



Willingdon Phase 1

SPD SET

Willingdon Phase 1 / Burnaby, BC

Submitted to City of Burnaby
by IBI Group (Canada) Inc.
August 2023



Project Team

LAND OWNERS:



Musqueam
Indian Band



Tsleil-Waututh
Nation



Aquilini
Development

MUNICIPALITY:



City of
Burnaby

PLANNER / ARCHITECT:



Arcadis Architects (Canada)
Inc.

LANDSCAPE ARCHITECT:



Durante Kreuk Ltd.

TRANSPORTATION:



Bunt & Associates
Engineering Ltd.



Table of Contents

Suitable Plan of Development.....	6	A1.06 Parking Plan Mezzanine Tower	31
Musqueam & Tsleil-Waututh Design Contributions	6	A1.07 Ground Floor Plan	32
Site Context	7	A1.08 Level 2	33
Recent Historical Uses	8	A1.09 Level Typical	34
Current Uses	9	A1.10 Level 9 Podium	35
Urban Context	10	A1.11 Level 10-18	36
PD00 – General	11	A1.12 Level 19-20	37
A0.01 Statistics (General)	11	A1.13 Roof Plan	38
A0.02 Context Plan (Existing)	14	A1.14 Mechanical Plan	39
A0.03 Context Plan (Future)	15	PD02 – Detailed Plans	40
A0.04 Site Photos	16	A2.00 Midrise 1A Level 1	40
A0.05 Setback Diagram	17	A2.01 Midrise 1A Level 2	41
A0.06 Streetscape Elevation	18	A2.02 Midrise 1A Typical	42
A0.07 Site Coverage Diagram	19	A2.03 Midrise 1A Roof level	43
A0.08 Open Space Diagram	20	A2.04 Midrise 1A Mechanical	44
A0.09 Fire Access Diagram	21	A2.05 Tower 1B Level 1	45
A0.10 Bike/Pedestrian Access L1 - 1A and 1B	22	A2.06 Tower 1B Level 1 Upper	46
A0.11 Bike Access Path P1.1 - 1C	23	A2.07 Tower 1B Level 2	47
A0.12 Bike Access Path P1 - 1A and 1B	24	A2.08 Tower 1B Typical	48
PD01 – Full Site Plans.....	25	A2.09 Tower 1B Level 19 - 20	49
A1.00 Site Plan	25	A2.10 Tower 1B Roof Level	50
A1.01 Parking Plan P5	26	A2.11 Tower 1B Mech Level	51
A1.02 Parking Plan P4	27	A2.12 Tower 1C Level 1	52
A1.03 Parking Plan P3	28	A2.13 Tower 1C Level 2	53
A1.04 Parking Plan P2	29	A2.14 Tower 1C Level 3	54
A1.05 Parking Plan P1	30	A2.15 Tower 1C Level 4-6	55
		A2.16 Tower 1C Level 7	56



Table of Contents continued

A2.17 Tower 1C Level 8	57	PD07 – FAR Overlays	79
A2.18 Tower 1C Podium Level 9	58	A7.01 Midrise 1A Level 1 FAR Overlay	79
A2.19 Tower 1C Typical	59	A7.02 Midrise 1A Level 2 FAR Overlay	80
A2.20 Tower 1C Roof Level	60	A7.03 Midrise 1A Typical FAR Overlay	81
A2.21 Tower 1C Mech Level	61	A7.04 Midrise 1A Mech Level FAR Overlay	82
A2.22 Adaptable Units 1A	62	A7.05 Tower 1B Level 1 FAR Overlay	83
A2.23 Adaptable Units 1B	63	A7.06 Tower 1B Level 1 Upper FAR Overlay	84
A2.24 Adaptable Units 1C	64	A7.07 Tower 1B Typical FAR Overlay	85
PD03 – Elevations	65	A7.08 Tower 1B Level 19-20 FAR Overlay	86
A3.00 North and East Overall Elevations	65	A7.09 Tower 1B Mech Level FAR Overlay	87
A3.01 South and West Overall Elevations	66	A7.10 Tower 1C Level 1 FAR Overlay	88
A3.02 Phase 1A All Elevations	67	A7.11 Tower 1C Level 2 FAR Overlay	89
A3.03 Phase 1B All Elevations	68	A7.12 Tower 1C Podium Typical FAR Overlay	90
A3.04 Phase 1C All Elevations	69	A7.13 Tower 1C Podium Level 7 FAR Overlay	91
PD04 – Site Sections.....	70	A7.14 Tower 1C Podium Level 8 FAR Overlay	92
A4.00 Section A	70	A7.15 Tower 1C Podium Level 9 FAR Overlay	93
A4.01 Section B	71	A7.16 Tower 1C Typical FAR Overlay	94
A4.02 Section C	72	A7.17 Tower 1C Mech Level FAR Overlay	95
A4.03 Section D	73	Vehicle Movement Plans	96
PD06 – Renderings	74	Passenger Vehicle	96
A6.00 View from Willingdon	74	Jitney Truck Movement	102
A6.01 View from Goard	75	Compactor Movement	109
A6.02 View from North	76	Garbage Waste Collection	114
A6.03 View of Buildings	77	SU9 Movement	119
A6.04 Tenure Diagrams	78		



Table of Contents continued

Landscape Plans.....	125
Landscape Site Plan - Notes, Legend & Images	125
Landscape Site Plan - Building 1A & 1B	126
Landscape Site Plan - Building 1C	127
Landscape Level 9 Plan – Building 1C	128
Landscape Roof Plan – Building 1B	129
Planting Plan – Building 1A & 1B	130
Planting Plan – Building 1C	131
Landscape Sections	132
Landscape Details 1	133
Landscape Details 2	134
Landscape Details 3	135

Suitable Plan of Development

Musqueam & Tsleil-Waututh Design Contributions

Representation on the Project Team

The project team celebrates and thanks those staff members representing the Musqueam and Tsleil-Waututh Nations on this project for their work guiding the vision and design approach of this site. We thank them for acting as liaisons with the Musqueam and Tsleil-Waututh Councils, communities, experts, and elders to ensure representation in all aspects of the development.

Aquilini Development

- Johnna Sparrow, *Aboriginal Relations Advisor, Aquilini Development*
- Heidi Martin, *Development Coordinator, Aquilini Development*
- Tara Sparrow-Felix, *Development Coordinator, Aquilini Development*

Chiefs, Councils, and Board Members

The Chiefs, Councils, and Board Members of the Musqueam and Tsleil-Waututh Nations played a significant role as supporters, advisors, and advocates for this project.

Community Engagement

Many members of the Musqueam and Tsleil-Waututh Nations contributed knowledge to different areas of the Willingdon Lands Master Plan, including historical documents. Their contributions are reflected in stories told within this document and will continue to be reflected in the legacies honoured on this land.

Members participated in the Nations' community updates and engagements for the project. The interest and support shown by these members reflects the community ownership and shared responsibility and stewardship throughout the communities.

Project Rationale

The project will be composed of three buildings along Willingdon Avenue & Goard Way. The buildings range in height from 6 to 20 storeys, and include leasehold, market condo, Rental, and affordable rental components. The design of the Site and buildings continues the work that IBI Group did in partnership with the nations and the City of Burnaby during the master planning process, and now includes a more detailed view of each of these three buildings and their relation to the streets that surround them. The landscape & exterior design will continue to be refined through continued consultation with the nations as part of the partnership.

All access comes off Goard Way, with ramps to separate parkades under each building. Ground oriented units have been provided along the street network; and easy passage to bike infrastructure organized for all three buildings. The future studios to the east will be fronted with a terraced landscape to decrease appearance of any tall walls that this site will engender.

Site Context

Location

As illustrated in *Figure 3-1* and *3-2*, the Willingdon Lands site is a 40-acre parcel located in Burnaby’s Southwest Quadrant in the geographic area known as the Central Valley of Burnaby. It is less than one kilometre east of Vancouver and two kilometres south of Burrard Inlet. The site is directly between Brentwood Town Centre and the Metrotown Downtown, two transit-oriented Town Centres built around SkyTrain stations. Willingdon Avenue is identified as a future rapid transit route connecting these Town Centres.

Situated at the corner of Willingdon Avenue and Canada Way, the site is in a prime location. The site is in the neighbourhood of Cascade Heights, which already sees a diverse mix of uses. The site is directly adjacent to one of the Lower Mainland’s key educational institutions, the British Columbia Institute of Technology (BCIT), as well as the Discovery Place business park.

Terrain

The current site topography is varied. There is a significant slope in both the south-north and west-east directions, towards the lowest point at the corner of Willingdon Avenue and Canada Way. There is also a very steep slope in the existing natural area at the southwest of the site boundary.



FIGURE 1-1: CONTEXT MAP

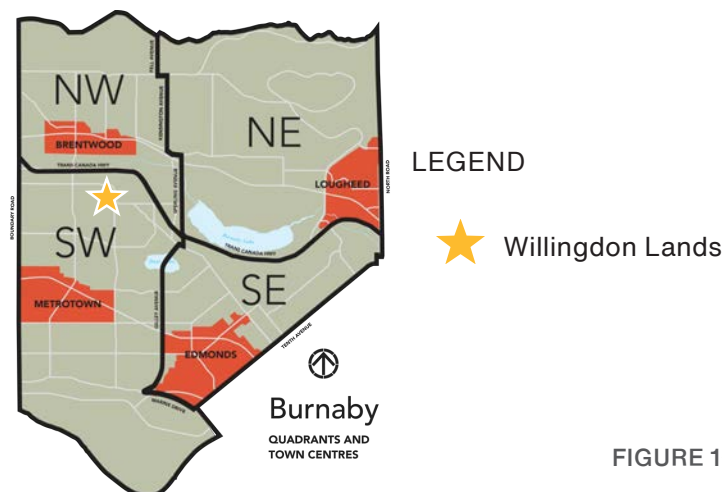


FIGURE 1-2: QUADRANT MAP

Recent Historical Uses

Neighbourhood History

Over the previous century of development in Burnaby, the area surrounding the Willingdon Lands site became known as the Cascade Heights neighbourhood. The neighbourhood was largely a suburban post-war neighbourhood characterized by low-rise detached housing. This general structure remains at present day, though multi-unit housing was also developed in the 1980s-90s.

An anchor of this neighbourhood is Burnaby Hospital, located west of the site across Gilmore Way. This has been the main hospital and healthcare hub in Burnaby since its construction in 1952. Across Willingdon Avenue is the BCIT campus, which along with the Willingdon Lands, has made this intersection an institutional anchor of Burnaby since the 1960s.

The area also has a history of film related activities. Canada's first drive-in theatre, the Cascades Drive-In, was located west of the site along Canada Way. It opened in 1946 and closed in 1980, and is now the Cascade Village condominium complex.

Site Uses Over Time

The Willingdon Lands site was formerly owned by the Province of British Columbia. Low-rise institutional buildings were developed for government-related tenants. One of these buildings is the former Burnaby Youth Custody Service Facility, which has since moved to South Burnaby.

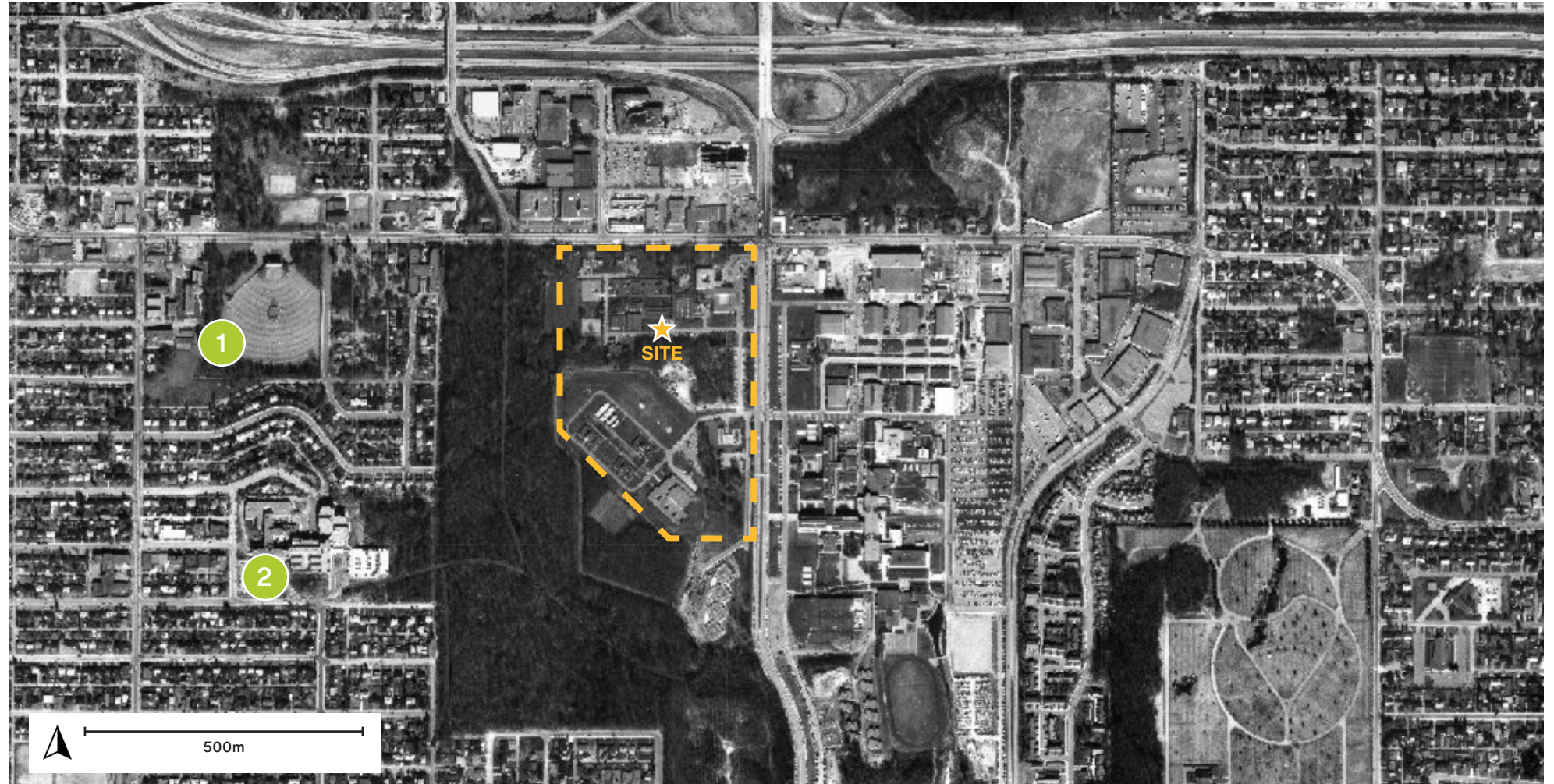


FIGURE 1-3: AERIAL IMAGE OF THE WILLINGDON LANDS AND SURROUNDING AREA IN 1979, WITH THE CASCADE DRIVE-IN THEATRE VISIBLE TO THE WEST OF THE SITE
SOURCE: BURNABY HISTORICAL AERIAL PHOTO VIEWER



FIGURE 1-4: CASCADE DRIVE-IN THEATRE, LOCATED AT 3960 CANADA WAY, ONE BLOCK WEST OF GILMORE WAY, 1952
SOURCE: CITY OF BURNABY ARCHIVES



FIGURE 1-5: BURNABY GENERAL HOSPITAL, LOCATED AT 3880 INGLETON AVENUE, ONE BLOCK WEST OF GILMORE WAY, 1953
SOURCE: CITY OF BURNABY ARCHIVES

Current Uses

The site currently holds a number of purpose-built institutional buildings. In recent years, many buildings have primarily been used as filming locations.

The former Burnaby Mental Health & Addiction Services was located on the site. The centre relocated in 2021 and changed its name to the Red Fish Healing Centre for Mental Health and Addiction. The new facility better serves the needs of clients than the outdated campus on the Willingdon Lands.

The character of the site is currently low-rise and sparse. Surface parking lots and fields create a disorganized and under-utilized space. At the prominent intersection of Canada Way and Willingdon Avenue, there is a distinct lack of identity and sense of place.

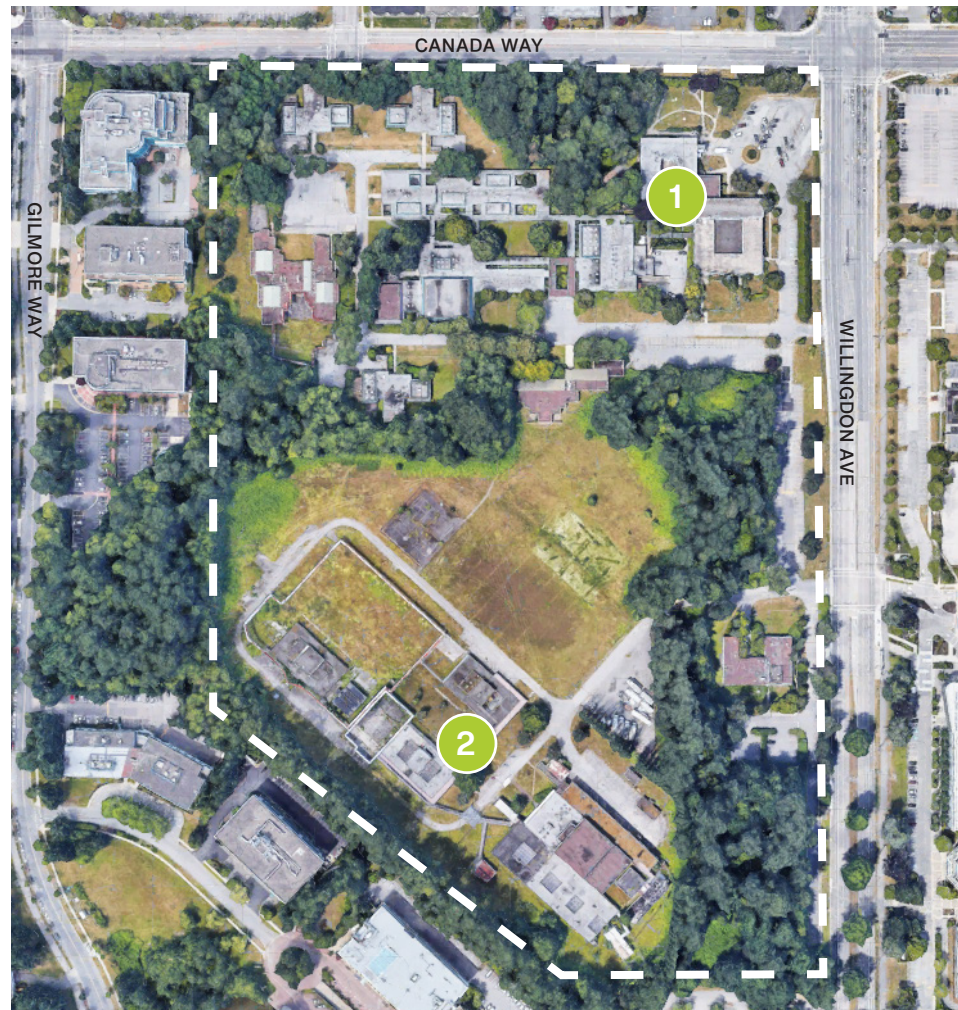


FIGURE 1-7: CURRENT AERIAL VIEW OF THE SITE



FIGURE 1-6: CURRENT VIEW OF SITE FROM CANADA WAY AND WILLINGDON, VIEW FACING SOUTHWEST



FIGURE 1-8: GREEN BUFFER ON THE WEST AND SOUTHWEST SIDES OF THE SITE, VIEW FACING NORTHEAST



FIGURE 1-9: BURNABY CENTRE FOR MENTAL HEALTH & ADDICTION

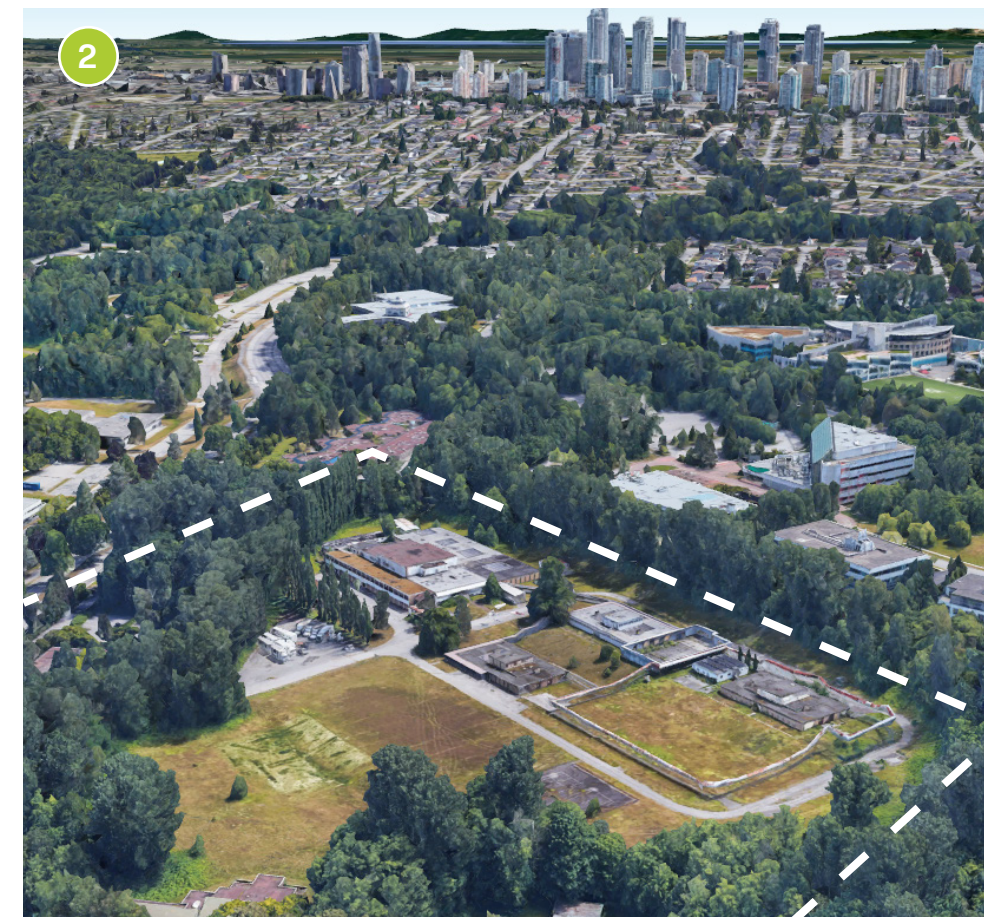


FIGURE 1-10: BURNABY YOUTH CUSTODY SERVICE, VIEW FACING SOUTH

Urban Context

Current Surroundings

The Cascade Heights neighbourhood features a strong residential community, large education campus, and a significant commercial/industrial area. As illustrated in *Figure 3-12*, the Willingdon Lands site is surrounded by institutional and employment uses, with the residential neighbourhood within a short distance to the west. Highway 1 to the north creates a division and barrier to north Burnaby. Connections to Highway 1 are provided at Willingdon Avenue, while both Willingdon Avenue and Gilmore Way provide opportunities to connect overtop the highway.

Economic & Employment Significance

This neighbourhood is a significant economic driver for the city. Burnaby General Hospital and BCIT are both large local employers.

Discovery Place, which surrounds the site to the west and south, is a business park home to corporate offices of major firms in a variety of industries ranging from the health sector to high-tech industries to entertainment. It is buffered by the Discovery Place Conservation Area, a forested strip between the western edge of the site and Gilmore Way.

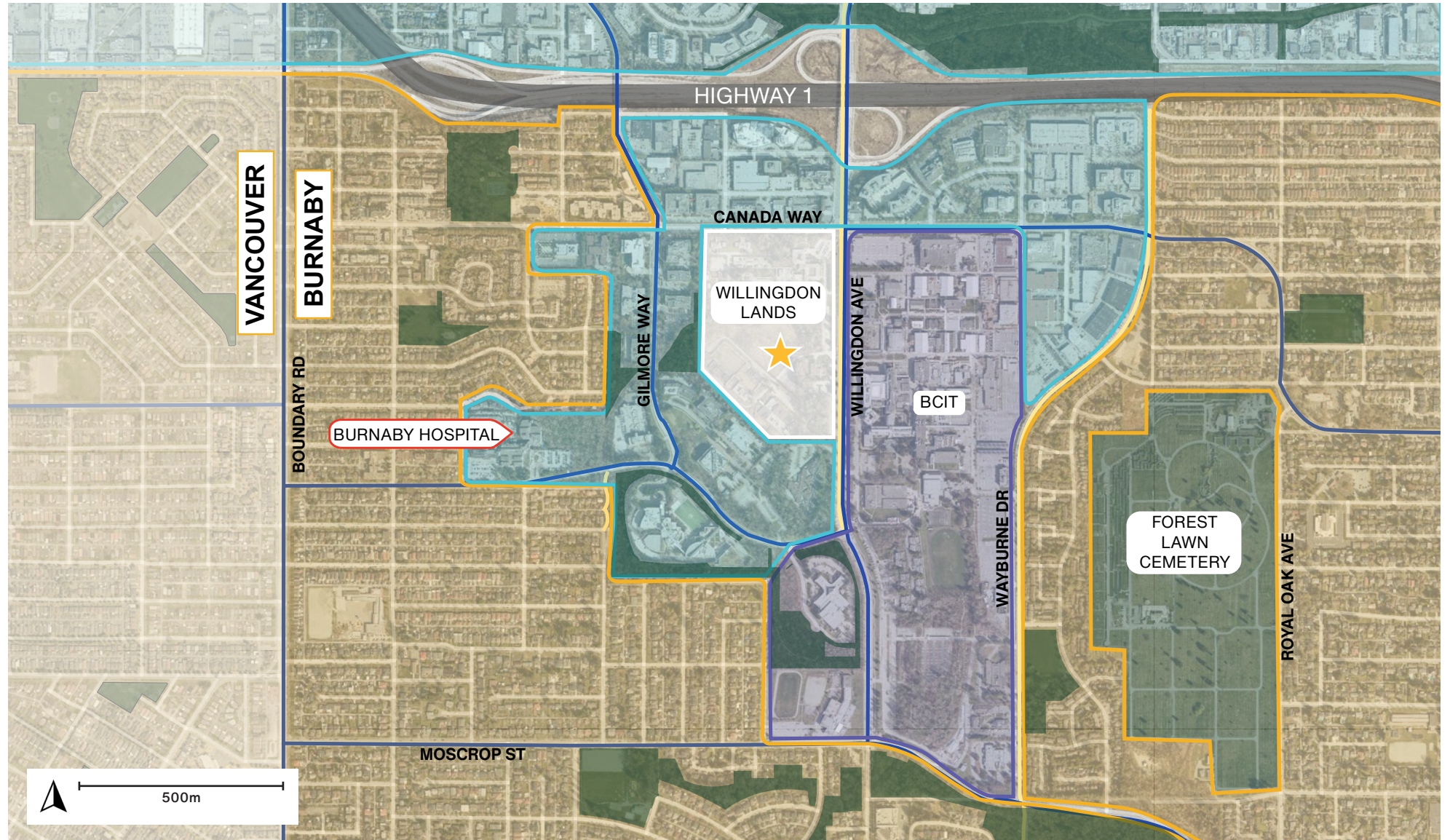


FIGURE 1-12: SURROUNDING LAND USES

LEGEND

- Discovery Place
- Mixed Employment
- ★ Willingdon Lands



FIGURE 1-11: DISCOVERY PLACE BUSINESS CENTRE

LEGEND

- Residential
- Commercial/Industrial
- Institutional
- Park

PD00 – General

A0.01 Statistics (General)

E. Site Area:		
	Metric (m)	Imperial (f)
Gross Site Area:	10,108.9	108,811
Site Area for calculation of density:	10,108.9	108,811
Dedication Area*:	-	-
Net Site Area:	10,108.9	108,811
Minimum Lot Area:	2,229.7	24,000
Subdivided Lot Area*:	-	-

G. Site Coverage Calculations		
	Metric (m)	Imperial (f)
Building 1A Lot Area	1,968.06	21,184.00
Building 1B Lot Area	3,080.57	33,159.00
Building 1C Lot Area	5,060.15	54,467.00
Total Lot Area	10,109	108,811
Building 1A Footprint	762.19	8,204.14
Building 1B Footprint	722.11	7,772.69
Building 1C Footprint	1,601.62	17,239.70
Total Building Foot Print	3,086	33,216.53
Vehicular Access	1,218	13,114
Site Coverage %		30.53%

I. Site Dimensions				
	Width		Depth	
	Metric (m)	Imperial (f)	Metric (m)	Imperial (f)
Gross	161.55 max	530 max	51.21 max	168 max
Net				

F. Floor Area Ratio (FAR)									
OVERALL MASTER PLAN DEVELOPMENT									
	RMS		RMSr			C2	B2		
Max Floor Area (GFA)	3,837,930.80								
Max Density (FAR)	2.2		2.2			1.3	1.5		
	Leasehold	Affordable	Moderate	Market	Total Rental	Retail + Cultural	Studio	TOTAL SITE	
Proposed Master Plan Floor Area (GFA)	3,318,200.00	151,600.00	70,000.00	385,300.00	606,900.00	140,000.00	434,195.00	4,499,295.00	
	308,268.30	sqm	14,083.98	6,503.16	35,795.24	13,006.32	40,337.70	417,994.70	
Proposed Master Plan Density (FAR)	1.90		0.09	0.04	0.22	0.08	0.11	2.44	
Units	4366		101	554	873			5239 Units	
			218	655					
			5.0%	15.0%	20.0%				

PHASE 1									
	RMS		RMSr			C2	B2		
Max Floor Area (GFA)	239,384.20								
Base Max Density (FAR)	2.2		2.2			1.3	1.5		
	Leasehold	Affordable	Moderate	Market	Total Rental	Retail + Cultural	Studio	TOTAL SITE	
Proposed Phase 1 Floor Area (GFA)	188,082.54	59,308.88	35,000.00	145,609.73	239,918.61	-	-	428,001.15	
Proposed Phase 1 Density (FAR)	1.73	0.55	0.32	1.34	2.20	0.00	0.00	3.93	
Units	267	91	264	355	518			622 Units	
			14.6%	42.4%	57.1%				

REMAINDER DENSITY FOR FUTURE PHASES									
	Leasehold	Affordable	Moderate	Market	Total Rental	Retail + Cultural	Studio	TOTAL SITE	
Floor Area (GFA)	3,130,117.46	92,291.12	35,000.00	239,690.27	366,981.39	140,000.00	434,195.00	4,071,293.85	
Density (FAR)	1.90	0.09	0.04	0.22	0.35	0.08	0.11	2.44	
Units	4099	127	391	341	518			4617 Units	
			5.0%	15.0%	20.0%				

* PROJECT IS AIMING TO ACHIEVE STEP CODE 2 WITH LCES
Non-Market Rental Tenures:
Affordable - 20% Below CMHC Market Median Rates
Moderate - CMHC Market Median Rates

J. Building Height - Midrise 1A			
Level(s)	Height of Floor(s)		Number of Floor(s)
	Metric (m)	Imperial (f)	
Level 1	3.05	10	1
Level 2-6	2.90	9.5	5
Mech.	3.14	10.3	1
Overall Height From Finished Grade			
Proposed	20.67	67.8	
Permitted	N/A	N/A	

Building Height - Residential Tower 1B			
Level(s)	Height of Floor(s)		Number of Floor(s)
	Metric (m)	Imperial (f)	
Lower L1	2.67	8.75	1
Upper L1	2.67	8.75	1
Level 2 Level 18	2.95	9.667	17
Level 19 - Level 20	2.95	9.667	2
Mech.	5.77	18.93	1
Overall Height From Finished Grade			
Proposed	67.09	220.10	
Permitted	N/A	N/A	

Building Height - Residential Tower 1C			
Level(s)	Height of Floor(s)		Number of Floor(s)
	Metric (m)	Imperial (f)	
L1	2.79	9.166	1
Level 2 - Level 8	2.79	9.166	7
Level 9 - Level 14	2.79	9.166	6
Mech.	3.45	11.33	1
Overall Height From Finished Grade			
Proposed	42.57	139.65	
Permitted	N/A	N/A	

K. Building Setbacks				
Property Line	Required		Proposed	
	Metric (m)	Imperial (f)	Metric (m)	Imperial (f)
North	4.50	14' 9"	3.04	9' 11 3/4"
South	4.50	14' 9"	10.34	33' 11"
East	4.50	14' 9"	3.12	10' 2 3/4"
West	4.50	14' 9"	4.62	15' 2"

A0.01 Statistics (General)

N. Vehicle Parking - Required Based on Approved Master Plan

Affordable Rental Residential 1A									
Use	Resident	Residential Visitor	Small Car	Barrier Free		Car Wash	Car Share	Total	
Req./Permitted	0.3	0.1	Max. permitted	non-adaptable- Regular	1/2 (adaptable)		1/100	1/100	
					Regular	Van			
Apartment	28	10	13	1	7	3	1	1	1
Total			38		8	3	1	1	40

Residential Tower 1B - Market Strata									
Use	Resident	Residential Visitor	Small Car	Barrier Free		Car Wash	Car Share	Total	
Req./Permitted	1	0.1	Max. permitted	Non-Adaptable- Regular	1/2 (adaptable)		1/100	1/100	
					Regular	Van			
Apartment	267	27	103	2	20	9	3	3	300
Total			294		22	9	3	3	

Residential Tower 1C - Rental Market									
Use	Resident	Residential Visitor	Small Car	Barrier Free		Car Wash	Car Share	Total Resident & Visitor	
Req./Permitted	0.5	0.1	Max. permitted	non-adaptable- Regular	1/2 (adaptable)		1/100	1/100	
					Regular	Van			
Apartment	132	27	56	4	18	9	2	2	163
Total			159		22	9	2	2	

Combined									
Use	Resident / Occupant	Residential Visitor	Small Car	Barrier Free		Car Wash	Car Share	Total	
Req./Perm.	0.3	0.1		non-adaptable- Regular	1/2 (adaptable)		1/100	1/100	
					Regular	Van			
Affordable Rental 1A	28	10		1	7	3	1	1	40
Req./Perm.	1	0.1					1/100	1/100	
Market Strata 1B	267	27	103	2	20	9	3	3	300
Req./Perm.	0.5	0.1					1/100	1/100	
Rental Market 1C	132	27	56	4	18	9	2	2	163
Total	427	64	159	8	45	21	6	6	503

Provided Based on Approved Master Plan

Use	Resident / Occupant	Residential Visitor	Small Car	Barrier Free		Car Wash	Car Share	Total
				3/100 (non-adaptable)	1/2 (adaptable)			
Req./Perm.	0.3	0.1		Regular	Van	1/100	1/100	
Rental Residential 1A	28	10	0	1	7	3	1	1
Req./Perm.	1	0.1					1/100	1/100
Market Strata 1B	267	27	103	2	20	9	3	300
Req./Perm.	0.5	0.1						
Rental market 1C	132	27	56	4	18	9	2	163
Total	427	64	159	7	45	21	6	503

R. Bicycle Parking

Use	Residential I	Residential Class B Visitors	Bike Wash	Bike Share	Commercial Class A	Commercial Class B	Provided		Total
							Locker	Rack	
Rental residential 1A	182	18					182	18	200
Market Strata 1B	534	53					534	53	587
Rental Market 1C	528	53					528	53	581
Commercial									
Total	1,244	124	-	-	-	-	1,244	124	1368
All Bicycle	1,368						1,244	124	
Shower Stalls	N/A								
Clothes Lockers	N/A								
Repair m2	N/A								200

S. Loading

Use	Requirement	Units	GFA	Bays	Bays	Provided
Residential towers	1/200 Units	531	368,692.27	2		2
Rental res.	1/200 Units	91	59,308.88	1		1

T. Solid Waste and Recycling

Use	Requirement	Units	GFA	Storage	Staging	Provided Storage	Provided Staging
Residential tower		267	188,082.54	114 m2	68 m2 (7'x1' x 6' ft.)	115	68
Residential tower		264	180,609.73	117 m2	68 m2 (7'x1' x 6' ft.)	117	68
Rental res.		91	59,308.88	30 m2	18 m2 (1.86 sq.ft.)	45	18
Commercial:							
Industrial:							
Institutional:							
Total:				261 m2	93 m2	277.m2	154.m2

The minimum car wash, parking and loading spaces is as required on this drawing (A0.01 Statistics), or as required by the Burnaby Zoning Bylaw, as amended from time to time, whichever is less.