# TOWER RENDERING



West Georgia







# **ANTHEM**

# Proven Community Builder

Founded 27 years ago, Anthem is a team of 375 people driven by creativity, passion and direct communication.

Anthem is a real estate development, investment and management company that strives, solves and evolves to create better spaces and stronger communities. We are Growing Places.











#### PROFESSIONAL CONSULTING TEAM

#### Kohn Pedersen Fox | Design Architect

A globally unified architectural practice. Founded in 1976, Kohn Pedersen Fox Associates (KPF) has built a portfolio of iconic international landmarks, earning a reputation as one of the world's pre-eminent architectural firms.

Headquarted in New York City with over 600 employees led by 23 principals, the firm has offices in London, Shanghai, Hong Kong, Seoul and Abu Dhabi. The firm has received numerous prestigious awards for a collection of work located across over 40 countries.



**KPF** 

#### Chris Dikeakos Architects Inc. | Architect of Record

Chris Dikeakos Architects Inc. is an award winning architectural firm dedicated to excellence and the highest level of expertise in both professional and personal service. CDA's popular appeal and the uniqueness of its projects has positioned the firm as one of North America's leaders in multi-unit and hi-rise residential design.

Highly respected for its proficiency in all facets of the design process, CDA surpasses its clients' needs and tailors its solutions from start to finish including concept and design development, construction drawings and site services, site capacity studies, master planning, urban design and rezoning work.



#### PFS Studio | Landscape Architect

PFS Studio is a leading Canadian planning, urban design and landscape architecture firm offering consulting services nationally and internationally on a wide range of projects for both the public and private sectors. The firm has been in practice for over thirty years (formerly as Phillips Farvaag Smallenberg) and produces its award winning work from its Vancouver studio through a strategically allied joint enterprise in China.



#### **Bunt & Associates | Traffic Engineers**

Bunt & Associates is a Canadian transportation planning and engineering consultant; they are able to provide enterprising solutions to transportation planning and traffic engineering problems to contribute to building connected and sustainable communities. Bunt was founded in 1993 in B.C. and has expanded to encompass B.C., Alberta and Northern Alberta.







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# KOHN PEDERSEN FOX (KPF)

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Kohn Pedersen Fox Associates (KPF) is a global architecture practice dedicated to clients that represent the most forward-thinking companies and institutions around the world - visionaries that believe that value is not just producing return on investment but also in contributing to our urban environment and communities.

Their portfolio spans more than 40 countries and includes a wide range of projects from office and residential buildings to civic cultural spaces to educational facilities. Driven by individual design solutions, their mission is to create buildings and places of the utmost quality and contextual sensitivity, providing a valuable impact on their cities.



















# WEST END COMMUNITY PLAN

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The West End Community Plan and the Built Form Guidelines were adopted by Council in 2013 and provide the framework used to guide positive change, development, and community benefits.

#### WEST END BUILT FORM GUIDELINES



The form and scale of the proposed building will adhere to the prevailing view corridors and reinforce the Downtown dome-shaped skyline.



The shadowing of the proposed building will have minimal impacts on surrounding public spaces.



The proposed building has a distinct architectural identity and will activate the public realm.



#### **NEIGHBOURHOOD**

1	TRIANGLE WEST
2	CITYGATE
3	DOWNTOWN SOUTH
4	WEST END
5	GRANVILLE SLOPES
6	COAL HARBOUR
7	FALSE CREEK NORTH
8	YALETOWN
9	DOWNTOWN EASTSIDE
10,	BRIDGEHEAD
11CENT	RAL BUSINESS DISTRICT

#### WEST END COMMUNITY PLAN PRINCIPLES

1

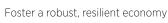
#### **PRINCIPLES**

Achieve a green, environmentally sustainable urban pattern



Support a range of affordable housing options to meet the diverse needs of the community







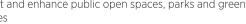
Enhance culture, heritage and creativity in the city



Provide and support a range of sustainable transportation options



Protect and enhance public open spaces, parks and green linkages





Foster resilient, sustainable, safe and healthy communities



throughout the Downtown core.

The 1698 West Georgia proposal will integrate sustainable strategies throughout the building.

A portion of the Community Amenity Contribution paid by Anthem would be allocated by the City to the provision of affordable housing.

The addition of approximately 127 homes will grow the West End neighbourhood and support local shops and services

Inspired by the local mountains, the building creatively mixes landscape features and stepped massing elements to become an iconic focal point along the Georgia Street corridor and overall skyline.

Located in one of Vancouver's most dense communities, 1698 West Georgia is well-serviced by transit and bike lanes and is within walking distance to a vast array of nearby shops, services and community amenities.

The proposal is conveniently located along the Alberni bike lane, and in proximity to the seawall, and neighbourhood parks, Its extensive on-site gardens and landscape features will add to the lush green landscape character of the West End.

The proposal will activate the West Georgia streetscape and provide diverse housing options for a variety of family-types by exceeding the minimum 35% of family sized homes required by the High Density Housing for Families with Children policy.







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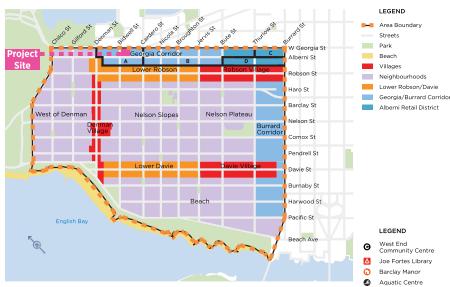
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# SITE CONTEXT

# Neighbourhood Overview

1698 West Georgia Street is located in the 'Georgia Corridor Area A' within the West End Plan.

Georgia Corridor: Areas 'A', 'B', 'C', and 'D'



The West End Plan separates the Georgia Corridor into four areas designated with maximum building heights and floorplates:

	Height	Floor Plate
Area A (Project Site)	385 ft (117.3m),	5,500 ft <sup>2</sup>
(1698 West Georgia Street)		
Area B	500 ft (152.4m),	6,500ft²
Area C	,700 ft (213.4m),	
Area D	550 ft (167.6m),	7,500ft²

The West End Plan looks to preserve the distinctive character of the neighbourhood by providing opportunities for additional density and height along the major corridor streets such as Burrard and Georgia Streets.



Qmunity

Fire Hall

St. Paul's Hospital Community Garden Licensed Childcare

King George Lord Roberts

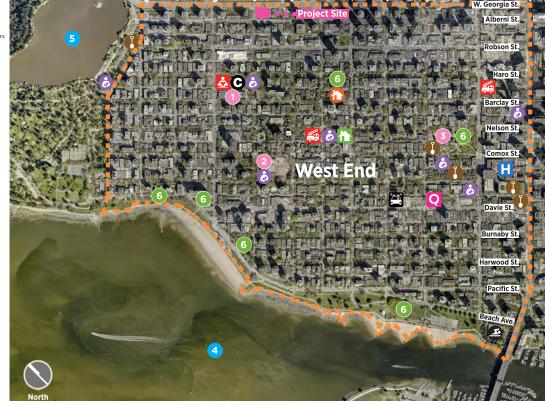
English Bay

Lost Lagoon 6 Parks

Elementary Annex

Gordon Neighbourhood

0





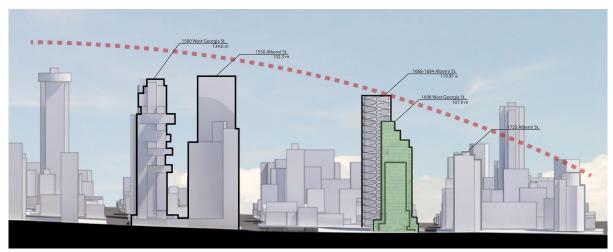




# **CITY CONTEXT**

# Site Photos + Skyline





**GRADUAL SKYLINE - WEST GEORGIA ST.** 



1 West Georgia St.



4 W. Georgia & Bidwell St.



7 Bidwell & Alberni St.



1550 Alberni St.



2 West Georgia St.



5 Bidwell St.



**8** 1668-1684 Alberni St.



1500 West Georgia St.





3 1680 Bayshore Dr.



6 1723 Alberni St.



Alberni St.



1575 West Georgia St.









# **DESIGN INSPIRATION**

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# The Vision

#### **INSPIRATION - NORTH SHORE MOUNTAINS**























# **DESIGN CONCEPT**

# Design Rationale

Dominated by the North Shore Mountains, the cityscape of Vancouver is a truly unique combination of a bustling urban life and serene nature. The site of 1698 West Georgia is located only a few city blocks away from the Coal Harbour waterfront and the famed Stanley Park, one of the largest urban parks in North America.

The design of 1698 West Georgia took its inspiration from the surrounding mountains such as Crown Mountain, Cypress Mountain, and Grouse Mountain. The stepped massing of the tower top has taken its shape from the formation of mountain top cliffs, and the interlocking low volumes at the podium depict boulders and mounds at the foothills. The arrangement of steps are carefully controlled to minimize additional shadow to the neighborhood, especially on Marina Square Park at Bayshore Drive.

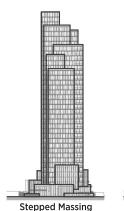
Stepping beyond an ordinary glass façade, the tower enclosure is characterized by organically patterned façade fins that bring the sense of natural rock textures with facets and creases. Terraces create ledges to grow trees and other native plants at various heights up the tower façade as it does on the local mountains. These terraces also provide ample outdoor space for residents, along with deep corner balconies at every level. Lush landscape and a dramatic waterfall at the ground level will anchor the tower and welcome residents and visitors alike.

The proposed development at 1698 West Georgia will become an example of balance between nature and the city, and stand as a memorable gateway to downtown Vancouver from Stanley Park.

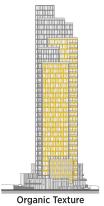
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# SITE PLAN + PROJECT STATISTICS

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# **Proposed Setbacks**



#### **PROJECT STATISTICS**

	West End Pre-Application Community Open House Plan / Bylaws (July 2018)		Rezoning Application
Zone	CD-1	CD-1	CD-1
Building Height	Max. 117.3m (385 ft)	99.25m (326 ft)	99.25m (326 ft)
Number of Storeys	-	33 levels	33 levels
Lot Area	-	1,761 sq m (18,955 sq ft)	1,761 sq m (18,955 sq ft)
FSR Area	-	14,560 sq m (156,722 sq ft)	16,528 sq m (177,903 sq ft)
Floor Space Ratio	-	8.27	9.39
Amenity	-	227 sq m (2,443 sq ft)	278 sq m (2,988 sq ft)
Residential	-	12,026 sq m (129,447 sq ft)	16,528 sq m (177,903 sq ft)
Floorplate max. (Above 60')	511 sq m (5,500 sq ft)	476 sq m (5,123 sq ft)	510 sq m (5,490 sq ft)
Number of Units	-	101	127
Parking	104 stalls + 6 Visitor	114 stalls + 6 Visitor	207 stalls + 6 Visitor
Bicycle Parking	335 Class A + 7 Class B (Updated Bylaw)	127 Class A + 6 Class B	335 Class A + 7 Class B









# **URBAN AND LANDSCAPE DESIGN**

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# Proposed Site Features

The landscape design concept responds to the context of the site as one of the most prominent sites in downtown Vancouver. The landscape borrows from the beautiful natural setting of Vancouver creating a soft base of natural materials from which the tower emerges. The design incorporates a highly urban palette of materials and finishes while softening this urban character with a layered approach to planting and incorporating an element of water. These layers turn into gently climbing terraces to maintain the seamless integration of the tower base and the ground plane along both West Georgia and Bidwell.

#### The landscape design features:

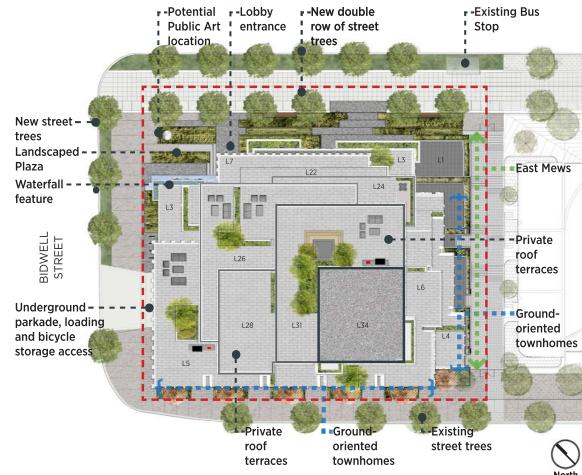
- A legible paving treatment at the ground level and a coherent arrival experience at the main lobby entry on Bidwell while maintaining the Georgia Street sidewalk standard treatment.
- A series of townhomes on a terraced landscape interfacing with the neighbouring property along a mid-block connection. These townhomes create a small and walkable streetscape with elevated front patios and layered planting along the Alberni Street frontage blending with the existing context.
- A variety of seating opportunities as an integrated element of the site design.
- Rooftop spaces created by the stepping architectural character of the building as outdoor patio and amenity spaces.
- Generously sized planters and planted edges at roof top patios to maintain the connection between the architecture and nature.
- Planted edges on the façade incorporating a combination of low growing evergreen and hanging plants to create low maintenance but visually striking green edges.







#### WEST GEORGIA STREET











# **PUBLIC REALM**

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# **Ground Plane**



1 West Georgia St.



2 Alberni Townhomes



3 East Mews





4 Large Stone Slab Stairs



5 Terraced Plantings



6 Terraced Water Feature

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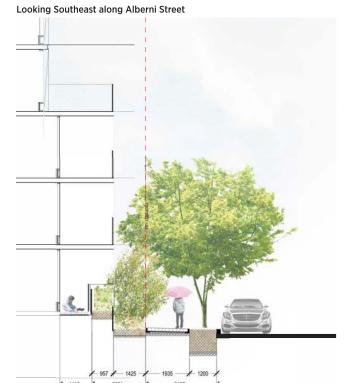
# **PUBLIC REALM**

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# Sections



The terraces at the base of the building are planted to give a cascading effect towards the street. Along their outermost edge, two linear benches mark the building entrance, providing a public respite between the row of trees that runs the length of busy West Georgia and the cascade of hedges. The view from the bike lane along this block is thus one that is remarkably green, punctuated by deciduous trunks and softened by the course of evergreens at an elevated line of sight.



The entrances to the building along Alberni Street lead to private residences. The character of Alberni is much more residential than the major thoroughfare of West Georgia. Trees line the curb side of the pedestrian way as is typical of residential streets in Vancouver. On the building side, a continuous edge of evergreen hedges gives privacy to the residents.







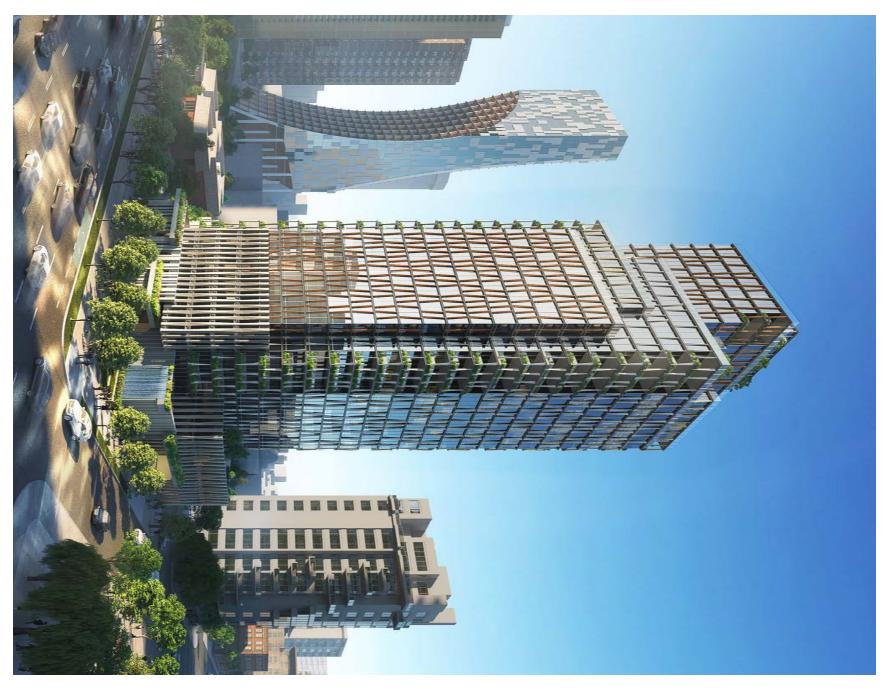






# **TOWER RENDERING**West Georgia + Bidwell View







# TOWER RENDERING Bidwell + Alberni View

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View from East Mews + West Georgia (looking west)









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View from West Georgia + Bidwell (looking east)









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View from Bidwell + Alberni (looking northeast)









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View from Alberni + East Mews (looking northwest)

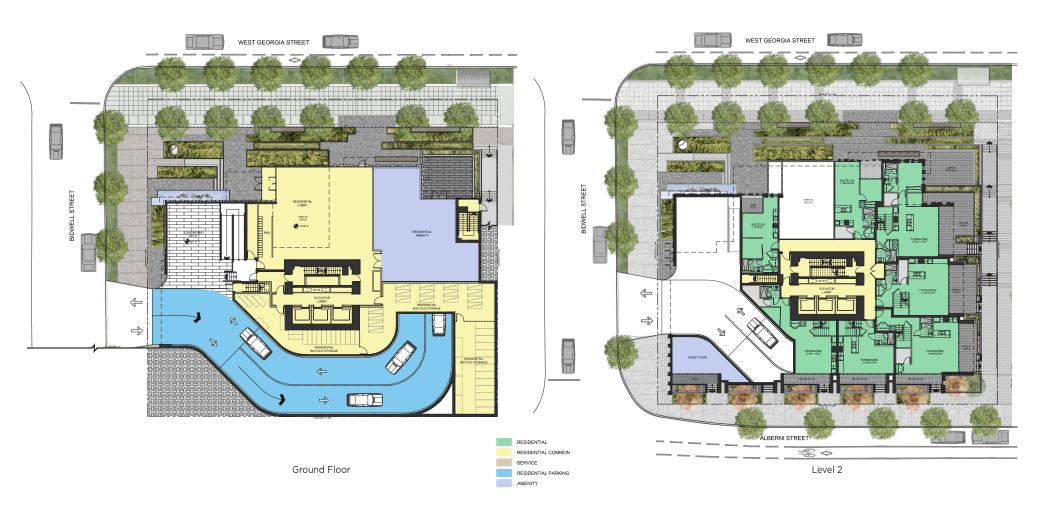






# **FLOOR PLANS**

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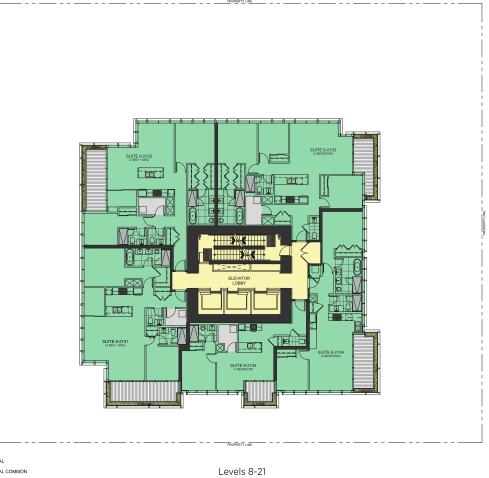




# **FLOOR PLANS**

# Anthem 5





Level 6



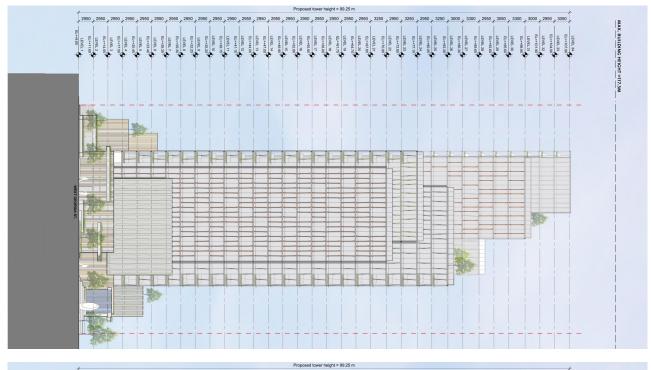


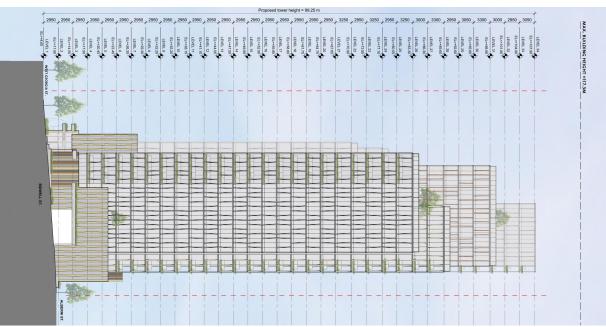




# ELEVATIONS





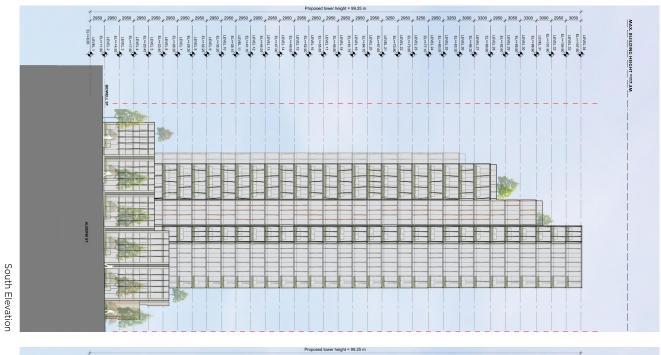


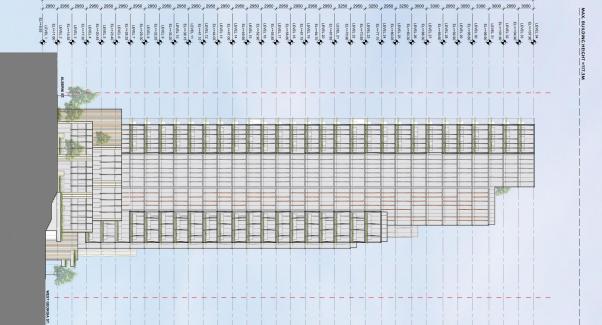




# ELEVATIONS



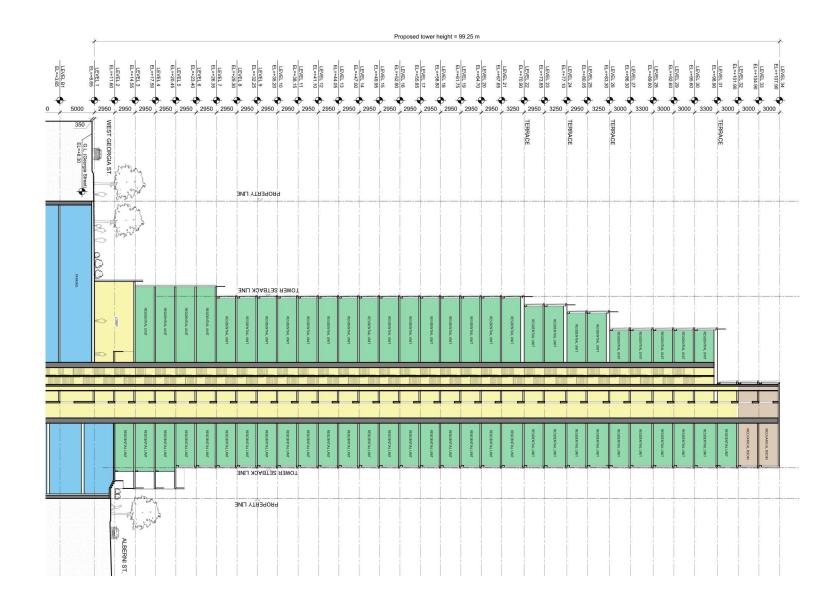






# SECTIONS





# **SHADOW STUDY**

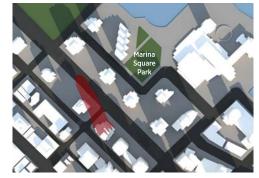


Detailed shadow studies have been prepared to better understand the impact of the project on the surrounding context to minimize shadowing and to preserve access to daylight. The stepped massing of the proposed building has been designed to respond to the need for sunlight on Marina Square Park.

#### **EQUINOX - MARCH 22 (SPRING)**



March 22 - 10:00am



March 22 - 12:00pm



March 22 - 2:00pm

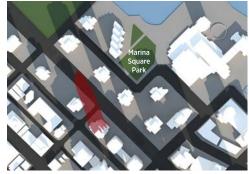


March 22 - 4:00pm

#### **EQUINOX - SEPTEMBER 22 (FALL)**



September 22 - 10:00am



September 22 - 12:00pm



September 22 - 2:00pm



September 22 - 4:00pm





# **TRANSPORTATION**

# Traffic + Parking

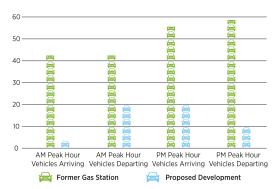
A preliminary transportation analysis was completed to help clarify how the proposal fits within the transportation context for the area.

#### TRANSPORTATION CONTEXT:

1698 West Georgia Street is located within the Georgia Street Corridor adjacent to active bicycle, public transit and road networks.

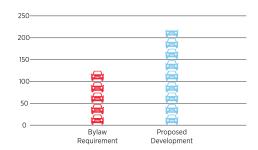
- Bike lanes can be found fronting the site along West Georgia Street and Alberni Street to Stanley Park.
- Alberni Street and Bidwell Street are both pedestrian friendly streets with West Georgia Street providing a walking connection to Stanley Park, the Seawall and Coal Harbour.
- A bus stop with frequent service is located on the West Georgia frontage.

#### VEHICLE TRIP SUMMARY



AM Peak Hour Vehicles Arriving	41	4
AM Peak Hour Vehicles Departing	41	19
PM Peak Hour Vehicles Arriving	55	19
PM Peak Hour Vehicles Departing	57	11

#### **RESIDENTIAL PARKING**



	Requirement	Development
Residential Parking Counts	124	213
The <b>213</b> parking spaces pro	vided on site <b>exceed</b>	I the Zoning Bylaw
requirements.		

The development would provide more parking per unit than required.





#### **PARKING**

A total of 213 stalls are planned for the proposed development. This exceeds the minimum parking requirements outlined in the City of Vancouver's Parking By-Law.



#### **VEHICLE TRIPS**

The proposed development will generate fewer vehicle trips than the former gas station and therefore no material impact to the traffic operation of the local street network is anticipated.



#### **BICYCLE PARKING**

A total of 335 bicycle parking stalls for residents will be provided.







Images to be used for precedent only

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# **COMMUNITY BENEFITS**

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# West End Public Benefits Strategy

#### PROPOSED COMMUNITY BENEFITS

- Public Art: Site provides a high visibility stage for public art that will further contribute to the West End's vibrant cultural character.
- Urban Greenery: The building will support abundant plant-life which contributes to a healthier urban environment by absorbing GHGs and reducing urban heat island effect.
- Respecting parks: Building form has been shaped to respond to the need for sunlight on Marina Square Park.
- Enhanced street character: Expansion of ground-oriented residential townhome form along Alberni Street will add vibrancy to the neighbourhood.
- Activated groundplane: Street to building interface is human scaled, thoughtfully landscaped, and actively programmed with uses designed to enhance the public pedestrian experience and safety.
- Mews: Introduction of a mid-block mews will open up a view corridor to the North Shore mountains from Alberni Street.
- Enhanced Urban Character: Locally inspired architecture pays homage to the local mountain forms and natural landscape, contributing to the unique and evolving architectural character of the neighbourhood.







A Community Amenity Contribution will be paid by Anthem to the City to use for neighbourhood improvements.

Provision of new or upgraded amenities and infrastructure are typically funded from a combination of Community Amenity Contributions (CACs), Citywide Development Cost Levies (DCLs) and direct contributions from developers toward amenities and infrastructure upgrades.

#### **WEST END PUBLIC BENEFITS STRATEGY - 30 YEAR PLAN**

The West End Community Plan has identified the following priorities, a portion of which will receive funding derived from the project's CACs.

- Renew recreation facilities (West End Community Centre, West End Ice Rink & Vancouver Aquatic Cenre)
- Renew Joe Fortes Library
- Renew and expand the Gordon Neighbourhood House & Qmunity
- Secure affordable space for community-based non-profits
- Preserve and secure key existing arts and cultural spaces
- Create additional childcare spaces
- Secure social housing and market rental housing
- Rebuild the seawall
- Upgrade English Bay Beach Park and Sunset Beach Park
- Improve the public realm along key walking and cycling routes
- Optimize firehall services
- Replace and restore water infrastructure
- Incorporate heritage resources in the West End







# **SUSTAINABILITY**

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# Innovative Design

1698 West Georgia Street is aligned with Vancouver's goal to be the greenest city in the world and is being designed to meet Path B of the City's new Green Buildings Policy for Rezoning (GBPR).

The building's sustainable design incorporates multiple green roofs and extensive planting which will improve the public realm. Further improvements include upgrades to the sidewalks on Georgia, Bidwell and Alberni. Anthem is also proposing to substantially increase the street tree grid adjacent to the site.



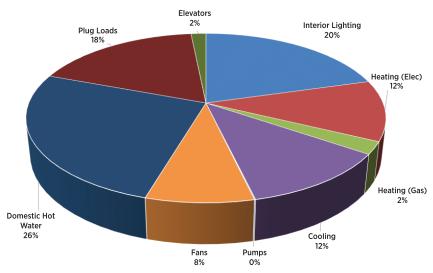
# Rainwater Management & Water Conservation

Vegetated planters will release stored rainwater into the atmosphere via evapotranspiration. Excess rainwater will be collected and diverted into an onsite stormwater detention tank so that it can be released into the municipal storm system at a controlled rate.



# Low Emitting Materials

All interior finishes will be selected to minimize volatile organic compounds and added urea formaldehyde that can be found in interior finishes. Eliminating these chemicals will improve the indoor environment quality for construction workers and residents.



**Projected Energy Usage** 







# **SUSTAINABILITY**

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Ch	Zero E	missions B	uilding Plan	Energy Ch	necklist			
Pleas	se complete all fields that apply to the project, using i		represents the on yet, please e		of design. For fields that	do not apply	or for whic	ch there i
		Project Infor	mation (enter a	III that apply)				
	Project Address		jia					
	Secondary Address							
	Project Working Title POSSE File Name (City use only)	1698 W. Georg	jia					
	Gross Floor Area indicated on Arch. Drawings (m²)							
	Parkade Area (m²)							
	B	uilding Informa	ation and Perfe	ormance Lim	its			
F	or building types with Performance Limits, enter this				City-Recognized Low		Limits	
	Building Type(s)	Modelled Floor		Rezoning?	Carbon Energy System?		TEDI	GHGI
	Residential, 7+ storeys (Group C except Hotel)	16,815		Yes	No	120	30	6
						0	0	0
	Total	16,815		TED! !!!4 fo.		0	0 <b>30.0</b>	0
					r this portion of building		30.0	
F	or other building types, create a baseline energy mod				tion in this section			
	Building Type	Modelled Floor	Area (m²)	Rezoning?				
nter	Other Building Type Baseline Model Performance	Energy (kWh)	Em Factor	Emissions (I	(aCO2e)	TEUI	TEDI	GHGI
.iitei	Total Annual Electricity Use		0.011		Baseline:	0	0	0
	Total Annual Natural Gas Use		0.185		Target:	ő	Ö	ő
	Total Annual District Energy Use		0.070	-	· ·			
otal		-		-				
	Total Annual Heat Demand - for TEDI							
						TEUI	TEDI	GHGI
	Total Modelled Floor Area (m²) Modelled Floor Area within 5% of Gross Floor Area?	16,815		Whole-Build	ding Performance Limits	120.0	30.0	6.
	Widdelled Floor Area Within 5 % or Gross Floor Area?							
			Building Perfe		Eminaiana (kaCO2a)	TEUI		GHGI
	Interior Lighting	Energy (kWh) 301,256	Electricity		Emissions (kgCO2e) 3313.816	17.9		0.
	Exterior Lighting		Liectricity	0.011	3313.010	17.0		0.
	Heating		Electricity	0.011	5625.611	30.4		0.
	Cooling		Electricity		1891.446	10.2		0.
	Pumps	1,190	Electricity	0.011	13.09	0.1		0
	Fans	120,363	Electricity		1323.993	7.2		0
	Domestic Hot Water Plug Loads		Natural Gas Electricity		70633.19 2856.013	22.7 15.4		4
	Parking Fans	TBD 259,036	Electricity	0.011	2000.010	15.4		U
	Elevator	23,214	Electricity	0.011	255.354	1.4		0
	Heating	34,579	Natural Gas	0.185	6397.115	2.1		0
	Total Annual Electricity Use	1,389,029	0.011					
	Total Annual Natural Gas Use Total Annual District Energy Use	416,380	0.185 0.070					
	Total Armual District Energy ose	1.805,409	0.070	92.310				
	Total Electricity Generated On-Site (kWh)		% of Use					
	Total Purchased Renewable Electricity (kWh)		% of Use					
	Total Purchased Renewable Natural Gas (kWh)		% of Use					
	Note: purchaes renewables used to demonstrate co	ompliance must			f AHJ			
	Adjusted Electricity Emissions Factor (kgCO2e/kWh)							
Adj	justed Natural Gas Emissions Factor (kgCO2e/kWh)	0.185						
	ual Heat Demand of portions with Perf. Limits (kWh)							
۸	ual Heat Demand of portions with Perf. Limits (kWh) Total Annual Heat Demand - for TEDI (kWh)							
Ann								
Ann	Total Annual Cooling Demand - for info only (kWh)							
Ann	Total Annual Cooling Demand - for info only (kWh)	103,302			le-Building Performance	TEUI 107.4	TEDI	GHGI

Corridor Pressurization A	Adjustment							
Heating Degree Days	2825							
Number of Suite Doors Pressurized	129							
Airflow for Pressurization per Door (L/s/door)	7.0792							
Area of Corridors Pressurized (m²)	727							
Make-Up Air Fuel Type	Electricity			TEUI	TEDI	GHGI		
Make-Up Air Emissions Factor	0.011		Corridor Pressurization	3.6	3.6	0.0		
Suite-level Metering for Space Heating Note: select yes if the energy us			Submetering of Heating	4.6				
Note: select yes if the energy us	sed for fleating is	metered at the suite lever						
	Δ	djusted TEDI Performance	of Portions with Limits		(3.6)			
		sted Whole-Building Perfor		108.4	29.8	5.5		
	•	odelled Inputs	mande for Compilation	100.4	20.0	0.0		
		odelled inputs						
Modelled Above-Ground Wall Area (m²) Window-to-Wall Area Ratio (WWR)	1,816 70%		Vertical facade-to-Flor		Area Ratio	0.11		
, ,			vvirido	w-to-F100F	Area Ratio	0.06		
Infiltration Rate (L/s/m² <sub>fac</sub> )	0.25							
Wall Effective R-Value - incl. thermal bridging (m²K/W)	3.5	19.88 (ft²hr°F/Btu)	Average Floor Edg	e Psi-Valu	ue (W/m°K)	1		
Roof Effective R-Value - incl. thermal bridging (m <sup>2</sup> K/W)	8.9	50.55 (ft2hr°F/Btu)	Avg. Window Transition					
Average Window Effective U-Value (W/m²°K)	0.26	0.05 (Btu/ft²hr°F)	Window Solar I	Heat Gain	Coefficient	0.41		
Average Suite Occupant Density (m²/pers)	25		Av	erage Lig	hting W/m <sup>2</sup>	5		
Average Suite Ventilation Rate (L/s/m²)	0.214735511		DHW L	ow-Flow S	Savings (%)			
Average HRV Effectiveness	88%		DHW Drain Heat Re	covery Eff	fectiveness			
Heating System Type (fuel, plant, distribution, etc.)	Primary: Electric	air source heat pump, back	up gas boiler, hot water of	distribution	, in-suite fan	coil units		
Cooling System Type (fuel, plant, distribution, etc.) Electric air source heat pump, chilled water distribution, in-suite fan coil units								
DHW System Type (fuel, plant, distribution, etc.)	gas water heate	r, plus heat recovery from air	-source heat pump in coo	oling seaso	on (GHG and	EUI cred		
	Mode	eller Information						
Modeller Name	Rocky Tam							
Wodeliei Haille		Its have been created using t	he COV Energy Modelling	a Guidelini	es version:	2		
	AME Consulting		cc. Lgy Modelling	,	00 10.000	-		
Phone Number		,p						
Email	rockytam@ame	group.ca						
			Ž	EBP Energy	Checklist v1.5	2018-07-27		







# **VIEW ANALYSIS**

## Anthem 5









View from 1650 Alberni Street\_Level 19

View from 1650 Alberni Street\_Level 29