

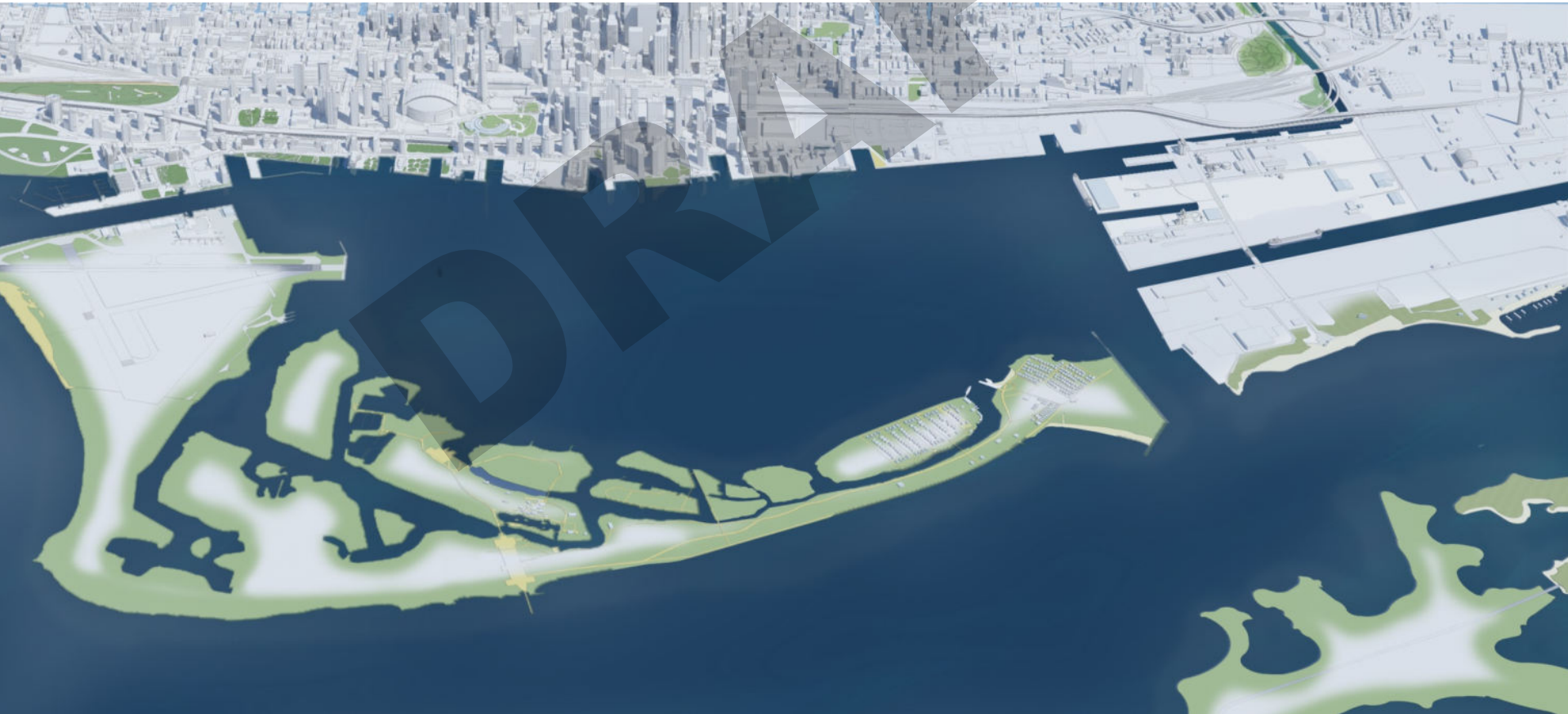
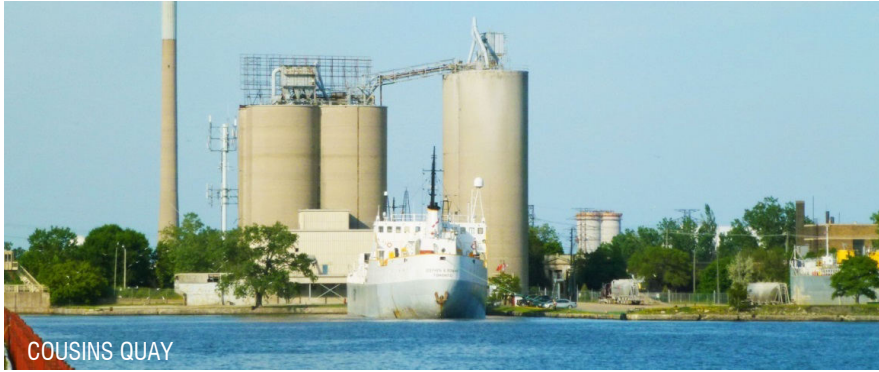


**VILLIERS ISLAND** PRECINCT PLAN

Design Review: April 19, 2017



# Villiers Island From an Industrial Quay...

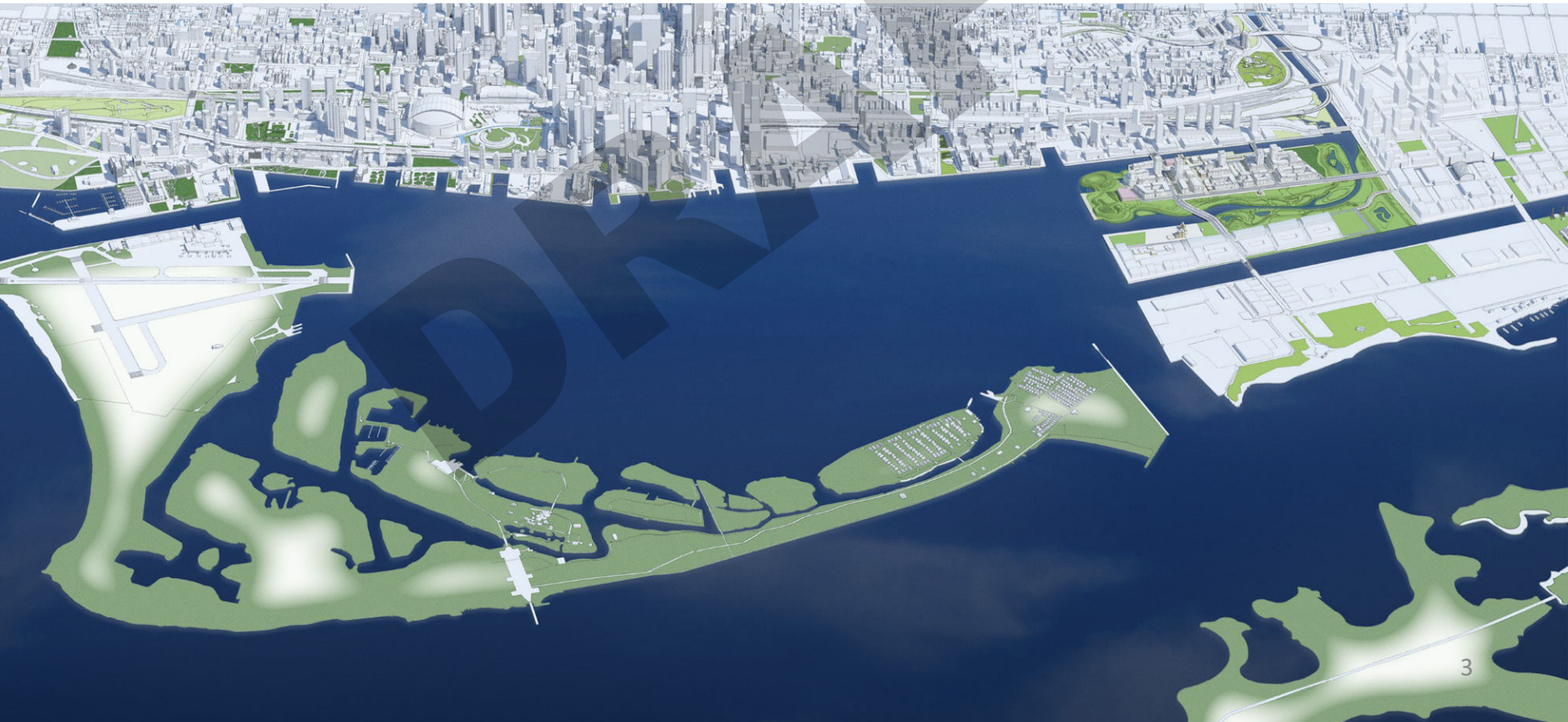




# Villiers Island ...to a New Island Community on Toronto's Waterfront

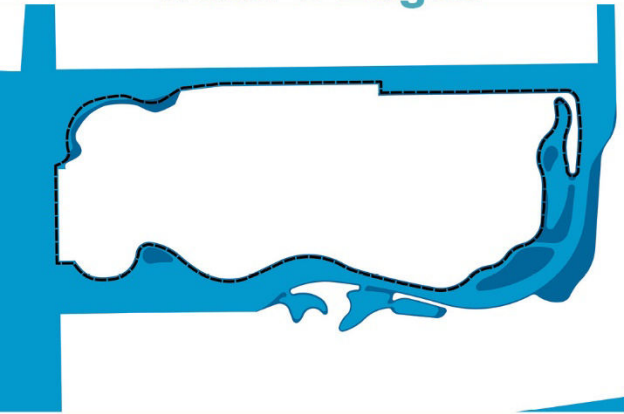
The meeting point of **river, city and lake**

Villiers Island will be transformed into a remarkable new community located at the intersection of the re-naturalized mouth of the Don River, the Inner Harbour and the historic Keating Channel.

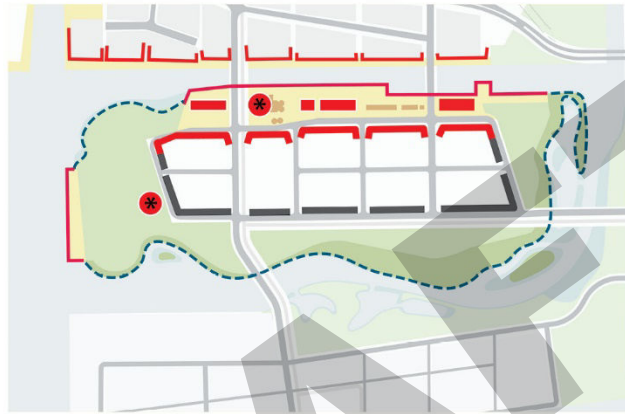


# Structuring Moves

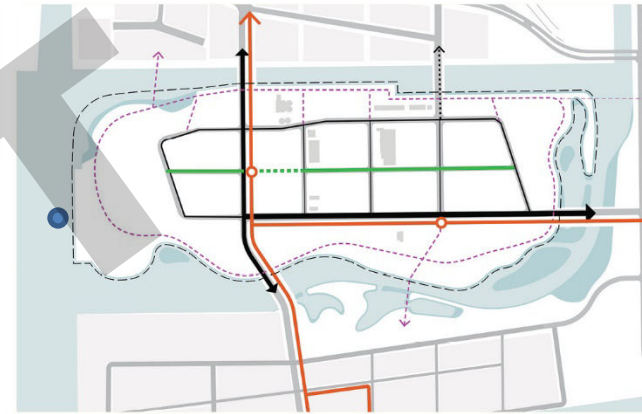
An Island with Varied Water's Edges



A Central Living Room



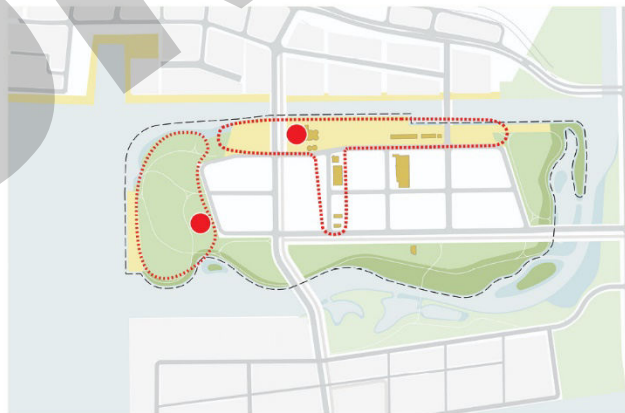
A Connected Island



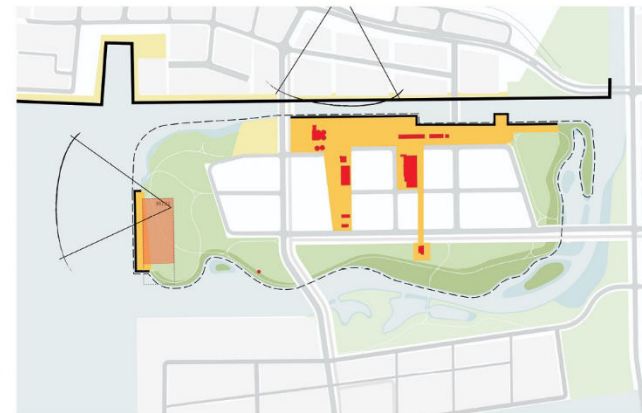
A Complete Island



A Destination Island



An Island with History





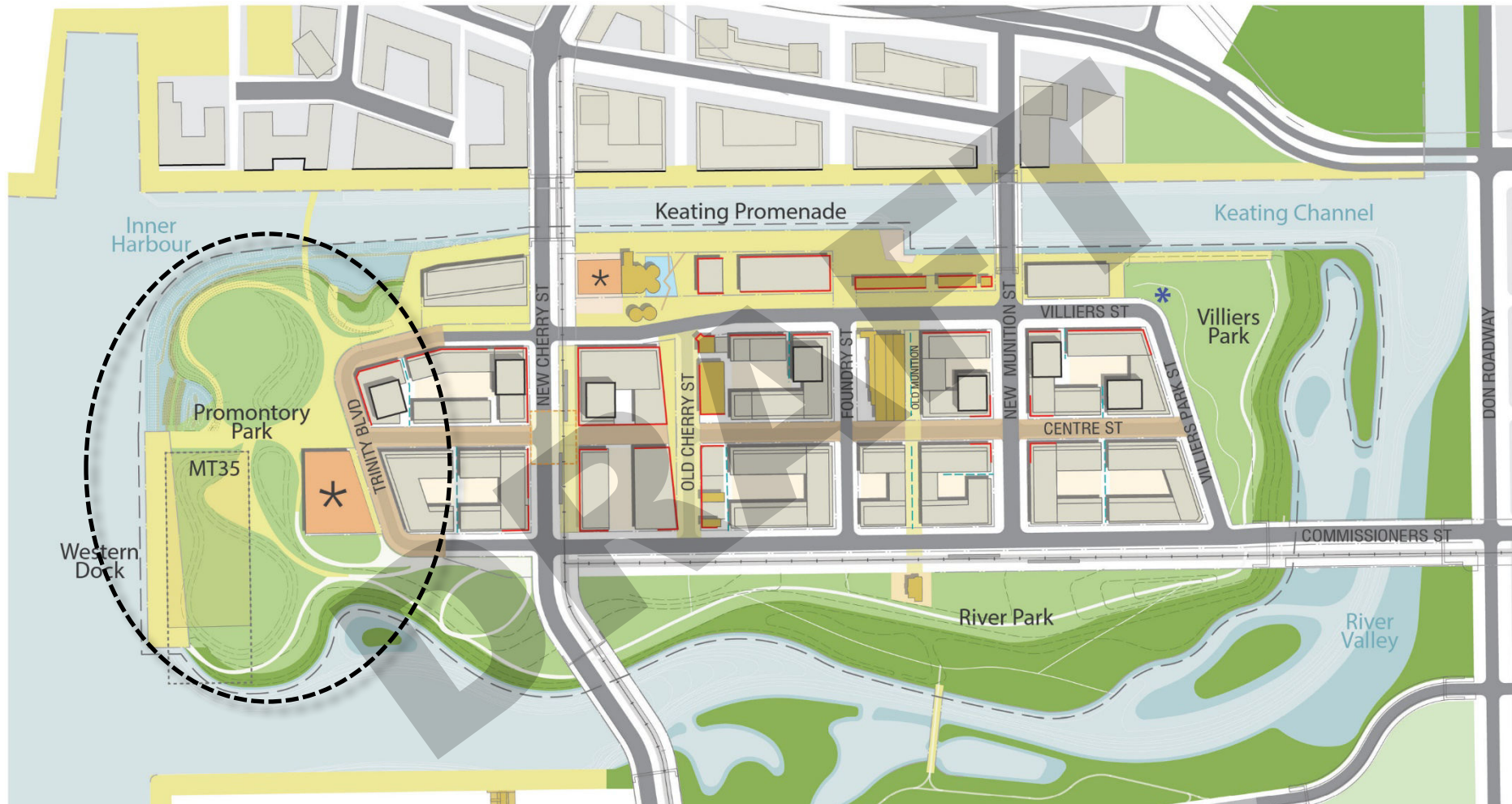
# The Precinct Plan

March 2017



# The Precinct Plan

March 2017

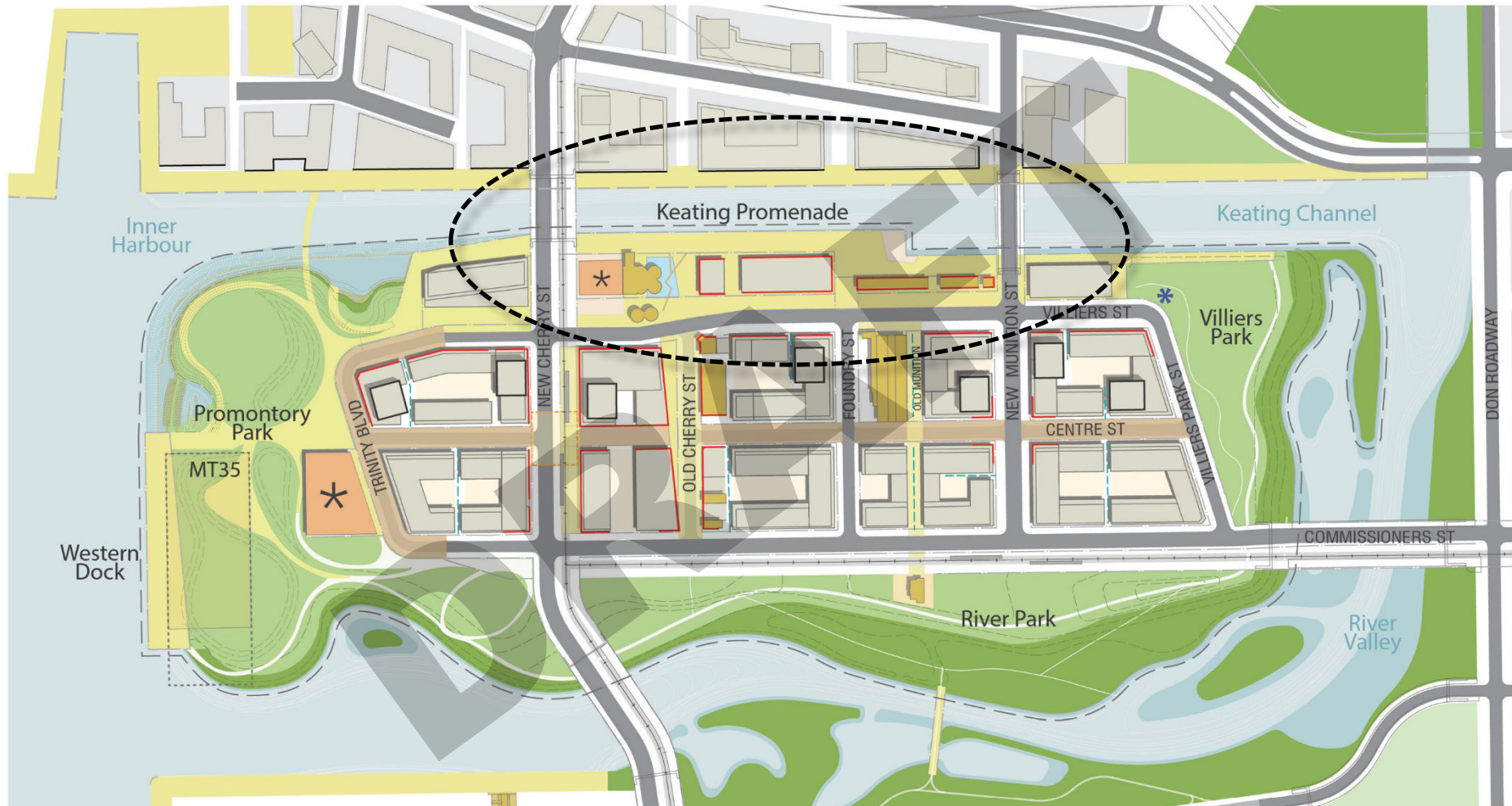


- Incorporated grading and landscape design for Promontory Park and river edge
- Shifted Catalytic Use and realigned Trinity Boulevard



# The Precinct Plan

March 2017

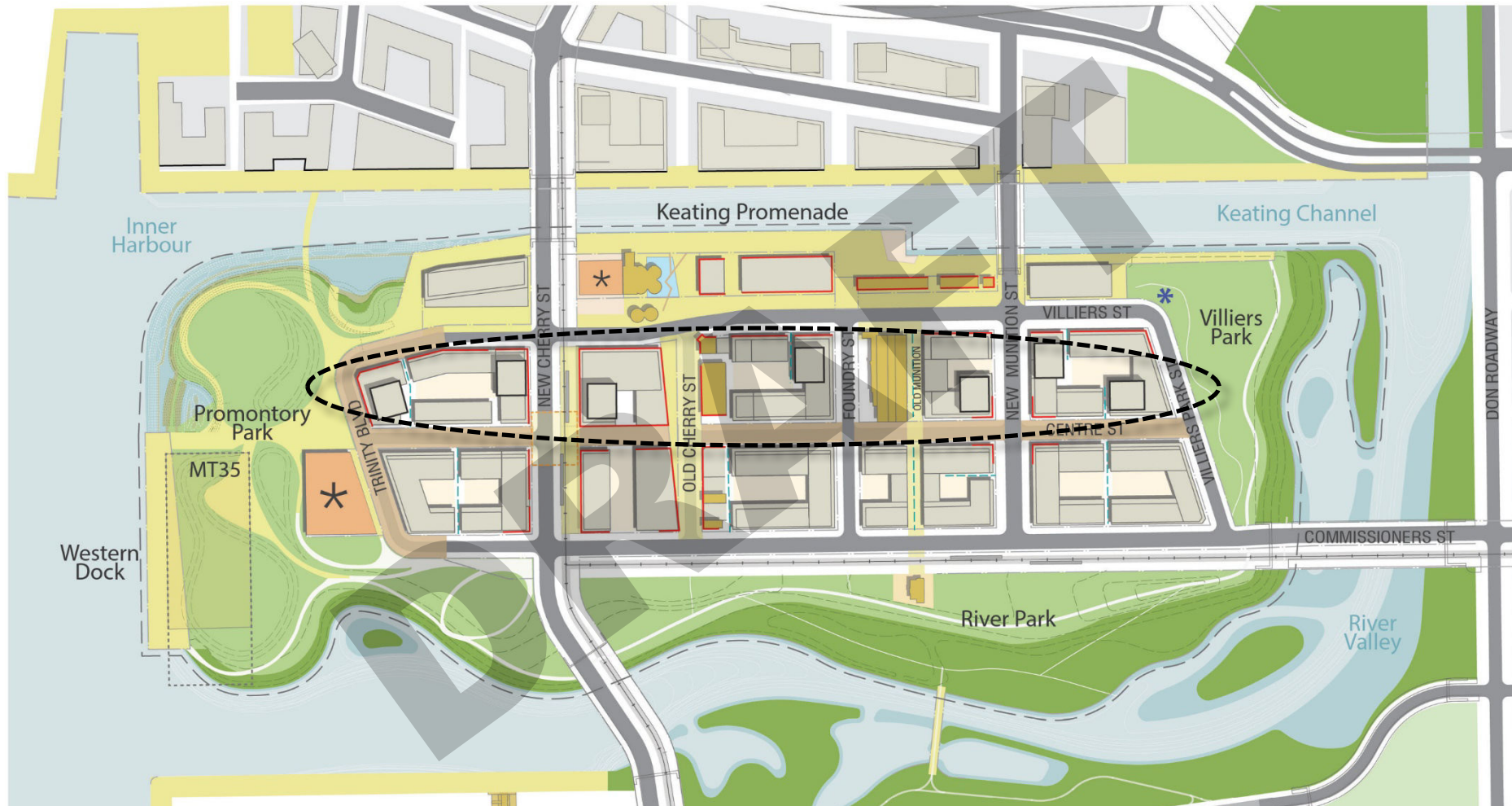


- Focused activity and amenity along Keating Promenade/Villiers Street as the Island's Living Room
- Framed the Keating Channel as the seam between Villiers Island and Keating Precinct



# The Precinct Plan

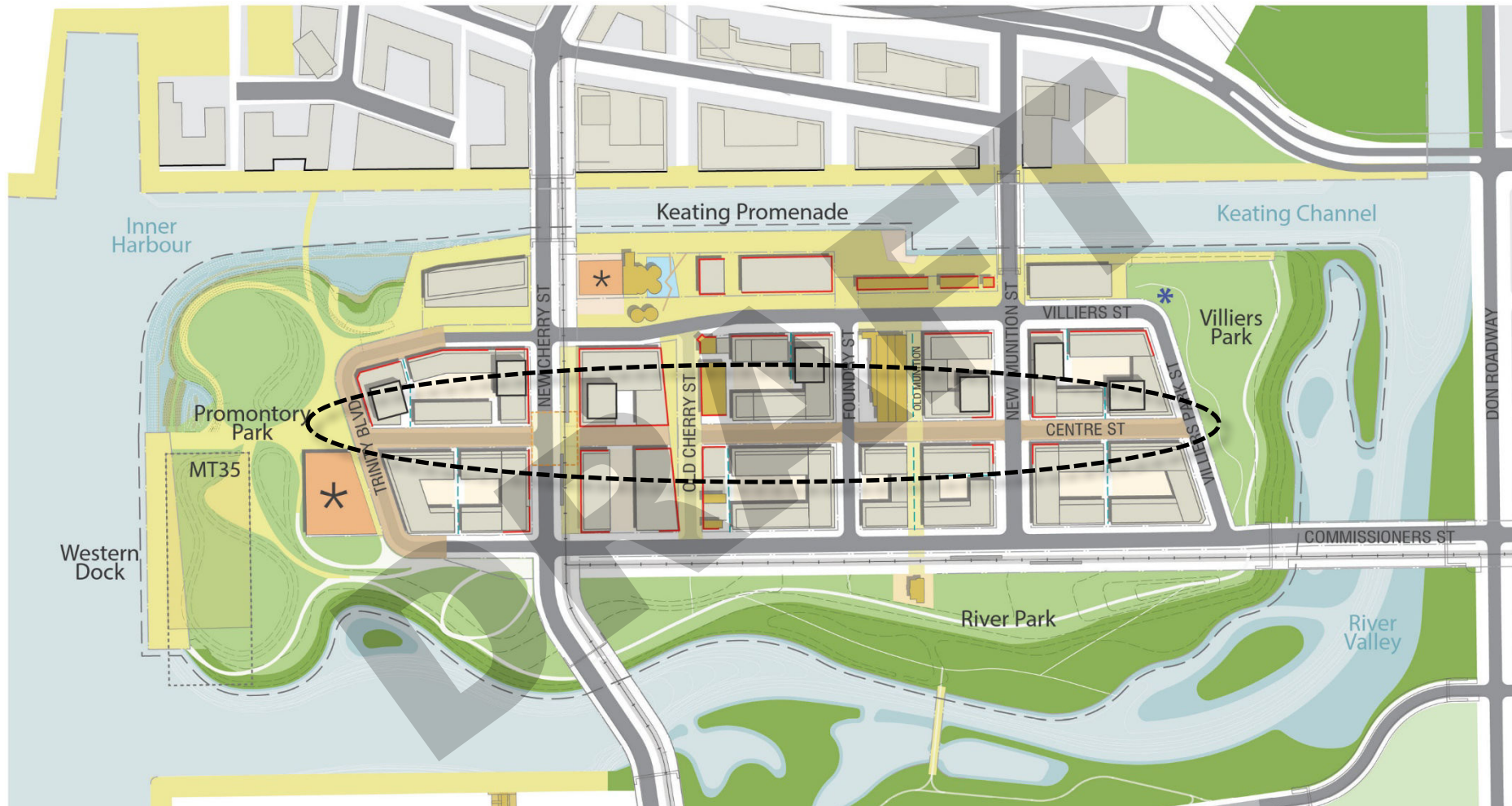
March 2017



- Relocated tall buildings relocated in strategic locations north of Centre St
- Introduced generous tall buildings setbacks from both Villiers St and Centre St
- Staggered the tall buildings to avoid “wall “ effect

# The Precinct Plan

March 2017

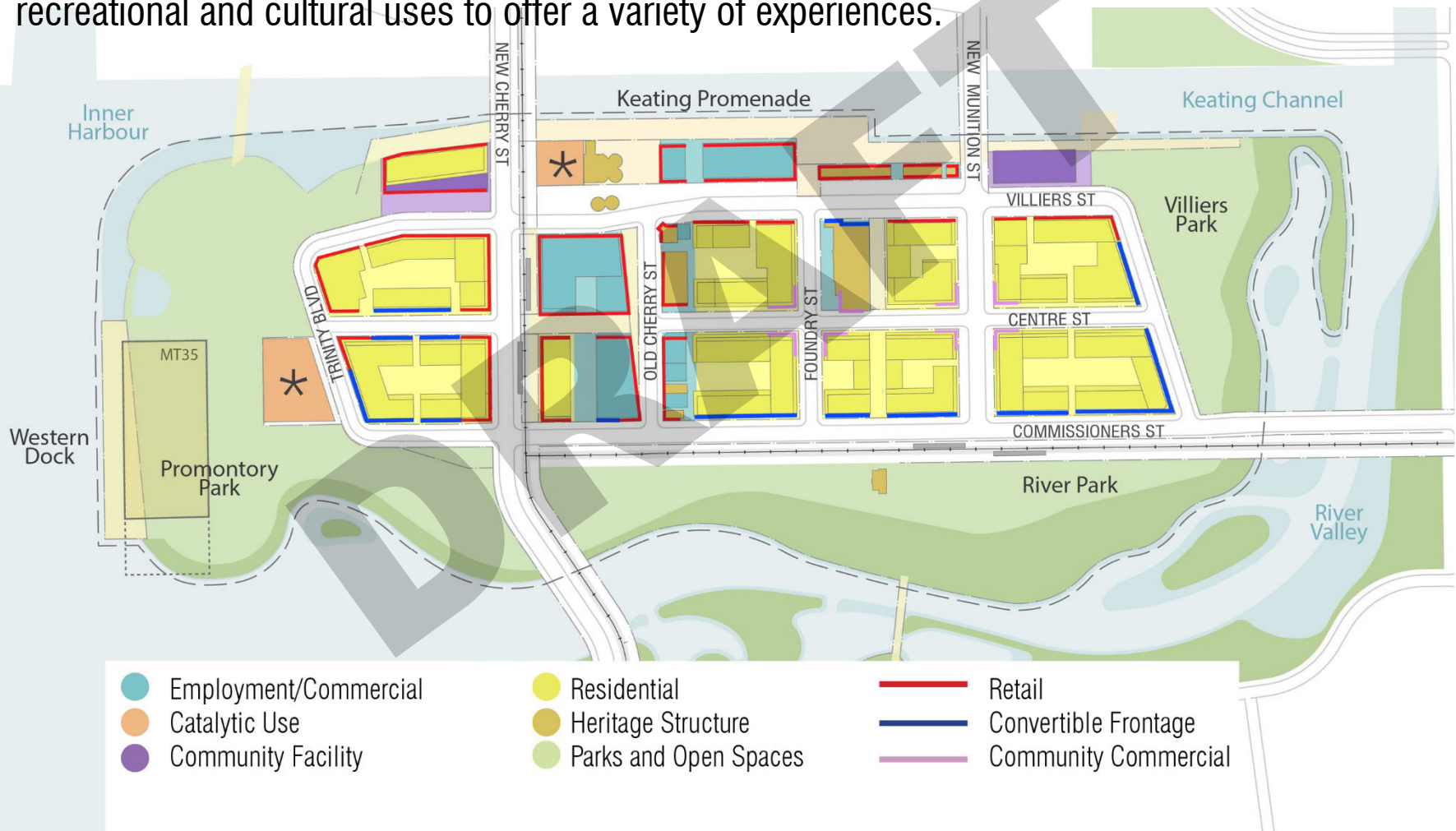


- Centre Street designed as a residential mews, with active uses at selected intersections
- Mid-rise building stepping back to maximize sunlight on street/pedestrian boulevard



# Land Use & Activity

A vibrant mixed-use island in Toronto's Port Lands with a mix of residential uses including affordable and family-oriented options. The Island will also attract retail, employment, recreational and cultural uses to offer a variety of experiences.





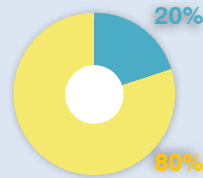
# The Precinct Plan At a Glance

Total Island Area: **33 ha**

Total GFA: **525,700m<sup>2</sup>**

Total Residential GFA: 423,200m<sup>2</sup>

Total Non-Residential GFA: 102,500 m<sup>2</sup>



Average Net FSI: **5.0**



Total # People: **8,270 - 10,700**

Total # Jobs: **2,900**

## Celebrating Heritage

33 Villiers Street/16 Munition Street – **Queen’s City Foundry**

62 Villiers Street – **Toronto Harbour Commission**

275 Cherry Street – **Dominion Bank**

281 Cherry Street – The **Toronto Hydro Substation** building

309 Cherry Street – **William McGill and Company Building**  
and **Bank of Montreal** building

312 Cherry Street - **Century Coal Company** building and **Silos**

39 Commissioners Street – **Ashbridges Bay Fire Hall**

242 Cherry Street – **Marine Terminal 35** and Atlas Crane

The historic **Keating Channel dockwalls**

The **Western Dock**

## Open Space

Total Open Space: **11.2 ha**

**34% of the Island Area**

Promontory Park: 6.4 ha

Villiers Park: 1.2 ha

River Valley Park: 1.7 ha

Keating Promenade: 1.9 ha

## Community Facilities

Community Centre

Elementary School

Daycare

Fire Station

Playground

Multi-Purpose Field





# The Precinct Plan: Varied and Articulated

March 2017





# Built Form Principles

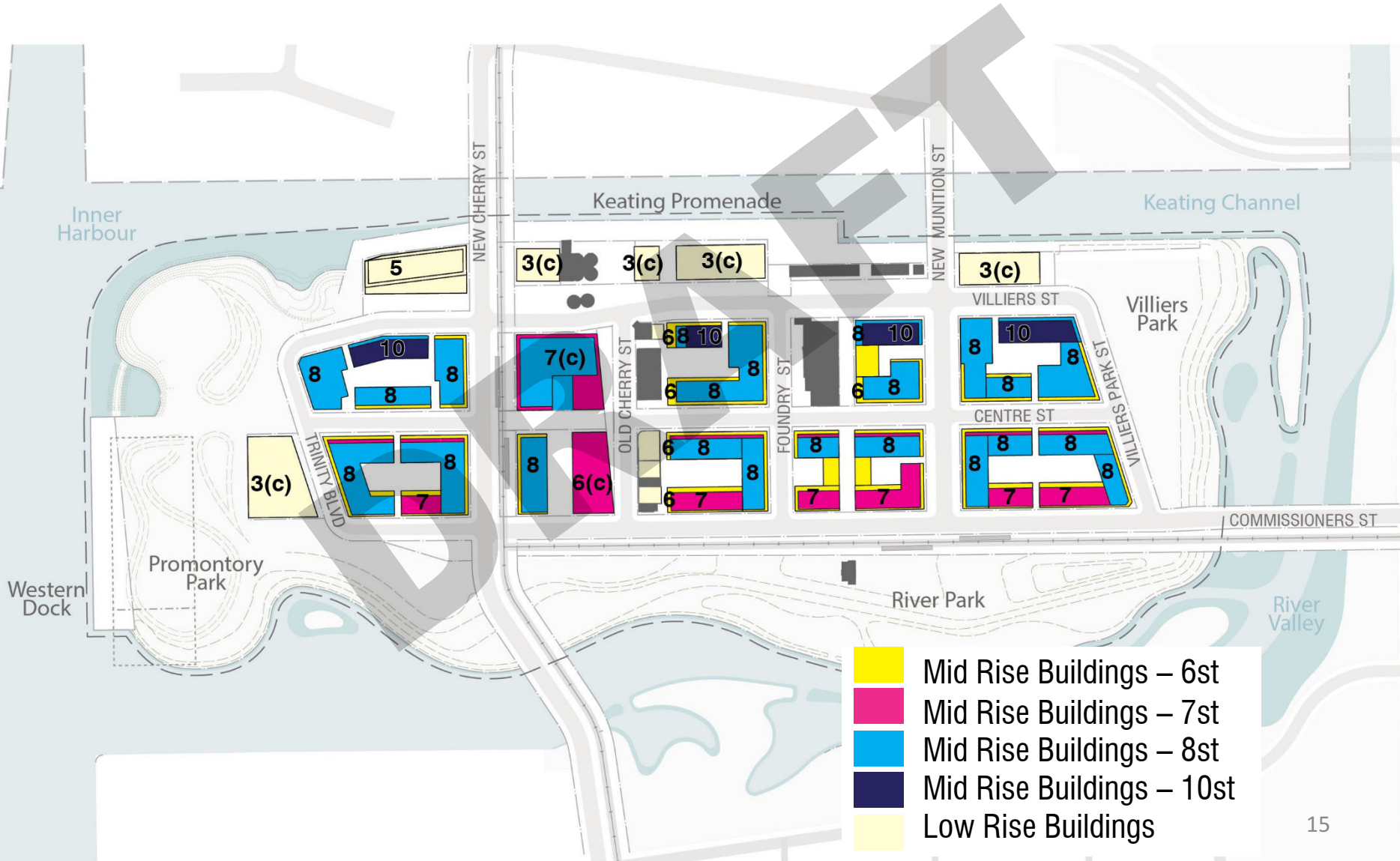
Buildings should generally be developed at **medium scale, with some lower elements and higher buildings at appropriate locations.**”

*CWSP- Policy 2-22 Opening up the Port Lands to Urban Development*

- 01 Create a **varied and dynamic** built form that contributes to the city and Port Lands skyline
  - 02 Reinforce **distinct character areas** and places in the Island
  - 03 Contribute to **spectacular and comfortable all-season** parks, open spaces and destinations
  - 04 Design the built form to **frame and animate** streets, parks and open spaces and respond to water edge conditions
  - 05 Maintain and **celebrate the built, cultural and natural heritage** of the Island and surrounding Port Lands
  - 06 **Showcase views** to the water and industrial landmarks
  - 07 **Position taller buildings** in strategic locations to optimize proximity to transit nodes, define gateways and frame major open spaces
- ★ **(NEW) Leverage passive solar gain** and enable daylighting within buildings and open spaces

# Built Form

## Low & Mid-rise Buildings



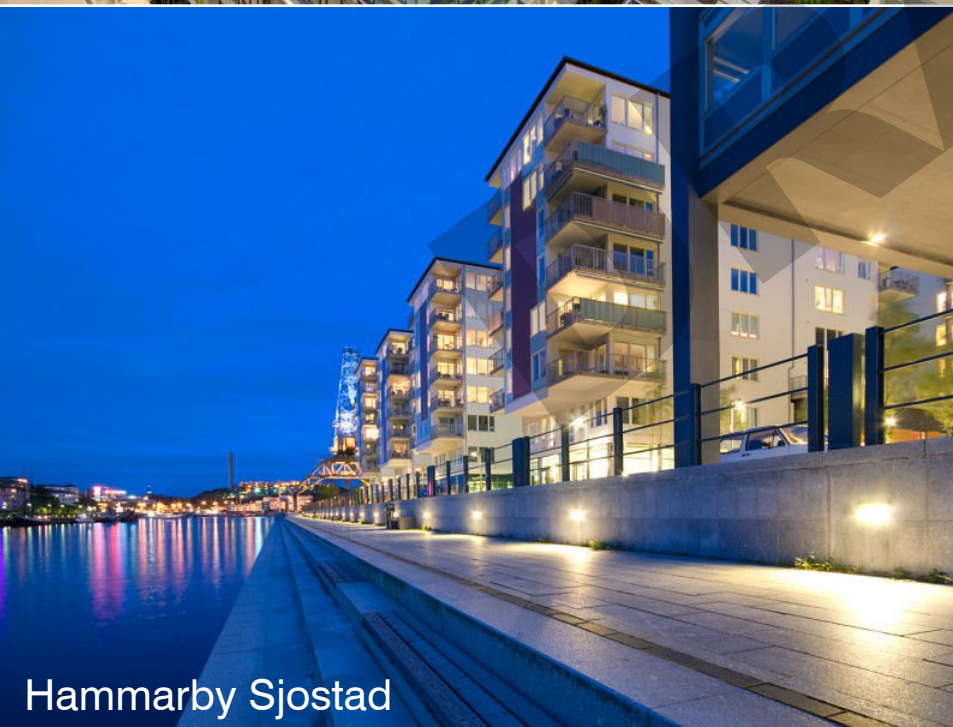




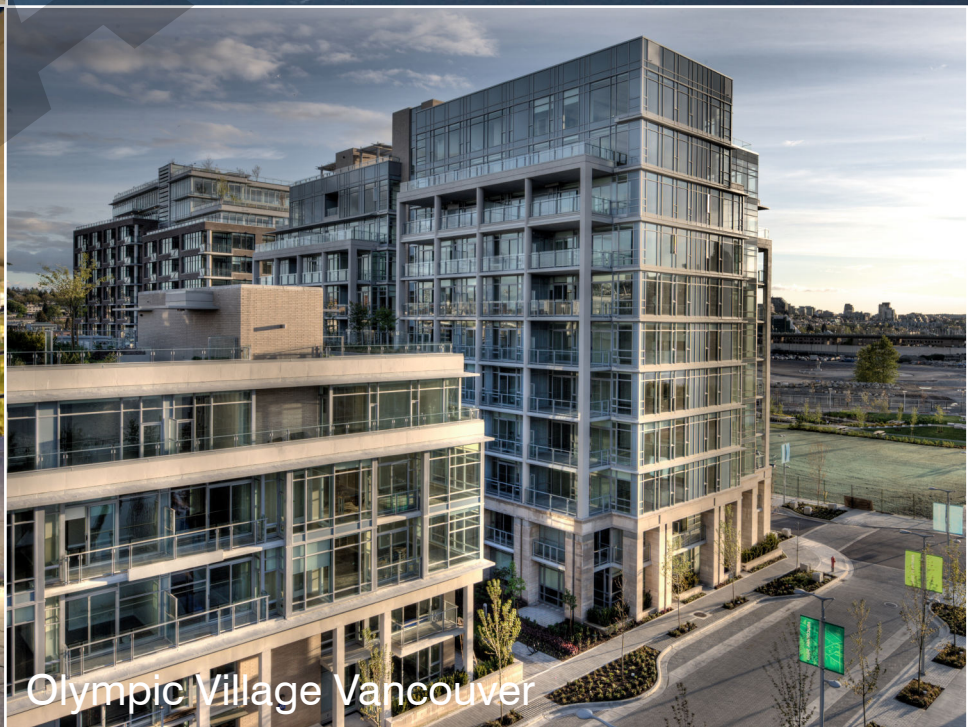
Olympic Village Vancouver



Quai des Eclusiers



Hammarby Sjostad



Olympic Village Vancouver

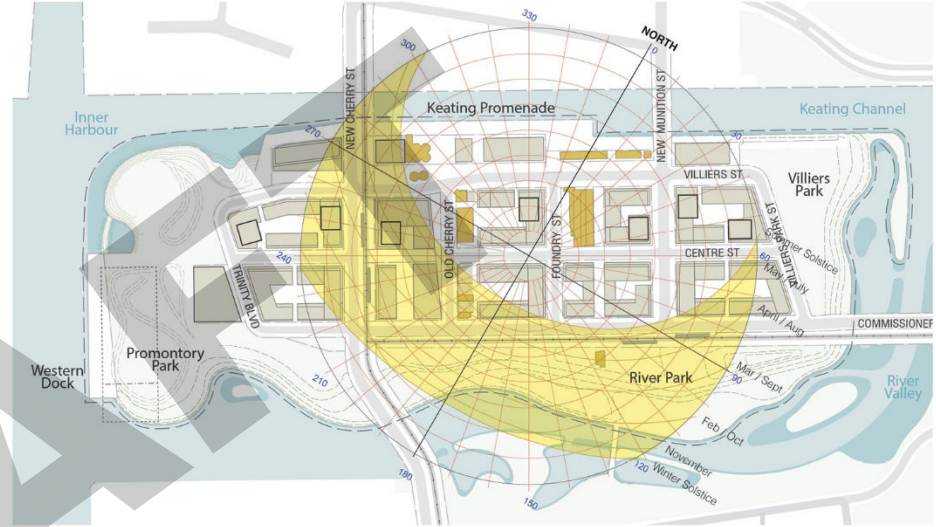


# Built Form Tall Building Considerations

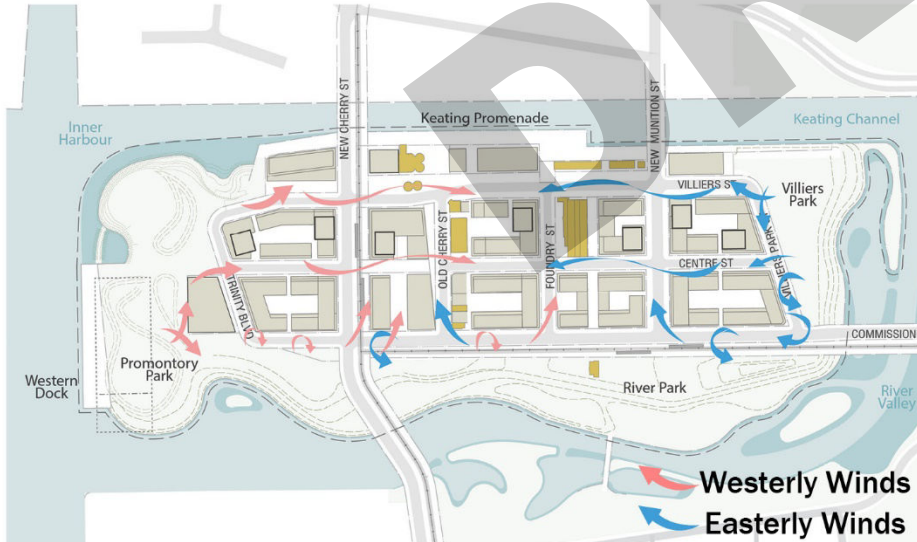
## 1. Maximize sun access on public realm



## 2. Leverage solar gain and daylighting



## 3. Mitigate pedestrian wind impact

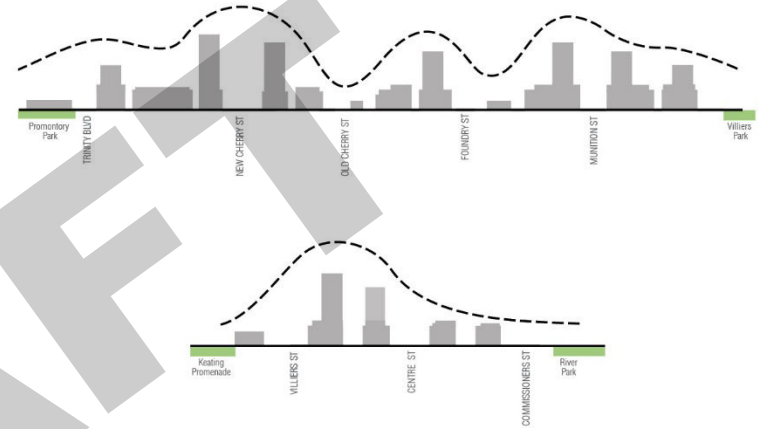
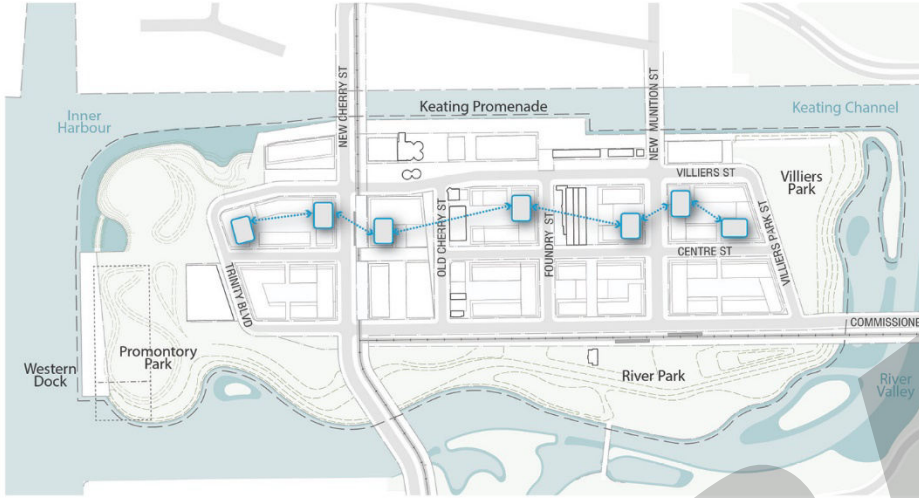


## 4. Provide appropriate transition in scale to heritage buildings

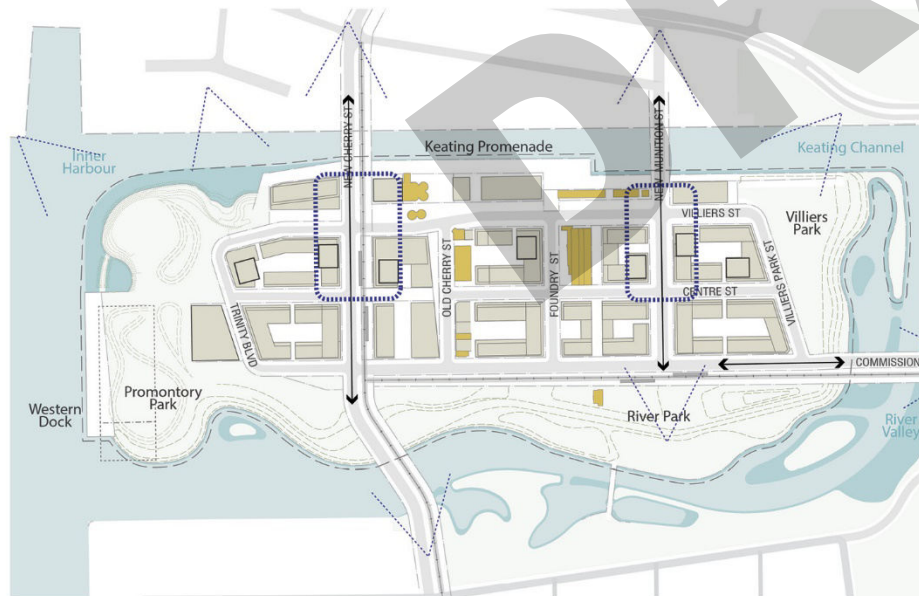


# Built Form Tall Building Considerations

## 5. Distribute towers across precinct



## 6. Define gateways and vistas

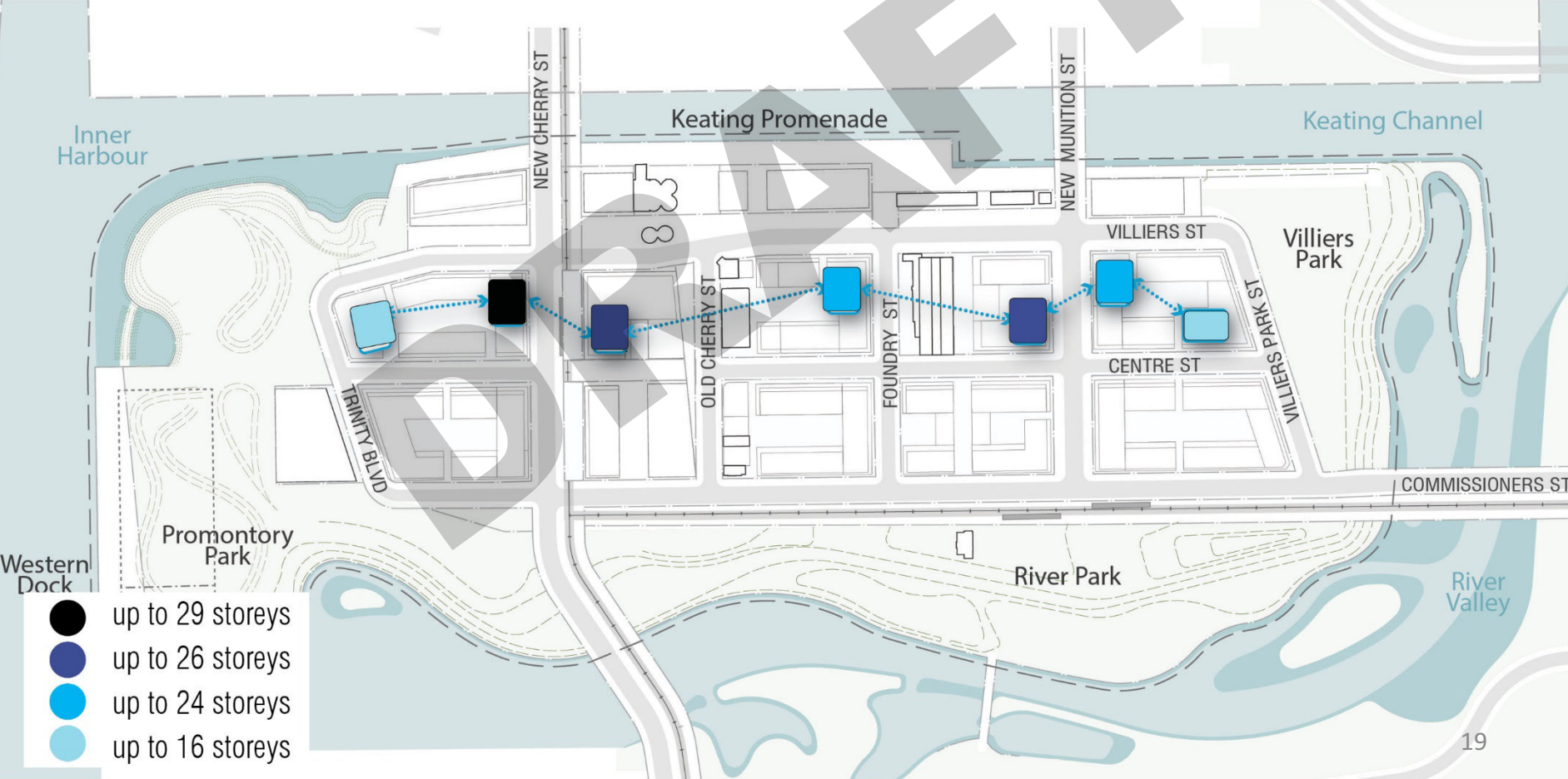
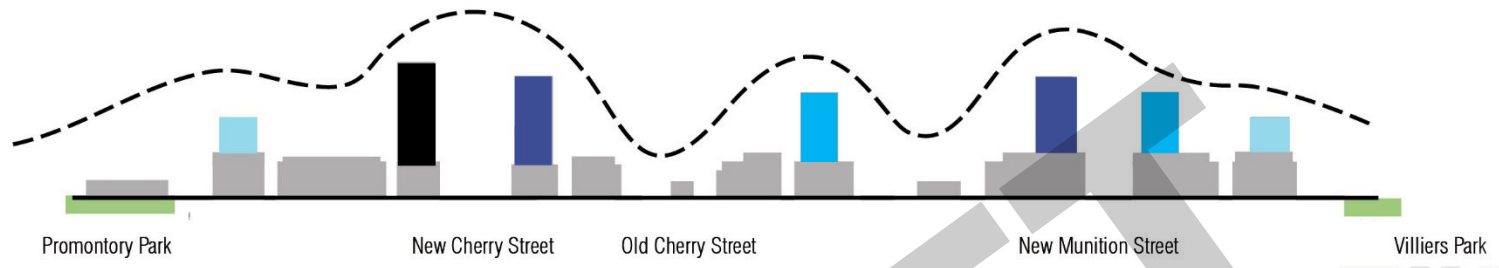


## 7. Optimize density in proximity to transit stations

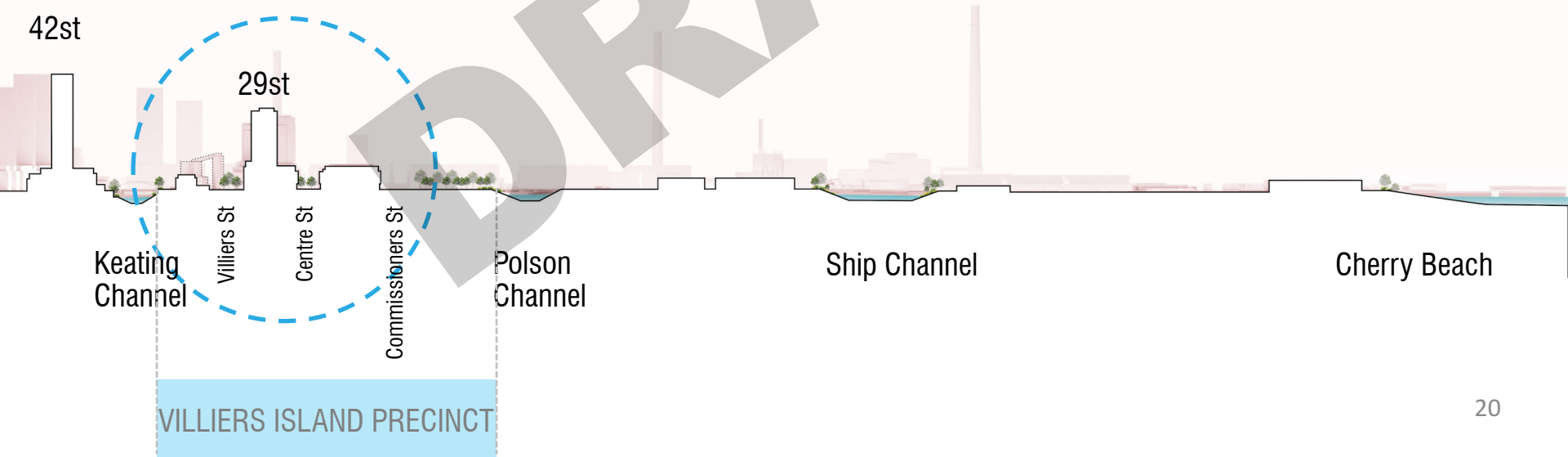




# Built Form Tall Building Heights Strategy

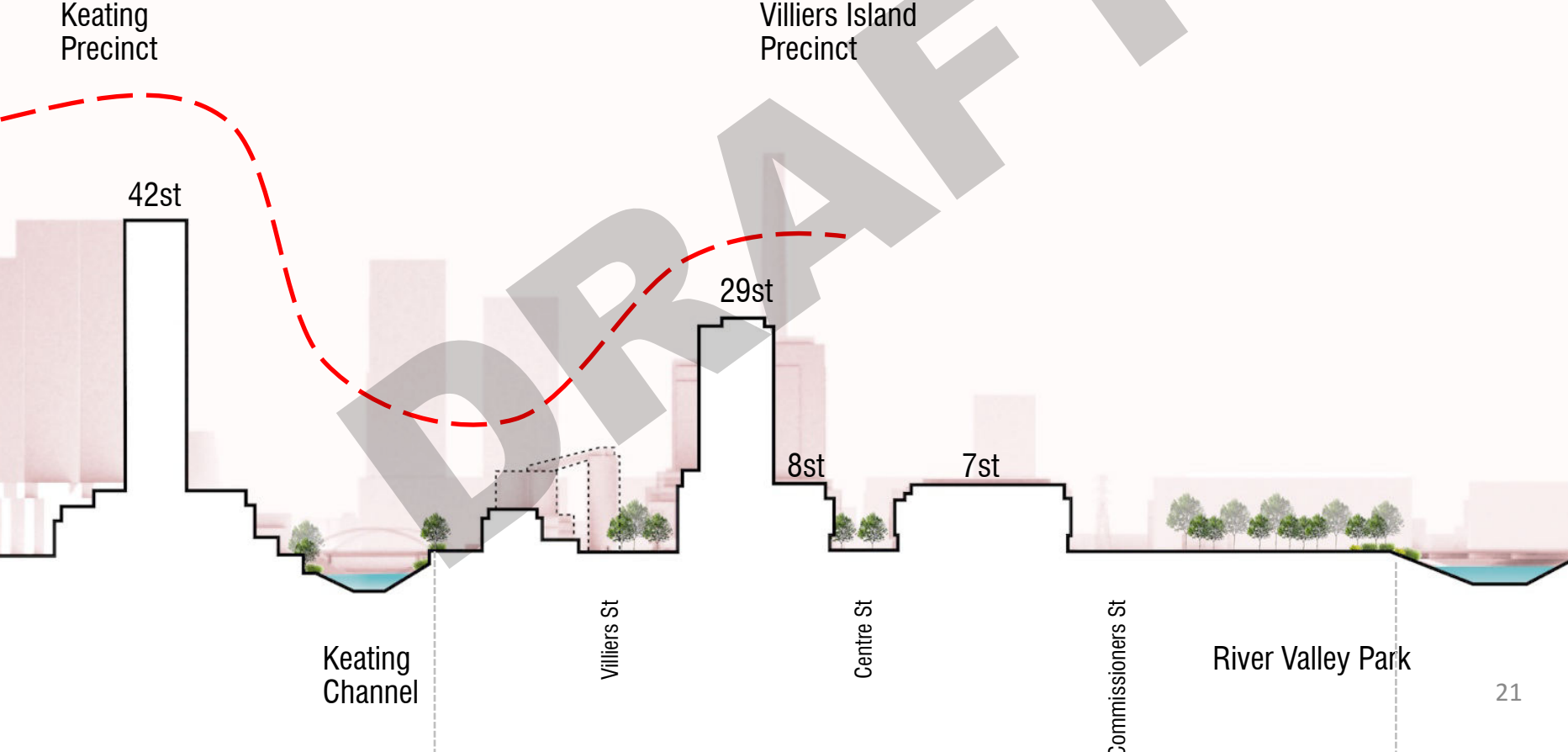
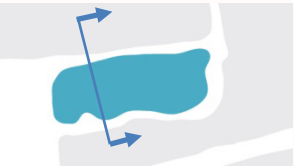


# The Broader Context





# Framing an Urban Living Room







Hafencity



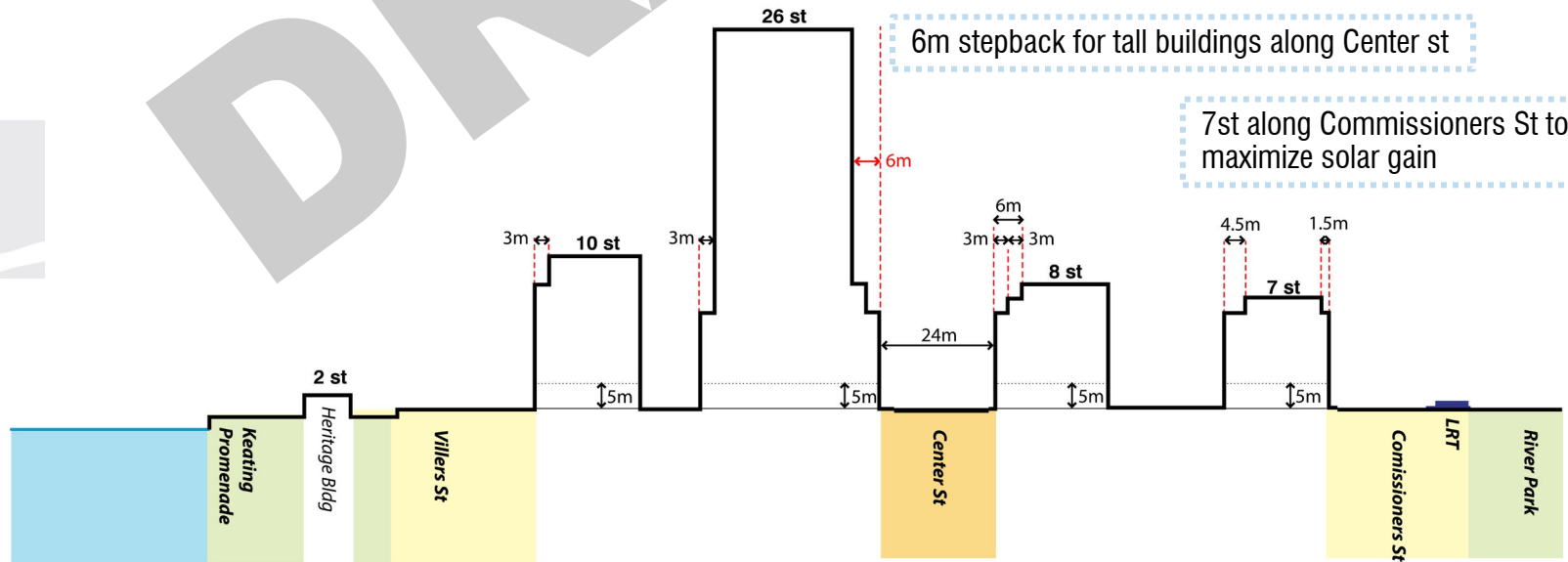
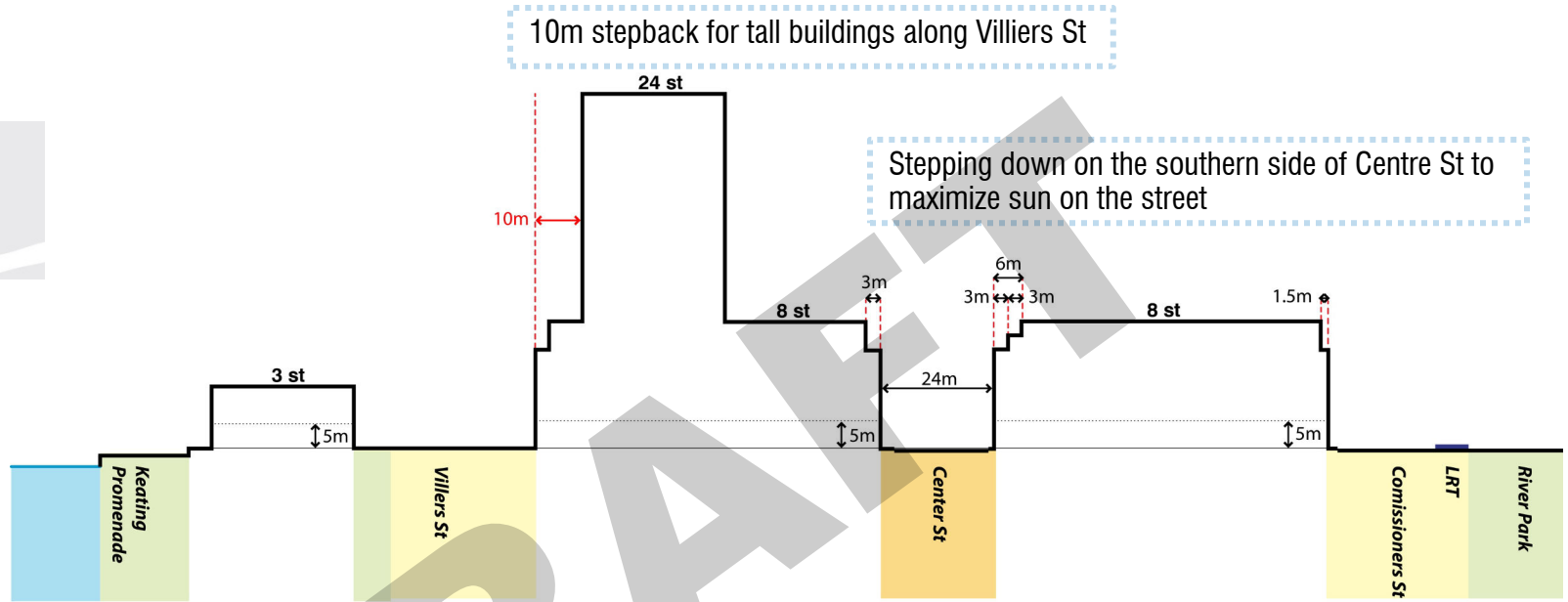
Hafencity



San Francisco



# Articulation









# Keating Promenade & Villiers St







Hafencity



Brooklyn, New York



Hafencity



Brooklyn, New York



# Commissioners St & River Valley Park







QUEENS QUAY



ALLEGHENY PARK, PITTSBURGH



# New Cherry St







PORTLAND, OREGON



FALSE CREEK, VANCOUVER



PORTLAND, OREGON



STOCKOLM, SWEDEN

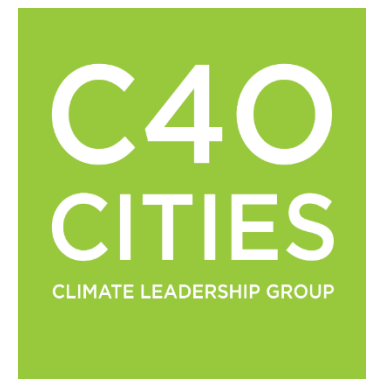




# TOWARDS A CLIMATE POSITIVE ISLAND

# CLIMATE<sup>+</sup>

Climate Positive  
Development Program



## Focuses on operational emissions

- Thermal and electrical energy use (from buildings, infrastructure and water)
- Waste and wastewater
- Transportation (trips that start or end within site)

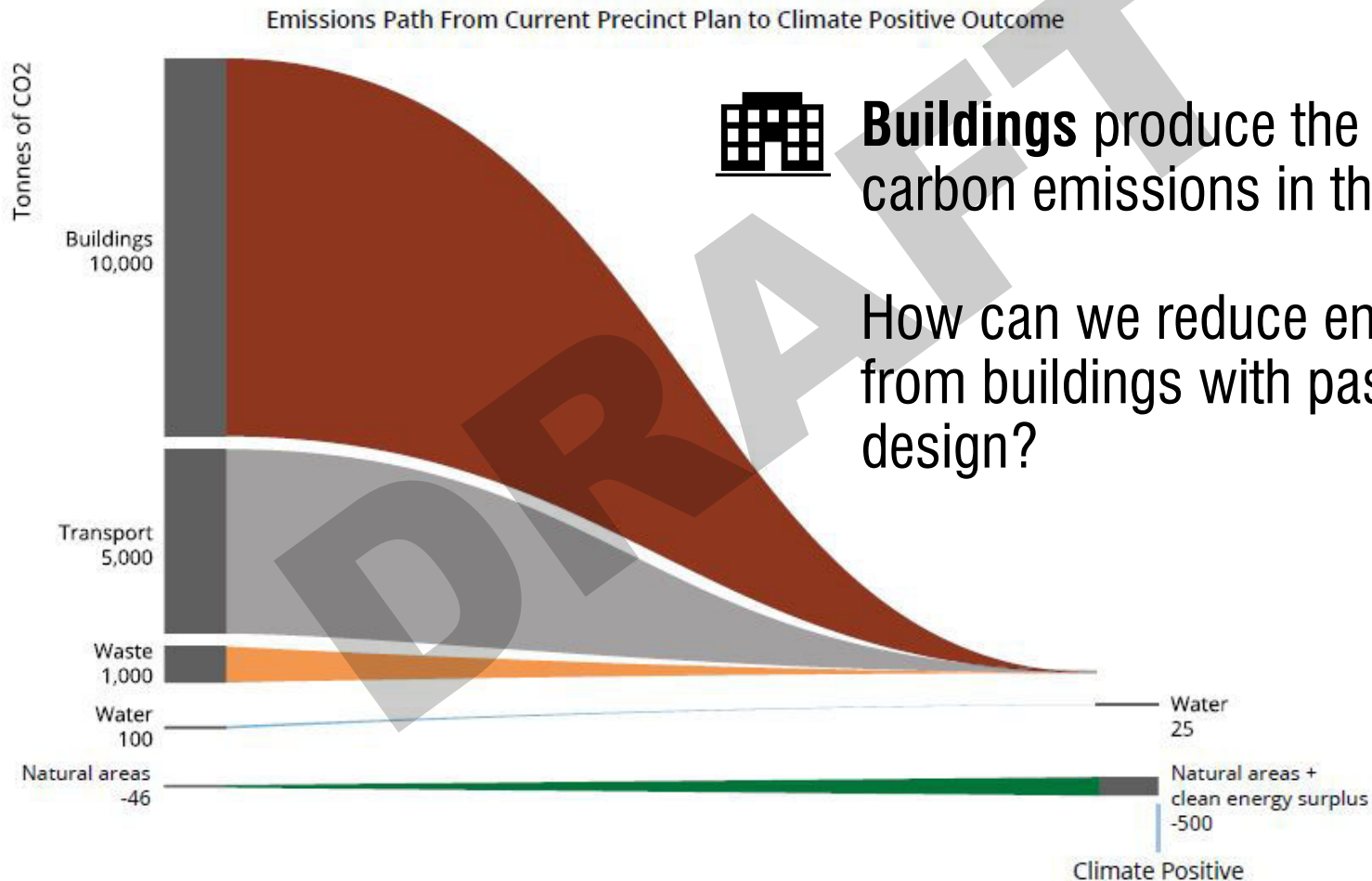
## Credits

- Create / preserve parks and green spaces (carbon sinks)
- Reduce emissions in the surrounding community (Export clean / renewal energy)



# Getting to Climate Positive

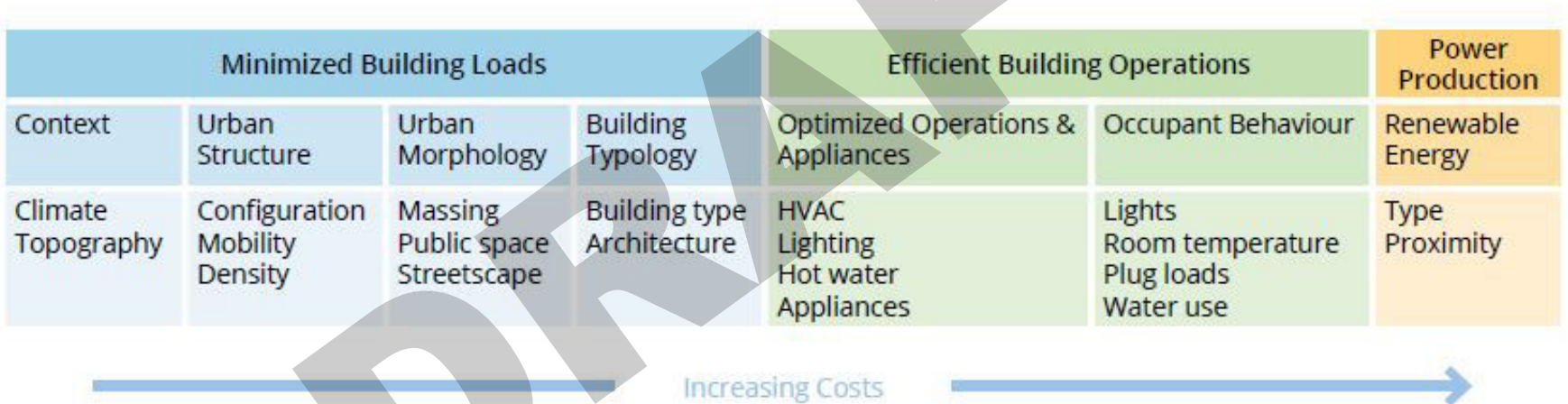
How to bring carbon emissions down to zero or near zero?



# Optimization Model

## Community Energy Planning Framework

What are the most cost effective ways to achieve carbon positive outcomes?



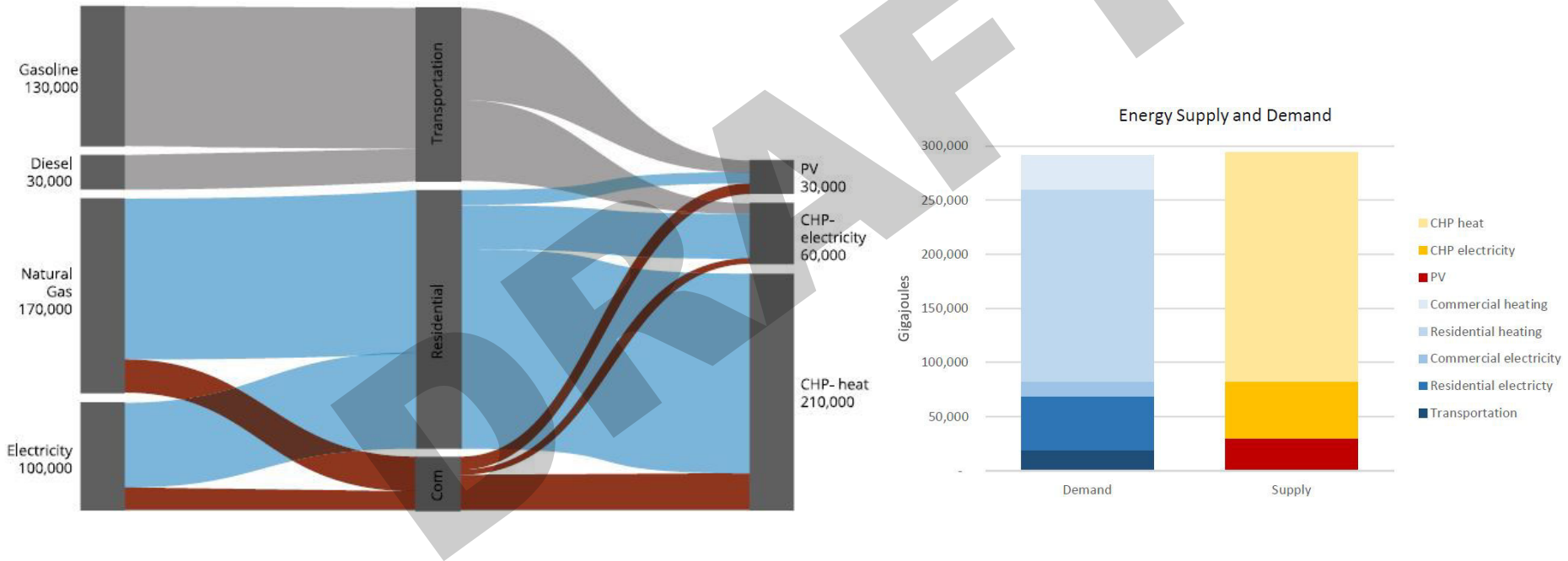
Source: Villers Island Climate Positive Assessment Report – SSG, 2016



# Optimization Model

## Energy Results

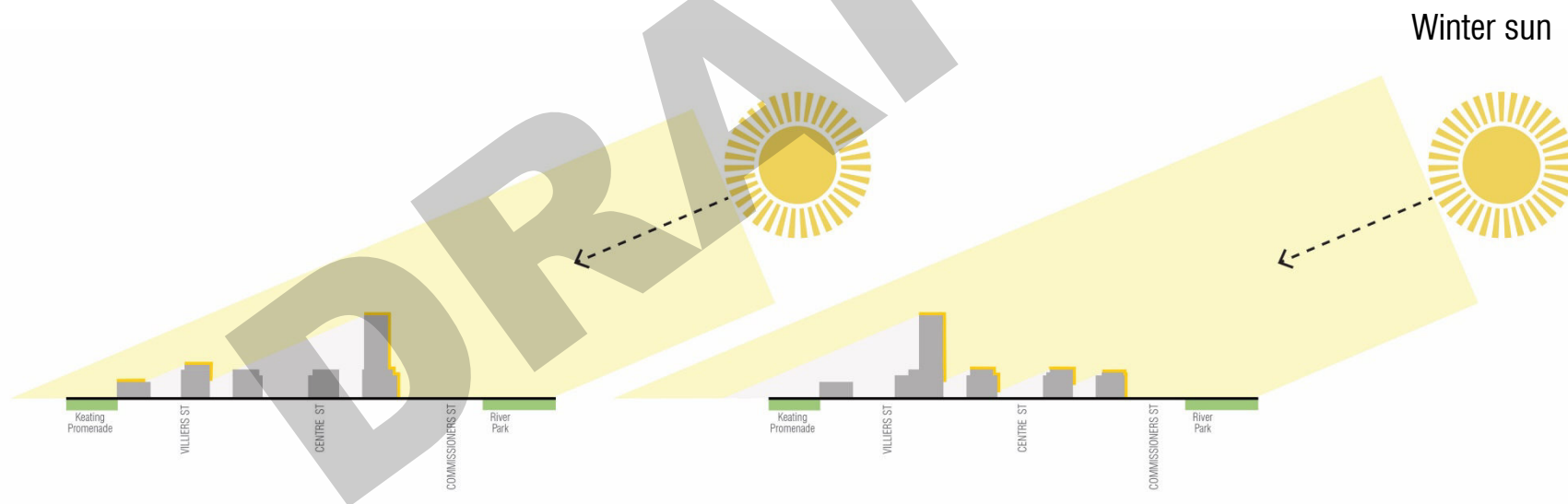
Annual energy use drops from 430,000 GJ to 300,000 GJ and shifts to clean energy supply



# Towards Climate Positive with Building Design

## Passive Design

Solar modelling analysis indicates that locating taller elements on north end of Island leverage solar gain, reduces energy demands and will contribute to climate positive development



Tall elements on the south end of the island along Commissioners as per November 2015 Plan

Tall elements on the north of the island



# Optimization Model

Carbon Reduction to Climate +

GHG Emissions		tCO2	%
Sources	Building heat and power	10,418	63.0%
	Transportation	5,075	30.7%
	Waste	1,036	6.3%
	Water	58	0.4%
	Natural sequestration	-46	-0.3%
Total Emissions based on MGBR		16,541	100%
Reductions	Passive House standard	-7,747	-46.8%
	Vehicle electrification	-4,162	-25.2%
	Mode shift	-254	-1.5%
	CHP system (supply within precinct)	-2,998	-18.1%
	PV	-333	-2.0%
	CHP system (supply beyond precinct)	-1,100	-6.7%
Total Reductions		-53	-100.3%

# Areas for Consideration

- **Relationship to surrounding context**
- **Variety and articulation of built form including tower locations**
- **Climate positive approach**
- **Place-making – Creating a ‘central living room’ along Keating Channel**



# The Precinct Plan

November 2015

