Buildings 3 and 4															
1 Site Size					Irregular (Existing site)					Remainder										
1 Site Area					114,384.70 m²															
Use (s)					Retail/Office/Dwelling (Market)															
2 FSR					3.71 (site)					0.75					2.96					
2 Floor Area	Total Floor Area				424,367.2 m²				Total Floor Area				85,334.9 m²				339032			
	Max. Dwelling Use				256,541.0 m²				Total Residential Area				51,943.2 m²				204598			
	Max. Non-Residential Uses				168,059.0 m²				Building 3				18,347.2 m²							
									Building 4				33,596.0 m²							
	Min. Office (site)				39,000.0 m²				Total Non-Residential				33,391.7 m²				134667			
									Retail Buildings 3 and 4				17,072.4 m²							
								Office Buildings 3 and 4				16,319.3 m²				22681				
2 Floor Area Exclusions	Max. Open Balcony 12.0%				6,233.2 m²				Open balcony 11.8%				6,118.9 m²							
	Max. Amenity (site)				2,600.0 m²				Storage (above grade)				1,147.8 m²							
									Total Amenity				429.9 m²				2170			
									Building 3 Amenity				139.1 m²							
								Building 4 Amenity				290.9 m²								
3 Height	Building 3 - Sub-Area 3 Max. Projection				Max. Geodetic				Building 3 - Top of Roof Slab Top of Parapet				Geodetic Elev.							
					191.9 m								189.4 m							
	Building 4 - Sub-Area 13 Max. Projection				199.5 m				Building 4 - Top of Roof Slab Top of Parapet				199.3 m							
					221.5 m								217.3 m							
					229.1 m								227.4 m							
4 Parking	Residential Min.				384				Residential (P3 - Valet)				291				Difference			
	Max.				513															
	Residential Disability				18				Disability (P3 - Valet) x 2				10							
									Car Share				0							
	Total Residential Parking				402				Total Residential Parking				301				-101			
	Max. Small Car 25.0%				100				Total Small Car 0.0%				0							
	Retail				338				Retail (P1/P2)				260							
	Office				323				Office (P1)				309							
	Non-Residential Disability				15				Disability - Retail (P2)				13							
									Disability - Office (P1) x 2				30							
Total Non-Residential Parking				677				Total Non-Residential Parking				612				-65				
Max. Small Car 25.0%				169				Total Small Car 0.0%				0								
TOTAL REQUIRED				1079				TOTAL PROPOSED (NEW)				913				-166				
4 Additional Parking	Social Housing				87				Social Housing (P1a)				51							
									Social Housing Disability (P1a)				7							
									Total Social Housing Parking				58				-29			
	Civic Centre (site)				150				Civic Centre (P1a)				58							
									Civic Centre Disability (P1a)				5							
									Total Civic Centre Parking				63				-87			
								Total Additional Parking				121								
5 Loading	Class		A		B		C		Total		Class		A		B		C		Total	
	Retail		0		8		3		11		Retail		0				2			
	Office		3		3		0		6		Office		7		12		0			
	Dwelling		5		3		0		8		Dwelling		0				0			
											Compactor		0		5		0			
	Total		8		14		3		25		Total		7		17		2		26	



	Class	A	B	Class	A	B	
<sup>6</sup> Bicycle	Retail	34	6	Retail	35	0	218
	Office	33	6	Office	33	0	
	Dwelling	630	6	Dwelling	847	0	
	<b>Total</b>	<b>697</b>	<b>18</b>	<b>Total</b>	<b>915</b>	<b>18</b>	
<sup>6</sup> Additional Bicycle	Replacement	300	0	Replacement	0	0	
	Traditional 30%	209	0	Traditional 30%	0	0	
<sup>7</sup> Unit Mix	<b>Unit Type</b>	<b>#</b>	<b>%</b>	<b>Unit Type</b>	<b>#</b>	<b>%</b>	-18
	<b>Market</b>			<b>Total Market</b>	<b>504</b>	<b>100%</b>	
	2 Bedroom	126	25%	1 Bedroom	214	42%	
	3+ Bedroom	50	10%	2 Bedroom	258	51%	
				3+ Bedroom	32	6%	
	<b>Market Rental</b>	<b>290</b>		<b>Total Market Rental</b>	<b>0</b>	<b>0%</b>	
	<b>Social Housing</b>	<b>290</b>		<b>Total Social Housing</b>	<b>0</b>	<b>0%</b>	
				<b>Total Site</b>	<b>504</b>	<b>100%</b>	

**<sup>1</sup>Note on Site Size and Site Area:** Proposed Buildings 3 and 4 are part of Phase 1 of the development planned for this site and are located along the north portion, fronting West 41<sup>st</sup> Avenue. This irregular site has an overall area of 114,384.7 m<sup>2</sup> that was determined during the rezoning stage based on information provided on plan. The site area is not indicated on the survey and shall be confirmed. Standard Development Review Branch condition A.1.14 requires notation of the total site area on the legal survey as confirmation.

**<sup>2</sup>Note on FSR and Floor Area:** The residential (market dwelling units) and non-residential (retail and office) areas meet the permitted maximum and minimum requirements set under Section 6 of the CD-1 By-law. The 'Remainder' column highlights unused area (s) available for impending development on site. Coordination is required between the floor area overlays, floor plans, and summary tables with respect to above grade storage exclusions, amenity area, residential unit layout, and total residential area under each building. Compliance is also sought for individual storage unit size and design to be in accordance with the *Bulk Storage and In-suite Storage – Multiple Family Residential Developments* Bulletin. See also Standard conditions A.1.9 and A.1.11.

**<sup>3</sup>Note on Height:** At the rezoning stage, the site was divided into a total of 16 Sub-Areas, each outlining maximum geodetic elevations as height limits. Since then, the deletion of Building 5 in Sub-Area 4 has reduced the Sub-Areas count to 15. As a result, a text amendment to the CD-1 is required for updates to the Sub-Area table under Section 7 (Height), and Standard Development Review Branch condition A.1.1 addresses this. The height for Buildings 3 and 4 is calculated as the difference between the proposed geodetic elevation measured to the top of roof slab elevation and the existing mall elevation of 88.88 m. The CD-1 permits an additional 7.6 m in projections including mechanical appurtenances and access structures beyond the height limit.

The proposed geodetic elevation of Building 3 (32 storeys) at 189.4 m and Building 4 (42 storeys) at 217.3 m, measured to the top of roof slab, along with additional projections of the mechanical rooms and roof parapets are within limits set out under the Sub-Areas, 3 and 13 respectively. See also Appendix G for the Sub-Areas Plan.

**<sup>4</sup>Note on Parking:** Parking, including shared-vehicles, for dwelling use is calculated per Schedule C (a) and (b), non-residential parking for Retail and Office uses per Section 4.2.5.1., and disability parking for residential and non-residential per Section 4.8.4, of the Parking By-law. A total of 913 new parking spaces are proposed over 3 full levels and one partial mezzanine level of underground parking. Disability spaces for both residential and non-residential spaces are double counted to meet minimum parking requirements. The total parking counted at 913 spaces for Buildings 3 and 4 does not include 121 additional parking spaces provided for Social Housing units under Building 2 and the Civic Centre on site; both anticipated as a separate development permit application in early-mid 2019. In addition to new

parking spaces, it is noted on plan that approximately 2,120 parking spaces currently exist on site. Confirmation is sought for the type, location, and number of parking spaces available on site for allocation through Standard Development Review Branch condition A.1.12.

Designation of all parking spaces for residential and non-residential uses is required at each level and sought through Standard Development Review Branch condition A.1.12. Confirmation of parking allocation for residential Valet, tandem, and shared-vehicle spaces is required and re-iterated from the PDP under Standard Engineering Services Conditions A.2.13 and A.2.17. Compliance for minimum parking stall sizes with standard clearances is being sought under Standard Development Review Branch conditions A.1.10 and A.1.12. See also Standard Engineering Services condition A.2.35.

<sup>5</sup>**Note on Loading:** Including the Class B compactor spaces, 26 loading spaces are proposed for the 25 loading spaces required. Class A loading for dwelling uses is calculated under Schedule C (c) of the Parking By-law. Retail and Office loading is calculated under Section 5.2.5 and 5.2.7 respectively. The 12 Class B loading spaces, not including compactor spaces, are proposed as shared for retail, office and residential loading needs. Both Class A and Class C loading are short 1 space, although additional Class B compactor spaces are provided. More detail is being sought on the design and layout of the loading spaces through Standard Engineering Services condition A.2.6, A.2.7, and A.2.8.

<sup>6</sup>**Note on Bicycle:** Bicycle parking is calculated per Section 6.2.1.2 for dwelling, 6.2.4.1 for office use, and 6.2.5.1 for retail uses under the Parking By-law. A total of 915 Class A spaces with bicycle rooms and bicycle silos are proposed with a requirement of 697 spaces for all combined uses. The total bicycle Class A count, room layout, and type to comply with Section 6 requirements noted under Standard Development Review Branch condition A.1.13. Provision of a minimum 300 additional "Traditional" Class A bicycle spaces and 30% of Class A spaces for atypical bicycles is required site-wide, and this is re-iterated from the PDP under Standard Engineering Services conditions A.2.6 and A.2.17.

<sup>7</sup>**Note on Unit Mix:** 504 Market Dwelling units are provided and 57% (290) of the units are suitable for Families with Children. These units must meet the *High Density Housing for Families with Children Guidelines*. The requirement from Affordable Housing during rezoning and the PDP for 10% (50) of the units to provide 3 or more bedrooms has not been met, with only 6% (32) having 3 or more bedrooms. See also Standard Affordable Housing condition A.1.51.

• **Legal Description**

Lot: 7, Except Part in Air Space Plan 20425  
Block: 892  
District Lot: 526  
Plan: 20424

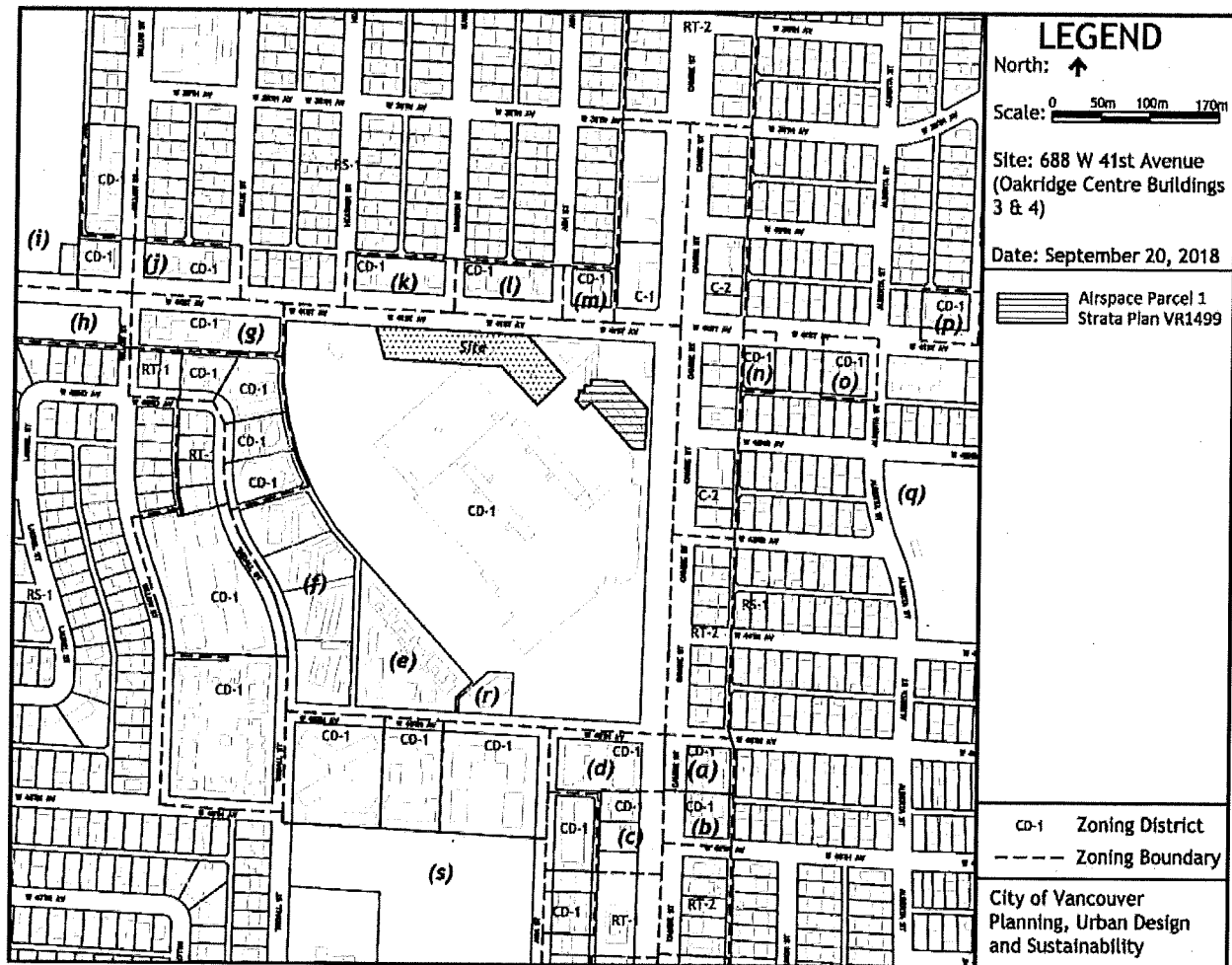
• **History of Application:**

18-07-13 Complete DP submitted  
18-09-19 Urban Design Panel  
18-10-03 Development Permit Staff Committee

- **Site:** The overall site is located at the southwest corner of the intersection of Cambie Street and West 41<sup>st</sup> Avenue, bounded by West 41<sup>st</sup> Avenue to the north, Cambie Street to the east, West 45<sup>th</sup> Avenue to the south, and a diagonal New Street to the west connecting West 41<sup>st</sup> Avenue with West 45<sup>th</sup> Avenue. This Development Permit application includes Buildings 3 and 4 on the north side of the site along West 41<sup>st</sup> Avenue, immediately west of the existing Office Tower building between Cambie Street and the New Street.

- **Context:** Significant adjacent development includes:

- a) 6108 Cambie Street, 2-storey multiple dwelling complex, (c. 2000);
- b) 6172 Cambie Street, 3-storey multiple dwelling complex, (c. 2000);
- c) 6137 Cambie Street, proposed 7-storey mixed-use building;
- d) 538 West 45<sup>th</sup> Avenue, 6-storey mixed-use building, (c. 2000);
- e) 688 Fairchild Road, residential development consisting of a 5-storey and 4-storey apartment buildings and 2-storey townhouses (c. 1994);
- f) 5926-6076 Tisdall Street, four 9-storey apartment buildings (c. 1960);
- g) King David Secondary, 5718 Willow Street, 2-storey secondary school building, (c. 2005);
- h) Jewish Community Centre, 950 West 41<sup>st</sup> Avenue, proposed mixed-use development consisting of a 26-storey and a 24-storey residential towers over a 4-storey podium, and a 9-storey community centre;
- i) Oakridge Transit Centre, 949 West 41<sup>st</sup> Avenue, proposed mixed-use development consisting of various mid-rise (6 to 12-storey) buildings and townhouses;
- j) 5688 Willow Street, residential development consisting of two 6-storey buildings and four townhouses at the lane, (c. 2017);
- k) 655 West 41<sup>st</sup> Avenue, residential development consisting of two 6-storey buildings, (c. 2016);
- l) 611 West 41<sup>st</sup> Avenue, 6-storey Seniors' Assisted Housing building, (c. 2014);
- m) Oakridge Lutheran Church, 585 West 41<sup>st</sup> Avenue, proposed 6-storey mixed-use building;
- n) 452 West 41<sup>st</sup> Avenue, residential development consisting of a 6-storey building and 2-storey townhouses at the lane, (c. 2015);
- o) 5733 Alberta Street and 376-392 West 41<sup>st</sup> Avenue, proposed residential development consisting of a 6-storey corner building and 2-storey townhouses at the lane;
- p) Oakridge United Church, 305 West 41<sup>st</sup> Avenue, proposed 6-storey mixed-use development;
- q) Columbia Park, 5908 Alberta Street, 2.78h park;
- r) 625 West 45<sup>th</sup> Avenue, 9-storey apartment building (c. 1986); and
- s) Tisdall Park.



• **Background:**

Council approved a rezoning application for the Oakridge Centre site at a Public Hearing on March 14, 2014. In February 2018, the proponent submitted a re-envisioned proposal for the site with a form of development that differed from that of the approved rezoning (one less tower, position and shaping of towers, the location of access points, new locations for the social housing, rental housing and the Civic Centre, revised Park Concept Plan and Public Realm Plan). The revised form of development was formally recognized and approved through a Preliminary Development Permit (referred to as a PDP) process. Full, detailed history and background of the rezoning and PDP processes are provided in the staff report for the Preliminary Development Permit, DP-2018-00166, 650 West 41<sup>st</sup> Avenue.

This report reviews the first development permit on the Oakridge site submitted following the PDP approval. The Urban Design Panel reviewed and supported this development permit application on September 19, 2018.

***Design Guidelines***

The Design Guidelines, which have now been adopted by Council on September 19, 2018, contained in Appendix E are included as reference for the Development Permit Board.

• **Applicable By-laws and Guidelines:**

- CD-1 (1) By-law (Oakridge);
- Oakridge Design Guidelines;
- Conditions of the Preliminary Development Permit;
- Housing Vancouver Strategy and Housing Vancouver Three Year Action Plan (2017);
- Family Room: Housing Mix Policy for Rezoning Projects (2016);
- High-Density Housing for Families with Children Guidelines;
- Housing Design and Technical Guidelines (2018);
- Urban Agriculture Guidelines for the Private Realm;
- Oakridge Civic Centre Requirements Update: Phase 2 Report (2018) dated July 5, 2018;
- Cambie Corridor Plan (2011); and
- Cambie Corridor Phase 3 Public Realm Plan.

• **Response to Applicable By-laws and Guidelines:**

***CD-1 (1) By-law (Oakridge):***

**Use and Density:** The proposed use of commercial-office and commercial-retail density conforms to the provisions of the CD-1 By-law.

**Height:** The proposed height conforms to the provisions of the CD-1 By-law.

**Rezoning Conditions:** Staff's assessment of the applicant's response to Council's specific Design Development conditions of the 2014 Rezoning were incorporated into the Preliminary Development Permit (PDP) Report (DP-2018-00166). Outstanding issues or areas requiring further design development were identified and captured through conditions in the PDP.

***Oakridge Design Guidelines:***

The Oakridge Design Guidelines were prepared by the applicant with staff's input and feedback and submitted as part of the PDP. The Guidelines were endorsed by Council on September 19, 2018.

This application represents a more resolved iteration of the schematic architecture of Buildings 3 and 4 as illustrated and described in the Guidelines and is therefore generally consistent with the Guidelines' intent. Standard condition A.1.2 requires itemized floorplate statistics to ensure that the massing of Buildings 3 and 4 is consistent with the massing set out in the Guidelines.

***Preliminary Development Permit Conditions:***

The following summary presents staff's assessment to the relevant PDP design development conditions that apply to the buildings in the scope of this application, established with the approval of the Preliminary Development Permit. Full text of the PDP design conditions are included as part of Appendix I to this report.

**Staff assessment of response to PDP Recommended condition 1.1:** PDP Recommended condition 1.1 requires submission of a number of plans and documents that describe various systems that apply to the overall Oakridge redevelopment. Satisfaction of this is required prior to issuance of this permit. Recommended condition 1.5 reiterates the requirement for any of these plans or documents that haven't been submitted and expands on the requirements with more specific information requested by staff.

**Staff Assessment of response to PDP Recommended condition 1.2:** PDP Recommended condition 1.2 requires the submission of a groundwater management strategy. Refer to the full discussion regarding groundwater in the Engineering Services commentary section. The final groundwater management strategy must be provided prior to issuance of the first development permit. See also Recommended condition 1.5.

**Staff Assessment of response to PDP Recommended condition 1.5:** PDP Recommended condition 1.5 seeks to minimize the bulk of any massing of Buildings 3 and 4 that overhangs into the public realm on West 41<sup>st</sup> Avenue in order to achieve a walking surface that maintains clear vertical access to natural light of the sky. Additional drawings provided by the applicant indicate that the typical condition along West 41<sup>st</sup> Avenue is for the canopy/building flare to project 0.75m (2.5 ft.) into the public realm, which leaves a substantial uncovered walking surface of 4.6m (15 ft.) in width. At the canopy's maximum depth, it projects 3.85m (12.6 ft.) into the public realm, leaving 3m (9.8 ft.) of uncovered sidewalk width at this point. Staff have determined that the flare in massing does not unduly limit exposure to the sky on the public realm and the undulating form contributes architectural interest to the development along West 41<sup>st</sup> Avenue. Condition satisfied for this application. It should be noted that this PDP condition will also apply to developments along Cambie Street to be reviewed in future applications.

**Staff Assessment of response to PDP Recommended condition 1.8:** PDP Recommended condition 1.8 seeks to reduce the apparent bulk of Buildings 3 and 4 as viewed from the north by adding texture/materiality to the north façade for interest. The innovative design and arrangements of the proposed balcony "pods" on the north façade satisfy this condition and will provide sufficient interest to the West 41<sup>st</sup> Avenue elevation.

**Staff Assessment of response to PDP Recommended condition 1.9:** PDP Recommended condition 1.9 seeks to ensure the proposed building design is maintained going forward. This condition is generally satisfied as the application proposes the same massing and expression of Buildings 3 and 4 as proposed in the PDP. Recommended condition 1.3 follows through on this condition by requiring consistent materials and detailing at the prior-to stage.

**Staff Assessment of response to PDP Recommended condition 1.10:** PDP Recommended condition 1.10 required Park Board approval of the park design. This condition is satisfied as the Park Concept Design was approved by the Park Board on July 9, 2018.

**Staff Assessment of response to PDP Recommended condition 1.16:** PDP Recommended condition 1.16 seeks design development to resolve Building By-law issues associated with the 'single building'

approach. Building Review Branch staff continue discussions with the applicant on this issue. Refer to Building Review Branch commentary in this report.

***Family Room: Housing Mix Policy for Rezoning Projects (2016):***

This policy requires that at least 35% of the market strata units must be 2-bedroom and 3-bedroom units suitable for families, including 10% 3-bedrooms. This application comprises of 504 strata units with 51% of units as 2-bedrooms and 6% as 3-bedrooms. A provision to ensure the percentage of family housing in the market strata housing component does not fall below the required 35%, including the provision of 10% 3-bedroom units is included in Standard Affordable Housing condition A.1.51.

***High Density Housing for Families with Children Guidelines:***

The two proposed residential buildings contain a total of 290 units (57% of total) with 2 or more bedrooms (comprised of 258 2-bedroom units, 32 3-bedroom units) which may be suitable for families with children. Staff have identified that an indoor amenity room with kitchenette, storage closet and washroom is provided adjacent to a common outdoor amenity area including a children's play area on level 7 which is consistent with the Guidelines. In addition, an amenity games room and an amenity gym are also provided on level 7.

***Urban Agriculture Guidelines for the Private Realm:***

The City of Vancouver Food Policy identifies environmental and social benefits associated with urban agriculture and seeks to encourage opportunities to grow food in the city. The Guidelines encourage edible landscaping and shared gardening opportunities in private developments.

***Cambie Corridor Plan (2011):***

The Cambie Street and West 41<sup>st</sup> Avenue section of the Cambie Corridor describes the intent for West 41<sup>st</sup> Avenue as playing a connecting role to a secondary energy node at Oak Street. Cambie Street is envisioned as the MTC High Street with enhanced public realm to support an animated and enjoyable shopping, dining, and entertainment experience.

The development proposed in this application satisfies the intent of the Cambie Corridor Plan by providing commercial uses that support more jobs and services and contribute to overall vibrancy; family housing located off the arterials; local serving shops; and a built form that reflects the regional importance of this location which takes advantage of its proximity to nearby amenities and services.

***Cambie Phase 3 Public Realm Plan:***

The Oakridge Town Centre section of the Cambie Public Realm Plan that pertains to this application emphasizes wide sidewalks to support pedestrian volumes, encourage a walkable area, and ensure residents have spaces to gather, socialize, and celebrate. High-quality, durable finishes are required to ensure that this area is resilient over the coming years.

The proposal in this application features a broad sidewalk on West 41<sup>st</sup> Avenue and streetscape elements such as bicycle facilities and treed boulevards that comply with the public realm specifications in the Plan. The proposed surface treatments, patterns and finishes comply with the paving strategy as described in the Plan.

**• Conclusion:**

The proposal for 688 West 41<sup>st</sup> Avenue is the first development permit application submitted for the Oakridge redevelopment. The proposal for two towers, podium and below-grade parking represents a

high quality mixed-use development consistent with the expectations established at the preliminary development permit stage. The ambitious architecture and ground level retail uses will make a positive contribution to the emerging Oakridge/Municipal Town Centre area; and the generous amenity spaces and ready access to the future park will serve a healthy environment for building users. Further Urban Design conditions seek to improve the proposal's relationship to the public realm at grade by maintaining pedestrian interest and increasing both porosity and commercial/retail frontage.

## **URBAN DESIGN PANEL**

The Urban Design Panel reviewed this application on September 19, 2018, and provided the following comments:

### **EVALUATION: Support with Recommendations**

#### **Introduction:**

Development Planner, Patrick O'Sullivan, described the project as heights and overall densities were established by both rezoning which was enacted and confirmed through the Preliminary DP process, PDP, approved on July 23<sup>rd</sup>. As a result, staff are interested in the panel's comments on the proposal's detailed design.

A rezoning of this site was approved in principle in 2014. Details include increasing density to 3.71 FSR, retain retail uses, add 2914 DU, 290 S.H., add 1.8m sq. ft. of office space, add 70,000 sq. ft. of civic centre, and to add a park.

In April of 2017, the City received a revised proposal that proposed a number of changes from 2014. These include:

- Changes to the park design;
- One less tower;
- Changes to tower form and tower shaping;
- A more prominent location for the Civic Centre;
- Fewer levels of underground parking;
- But no change to the maximum heights of density; and
- No change to the proposed uses.

Since the general form of development and uses are consistent with the rezoning, the General Manager determined that the appropriate vehicle to process the review of these changes would be a PDP, pre-development permit.

The PDP process aims to capture and solidify the proposed changes since the 2014 rezoning. It allows staff to review changes, and allows the City to get feedback from the public and advisory bodies. It also allows for the revised park plan to be reviewed and processed and approved concurrently by the Park Board.

Uses include a CRU at grade level, 5 levels of office spaces, office uses front the steps to the park, there is residential above and 3 levels of underground parking. The buildings make up of 32 storeys and 42 storeys, every residential unit has a balcony or outdoor space and the tower rooftops are used for the 2 private penthouse suites.

The amenity space at level 7, at top of the podium, measures to 4700 sq. ft. and is collocated with an outdoor space of 5,500 sq. ft.



**Advice from the Panel on this application is sought on the following:**

1. Please comment on the success of the pedestrian experience of the proposal as it addresses each of its very differing interfaces (the W 41<sup>st</sup> frontage, to the park steps, and to the park at the upper level). Consider the number and type of entries at grade, entry locations, canopy depths and canopy soffit design, building uses and the amount of glazing at pedestrian level; and the public realm design and walking surface treatments.
2. Please comment on the overall materiality and building expression and its consistency with the skin/bone and wrapping veil narratives. Consider the curved glass skin geometry (triangulated and faceted), balcony pods design, design of tower tops, and the overall material palette etc.
3. How well do the balcony pod design and the composition of balconies on the north elevation add interest to, and help to reduce the apparent building mass of, Buildings 3 and 4 as viewed from the north.

*The planning team then took questions from the panel.*

**Applicant's Introductory Comments:**

Obvious concerns are these are large buildings and how do they meet the ground. The concept of the skin and revealing of the structure building comes down and where it hits the ground plain the veil is lifted to create a more intimate experience. Goal is to create an intimate streetscape on a very busy street.

We have triple glaze cap-less curtain wall and structural glass behind with definitions for difference entrances. The veil itself becomes a tectonic that sculpts the streetscape and the facades behind become transparent.

On top of the buildings, the idea is to complete the folding up to give identity to the roof itself, on the top it start to open up to allow for fresh air to come in, looking to incorporate new technology that integrates right into the glazing system.

Materials for underside of the soffit is stainless steel titanium coated metal.

The veil comes all the way around the bay to the parking to different retails and units and creates another entrance to the park. The rendering has an intimate relationship with the park.

There is an intensive green boulevard that helps bringing down the scale from 41<sup>st</sup>. A new feature is the development of pods/balconies on the outside of the buildings, wanted something that didn't compete with the veil but added another scale.

For the streetscape definition, brought a few pods down to the office area for a more intimate scale. Most units have outdoor spaces, the smaller units have the pods and there are outdoor spaces for the south-west side. The streetscape is made up of the type of band and paving depicted in the Cambie Corridor. The idea of the landscape and the buildings being integrated together is a concept of the project.

There are planters that are integrated right into the slots between the veil and terraces. There is greenery that goes all the way up that is part of the terrace. The main amenity area has children's space, urban agriculture and social space.

The park has gone through a separate approval by the Parks Board. There is an elevator that goes to the park. The frontage with the park will get resolved as the park develops.

The sustainability is meeting criteria performance for 2021.

*The applicant team then took questions from the panel.*

### **Panel's Consensus on Key Aspects Needing Improvement:**

Having reviewed the project it was moved by Ms. Avini-Besharat and seconded by Ms. Parsons and was the decision of the Urban Design Panel:

THAT the Panel **SUPPORT** the project with the following recommendations to be reviewed by City Staff:

- To provide car drop off along 41<sup>st</sup>. Create sense of arrival;
- Further design development of stairs from the plaza up to the park;
- Further design development to improve porosity of the streetscape along 41<sup>st</sup>;
- Special consideration to include an entrance to the department store; and
- Ensure that the curvilinear nature of the glass forms is kept through design development.

### **Related Commentary:**

The panel found the project to be elegant and a level of sophistication that is rare. It is well resolved and the parti was strong from the beginning. The project was both easy and hard to review and there was a side note to the applicant to edit the design booklets to the info and drawings specific for panel review.

Panel noted this is a high cost building and the real test will be if there are cuts hope the applicant will maintain the same design integrity. They building resemble a very futuristic building of quite a futuristic scale. The experience of the canopy of the unveil is successful and the privacy of the units is well handled. The entries at grade at some of the renderings are original and nicely designed. A panelist noted the renderings are the most successful feature of the project.

The shorter building appears is deliberately intended to have the same color palette as the rest. Consider distinguishing the taller building from the rest, from a distance may look like a huge similar façade.

There are some beautiful natural forms, rounded edges, and organic curves. Suggest maintaining a natural patterning and hope the glass used can work around the rounded edges, may need to work with clear glass that is curved. Due to the amount of glass being used, experimentation and mockup of glass is very important and this is an area that should not be forgotten. Regarding the orientation of the office area, fritted glass make help with solar gain.

The public realm has a nice soffit material. The pods were positively received. There was a comment that in the renderings the pods looked whimsical and random, especially in the office area, the panel recommended to go in this direction rather than rigidity.

The stairs are a great start but needs to be developed further going up the stairs, as there is no respite, and the engagement with the public realm. Stairs should feel safe and comfortable going up, give thought to the design of the stairs to each landing. Consider how the stairs interface with the building edge and make what is coming next visible.

A panelist noted if there was any opportunity to reduce the breadth size of the lobbies on 41<sup>st</sup> to create more or larger CRUs would be beneficial. Suggest providing weather protection and solar shading; this may help infuse the randomness of the arrangement of the pods. Facing out of the plaza would allow for enough space to leave some uses of tables without covering. The public realm along 41<sup>st</sup>, there is great opportunity to create a space that will work in the future, such as a car share drop off.

The Streetscape on 41<sup>st</sup> is transparent but not porous, there are lobbies but not many entrances. Engage the public more with the storefront. Suggest celebrating the department store and retail/restaurants by providing direct access. A panelist noted it was unfortunate the City created a large number of bike lanes.

From a sustainability point of view, the building is well balanced. Detailing of mechanical grills in the curtain wall is critical considering the sophisticated expression of buildings, as well as maintaining minimal exiting and mechanical elements on the facades. Important to keep in mind, regarding the design of building, HUV's in each suite there will be slots that will break up the beautiful glazing and renderings. The project proves, with the right elements, a high standard of envelope and LEED can be done.

**Applicant's Response:**

*The applicant team thanked the panel for their comments.*

**EVALUATION: Support with Recommendations**

**PERSONS WITH DISABILITIES ADVISORY COMMITTEE**

A motion was passed at the Persons with Disabilities Advisory Committee meeting of July 26, 2018 recommending (amongst other items) "... *THAT the Vancouver Board of Parks and Recreation install a ramp leading to the park and amenities on the second floor of the redevelopment Oakridge Municipal Town Centre in order to accommodate the expected high volume of persons with mobility challenges, including seniors and persons with strollers...*".

Staff representatives from Urban Design, Engineering Services, Park Board, and Development Services met with the Persons with Disabilities Advisory Committee on October 11, 2018 to share an overview of the Oakridge redevelopment and were provided with the following comments and considerations:

**Access to, from, and within the park:**

- Accessibility standards should be applied to the entire site including the park;
- Reiterate desire for the installation of a ramp to all park levels;
- VBBL minimum requirements are considered insufficient with respect to the ramp design and dimensions, ie. wider ramp width required to accommodate two wheelchairs side by side, turning radii, etc.;
- Relying on elevators as the principle means of access to the park is insufficient/problematic based on the potential for unforeseen mechanical problems, and limiting due to their size and capacity for other users who may have strollers, luggage, bicycles, etc;
- The Oakridge project is an opportunity for not just a ramp, but a larger architectural gesture/broader move that serves as a precedent for inclusivity. Members strongly supported a suggestion to incorporate a highly visible access ramp into one of the walls of the project;
- Escalators should be two-way at every location;
- Effective lighting should be provided in the park;
- Accessible washrooms should be conveniently located throughout park levels and mall levels;
- Playgrounds should be designed with consideration for people in wheelchairs and/or with mobility challenges;
- Benches should be included in the park; consider differing heights for people with mobility challenges and arm-rest locations; and
- Staff provided an estimation of minimum required ramp lengths at various locations on the site, ranging from 600 ft. to 1,200 ft. long including anywhere from 18 to 28 separate landings, all 1.5m wide with handrails on both sides.

**Parking:**

- Pick-up/Drop-off spaces for cars and HandyDART should be provided in convenient locations. These locations need to be clarified and must be located around the site, not just near the Civic Centre; and
- Plenty of accessible parking spaces should be provided.

*PDAC expressed general appreciation for the good working relationship with the Park Board staff and the positive history of accessibility in parks.*

**Staff Response:**

Staff acknowledge the importance of providing an environment that is able to meet the needs of everyone, regardless of ability. This particular application and each subsequent development permit application will continue to explore the various design considerations that have been raised and staff remain committed to working with the applicant team and advisory committees such as PDAC to further develop solutions that contribute to universal enjoyment for all.

## ENGINEERING SERVICES

The delivery of a number of the rezoning commitments (off-site and on-site infrastructure improvements, dedications, public statutory rights of way, public open space areas, encroachment agreements, and required subdivisions) are contained in the Services Agreement and other legal agreements registered on title of the Oakridge Mall parcel. As the site progresses through each phase and subdivision, it is anticipated that additional legal agreements will be required, including, but not limited to, modification of various Statutory Right of Way (SRW) agreements to better define the final location and area of pedestrian and bicycle routes and plazas and the granting of encroachment agreements to accommodate any works constructed or installed on City streets. Also, modifications to the Services Agreement may be required should any change in scope to the Owner's works be contemplated.

One of the rezoning conditions required provision of a groundwater management strategy to describe the site's existing and proposed groundwater uses and to confirm that any groundwater extraction before, during or post construction would not adversely impact the surrounding neighbourhood or infrastructure. The applicant has provided proposed extraction rates and examined the impacts, and is currently exploring various options for groundwater use. However, as a final strategy has not yet been delivered, a "No Development" Section 219 Covenant has been registered on title of the site. The final groundwater management strategy must be provided prior to issuance of the first development permit. See also Recommended condition 1.5.

The site's Rainwater Management Plan largely consists of green roofs and detention tanks. Given the size and scale of this development, significant opportunity exists for reuse of rainwater, as well as grey and black water. Standard Engineering Services condition A.2.40 and Standard Landscape condition A.1.34 seek an integrated approach to rainwater management and coordination with the groundwater management strategy.

The application proposes the use of automated bicycle silo stations as a way to provide secure bicycle storage in a compact space. Since the bicycle silo stations are more costly to construct and maintain compared to a traditional bicycle storage room, the applicant has proposed to own and maintain all of the bicycle silos in perpetuity, with no user fees charged to Oakridge residents. Standard Engineering Services condition A.2.14 seeks to secure this commitment and ensure that both the public and Oakridge employees are able to use the bicycle silo stations free of charge as well.

Instead of allocating residential parking to each building, the application proposes to operate Level P3 of the parkade as one shared residential parking area managed by a valet service. Membership with the valet service would be mandatory for any Oakridge residents who park on-site, with a fee estimated at \$250 to \$300 per month, and residents could opt out of the service if they no longer own a vehicle. To ensure that parking is contained on site, Oakridge residents would not be allowed to park on-street in the residential permit parking areas in the surrounding neighbourhood. Standard Engineering Services condition A.2.16 seeks to limit the number of valet memberships permitted per building so that residential parking spaces are available to occupants of buildings constructed later in the development.

To encourage reduced vehicle ownership, the application proposes a number of measures, including both public and private car share vehicles on site, car share credits, transit passes, improvements to the Oakridge Canada Line station, and additional secured bicycle storage spaces. Staff support these provisions and Standard Engineering Services condition A.2.17 seeks to clarify and secure these commitments.

Further recommendations from Engineering Services are contained in the conditions noted in Appendix A attached to this report.

## CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

The recommendations for CPTED measures are contained in the prior-to conditions noted in Appendix A attached to this report.

## **PUBLIC REALM PLAN**

Overall, staff support the significant improvements and additions to the public realm enabled through the Oakridge Centre redevelopment. The current design concept has evolved to introduce a cohesive theme, linking all public spaces including streets, plazas and parks. However, significant refinement of the public realm will be required at each successive development permit application to ensure continuity and integration with the broader Cambie Corridor Public Realm Plan.

Recommended condition 1.6 seeks the provision of a Public Realm Plan that is a seamless and high quality environment for all users; consistent with direction provided in the Cambie Corridor PRP and the Public Art Plan.

Further clarification and detailed design development should carefully incorporate the principles and elements of the Cambie Corridor Public Realm Plan through the course of each development permit.

## **LANDSCAPE**

The landscape response generally satisfies the expectations for high quality pedestrian environments, livable open space on private property and sustainable landscape design.

A total of 222 trees, largely within the boundaries of the site will be removed as part of the phase being referred to as "Early Works"; this being the scope which involves the construction of new utilities, new roads, and new infrastructure required to support the future growth of Oakridge. While tree removal is unfortunate, the trees in question are located in the middle of future roads or underground utility locations. The applicant team has worked closely with staff to develop a removal plan that proposes to remove only those trees necessary to facilitate redevelopment, and have been asked through a condition in the PDP; repeated in this report under Standard Park Board condition A.1.50, to explore potential sustainable re-use options where possible. As a result, the following has been proposed for consideration:

- Smaller trees will be donated to Cloverdale Aggregate for chipping which can then be used as fuel at the UBC District Energy Plant;
- Some of the larger Oak trees will be donated to the local First Nations for use as practice tools for totem carving; and
- Some of the remaining trees will be donated to local artists who have come forward and expressed interest in using them for various art applications.

Ultimately, it is recognized that the redevelopment of Oakridge will replace 28 acres of either blacktop asphalt or concrete structure with over 13 acres of landscaped park and public realm space, including the planting of over 1,000 new trees.

Further recommendations from Landscape Review are contained in the conditions noted in Appendix A attached to this report, and seek further updating of the submission, clarity of presentation, and plan coordination.

## **AFFORDABLE HOUSING/REAL ESTATE AND FACILITIES MANAGEMENT**

Phase 1 of the development includes both strata and social housing buildings. This particular application is for strata buildings.

In 2013, Council approved the two phase delivery approach for social housing units. This development permit application is within Phase 1 of development, during which 125 social housing units and the Civic Centre are required to be delivered to the City by December 31, 2023. The delivery of these buildings is required prior to occupancy of any strata buildings.

Additionally, as design development of the social housing units (Buildings 2 and 9), and the Civic Centre is continually evolving, it is recognized that aspects of the below grade parkade design included as part of this application such as, but not limited to the location of parking/loading/bicycle spaces, drop-off and pick-up spaces, elevator lobbies/garbage and recycling facilities/loading facilities, and general access to each of these may shift and require a Minor Amendment to ensure any changes are ultimately to the satisfaction of the Director of Affordable Housing and General Manager of Real Estate and Facilities Management. It is anticipated that the social housing units in Building 2 and the Civic Centre will be included as part of the 4<sup>th</sup> development permit application; tentatively scheduled for early-mid 2019. This is acknowledged through Standard Facilities Planning and Development condition A.1.56, and it is recognized that the expectations behind conditions such as, but not limited to A.1.62, A.1.63, A.1.65, A.1.66, A.1.67, A.1.68, A.1.69 may evolve as the design of the social housing units and Civic Centre progresses.

Further recommendations from Affordable Housing and Real Estate and Facilities Management are contained in the conditions noted in Appendix A attached to this report.

## **CULTURAL SERVICES**

Staff are supportive of the proposed cultural spaces within the whole of the Oakridge redevelopment, including the Civic Centre and the 9-acre public park, the Community Performance Space, Artists-in-Residence Studio, and outdoor event spaces and stage as they will help achieve objectives of the Making Space for Art and Culture: 2018 Cultural Infrastructure Plan and the Cambie Corridor Plan. These spaces will offer opportunities for expanded community cultural programming to the projected growing population in and around Oakridge, as well as provide greater access to cultural facilities by the Vancouver arts and culture community to undertake their work.

While this first development permit application does not contain any particular cultural spaces, the buildings will be in proximity to the outdoor spaces and stage located in the future park and Civic Centre. While it is anticipated that these spaces will not be hosting large and/or significant events, consideration must still be given to the potential for amplified sounds, lights and the gathering of groups of people on occasion. It is important that design and development of surrounding buildings respond to, and mitigate these concerns, and Standard Cultural Services condition A.1.70 seeks the provision of a comprehensive analysis for special events to address this formally.

Additionally, as design development of the Civic Centre is continually evolving, it is recognized that aspects of the below grade parkade design included as part of this application such as, but not limited to the location of parking/loading/bicycle spaces, drop-off and pick-up spaces, elevator lobbies/garbage and recycling facilities/loading facilities, and general access to each of these may shift and require a Minor Amendment to ensure any changes are ultimately to the satisfaction of the General Manager of Arts, Culture and Community Services. It is anticipated that the Civic Centre will be included as part of the 4<sup>th</sup> development permit application; tentatively scheduled for early-mid 2019.

Further recommendations from Cultural Services are contained in the conditions noted in Appendix A attached to this report.

## **PARK BOARD**

While the scope of this development permit application contains a relatively small portion of the public park around Buildings 3 and 4, the absence of a clearly indicated park-boundary has resulted in an incomplete review from staff within the Park Board. As such, it has been requested through Recommended condition 1.6 that the applicant clarify and provide a drawing clearly indicating the park boundary extents at a typical 1/8" = 1'-0" scale for review; not only for this application, but for all subsequent applications.

Design development of the park as a whole is expected to continue, with formal review occurring as portions of the park are included in subsequent development permit applications. Vancouver Park Board staff will continue to work with the applicant to refine each portion of the park along the way.

Construction phasing for the project overall is expected to be complex. As such, a Construction Management Plan, which includes phasing, must be submitted for review prior to issuance of each subsequent development permit. Construction activities likely to impact or impede access to Tisdall Park must have prior approval by the Park Board, and if known, must be included on the Construction Management Plan(s). Recommended condition 1.6 seeks the provision of this plan.

Further recommendations from the Park Board are contained in the conditions noted in Appendix A, attached to this report

## **BUILDING REVIEW BRANCH**

This Development Application submission has not been fully reviewed for compliance with the Building By-law. The applicant is responsible for ensuring that the design of the building meets the Building By-law requirements. The options available to assure Building By-law compliance at an early stage of development should be considered by the applicant in consultation with Building Review Branch staff.

To ensure that the project does not conflict in any substantial manner with the Building By-law, the designer should know and take into account, at the Development Application stage, the Building By-law requirements which may affect the building design and internal layout. These would generally include: spatial separation, fire separation, exiting, access for physically disabled persons, type of construction materials used, fire-fighting access and energy utilization requirements.

Staff continue to meet with the applicant team to progress design development conversations required to address and resolve significant Building By-law issues (life-safety, fire-spread, and emergency access and response). See also Appendix C in the approved Development Permit Board Report for the PDP for reference here: <https://vancouver.ca/files/cov/650%20W%2041st%20Ave.pdf>.



## NOTIFICATION

Two site signs were confirmed installed on August 17, 2018; one mid-block facing West 41<sup>st</sup> Avenue, and one at the corner of Cambie Street and West 41<sup>st</sup> Avenue in the current transit plaza.

On August 16, 2018, 2,353 notification postcards were sent to neighbouring property owners advising them of the application, and offering additional information on the City's website. The postcard and the development application materials were posted online at [vancouver.ca/devapps](http://vancouver.ca/devapps). At the time of this report, 8 responses have been received from our postcard/site sign notification; 4 of which were in Opposition and 4 of which were Neutral in position. Of those in Opposition, there were concerns raised for increased volumes of vehicular traffic in the neighbourhood as a result of additional density. There was also concern expressed over access to existing services during construction such as the grocery store (Safeway), pharmacy, and library, and the impact of this development to the existing character of the surrounding neighbourhood which is generally expressed through lower building forms.

One open-house session was held on September 12 (4:00p-7:00p), 2018 within a vacant retail space in Oakridge Mall at 650 West 41<sup>st</sup> Avenue. In total, approximately 450 people attended and a total of 9 comment forms were submitted regarding the development permit application. Of the 9 comment forms received, 4 were in Support and 2 were in Opposition. 3 comments either didn't state a position that was obviously in Support or Opposition, or provided feedback that was equally weighted; these are being considered as Neutral.

Comments from the open house and notification are summarized below:

### **Parking and Traffic Management:**

- Concern the current traffic patterns will be negatively impacted and vehicular access to local residences will be more difficult.

### **Staff Response:**

- A number of on/off-site improvements are being sought to address the overall movement to, from, and through the site.
- In addition to the provision of traditional parking/bicycle spaces as per the Parking By-law and Schedule C of the Parking By-law, the application is proposing to supply a portion of non-traditional spaces through a combination of residential valet, club cars, shared-vehicles, public bicycle share, and bicycle silos with the hope of adding to, and strengthening the existing multi-modal network within the area.
- A number of conditions have been provided in Appendix A with the intention of addressing the significant traffic and parking management considerations related to this development. See also Standard Engineering Services conditions A.2.6, A.2.7, A.2.8, A.2.9, A.2.10, A.2.11, A.2.12, A.2.13, A.2.14, A.2.15, A.2.16, and A.2.17.

### **Access to Existing Services Throughout Construction**

- Concern the existing pharmacy and grocery store will be closed until redevelopment is complete.
- Concern the existing library and associated services will be closed until redevelopment is complete.

### **Staff Response:**

- It has been consistently identified by the applicant team and some existing mall tenants that the Safeway grocery store will remain in operation throughout the construction and

redevelopment of Oakridge; in a reduced size and scale to accommodate a complex phasing schedule, all while providing essential services such as the pharmacy.

- It is similarly anticipated that the existing library will remain in operation throughout the large majority of construction and redevelopment, with the potential for temporary closure for a small period of time to allow for relocation into a new space within the future Civic Centre.

**Existing Buildings On-Site:**

- Concern the proximity of Buildings 3 and 4 to existing "Terraces" building will result in loss of privacy, solar access, and privacy.

**Staff Response:**

- As part of the applicant's response to the original **Council Design Development condition (1)**: "*design development to Building 13 and Building 5, the two tallest buildings proposed...*", Building 4 was reshaped along its height to reduce shadowing and moved to front West 41<sup>st</sup> Avenue away from the Terraces building.
- Standard Urban Design condition A.1.2 seeks to ensure that the maximum tower floorplate size is maintained as per the approved Oakridge Design Guidelines attached as Appendix E.
- Buildings 3 and 4; as positioned on the site is anticipated to have very limited, if any, impact to solar access for the existing "Terraces" building based on its location northwest of said building. A shadow analysis was provided as part of the application and has been reviewed by staff to address this concern.

**DEVELOPMENT PERMIT STAFF COMMITTEE COMMENTS:**

The Staff Committee has considered the approval sought by this application and concluded that with respect to the Zoning and Development By-law it requires decisions by both the Development Permit Board and the Director of Planning.


With respect to the decision by the Development Permit Board, the application requires the Development Permit Board to exercise discretionary authority as delegated to the Board by Council.

The Staff Committee supports this proposal subject to the conditions contained in this report.




---

J. Greer  
Chair, Development Permit Staff Committee



---

P. O'Sullivan, Architect AIBC  
Development Planner



---

S. Vishwakarma  
Project Coordinator

Project Facilitator: D.Lee

## DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATIONS

The following is a list of conditions that must also be met prior to issuance of the Development Permit:

### A.1 Standard Conditions

#### Urban Design Conditions

- A.1.1 approval of a text amendment to the CD-1 By-law required to reconcile differences between the original 2014 Rezoning application and the approved PDP by City Council;
- A.1.2 provision of tower floorplate information for each floor of the proposal that comply with the maximum floorplates as indicated in the Oakridge Design Guidelines;

**Note to Applicant:** Intent is to follow through on PDP Condition 1.9 to maintain the form and massing of the towers indicated in the PDP. See also Appendix E for a copy of the approved Design Guidelines.

- A.1.3 provision of additional enlarged details of the following conditions:
- i. mechanical termination slot detail in the curtain wall; and
  - ii. typical reflected ceiling plan of the canopy soffit, indicating lighting and approximate spacing of joints.

- A.1.4 design development to locate mechanical exhaust from potential future restaurant spaces to areas that would cause the least impact to pedestrians or park users;

**Note to Applicant:** See also Standard Development Review Branch condition A.1.15.

- A.1.5 provision and clarification of a strategy to maintain survivability of plantings located in reveals of towers;

**Note to Applicant:** Intent is to follow up on PDP Condition A.1.7.

- A.1.6 design development to ensure pedestrian safety at all locations where pedestrian routes interface with vehicles and bicycles;
- A.1.7 identification on the architectural and landscape drawings of any built features intended to create a bird friendly design;

**Note to Applicant:** Bird friendly plants should be included on the plant palette, enabling bird habitat conservation and bird habitat promotion. Refer to the Bird Friendly Design Guidelines for examples of built features that may be applicable, and provide a design rationale for the features noted. For more information, see the guidelines at:  
<http://former.vancouver.ca/commsvcs/guidelines/B021.pdf>

#### Development Review Branch Conditions

- A.1.8 coordination of the residential area calculations for Buildings 3 and 4 with the individual and overall area summary tables;

**Note to Applicant:** Area calculations noted on the floor area overlays to exclude above grade storage units from the gross floor area. Verify and coordinate the net floor area between the overlays and the summary tables. Further comments may follow upon receipt and review of

revised calculations. See also Standard Development Review Branch condition A.1.11.

- A.1.9 confirmation of compliance with the *Bulk Storage and In-suite Storage – Multiple Family Residential Developments* Bulletin, by limiting storage unit area above grade to a maximum of 3.7 m<sup>2</sup> per unit;

**Note to Applicant:** Several units above grade exceed the maximum requirement and are therefore included in the calculation of floor area. Door swings within storage rooms must be included in the calculation of storage area. Laundry rooms cannot be excluded as storage, i.e. Level 13 – Unit 1303 in Building 4. See also Standard Development Review Branch conditions A.1.11 and A.1.14.

- A.1.10 compliance with Section 4.8.1 of the Parking By-law, by revising the size of parking spaces adjacent to structures/walls at the parking levels;

**Note to Applicant:** This includes all standard and disability parking spaces. See also Standard Development Review Branch condition A.1.12 and Standard Engineering Services conditions A.2.13 and A.2.35.

- A.1.11 provision of the following additional information and revisions to the Summary table(s):

- i. note permitted and proposed total non-residential floor area in accordance with Section 6.6 of the CD-1 By-law;
- ii. note Sub-Area and permitted height for Buildings 3 and 4 in accordance with Section 7.1 of the CD-1 By-law;
- iii. note 'Residential only' in title of Buildings 3 and 4 Area Summary; and
- iv. coordination of storage and amenity exclusion areas with calculations on FSR overlays and the floor plans.

**Note to Applicant:** See also Standard Development Review Branch conditions A.1.8 and A.1.9.

- A.1.12 revision to the parking plans by providing/performing the following:

- i. identification/allocation and labelling of all proposed parking spaces within each zone on the floor plans;

**Note to Applicant:** For instance, at the P1a level, "Social Housing Building 2 – 27 stalls" and "Civic Centre – 34 stalls". Further, label 'Residential', 'Office' and 'Retail' uses where applicable at the parking levels (per zone plan). Coordinate totals from each zone with the parking summary on the Overall Floor Plan (s) and the Project Data sheet. Provide a schedule/legend for acronyms per plan where applicable.

- ii. relocation of parking spaces currently located in conflict with columns, curbs, and any other structural element;
  - iii. identification and labelling of compactor loading spaces as Class B spaces (or as provided); and
  - iv. deletion of storage lockers in conflict with column at Level P3, Zone 2.
-

**Note to Applicant:** See also Standard Development Review Branch condition A.1.10 and Standard Engineering Services conditions A.2.13 and A.2.35.

A.1.13 provision of Class A bicycle spaces in accordance with Section 6 of the Parking By-law by performing the following:

- i. coordinate the total number of spaces within bicycles rooms with totals noted under Bicycle Parking Summary and Bicycle Parking Count tables;
- ii. dimension and provide typical individual bicycle spaces in accordance with Section 6.3.9;
- iii. identify and illustrate bicycle spaces as horizontal (including lockers) or vertical in accordance with Section 6.3.13 and 6.3.13A;

**Note to Applicant:** A minimum of 20% of the bicycle spaces shall be secured as lockers. Also refer to Section (s) 6.3.11 and 6.3.17 – 6.3.19 for standard locker requirements.

- iv. provide the following notations on plan where bicycle rooms/spaces are proposed:
  - a. "Construction of the bicycle rooms to be in accordance with Section 6.3 of the Parking By-law"; and
  - b. "The design of the bicycle spaces (including bicycle rooms, compounds, lockers and/or racks) regarding safety and security measures shall be in accordance with the relevant provisions of Section 6 of the Parking By-law".
- v. provide one electrical receptacle per 2 bicycle spaces for the charging of electric bicycles; and
- vi. confirm number of bicycle spaces provided within bicycle silos by providing typical details and cross-sections and /or providing manufacturers' specifications.

A.1.14 provision of the following on the architectural and landscape drawings:

- i. correct scale(s);
  - ii. confirmed site area per area provided on the legal survey;
  - iii. identification, location and number of Class B bicycle spaces at Level 1;
  - iv. proposed uses on each floor plan;
  - v. clarification of location and dimensions of above grade storage unit coordinated with overlays;
  - vi. coordination of unit design between floor plans and overlays;
  - vii. deletion of Building 5 information from the Comprehensive Project Data;
  - viii. confirmation of Building 3 Amenity area at Level 7;
- Note to Applicant:** Floor Plan and Overlay indicate different amenity areas.
- ix. clarification of use of area at Grid line CT on Level 1;

**Note to Applicant:** This area has not been included in the floor area calculation. Confirm if this is existing building area or proposed. Indicate use of each room and purpose of stairwell access.

- x. indication of floor elevations of all rooms on Level 1 to confirm exclusions (at or below base surface) in accordance with Section 6.8.(d) of the CD-1 By-law;
- xi. revision and coordination of the following unit information between the floor plan and respective overlays:
  - a. Level 7: Unit 711 and Unit 706 as 1 Bedroom;
  - b. Level 8: Unit 810 as 1 Bedroom and show Units 804, 805, and 811 on overlays to confirm storage size and exclusion; and
  - c. Level 12: Unit 1204.

**Note to Applicant:** Number of 1 and 2 Bedroom units shall be updated on the Residential Unit Summary table.

- xii. total number of units and proposed storage units per floor plan; and
- xiii. indication of the top of roof slab elevation on the Roof Plan (Level 31 on page 20-114).

**Note to Applicant:** See also Standard Development Review Branch condition A.1.9.

- A.1.15 provision of a vertical vent space to accommodate future proposed restaurant exhaust from the commercial level;

**Note to Applicant:** Intent is to allow for a wider range of uses without requiring the retrofitting of exhaust ducting on the outside of the building. See also Standard Urban Design condition A.1.4.

- A.1.16 design development to locate, integrate and fully screen any emergency generator, exhaust or intake ventilation, electrical substation and gas meters in a manner that minimizes their visual and acoustic impacts on the building's open space and the Public Realm;
- A.1.17 provision of an acoustical consultant's report which assesses noise impacts on the site and recommends noise mitigation measures in order to achieve noise criteria;
- A.1.18 provision of written confirmation by the applicant that confirms the following:
  - i. the acoustical measures will be incorporated into the final design and construction, based on the consultant's recommendations;
  - ii. adequate and effective acoustic separation will be provided between the commercial and residential portions of the building; and
  - iii. mechanical (ventilators, generators, compactors and exhaust systems) will be designed and located to minimize the noise impact on the neighbourhood and to comply with Noise By-law #6555.

## Landscape Conditions

- A.1.19 [Repeat PDP Condition A.1.15] *design development to the structural, landscape and grading plans to ensure highly compatible, pedestrian-friendly transition zones from public space to privately owned space throughout the site;*

**Note to Applicant:** *Special attention will be needed to ensure a seamless transition from park areas to the privately owned edges of buildings and the interface with various uses, ie. commercial, residential, institutional. In the overall open space plan, avoid left over spaces and awkward connections between buildings and consider CPTED principles.*

[New] Note to Applicant: This can be done through further design development and fine scale details, including illustration of grades and materials at the boundaries of the development and adjacent spaces to Buildings 3 and 4.

- A.1.20 [Repeat PDP Condition A.1.16] *design development to the overall structural design of all applicable existing and proposed buildings (limited to proposed landscaping on buildings or "green roofs") to ensure adequate soil volumes and planting depths for trees, intensive and extensive green roof treatment;*

[New] Note to Applicant: Provide a two dimensional plan with calculations for soil volumes in planters and unencumbered soil depth labels, expressed in plan view, limited to the scope of work for Buildings 3 and 4. The architectural and landscape plans should provide large scale sections that clearly illustrate slab, soil and planter depths, with special attention to the planted westerly terraces of Building 4. Details of the planted terraces are to be provided in the landscape and architectural plans. Planters should be cast in place and integral to the building.

- A.1.21 [Repeat PDP Condition A.1.20] *provision of plans, plan details, and documentation/calculations that support integrated rainwater management, including absorbent landscapes, soil volumes, and detention systems, as follows:*

- i. *detailed storm water report with calculations describing how the various best management practices contribute to the quality and quantity targets;*
- ii. *a separate soil volume overlay plan with schematic grading indicating intent to direct rainwater to infiltration zones;*
- iii. *an overlay plan that shows amount and ratio of vegetative cover (green roof); and*
- iv. *permeable/impermeable hardscaping and notations describing the storage location of rainwater falling on each surface, including roofs.*

**Note to Applicant:** *This is applicable to private property but will need to be coordinated with rainwater management plans for the overall site and with City-owned park spaces. The strategy and plan is to be updated at time of each successive development permit phase to ensure the targets and requirements are on track.*

- A.1.22 [Repeat PDP Condition A.1.21] *design development to any private property onsite water feature to explore opportunities for demonstrating leadership in the creative use of recycled rainwater and/or low volume water basin solutions;*

**Note to Applicant:** *Water feature designs that rely on potable water as a primary water source is discouraged. The water supply can be integral to an overall rainwater harvesting system or by capturing water from nearby hard surfaces. Special attention will need to be given to the mechanical design to ensure the recycled water is cleaned and treated. Consider a water flow*



and basin design that is very shallow and aesthetically pleasing in times when the water supply may be shut off.

A.1.23 [Repeat PDP Condition A.1.22] design development to the location of site utilities and vents on private property to be integrated discreetly into the building, avoiding any areas of the park, landscaped and common areas and not adversely impacting the public realm;

A.1.24 [Repeat PDP Condition A.1.23] design development to reduce potable water consumption in irrigation systems by using drought tolerant species, rainwater harvesting methods and efficient irrigation technology for all planted areas;

**Note to Applicant:** Potable water may be needed for urban agriculture areas and patios. Individual hose bibs should be provided for all patios and common areas of 100 ft<sup>2</sup> or greater in size, to encourage patio gardening. This is applicable to private property. On the landscape plans, illustrate irrigation connection points and hose bib symbols accurately and provide a highlighted note to verify the irrigation is to be designed and constructed. Hose bibs are requested to encourage patio gardening and hand watering on private patio and amenity decks.

A.1.25 [Repeat PDP Condition A.1.24] further exploration and scoping of tree retention options;

**Note to Applicant:** While the proposal has identified trees that may be suitable for retention, (refer to Oakridge Design Guidelines, page 93), form of development and final street design could result in changes to the intent. Tree retention feasibility review will be required at each development permit stage, or possibly triggered by another permit (such as demolition). Arborist reporting will be needed, prior to, or concurrent with the appropriate permit application. Trees or tree groupings that are owned or co-owned with the City will require coordination with Engineering Services and Park Board. Where tree retention is not possible, consideration of re-use option should be explored.

A.1.26 [Repeat PDP Condition A.1.25] provision of a detailed arborist report and phased "Tree Management Plan" in coordination with arboricultural services, including the assessment of existing trees, retention value rating, retention feasibility, remediation recommendations, site supervision and letters of undertaking;

**Note to Applicant:** Given the size and complexity of the site, a phased approach will be necessary. Provide a tree plan that is separate from the landscape plan. It is preferred that the arborist tree management plan(s) become the primary document for tree removal/ protection related matters. Attach a large scale tree management sheet (same size sheet as architectural sheets) to the landscape plan submission. The plan should clearly illustrate all trees to be removed and retained, including any tree protection barriers and important construction management directives drawn out of the arborist report(s). Tree replacements to be shown on separate landscape master plans and detailed landscape plans at each phase.

A.1.27 [Repeat PDP Condition A.1.26] provision of enhanced soils to maximize tree health in the public realm;

**Note to Applicant:** Subject to further review by the City Engineer, this may include continuous soil trenches, structural soils and/or soil cells. Further consultation with the project arborist may be necessary.

A.1.28 [Repeat PDP Condition A.1.27] provision of a detailed Landscape Plan illustrating soft and hard landscaping;

**Note to Applicant:** The plans should be at 1/8" = 1'-0" scale minimum. Phased development should include separate landscape plans for individual buildings and adjacent open space. The

*Plant list should include the common and botanical name, size and quantity of all existing/proposed plant material. Plant material should be clearly illustrated on the Landscape Plan and keyed to the Plant List. The landscape plan should include the public realm treatment (to the curb) and all existing or proposed street trees, adjoining walkways, surface materials, PMT/Vista transformers and utilities such as lamp posts, hydro poles, fire hydrants, etc.*

- A.1.29 [Repeat PDP Condition A.1.28] provision of a dog relief area for all residential buildings at the entrance, or on building podiums or other appropriate private spaces, to the satisfaction of the General Manager of the Vancouver Board of Parks and Recreation and the Director of Planning;

**Note to Applicant:** Residential buildings must include a provision for dog relief areas within private development boundaries. These are attractive, well-draining areas conveniently located at the entrances of residential buildings that are easily cleaned. Elements should include deep pea gravel surfacing (minimum 500mm), a hose bib for cleaning and dog washing, trash receptacle and bag dispenser, pee post and decorative elements, and other attractive landscaping elements. Dog relief areas are small in size with a recommended minimum area of approximately 9m<sup>2</sup>. Designated dog relief areas help to improve the overall durability and usability of the park, reducing pathogens to people, other dogs and wildlife, reducing negative impacts to vegetation and soiling and staining of architectural elements by dogs.

[New] **Note to Applicant:** Residential buildings included in this application are required to provide a dog relief area on private parcels. Applicant to clearly indicate dog relief areas on landscape plans.

- A.1.30 [Repeat PDP Condition A.1.29] provision of detailed architectural and landscape cross sections at a minimum 1/4" = 1'-0" scale through common open spaces, semi-private patio areas, and the public-private realm;

**Note to Applicant:** Detailed, dimensioned sections should be provided through the planted patios of Building 4, at each floor, where applicable. The sections should illustrate the slab design and location, soil profile, tree root ball, tree canopy and any associated landscape treatment. For private patios and amenity areas, illustrate and dimension planters on slab, planter sizes (inside dimension), soil, root ball, retaining walls, steps, patios and portions of the adjacent building, such as residential units or amenity rooms.

- A.1.31 [Repeat PDP Condition A.1.30] provision of new street trees adjacent to the development site, where applicable;

**Note to Applicant:** Street trees to be shown on the development permit plans and confirmed prior to the issuance of the building permit. Contact Eileen Curran, Streets Engineering (604.871.6131) to confirm tree planting locations and Park Board (604.257.8587) for tree species selection and planting requirements. Provide a notation on the plan as follows, "**Final spacing, quantity and tree species to the satisfaction of the General Manager of Engineering Services. New trees must be of good standard, minimum 6cm caliper, and installed with approved root barriers, tree guards and appropriate soil. Root barriers shall be 8 feet long and 18 inches in. Planting depth of root ball must be below sidewalk grade. Call Park Board for inspection after tree planting completion**".

- A.1.32 [Repeat PDP Condition A.1.31] provision of enlarged detailed elevations for all vertical landscape structures and features, i.e. green walls, trellis, pergola, privacy screens;
- A.1.33 correction of intent for green roof type as noted on page 101 of the submission booklet as label "C" states extensive green roof type, but should be "intensive" type as soil depths will accommodate shrubs and trees;

- A.1.34 further coordination with Planning and Engineering staff with regard to the integrated rainwater management plan (RMP) to ensure the project is on track to meeting policy intent and targets;

**Note to Applicant:** Best management practices and green infrastructure should be clearly labelled and indicated on the architectural and landscape plans. Further comments may be outstanding. See also Standard Engineering Services condition A.2.40.

- A.1.35 provision of assurances by way of a written maintenance and access strategy and plan(s) for all planted terraces and amenity areas, particularly spaces adjacent to private units;

**Note to Applicant:** These documents are intended to be for the benefit of the future owner(s) and City of Vancouver. Arrangements should be made to share the landscape maintenance manuals/specifications with the future owner(s).

### Park Board Conditions

- A.1.36 [Repeat PDP Condition A.1.32] *design development to meet at a minimum the Park Board's Park Development Standards;*

[New] **Note to Applicant:** Landscape Plans will need to adhere to Park Development Standards and are subject to approval by the Park Board General Manager.

- A.1.37 [Repeat PDP Condition A.1.33] *design development to ensure public access to, from and through the park during and after mall hours by providing and/or ensuring the following:*

- i. *a minimum of six points of entry that are fully accessible to access the park from the street and or mall. This includes publicly accessible access points which are open during non-mall hours with at least two accessible elevator access points open 24 hours with one being the entrance from the transit plaza;*
- ii. *access points are highly visible and inviting;*
- iii. *connectivity of access points to the park and maximum visual access and transparency from street level and in the park; and*
- iv. [New] operating hours must be consistent with park hours, and accessible access shall be provided for users to get down from the upper park level to the street at all hours.

**Note to Applicant:** *This includes elevators which must be located in highly visible locations in close proximity to stair access points to ensure the relationship is intuitive with a strong visual connection.*

[New] **Note to Applicant:** Park Board staff cannot review until the park boundary for this application is clearly indicated on all landscape drawings. Park entrance from the internal elevator in Building 3 is required to meet the above conditions.

- A.1.38 [Repeat PDP Condition A.1.35] *design development to confirm interface between private uses and park space;*

**Note to Applicant:** *Park Board will not accept private ownership of structures within the park areas.*

- A.1.39 [Repeat PDP Condition A.1.37] *design development to ensure universal accessibility of the park to the satisfaction of the General Manager of the Vancouver Board of Parks and Recreation;*

A.1.40 [Repeat PDP Condition A.1.39] *design development to confirm entry points from commercial, retail, and residential development leading into park space to the satisfaction of the General Manager of the Vancouver Board of Parks and Recreation;*

A.1.41 [Repeat PDP Condition A.1.41] *joint completion of a Park Operations and Maintenance Agreement required between the applicant and Park Board to the satisfaction of the General Manager of the Vancouver Board of Parks and Recreation to demonstrate consideration and approach for daily operations and maintenance;*

**Note to Applicant:** *Agreement to include, but not be limited to, park maintenance, repair, replacement and renewal requirements to be satisfied by the applicant, as well as an understanding of the Park Board's role in inspections, operational control including event permitting and enforcement of park by-laws.*

A.1.42 [Repeat PDP Condition A.1.42] *provision of a maintenance manual for each of the 6 park areas to be provided by the applicant as part of all development permit submissions, to the satisfaction of General Manager of the Vancouver Board of Parks and Recreation;*

**Note to Applicant:** *These manuals will form part of the Park Operations and Maintenance Agreement. Recognizing that the park design will evolve over a number of development permit applications, it is anticipated that updated manuals may be required throughout the process.*

*Manuals to include direction on maintenance of all park elements including but not limited to, structures, hardscape and horticultural elements. Manuals are to include, but not be limited to, daily, seasonal, annual and other time bound requirements.*

A.1.43 [Repeat PDP Condition A.1.43] *design development to demonstrate that the net park area is not reduced by any park maintenance or operations features including, but not limited to maintenance yard(s) of any size, storage of equipment and/or materials, space for park attendants, and back-of-house functions, etc. and that the park is easy to access by small utility vehicle(s), i.e. gator;*

A.1.44 [Repeat PDP Condition A.1.47] *provision of Park Board approval for the siting of any public art proposed within the park;*

**Note to Applicant:** *Should public art be proposed/located in the park areas, development of a Public Art Plan and implementation must include collaboration with Park Board staff to ensure siting of public art aligns with the advancement of the detailed design of the park and enhances and supports parks and recreation uses.*

A.1.45 [Repeat PDP Condition A.1.48] *design development and provision of a Landscape Plan and Public Realm Plan that align with the concepts and directions of the park design and the park landscape plan;*

**Note to Applicant:** *Landscape Plan should include, but not be limited to transition areas to park including hardscape, planting areas and edge conditions.*

[New] **Note to Applicant:** Park planting plan and park materials plan is to be provided for Park Board staff review. Park boundary is to be clearly indicated on these and all other landscape drawings.

A.1.46 [Repeat PDP Condition A.1.49] *design development to provide active edges and appropriate transitions from all adjacent buildings to the park, to the satisfaction of the General Manager of the Vancouver Board of Parks and Recreation and the Director of Planning;*

**Note to Applicant:** The design development of retail, office, and residential buildings facing and adjacent to the park should provide an engaging interface for pedestrians and visual porosity into the park through use of windows and transparent surface elements where possible. Buildings that abut the park should carry elements of the park landscape up the building to support the park principle of “lush and diverse landscape” and clearly denote the private, semi-private and public spaces through design elements.

[New] **Note to Applicant:** Park Board staff cannot review until the park boundary for this application is clearly indicated on all landscape drawings. See also Recommended condition 1.6.

- A.1.47 [Repeat PDP Condition A.1.52] design development to minimize additional impact on the park from building shadow;

**Note to Applicant:** Any proposed changes to building form or massing must demonstrate that there is no increased shadowing on the park.

- A.1.48 [Repeat PDP Condition A.1.53] identification of any building overhang encroachments on park space as they are subject to approval by the General Manager of the Vancouver Board of Parks and Recreation;

**Note to Applicant:** Consideration should be given to build up of snow and ice and the related safety of park users.

[New] **Note to Applicant:** Park Board staff cannot review until the park boundary for this application is clearly indicated on all landscape drawings. See also Recommended condition 1.6.

- A.1.49 [Repeat PDP Condition A.1.54] design development to ensure best practices are met to ensure the health of trees and other plantings;

**Note to Applicant:** Soil depths and volumes on slab and on grade shall meet or exceed the values indicated in the Canadian Landscape Standard.

[New] **Note to Applicant:** Landscape Plans are to adhere to Park Development Standards and are subject to approval by the Park Board General Manager.

Overall park planting schedule and plan is to be reflective of a broader, unified, planting palette, and is subject to review and approval by the Park Board General Manager.

A park-wide planting approach should be developed in tandem with Park Board staff. The planting approach and palette will need to consider an ecosystem-based approach while recognizing the on-structure setting. The broader plan should consider ecological succession in this setting. Park Board staff cannot review the planting plan for this application until a broader plan has been developed and approved, and the park boundary is clearly indicated on all landscape drawings. See also Recommended condition 1.6.

- A.1.50 [Repeat PDP Condition A.1.55] design development to explore potential sustainable reuse of trees removed on site in potential building design elements where possible;

**Note to Applicant:** The majority of on-site trees were never planted with the intention of being transplanted, retention may be largely impractical due to anticipated complications with existing root systems and viability/long-term health of trees if moved. Staff however encourage the applicant to explore methods where sustainable re-use is possible, i.e. design elements, building features, etc.

## Affordable Housing Conditions

---

A.1.51 [Repeat PDP Condition A.1.59] *design development of the market strata housing units to meet the intent of the High Density Housing for Families with Children Guidelines to the satisfaction of the Director of Affordable Housing, by providing the following:*

- i. *improved design and layout of 2-bedroom and 3-bedroom units with consideration of the following:*
  - a. *suitability for family housing; and*
  - b. *maximize the location of these units within the first 8 floors of grade or a podium level and optimize the number of these units with direct physical or visual access to grade or podium outdoor space.*

**Note to Applicant:** A minimum of 35% of family units, including 2-bedroom (25%) and 3-bedroom (10%) units for market strata units shall be provided to comply with Family Room: Housing Mix Policy for Rezoning Projects.

[New] provision of a comprehensive listing of all market strata building with breakdown by unit type;

[New] **Note to Applicant:** A minimum of 35% family units, including 2-bedroom (25%) and 3-bedroom (10%) units for market strata shall be provided. Currently both Buildings 3 and 4 do not meet this breakdown.

A.1.52 design development to maximize family units within the first 8 floors (Floors 7 -14);

**Note to Applicant:** Refer to the *High Density Housing for Families with Children Guidelines* for further details.

A.1.53 design development of the indoor and outdoor amenity spaces to ensure the following for residents:

- i. indoor amenity to include a kitchen, storage closet and accessible washroom equipped with baby change table; and

**Note to Applicant:** Indoor amenity shall be located adjacent to an outdoor amenity area.

- ii. outdoor amenity to include a rooftop outdoor common area for residents including a play area suitable for a range of opportunities for creative and motor-skills developing for children over a range of ages.

#### **Facilities Planning and Development Conditions**

A.1.54 provision of a description of a Mechanical Concept design;

**Note to Applicant:** Provision of a brief memorandum outlining the selected approach to heating, cooling and ventilating of the development, as well as all other mechanical systems, at a concept design level is required for staff to understand the design intent, particularly with regards to the Civic Centre and social housing units. The Mechanical Concept is to conform with the intent of the *Housing Design and Technical Guidelines*, the *Recreation Facility Technical Guidelines*, the *Civic Centre Functional Program*, and the *Childcare Technical Guidelines*.

A.1.55 provision of a description of an Electrical Concept design;

---

**Note to Applicant:** Provision of a brief memorandum outlining the selected approach to electrical, data, fire alarm, and emergency power systems, the lighting design for both interior and exterior, at a concept design level is required for staff to understand the design intent, particularly with regards to the Civic Centre and social housing units. The Electrical Concept is to conform with the intent of the *Housing Design and Technical Guidelines*, the *Recreation Facility Technical Guidelines*, the *Civic Centre Functional Program*, and the *Childcare Technical Guidelines*.

- A.1.56 design development to update the layout of parking levels including elevator, and stair cores, service rooms, and parking layouts with the design of the Civic Centre (Building 1), and social housing (Building 2) to the satisfaction of the Director of Planning, General Manager of Engineering Services, General Manager of Real Estate and Facilities Management, Director of Affordable Housing, and General Manager of Arts, Culture and Community Services;

**Note to Applicant:** As the design of the Civic Centre progresses, the design of the parking levels will likely need updating. Staff anticipates a development permit Minor Amendment to this application at the time of development permit application for Buildings 1 and 2.

- A.1.57 provision of dimensions, areas, and descriptive labels on plans for all service rooms located below grade and dedicated to the Civic Centre and social housing;

**Note to Applicant:** Spaces dedicated for the use of the Civic Centre and social housing should be clearly indicated on plans through the use of colour shading and labelling.

- A.1.58 provision of a schedule of parking spaces with a breakdown of type and totals for Buildings 1 and 2;

- A.1.59 provision of a schedule of bicycle storage spaces with a breakdown of type and totals for Buildings 1 and 2;

- A.1.60 indication on the plans of the location of the loading bay(s) dedicated to social housing, and those dedicated to the Civic Centre use, complete with stair free access to the social housing and Civic Centre elevators;

**Note to Applicant:** See also Standard Engineering Services conditions A.2.8 and A.2.36.

### **Civic Centre**

- A.1.61 [Repeat PDP Condition A.1.69] *design development to ensure the following parking spaces dedicated to the Civic Centre are provided/located to the satisfaction of the Director of Planning, General Manager of Engineering Services, General Manager of Real Estate and Facilities Management, and General Manager of Arts, Culture and Community Services;*

- i. *parking spaces located within parking mezzanine Level P1a City airspace parcel; and*
- ii. *parking spaces located within parking Level P1, adjacent to the Civic Centre elevator core with access for Civic Centre patrons secured through an easement for the life of the facility.*

**Note to Applicant:** Sketch plan to be provided to outline Civic Centre parking spaces on Level P1. City approval will be required should there be any modification to the parkade or implementation of pay parking within the defined area.

- A.1.62 [Repeat PDP Condition A.1.70] *design development to ensure all pick-up and drop-off spaces associated with the Civic Centre and any of its uses/programs are provided/located to the satisfaction of the Director of Planning, General Manager of Engineering Services, General*

*Manager of Real Estate and Facilities Management, and General Manager of Arts, Culture and Community Services;*

**Note to Applicant:** Indicate and label dedicated drop-off spaces. Drop-off spaces shall be in close proximity to the Civic Centre lobby and elevator and located such that there is no need to cross a drive aisle with a dedicated walkway for pedestrian access to the lobby. In some cases, they will need to be located at-grade for accessibility reasons, ie. 55+ Activity Centre.

A.1.63 [Repeat PDP Condition A.1.72] identification and label on the plans of the following spaces dedicated to the Civic Centre:

- i. [New] generator room;
- ii. bicycle storage room for staff and visitors, located with convenient access to Civic Centre parkade/lobby;

**Note to Applicant:** Bicycle storage shall be conventional and not included as part of the proposed "Bicycle Silo" scheme.

- iii. storage rooms with convenient and stair free access to loading bays and loading elevators; and
- iv. garbage, recycling, and mechanical rooms with convenient and stair-free access to the loading bays.

A.1.64 provision of adequate height and facilities in the Garbage/Recycling room for automated tipping without the requirement for staff to manually tip bins, to the satisfaction of the General Manager of Real Estate and Facilities Management;

### **Social Housing**

A.1.65 design development to maximize in-suite storage and reduce storage located in parkade;

**Note to Applicant:** Instead of storage lockers, a minimum of 5.7 m<sup>3</sup> (200.0 ft.<sup>3</sup>) of useable storage space for each dwelling unit is to be located in-suite for the storage of bulky items, ie. winter tires, ski and barbecue equipment, excess furniture, etc., in compliance with the *Bulk Storage and In-suite Storage – Multiple Family Residential Developments Bulletin*.

A.1.66 provision and identification on the plans of the following spaces dedicated to Social Housing:

- i. bicycle storage room, located with convenient access to elevator core;

**Note to Applicant:** Bicycle storage shall be conventional and not included as part of the proposed "Bicycle Silo" scheme.

- ii. heat treatment room; and

**Note to Applicant:** Provision of a heat treatment room in social housing for bedbug treatment and provision of bedbug deterrent in walls between units to the satisfaction and further direction of the General Manager of Arts, Culture and Community Services, and the General Manager of Real Estate and Facilities Management, as required.

- iii. mechanical and electrical rooms.



- A.1.67 design development to provide separate and secure, dedicated parking spaces with a single entry gate for social housing parking;
- A.1.68 design development to maximize number of parking and loading spaces on Level P1a through more efficient use of space;
- A.1.69 design development to provide access from Building 2 (social housing) core to Level P1a parking;

#### **Cultural Services Conditions**

- A.1.70 [Repeat Condition A.1.44] *provision of a comprehensive analysis for special events through design development to determine potential impacts to adjacent residents including, but not limited to, noise, light, and views;*

[New] design development to ensure building design and materials (glazing, wall details, etc.) will reduce interior noise levels as much as possible from anticipated events in the adjacent park activity zone and outdoor performance spaces which may produce high levels of sound;

[New] **Note to Applicant:** See also Recommended conditions 1.3 and 1.4.

#### **Crime Prevention Through Environmental Design (CPTED) Conditions**

- A.1.71 incorporation of CPTED principles, as follows:
- i. ensure natural surveillance throughout pedestrian realm including underground parking, with glazing into publicly accessible areas such as elevator lobbies, stairs, and storage rooms;
  - ii. pedestrian-scaled lighting to improve safety and security around the building;
  - iii. underground parking to have 24 hour lighting and walls painted preferably in a light colour;
  - iv. avoid hidden alcoves and concealed spaces along the streets and underground;
  - v. reduce opportunities for graffiti around the building, use graffiti deterrent paint, and lighten colour of blank facades along base; and
  - vi. incorporate openings along the lane elevation for natural light to the parkade where possible.

#### **Sustainability Conditions**

- A.1.72 prior to development permit issuance, provision of documents demonstrating the project is on track to achieve all requirements of the *Green Buildings Policy for Rezoning* (2016), to the satisfaction of the Director of Planning, as outlined in the bulletin *Green Buildings Policy for Rezoning – Process and Requirements* (April 2017, or as later amended);

**Note to Applicant:** The submission requirements for rezoning and development applications are detailed in pages 17 and 18 of the above mentioned bulletin, and include a preliminary energy model, ZEBP Energy Checklist, embodied carbon calculation, and other documents.

- A.1.73 prior to building permit issuance, provision of all requirements for the chosen Low Carbon Energy System (LCES) pathway type, to the satisfaction of the Director of Planning and General

Manager of Engineering Services, as outlined in the *Low Carbon Energy Systems Policy* (November 2017, or as later amended);

**Note to Applicant:** A "No Development" Section 219 Covenant relating to issuance of a Stage II Building Permit has been registered on title of the Oakridge development, to be discharged at such time upon the owner entering into legal agreements as determined necessary by the Director of Sustainability, General Manager of Engineering Services and the Director of Legal Services in order to meet the requirements of the *Green Buildings Policy for Rezoning*s, including energy performance monitoring and reporting.

## A.2 Standard Engineering Conditions

- A.2.1 [Repeat PDP Condition A.2.2] *provision of a well feasibility study and access to the groundwater source at the site including all necessary infrastructure to draw from the source from City street;*

**Note to Applicant:** A "No Development" Section 219 Covenant has been registered on title of the Oakridge development, to be discharged at such time upon the owner providing the completed study and entering into legal agreements as determined necessary by the General Manager of Engineering Services and the Director of Legal Services.

- A.2.2 [Repeat PDP Condition A.2.5] *arrangements shall be made, to the satisfaction of the General Manager of Engineering Services, the Director of Legal Services, and the Approving Officer for the dedication as road of the following:*

- i. *the "New Street"- an 8.0 m wide strip adjacent to the westerly perimeter of the site from West 41st Avenue to West 45th Avenue; and*
- ii. *the panhandle portion of the site (being all that part located between the New Street and West 45th Avenue lying between Strata LMS1751 and Lot 6, Plan 19924.*

**Note to Applicant:** A subdivision is required to effect the dedication. A subdivision plan and application to the Subdivision and Strata Group is required. For general information see the subdivision website at: <http://vancouver.ca/home-property-development/apply-to-subdivide-or-join-properties.aspx>.

- A.2.3 *deletion of the portion of building "skin" which touches ground within the 6m wide SRW adjacent to the north property line on pages 20-10203, 51-002 and 57-011(at grid-line BY) and page 57-014 (Section 3);*

- A.2.4 [Repeat PDP Conditions A.2.20, A.2.21, A.2.30, A.2.37, and A.2.38] *provision of a Letter of Credit to secure the Owner's Works as listed in the Services agreement for Oakridge to the satisfaction of the General Manager of Engineering Services;*

**Note to Applicant:** These buildings trigger portions of the Owner's Works, which include, but are not limited to the following:

- i. *provision of the redesign and reconstruction of West 41<sup>st</sup> Avenue from Cambie Street to the New Street including, but not limited to, sidewalks, curbs, vehicle lanes, separated bicycle lane(s), transit stops, signage, street and pedestrian-scale lighting, parking lane(s), treed boulevards, center medians, street furniture (bicycle racks, benches, litter containers, etc.), concrete bus pads, road painting and increased crosswalk widths;*

**Note to Applicant:** The City will provide a geometric design. Drawings to reflect the most current geometric designs.

- ii. *design and construction of new traffic signals and related infrastructure at the following locations:*
    - a. *West 41<sup>st</sup> Avenue and Cambie Street;*
    - b. *West 41<sup>st</sup> Avenue and Manson Street; and*
    - c. *West 41<sup>st</sup> Avenue and New Street.*
  - iii. *provision of upgrade and optimization of traffic signals at West 41st Avenue and Heather Street to reflect redesigned streets, site-generated traffic, new bikeway connections, and integration of separated bicycle lanes; and*
  - iv. *provision of adequate water and sewer service to meet the demands of the project.*
- A.2.5 [Repeat PDP Condition A.2.27] *enter into a Shared Vehicle Agreement with the City to secure the provision, operation and maintenance of 85 Shared Vehicles (10 publicly accessible Shared Vehicles and 75 Shared Vehicles as part of the car club for Oakridge residents) and the provision and maintenance of 85 Shared Vehicle Parking Space(s) for use exclusively by such Shared Vehicle(s), on terms and conditions satisfactory to the General Manager of Engineering Services and the Director of Legal Services, including the following:*
- i. *provide the 85 Shared Vehicle(s) to the development for a minimum period of 3 years;*
  - ii. *enter into an agreement with a Shared Vehicle Organization satisfactory to the General Manager of Engineering Services to secure the operation and maintenance of the 85 Shared Vehicle(s);*
  - iii. *provide and maintain the Shared Vehicle Parking Space(s) for use exclusively by such shared vehicles;*
  - iv. *make arrangements to allow members of the Shared Vehicle Organization access to the Shared Vehicle Parking Space(s);*
  - v. *provide security in the form of a Letter of Credit for \$50,000 per Shared Vehicle;*
  - vi. *registration of the Shared Vehicle Agreement against the title to the development, with such priority as the Director of Legal Services may require and including a covenant under section 219 of the Land Title Act of British Columbia, a statutory right of way, or other instrument satisfactory to the Director of Legal Services, securing these conditions; and*
  - vii. *provision of a letter of commitment from a car share company indicating their willingness to supply car share vehicles on the site at building occupancy. [New] The letter is to also indicate acceptance of the general location, configuration and accessibility of the shared vehicle spaces.*

**Note to Applicant:** *Shared vehicle spaces are required to be a minimum width of 2.9m.*

A.2.6 *provision of an updated Transportation Assessment including the following:*

- i. *coordinated technical tables that show the current uses, TDM measures and additional parking, loading and bicycle parking requirements, ie. 300 traditional Class A spaces for temporary use, 30% traditional Class A bicycle spaces, visitor spaces, public and private car share, etc.;*

**Note to Applicant:** See also Standard Engineering Services condition A.2.17.

- ii. commentary on changes to the development plan as part of the development permit application, as well as any required analysis;
- iii. parking study to reflect the updated form of development;
- iv. bicycle parking study to reflect the updated form of development;
- v. loading study to reflect the updated form of development;
- vi. a Loading Management Plan (LMP), including the following for each phase of development:
  - a. how the loading facilities will operate;
  - b. how the loading facilities will be managed, such as on-site loading managers;
  - c. the size of the largest delivery vehicle delivering to the site;
  - d. routing of trucks from the arterial streets to and from the loading spaces;
  - e. identification of the largest truck that the loading space(s) are designed to accommodate and provision of all vehicle dimensions;
  - f. an expected Schedule of Loading Activity table for all uses and the expected frequency of all of the deliveries;
  - g. identification of loading bays that can be used for unscheduled loading deliveries;
  - h. Loading Management and Communications Protocol for all tenants;
  - i. details of wayfinding and signage used for the loading bays proposed in the underground parking; and
  - j. manoeuvring analysis for the loading bays.
- vii. provision of updates to the Transportation Analysis, describing the following:
  - a. cycle lengths used for previous and the most recent analysis;  
**Note to Applicant:** Confirm if the analysis was based on signal timing provided by the City.
  - b. if cycle lengths were changed between studies and any signal timing provided by the City; and  
**Note to Applicant:** If so, explain the assumptions for the cycle lengths selected and signal phasing used.
  - c. splits in the Synchro analysis and SimTraffic queue for all intersections.

**Note to Applicant:** Engineering requires the background information that was used to construct the model and Synchro outputs before the review of the traffic analysis provided September 14, 2018 can be completed.

- viii. provision of recommendations for improved signal operations at the intersection of Cambie Street and West 41<sup>st</sup> Avenue;

**Note to Applicant:** The report mentions that Cambie Street and West 41<sup>st</sup> Avenue is failing, but no recommendations have been provided.

- ix. provision of a full signal warrant calculation for the signal at the Civic Centre parking ramp;
- x. provision of an additional scenario demonstrating how the road network would work with protected right-turn phasing when encountering bi-directional bicycle lanes; and
- xi. provision of confirmation that the eastbound and westbound left turn bay storage at West 41<sup>st</sup> Avenue and Manson Street is sufficient.

**Note to Applicant:** See also Standard Engineering Services condition A.2.29.

- A.2.7 provision of manoeuvring analysis for the loading bays, service corridors, parallel parking spaces, dead end parking spaces, solid waste operations, all ramps and at all accesses;

**Note to Applicant:** Additional manoeuvring analysis and details of vehicle access at each parking level is requested for the spiral ramp proposed in Zone 7. Staff recommends traditional circulation ramps be provided to access the parking levels.

- A.2.8 provision of loading and access plans that show the loading routes and access from the loading bays, designated parking areas, and bicycle storage rooms to the respective elevator lobbies, and shall include the following:
  - i. numbering and labelling for each loading bay on the drawings, including confirmation if they are for shared use, ie. residential/commercial in Building 4;
  - ii. labelling of the intended users for each Class A bicycle space storage room on the drawings;
  - iii. labelling of the designated use for each parking space on the drawings, ie. market residential, commercial, social housing, visitor, etc.; and
  - iv. labelling of the intended use for each elevator lobby.

**Note to Applicant:** Drawings should be overall parking layout plans that are at a larger size for review and shall be to scale. This is requested to confirm that convenient, stair free loading operations is provided from all loading bays to the elevator lobbies for intended use. For example, it is unclear how access is to be provided from the loading bays to the Building 4 elevator lobbies shown on Level P3. See also Standard Facilities Planning and Development condition A.1.60.

- A.2.9 confirmation that trucks are not able to enter/exit the site via the parkade accesses on West 41<sup>st</sup> Avenue at Manson Street and near Ash Street due to limited vertical clearance;

**Note to Applicant:** An Occupancy Hold will be placed on Buildings 3 and 4 until the truck tunnel and associated truck access via Cambie Street and West 44<sup>th</sup> Avenue are complete.

- A.2.10 identification of relaxations requested for the parking, loading and bicycle parking and provision of rationale for supporting any relaxations;

**Note to Applicant:** The loading management plan and additional loading detail is required prior to supporting any loading relaxations. Shared Loading Agreements may be required for Shared Use Loading Bays.

- A.2.11 [Repeat PDP Condition A.2.40] *provision of review of proximity of bus stop to the driveway east of Manson Street on West 41<sup>st</sup> Avenue and if too close revisit proposed location;*

- A.2.12 [Repeat PDP Condition A.2.29] *provision of a Traffic Calming Plan and construction of all recommended measures, in consultation with the surrounding neighbourhood and to the satisfaction of the General Manager of Engineering Services, for West 45<sup>th</sup> Avenue, the New Street, the lanes connecting to the New Street, Manson Street (north of West 41<sup>st</sup> Avenue), and any other locations identified by the General Manager of Engineering Services where new short-cutting may occur;*

- A.2.13 provision of an updated Parking Strategy Memo, including the following:

**Automated Bicycle Storage**

- i. clarification if non-residential users will also have free use of the bicycle silo;

**Note to Applicant:** See also Standard Engineering Services conditions A.2.14 and A.2.17.

- ii. explicitly state that 300 additional "traditional" Class A bicycle spaces are to be provided as back-up for silo maintenance/downtime; and

**Residential Valet Parking**

- iii. [Repeat PDP Condition A.2.46.(iv).(c)] *provision of a conceptual design of security measures to be installed should the valet system be wound down.*

- A.2.14 arrangements shall be made, to the satisfaction of the General Manager of Engineering Services and Director of Legal Services, covenanting the following:

- i. the retail mall owner will retain ownership of all bicycle silos;
- ii. the retail mall owner will retain all maintenance obligations of the bicycle silos;
- iii. bicycle silo access will be provided to all Oakridge residents free of charge;
- iv. subject to confirmation from the Applicant, bicycle silo access will also be provided to the public; and

**Note to Applicant:** See also Standard Engineering Services conditions A.2.13 and A.2.17.

- v. Class A bicycle parking will be allocated to each residential building in line with by-law requirements.

- A.2.15 [Repeat PDP Commentary to Council Design Development condition 48] *provision of a letter of credit for \$50,000 to secure provision of a follow up study 1, 3 and 5 years after opening day of the first phase of residential development (or other agreed upon time period) to gather feedback*

*from users on the functionality and utilization of the automated bicycle storage system in comparison with conventional bicycle parking and to include:*

- i. *financial reporting to disclose actual operational costs; and*
- ii. *documentation of operational issues.*

**Note to Applicant:** *The City shall be consulted on the format and specific content of the follow up studies.*

- A.2.16 arrangements shall be made, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, such that prior to occupancy of each building, the number of residential parking spaces available shall be at least the minimum number of parking spaces required under the Parking By-law for the respective building and all other buildings that have yet to be occupied. Parking spaces designated for social housing shall not be located within the valet area or, if located within the valet area, shall be exempt from any and all valet fees;

**Note to Applicant:** The intent of this condition is to ensure that the residential parking spaces are not fully occupied by residents who move into the development earlier.

- A.2.17 provision of an updated Green Mobility Plan to include the following, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services where applicable:

- i. updated development statistics to show the current uses;
- ii. provision of details of TDM measures for non-residential uses;
- iii. confirmation of details of the financial incentives for the TDM measures proposed for the site;

**Note to Applicant:** There are inconsistencies between what is proposed in the Oakridge Parking Strategy Letter dated May 15, 2018 and what is proposed in the Bunt TDM Plan and Implementation document dated September 14, 2018.

- iv. confirmation that the proposed transit facility infrastructure upgrades (expanded escalators) will be provided;
- v. provision of 10 publicly accessible shared vehicle spaces;
- vi. provision of 75 car club shared vehicle spaces;
- vii. [Repeat PDP Condition A.2.26.(iv)] *clarification on how the performance of the currently proposed private car club compares with the originally proposed public car share with respect to reductions in vehicle ownership;*
- viii. clarification on how the reduced size of the car club will be offset;
- ix. provision of 30% "traditional" Class A bicycle spaces;

**Note to Applicant:** The 30% traditional Class A spaces should be distributed proportionally throughout the site, conveniently located in close proximity to elevator cores for intended users, no lower than parking Level P1 and shall be accessible to the uses. The traditional Class A spaces required for the social housing and Civic Centre use at Buildings 1 and 2 can be counted towards meeting this requirement and these spaces

are not to be relocated lower than Level P1a unless an elevator is provided. See also Standard Engineering Services condition A.2.6.

- x. additional details regarding the one public bicycle silo being proposed at the south end of the site, including number of bicycle spaces proposed and any user fees;

**Note to Applicant:** See also Standard Engineering Services conditions A.2.13 and A.2.14.

- xi. clarification if public or private bicycle co-op is being provided;
- xii. clarification if TravelSmart (Travel Planning) is still being proposed for the non-residential uses as per the rezoning proposal and clarification on how it is being managed and administered;
- xiii. identification of the bicycle servicing areas/bicycle maintenance rooms on the drawings; and
- xiv. an updated Table 3.1, Proposed TDM Measures Summary table; for accuracy and to also include the number of “traditional” Class A spaces proposed to be delivered as part of this development permit.

A.2.18 provision of labels and dimensions on all SRW's on landscape plans;

A.2.19 relocation of Class B bicycle racks to be outside of the SRW adjacent to West 41<sup>st</sup> Avenue in order to provide a minimum 3.0m wide sidewalk next to the 2<sup>nd</sup> row of trees which is clear of all obstructions (refer to drawing L2.0);

A.2.20 relocation or reconfiguration of patio tables on West 41<sup>st</sup> Avenue such that they are outside of the SRW area;

A.2.21 reduction of the bollards proposed in the SRW area at the crossings of the parkade entries onto West 41<sup>st</sup> Avenue to no more than 2 per side (refer to drawing L2.0);

**Note to Applicant:** See also Standard Engineering Services condition A.2.34.

A.2.22 provision of City standard asphalt paving at the driveway crossing of the parkade entrances, in the intersection, including Manson Street pedestrian crossing, and deletion of specialty paving;

**Note to Applicant:** Cambie Corridor specialty paving should not continue across intersections or driveway crossings.

A.2.23 provision of updated landscape plans to include standard curb ramps for pedestrians and bicycles where appropriate;

A.2.24 provision of Cambie Corridor Paving Type C from Manson Street to the driveway east and deletion of specialty paving from “the lobby sidewalk zones” in front of Building 4;

**Note to Applicant:** Refer to drawing L2.0 and Cambie Corridor Public Realm Plan section 3.3.

A.2.25 provision of Cambie Corridor Paving Type D from Manson St to the west and deletion of specialty paving from “the lobby sidewalk zones” in front of Building 3;

**Note to Applicant:** Refer to drawing L2.0 and Cambie Corridor Public Realm Plan section 3.3.

---



- A.2.26 provision of the second row of trees on the West 41<sup>st</sup> Avenue frontage completely on private property;

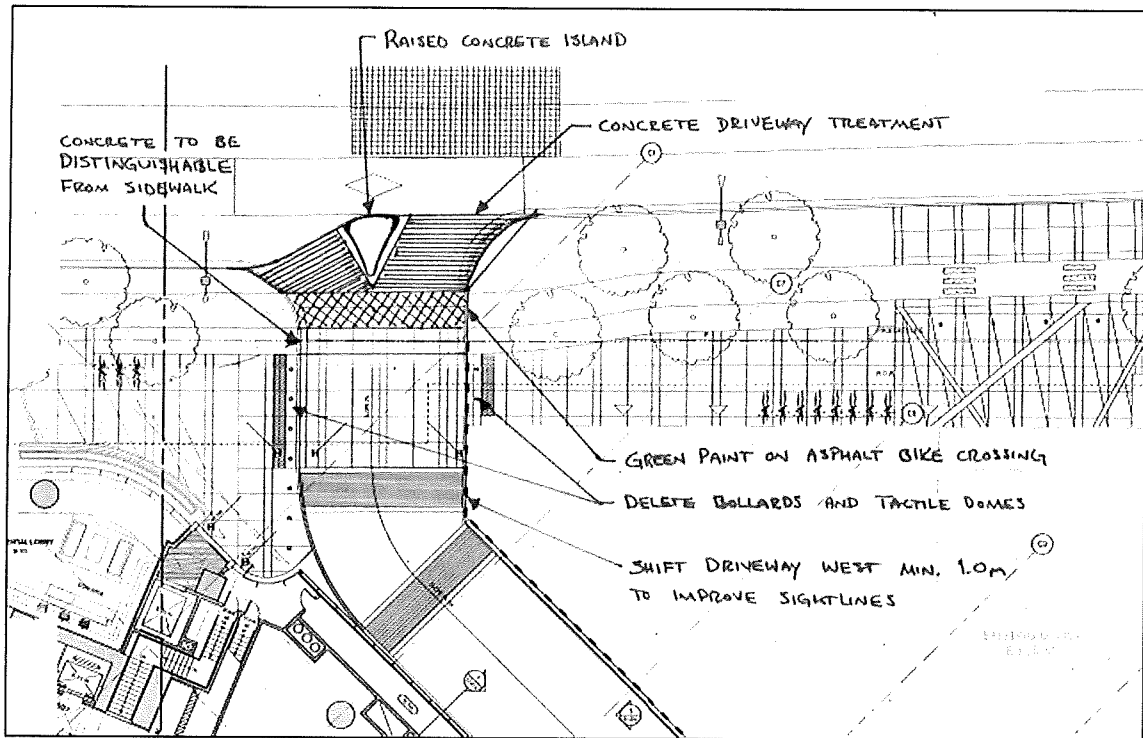
**Note to Applicant:** Relocate the first 3 trees east of Manson Street parkade entrance proposed for the second row onto private property (refer to drawing L2.0).

- A.2.27 provision of a Type E roll curb at all separations between the bicycle path and sidewalks or boulevards, as per the Streets Restoration Manual;
- A.2.28 provision of green paint, as per the City of Vancouver's Green Paint Guidelines, at all bicycle crossings within a driveway or roadway;
- A.2.29 provision of a straight bicycle path alignment across Manson Street, parallel with travel lanes;

**Note to Applicant:** Parkade access lane configurations still to be determined pending additional traffic analysis to be provided. See also Standard Engineering Services condition A.2.6.

- A.2.30 confirmation that the alignment of the northbound through-lane from the parkade access corresponds with the receiving lane on the north side of West 41<sup>st</sup> Avenue at Manson Street;
- A.2.31 installation of truncated domes and zebra paint markings across bicycle path on southeast corner of Manson Street and West 41<sup>st</sup> Avenue for pedestrians crossing the bicycle path travelling north-south;
- A.2.32 provision of the following modifications to the southwest corner of West 41<sup>st</sup> Avenue and Manson Street:
- i. terminate the eastbound bicycle lane and front boulevard separation at the eastbound stop bar on West 41<sup>st</sup> Avenue;
  - ii. extend crosswalk to curb edge;
  - iii. design corner radii to 3.0m; and
  - iv. install standard pedestrian curb ramp.
- A.2.33 provision of at minimum a 1.0m offset between the residential right-in/right-out driveway and the adjacent building face to improve sight lines;
- A.2.34 provision of modifications to the residential right-in/right-out driveway to include a raised, asphalt bicycle crossing with green paint, continuous sidewalk paving, and a concrete driveway letdown with a concrete island to direct traffic;

**Note to Applicant:** See reference drawing below:



Geometric Design details to be coordinated and reviewed via the Civil design process. Development permit drawings should be updated when possible to show the most current designs. See also Standard Engineering Services condition A.2.21.

A.2.35 design development to improve the parkade layout and access design and comply with the Parking and Loading Design Supplement to the satisfaction of the General Manager of Engineering Services, by providing and/or performing the following:

- i. larger drawings to scale for the parking, loading and bicycle parking plan and section drawings, including "overall" parking level plan drawings;
- ii. updated and coordinated technical tables showing the calculations for the minimum required parking, loading, bicycle spaces and the number of spaces being provided;

**Note to Applicant:** The technical tables shall also include details such as the number of disability spaces, visitor stalls, small car spaces, public car share spaces, private car club, valet and traditional Class A bicycle parking provided for each building. See also Recommended condition 1.6.

- iii. individual numbering and labelling for all types of parking and loading spaces on the drawings;

**Note to Applicant:** Loading bays to be labelled for intended use. Loading bays for shared use to be labelled as such ie. Building 4: Shared Use Residential/Retail, etc.

- iv. clearly labelling the number of spaces and dedicated users on all plans for the bicycle silos;

**Note to Applicant:** The labels on the drawings are not consistent with the bicycle silo labels used in the tech tables.

- v. clearly showing and noting all overhead security gates and walls separating the different uses in the parking and loading levels;
- vi. dimensioning of all columns, column encroachments into parking stalls and column setbacks from drive aisles on the drawings;

**Note to Applicant:** See also Standard Development Review Branch condition A.1.12.

- vii. setback of columns 1 ft. from the drive aisles;
- viii. dimensioning of additional setbacks for parking spaces due to columns and walls;
- ix. dimensioning of manoeuvring aisles and the drive aisles at the parkade entrances, all ramps and all gates;
- x. notes indicating minimum vertical clearances throughout the parking levels and at all overhead gates on the plan drawings;
- xi. section drawings showing elevations and minimum vertical clearances for parking levels, loading bays, ramps, and security gates;

**Note to Applicant:** These clearances must consider mechanical projections and built obstructions.

- xii. provision of design elevations on both sides of the ramps and drive aisles at all breakpoints, loading bays, disability spaces, and at all entrances;

**Note to Applicant:** The slope and length of the ramped sections at all breakpoints shall be shown on the submitted drawings.

- xiii. identification of stair-free access routes from the "traditional" Class A bicycle spaces to reach the outside;

**Note to Applicant:** Stair ramps are not generally acceptable.

- xiv. removal or relocation of all columns obstructing drive aisles, manoeuvring aisles, service driveways, parking stalls and loading bays;

**Note to Applicant:** Columns should be positioned to maintain straight drives and manoeuvring aisles. Column encroachments are not permitted into loading bays and single module stalls. Refer to Class B loading bay on P3, Zone 1, drawing 20-06001 as an example. See also Standard Development Review Branch condition A.1.12.

- xv. a minimum 6.6m (21.65 ft.) manoeuvring aisle widths;

**Note to Applicant:** Examples of deficient widths include, but are not limited to: R165 on P3 and CC35 on P1a.

- xvi. parking curbs for perpendicular stalls and for stalls proposed in front of access aisles;

**Note to Applicant:** Examples include but are not limited to stalls R21, R22, CC15, and CC16 on P1a.

- xvii. a 1.5m clear access aisle widths for all disability parking spaces;

**Note to Applicant:** Examples of deficient widths include, but are not limited to stalls CC4-CC5, R5, and R6 (disability) on P1a.

- xviii. a 2.7m stall width for standard stalls next to walls or columns setback more than 4 ft.;

**Note to Applicant:** Examples include, but are not limited to stalls R33, R47, and R51 on P1a and stalls R22, R185, R187, R189, R190, and R193 on P3.

- xix. required stall width and length for the proposed parallel parking spaces;

- xx. improved manoeuvring for the parallel parking spaces and dead end stalls;

**Note to Applicant:** Turn analysis for these spaces is requested to demonstrate the manoeuvring.

- xxi. clarification of whether a parking stall is proposed between stall P1a R49 and P1a CC3;

**Note to Applicant:** Additional width is also required for this space.

- xxii. minimum ramp widths for main parkade and circulation ramps throughout the parking levels, with widths dimensioned for all ramps, including at pinch points; and

**Note to Applicant:** Ramps at P1a have reduced width below minimum requirements.

- xxiii. minimum 10 ft. lane widths for the main parkade ramp at West 41<sup>st</sup> Avenue and Manson Street.

**Note to Applicant:** See also Standard Development Review Branch conditions A.1.10 and A.1.12, and Standard Engineering Services condition A.2.13.

- A.2.36 design development to improve access and design of loading spaces and comply with the Parking and Loading Design Supplement, by providing and/or performing the following:

- i. convenient stair free loading routes that are independent of manoeuvring aisles for all loading bays;
- ii. a clear unloading area or raised rear dock with suitable access to facilitate loading/unloading of goods;

**Note to Applicant:** Show and note proposed loading docks on drawings.

- iii. dimensions for drive aisles, service driveways and manoeuvring aisles to be used for loading operations;
- iv. confirmation of vertical clearance provided to the loading court from the North Access along Cambie Street between West 42<sup>nd</sup> Avenue and West 43<sup>rd</sup> Avenue;
- v. section drawings through the loading bays with the design elevations and vertical clearances dimensioned on the drawings;

**Note to Applicant:** The vertical clearances must consider mechanical projections and built obstructions. Overhead projections are not permitted in loading bays and accessible spaces.

---

- vi. labels indicating the vertical clearances at all loading areas including along ramps, service corridors and the clearances under overhead loading gates on the plan drawings;
- vii. design elevations at all four corners of the loading bays to calculate the slopes and crossfalls; and
- viii. relocation of columns from all service corridors, manoeuvring aisles, and loading bays and provision of dimensions for the aisle widths at the narrowest points for these locations.

**Note to Applicant:** See also Standard Facilities and Planning Development condition A.1.60.

A.2.37 design development to improve access and design of bicycle parking to ensure compliance with the Bicycle Parking Design Supplement, by providing the following:

- i. automatic door openers on the doors providing access to the bicycle storage rooms;
- ii. Class A bicycle parking storage rooms to be conveniently located in close proximity to the elevator lobby for its intended users; and

**Note to Applicant:** Alcoves are to be provided for Class A bicycle storage rooms that have doors located off of vehicle drive aisles or manoeuvring aisles.

- iii. end of trip facilities and clothing lockers as per the Parking By-law and the Vancouver Building By-law;

**Note to Applicant:** Details of the end of trip facilities and clothing lockers to be shown on the drawings. End of trip facilities and clothing lockers to be conveniently located in proximity to the bicycle parking and the elevator lobbies for intended users.

A.2.38 clarification of garbage pick-up operations;

**Note to Applicant:** Please provide written confirmation that a waste hauler can access and pick up from the location shown. Please show containers and totes on plans for recycling and garbage needs.

A.2.39 [Repeat PDP Condition A.2.17] *provision of a revised Zero Waste Design and Operations Plan that addresses waste diversion in all solid waste generating activities within the complex;*

**Note to Applicant:** *The Strategy must identify/provide space, infrastructure and an operational approach to divert organics and recyclables from the waste stream, and minimize the vehicle trips required for collection, to the satisfaction of the General Manager of Engineering Services, and prior to issuance of the first Development Permit, and each successive Development Permit, the completion of any agreements required by this Plan on terms and conditions acceptable to the General Manager of Engineering Services and the Director of Legal Services. See Administrative Bulletin for more information: <http://bylaws.vancouver.ca/bulletin/r019.pdf>.*

A.2.40 [Repeat PDP Condition A.2.16] *provision of a revised Rainwater Management Plan (RMP) that details how the rainwater management system meets the Citywide Integrated Rainwater Management Plan (IRMP) requirements outlined in both the "Rezoning Policy for Sustainable Large Developments" and the "Green Buildings Policy for Rezoning" for retention, cleaning and safe conveyance, prepared by a subject matter expert (Engineer) and signed/sealed by same, taking into account and including the following: and*

- i. *the development offers tremendous opportunities for efficiencies related to the necessary infrastructure for rainwater management and other water (grey and black) reuse systems. An integrative and development-wide approach to rainwater management and the use of alternative water sources to minimize potable water use must be incorporated into the RMP;*

[New] **Note to Applicant:** There was no reference or discussion of rainwater harvesting feasibility in the RWMP report. The rainwater retention strategy should be planned in conjunction with the groundwater management strategy, which cites an option for reusing the water. If groundwater is to be used for non-potable uses, describe if there could there be a combination of rainwater and groundwater used. Similarly, if groundwater is injected at another location, describe if rainwater could be added to the injection flow. The report describes impervious areas draining to a cistern, but that seems to refer to a detention tank.

- ii. *[New] clarification of runoff volumes from all roadways, paths and other hard surfaces within the limits of the overall site;*

[New] **Note to Applicant:** There is a discrepancy in the hardscape area calculation. It is approximately 64,000 m<sup>2</sup> in Table 3 (on page 3), but based on the impervious percentage provided on Page 15 for each parcel, it is approximately 68,000 m<sup>2</sup>. Please review for other discrepancies in the calculations ie. the softscape area that is calculated in Table 1 (on page 2) is 42,766 m<sup>2</sup> while the softscape area that is provided in the map (on page 11) is approximately 31,000 m<sup>2</sup>.

- iii. *runoff from the first 24 mm of rainfall from all areas, including rooftops, paved areas, and landscape must be retained and treated on site (landscapes over native subsoils with appropriately sized topsoil meets the 24 mm retention requirement;*

- iv. *the RMP must prioritize methods of retention according to the three tiers as follows:*

- a. *1st tier priority green infrastructure practices – Rainwater Harvesting for Reuse, Green Roofs, and Infiltration;*

[New] **Note to Applicant:** Green roofs for the new buildings are referenced in the Ultimate Redevelopment Site section but are not elaborated on elsewhere in the report. Clarify if the rainwater management for new building rooftops will be addressed with green roofs, and if there is a target green roof cover for those designs. For the softscape areas on slab, show the actual volume retained in each of the softscape areas based on the soil depth and 20% retention volume versus the volume retention target. Consider using the excess retention storage volume in the softscape areas to take runoff from the adjacent hardscape areas, such as the pedestrian paths.

- b. *2nd tier priority green infrastructure practices – Retention within non-infiltrating landscapes, including absorbent landscape on slab, closed bottom planter boxes, and lined bio-retention systems; and*

[New] **Note to Applicant:** The report incorrectly includes CDS treatment devices as a tier 2 approach.

- c. *3rd tier priority green infrastructure practices – Detention storage with treatment and slow release.*

[New] **Note to Applicant:** More detailed justification and feasibility analysis as to why tier 1 and tier 2 are not achievable needs to be provided before the tier 3 option of a CDS device with detention tank can be considered.

**Note to Applicant:** Justification must be provided for using a lower tier retention option.

- v. surfaces designed for motor vehicle use and other high pollutant generating surfaces require an additional 24 mm of treatment beyond the first 24 mm retained (for a total of 48 mm treated;
- vi. water quality volume (24 mm for low pollutant generating surfaces like roofs and 48 mm for high pollutant generating surfaces like roadways) that leaves the site must be treated to a standard of 80% TSS removal by mass by using either individual BMPs that meet the standard or treatment trains of BMPs that, when combined, meet the standard;

**Note to Applicant:** The following should be provided and confirmed for all proprietary devices.

- a. product information for all treatment practices; and
- b. certification by TAPE - The Technology Assessment Protocol – Ecology Program, Washington State Department of Ecology's process for evaluating and approving emerging rainwater treatment BMPs.

**Note to Applicant:** If other technologies are proposed, provide supporting information that shows the technology meets the standard.

[New] **Note to Applicant:** The NJDEP particle size distribution is high on the sand end of the distribution (55% of mass) which makes it easier for treatment devices to achieve the 80% TSS removal. The Washington State Technology Assessment Protocol – Ecology (TAPE) program certifies devices in the context of the Pacific Northwest field conditions. They show that real world urban stormwater sediment particle size distribution in their field certification monitoring to have only 31% of sand particles by mass. Therefore, the City is requiring devices that have been certified by the TAPE program.

- vii. the principle that distinct site areas that have large infiltration and/or storage capacity in some way compensate for those areas of the site that are impervious is not acceptable, without the runoff from the impervious areas being directed towards these absorbent areas;

[New] **Note to Applicant:** Consider for any revision to calculations where storage and drainage areas are balanced.

- viii. pre-development site plan showing orthophoto and existing drainage areas and appurtenances;

[New] **Note to Applicant:** Existing orthophoto has been provided, but the existing drainage areas have not been delineated.

- ix. geotechnical study that evaluates the potential and risks for onsite rainwater infiltration with consideration of the following:
  - a. infiltration testing at likely locations for infiltration practices and a proposed design infiltration rate;

- b. *soil stratigraphy;*
- c. *depth to bedrock and seasonally high groundwater; and*
- d. *assessment of infiltration risks such as slope stability and soil contamination.*

[New] **Note to Applicant:** Geotechnical information was provided in the groundwater management study, however, the RWMP should include at least a brief discussion as to why infiltration on site is not feasible.

- x. *hydrologic and hydraulic analysis prepared by a qualified professional in the area of rainwater management showing how the site will meet the requirements of the Policy;*

[New] **Note to Applicant:** Static sizing was used in the analysis (retention target volume = storage volume). Dynamic sizing, which includes the volume that moves through the facility during the course of the 24 hour event is acceptable and will reduce the size of some practices. For such a large and complex site, a modeling approach should be used.

- xi. *details on how the targets set out above will be achieved through the development phases and once all development phases are complete;*

**Note to Applicant:** *Each phase of development will trigger an updating of the RMP within the overall strategy for the site.*

- xii. *include supplementary documentation for any proprietary products that clearly demonstrates how they contribute to the targets;*
- xiii. *the plan and report must demonstrate that access has been provided for maintaining the rainwater management system, such as providing truck access for pumping out sediment traps; and*
- xiv. *maintenance and operation guide for the rainwater management system that will be provided to the eventual owner or party responsible for maintenance.*

**Note to Applicant:** *The building/public realm should be designed to show leadership in the City's commitment to Green Building systems including an integrative approach to rainwater management to minimize potable water use and encourage the use of alternative water sources in areas such as toilet flushing and irrigation. Consideration should be given to a joyful expression of capture and movement of rainwater across the site.*

[New] **Note to Applicant:** The final rainwater management plan needs to be signed and sealed by the Engineer of Record. See also Standard Engineering Services condition A.2.41 and Standard Landscape Review condition A.1.34.

- A.2.41 arrangements shall be made prior to issuance of the first Development Permit and with each successive Development Permit, to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services, to ensure on-going operations of certain rainwater storage, rainwater management and green infrastructure systems.

**Note to Applicant:** The approved rainwater management plan is attached as a schedule to the Rainwater Management Legal Agreement which registers the rainwater management features on title and requires them to be kept and maintained in perpetuity. See also Standard Engineering Services condition A.2.40.

### A.3 Standard Licenses and Inspections (Environmental Protection Branch) Conditions:



- A.3.1 Provision of confirmation that the Remediation Agreement be signed and registered at the Land Title Office prior to the issuance of the Development Permit.
  - A.3.2 Provision of a Certificate of Compliance or Final Negative Determination from the Ministry of Environment and Climate Change (ENV) and compliance with the conditions of the Remediation Agreement prior to issuance of the occupancy permit.
  - A.3.3 A qualified environmental consultant must be available to identify, characterize and appropriately manage any environmental media of suspect quality which may be encountered during any subsurface work.
  - A.3.4 Provision of a Waste Discharge Permit may be required for dewatering activities on the site.
  - A.3.5 Must comply with all relevant provincial Acts and Regulations (ie. Environmental Management Act, Contaminated Sites Regulation, Hazardous Waste Regulation) and municipal By-laws (ie. Fire By-law, Sewer and Watercourse By-law).
-

**B.1 Standard Notes to Applicant:**

- B.1.1 It should be noted that if conditions 1.0 and 2.0 have not been complied with on or before **(April 26, 2019)**, this Development Application shall be deemed to be refused, unless the date for compliance is first extended by the Director of Planning.
- B.1.2 This approval is subject to any change in the Official Development Plan and the Zoning and Development By-law or other regulations affecting the development that occurs before the permit is issuable. No permit that contravenes the by-law or regulations can be issued.
- B.1.3 Revised drawings will not be accepted unless they fulfill all conditions noted above. Further, written explanation describing point-by-point how conditions have been met, must accompany revised drawings. An appointment should be made with the Project Facilitator when the revised drawings are ready for submission.
- B.1.4 A new development application will be required for any significant changes other than those required by the above-noted conditions.

**B.2 Conditions of Development Permit:**

- B.2.1 All approved off-street vehicle parking, loading and unloading spaces, and bicycle parking spaces shall be provided in accordance with the relevant requirements of the Parking By-law prior to the issuance of any required occupancy permit or any use or occupancy of the proposed development not requiring an occupancy permit and thereafter permanently maintained in good condition.
- B.2.2 All landscaping and treatment of the open portions of the site shall be completed in accordance with the approved drawings prior to the issuance of any required occupancy permit or any use or occupancy of the proposed development not requiring an occupancy permit and thereafter permanently maintained in good condition.
- B.2.3 Any phasing of the development, other than that specifically approved, that results in an interruption of continuous construction to completion of the development, will require application to amend the development to determine the interim treatment of the incomplete portions of the site to ensure that the phased development functions are as set out in the approved plans, all to the satisfaction of the Director of Planning.
- B.2.4 The issuance of this permit does not warrant compliance with the relevant provisions of the Provincial Health and Community Care and Assisted Living Acts. The owner is responsible for obtaining any approvals required under the Health Acts. For more information on required approvals and how to obtain these, please contact Vancouver Coastal Health at 604-675-3800 or visit their offices located on the 12<sup>th</sup> floor of 601 West Broadway. Should compliance with the health Acts necessitate changes to this permit and/or approved plans, the owner is responsible for obtaining approval for the changes prior to commencement of any work under this permit. Additional fees may be required to change the plans.
- B.2.5 Provision of construction details to determine ability to meet municipal design standards for shotcrete removal (Street Restoration Manual section 02596 and Encroachment By-law (#4243) section 3A) and access around existing and future utilities adjacent to the site;

**Note to Applicant:** Detailed confirmations of these commitments will be sought at the building permit stage with final design achievements certified and confirmed with survey and photographic evidence of removals and protection of adjacent utilities prior to building occupancy. Provision of written acknowledgement of this condition is required. Please contact Engineering Services for details.

---

- B.2.6 The General Manager of Engineering Services will require all utility services to be underground for this "conditional" development. All electrical services to the site must be primary with all electrical plant, which include but are not limited to, System Vista, Vista switchgear, pad mounted transformers, LPT and kiosks (including non-BC Hydro kiosks) to be located on private property with no reliance on public property for placement of these features. The applicant is to provide confirmation that all required electrical plant is provided for on-site. There is to be no reliance on secondary voltage from the existing overhead electrical network on the street right-of-way. Any alterations to the existing overhead/underground utility network to accommodate this development will require approval by the Utilities Management Branch.

**Note to Applicant:** Please ensure that in your consultation with B.C. Hydro that an area has been defined within the development footprint to accommodate such electrical plant. Please confirm that this space has been allocated and agreement between both parties has been met.

- B.2.7 Provision of any gas service to connect directly to the building without any portion of the service connection above grade within the road Right of Way.
- B.2.8 The owner or representative is advised to contact Engineering to acquire the project's permissible street use. Prepare a mitigation plan to minimize street use during excavation and construction (i.e. consideration to the building design or sourcing adjacent private property to construct from) and be aware that a minimum 60 days lead time for any major crane erection/removal or slab pour that requires additional street use beyond the already identified project street use permissions.
- B.2.9 This site is affected by a Development Cost Levy By-law and levies will be required to be paid prior to issuance of Building Permits.