

# Bayside – A1/A2

July 26, 2017

#### Bayside A1/A2

**Proponent:** Hines / Tridel

Design Team: 3XN

Presenters: Audun Opdal, 3XN

**Review Stage: Issues Identification** 

# **Project Description & Background**

- A1/A2 is the fourth building to be developed in Bayside, and the last market residential building
- The building program will be primarily residential with amination uses at grade such as retail and community space
- The remaining developments in Bayside are:
  - R6 is an affordable rental housing building with approximately 260 units.
  - C1 and C2 are commercial uses, such as office or academic space
- Key Milestones for other buildings in Bayside:
  - R1/R2 (Aqualina) first occupancy will be in September 2017 (first residential occupancy in East Bayfront!)
  - R3/R4 (Aquavista) currently the structure is complete to grade and first occupancy is targeted for Summer of 2018
  - R5 (Aquabella) targeting a construction start this fall.
- Hines and Tridel as co-developers of the first three buildings:
  - Are on track to achieve LEED platinum
  - Have included a Net-Zero suite in each building
  - Approximately 90% of residential units sold
- This is A1/A2 first time presenting at the DRP
- The team is presenting Issues Identification

#### **Key Dates for Bayside A1/A2:**

• The Site Developer (Hines and Tridel) is targeting to close on the land and start construction in September 2018.

# **Sustainability**

#### Bayside A1/A2

**Proponent:** Hines / Tridel

Design Team: 3XN
Presenters: Audun Opdal, 3XN

Review Stage: Issues Identification

#### Required:

- WT Minimum Green Building Requirements (MGBR) Version 1
- LEED Gold 2009

#### Achieving:

• LEED Platinum 2009

# **Site Context**

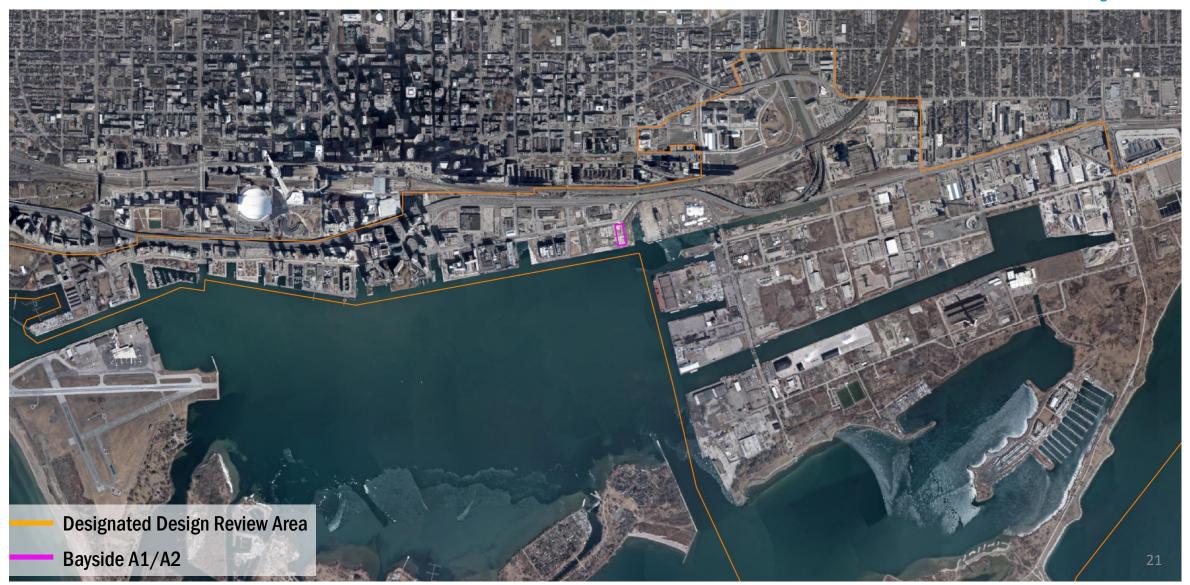
#### Bayside A1/A2

**Proponent:** Hines / Tridel

Design Team: 3XN

**Presenters: Audun Opdal, 3XN** 

**Review Stage: Issues Identification** 



### Bayside A1/A2

**Proponent: Hines / Tridel** 

Design Team: 3XN

**Presenters: Audun Opdal, 3XN** 

**Review Stage: Issues Identification** 



**Site Context** 

# **Site Context**

**East Bayfront Precinct Plan** 

### Bayside A1/A2

Proponent: Hines / Tridel
Design Team: 3XN

Presenters: Audun Opdal, 3XN

Review Stage: Issues Identification



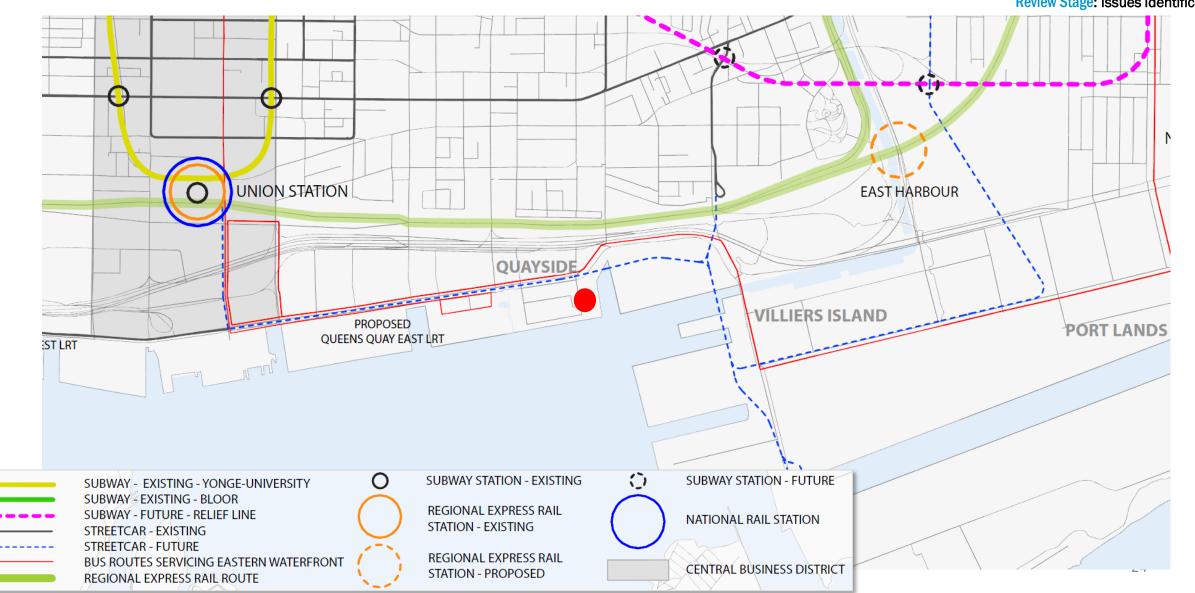
#### Bayside A1/A2

**Proponent: Hines / Tridel** 

**Design Team: 3XN** 

**Presenters: Audun Opdal, 3XN** 

**Review Stage: Issues Identification** 



**Site Context - Transit** 

# **Policy Context - Central Waterfront Secondary Plan**

Bayside A1/A2

**Proponent:** Hines / Tridel

**Design Team: 3XN** 

Presenters: Audun Opdal, 3XN

**Review Stage: Issues Identification** 

#### D24 - THE EAST BAYFRONT, A PROMINENT NEW NEIGHBOURHOOD

The East Bayfront will become a prominent waterfront address for working and living amid the energy and abundance of waterfront activities, including a new water's edge promenade and other public activities in the series of new East Bayfront public spaces. Development adjacent to the water's edge promenade shall consist of low and medium scale buildings that will reinforce the safety and usability of the public spaces.

(P31) Excellence in the design of public and private buildings, infrastructure (streets, bridges, promenades, etc.) parks and public spaces will be promoted to achieve quality, beauty and worldwide recognition.

(P32) New development will be **located, organized and massed to protect view corridors**, **frame and support the adjacent public realm** and discourage privatization of public spaces. Built form will result in comfortable micro-climates on streets, plazas and other parts of the public realm.

(P34) Schools and other **community services** and facilities will be **integral components of new waterfront communities** and will be provided in conjunction with new development.

## **Topics for Panel Consideration**

#### Bayside A1/A2

**Proponent:** Hines / Tridel

Design Team: 3XN

Presenters: Audun Opdal, 3XN

**Review Stage: Issues Identification** 

- Building massing in the context of the Bayside master plan (including the impact on R6) and surrounding areas
- Location of additional height elements, Queens Quay vs water's edge
- Program and adjacencies with surrounding buildings and open space, including Parliament Slip and Bungee Park

# The Waves

at Bayside



July 26th 2017

A1/A2 - DESIGN REVIEW PANEL

Phase IV Bayside Development



#### **Table of Contents**

- 1. 3XN Architects
- 2. Introduction
- 3. Concept
- 4. Ground floor
- 5. Residential
- 6. Exterior Concept
- 7. Zoning
- 8. Views Zoning Overlay
- 9. Sustainability

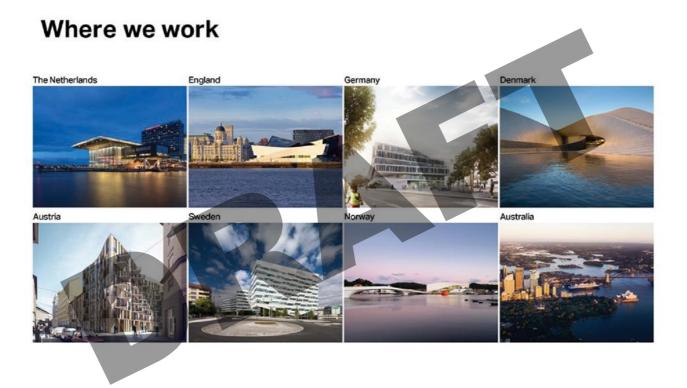
Appendix A: Sun Shadow Analysis



# 3Xn Architects

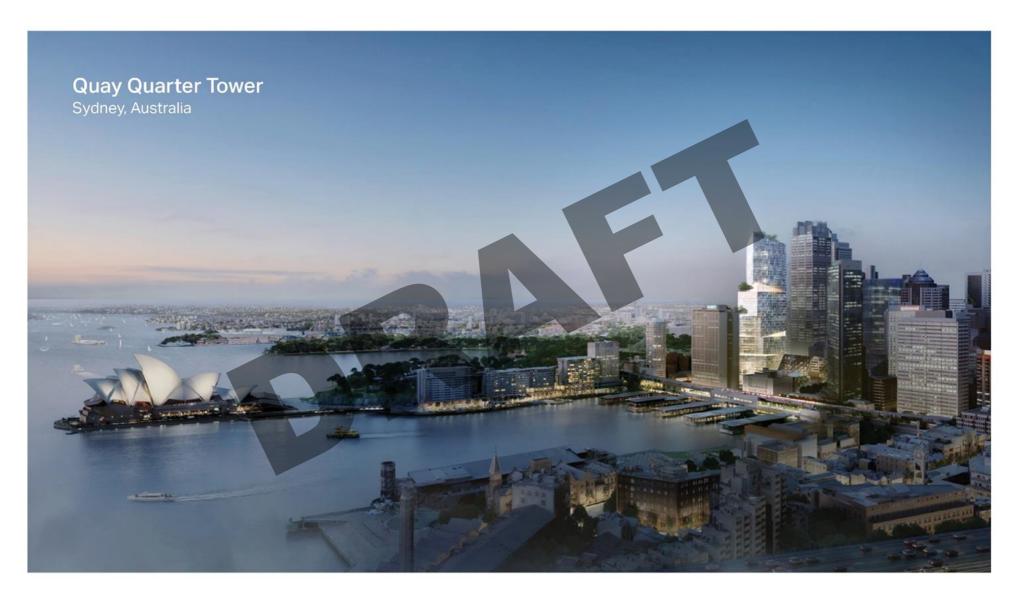


# Residential Office Civic Education Hotel Culture Healthcare Mixed-use













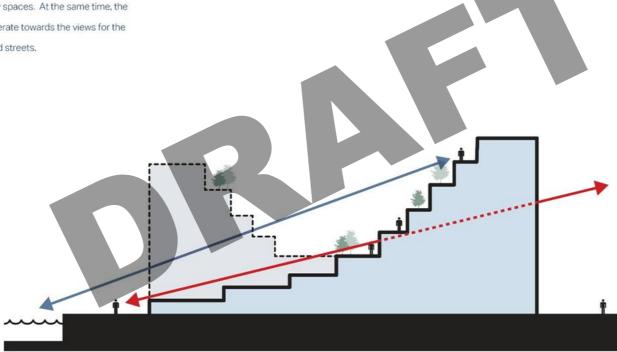






#### Maximize Views

The project seeks to maximize water views from the residential units and amenity spaces. At the same time, the project volume is considerate towards the views for the neighboring buildings and streets.



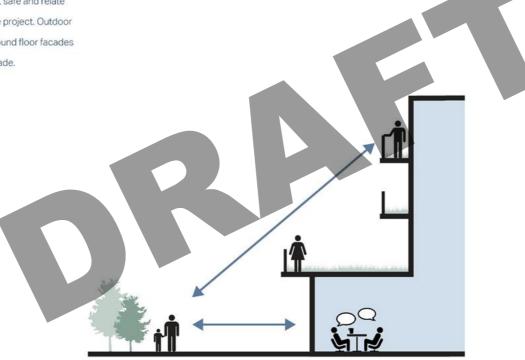
#### Creating a lively urban environment

Creating urban spaces that are active, safe and relate

to the human scale is important to the project. Outdoor

living spaces, setbacks and active ground floor facades

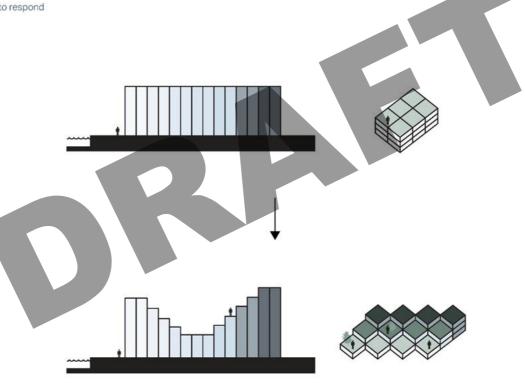
contribute to the streets and promenade.



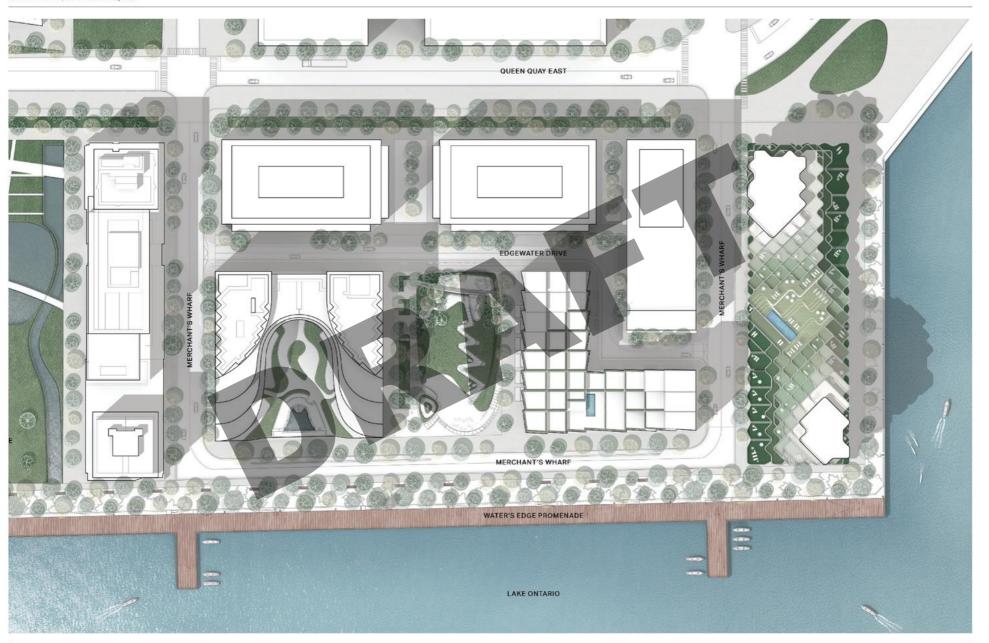
#### A flexible and adjustable framework

The project provides maximum flexibility to respond

to changes in unit mix.



# The Waves

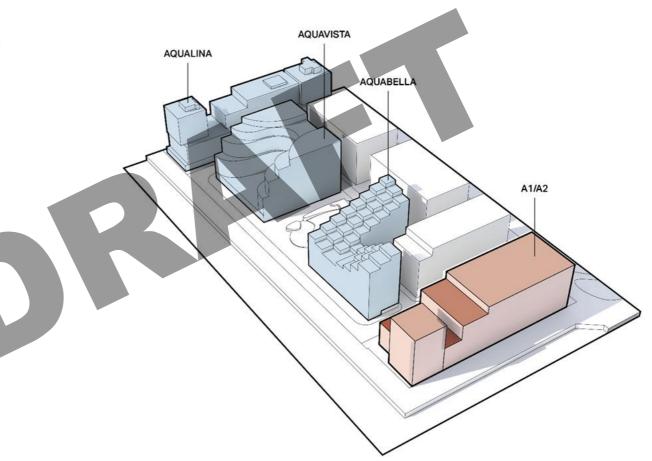






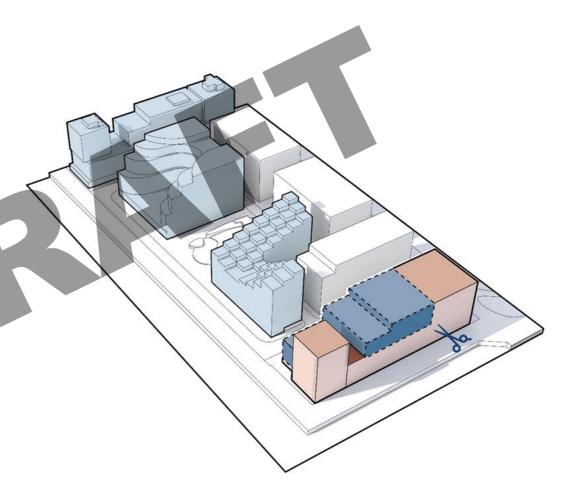
#### Zoning

The A1/A2 site marks the east corner of the Bayside development.



#### Subtract volume

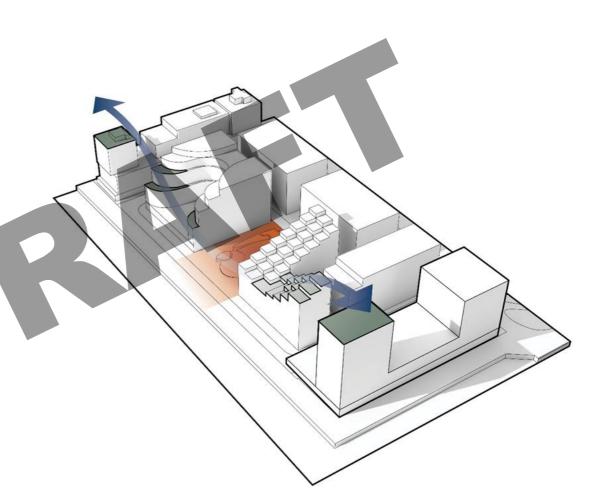
The project proposes to subtract the middle part of the Zoning Volume and redistribute the mass.



Redistribute By redistributing the middle part of the volume towards the south and north ends, a maximum of apartments enjoys water views.

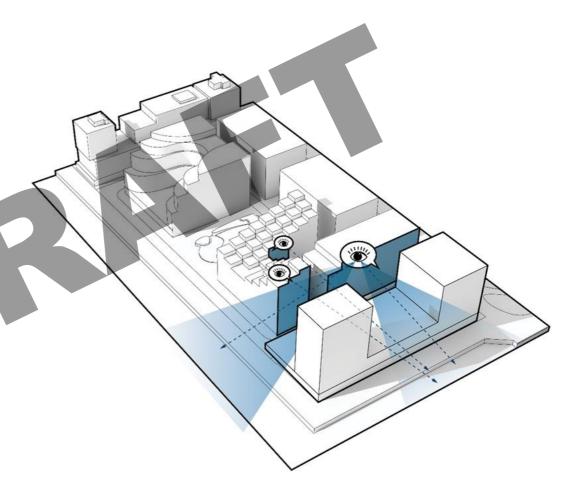
#### Completing the Skyline

The south tower completes Bayside's skyline, gradually raising from the central plaza towards it ends. It also defines the southeast end of the East Bayfront development.



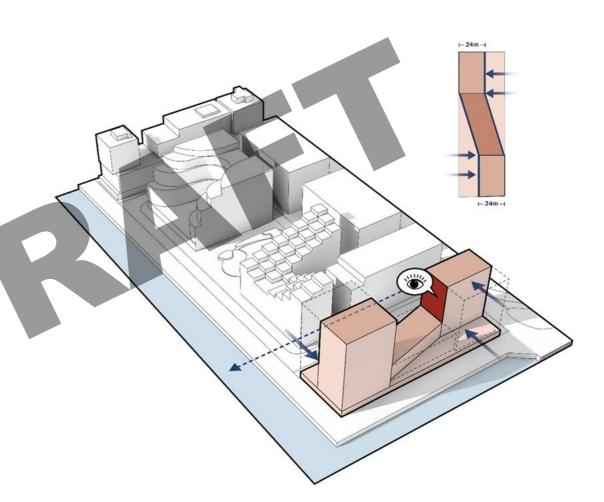
#### Improving Views

Furthermore, the neighboring buildings and Merchant's Wharf benefit from better views and more light.



#### **Shifting Volumes**

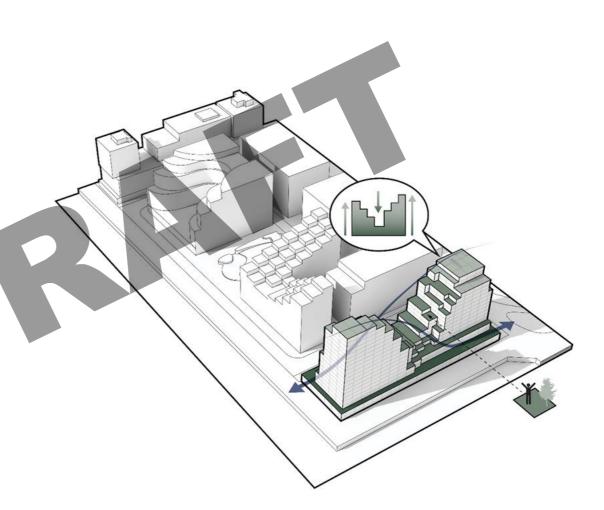
The project proposes shifting the south tower to the east and the north tower to the west. This gives the north tower better views towards the water and also creates a bit of distance between the south tower and Aquabella. It benefits both views from the units and views for the surrounding buildings.



Grid A 7,2 m  $\times$  7,2 m grid is applied to the volume.

#### **Terraces**

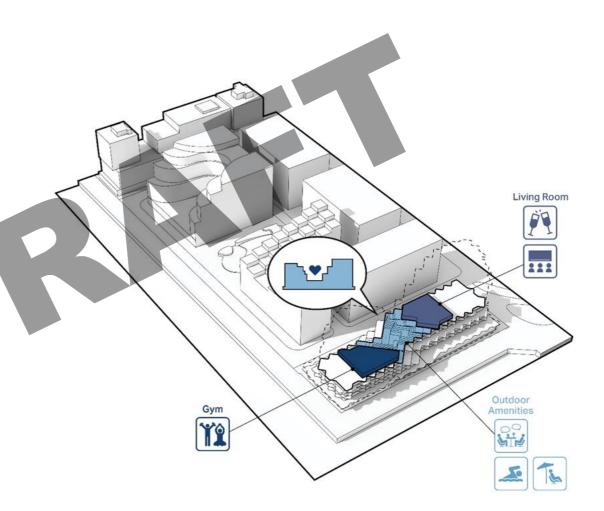
The grid creates a series of terraces, stepping down towards the water. Instead of being two towers, standing on a base, the project is perceived as a landscape of outdoor living spaces creating two peaks on the north-west and south east corner.

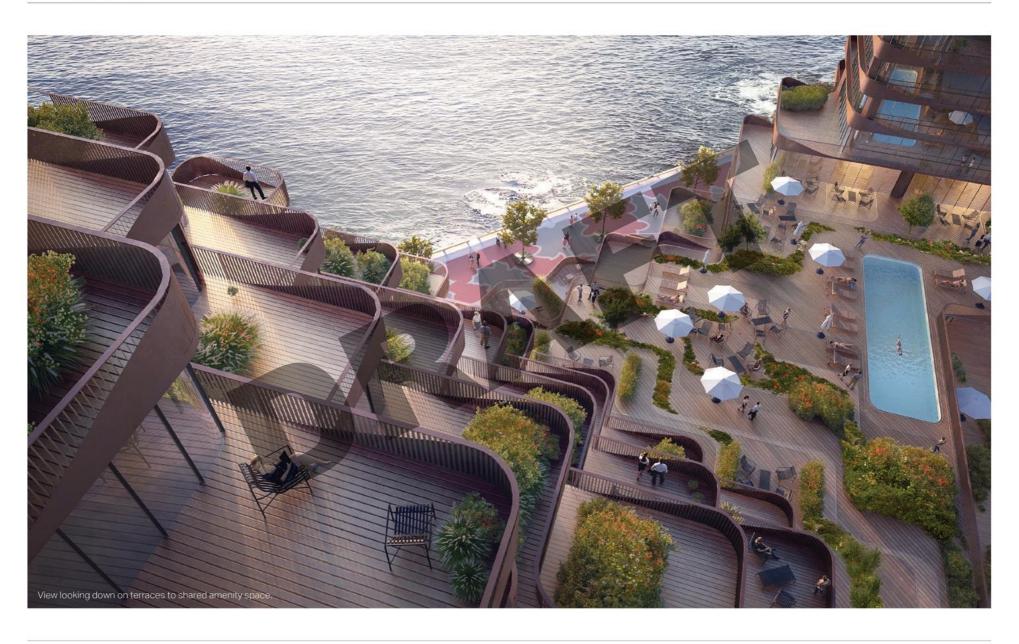


**Angled Grid** The facades and terraces are angled to create better views and sun conditions. All terraces are facing southeast or west. The angled grid makes the facades look "past" each other, maximizing the lake views.

#### **Shared Amenities**

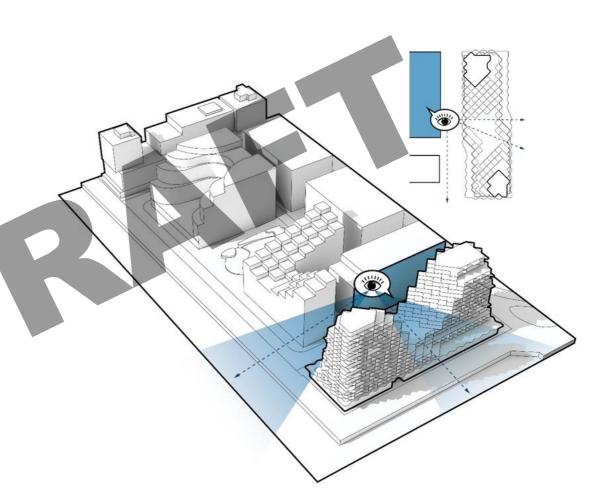
The amenities are located in the middle of the building as a natural common space where the terraces from both towers meet. The volume allows for water views to the south and east from the indoor amenity spaces and from the outdoor terrace.





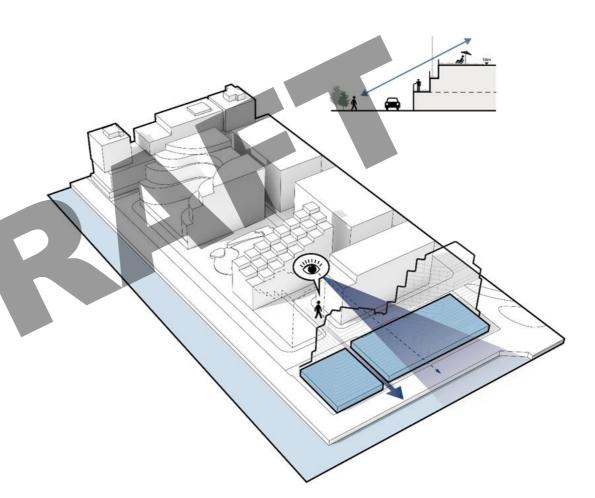
#### View from R6

By creating two peaks to the north-west and east, the volume enables units in the R6 building to have water views through the A1/A2 site to the east and to the south, along Merchant's Wharf.



#### **Edgewater Drive**

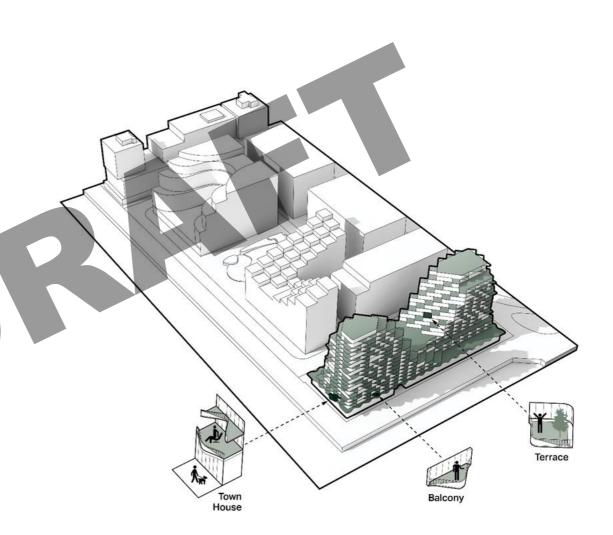
A through block link is created as an extension of Edgewater Drive. In addition, by having the terraces step down to the street, we create natural setbacks, bringing light and views to the streetscape.





#### **Outdoor Living Spaces**

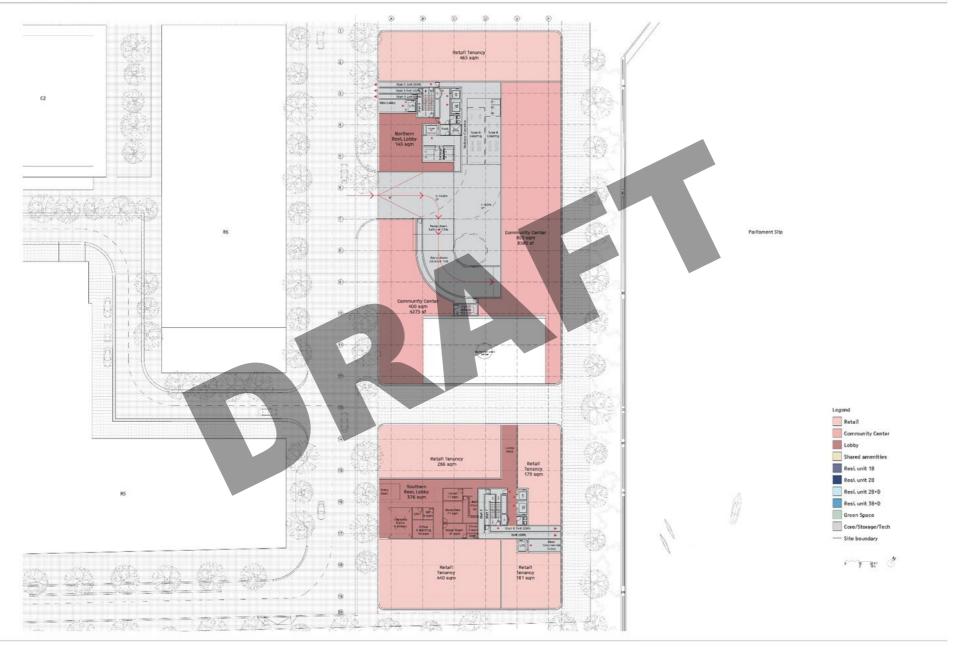
The building is all about outdoor living spaces. Because of the "shifted" peaks, we have the possibility to create a band of townhouses with large gardens on top of the ground floor. As we move up the building, all balconies have water views because of the angled geometry. This gives the effect of them 'looking' towards the lake. In addition, the project also proposes a large number of south facing private outdoor terraces – all with water views.



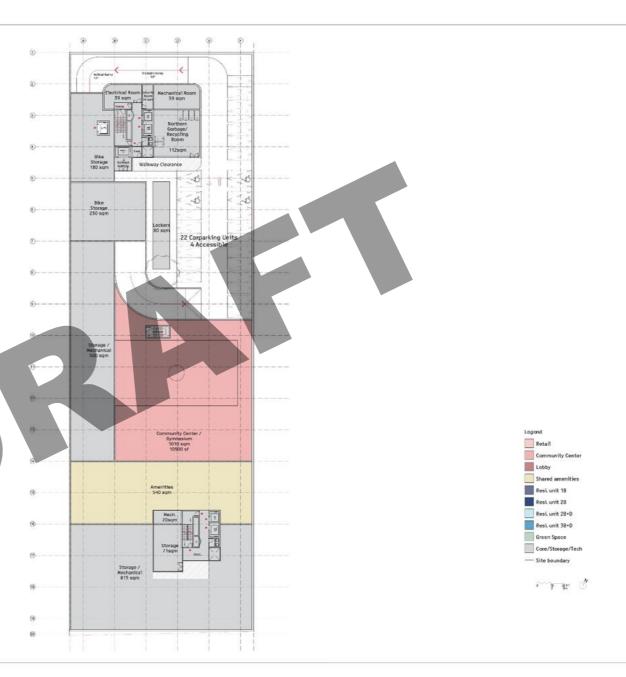








# Level P1

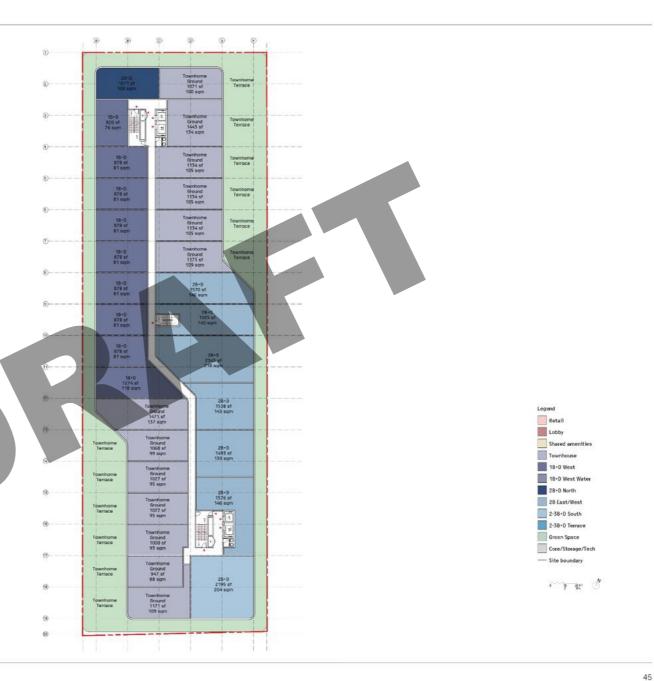




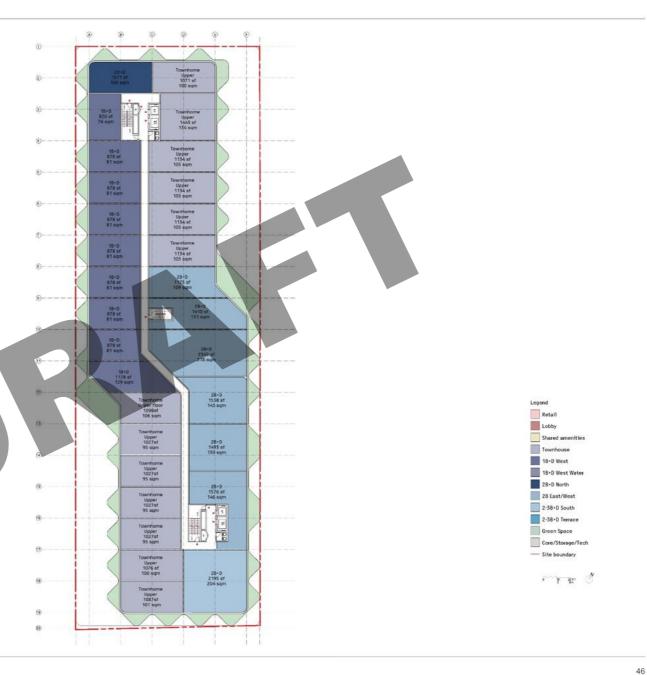


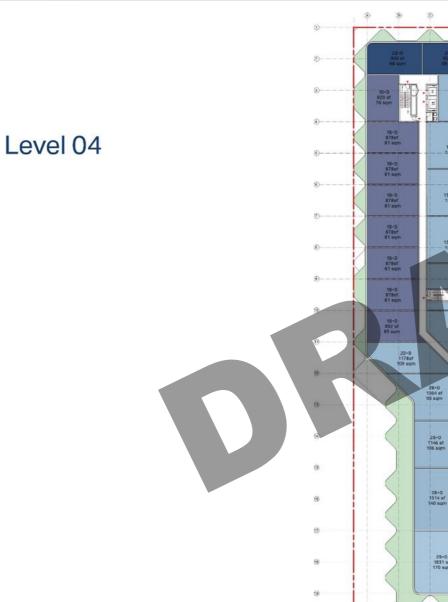


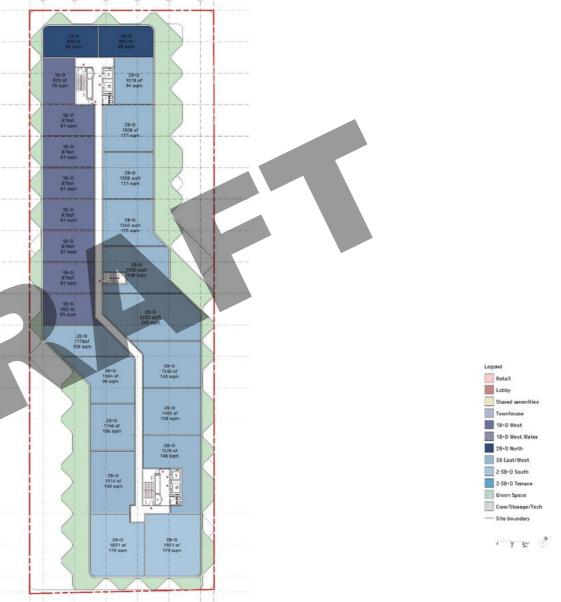
Townhouse Lower Level

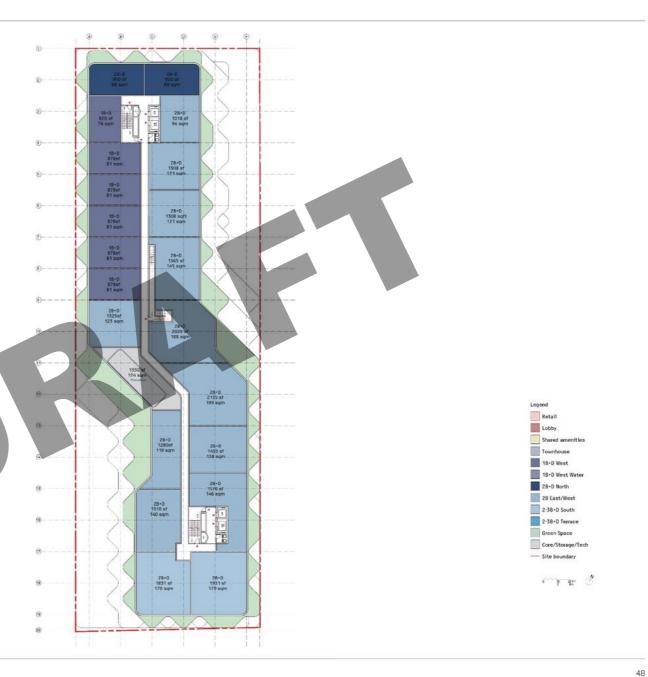


Townhouse Upper Level

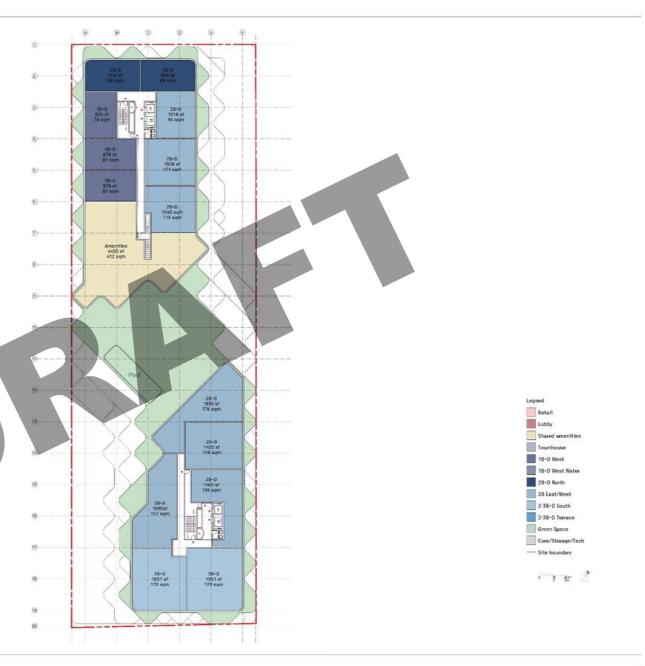






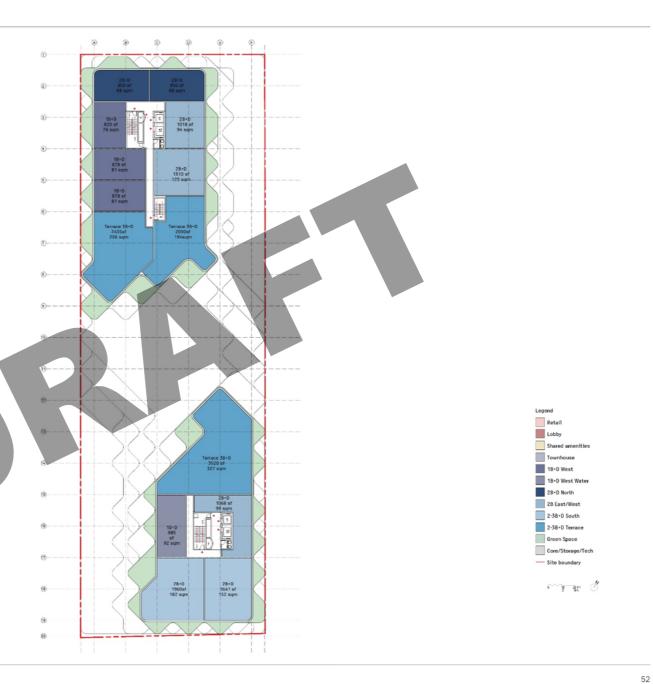


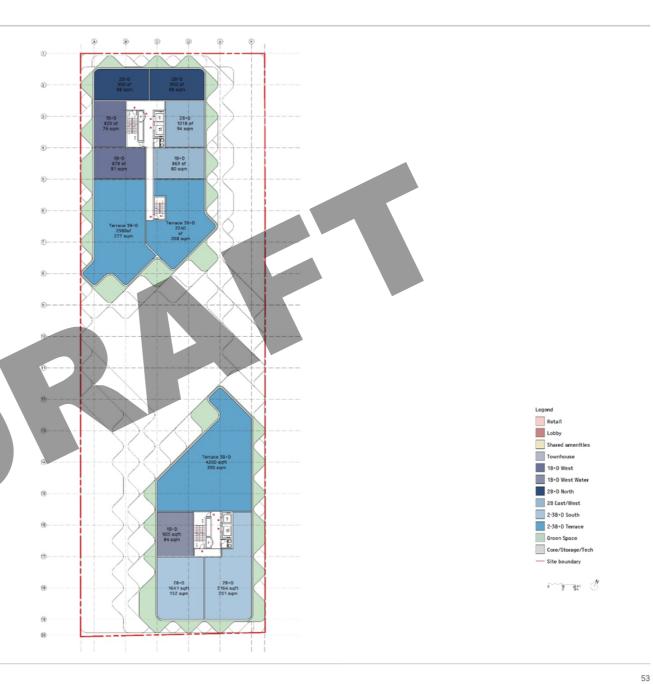
Shared Amenities and Terrace











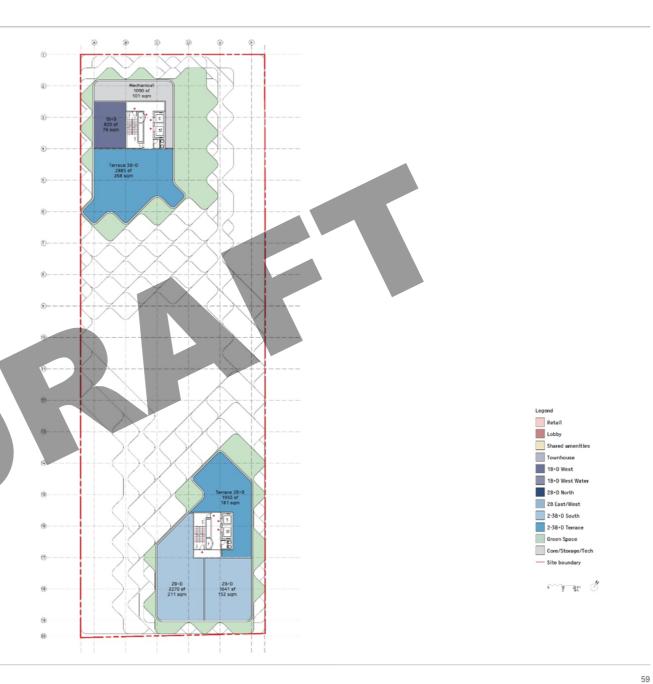


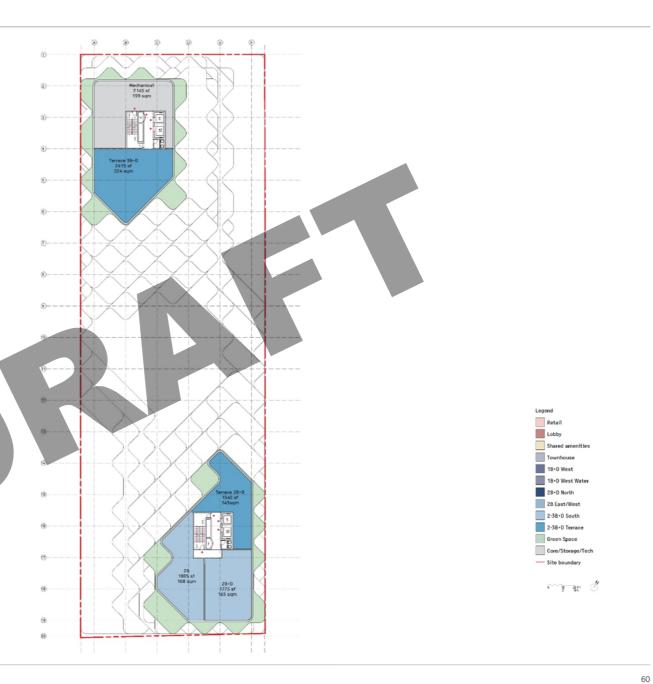


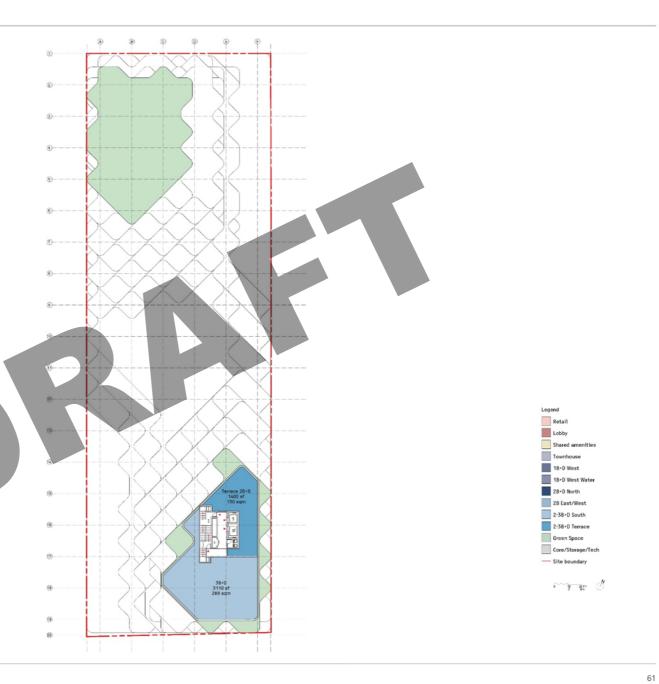


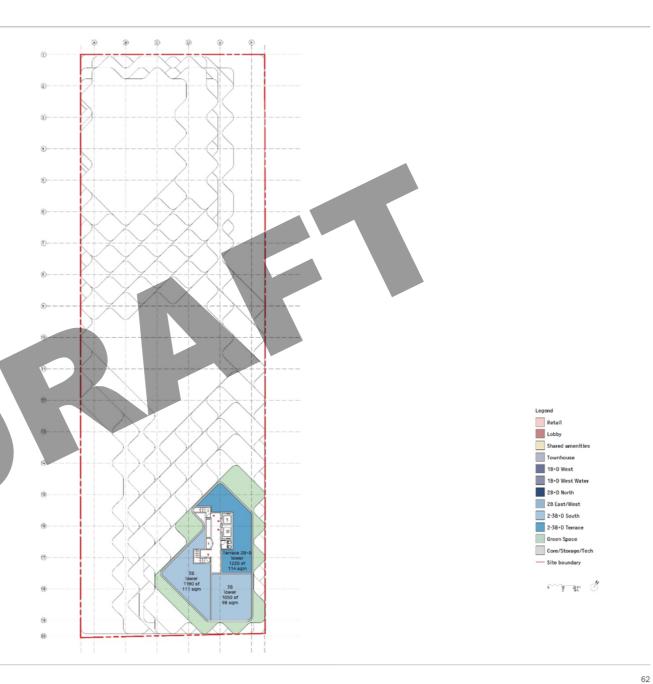




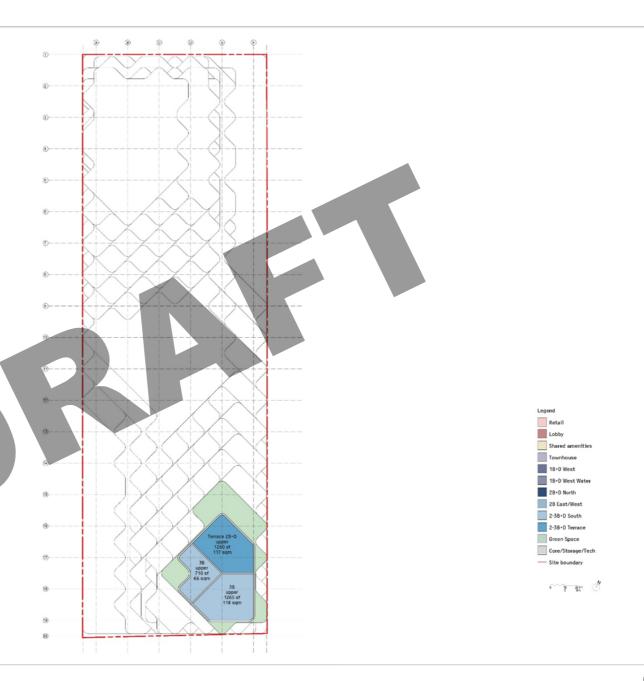


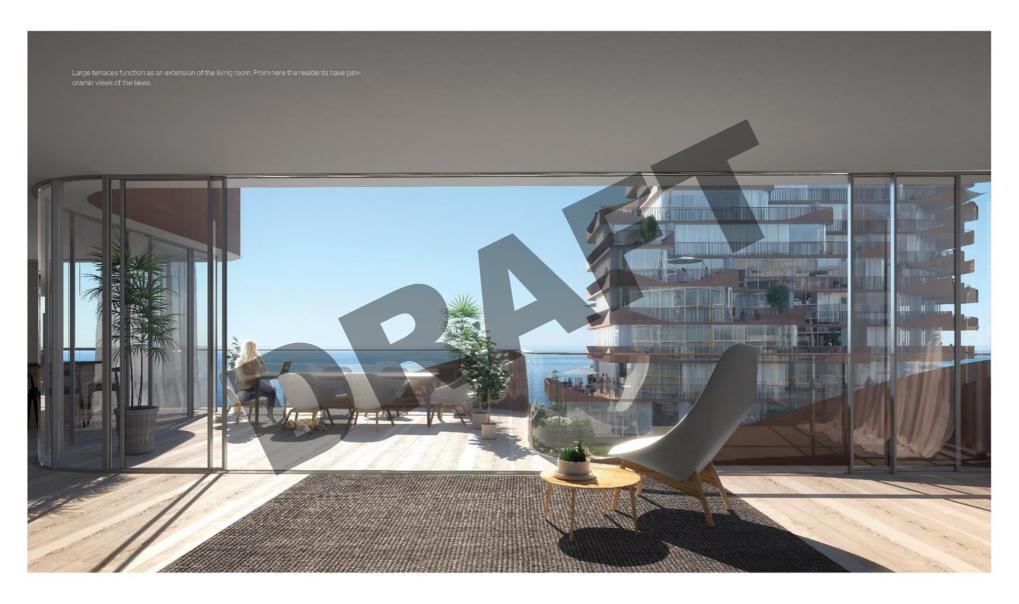






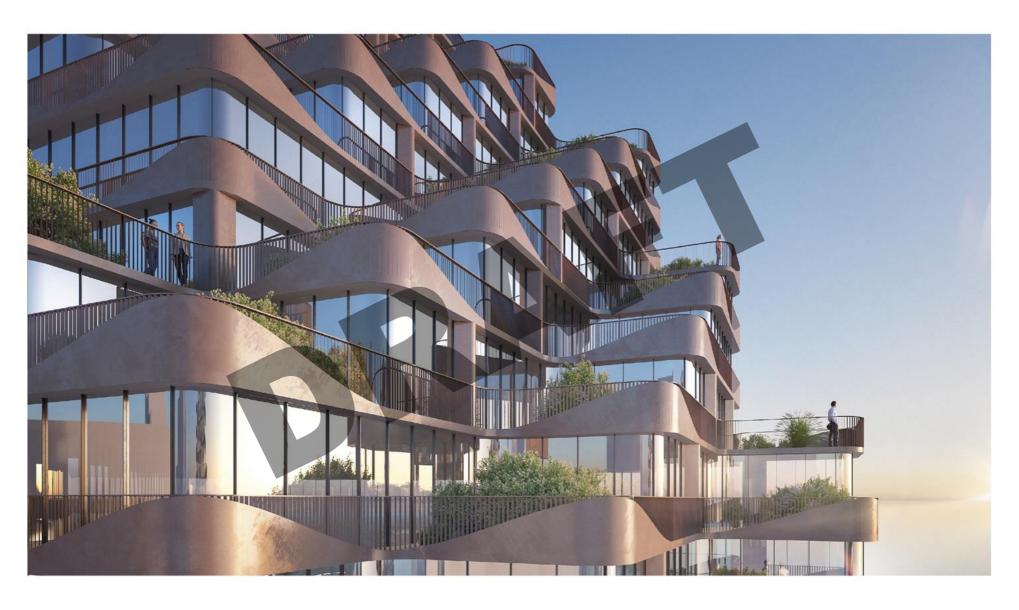
Level 19





### Section - Long



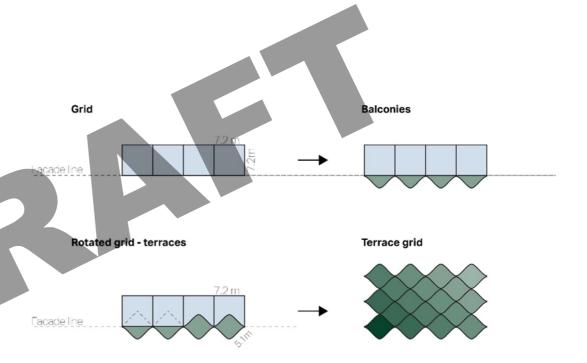


## Exterior Concept



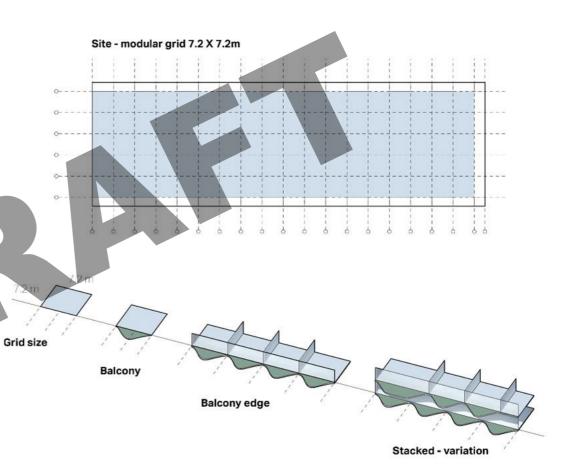
### Grid

The entire project is designed for ease of construction, flexibility and maximizing high revenue units. We employ a  $7.2 \times 7.2 \, \text{m}$  main grid that fits well structurally, and can accommodate a variety of unit sizes. The grid rises from the bottom upwards. The dynamic exterior is a result of the interplay between balconies and terraces. The 'balconies' are angled to create better views to the water while providing privacy between neighbours. The 'terraces' are the inversion of the balcony geometry to create angled squares  $(5.1 \times 5.1 \, \text{m})$  connected to the straight grid below.



### **Balcony System**

The projects uses a pragmatic approach to how the volume is created. It is the variations in balcony edges that create the dynamic exterior while the façade is stacked to create a simple and rational envelope. This results in a tight body reducing thermal bridges. From here, we add the balcony edge, a grouping of balconies and then stack the balconies for the variation and wave-like appearance of the building's exterior. The balconies create a dynamic, almost dancing expression – but all built out from a modular approach that is linked to the unit type.

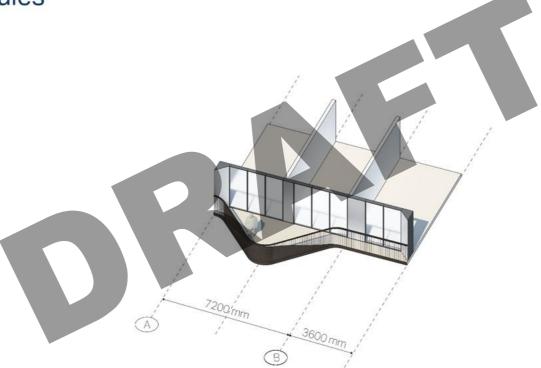




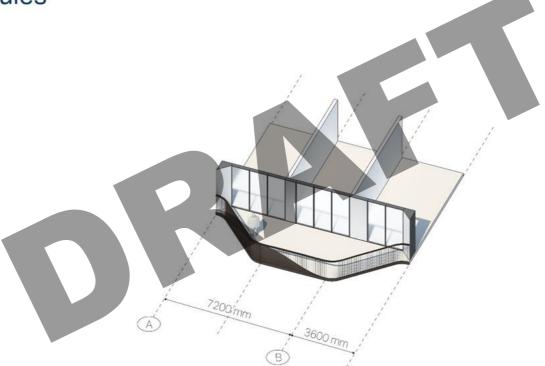




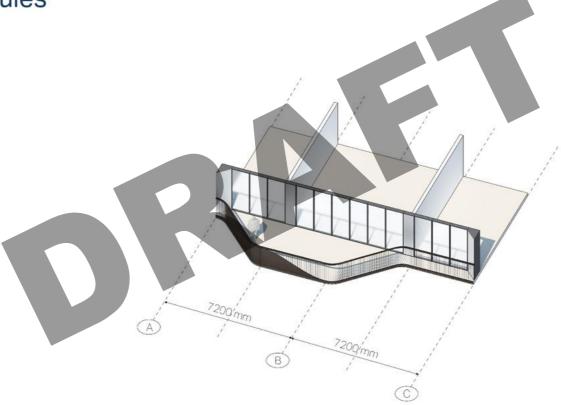
2 Bedroom Units - Type 1



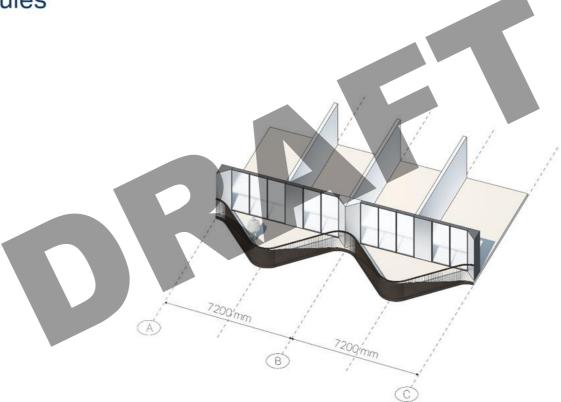
2 Bedroom Units - Type 2



2/3 Bedroom Units

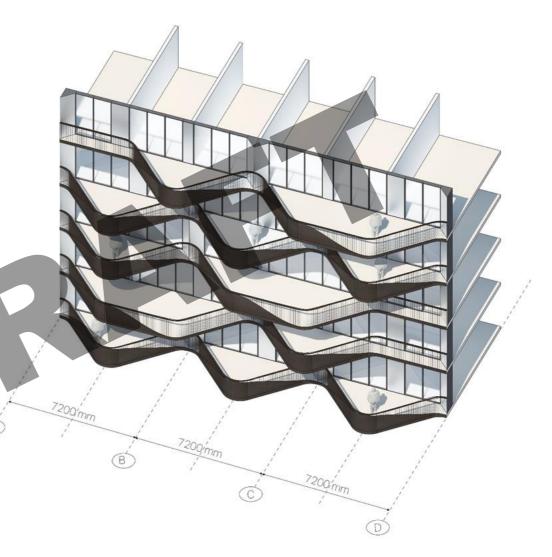


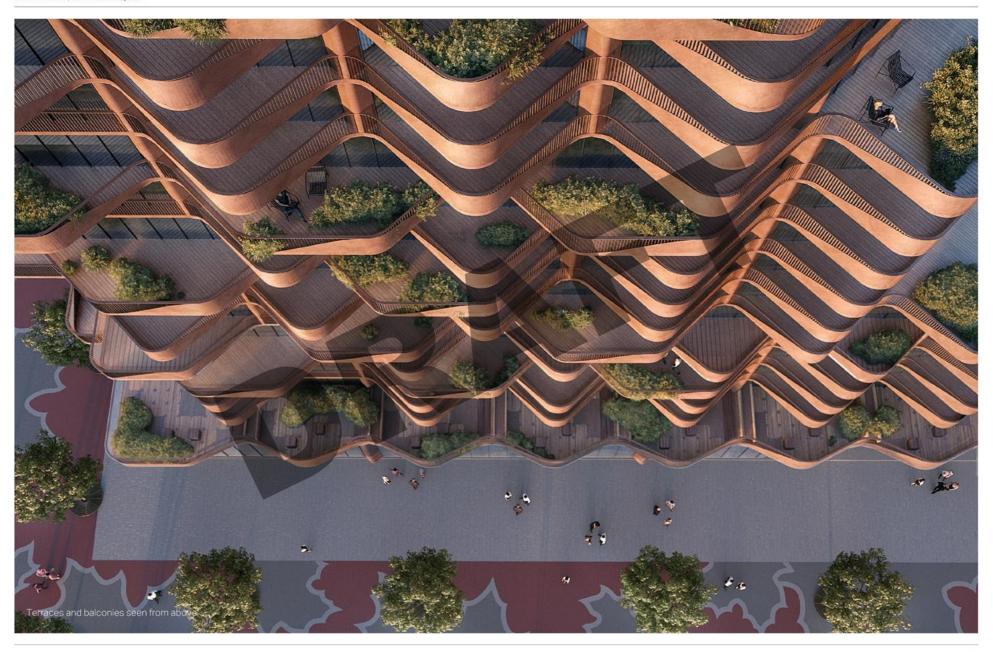
1 Bedroom Units



### Combined

The modules creates a dynamic and expressive facade when combined and stacked together.

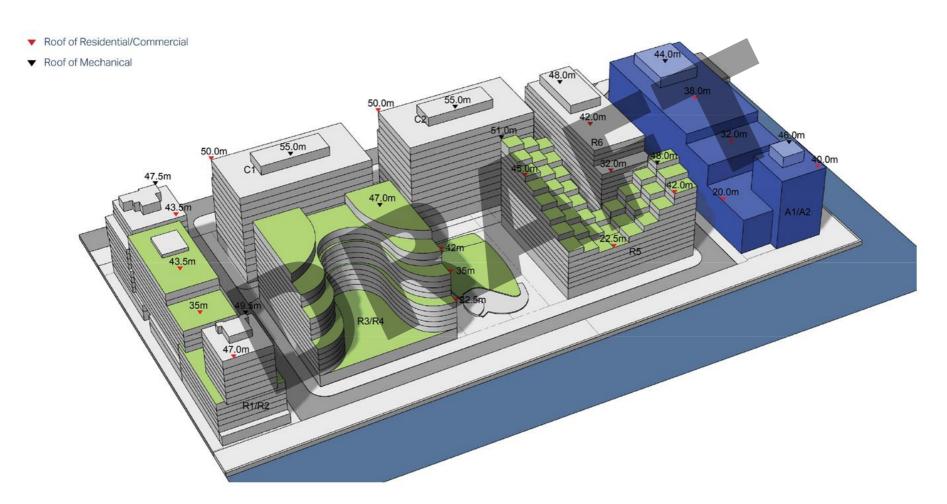




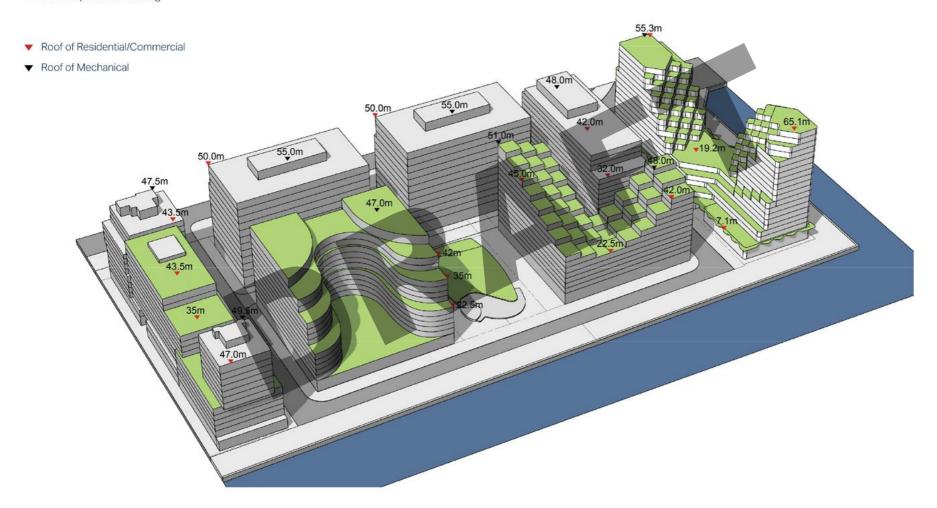


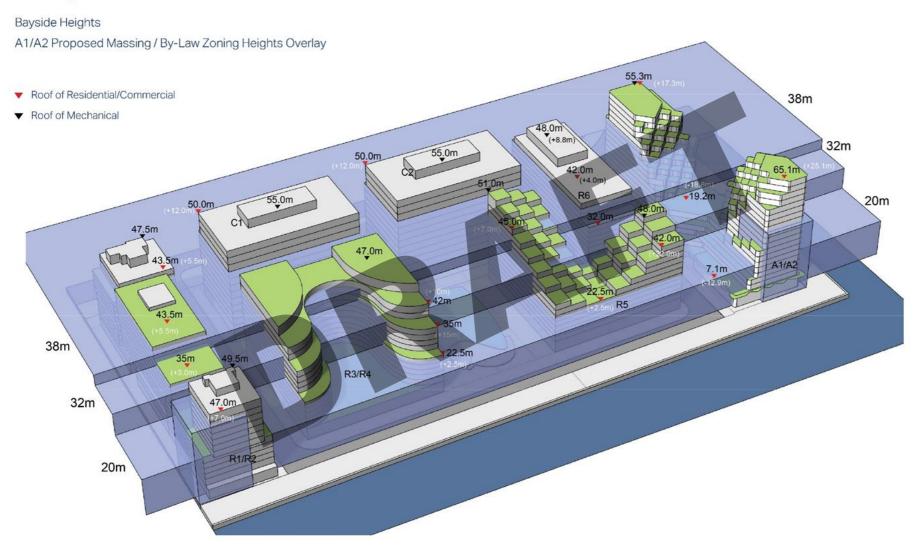
Bayside Heights

A1/A2 Maximum Buildable Zoning Envelope

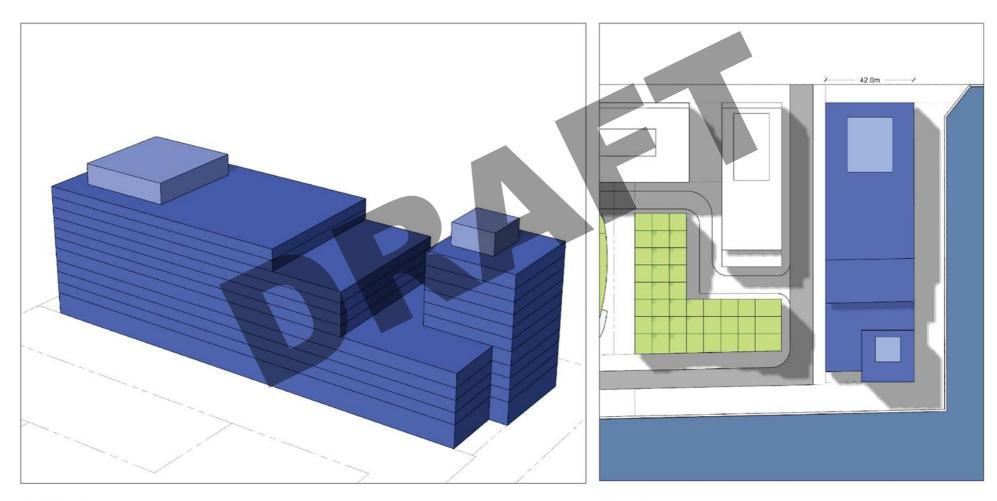


Bayside Heights
A1/A2 Proposed Massing

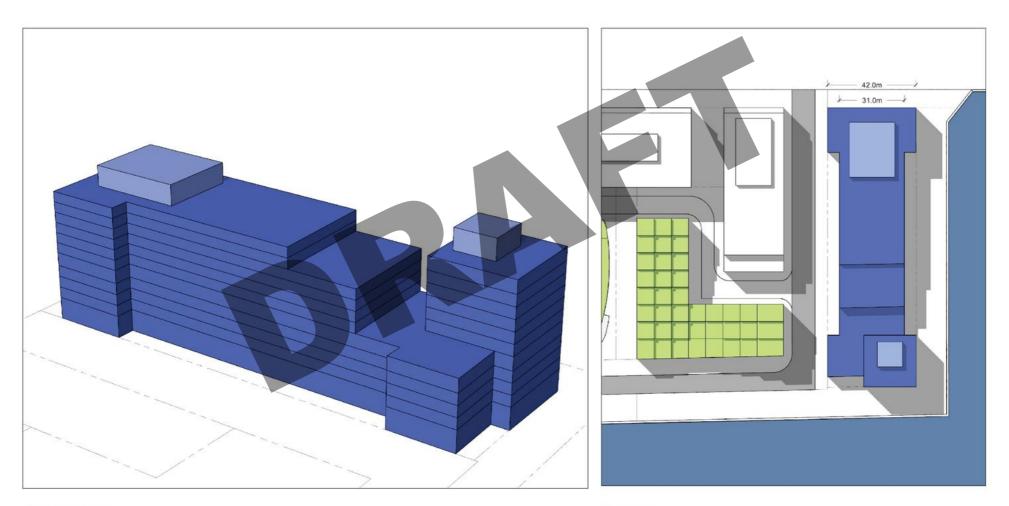




Maximum buildable envelope 53.000 sqm / 570.490 sqft

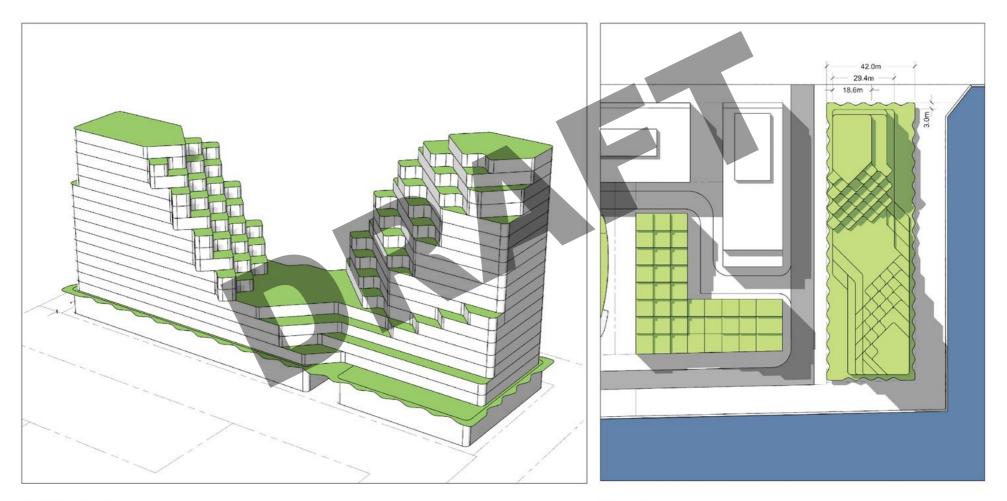


Building envelope - viable floor plate width 43.800 sqm / 471.400 sqft

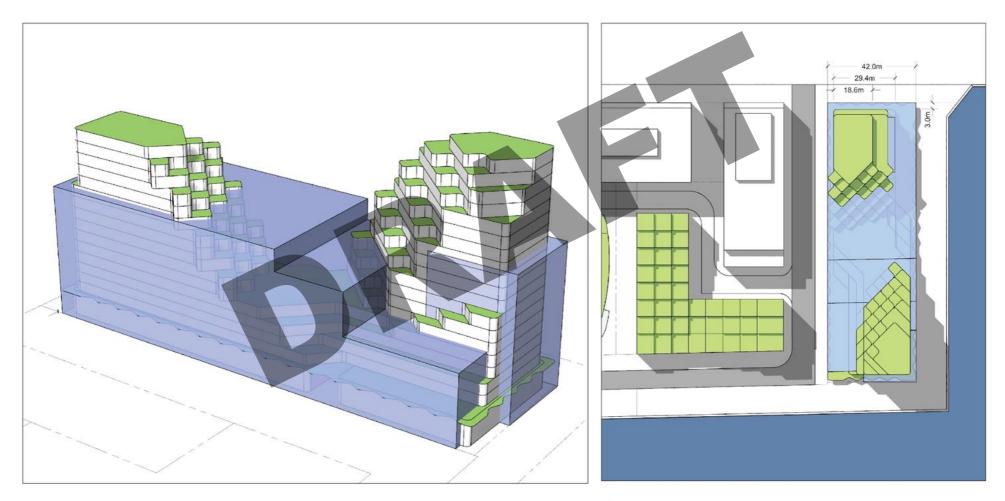


Proposed massing

41.250 sqm / 444.000 sqft



Proposed Massing / Zoning Envelope Overlay 41.250 sqm / 444.000 sqft



# Views Zoning Overlay

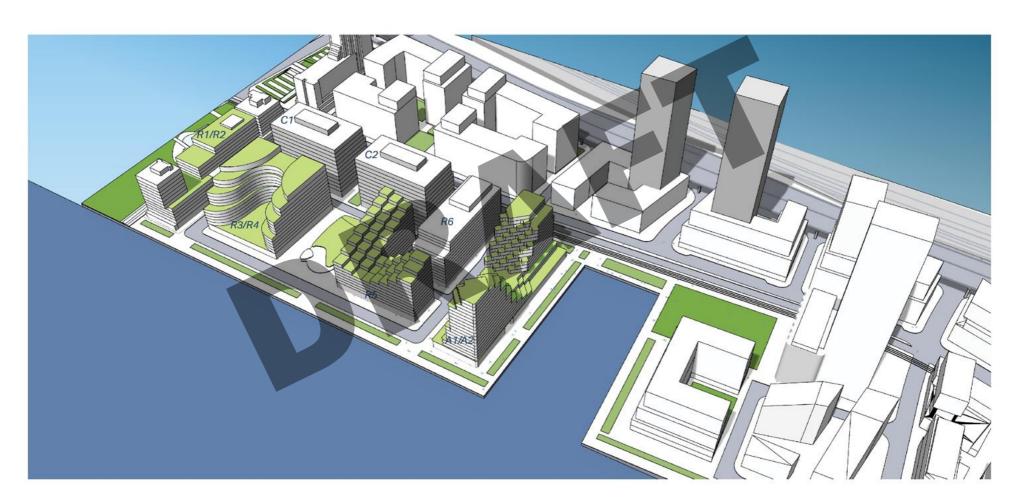
Proposed Massing
Aerial view looking North



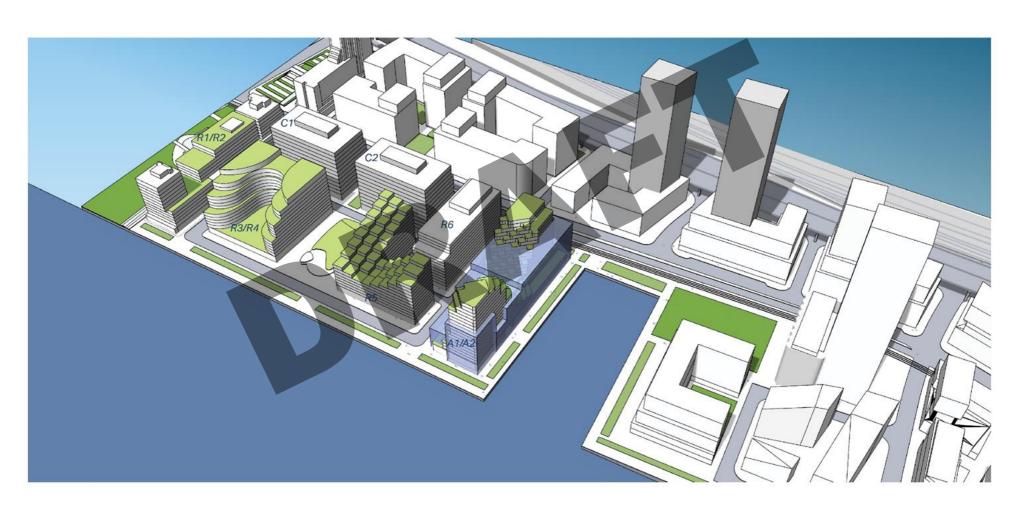
Proposed Massing - Zoning Overlay Aerial view looking North



Proposed Massing
Aerial view looking North



Proposed Massing - Zoning Overlay Aerial view looking North



Proposed Massing
Aerial view looking West



Proposed Massing - Zoning Overlay Aerial view looking West



Proposed Massing View looking North



Proposed Massing - Zoning Overlay View looking North



Proposed Massing

View looking East, along Edgewater Drive





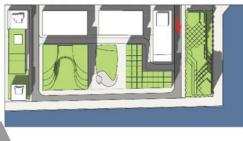
Proposed Massing - Zoning Overlay View looking East, along Edgewater Drive

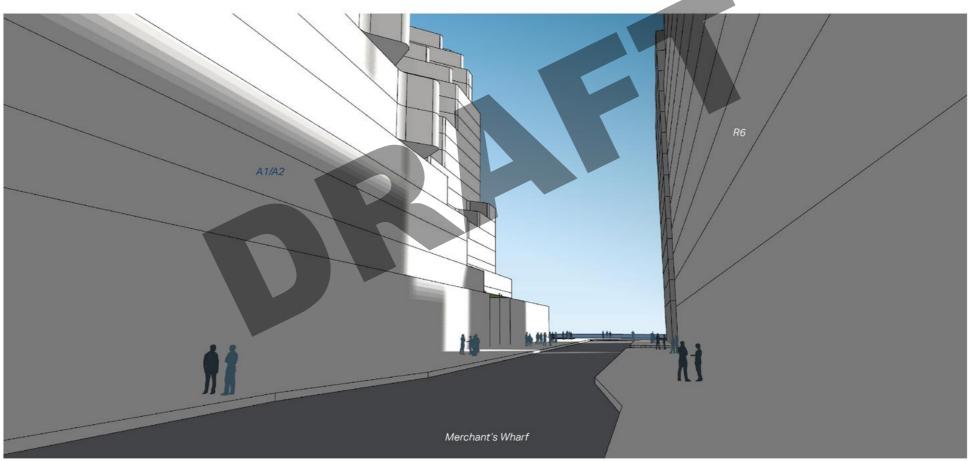




Proposed Massing

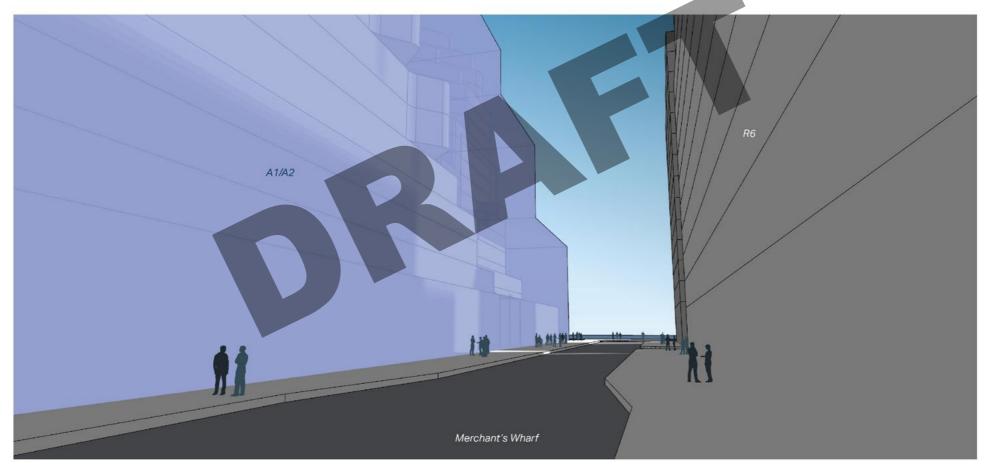
View looking South along Merchant's Wharf





Proposed Massing - Zoning Overlay View looking South along Merchant's Wharf





## Zoning Proposed Massing View looking North, from Aquabella South East corner Aquabella A1/A2 Merchant's Wharf

Aquabella

#### Zoning

Proposed Massing - Zoning Overlay View looking North, from Aquabella South East corner



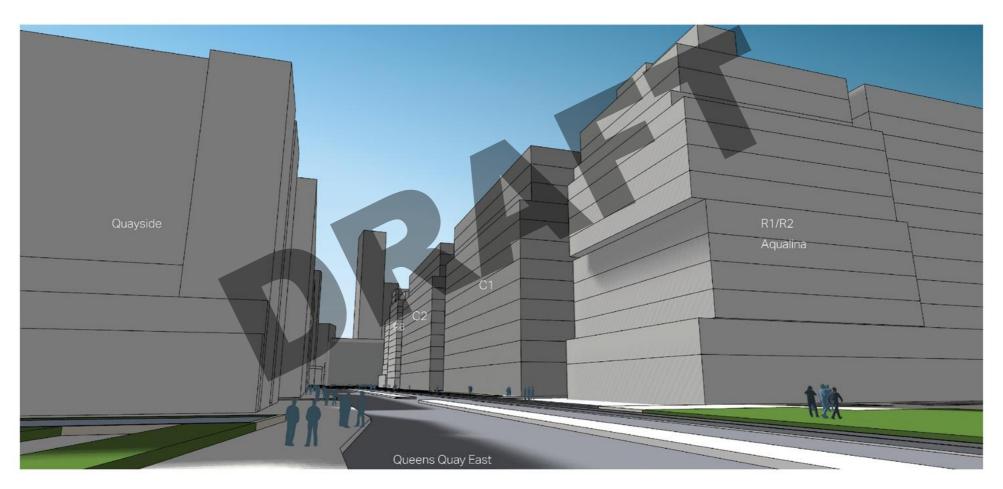
Merchant's Wharf



Proposed Massing

View along Queens Quay East, looking East





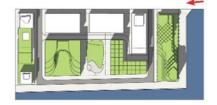
Proposed Massing - Zoning Overlay View along Queens Quay East, looking East

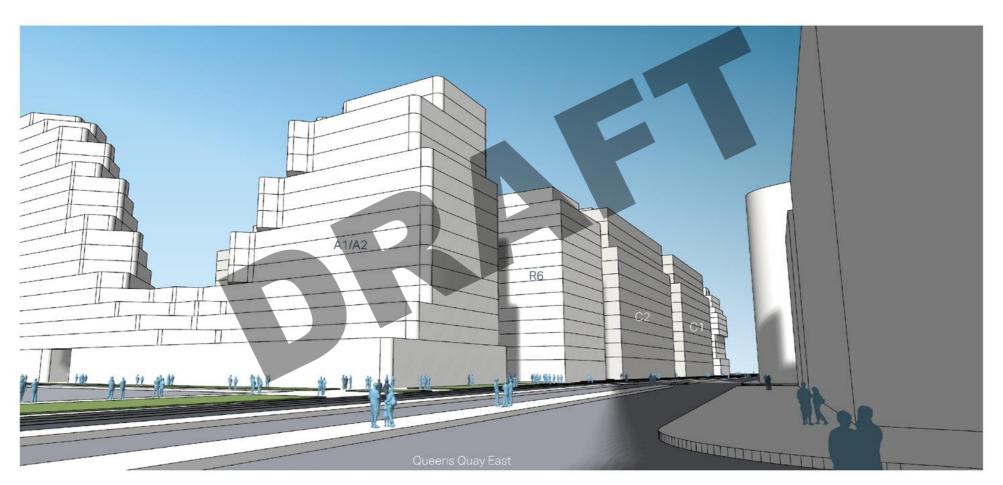




Proposed Massing

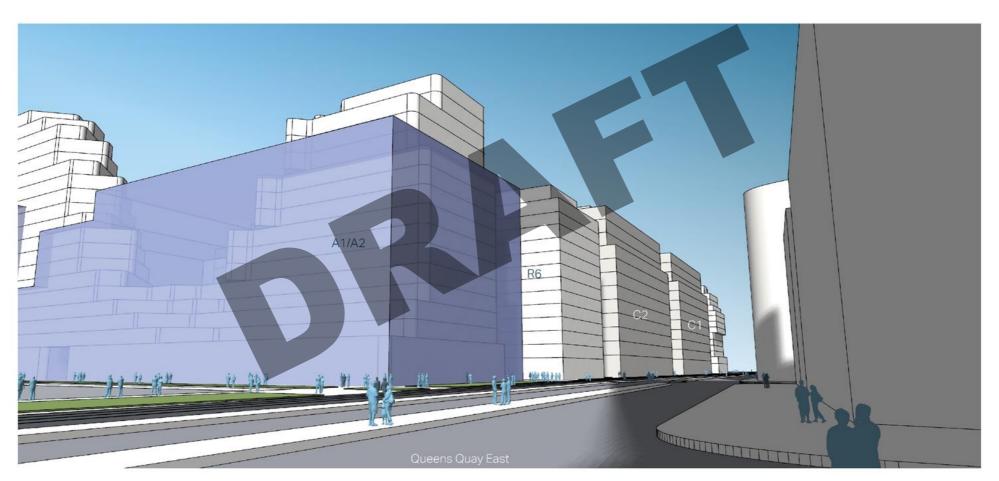
View along Queens Quay East, looking West





Proposed Massing - Zoning Overlay View along Queens Quay East, looking West





Proposed Massing

View looking South from Parliament Street





Proposed Massing - Zoning Overlay View looking South from Parliament Street





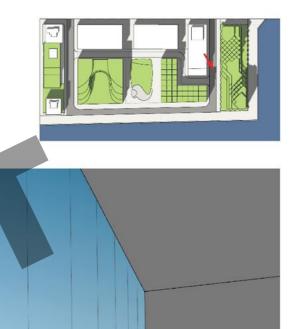


# Zoning Proposed Massing - Zoning Overlay View looking South along Parliament Slip A1/A2 Parliament Slip

Proposed Massing

View looking South-East from R6 interior - Level 08

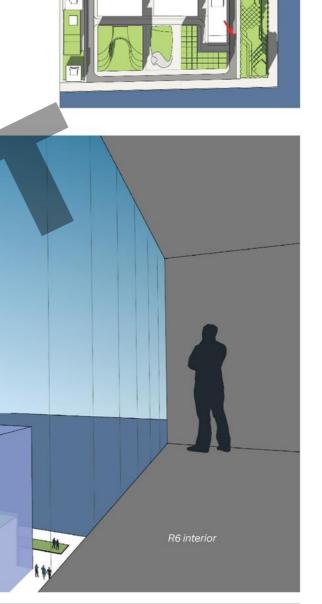
A1/A2





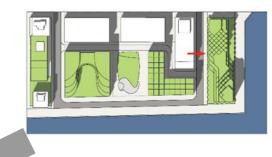
Proposed Massing - Zoning Overlay

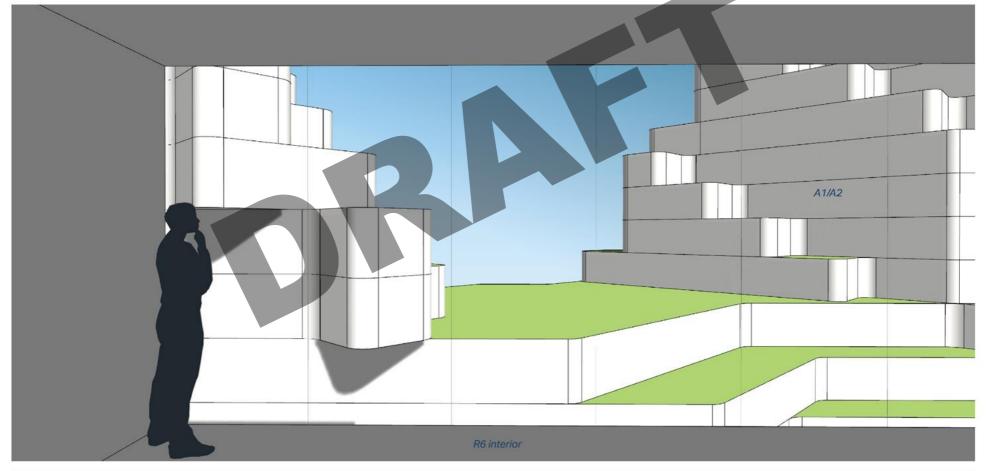
View looking South-East from R6 interior - Level 08



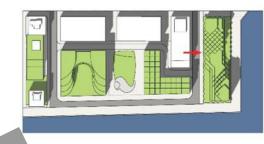
Proposed Massing

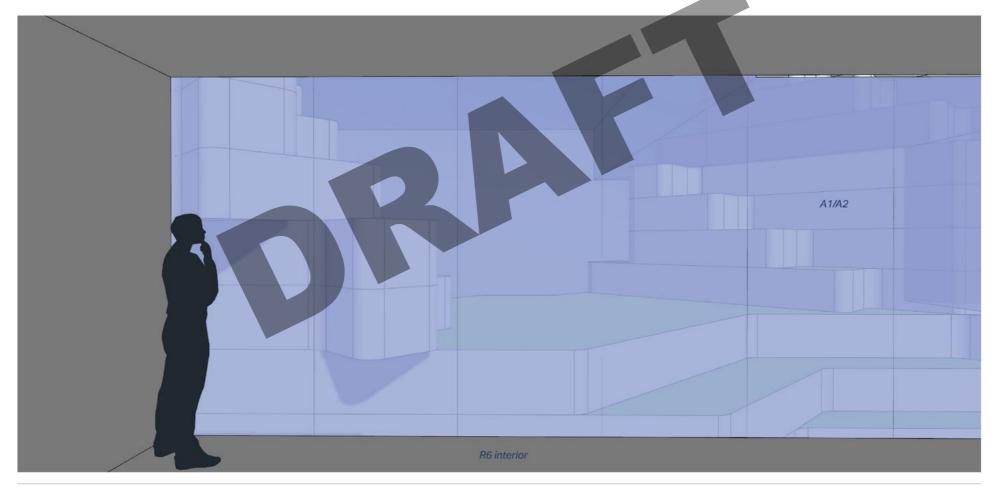
View looking East from R6 interior - Level 08





Proposed Massing - Zoning Overlay View looking East from R6 interior - Level 08

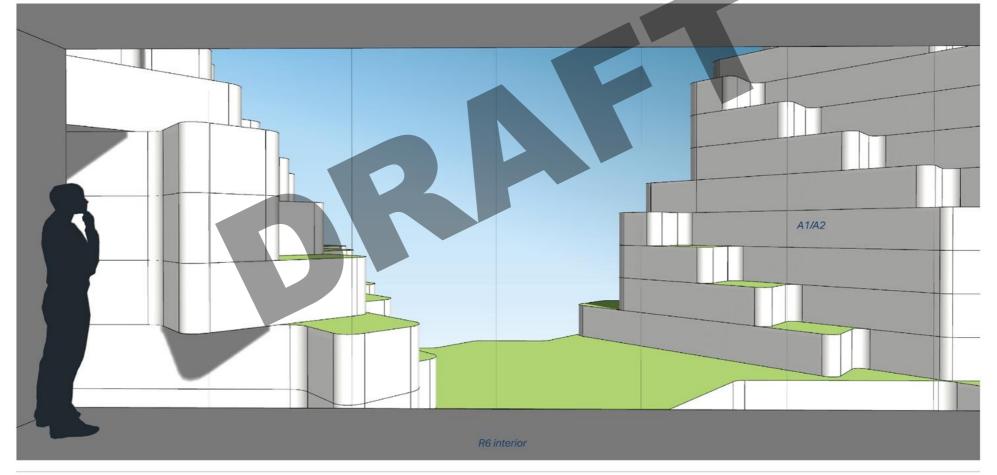




Proposed Massing

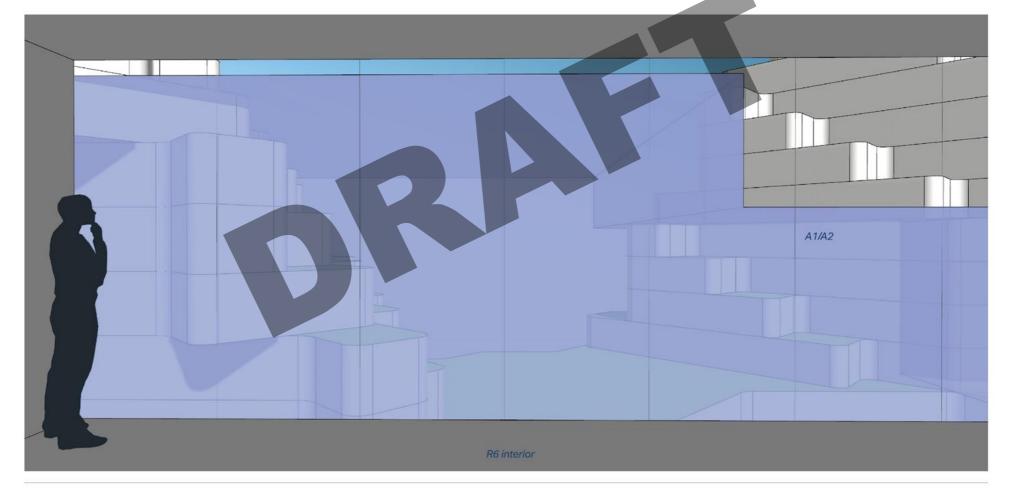
View looking East from R6 interior - Level 10





Proposed Massing - Zoning Overlay View looking East from R6 interior - Level 10







#### LEED



#### LEEDv4 BD+C: NC

Scorecard

Υ			
1		Credit	Integrative Process

15	0	17	Locatio	on and Transportation	16
		16	Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
2			Credit	High Priority Site	2
5		1	Credit	Surrounding Density and Diverse Uses	5
5			Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
		1	Credit	Reduced Parking Footprint	1
1		1	Credit	Green Vehicles	1

6	3	1	Sustair	nable Sites	10
Y			Prereq	Construction Activity Pollution Prevention	Required
	1		Credit	Site Assessment	1
	1	1	Credit	Site Development - Protect or Restore Habitat	2
	1		Credit	Open Space	1
3			Credit	Rainwater Management	3
2			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

7	4	0	Water E	Efficiency	11
Y			Prereq	Outdoor Water Use Reduction	Required
Υ			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
4	2		Credit	Indoor Water Use Reduction	6
	2		Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

12	13	7	Energy	and Atmosphere	33
Y	-		Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
3	2		Credit	Enhanced Commissioning	6
8	5	5	Credit	Optimize Energy Performance	18
1			Credit	Advanced Energy Metering	1
	2		Credit	Demand Response	2
	1	2	Credit	Renewable Energy Production	3
	1		Credit	Enhanced Refrigerant Management	1
	2		Credit	Green Power and Carbon Offsets	2

#### Project Name: The Waves

Date: July 21, 2017

1

5	6	2	Materials	s and Resources	13
Υ			Proreq	Storage and Collection of Recyclables	Required
Υ			Prereq	Construction and Demolition Waste Management Planning	Required
	3	2	Credit	Building Life-Cycle Impact Reduction	5
1	1		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1	1	1 Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials		2	
1	1		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2
9	5	1	Indoor E	invironmental Quality	16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required

9	5	1	Indoor En	vironmental Quality	16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
2	1		Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
1			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
1		1	Credit	Interior Lighting	2
	3		Credit	Daylight	3
1			Credit	Quality Views	1
	1		Credit	Acoustic Performance	1
	Y Y 2	Y Y 2 2 1 1 1	Y Y 2 2 1 1 1 1 1 1 1 1 1	Y Prereq Prereq Credit Credit Gredit Credit	Prereq Prereq Prereq Prereq Environmental Tobacco Smoke Control Environmental Tobacco Smoke Control Enhanced Indoor Air Quality Strategies  Low-Emitting Materials Credit Credit Construction Indoor Air Quality Management Plan Indoor Air Quality Assessment Credit Thermal Comfort Thermal Comfort Total Interior Lighting Daylight Quality Views

3	3	0	Innovation	6
2	3		Credit Innovation	5
1			Credit LEED Accredited Professional	1
2	1	1	Regional Priority	4

2	1	1	Region	al Priority	4
1			Credit	Regional Priority: Specific Credit	1
1			Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1
		1	Credit	Regional Priority: Specific Credit	1

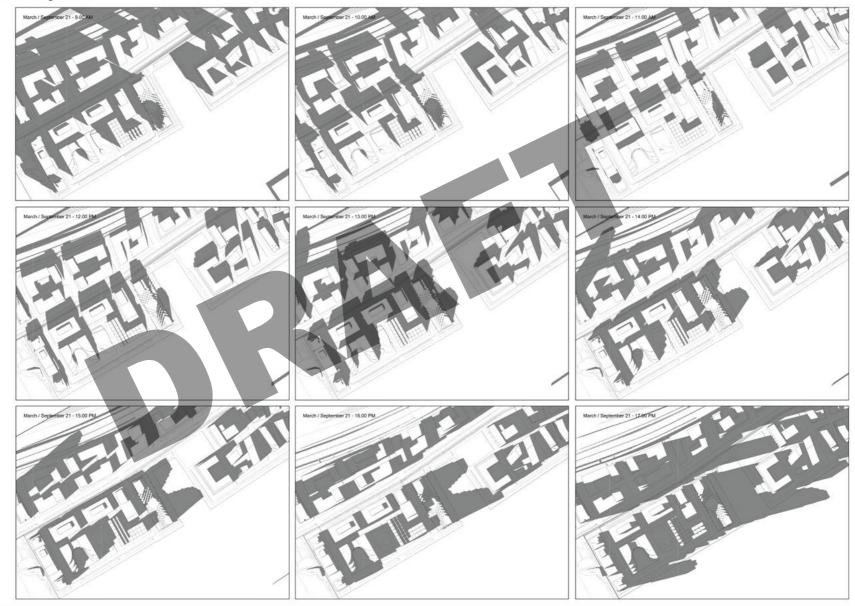
60	35	29	TOTALS			Possible Points:	110
			Certified: 40 to 49 points,	Silver: 50 to 59 points,	Gold: 60 to 79 points,	Platinum: 80 to 110	77.77

118

### Appendix A Sun Shadow Analysis

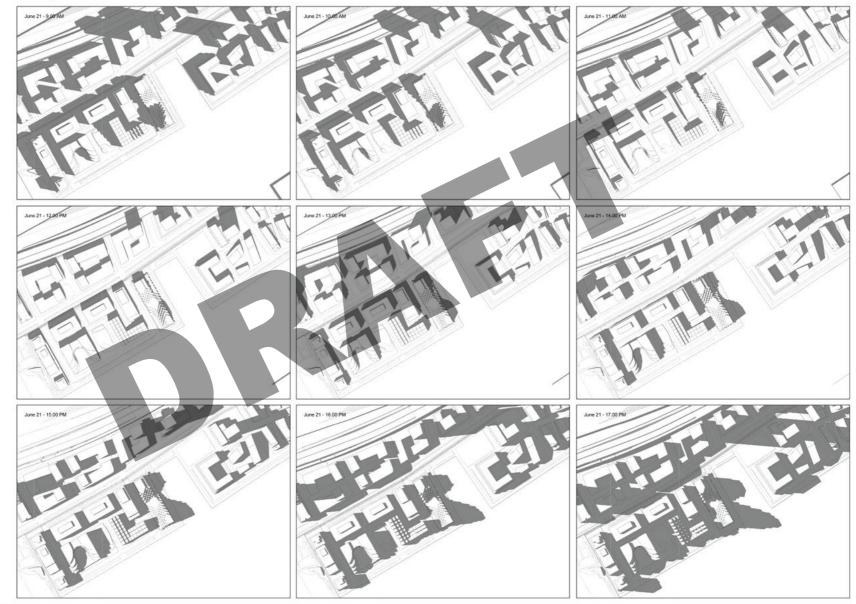
#### Sun Shadow Analysis

March/September 21st 9AM - 5PM



#### Sun Shadow Analysis

June 21st 9AM - 5PM



Sun Shadow Analysis March/Sepbember 21st March / September 21 - 9,00 AM March / September 21 - 10.00 AM March / September 21 - 11.00 AM 9AM - 5PM Proposed Zoning March / September 21 - 13.00 PM March / September 21 - 12.00 PM March / September 21 - 15.00 PM March / September 21 - 16.00 PM March / September 21 - 17.00 PM

#### Sun Shadow Analysis

June 21st 9AM - 5PM

Proposed

Zoning



