Villiers Island Precinct Plan Density Study

For Information

Density Study Overview

The City of Toronto, CreateTO, and Waterfront Toronto are reviewing the 2017 Villiers Island Precinct Plan to recommend updated guidelines that would support the City's housing goals and achieve additional housing, including affordable housing. Changes are being considered to built form, height and massing, with the goal of increasing density by at least 30% above the 2017 Precinct Plan, and will be informed by:

- Port Lands OPM policies and Villiers Island Precinct Plan direction
- Supporting increased housing opportunities, including affordable housing
- Maximizing the value of public lands to support infrastructure and public realm investments
- Achieving public policy goals

Confirming the Precinct Plan Vision

Villiers Island Precinct Plan (2017)

"Villiers Island will evolve from an industrial port area to a connected and complete island community with great parks and open spaces along four distinct water's edges. It will be an international model for sustainable city-building.

As a gateway to the Port Lands, Villiers Island will become significant as a regional destination and distinct as a sustainable community. The Island's industrial and natural heritage will contribute to a sense of place. The Island will offer exciting new waterfront experiences for residents and visitors, providing places for people to live, work, shop, explore, relax and connect with nature."

Existing industrial and port-related uses will continue to operate in many of the Port Lands districts adjacent to Villiers Island and new film and PIC Core uses will expand in the Media City district while Villiers Island transforms into a sustainable mixed-use community with significant new parks.

Confirming Precinct Plan Key Principles

Villiers Island Precinct Plan (2017)

- Animate and activate the waters edges
- Create a network of spectacular open spaces
- Provide a catalytic use opportunity
- Reinforce the island as a gateway
- Celebrate the area's industrial heritage through conservation
- Prioritize pedestrian, cycling and transit infrastructure
- Plan for a diverse, mixed-use, inclusive community
- Provide a variety of building forms
- Develop an innovative model for climate positive
- Ensure that the precinct plan is viable and implementable

Key Policy Priorities from OPM & VIPP

- Maximize the provision of housing and affordable housing
- Precinct Plan and OPM built form guidance
- Minimize shadow impacts on key public realm areas
- Minimize impacts on the new Don River Valley, especially newly established ecological features (i.e. wetlands)
- Design for a climate positive community
- Conservation of heritage resources
- Respect for key views

Built Form Direction from VIPP

- Predominantly mid-rise community, with taller buildings at key locations

- Built form reinforces a distinct island experience that sets it apart from the surrounding context

- Built form is planned, designed and developed to:
  - create a Port Lands skyline;
  - reinforce distinct character areas and places;
  - contribute to all-season parks and open spaces;
  - frame and animate streets and public realm;
  - leverage passive solar gain and enable daylighting;
  - showcase views to water and industrial landmarks;
  - maximize key view and sunlight on the public realm; and
  - protect key views, including views of heritage buildings and structures

Villiers Island Density Study

What plans are being reviewed:

- Densities on public lands to support housing goals
- The % of units as affordable housing
- Massing & built forms to support higher densities
- Increased heights on Keating Channel blocks
- Office and retail amounts

Densities as illustrated in the 2017 Precinct Plan

Ongoing Due Diligence:

- Transportation network & transit capacity (including pre-LRT)
- Community facilities and services calibration
- Impacts on surrounding parks
- Achieving sustainability/climate positive objectives
- Land use compatibility (noise and air quality)
- Affordable housing
- Enabling Infrastructure and servicing capacities
- Approaches to solar access and thermal comfort
- OPM policy conformance and implications
- Billy Bishop airspace controls

Villiers Island Density Study
Preliminary Outcomes

- Confirmed the **Villiers Island Precinct Plan vision and principles** will continue to guide the review;
- Established the importance of a **complete communities** approach ensuring sufficient community infrastructure is delivered, substantial affordable housing is provided, and the public realm is generous and well-planned;
- Reviewed and considered **precedents** in Toronto, New York, Chicago, London, Sydney and Oslo;
- Explored the potential **intensification of the Keating Channel**; introducing an urbanized approach with taller towers and/or tall buildings with a mid-rise character (above 11 storeys);
- Discussed and refined nine scenarios into **three massing concepts** that deliver densities between 40% and 60% greater than the 2017 demonstration plan; and
- Identified issues to study through **additional due diligence** (including transportation and servicing infrastructure) and public engagement.

Project Timeline

UPCOMING EVENTS

WATERFRONT DRP
JUNE 21, 2023

STAKEHOLDER MEETINGS
APRIL - JUNE 2023

INDIGENOUS CONSULTATION
APRIL - SEPT 2023

DUE DILIGENCE
APRIL - AUG 2023

Phase 1: Mar - May

Explore changes to the built form of Villiers Island to support additional housing, including affordable housing

- City of Toronto Planning and Housing Committee
- Meetings with landowners and stakeholders
- Pre-engagement meetings

Phase 2: June-August

Develop and refine a preferred development concept, engage on preliminary concepts

- Waterfront Toronto Design Review Panel
- Virtual Public Meeting

Phase 3: Sept – Oct.

Report back to public

- City of Toronto Planning and Housing Committee
- Report back to DRP and public with preferred approach

Phase 4: Nov-Jan 2024

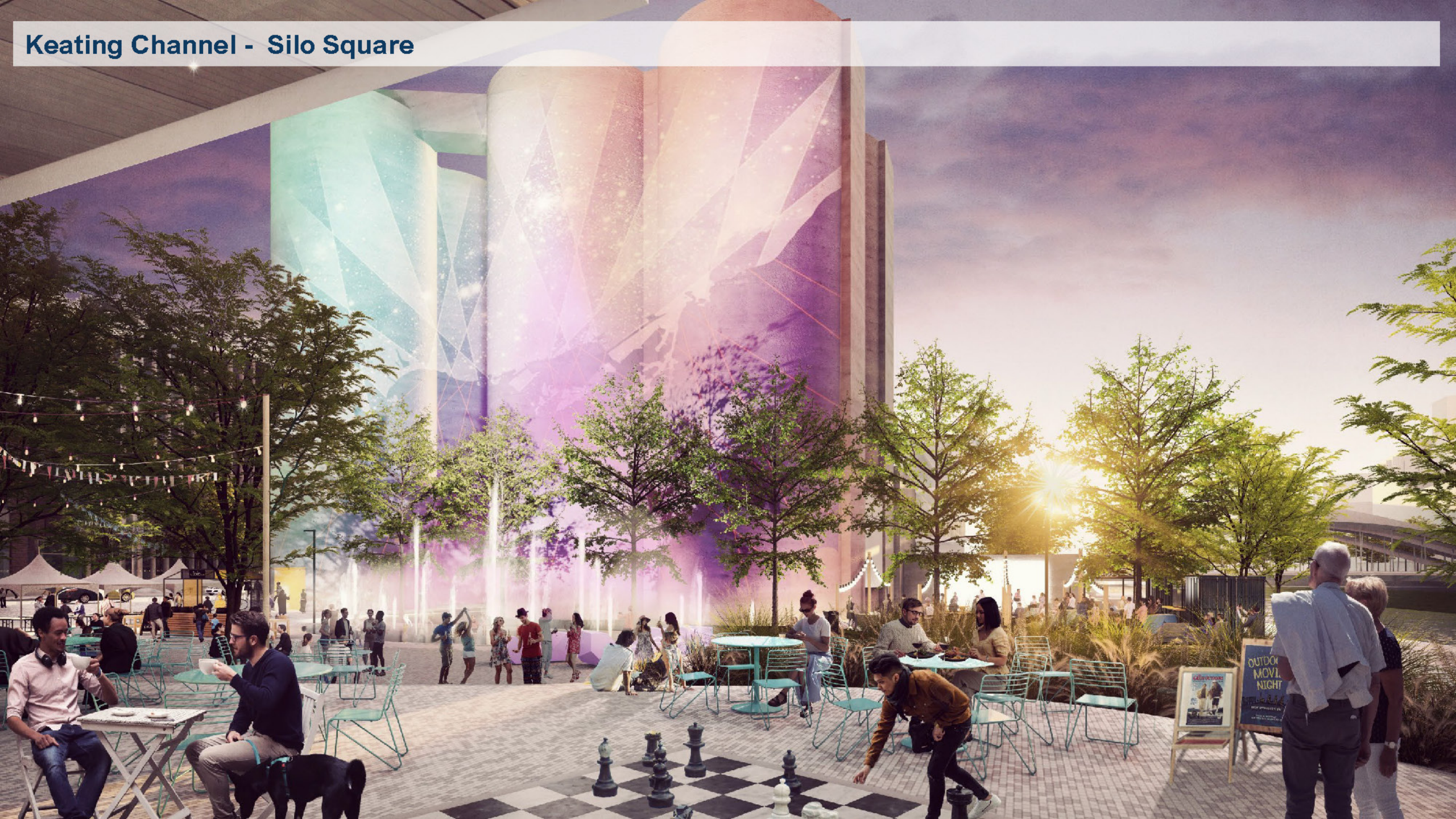
Produce the planning instrument updates for Villiers Island

- Statutory Public Meeting
- City Council

Indigenous Engagement

Villiers Island: A Spectacular Network of Waterfront Parks

Keating Channel - Silo Square



Old Cherry Street

Keating Channel – Existing

Keating Channel – Future Vision

Questions for Consideration

1. **Deployment of Height and Density:**
- Do the height and density increases above the VIPP seem appropriately deployed and scaled? Are they consistent with the vision and key principles of the Villiers Island Precinct Plan?
- What are the strengths and weaknesses of each approach?
- Do the proposed height and density approaches appropriately respect the surrounding parks and public realm and achieve adequate solar access?

2. **Increased Densities Along the Keating Channel:**
- Do the increased heights and densities seem appropriate from an urban design perspective?
- Do the approaches relate well to the Water's Edge Promenade and the public realm along the Keating Channel?

3. **Key View Corridors:**
- Do the increased density approaches adequately consider the identified views to Port Lands industrial heritage resources including the Hearn and McCleary stacks and the Essroc Silos?
- Are some views more important than others when trying to balance protecting view corridors with accommodating density increases across the island? e.g. Villiers' Island skyline view from Sugar Beach, view north along Old Cherry Street to the silos, view southwest across the Keating Channel?

1. Development & Changes since 2017 on the waterfront

- Toronto's Waterfront Public Realm (Illustrative Map)
- Waterfront-wide 3d model (fly-through video)
- Eastern Waterfront Development (Existing and Future)
- Villiers Island Context Map (Existing and Future)

Toronto's Waterfront Public Realm

Connecting the inner harbour shoreline with system of parks and public realm

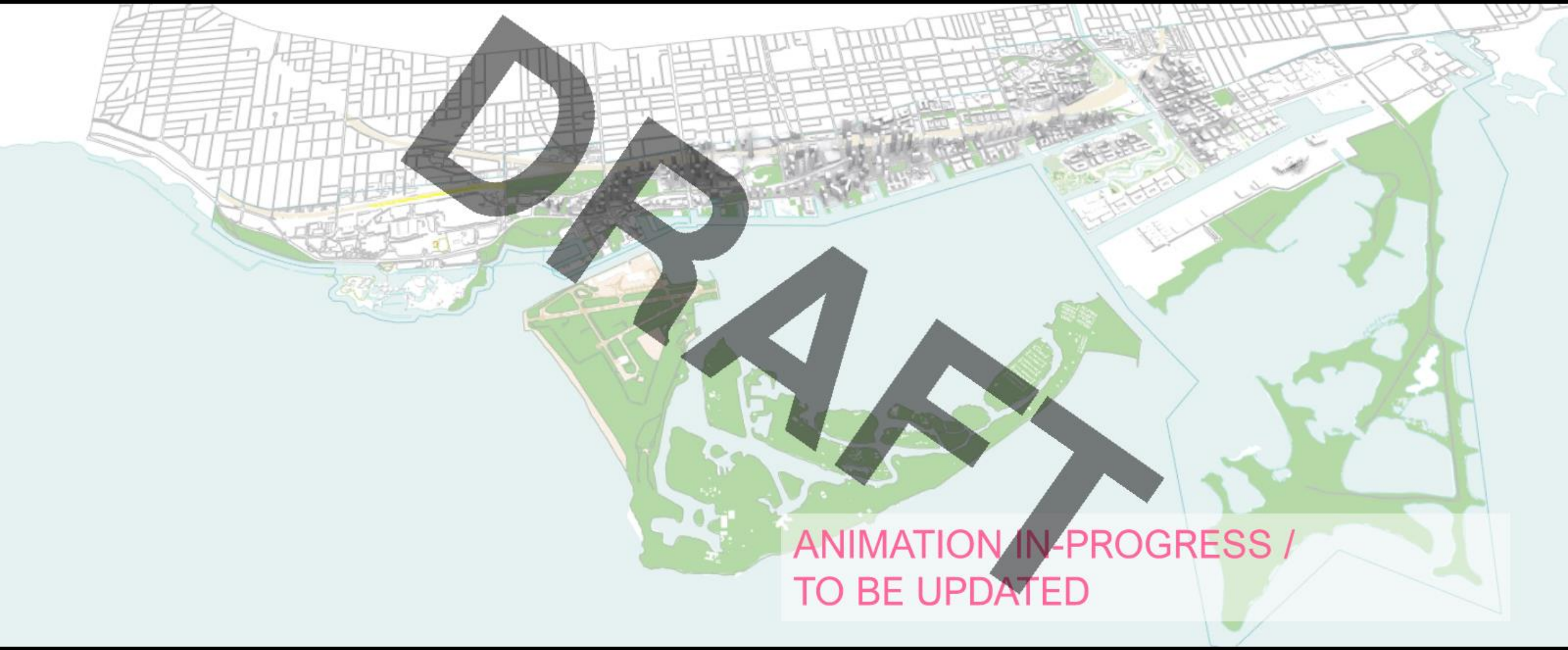
Toronto's Waterfront Public Realm

Villiers Island as a dynamic centrepiece that tie the green loop around the inner harbour

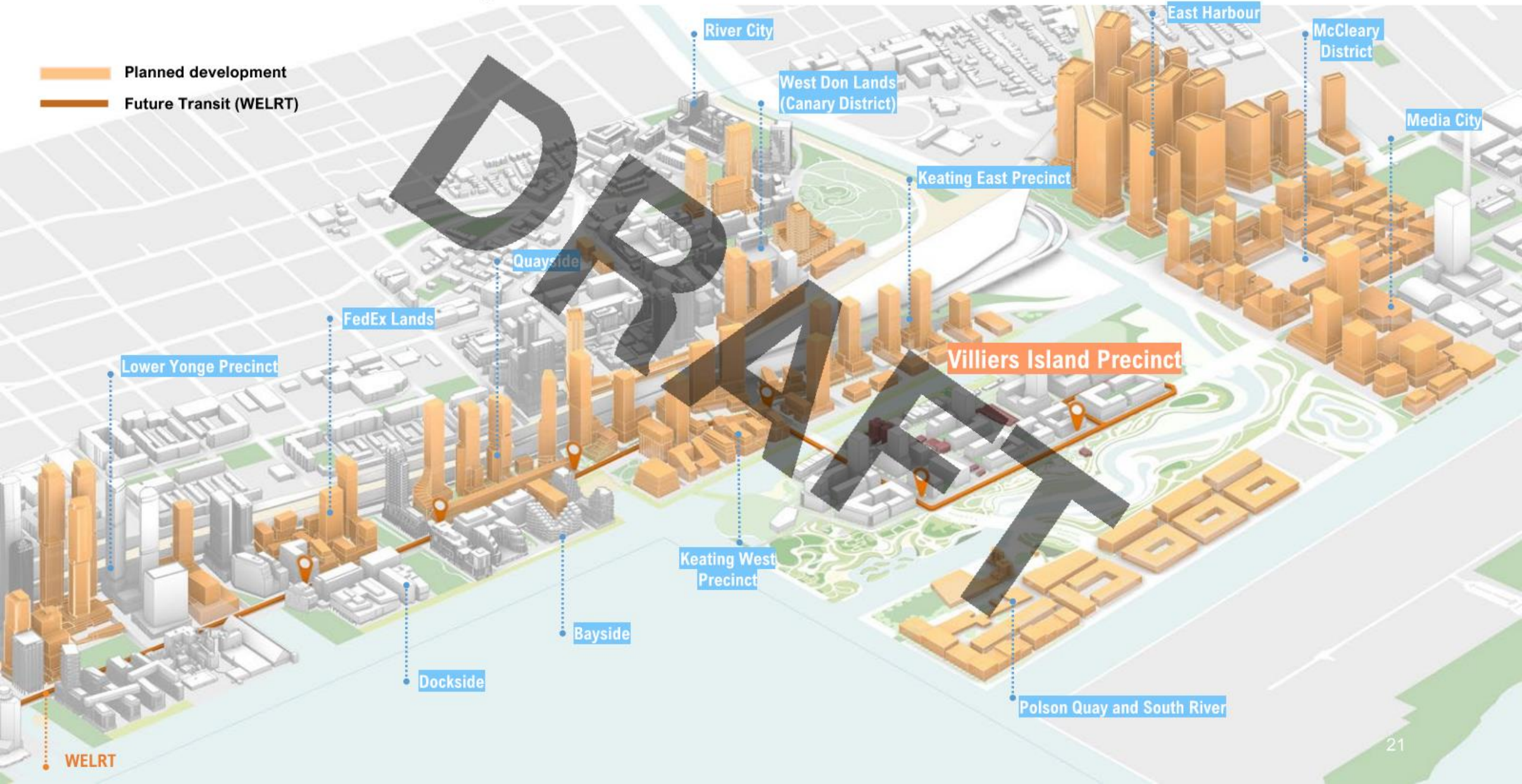
Toronto Waterfront Public Realm – Eastern Waterfront

Future Villiers Island Open Space

Development & Changes since 2017 on the waterfront (Fly-through)



Current Built and Planned Development – Eastern Waterfront



Villiers Island Precinct - Context Map (Access)

Villiers Island Precinct - Context Map (Art & Culture)

LEGEND

- Catalytic Use Sites (Villiers Island)
- Heritage Buildings to remain (Villiers Island)
- Private Development (Villiers Island)
- Water's Edge Promenade (proposed)

Community Services

- A Community Centre Site (VIPP)
- B School Site (VIPP)
- C Community Centre (Aqualuna)

Art & Cultural Sites

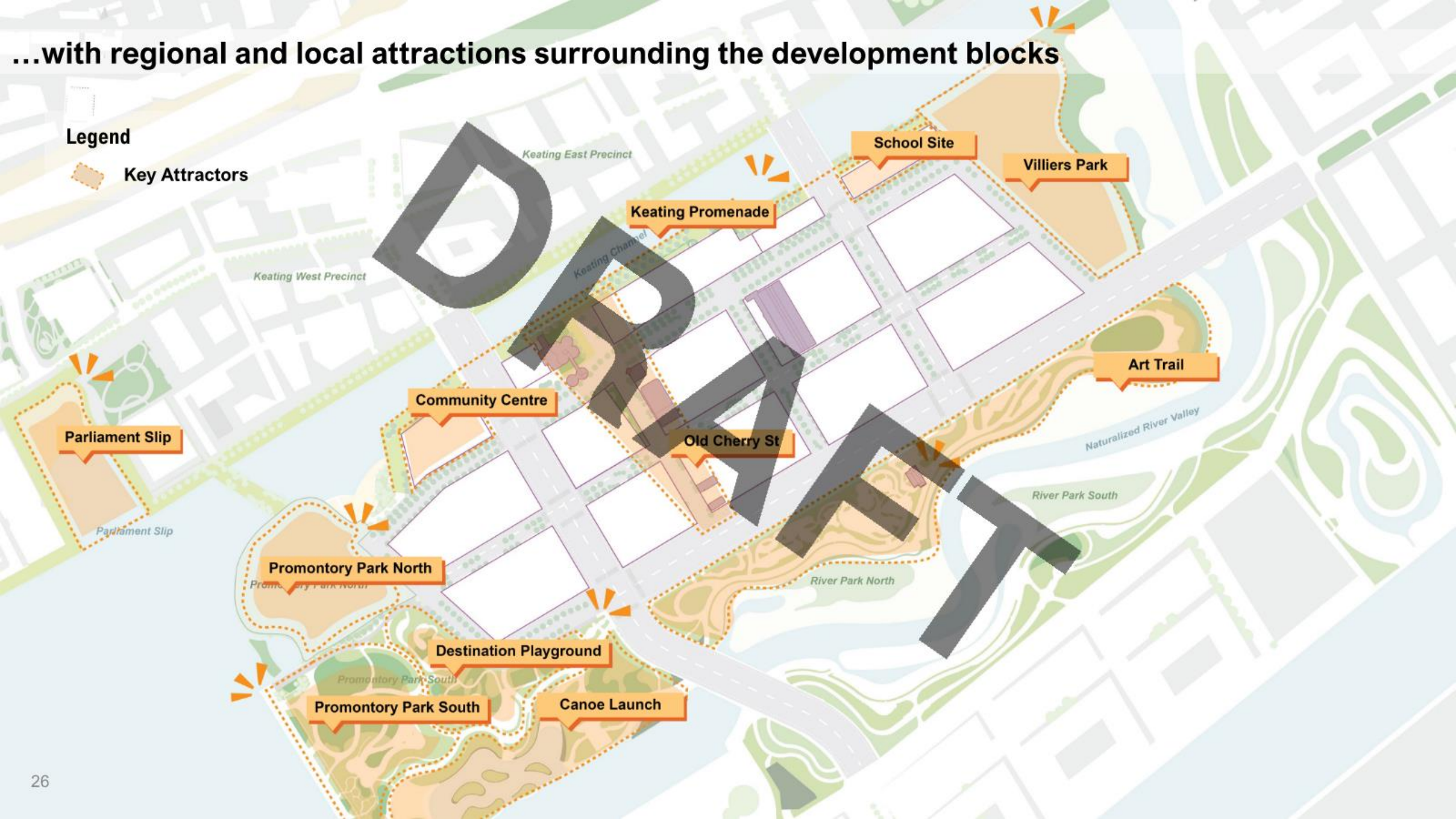
- Villiers Art Trail (proposed)
- 1 Quayside Future Cultural Site
- 2 Quayside Potential Cultural Use (tbc)
- 3 Potential Culture Bridge
- 4 C3 Cultural Institution (tbc)
- 5 Promontory Park North - Interim Activation
- 6 Promontory Park South - Event Lawn
- 7 Destination Playground
- 8 Portlands Flood Protection Parks
- 9 Viliers Island Art Trail
- 10 Keating Channel Water's Edge Promenade
- 11 Distillery Historic District
- 12 Anishnawbe Health Toronto (AHT)
- 13 Corktown Common
- 14 Future Destination Public Art (permanent)
- 15 Light Keeper (public art - permanent)
- 16 Indigenous Public Art (permanent)
- 17 Peeled Pavement (public art -permanent)
- 18 No Shoes (public art -permanent)
- 19 Water Guardians (public art -permanent)

2. Villiers Island Density Increase Considerations

- Density Increase Considerations
    A. Maintain established street grid & Conserve heritage resources (and respect key views established in the Precinct Plan)
    B. Add through-block connections to connect to future attractions
    C. Prioritize sun access to key public realm areas
    D. Explore increase density through taller base buildings
    E. Explore increasing density along Keating Channel

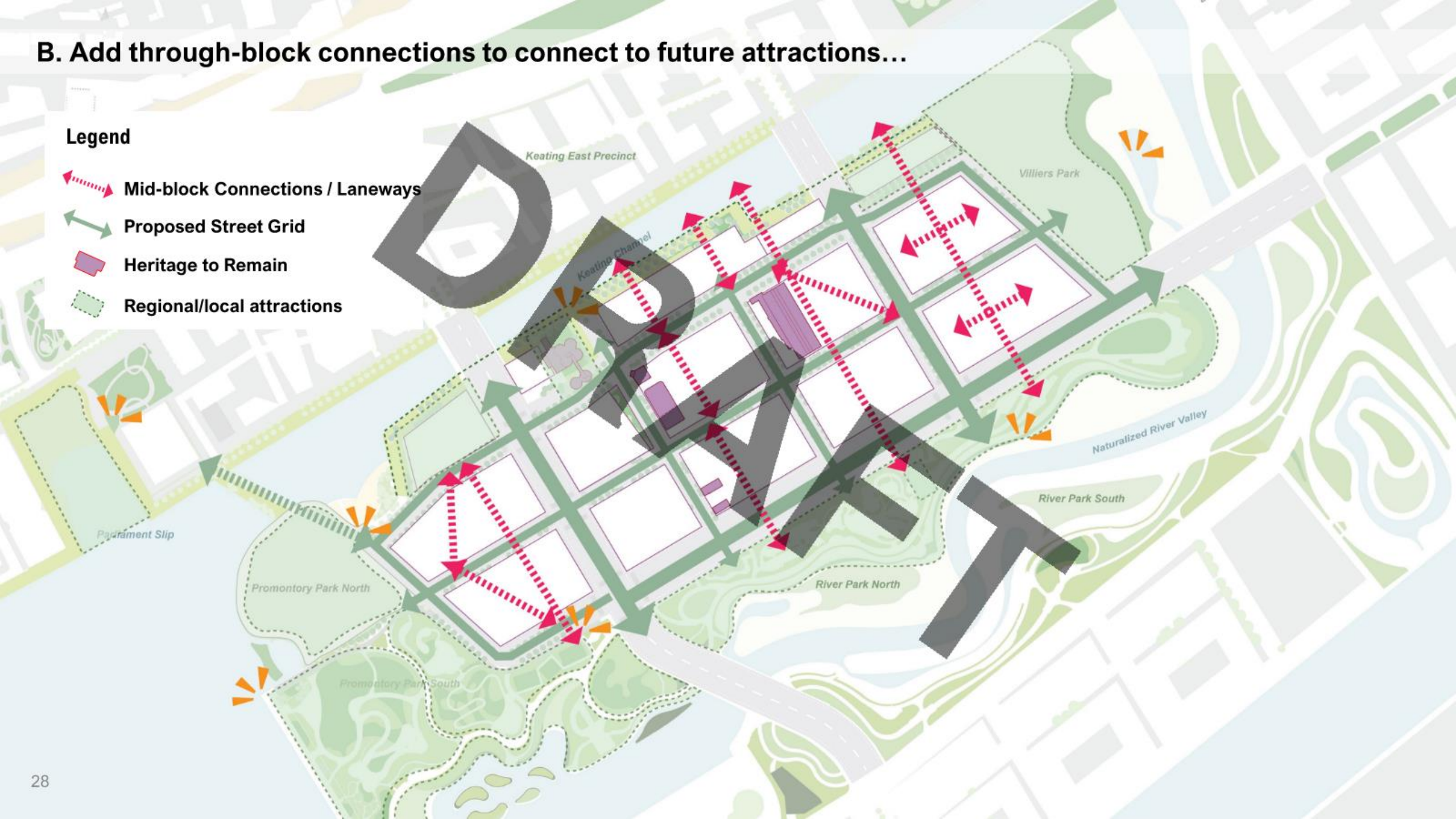
Starting with the Villiers Island Public Realm Vision…

…with regional and local attractions surrounding the development blocks

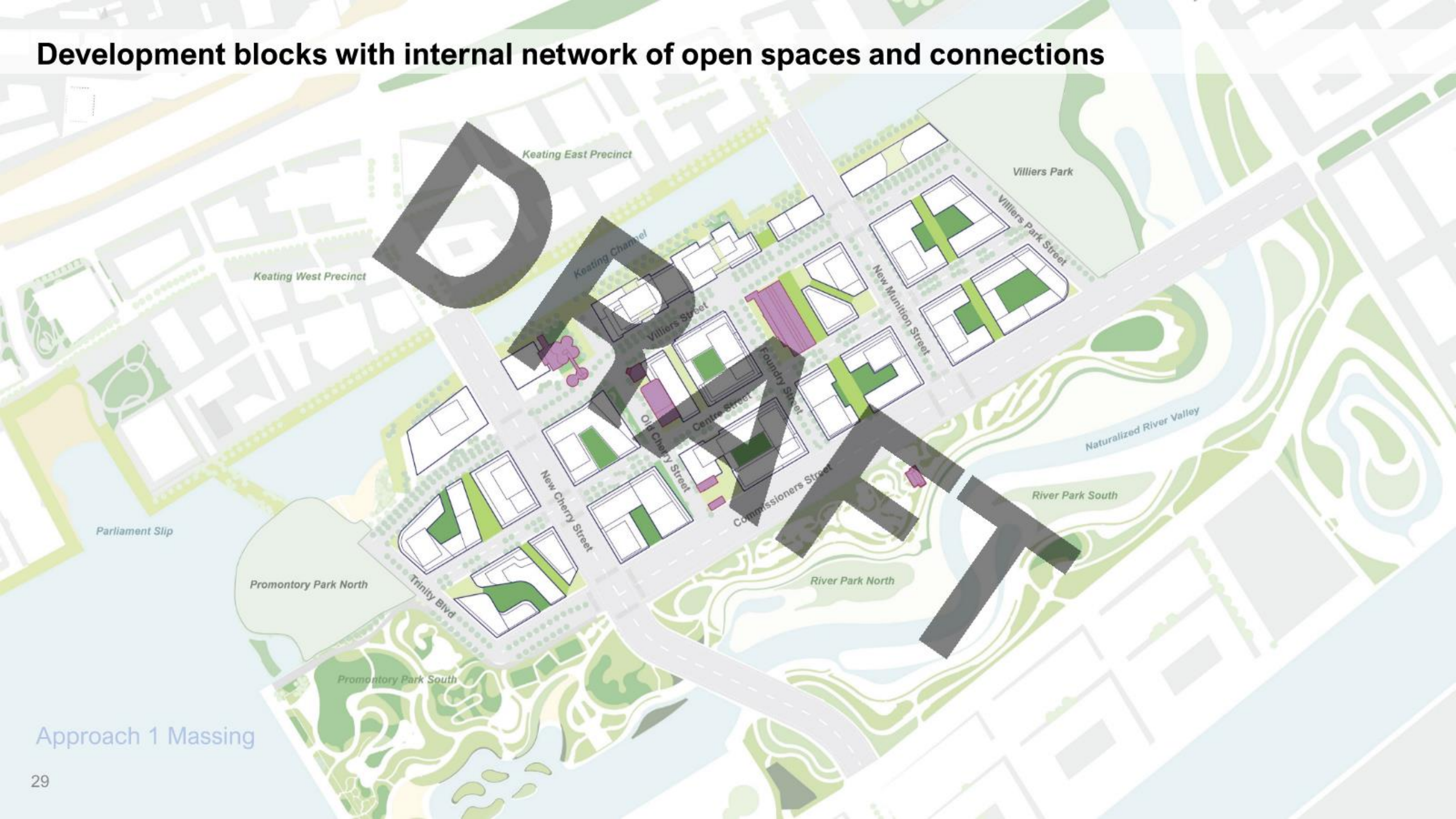


A. Maintain established street grid & conserve heritage resources

B. Add through-block connections to connect to future attractions…

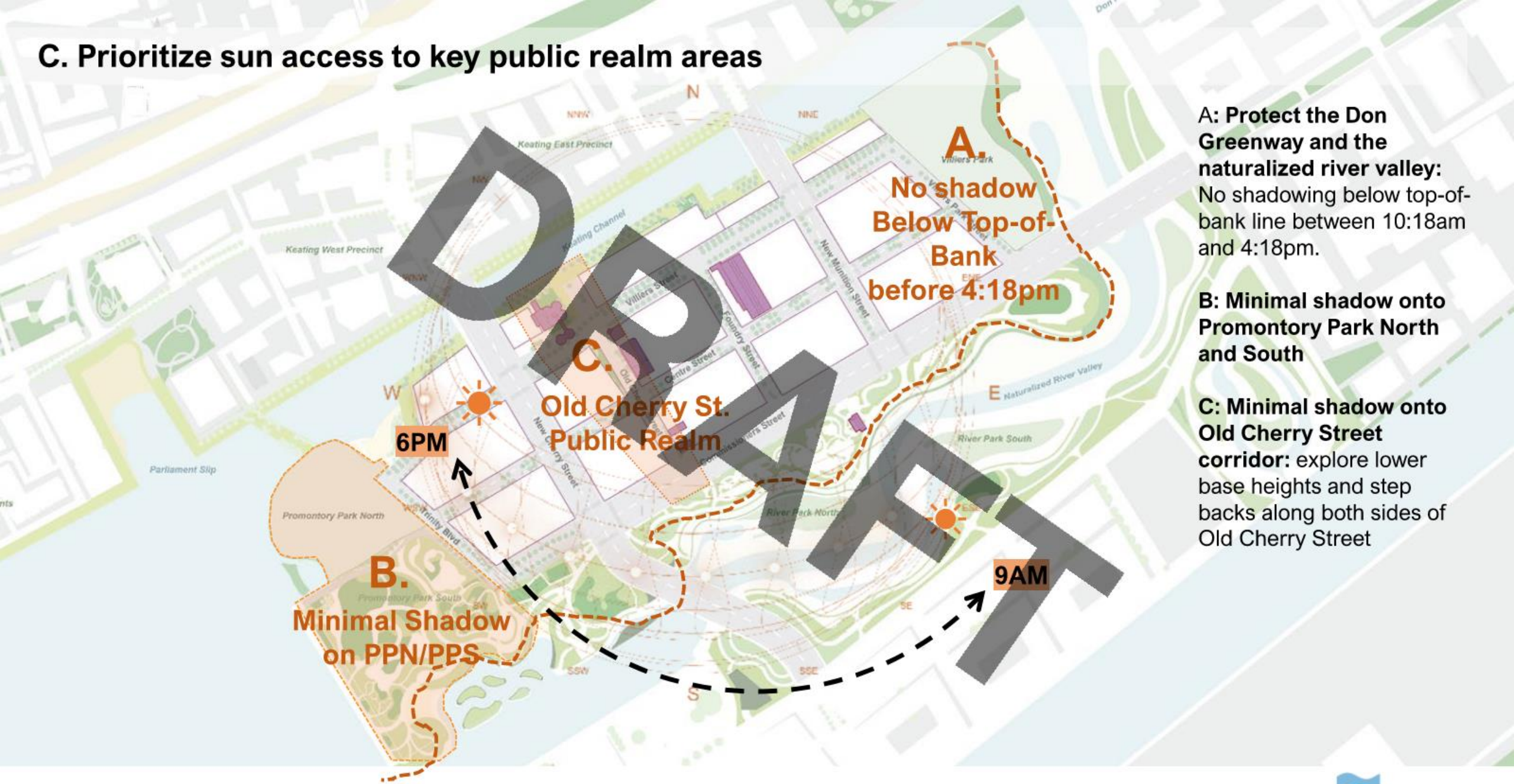


Development blocks with internal network of open spaces and connections



Approach 1 Massing

C. Prioritize sun access to key public realm areas



A: **Protect the Don Greenway and the naturalized river valley:** No shadowing below top-of-bank line between 10:18am and 4:18pm.

B: Minimal shadow onto Promontory Park North and South

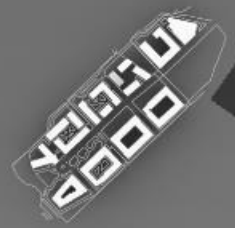
C: Minimal shadow onto Old Cherry Street corridor: explore lower base heights and step backs along both sides of Old Cherry Street

Diagram shows sun path on September 21st 9am to 6pm.

D. Explore increasing density with a taller base & mid-rise forms

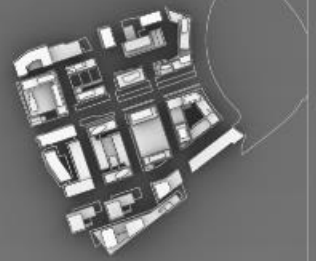
Precedents/projects of various tall mid-rise developments (local and international)

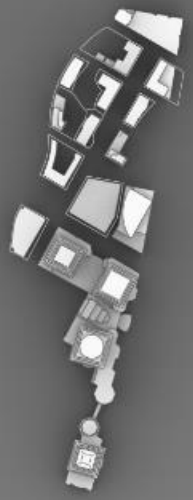

East River, NY


Sorenga


East Bayfronts

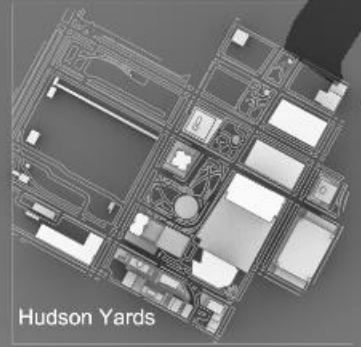

Bjorvika (Bispevika & Barcode)

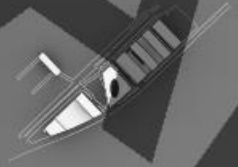

West Don Lands

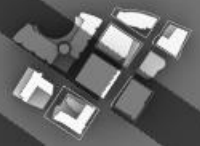

Battery Park City

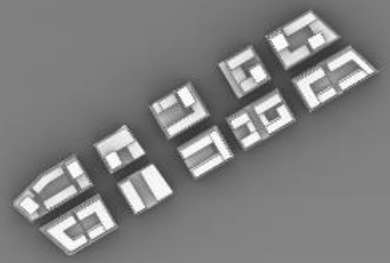

Farm Country, NY


Tjuvholmen & Aker Brygge


Hudson Yards


Brattorkaia


Boston Seaport

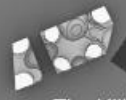

Villiers Island Demonstration Plan 2017


Mercedes Benz Manhattan


La Passerelle de Marcel


Block 13


VIA


The Hills


The Valley

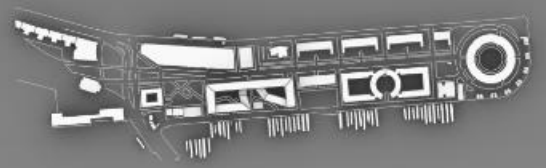

Lyon Confluence


IJDock


One Park Drive


Bevel LIC


Cockle Bay Park

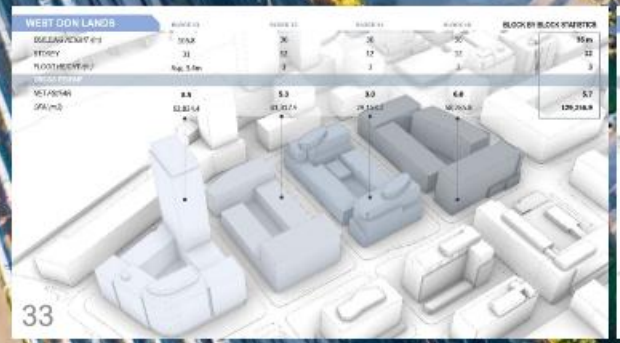

KNSM Island

Precedents/projects of various tall mid-rise developments (local and international)

EAST BAY FRONT- BAYSIDE

Precedents/projects of various tall mid-rise developments (local and international)

WEST DON LANDS



Precedents/projects of various tall mid-rise developments (local and international)

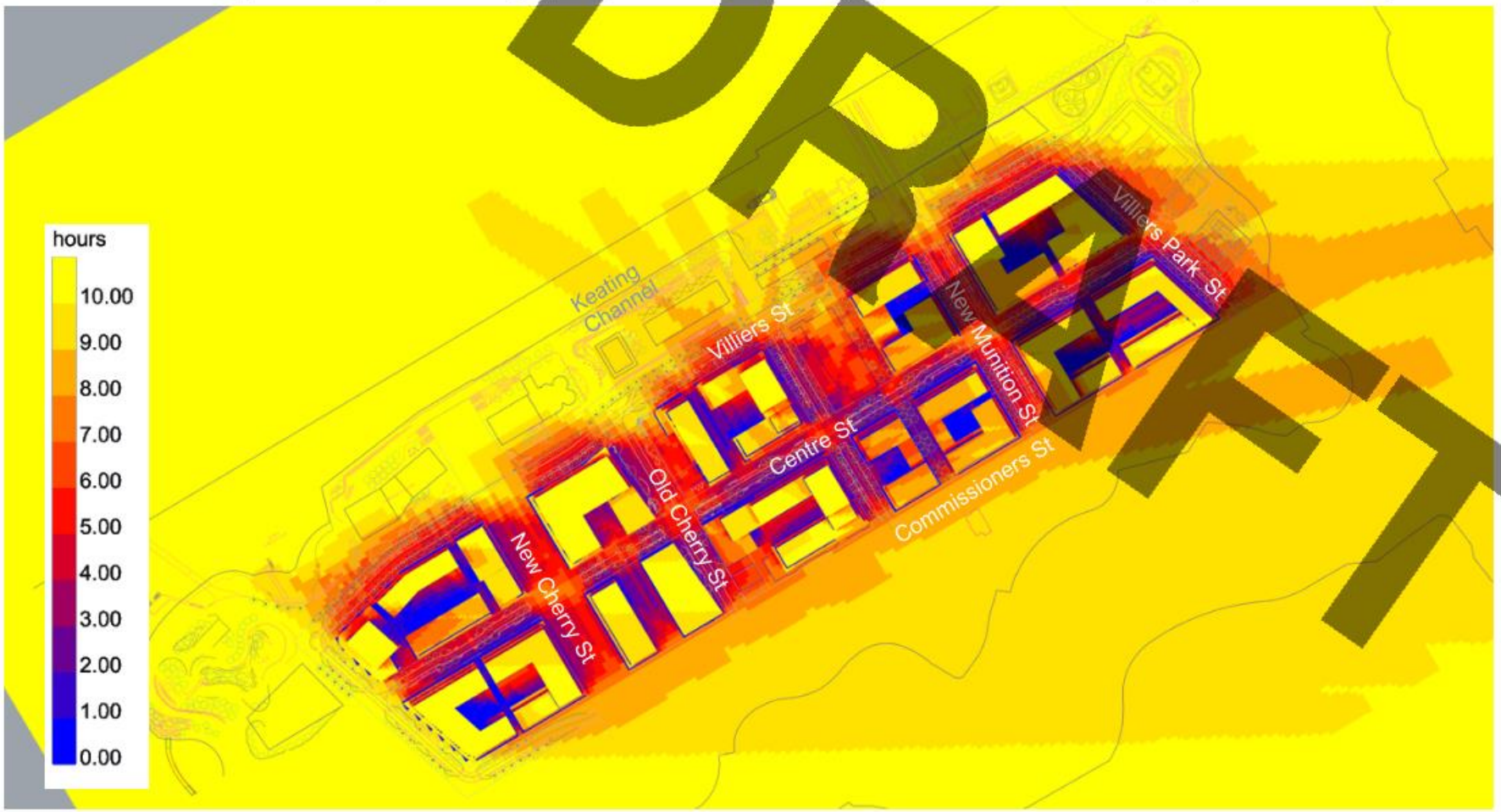
AERIAL IMAGE

BJØRVIKA PRECINCT, OSLO

D. Explore increasing density through taller base buildings

- **Sun shadow study of incremental height increase to the 2017 VIPP base building heights – up to 6 storeys max.**
- **Performed radiation study (i.e. - accumulative sun exposure hours) to examine shadow impacts to public realm**

Taller Base Heights Study: Adding up to additional 6 storeys on base buildings (+3m to +18m)

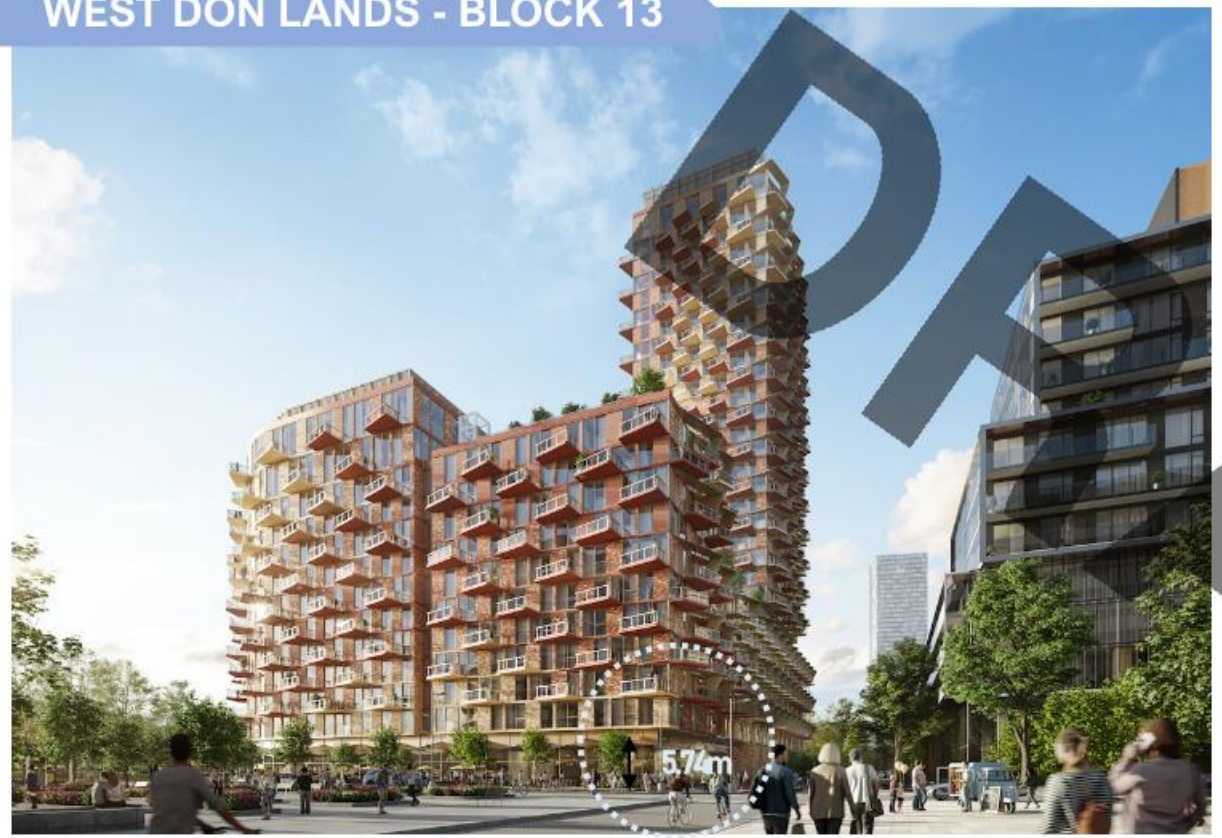


Key Observations:

- Added base building heights will impact sun access to both E/W and N/S streets, and heritage blocks.
- Addition of 1-2 storeys to the VIPP base heights may not have a significant impact. Any taller, carving/stepping along angular planes should be considered to minimize shadow onto streets.
- Carving out SW areas of the westerly blocks, can significantly improve sun access into courtyards.
- Carving out NE areas of the island (i.e. P11/15) on the other hand did not significantly improve sun access to internal blocks (due to sun angle and hour of the day.)

Precedents of incremental increase of base (or overall) building heights

WEST DON LANDS - BLOCK 13



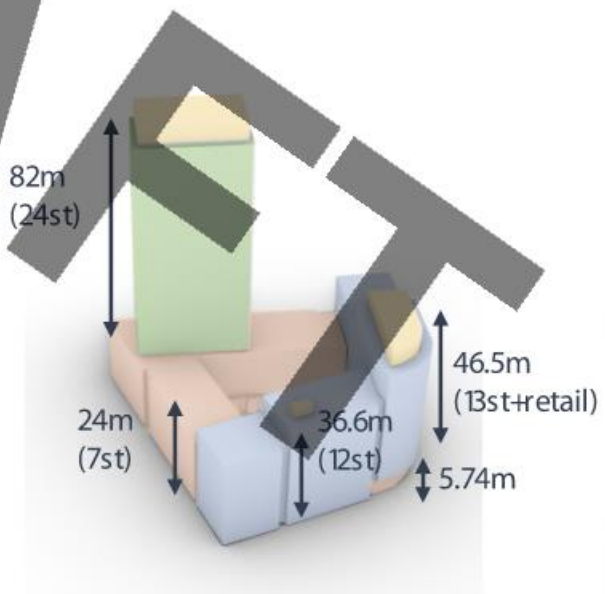
BLOCK 13
Architect: Henriquez Partners Architects
Developer: Dream Unlimited, Kilmer Group
Use: Mixed-Use (Retail/Commercial, Residential)
Address: 495 Front St E, Toronto

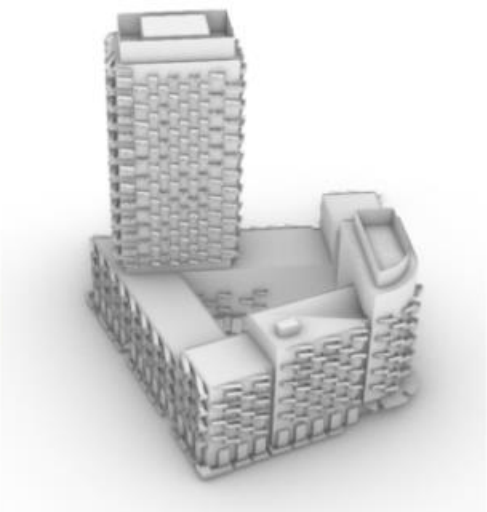
South Tower
Mechanical Unit
East Tower
Podium

GROSS FSI/FAR

Building Height: 105.8 m
Storey: 31
Average Floor Height: 3.4m
Podium: 7 storeys / (23.9m, avg.floor height 3.4m)
Tower: 24 storeys/ (avg. floor height 3.1m)
Net FSI/FAR: 8.46
Parcel Area: 7,558 sq.m

GFA(South Tower): 20,495 sq.m
GFA(East Tower): 22,297 sq.m
GFA(Podium): 17,729 + 2,096 (N. Podium) + 217 (S. Amenity)
Gross Floor Area: 63,944; 9,918amenity; 963retail





Precedents of incremental increase of base (or overall) building heights

GROSS FSI/FAR *~15*

BEVEL LIC. BUILDING, NYC

Storey: 14(base) 18(tower)

Average Floor Height: 58/15 = 3.86m

Height (est): 61.24m

Height (roof): 58.52m

Net FSI/FAR ~15

Parcel Area: approx. 2114.16 sq.m

Avg. SF: Studio 389sf *

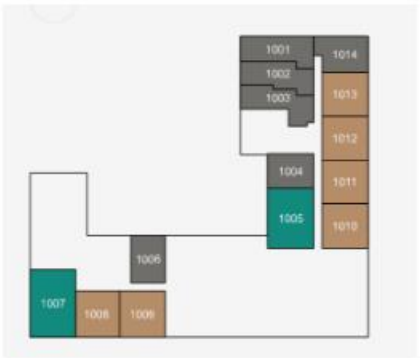
1B1B 584 sf *

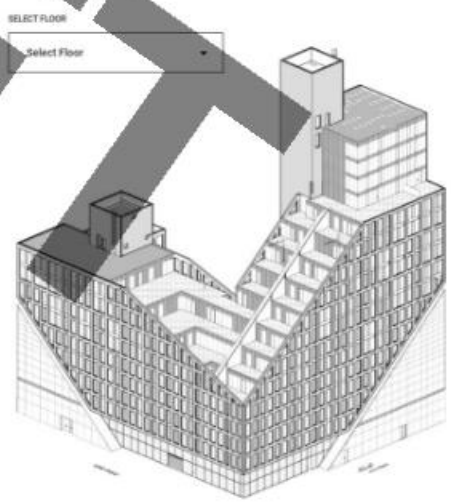
2B2B 987sf*

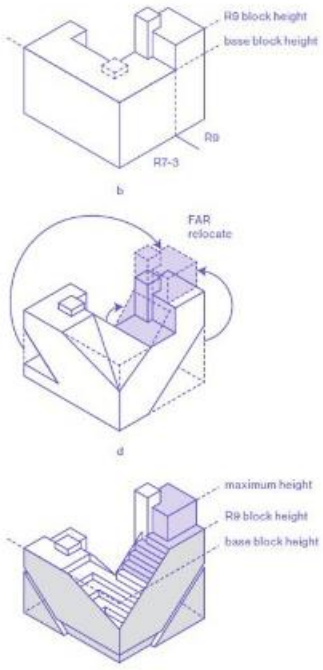
GFA(Podium): 85 ft Atrium (8 storeys)

Gross Floor Area: 32,879.48 sq.m

Text = official number

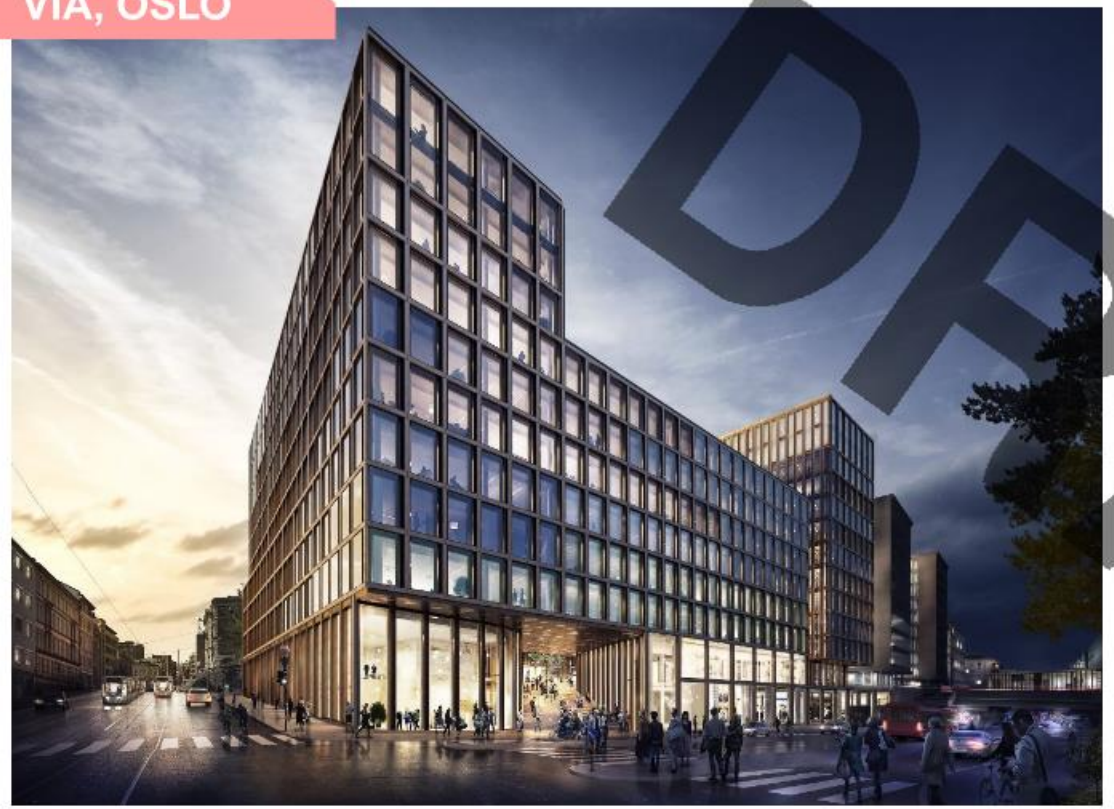






Precedents of incremental increase of base (or overall) building heights

VIA, OSLO



Building Height: 36.9m

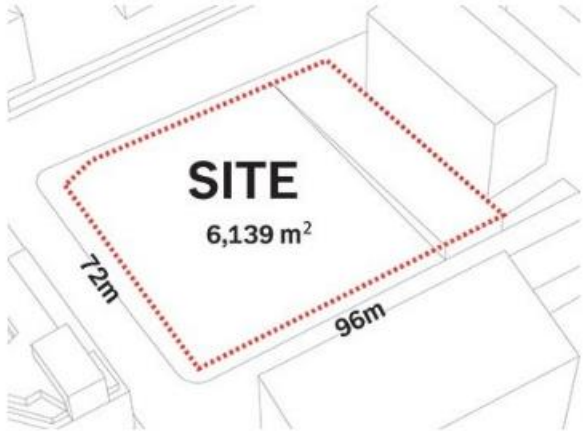
Storey: - 8-11 storey

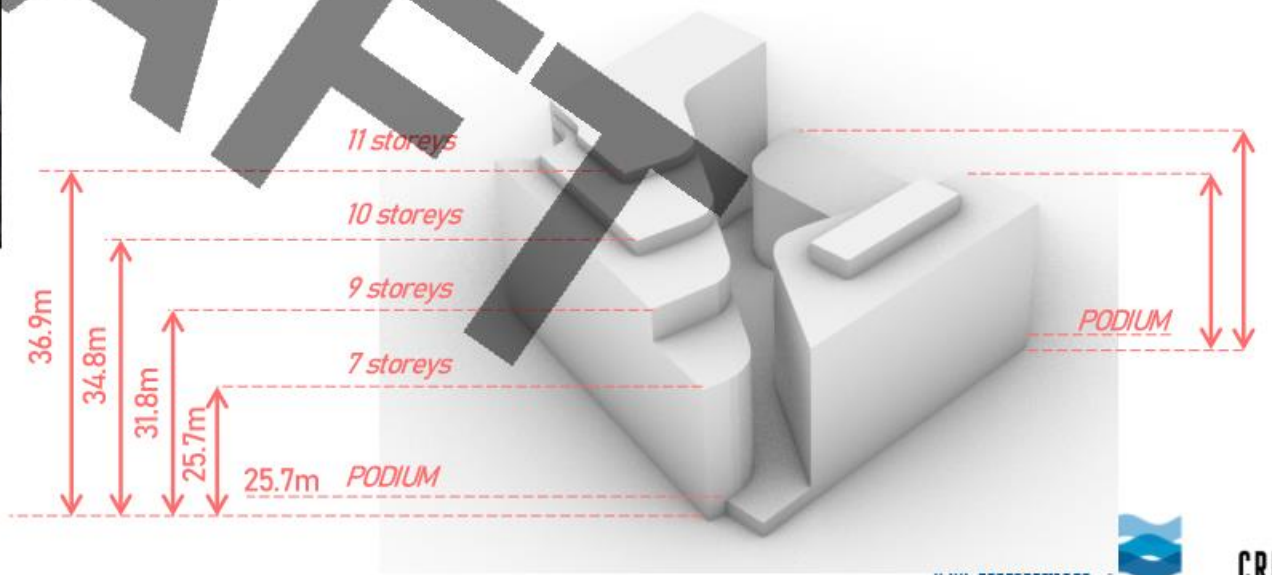
Average Floor Height: 3m

Net FSI/FAR 9.53

Parcel Area: 6,139 sq. m

Gross Floor Area: 629,688 sq.f. = 58,500 sq.m

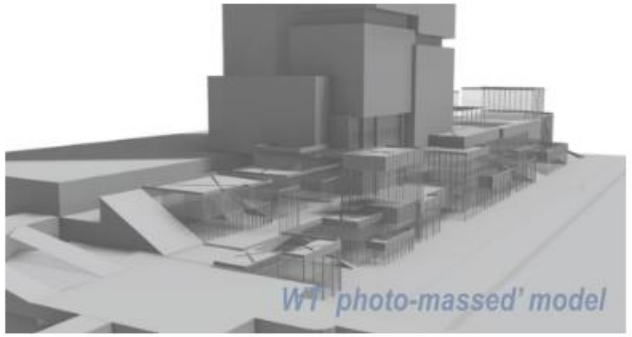




Precedents of taller base (or overall) building heights

Cockle Bay Park

GROSS FSI/FAR ~7.3



WT 'photo-massed' model

WT 'photo-massed' model

Building Height: 183 m

Average Floor Height: -

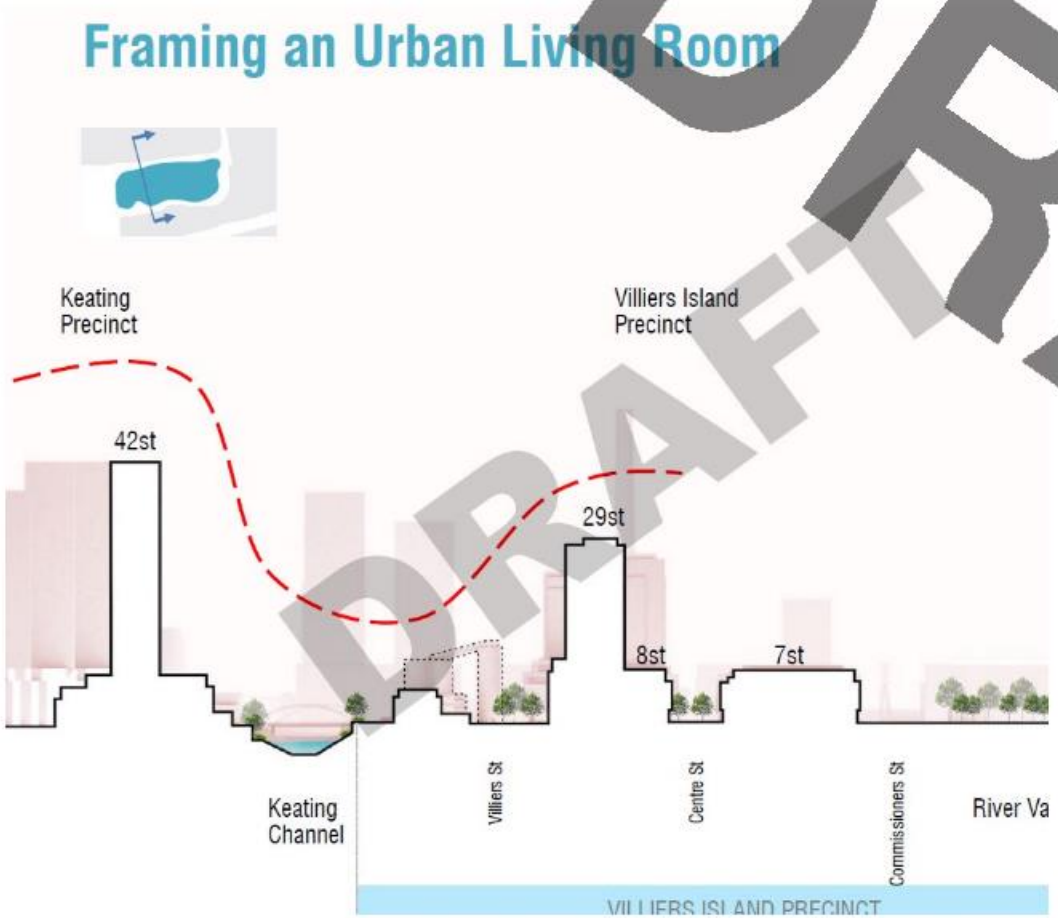
Net FSI/FAR ~7.3

Parcel Area: 10,000 sq. m

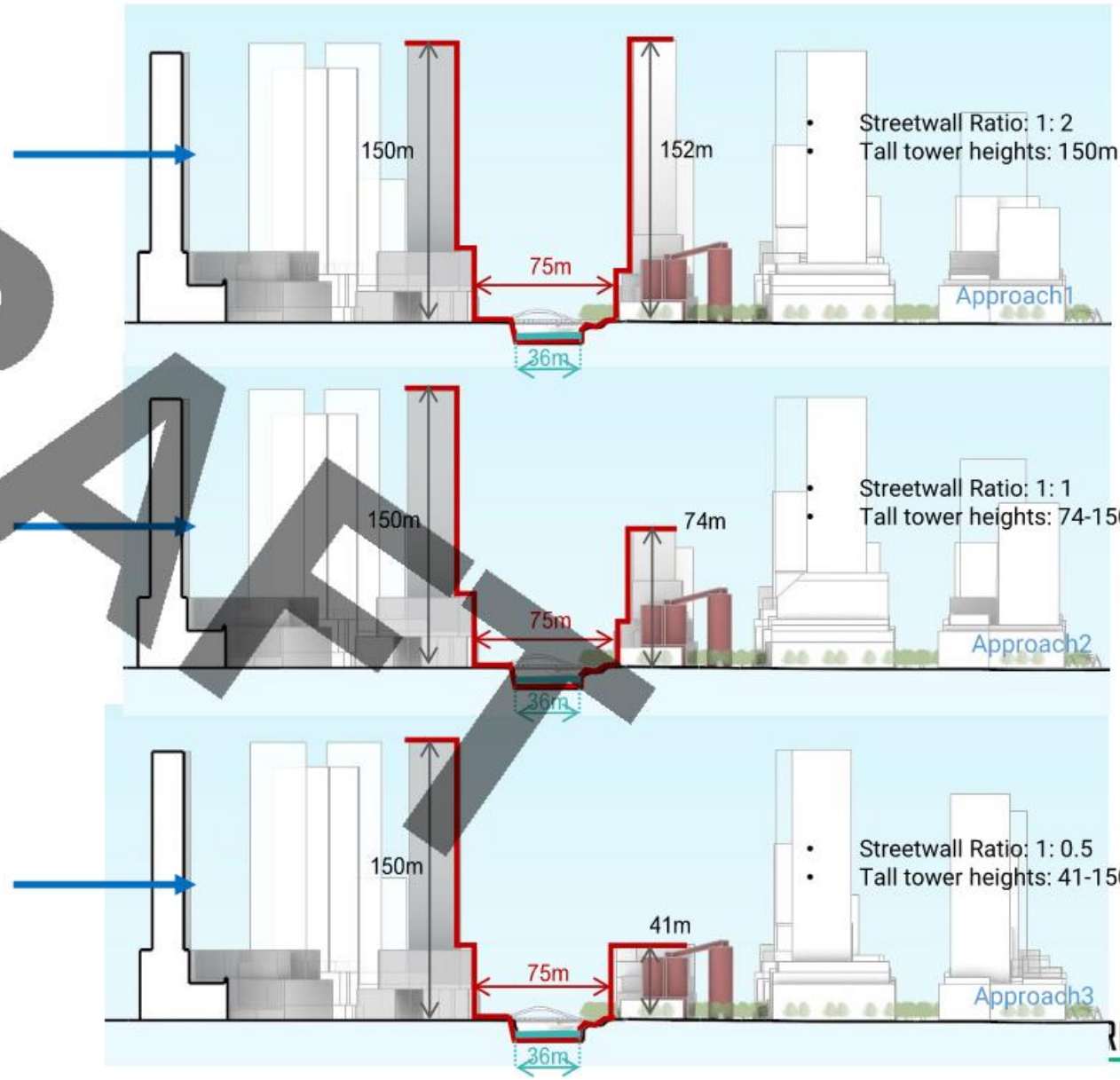
Gross Floor Area: 73,000 sq.m

E. Explore increased density along Keating Channel

- Revisited the definition of "framing an urban living room" in the 2017 VIPP
- **Introduced added density along Keating Channel.** If viable, this might allow opportunities to increase the building typologies
- Explored Right-of-Way (street-wall ratios) of the Channel



- **Waterway width: 36m (narrow section) up to 60m (wide section)**
- **ROW: ~75m (narrow section) up to 90m (wide section)**

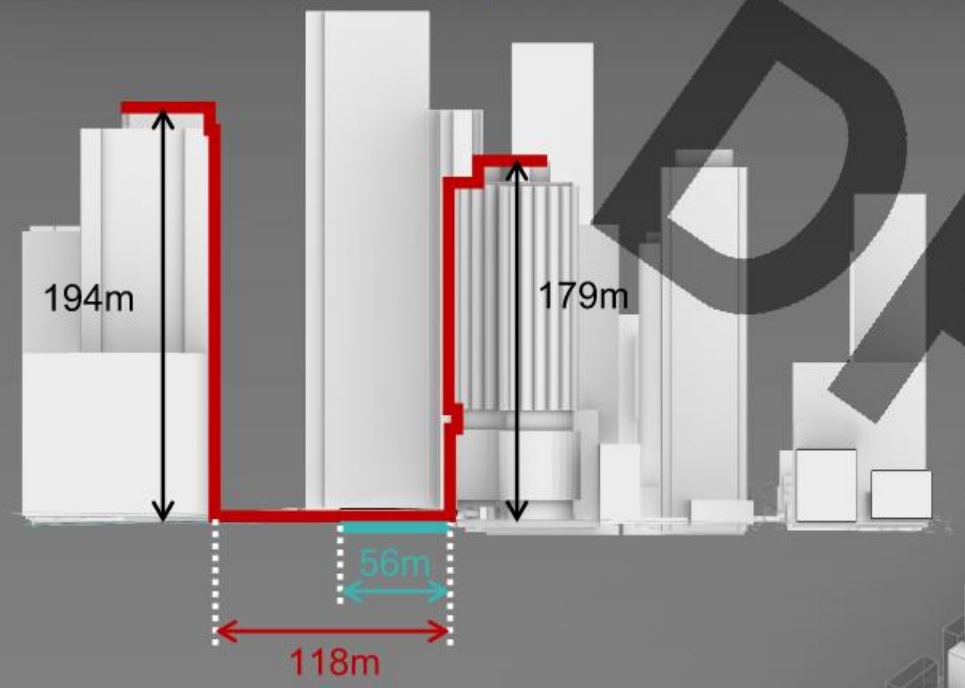


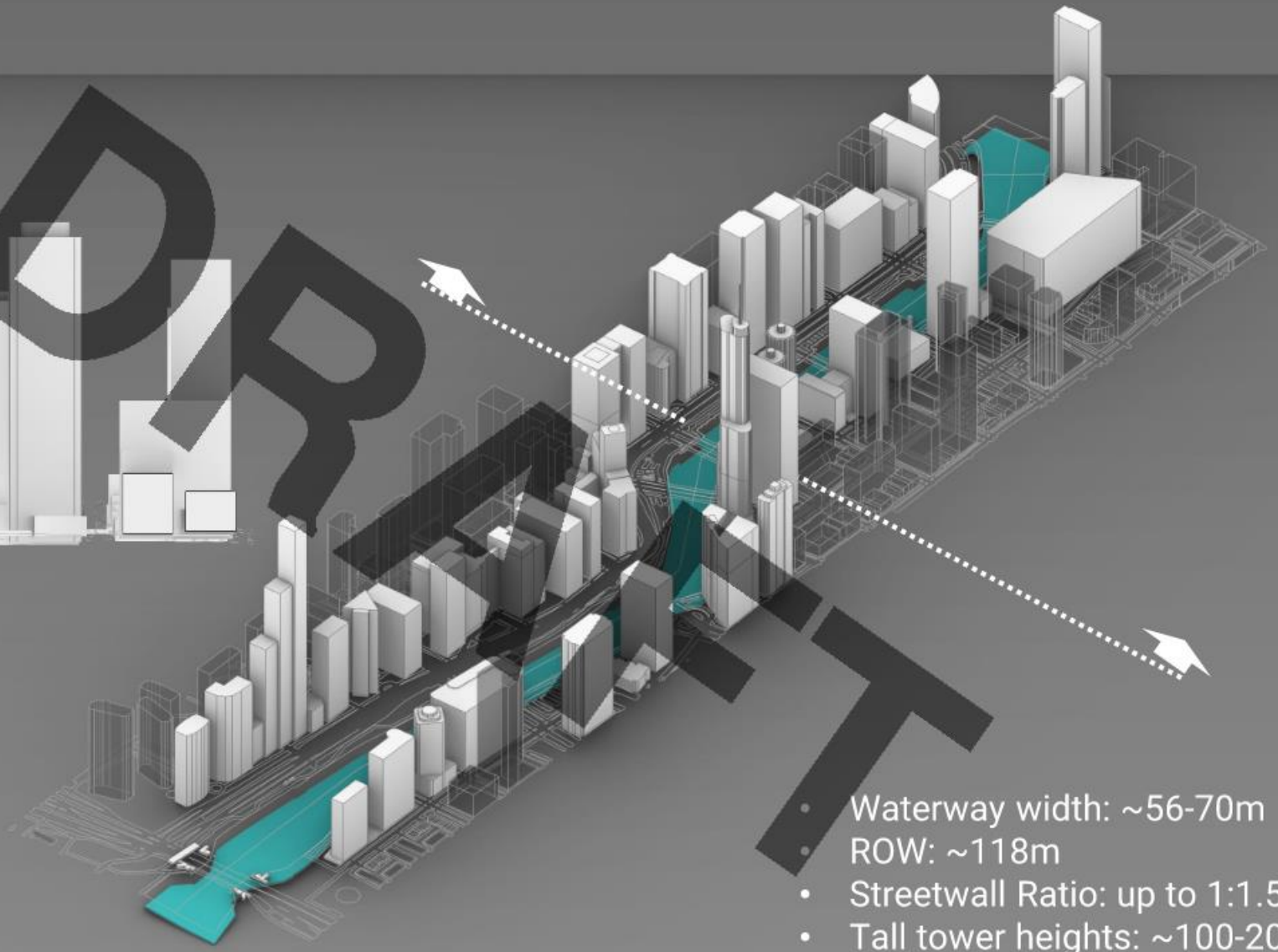
Precedents of higher density (taller buildings) along waterway

CHICAGO RIVER

Precedents of higher density (taller buildings) along waterways

CHICAGO RIVER



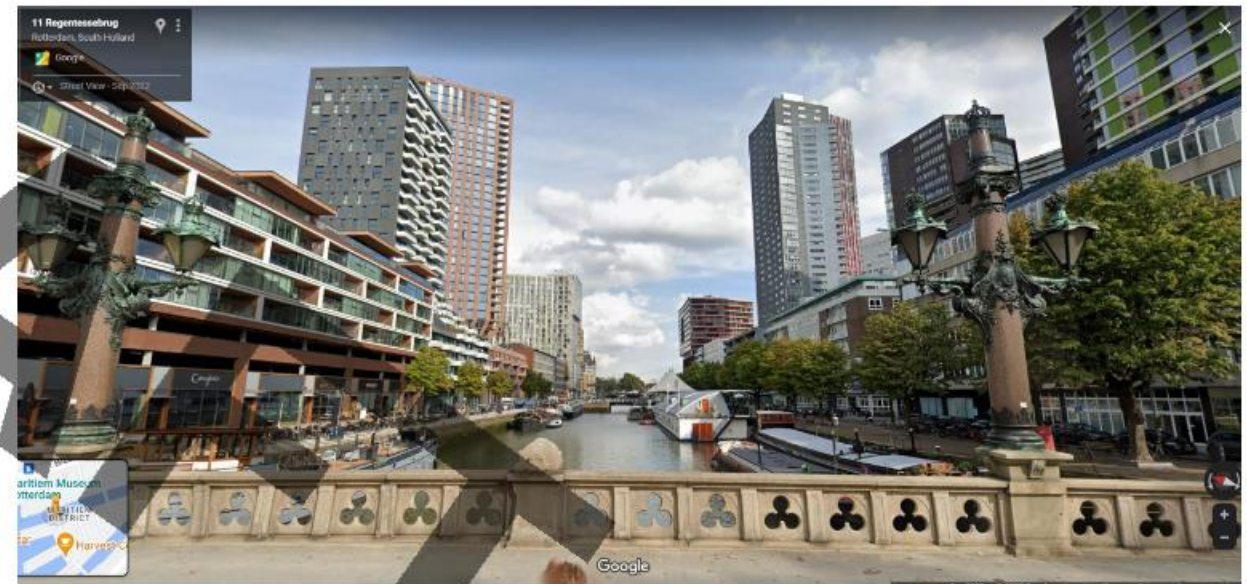


- Waterway width: ~56-70m
- ROW: ~118m
- Streetwall Ratio: up to 1:1.5
- Tall tower heights: ~100-200m
- Tower separation: 20-37m

Axonometric & River Section (west of Trump Tower)

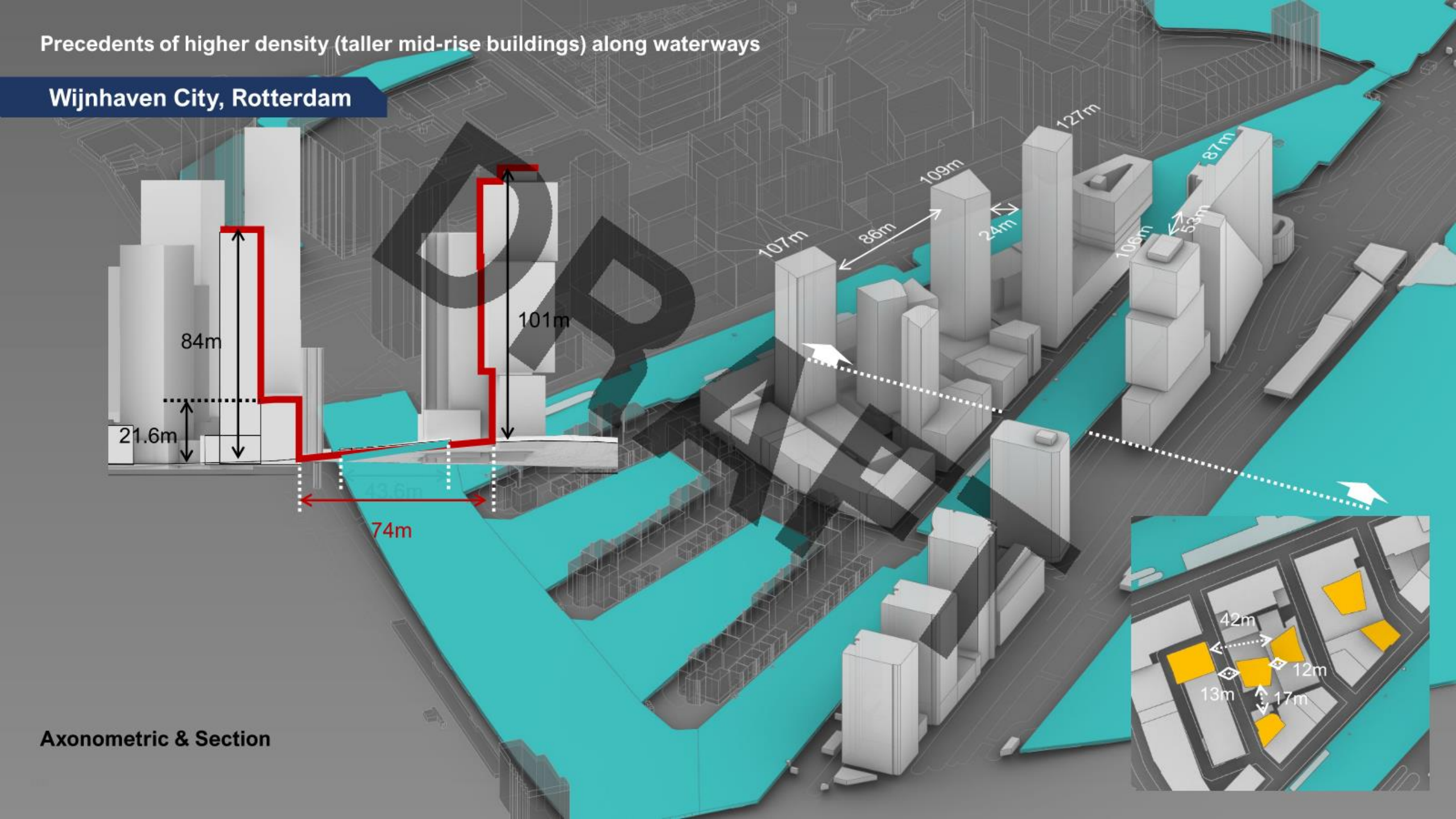
Precedents of higher density (taller mid-rise buildings) along waterway

Wijnhaven City, Rotterdam



Precedents of higher density (taller mid-rise buildings) along waterways

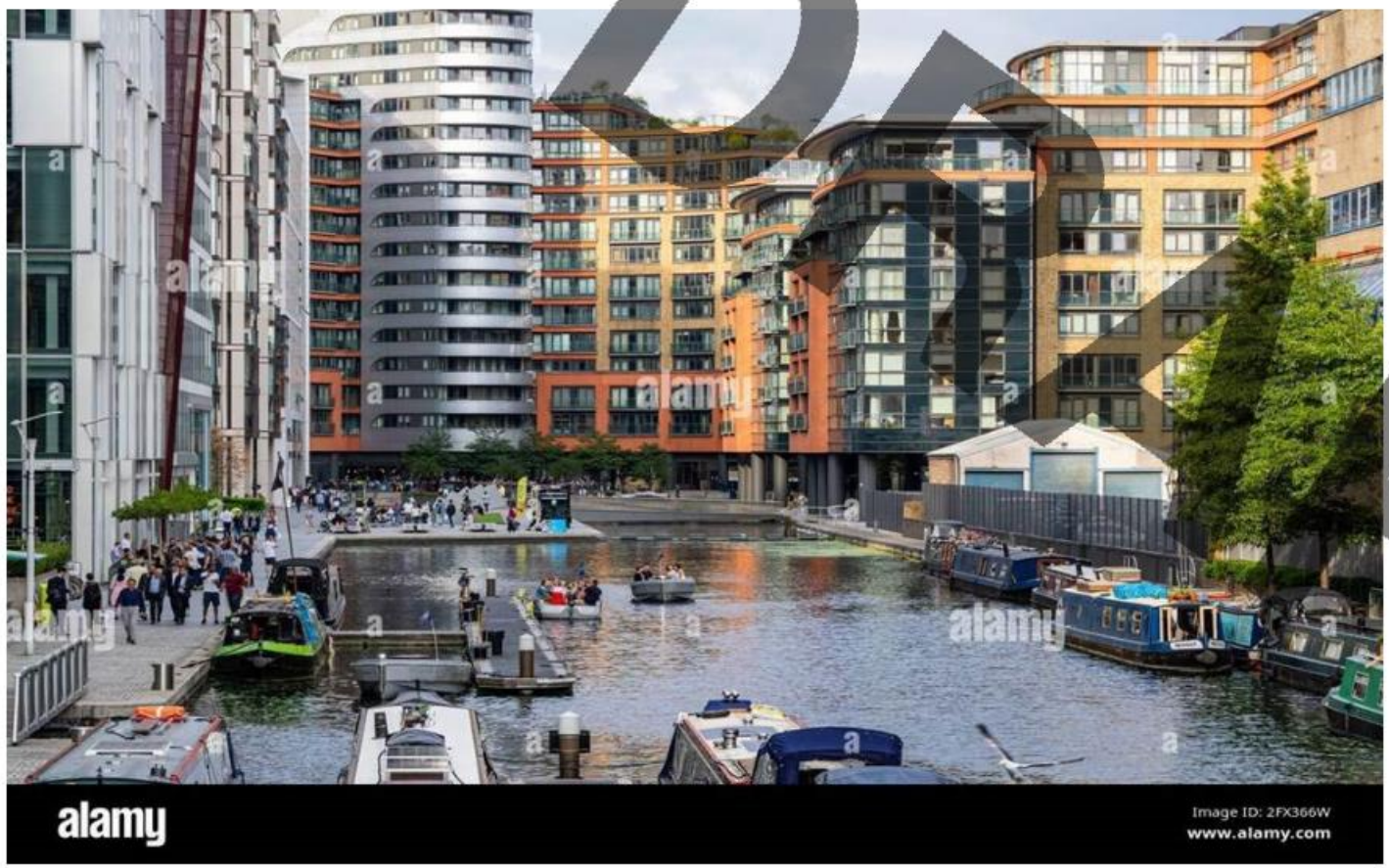
Wijnhaven City, Rotterdam



Axonometric & Section

Precedents of higher density (taller mid-rise buildings) along waterways

Paddington Basin, London UK



3. Villiers Island Density & Massing Study - Approaches

- **Overview**
  - 2017 Villiers Island Precinct Plan Massing + Private Development Proposal
  - Overview of Approaches to Increasing Density

- **Approach 1: Density Focused on Keating Channel/North Blocks**
  - Axonometric / Bird's Eye View (various angles), Plan View + fly-around

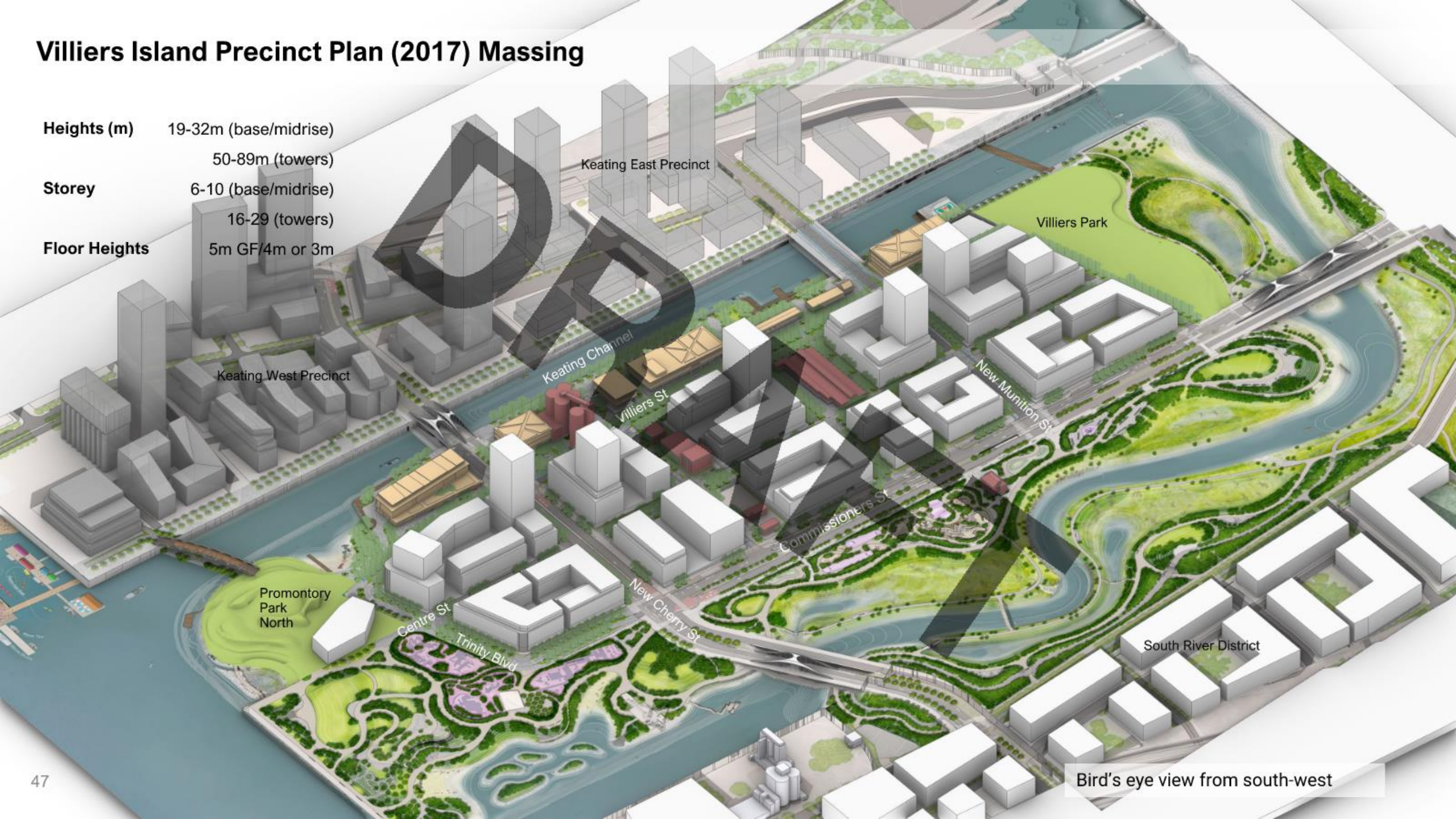
- **Approach 2: Density Focused on Western Blocks**
  - Axonometric / Bird's Eye View (various angles), Plan View + fly-around

- **Approach 3: Density Focused on Central Blocks**
  - Axonometric / Bird's Eye View (various angles), Plan View + fly-around

- **Studies (All Options)**
  - Hourly Shadow Study
  - Comparative Studies: Tower Height strategy (island-wide & Keating block buildings), View Studies (skyline + Street level views)

Villiers Island Precinct Plan (2017) Massing

Heights (m)	19-32m (base/midrise)
	50-89m (towers)
Storey	6-10 (base/midrise)
	16-29 (towers)
Floor Heights	5m GF/4m or 3m



Bird's eye view from south-west

Villiers Island Precinct Plan (2017) Massing with Private Development Application (309 Cherry)

Bird's eye view from south-west

Overview of Approaches to Increasing Density on the Island

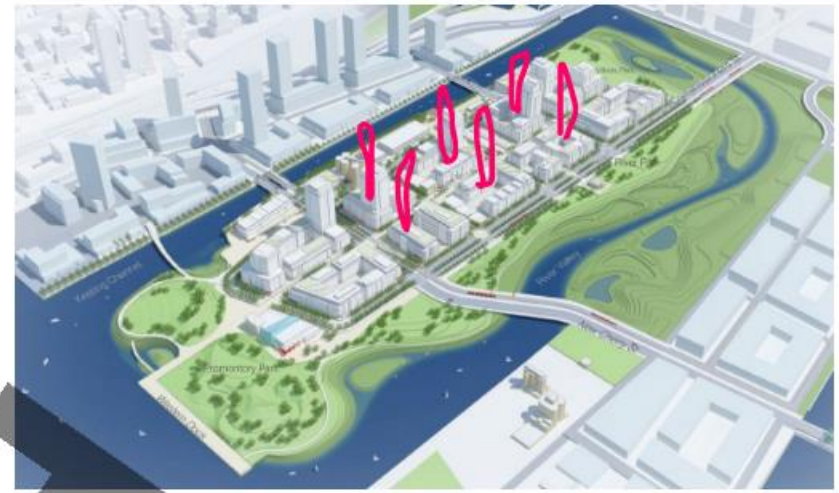
Approach 1: Increased Density Focused on Keating Channel & North Blocks

- Intensification of Keating Channel & North blocks
- Tall towers along Keating Channel and Villiers Street
- Maintain mid-rise heights along on south of Centre Streets and east blocks

Approach 2: Increased Density Focused on Western Blocks

- Intensification of the western blocks
- Tall towers clustered along New Cherry Street gateway
- Shorter towers along Keating Channel
- Mid-rise heights with short towers on east blocks

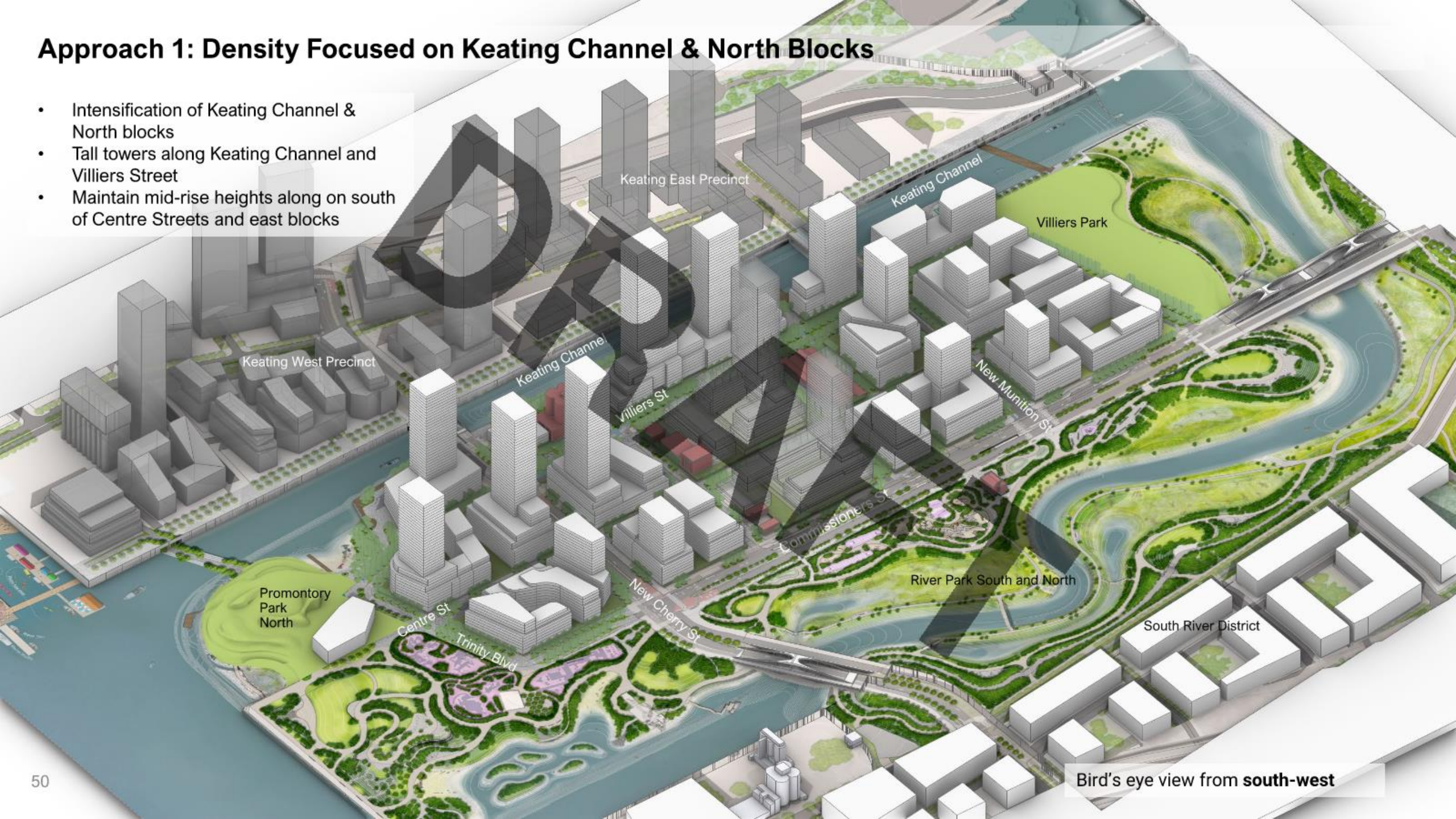
Approach 3: Increased Density Focused on Central Blocks



- Intensification of central blocks (between New Cherry and New Munitions Streets)
- Tall towers along New Cherry, New Munitions
- Tall mid-rise to low-rise along Keating Channel
- Mid-rise heights with short towers on east blocks

Approach 1: Density Focused on Keating Channel & North Blocks

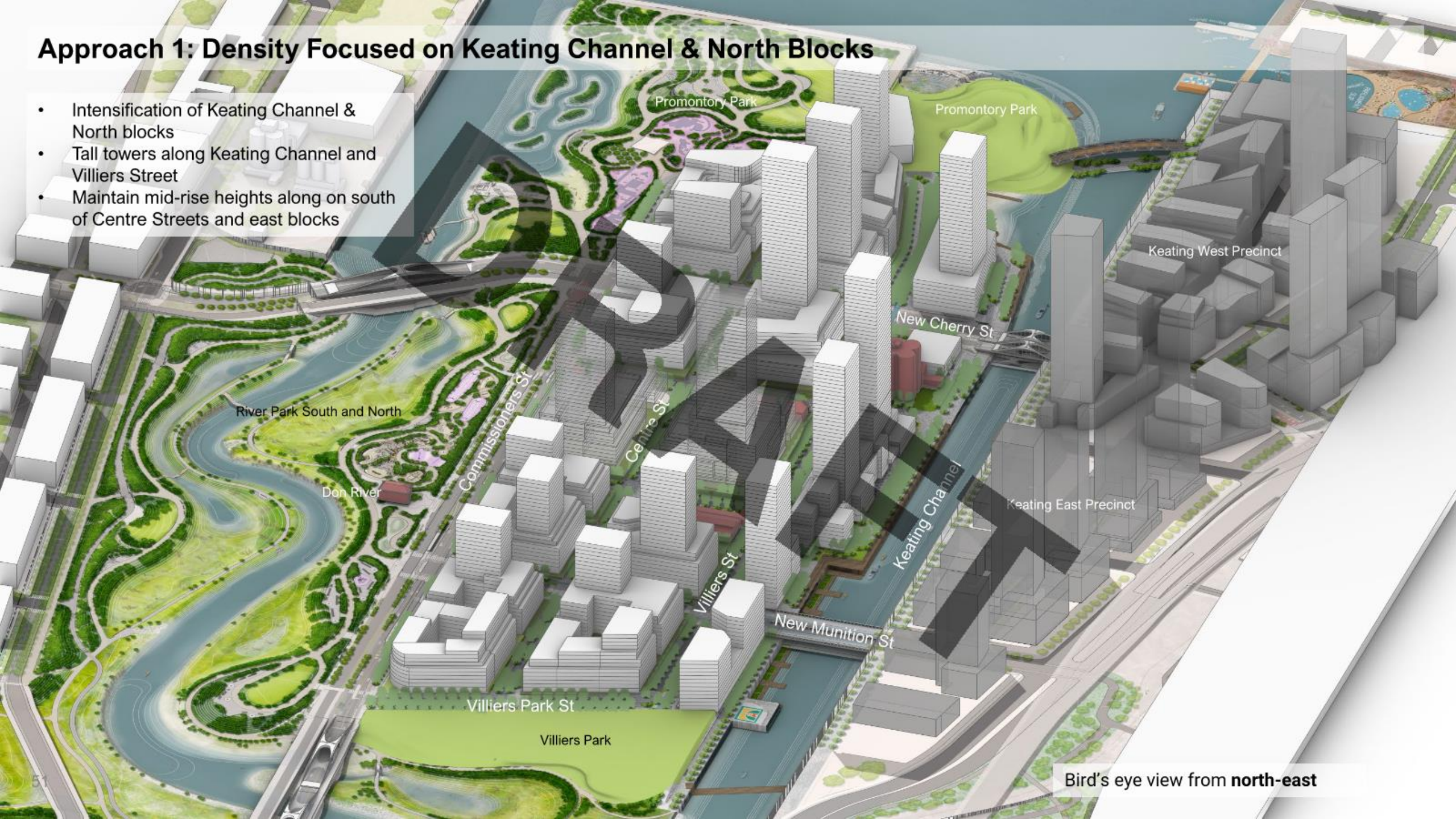
- Intensification of Keating Channel & North blocks
- Tall towers along Keating Channel and Villiers Street
- Maintain mid-rise heights along on south of Centre Streets and east blocks



Bird's eye view from **south-west**

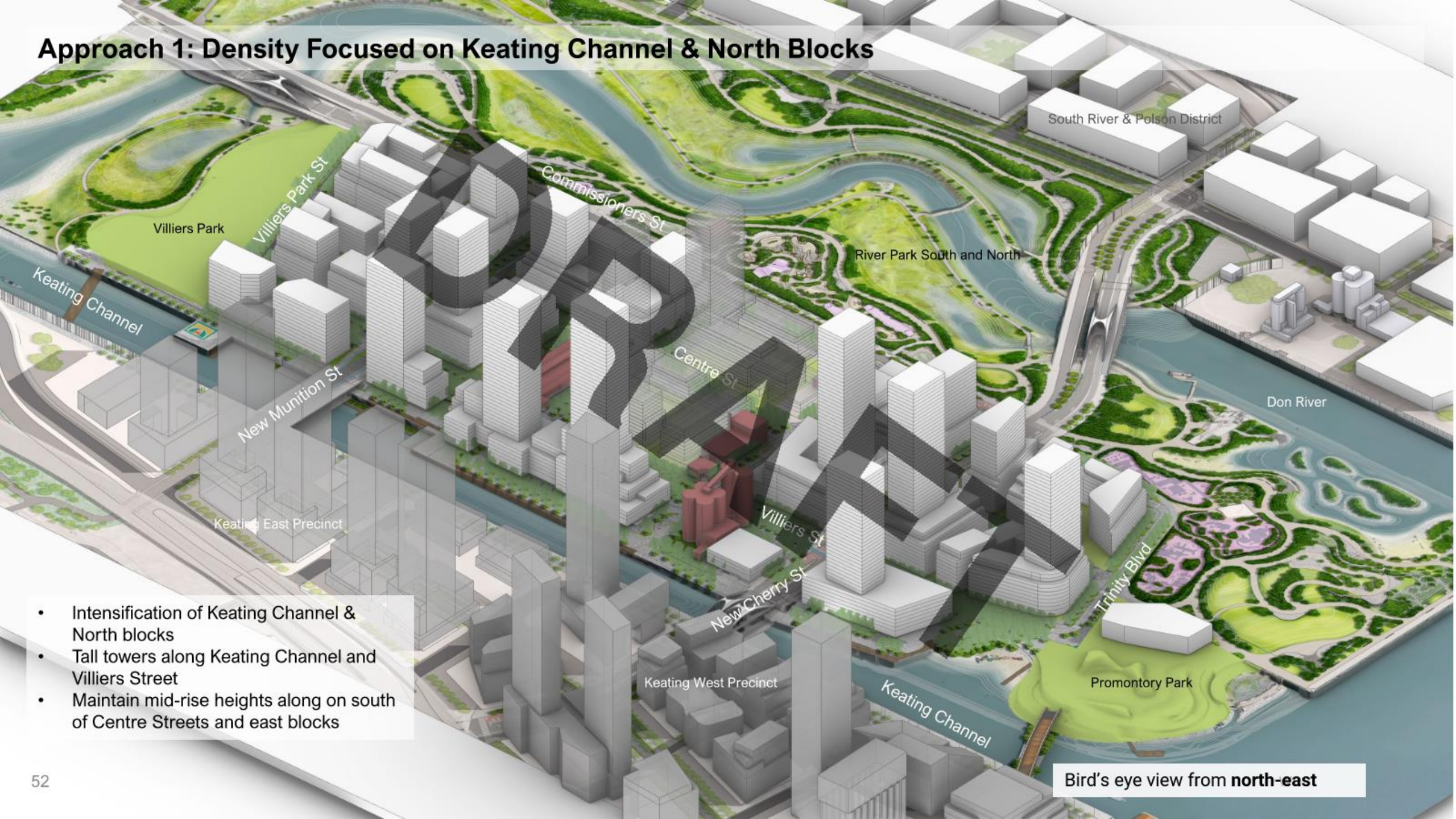
Approach 1: Density Focused on Keating Channel & North Blocks

- Intensification of Keating Channel & North blocks
- Tall towers along Keating Channel and Villiers Street
- Maintain mid-rise heights along on south of Centre Streets and east blocks



Bird's eye view from **north-east**

Approach 1: Density Focused on Keating Channel & North Blocks



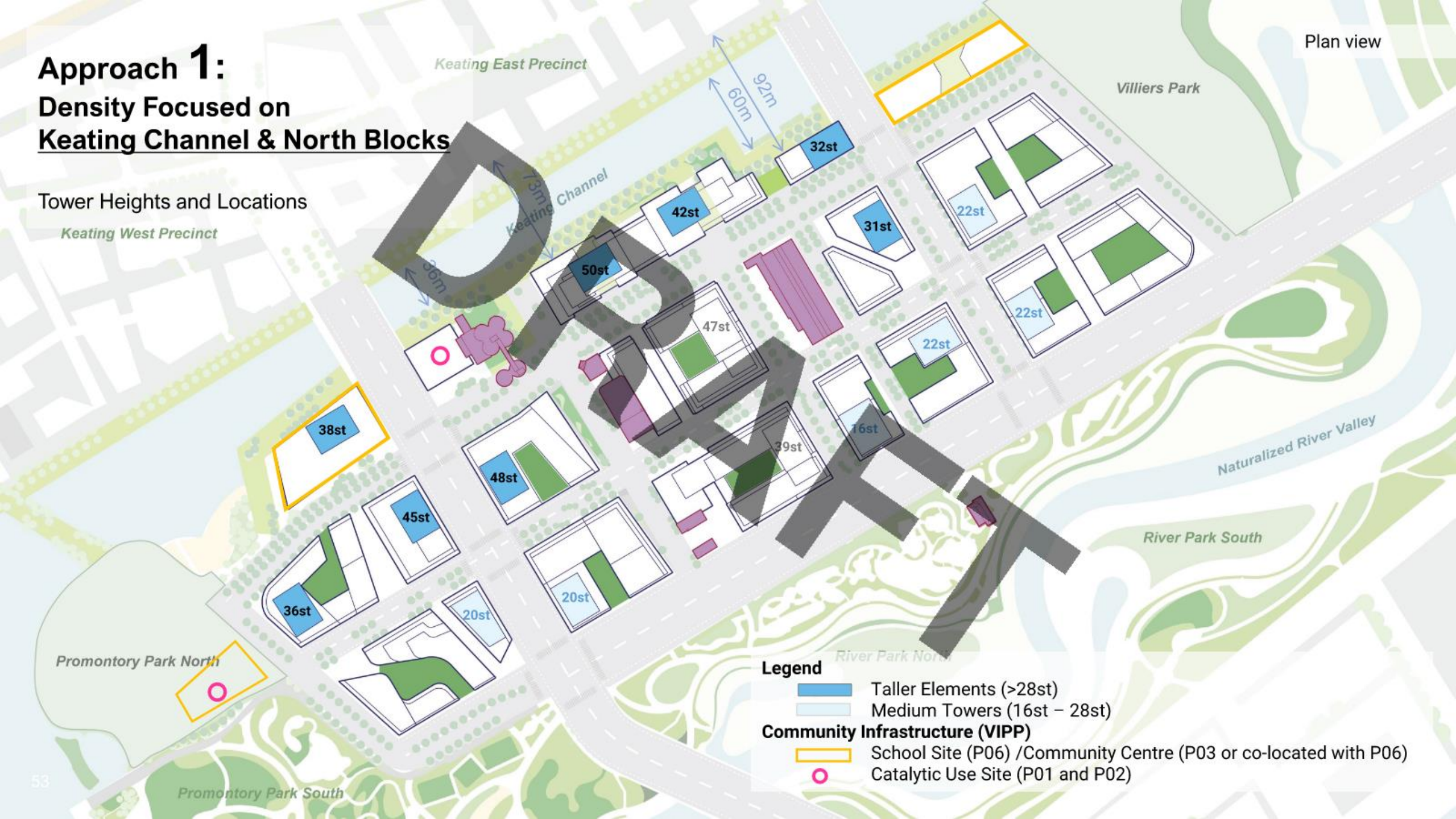
- Intensification of Keating Channel & North blocks
- Tall towers along Keating Channel and Villiers Street
- Maintain mid-rise heights along on south of Centre Streets and east blocks

Bird's eye view from **north-east**

Approach 1:

Density Focused on Keating Channel & North Blocks

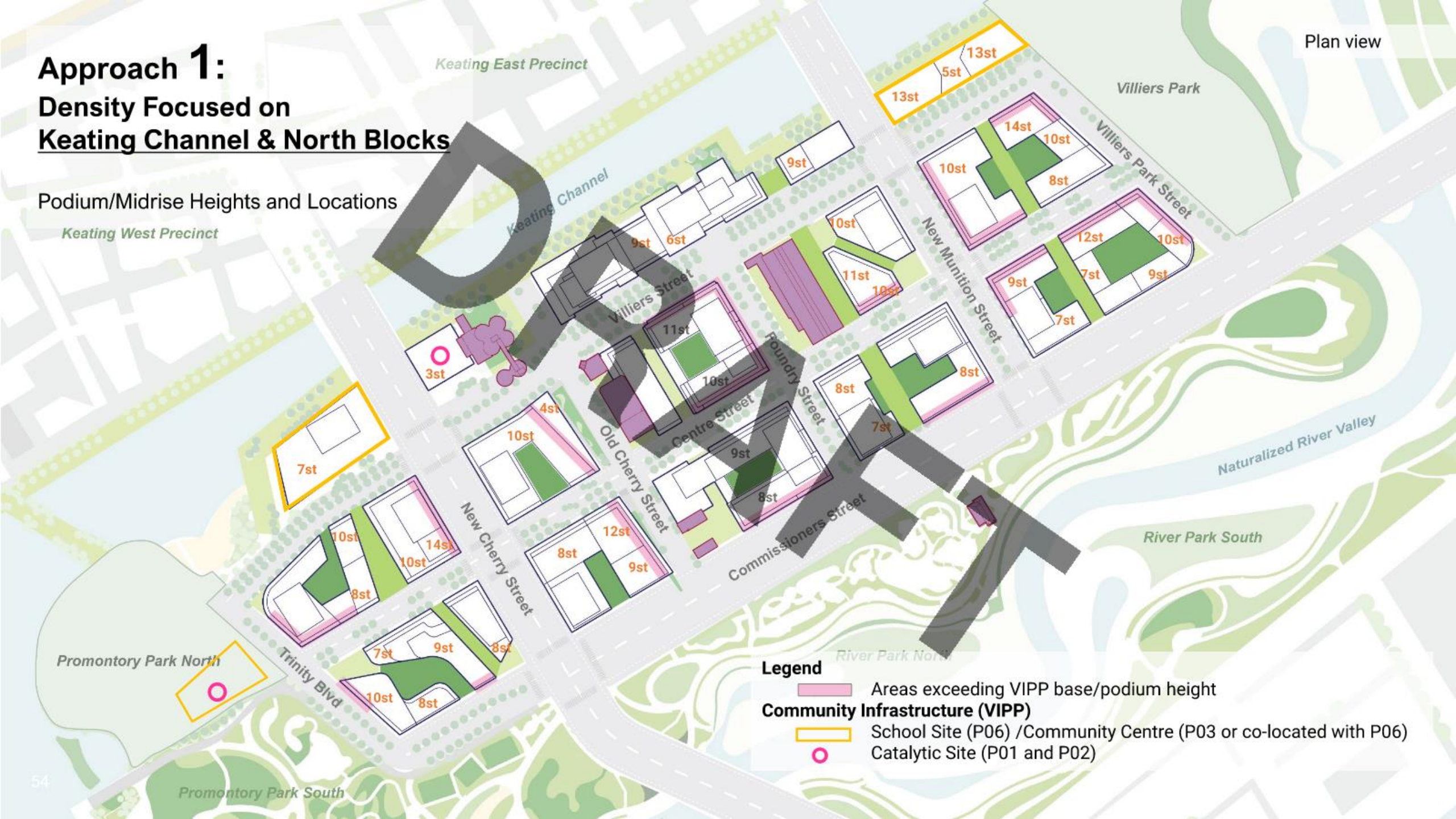
Tower Heights and Locations



Approach 1:

Density Focused on Keating Channel & North Blocks

Podium/Midrise Heights and Locations



Legend

Areas exceeding VIPP base/podium height

Community Infrastructure (VIPP)

School Site (P06) /Community Centre (P03 or co-located with P06)

Catalytic Site (P01 and P02)

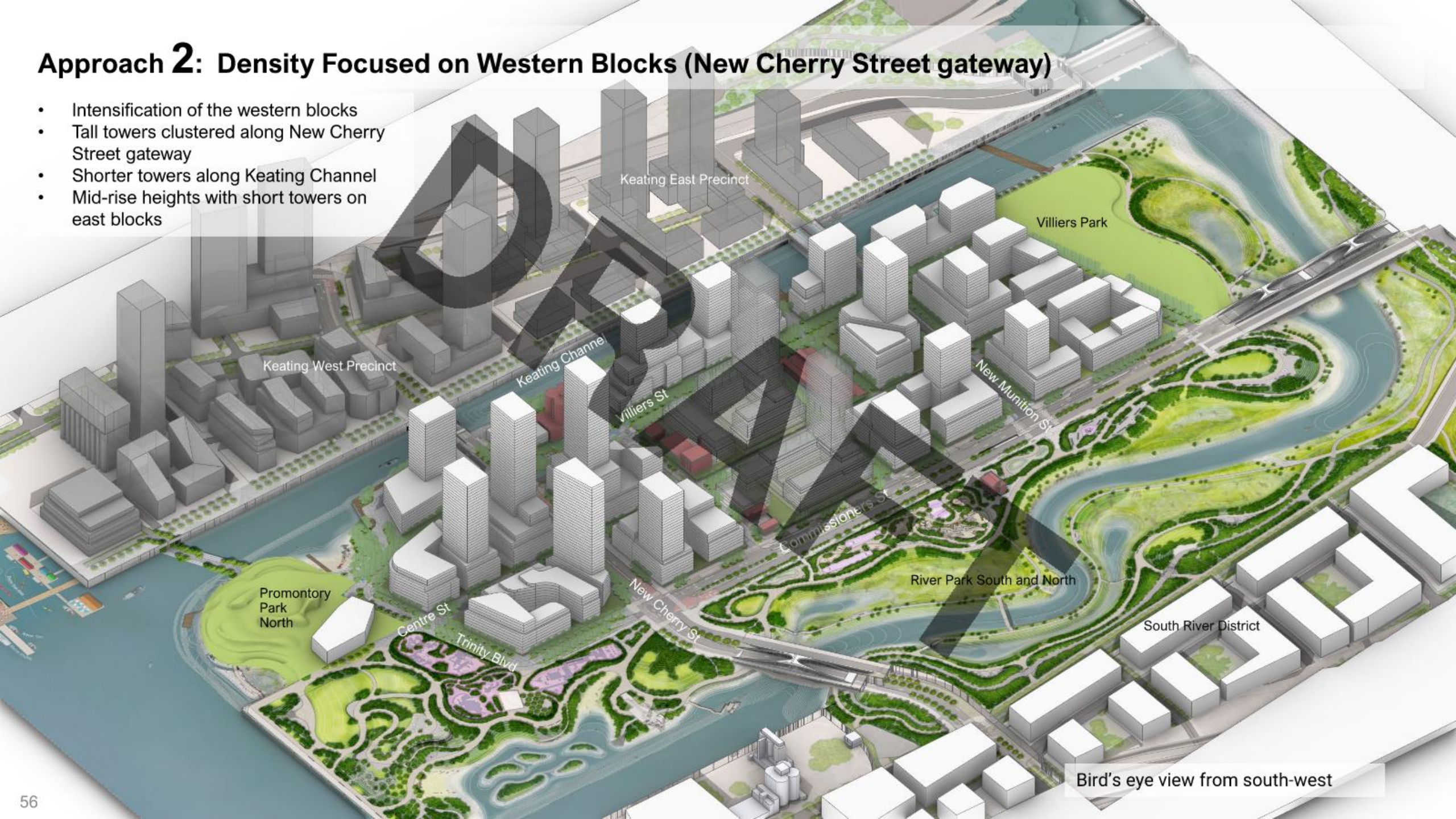
Approach 1: Density Focused on Keating Channel & North Blocks – Fly-though

- Intensification of Keating Channel & North blocks
- Tall towers along Keating Channel and Villiers Street
- Maintain mid-rise heights along on south of Centre Streets and east blocks

ANIMATION IN-PROGRESS / TO BE UPDATED

Approach 2: Density Focused on Western Blocks (New Cherry Street gateway)

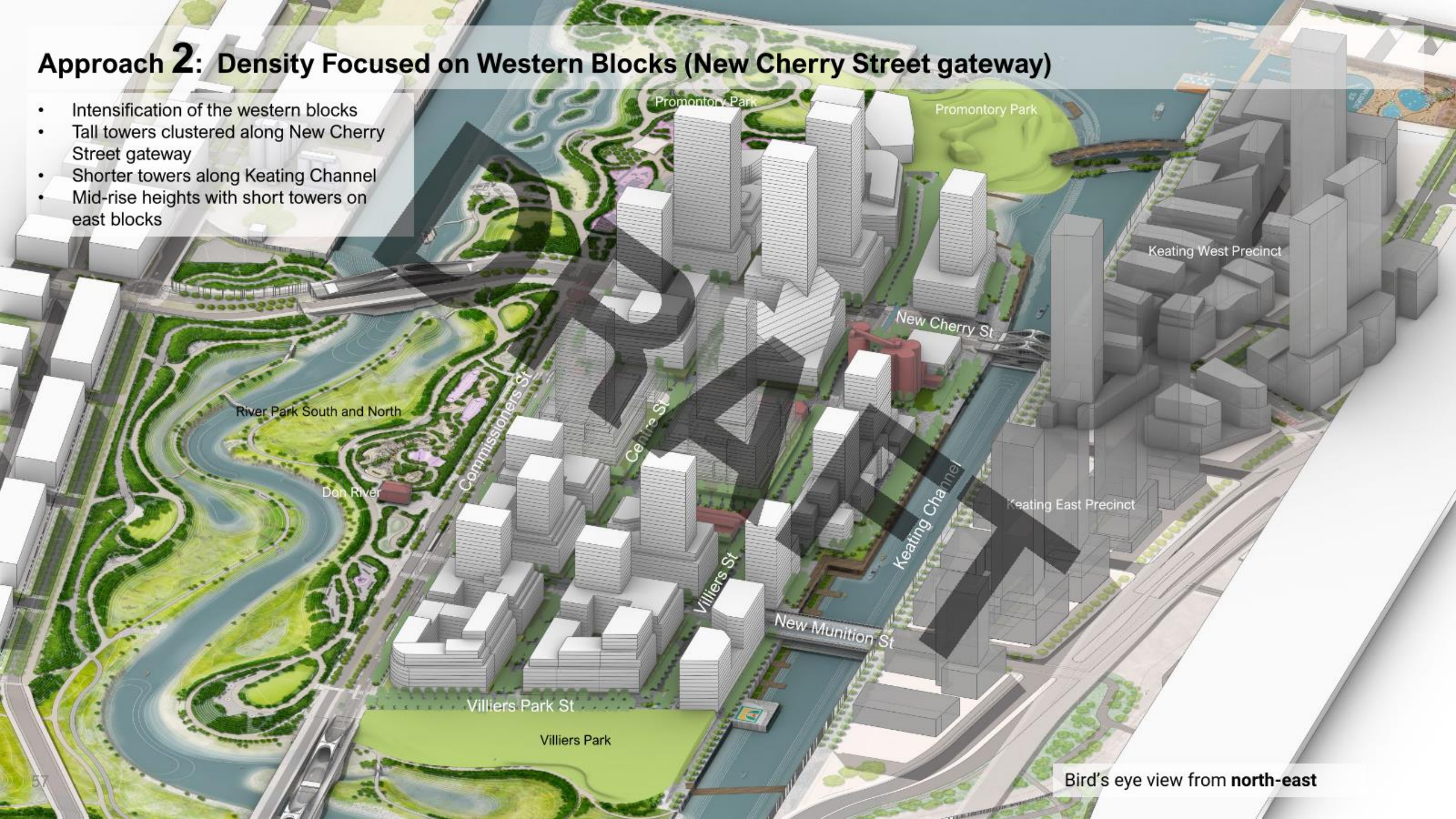
- Intensification of the western blocks
- Tall towers clustered along New Cherry Street gateway
- Shorter towers along Keating Channel
- Mid-rise heights with short towers on east blocks



Bird's eye view from south-west

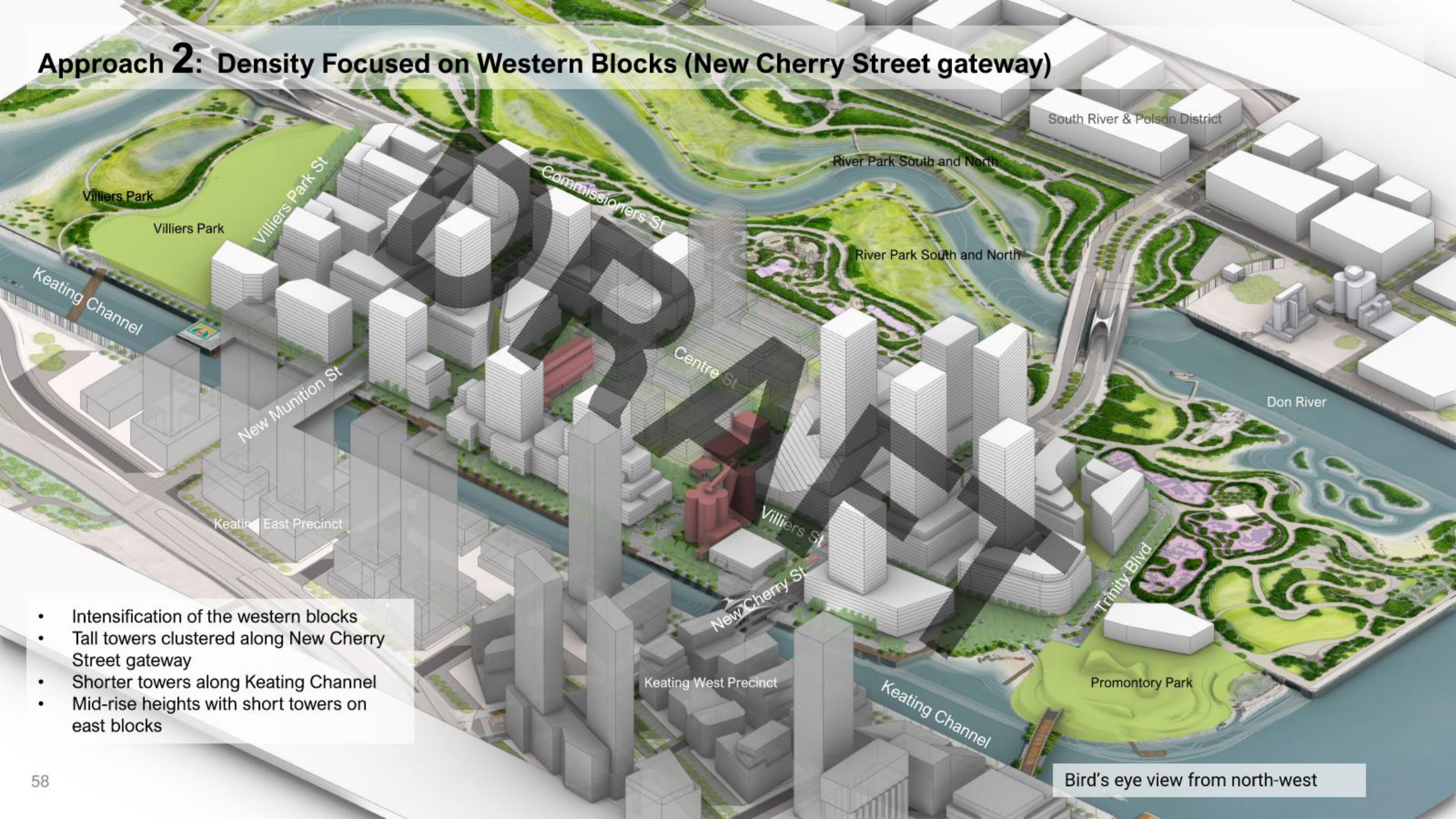
Approach 2: Density Focused on Western Blocks (New Cherry Street gateway)

- Intensification of the western blocks
- Tall towers clustered along New Cherry Street gateway
- Shorter towers along Keating Channel
- Mid-rise heights with short towers on east blocks



Bird's eye view from **north-east**

Approach 2: Density Focused on Western Blocks (New Cherry Street gateway)



- Intensification of the western blocks
- Tall towers clustered along New Cherry Street gateway
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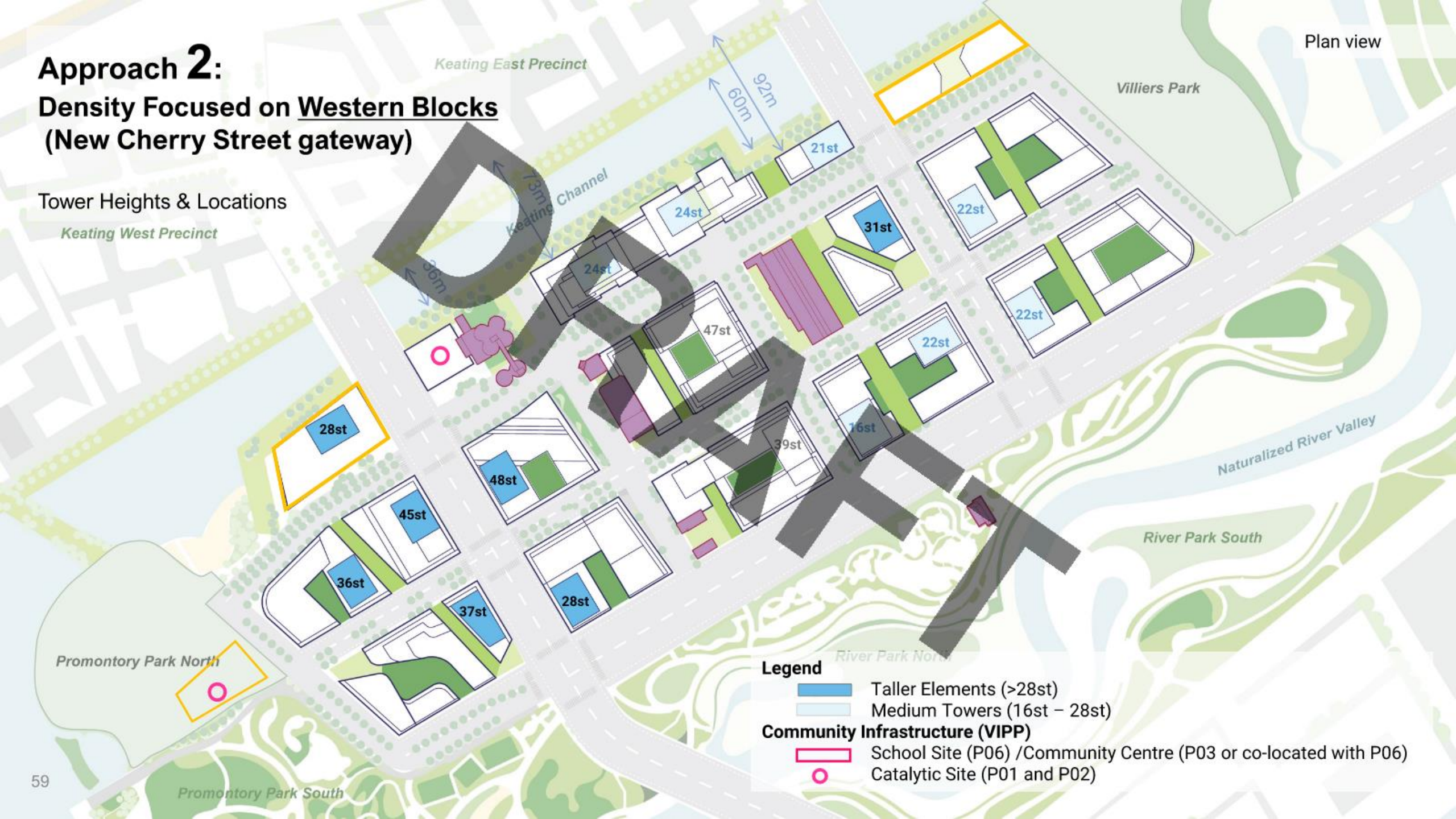
- Mid-rise heights with short towers on east blocks

Bird's eye view from north-west

Approach 2:

Density Focused on Western Blocks (New Cherry Street gateway)

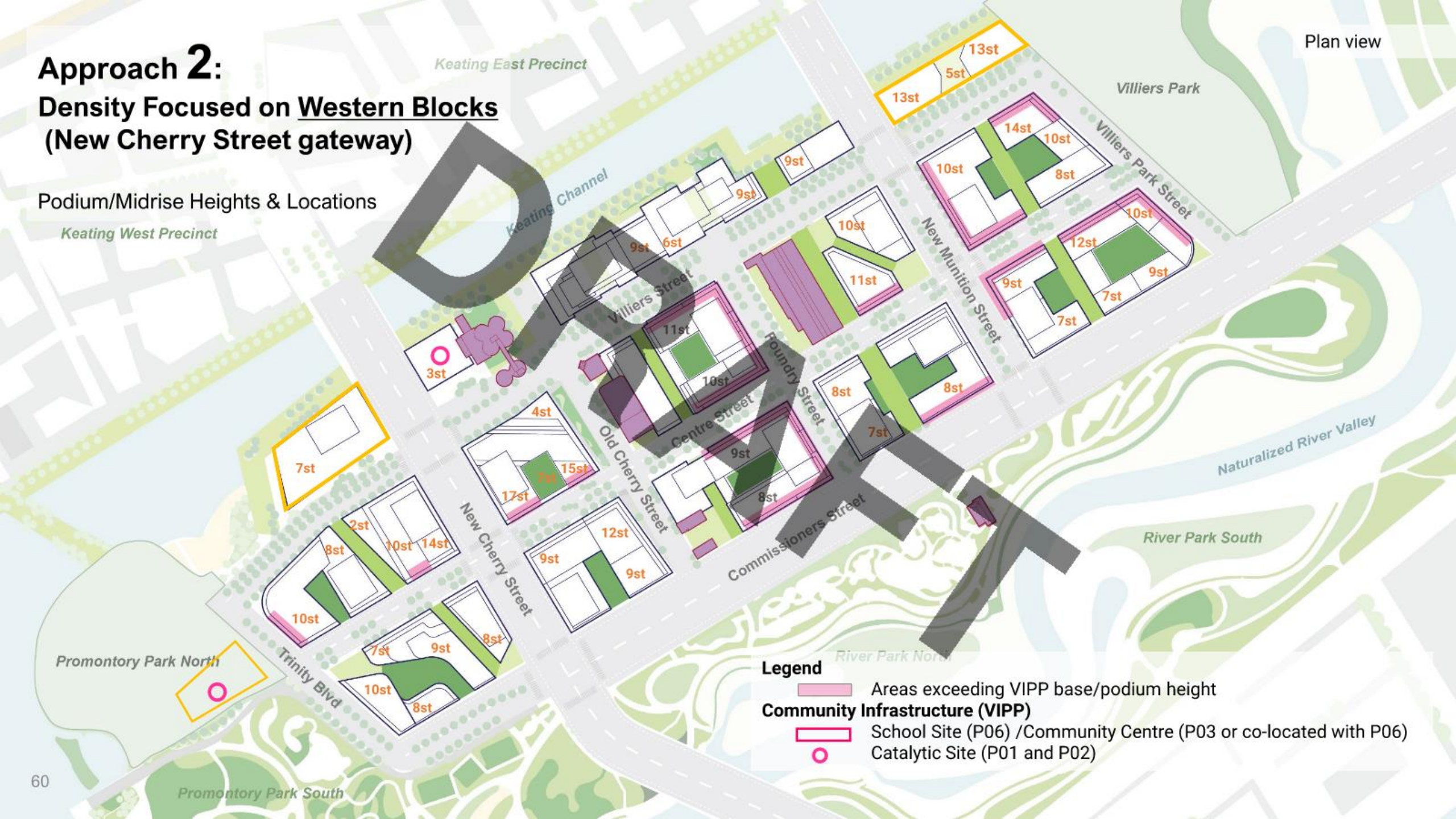
Tower Heights & Locations



Approach 2:

Density Focused on Western Blocks (New Cherry Street gateway)

Podium/Midrise Heights & Locations



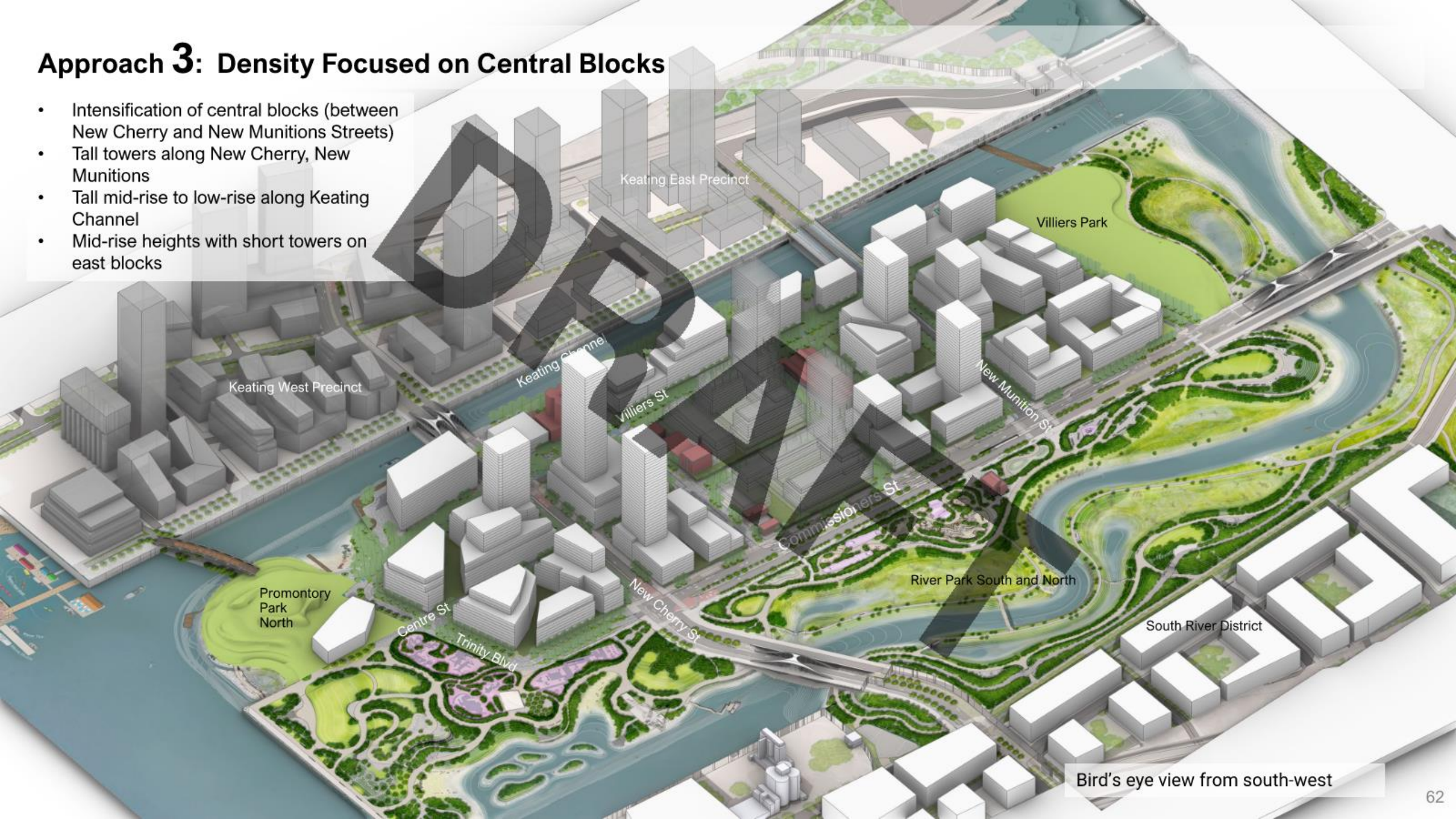
Approach 2: Density Focused on Western Blocks (New Cherry Street gateway) – Fly-through

- Intensification of the western blocks
- Tall towers clustered along New Cherry Street gateway
- Shorter towers along Keating Channel
- Mid-rise heights with short towers on east blocks

ANIMATION IN-PROGRESS / TO BE UPDATED

Approach 3: Density Focused on Central Blocks

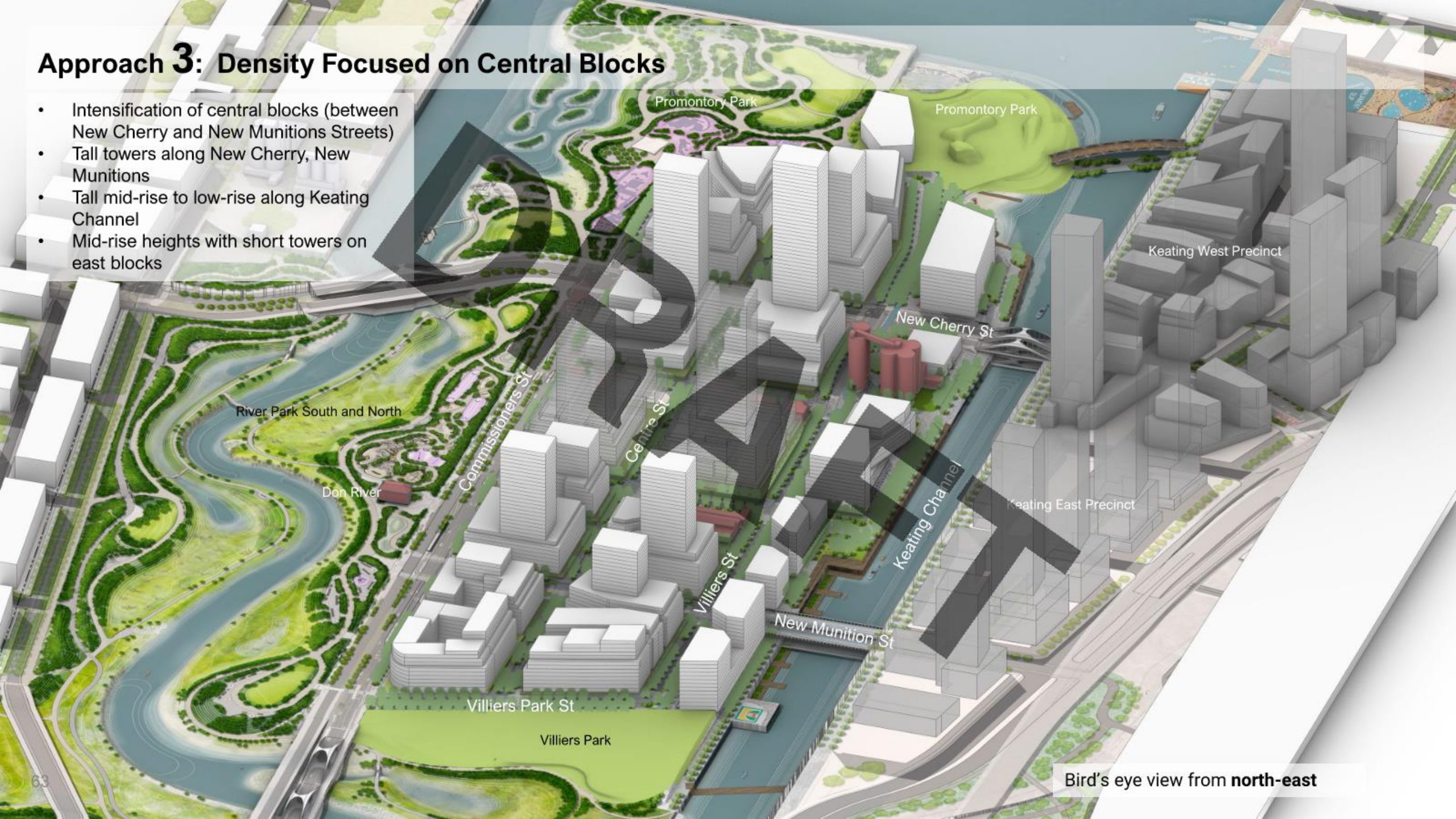
- Intensification of central blocks (between New Cherry and New Munitions Streets)
- Tall towers along New Cherry, New Munitions
- Tall mid-rise to low-rise along Keating Channel
- Mid-rise heights with short towers on east blocks



Bird's eye view from south-west

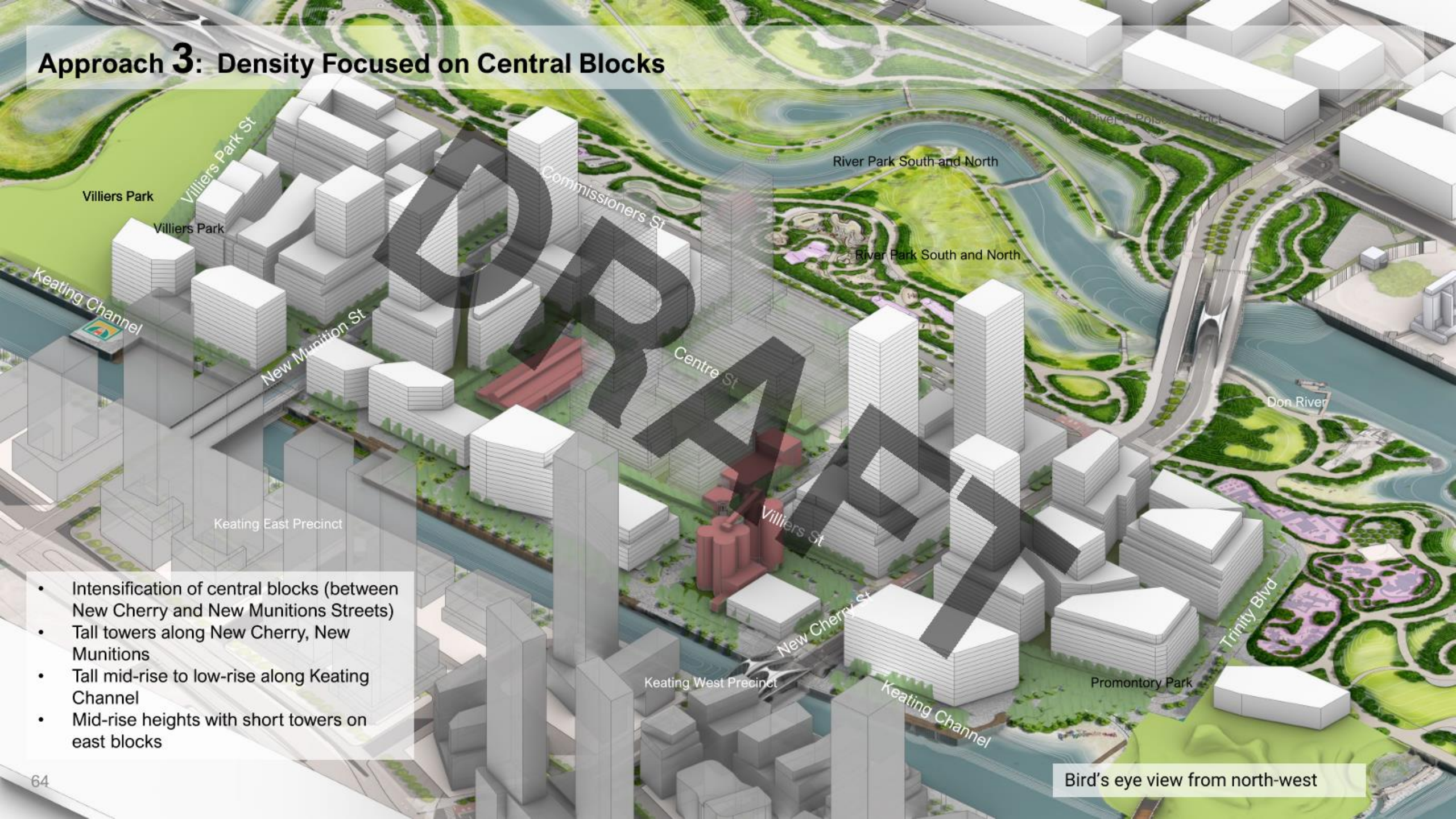
Approach 3: Density Focused on Central Blocks

- Intensification of central blocks (between New Cherry and New Munitions Streets)
- Tall towers along New Cherry, New Munitions
- Tall mid-rise to low-rise along Keating Channel
- Mid-rise heights with short towers on east blocks



Bird's eye view from **north-east**

Approach 3: Density Focused on Central Blocks



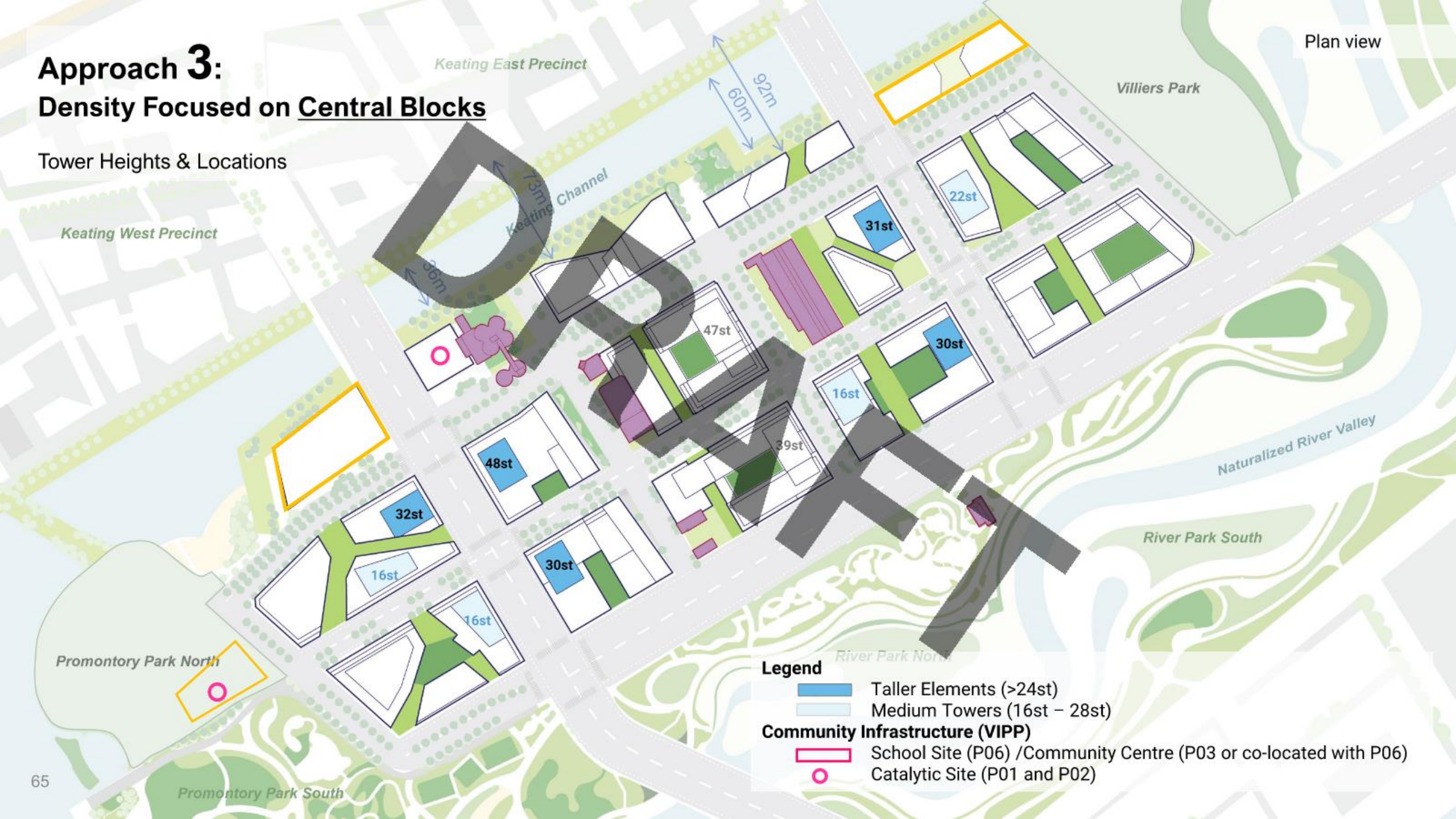
- Intensification of central blocks (between New Cherry and New Munitions Streets)
- Tall towers along New Cherry, New Munitions
- Tall mid-rise to low-rise along Keating Channel
- Mid-rise heights with short towers on east blocks

Bird's eye view from north-west

Approach 3:

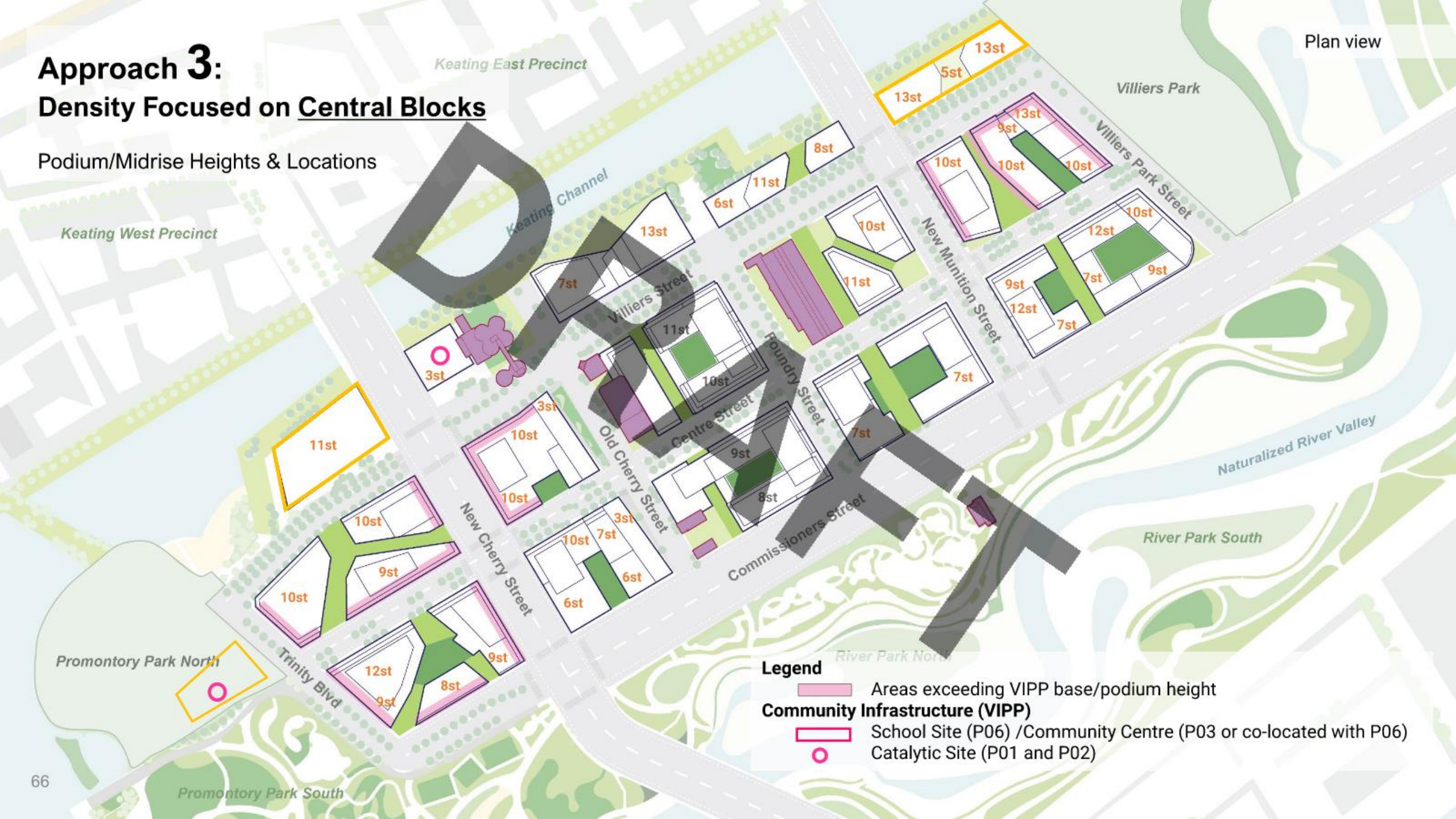
Density Focused on Central Blocks

Tower Heights & Locations

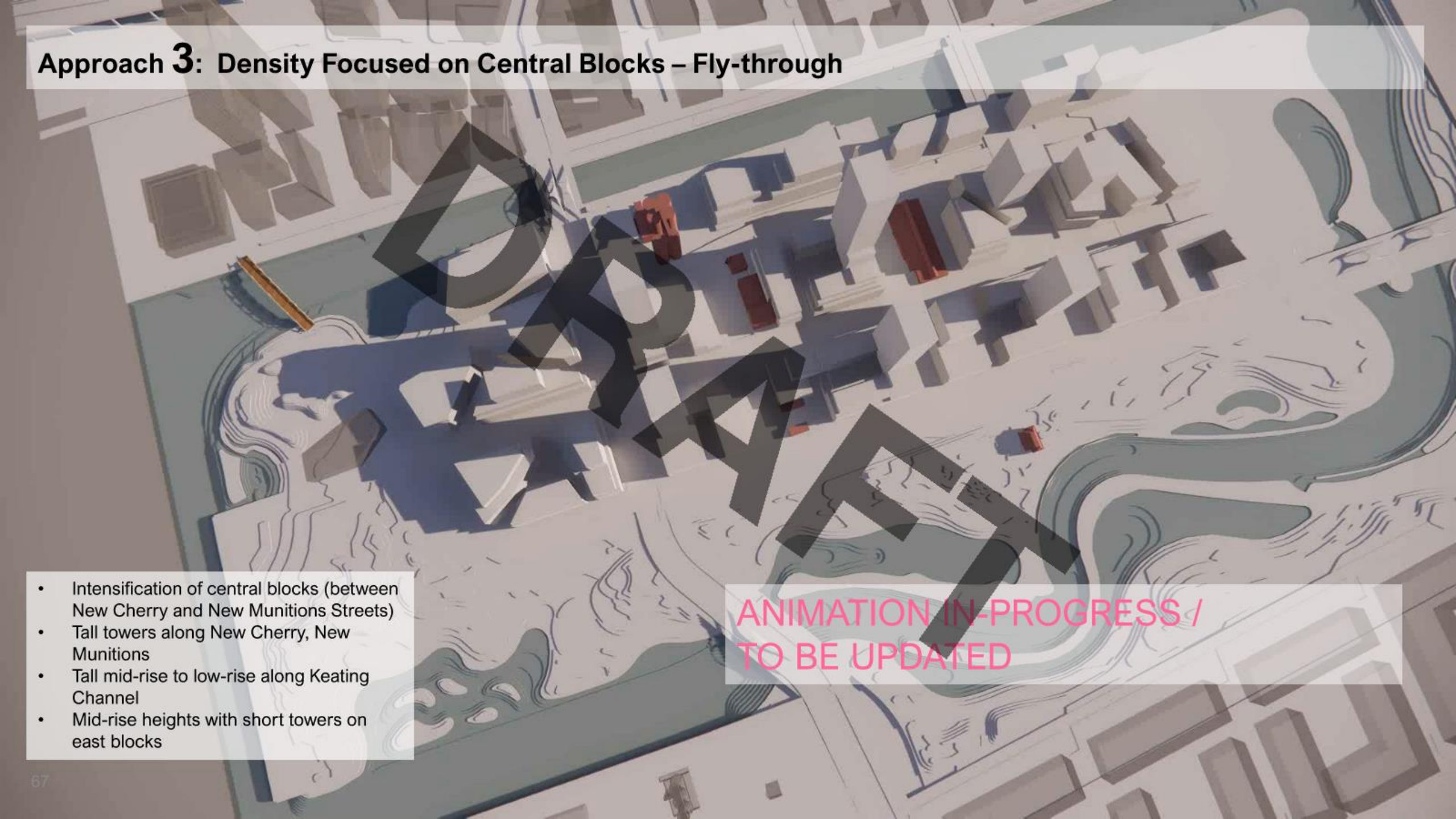


Approach 3:
Density Focused on Central Blocks

Podium/Midrise Heights & Locations



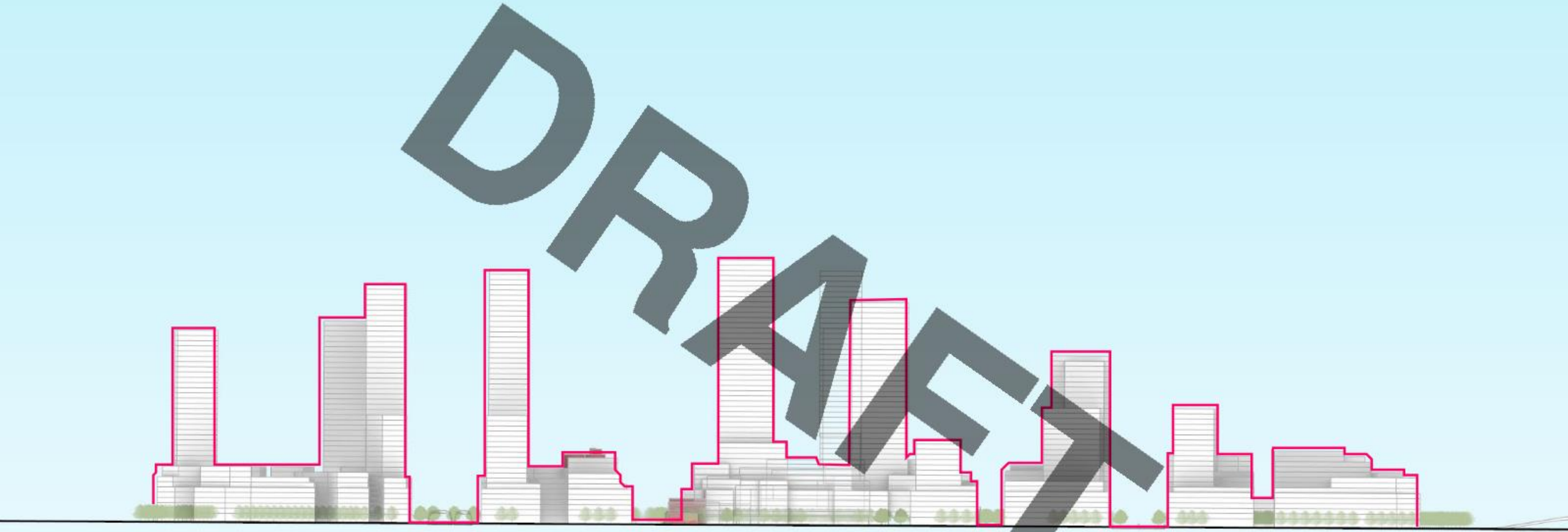
Approach 3: Density Focused on Central Blocks – Fly-through



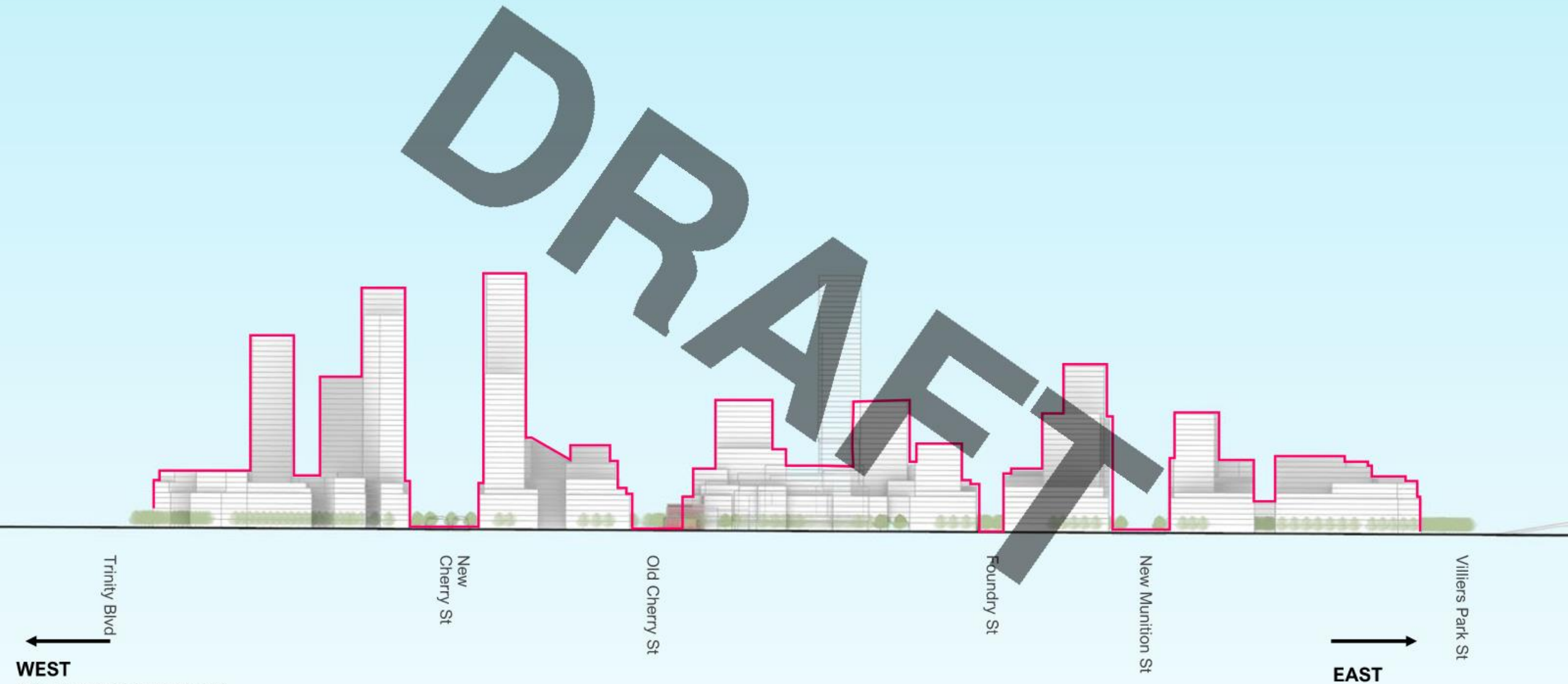
- Intensification of central blocks (between New Cherry and New Munitions Streets)
- Tall towers along New Cherry, New Munitions
- Tall mid-rise to low-rise along Keating Channel
- Mid-rise heights with short towers on east blocks

ANIMATION IN-PROGRESS / TO BE UPDATED

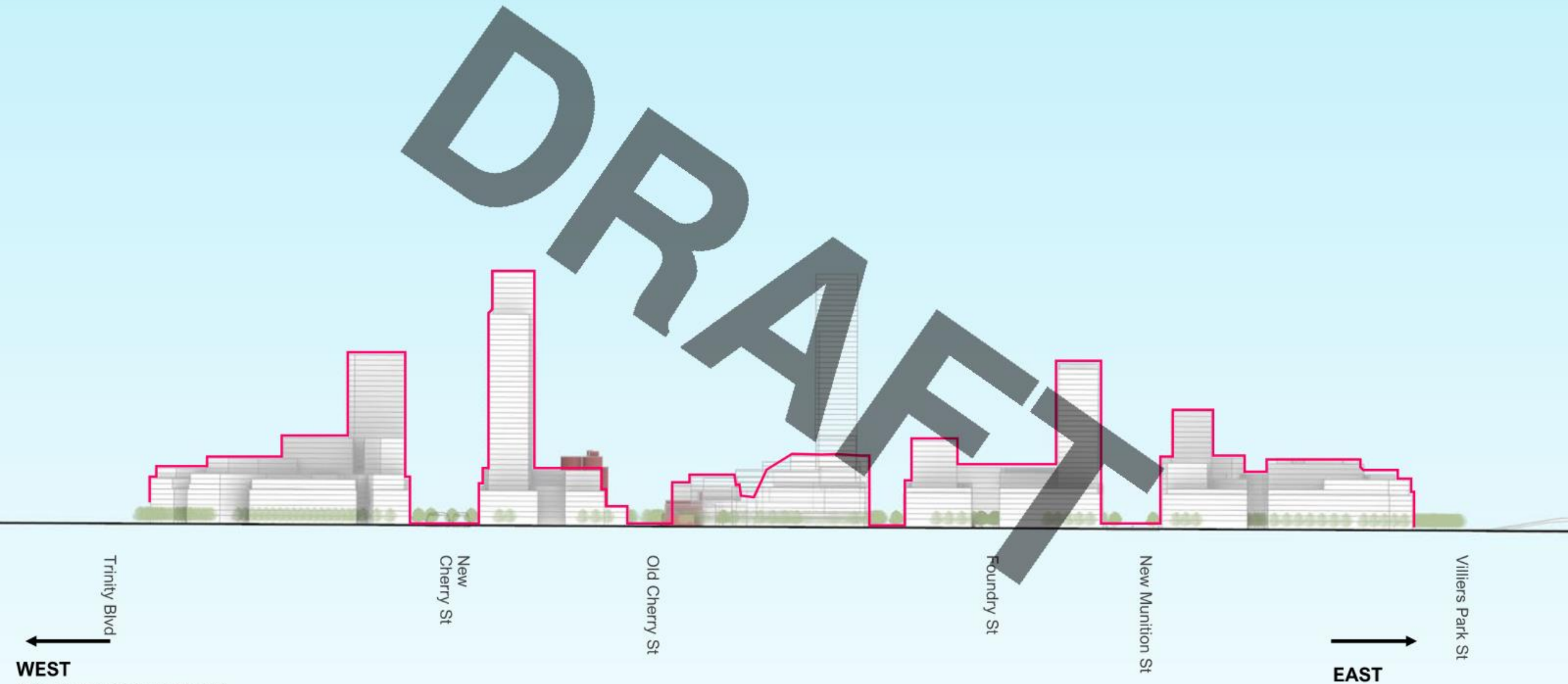
Tower Height Strategy (South Site Elevation) – Approach 1: Keating Channel & North Blocks



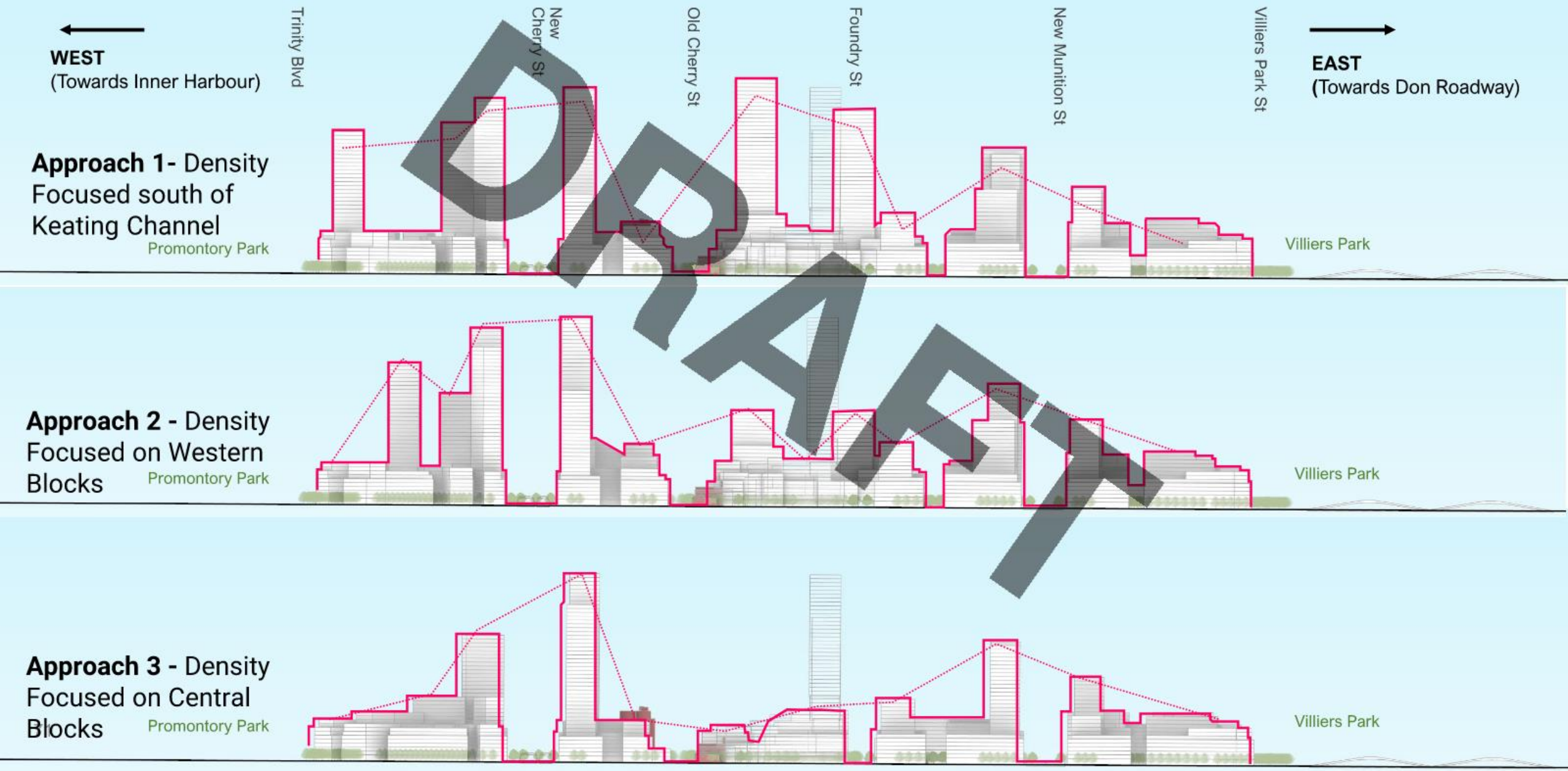
Tower Height Strategy (South Site Elevation) – Approach 2 : Western Blocks (New Cherry Street gateway)



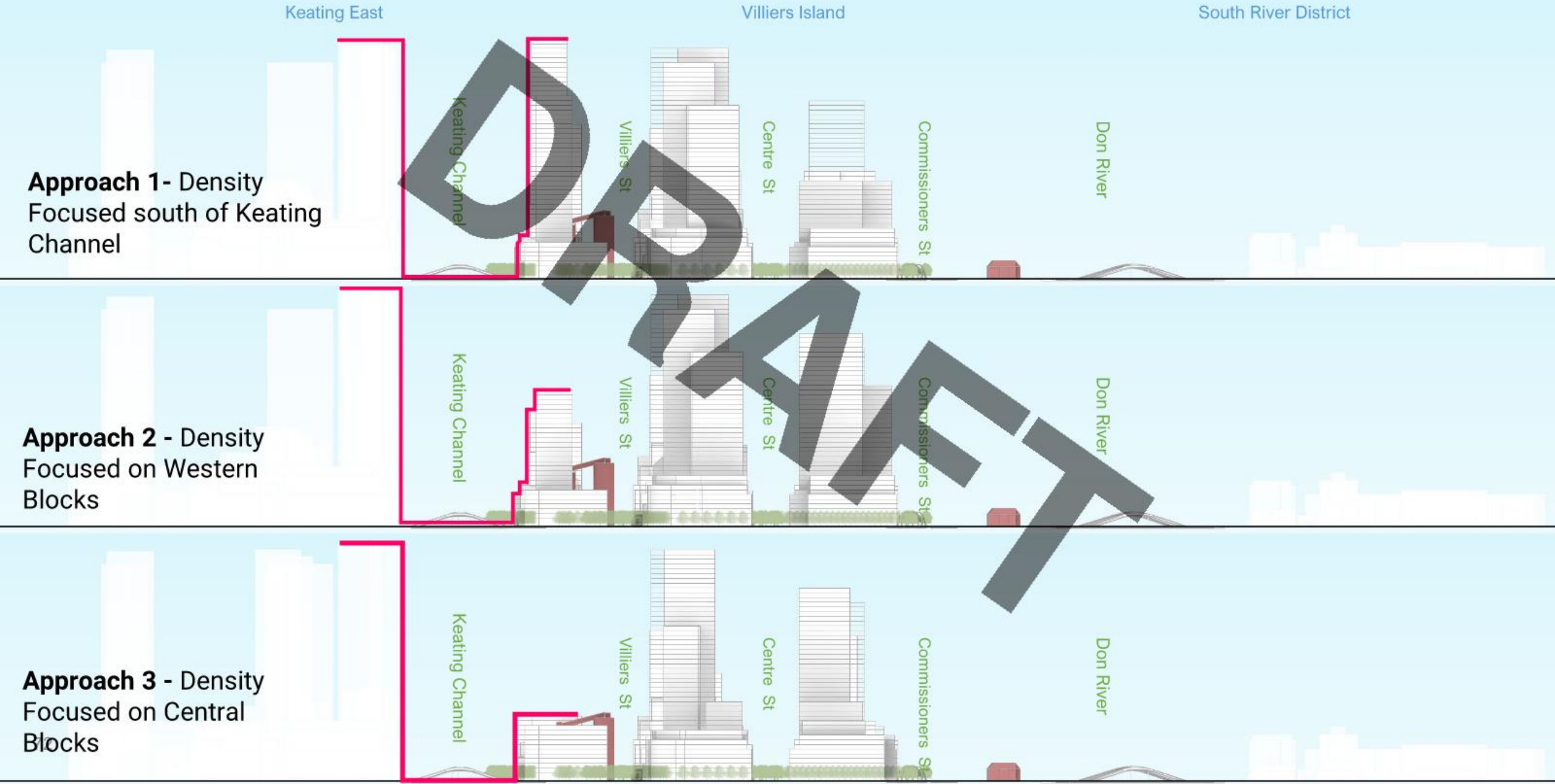
Tower Height Strategy (South Site Elevation) – Approach 3: Central Blocks



Tower Height Strategy - South Elevation (view from River South) - Comparison of all Approaches



Tower Height Strategy – West Elevation (view from Inner Harbour)

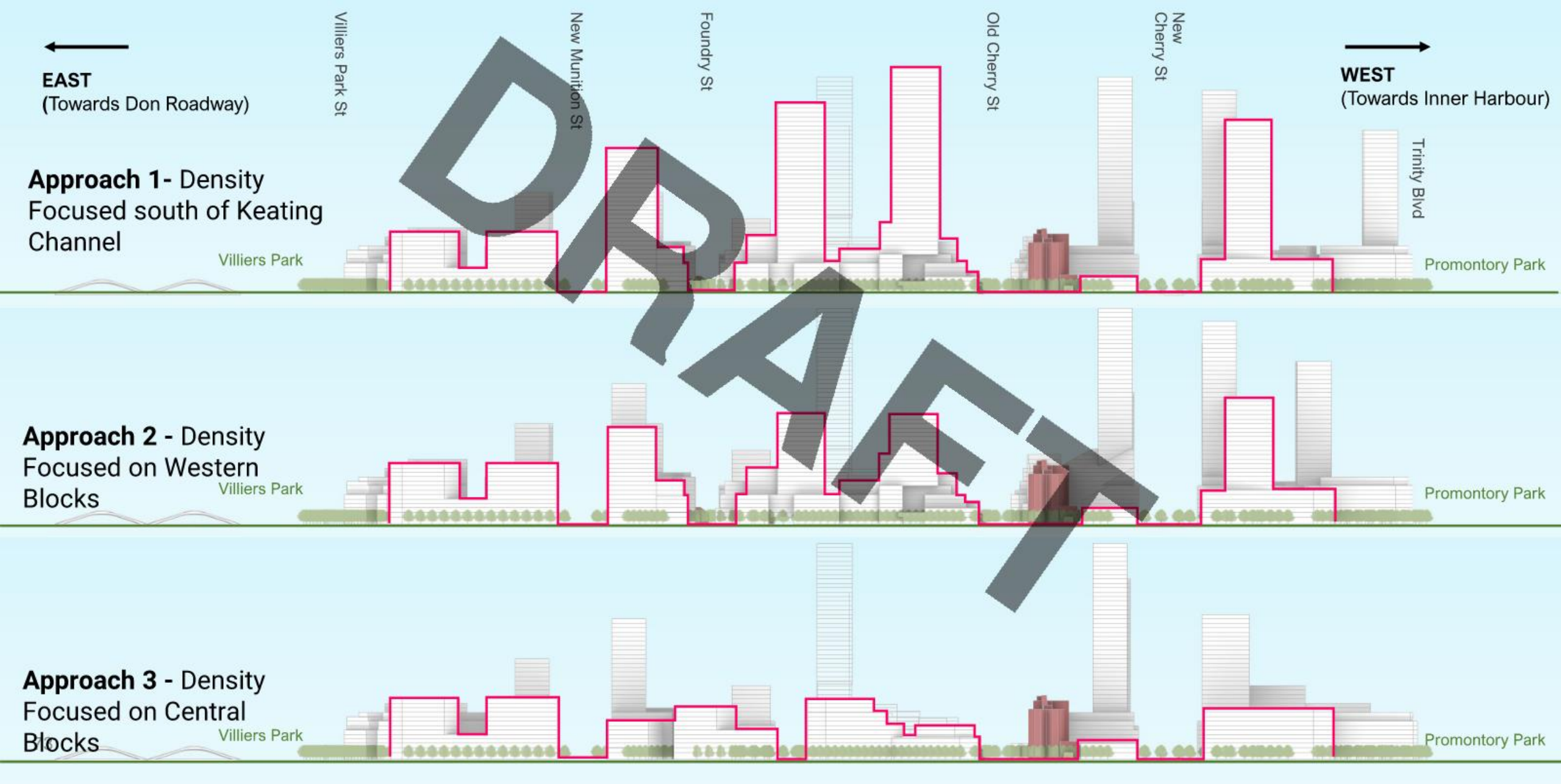


Approach 1- Density Focused south of Keating Channel

Approach 2 - Density Focused on Western Blocks

Approach 3 - Density Focused on Central Blocks

Tower Height Strategy – North Elevation (view from north side of Keating Channel)



Shadow Study: Approach 1- Density Focused on Keating Channel/North Blocks (animation)

See Appendix for hour by hour shadow capture

Axonometric View

Plan View

This study shows hourly shadows in animation between 9:00am to 6:00pm (September 21st).

Shadow Study: Approach 2 - Density Focused on Western Blocks (animation)

See Appendix for hour by hour shadow capture

Axonometric View

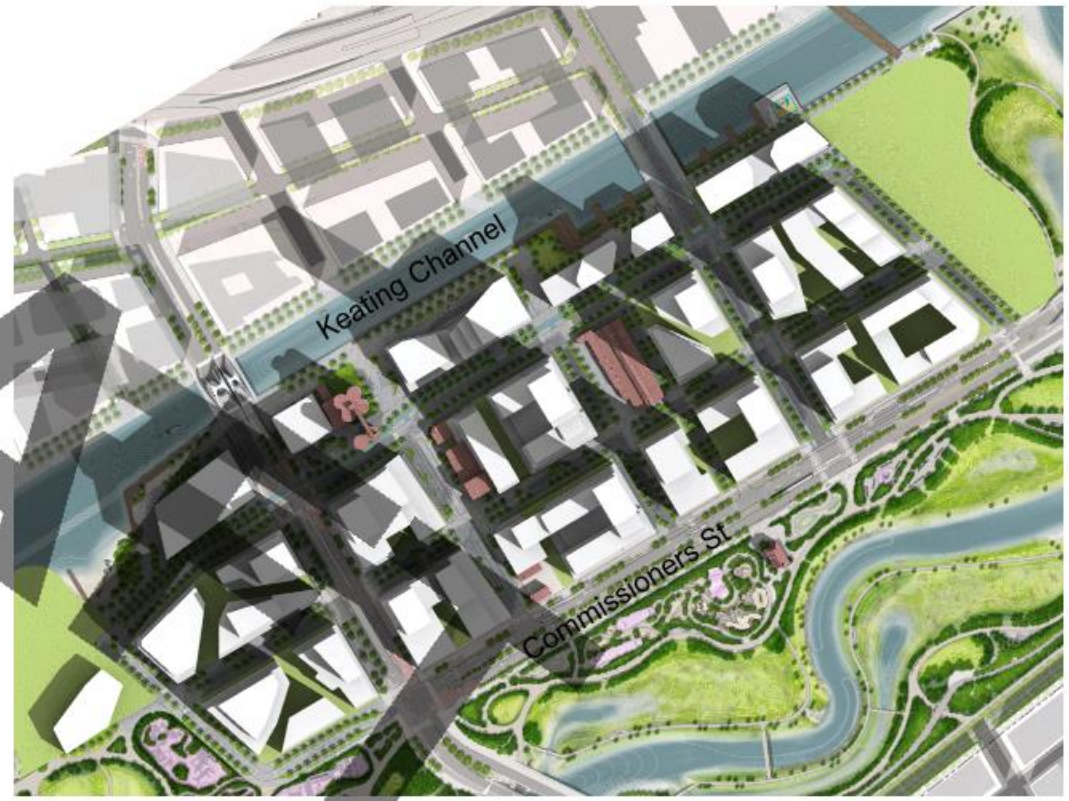
Plan View

This study shows hourly shadows in animation between 9:00am to 6:00pm (September 21st).

Shadow Study: Approach 3 - Density Focused on Central Blocks (animation)

See Appendix for hour by hour shadow capture

Axonometric View



Plan View

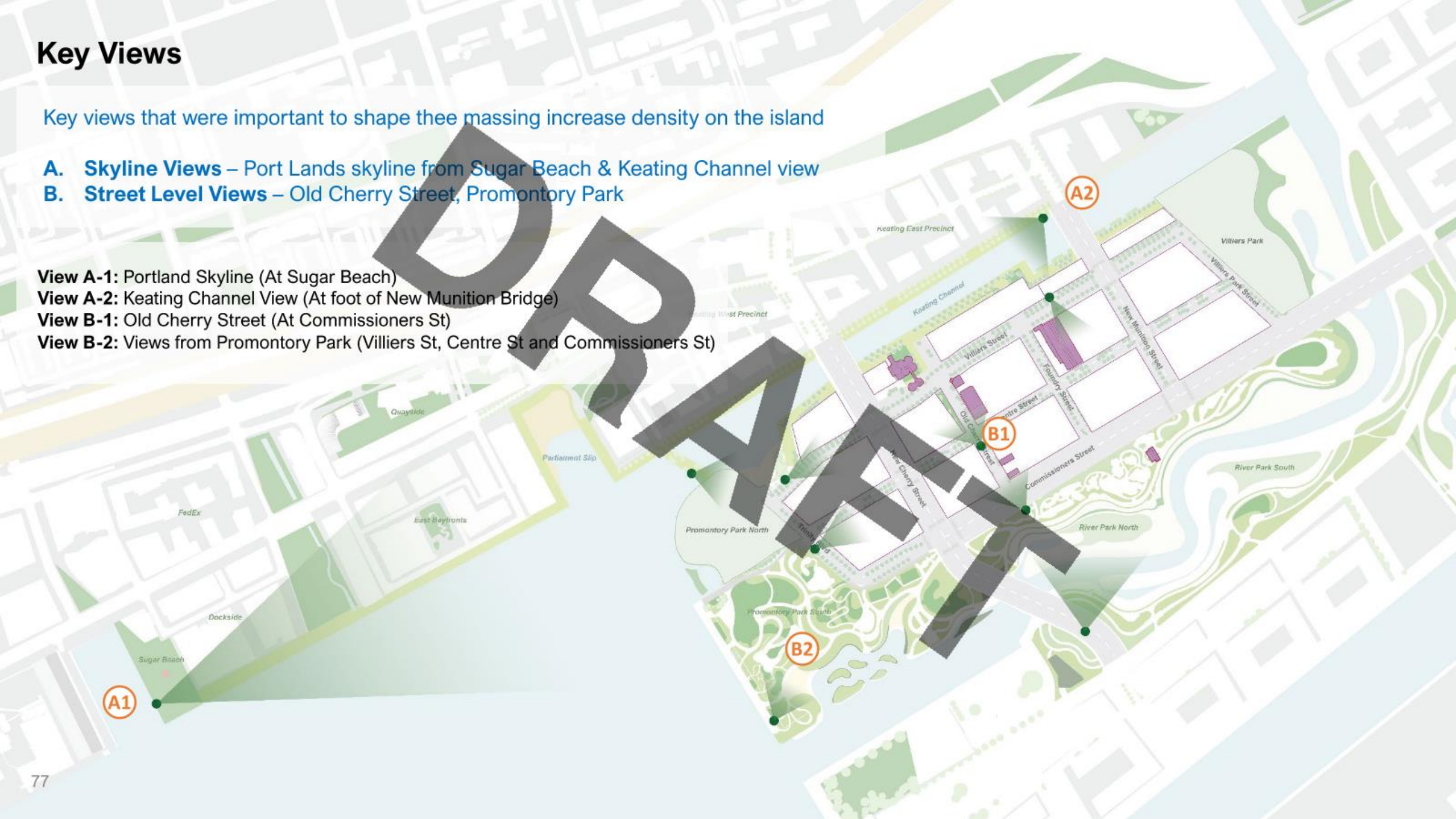
This study shows hourly shadows in animation between 9:00am to 6:00pm (September 21st).

Key Views

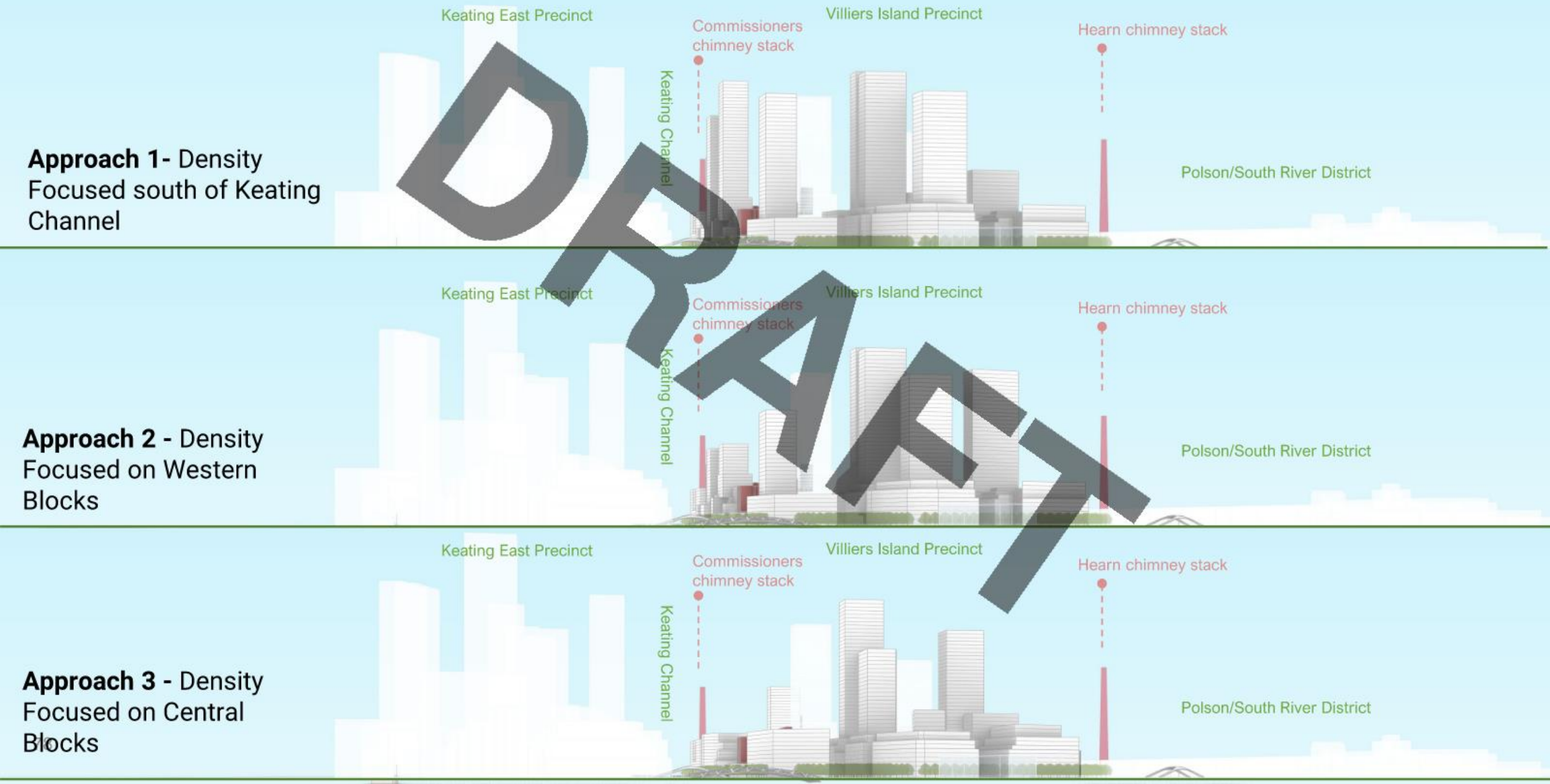
Key views that were important to shape thee massing increase density on the island

A. **Skyline Views** – Port Lands skyline from Sugar Beach & Keating Channel view
B. **Street Level Views** – Old Cherry Street, Promontory Park

View A-1: Portland Skyline (At Sugar Beach)
View A-2: Keating Channel View (At foot of New Munition Bridge)
View B-1: Old Cherry Street (At Commissioners St)
View B-2: Views from Promontory Park (Villiers St, Centre St and Commissioners St)



View A-1 – Port Lands Skyline View (from Sugar Beach)



Approach 1- Density Focused south of Keating Channel

Approach 2 - Density Focused on Western Blocks

Approach 3 - Density Focused on Central Blocks

View A-2 – Keating Channel (view towards New Cherry Bridge / West)

• Taken from north side of Keating Channel, at Munition Bridge (see **A2** on key map above)

Approach 1: Density Focused on Keating Channel/North Blocks

View A-2 – Keating Channel (view towards New Cherry Bridge / West)

• Taken from north side of Keating Channel, at Munition Bridge (see **A2** on key map above)

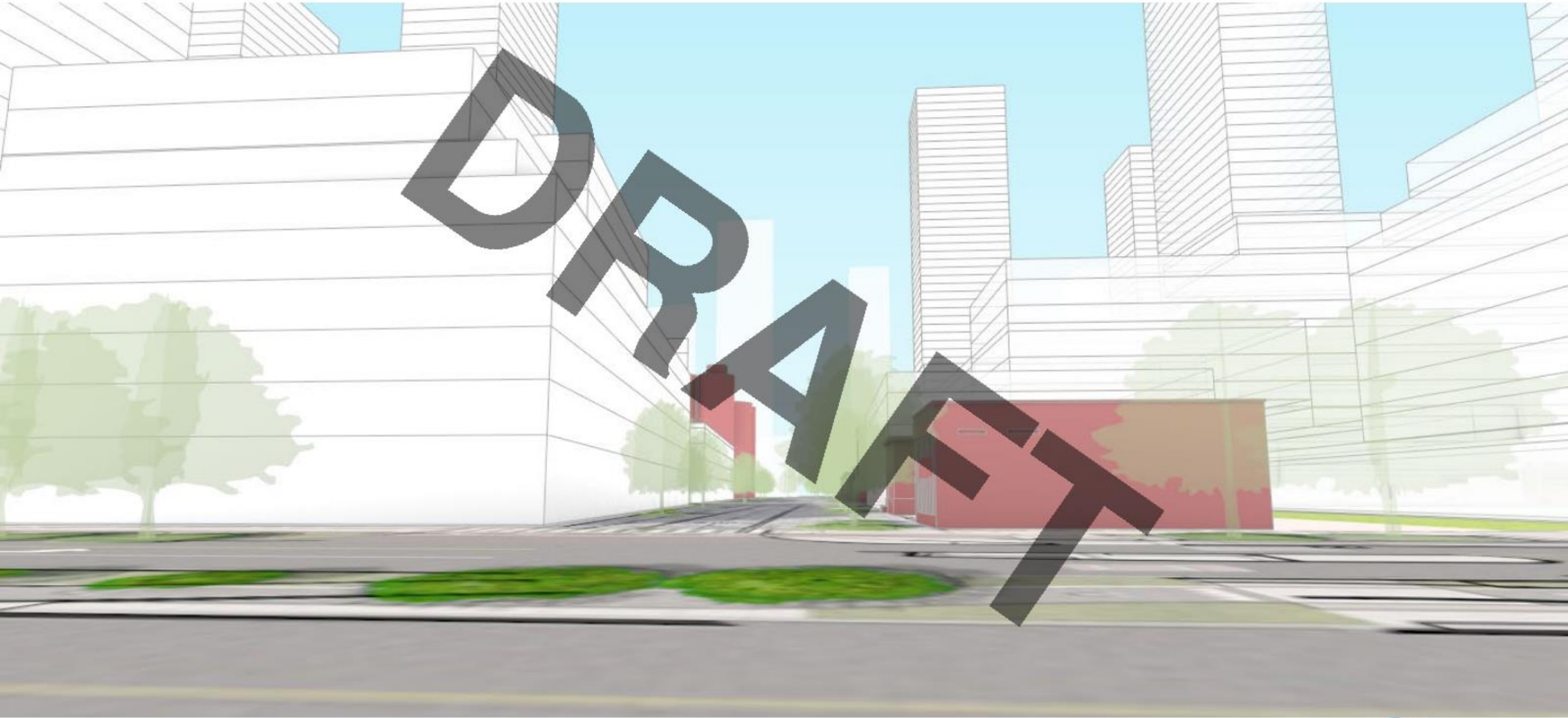
Approach 2: Density Focused on Western Blocks

View A-2 – Keating Channel (view towards New Cherry Bridge / West)

• Taken from north side of Keating Channel, at Munition Bridge (see **A2** on key map above)

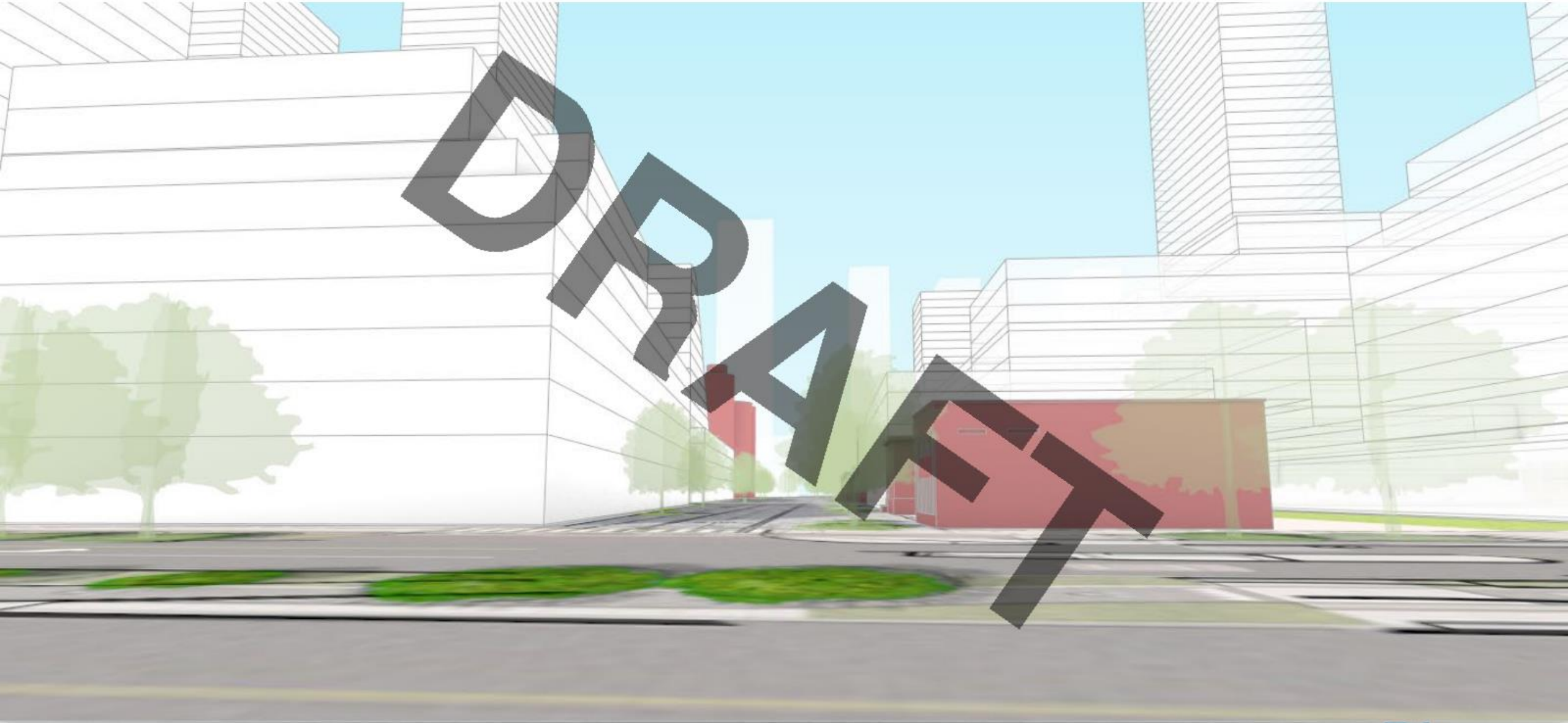
Approach 3: Density Focused on Central Blocks

View B-1: Old Cherry Street (At Commissioners St looking north)



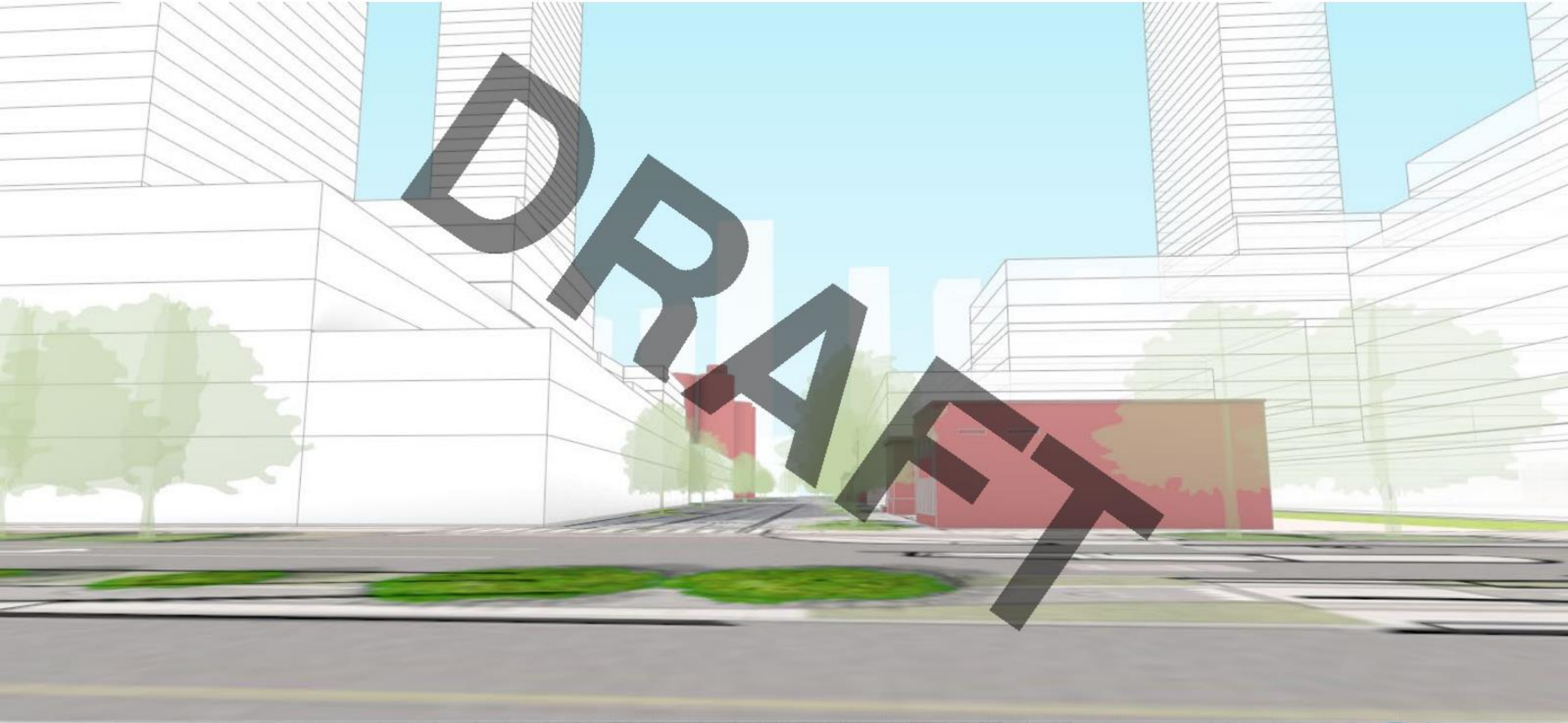
Approach 1- Density Focused south of Keating Channel

View B-1: Old Cherry Street (At Commissioners St looking north)



Approach 2 - Density Focused on Western Blocks

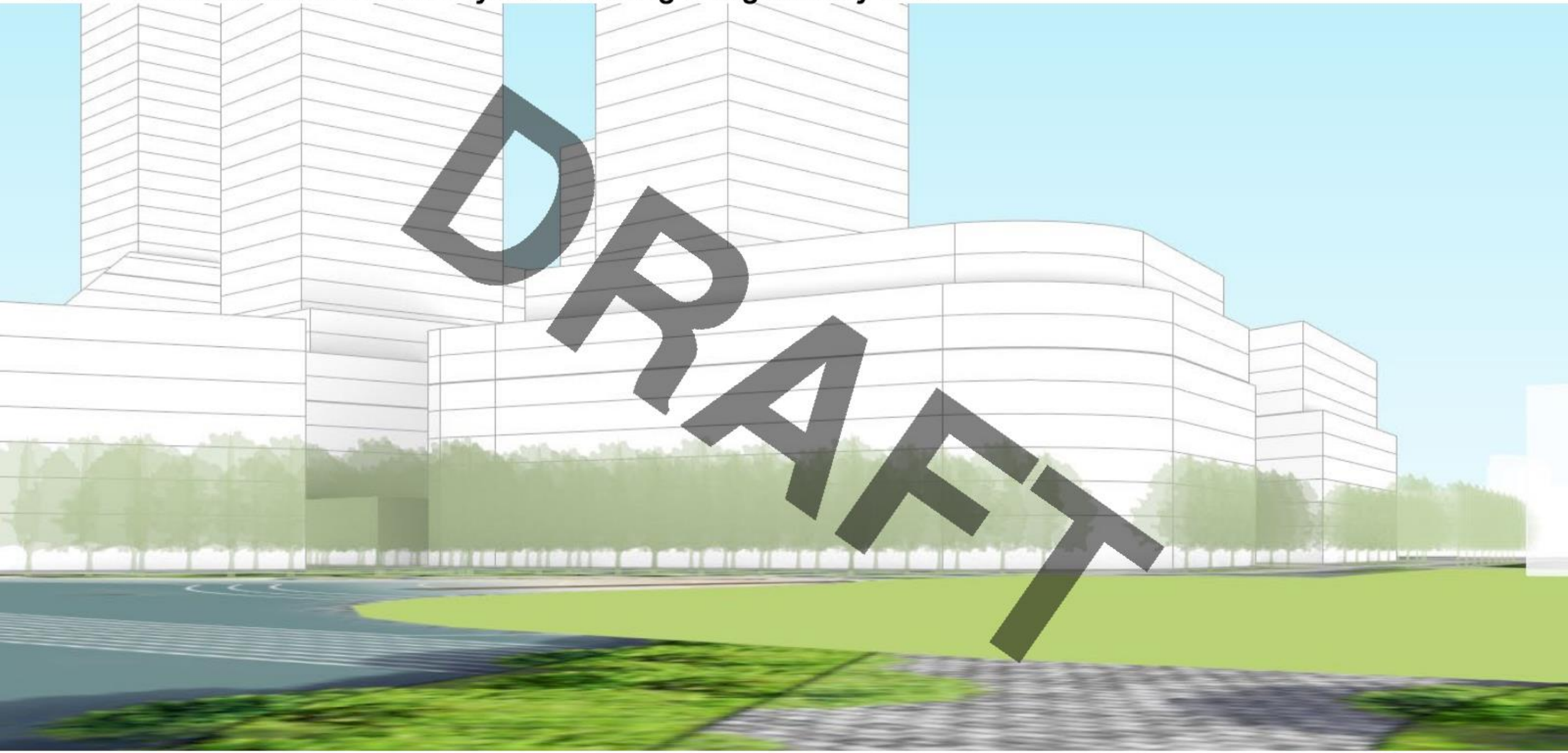
View B-1: Old Cherry Street (At Commissioners St looking north)



View B-2: View from Promontory Park/Keating Bridge/Trinity Blvd.

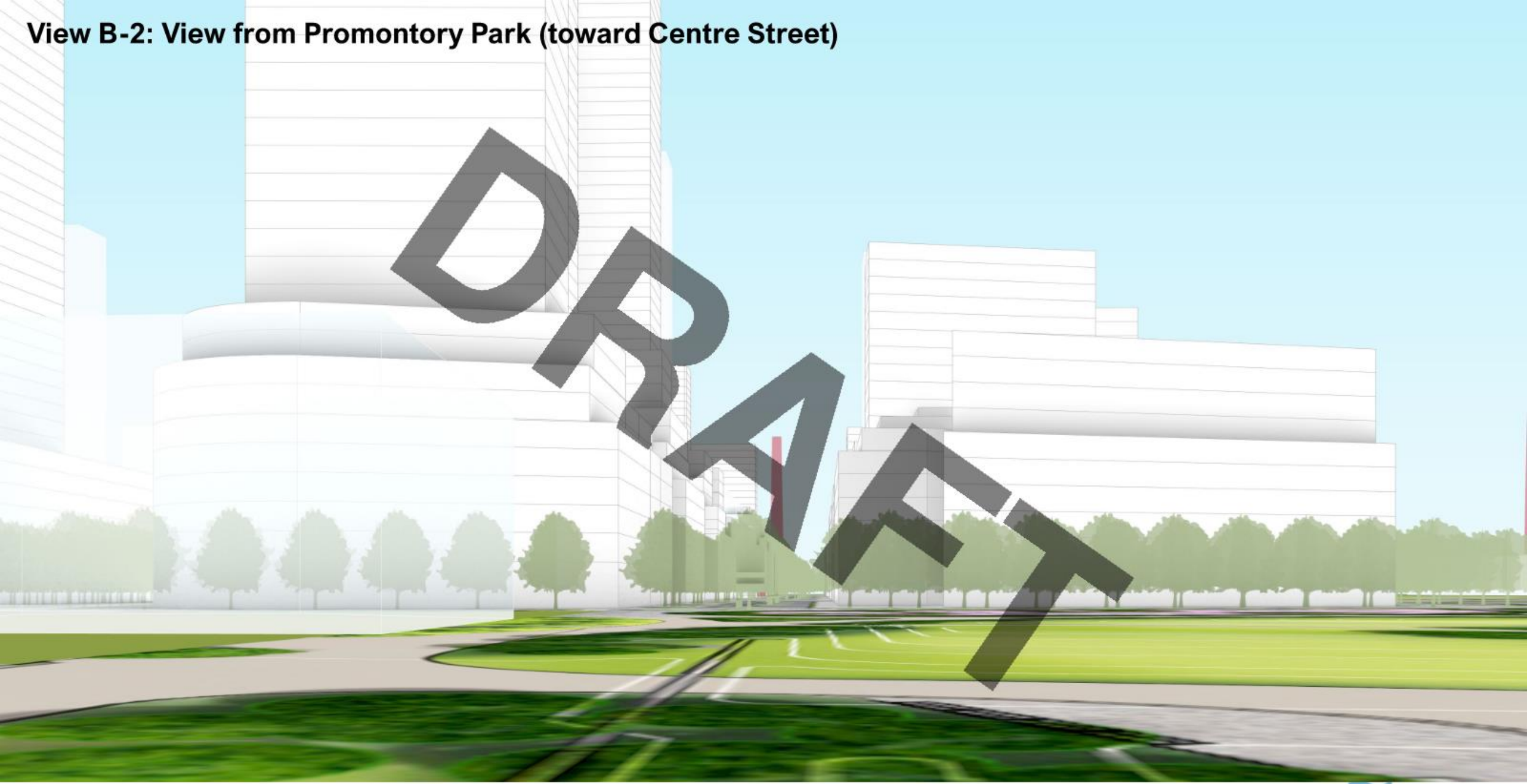
Approach 1- Density Focused south of Keating Channel

View B-2: Views from Promontory Park/Keating Bridge/Trinity Blvd.

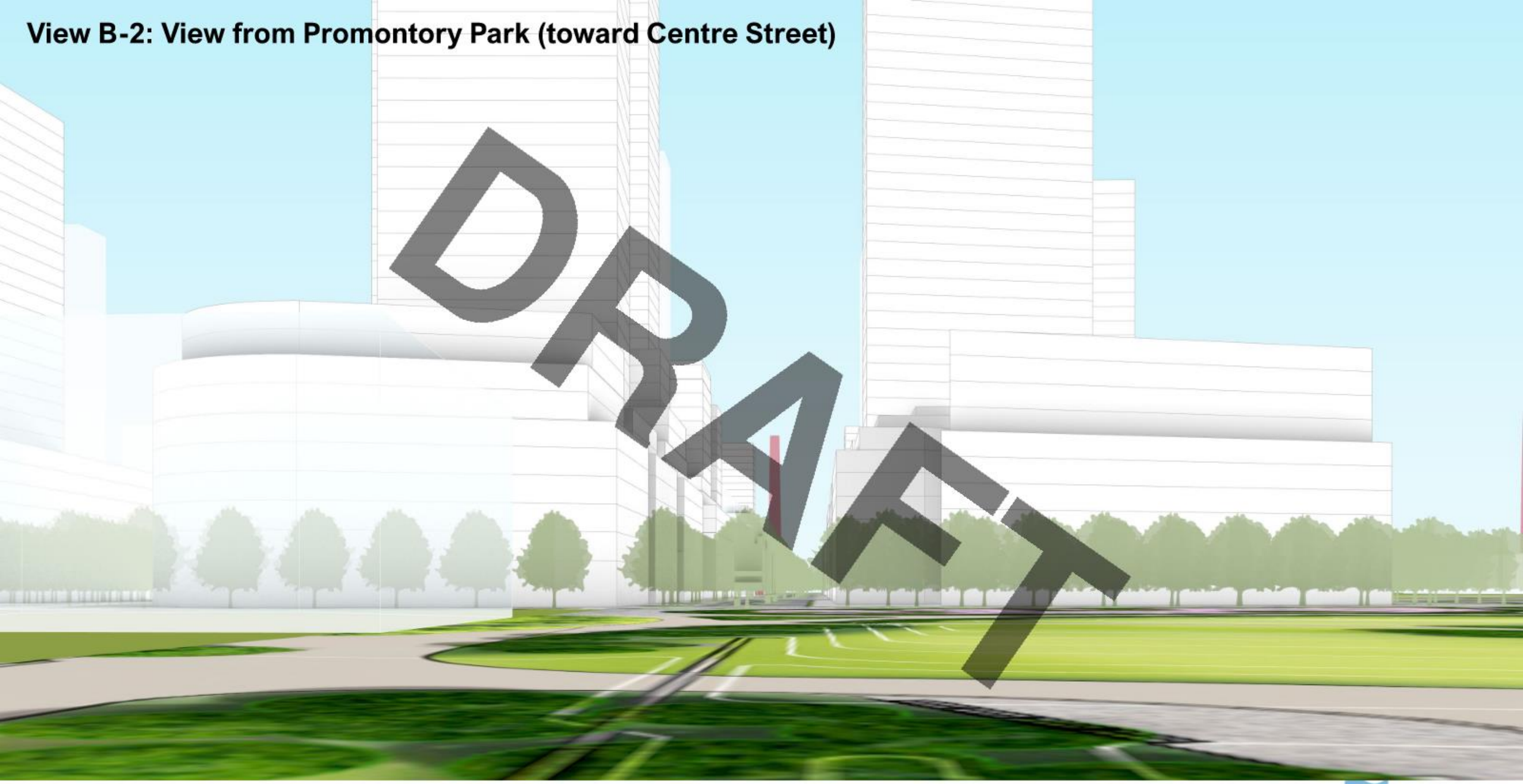


View B-2: Views from Promontory Park/Keating Bridge/Trinity Blvd.

View B-2: View from Promontory Park (toward Centre Street)



View B-2: View from Promontory Park (toward Centre Street)



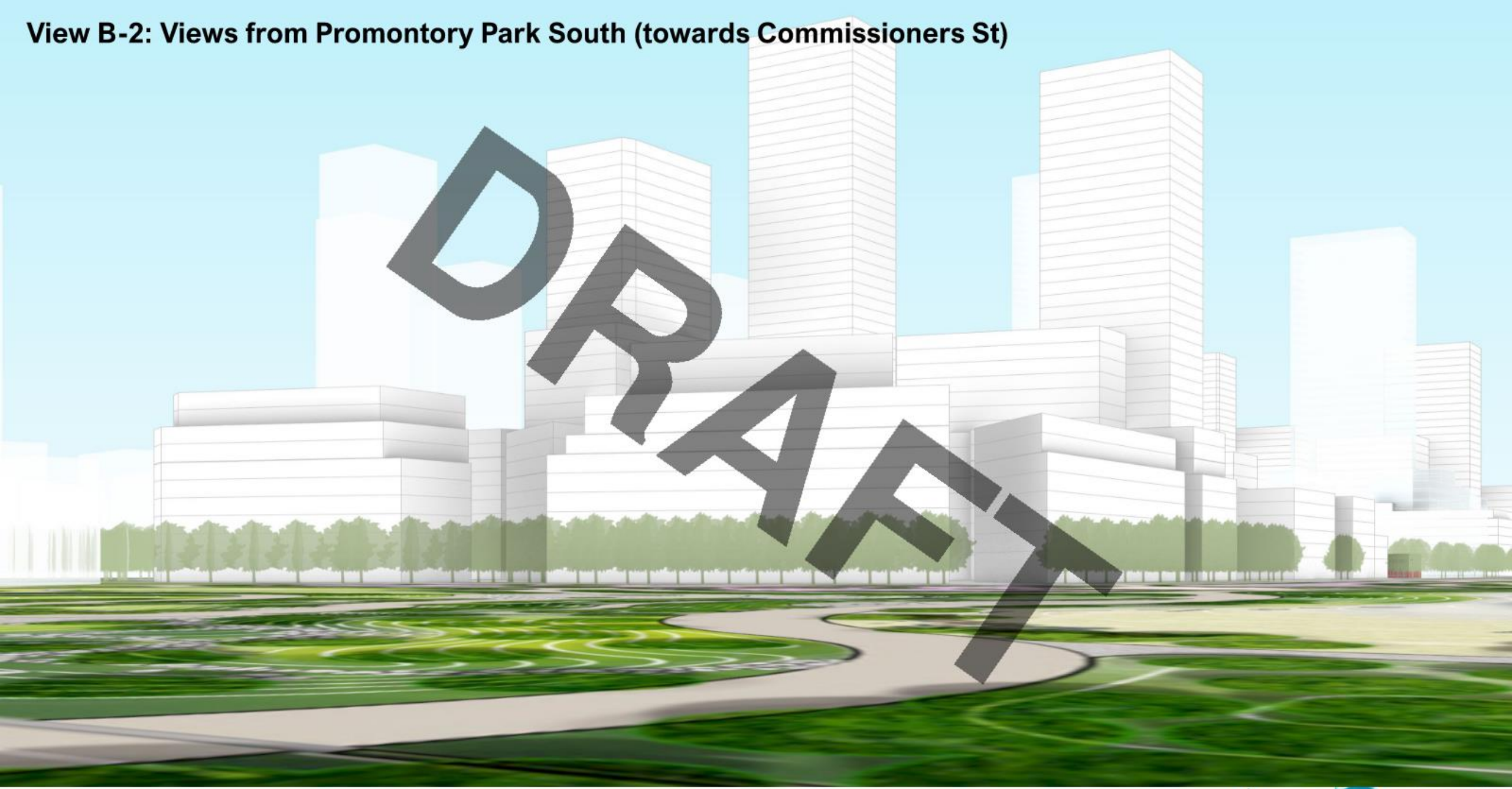
View B-2: View from Promontory Park (toward Centre Street)

View B-2: Views from Promontory Park South (towards Commissioners St)

Approach 1- Density Focused south of Keating Channel

View B-2: Views from Promontory Park South (towards Commissioners St)

View B-2: Views from Promontory Park South (towards Commissioners St)



Summary of Approaches to Increasing Density on the Island

Approach 1: Increased Density Focused on Keating Channel & North Blocks

- Intensification of Keating Channel & North blocks
- Tall towers along Keating Channel and Villiers Street
- Maintain mid-rise heights along on south of Centre Streets and east blocks

Approach 2: Increased Density Focused on Western Blocks

- Intensification of the western blocks
- Tall towers clustered along New Cherry Street gateway
- Shorter towers along Keating Channel
- Mid-rise heights with short towers on east blocks

Approach 3: Increased Density Focused on Central Blocks

- Intensification of central blocks (between New Cherry and New Munitions Streets)
- Tall towers along New Cherry, New Munitions
- Tall mid-rise to low-rise along Keating Channel
- Mid-rise heights with short towers on east blocks

Summary of 3 Approaches and Total Density Increase compared to the 2017 Precinct Plan

Approach 1: Increased Density Focused on Keating Channel & North Blocks

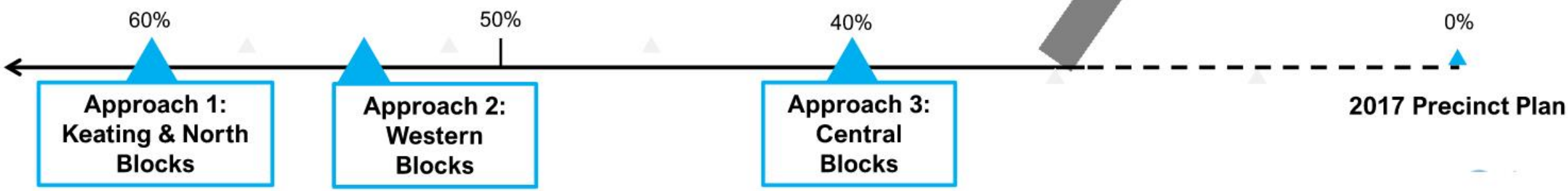
~60% increase

Approach 2: Increased Density Focused on Western Blocks

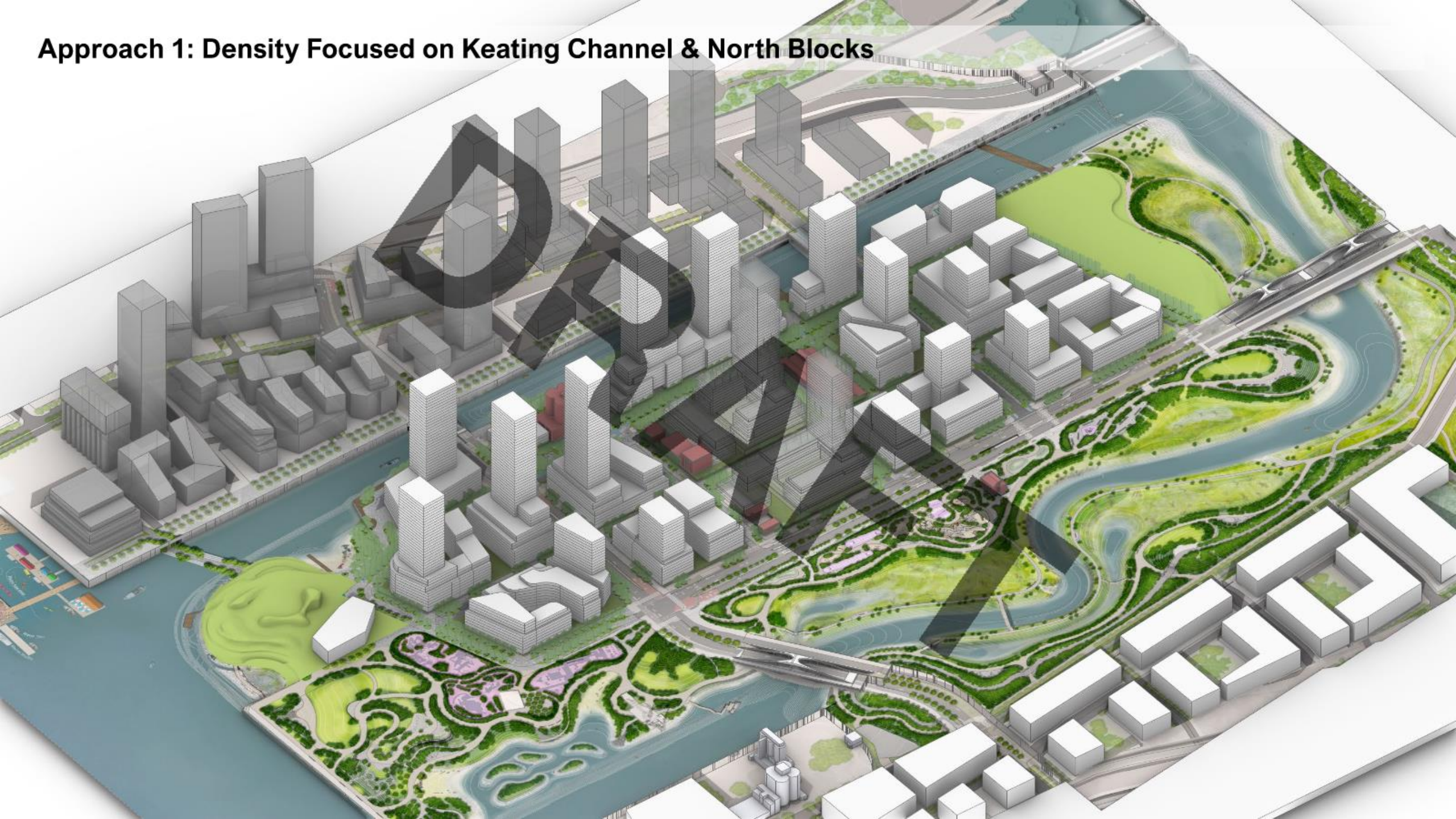
~55% increase

Approach 3: Increased Density Focused on Central Blocks

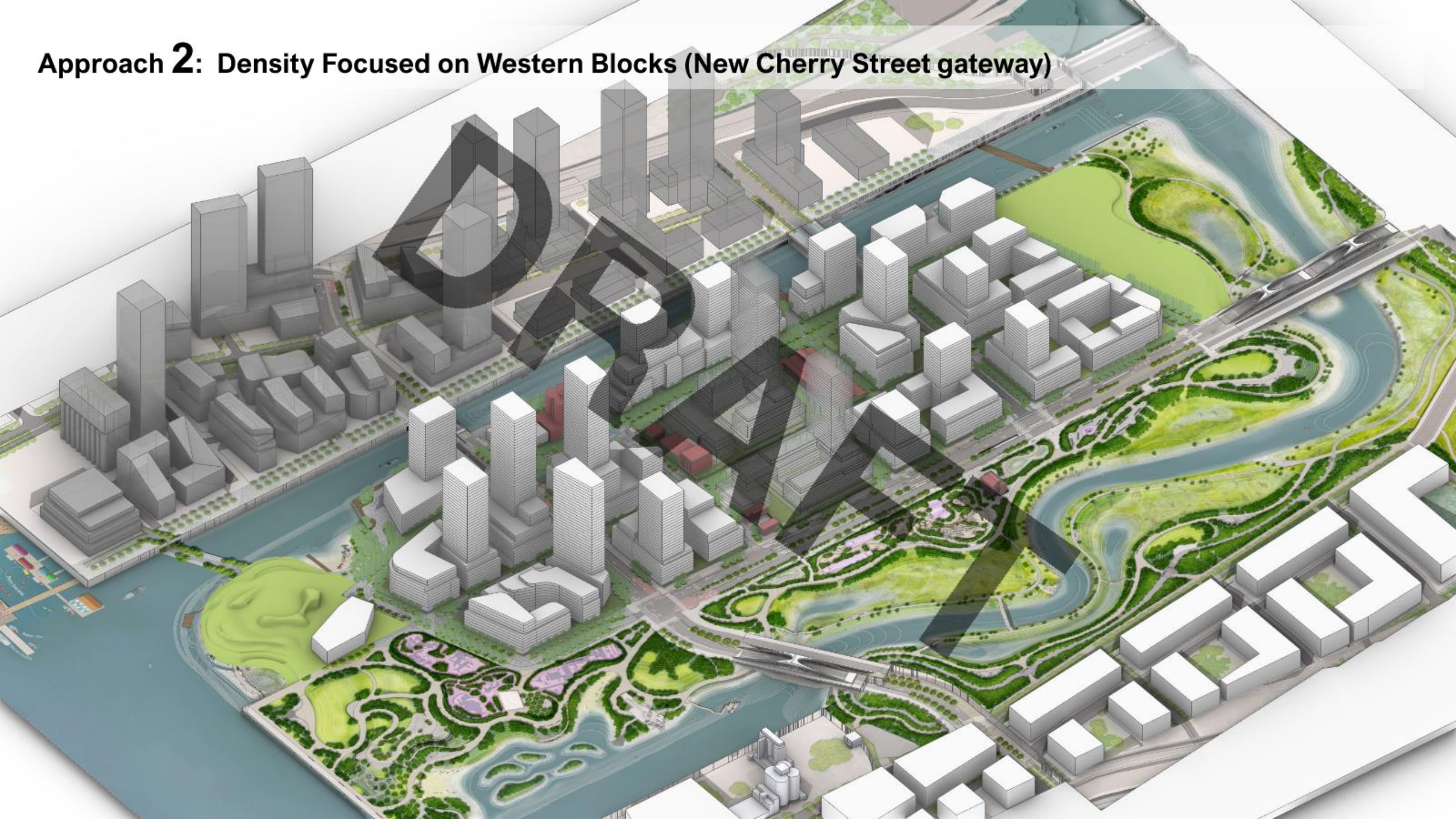
~40% increase



Approach 1: Density Focused on Keating Channel & North Blocks



Approach 2: Density Focused on Western Blocks (New Cherry Street gateway)



Approach 3: Density Focused on Central Blocks

End of Presentation

Appendix. 1 Shadow & Radiation Studies

Approach 1: Density Focused on Keating Channel/North Blocks (hour-by-hour shadow capture)

9am

10am

11am

12pm

1pm

2pm

3pm

4pm

5pm

6pm

This study shows hourly shadows between 9:00am to 6:00pm (September 21st).

Approach 2 – Density Focused on Western Blocks (hour-by-hour shadow capture)

9am

10am

11am

12pm

1pm

2pm

3pm

4pm

5pm

6pm

This study shows hourly shadows between 9:00am to 6:00pm (September 21st).

Approach 3 – Density Focused on Central Blocks (hour-by-hour shadow capture)

9am

10am

11am

12pm

1pm

2pm

3pm

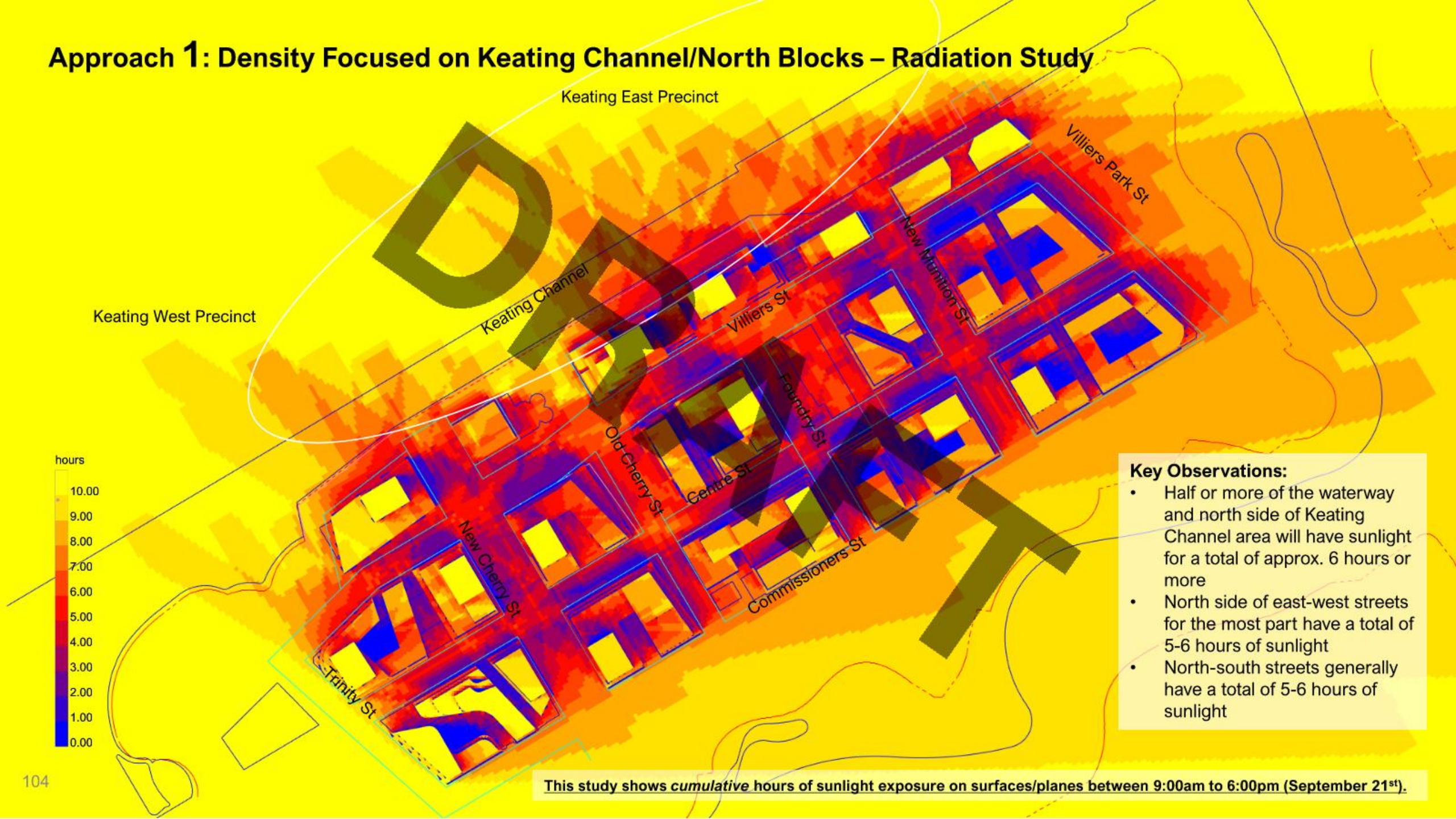
4pm

5pm

6pm

This study shows hourly shadows between 9:00am to 6:00pm (September 21st).

Approach 1: Density Focused on Keating Channel/North Blocks – Radiation Study



Key Observations:

- Half or more of the waterway and north side of Keating Channel area will have sunlight for a total of approx. 6 hours or more
- North side of east-west streets for the most part have a total of 5-6 hours of sunlight
- North-south streets generally have a total of 5-6 hours of sunlight

This study shows *cumulative* hours of sunlight exposure on surfaces/planes between 9:00am to 6:00pm (September 21st).

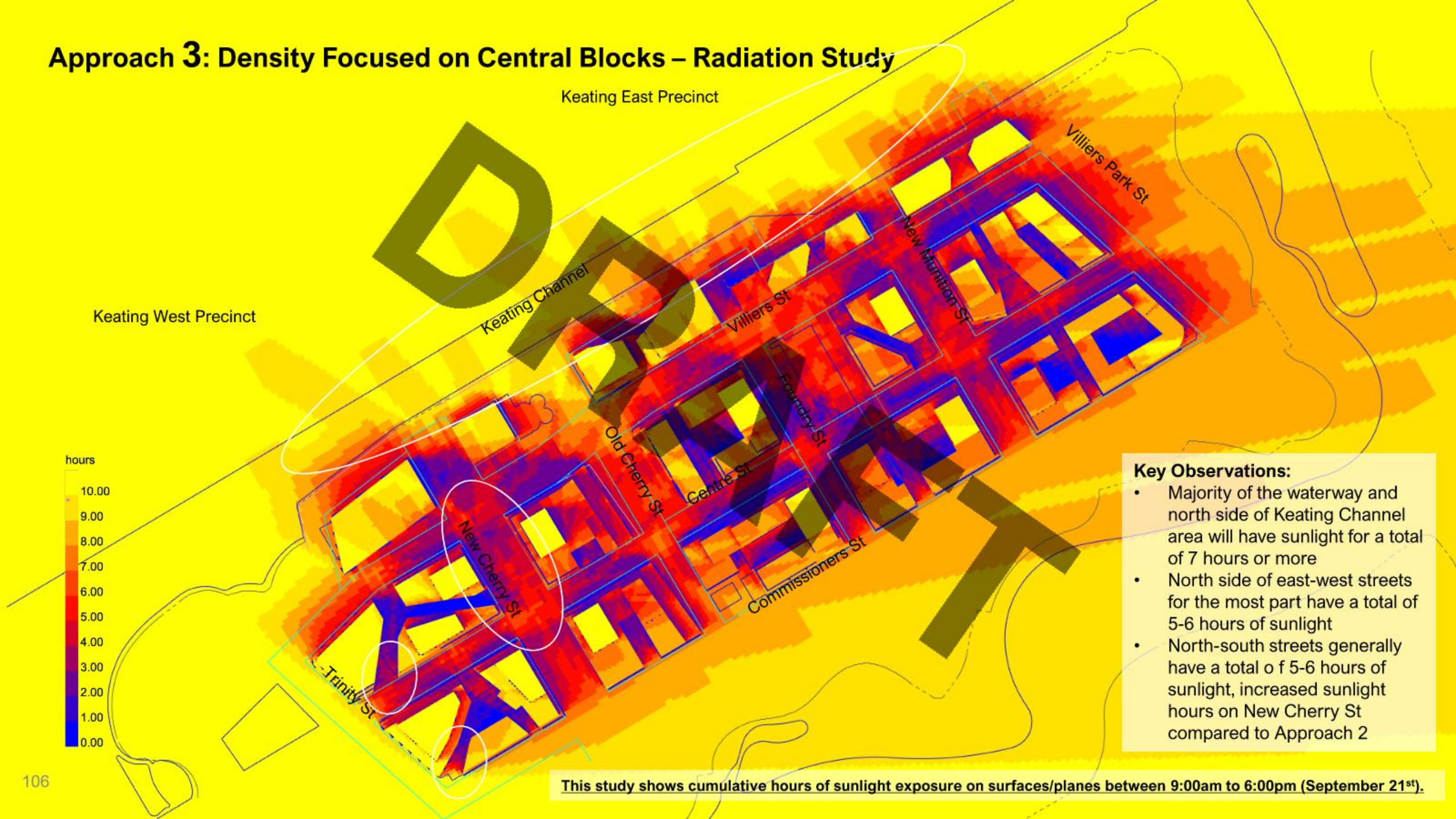
Approach 2: Density Focused on Western Blocks (New Cherry Street gateway) – Radiation Study

Key Observations:

- Half or more of the waterway and majority of the north side of Keating Channel area will have sunlight for a total of 7 hours or more
- North side of east-west streets for the most part have a total of 5-6 hours of sunlight
- North-south streets generally have a total of 5-6 hours of sunlight with some impacts on New Cherry St

This study shows cumulative hours of sunlight exposure on surfaces/planes between 9:00am to 6:00pm (September 21st).

Approach 3: Density Focused on Central Blocks – Radiation Study



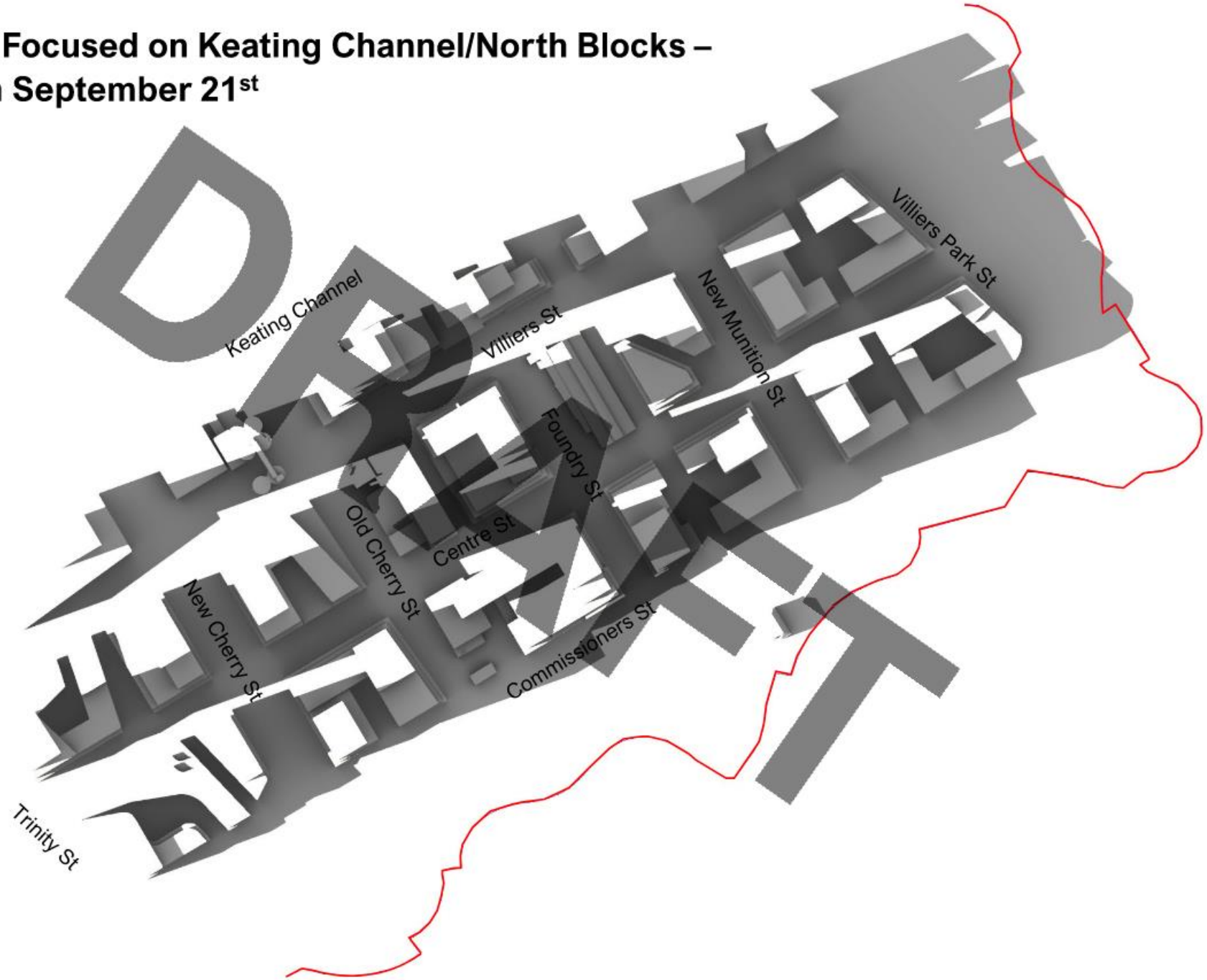
Key Observations:

- Majority of the waterway and north side of Keating Channel area will have sunlight for a total of 7 hours or more
- North side of east-west streets for the most part have a total of 5-6 hours of sunlight
- North-south streets generally have a total o f 5-6 hours of sunlight, increased sunlight hours on New Cherry St compared to Approach 2

This study shows cumulative hours of sunlight exposure on surfaces/planes between 9:00am to 6:00pm (September 21st).

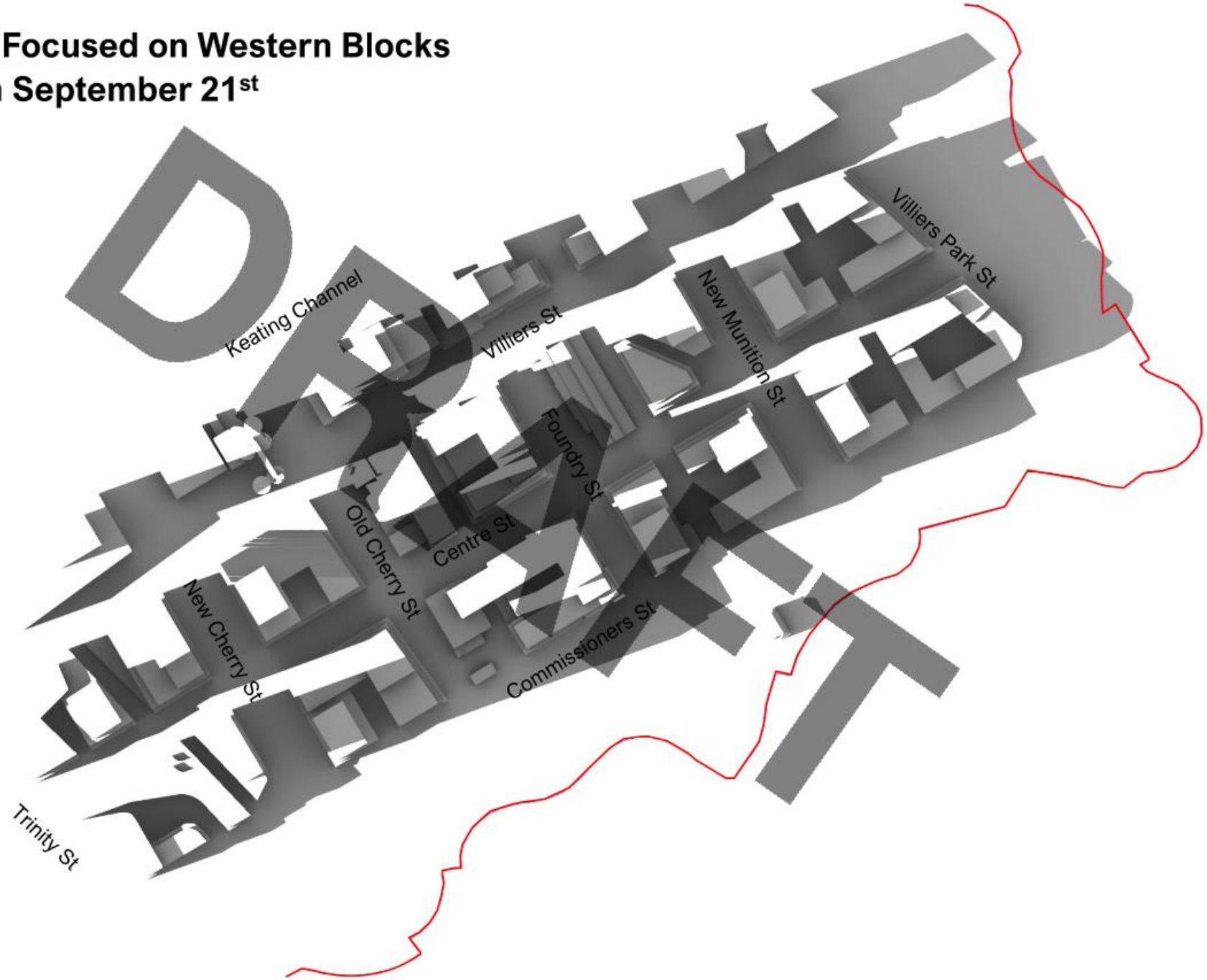
Approach 1: Density Focused on Keating Channel/North Blocks – Shadow at 4:18pm on September 21st

Top of Bank line



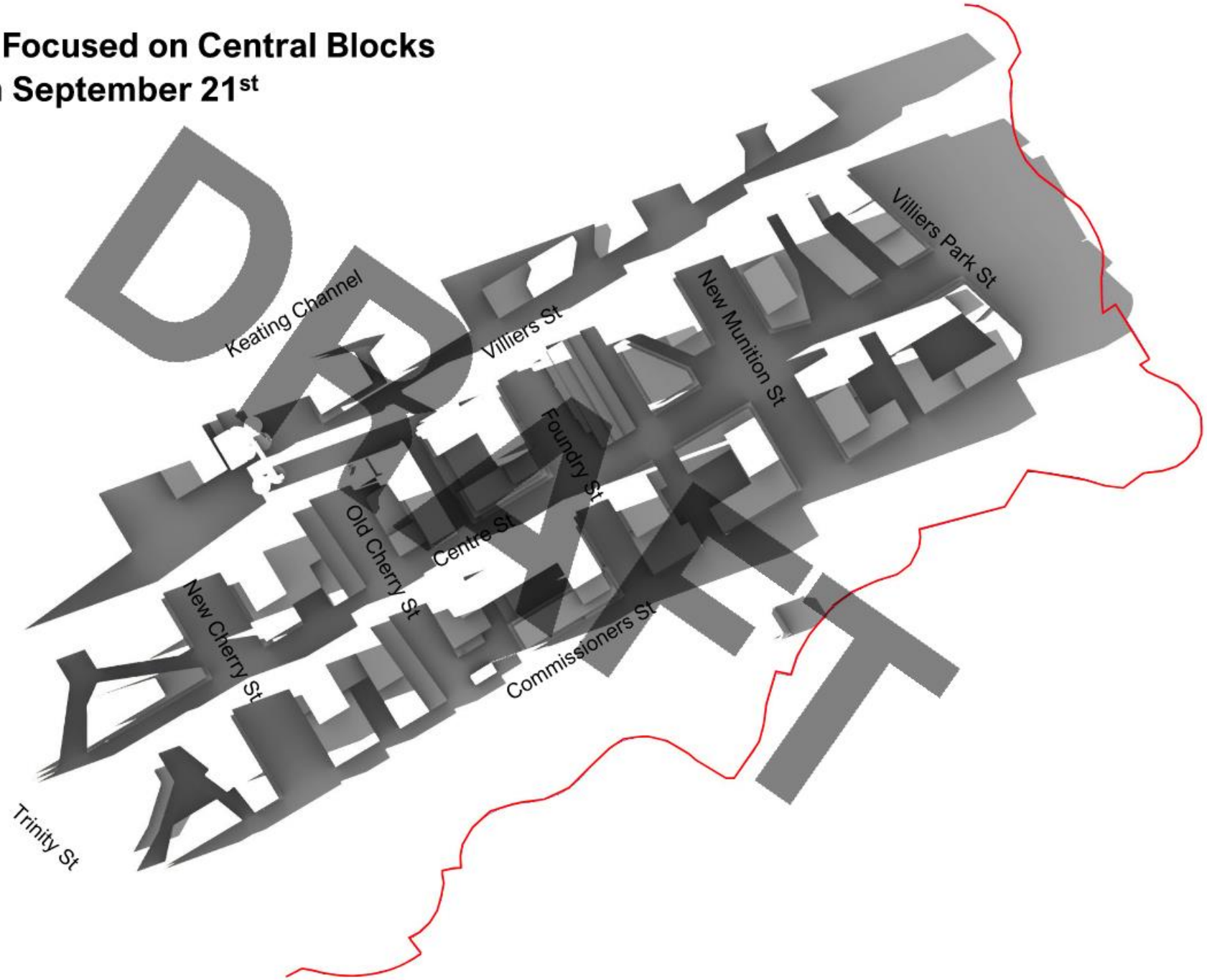
Approach 2: Density Focused on Western Blocks
Shadow at 4:18pm on September 21st

Top of Bank line



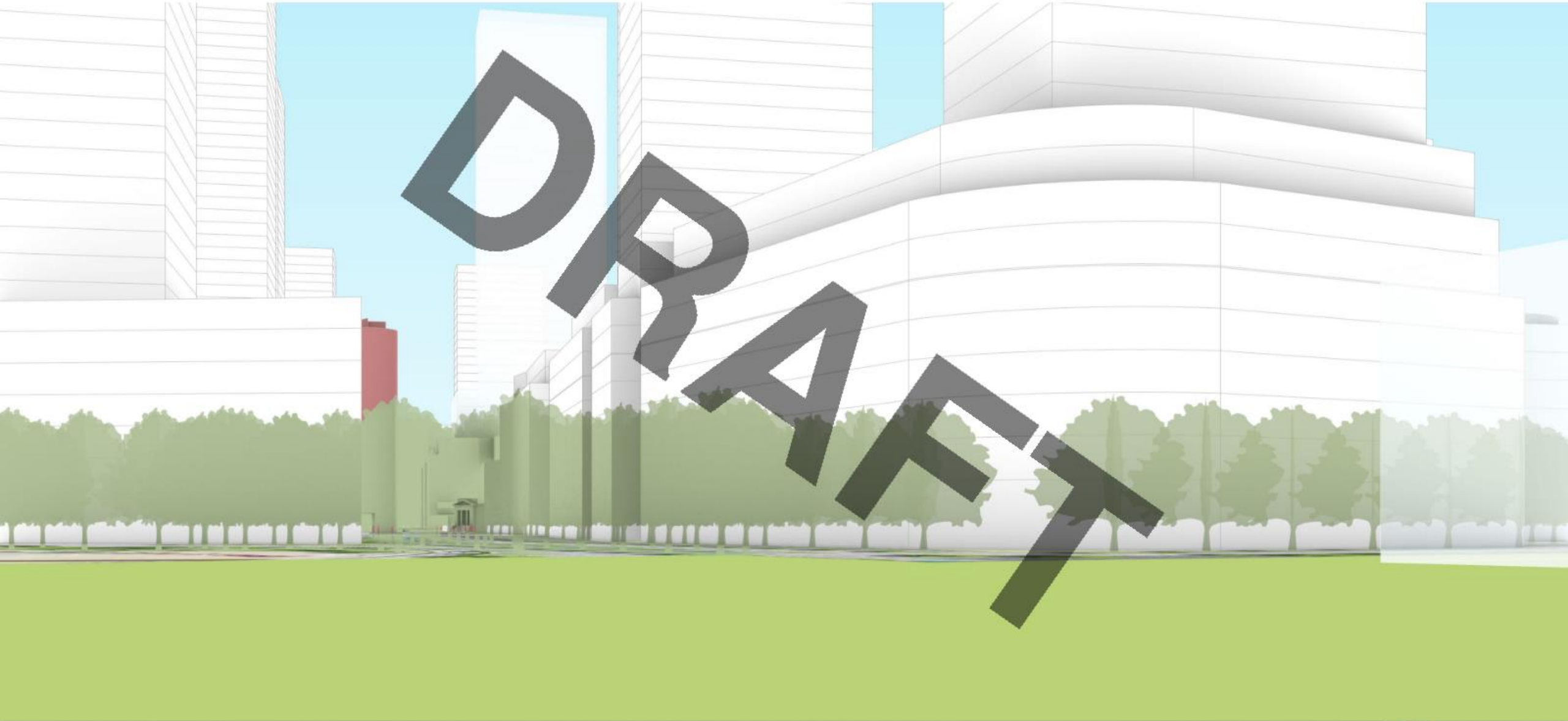
Approach 3: Density Focused on Central Blocks
Shadow at 4:18pm on September 21st

Top of Bank line



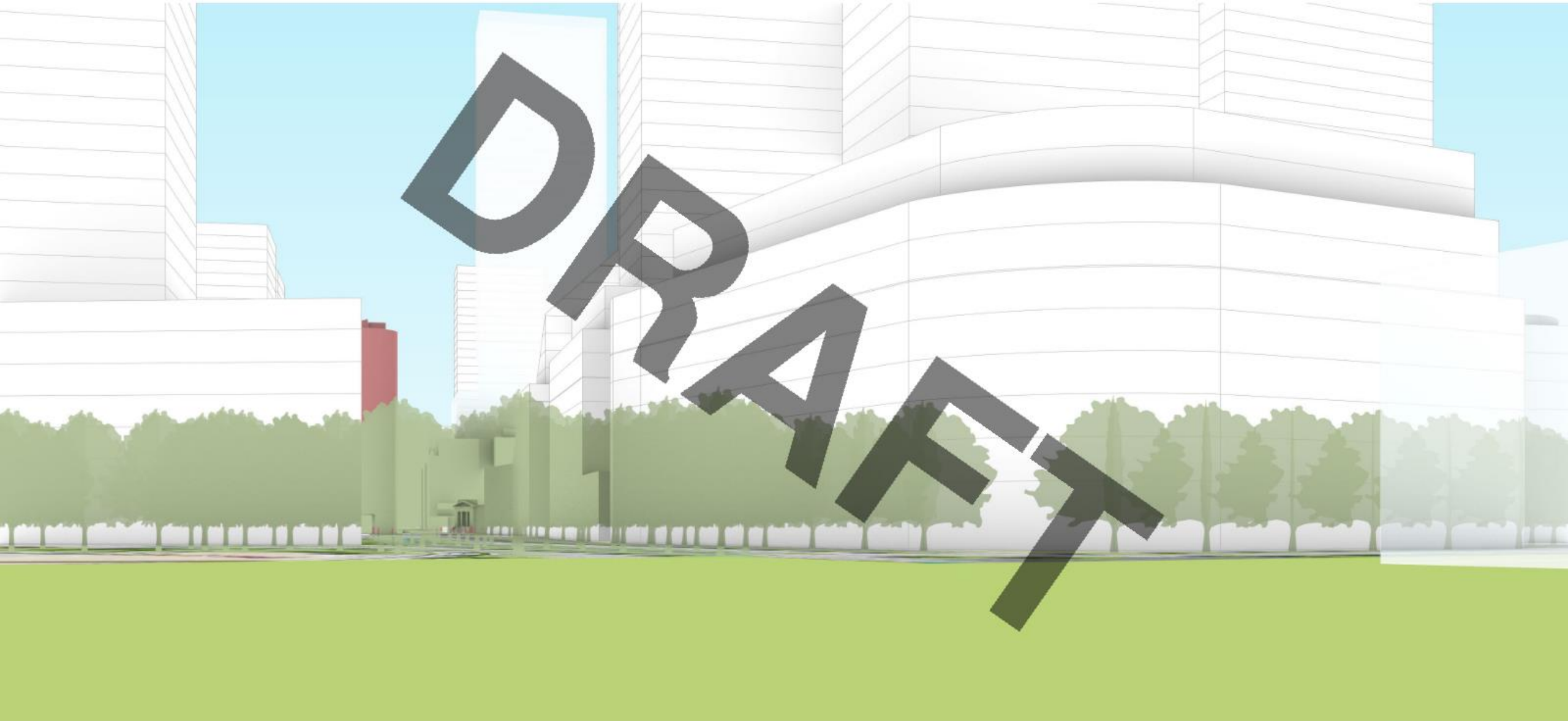
Appendix. 2 Additional View Studies

View B-2: Views from Promontory Park (Villiers Street and Trinity Blvd corner)

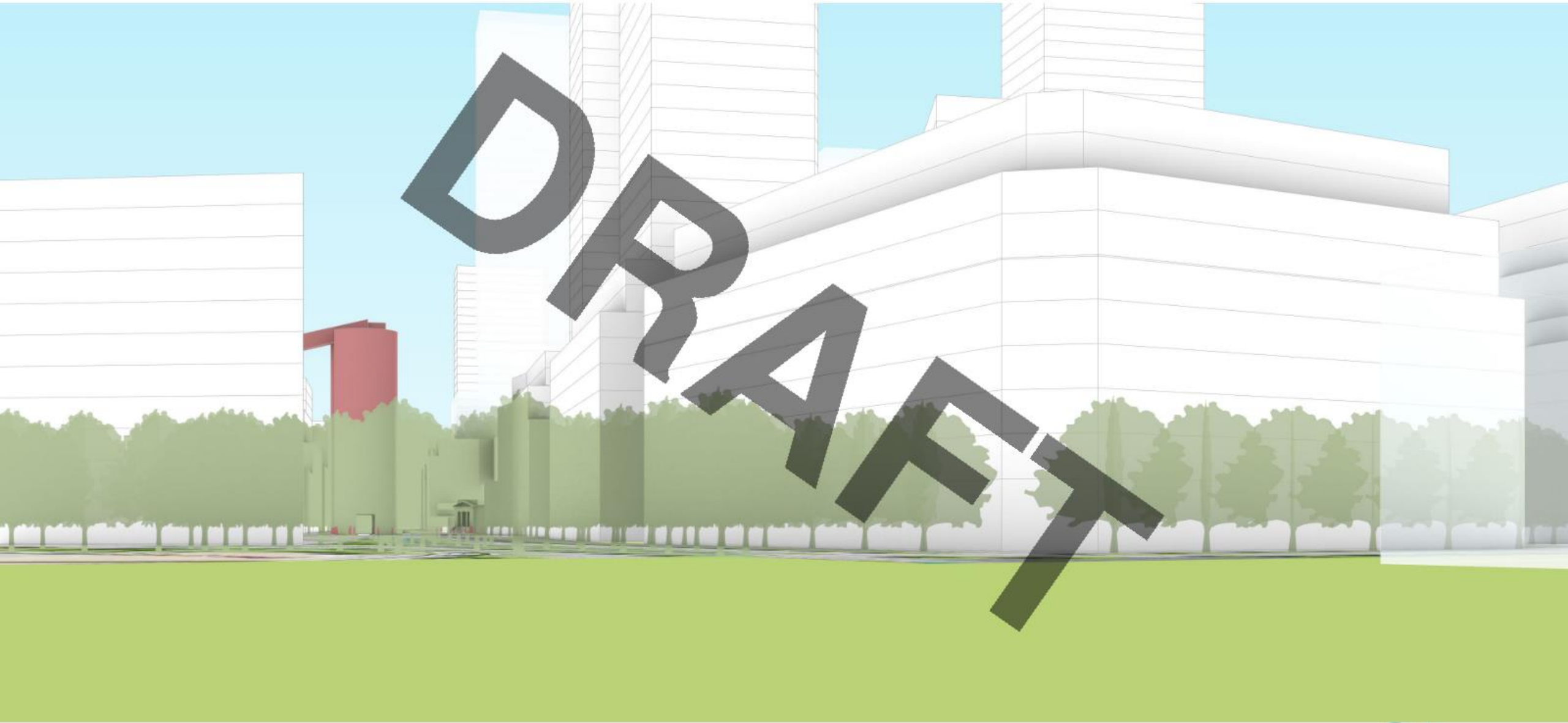


Approach 1- Density Focused south of Keating Channel

View B-2: Views from Promontory Park (Villiers Street and Trinity Blvd corner)

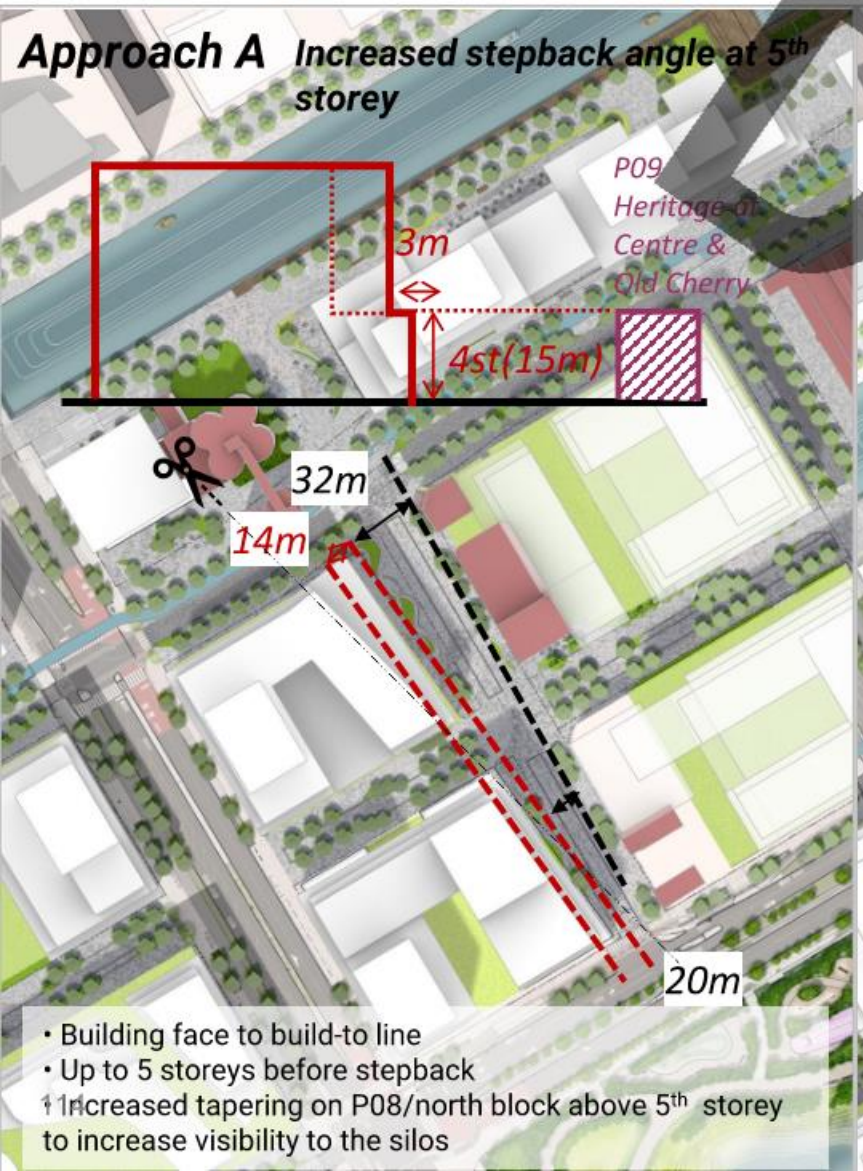


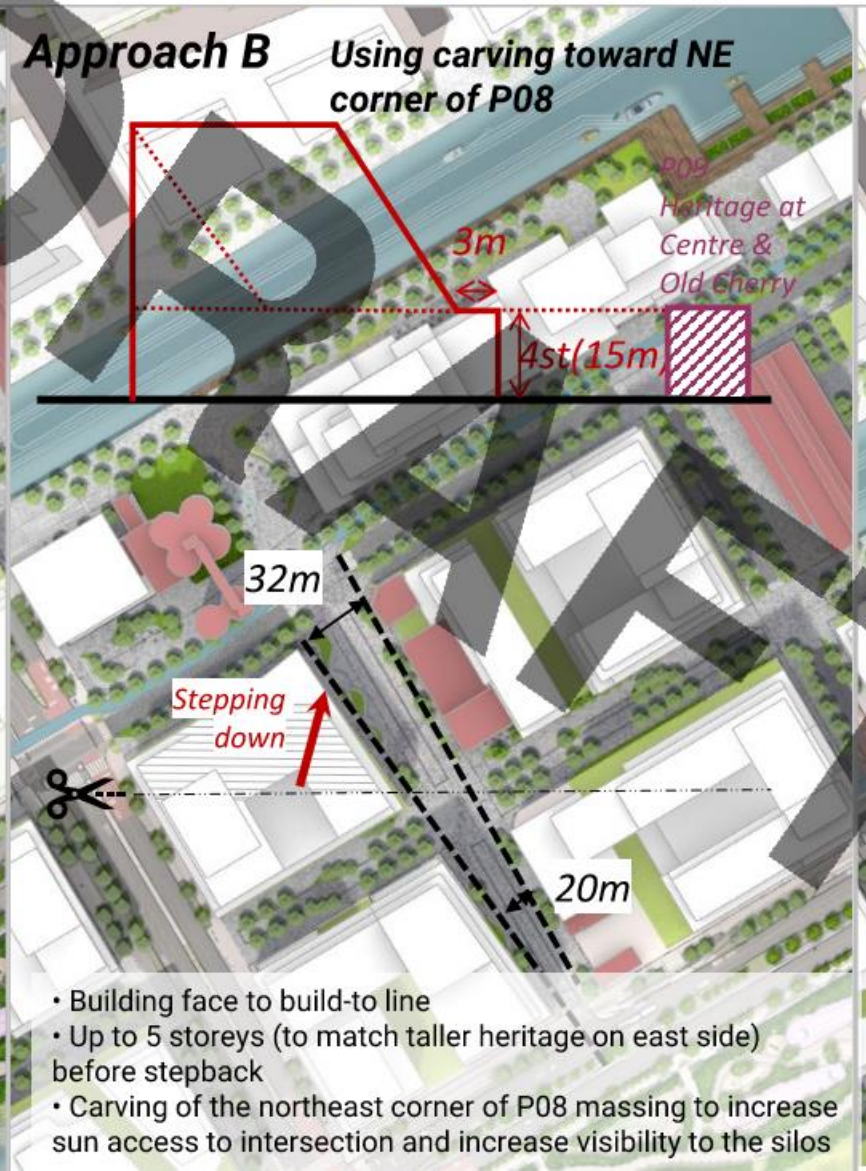
View B-2: Views from Promontory Park (Villiers Street and Trinity Blvd corner)

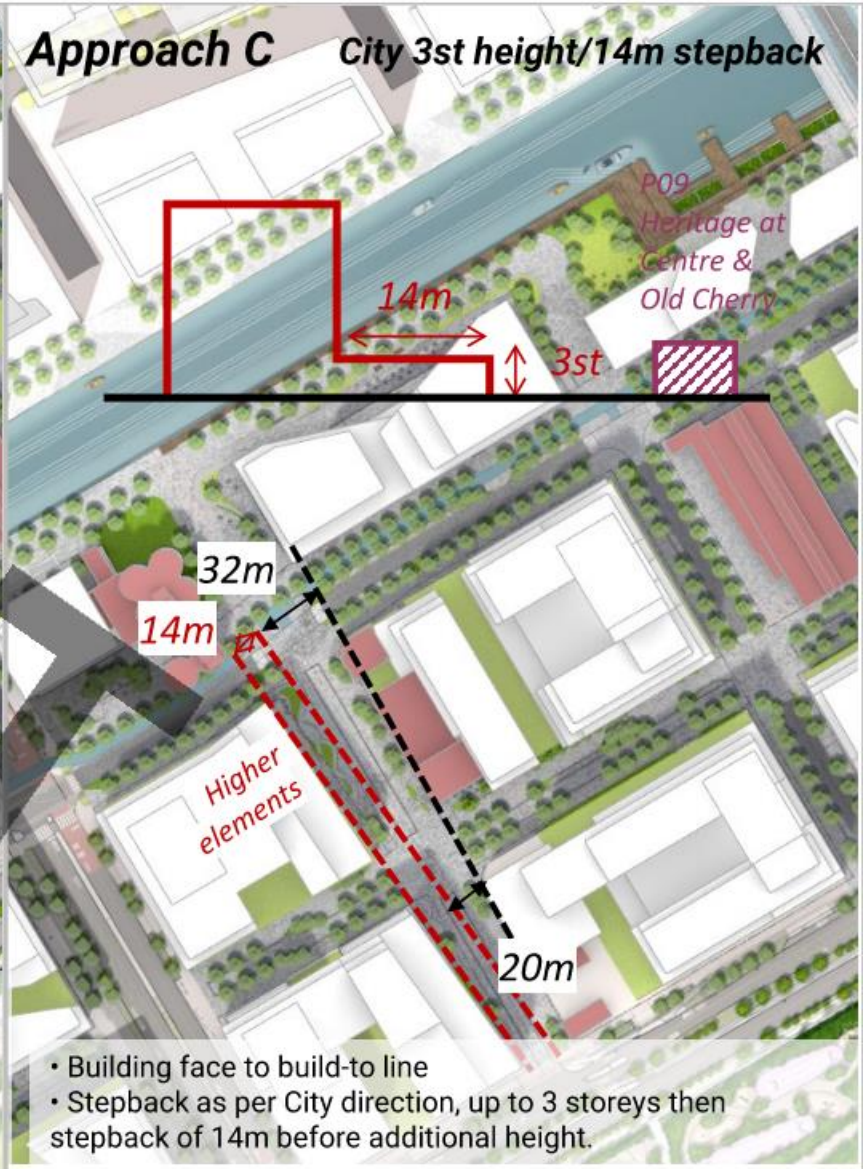


View B-1: Old Cherry Street Corridor

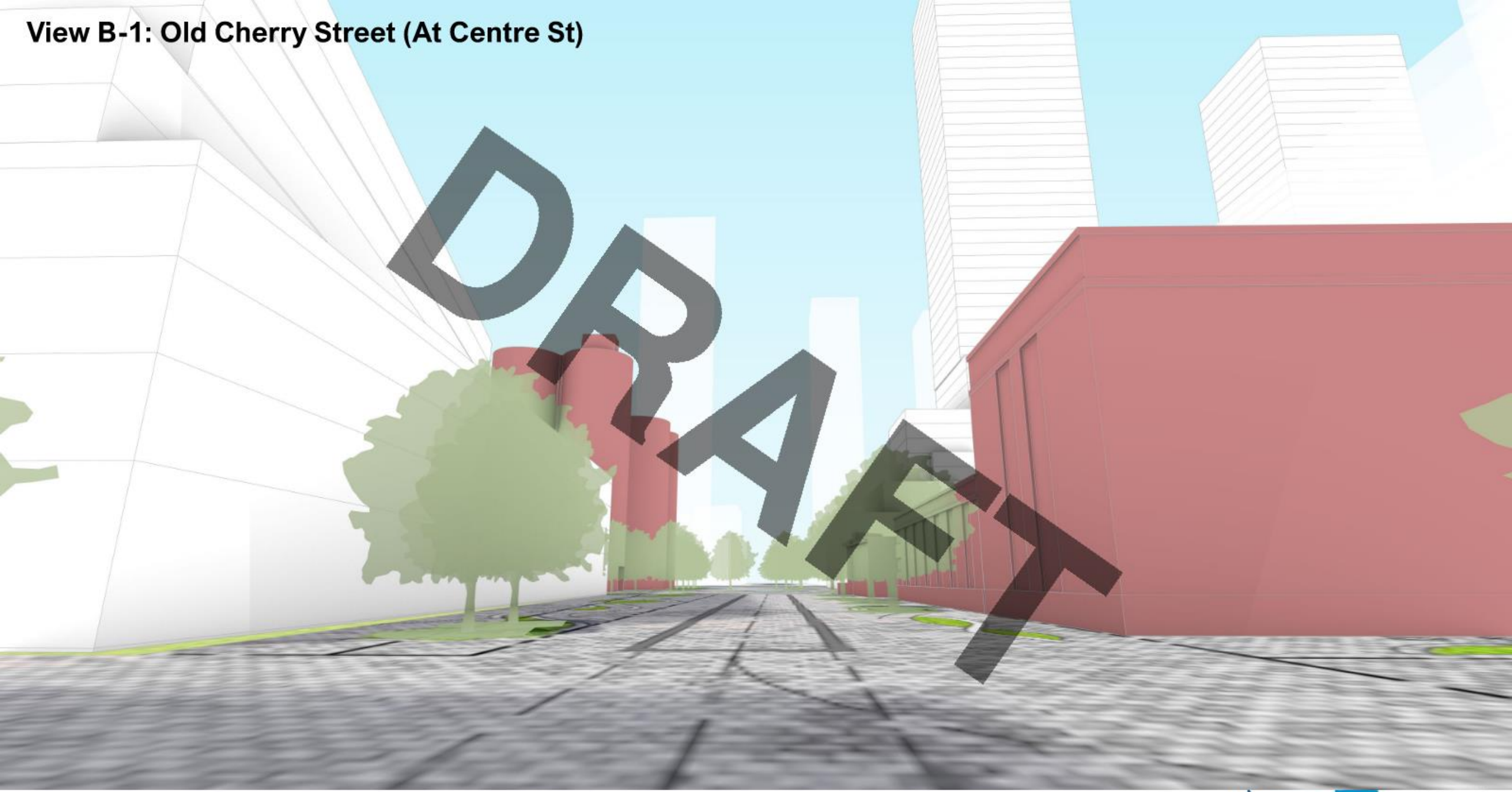
- **Retaining the prominence of the Essroc silos** as viewed along Villiers Street by maintaining low-scale development along the Keating channel.
- **Setbacks and stepbacks should frame and highlight heritage buildings on Old Cherry** and views to the parks and Keating promenade
- Explored approaches to further opening views to the silos/heritage buildings along Old Cherry Street - P08 & P16 blocks





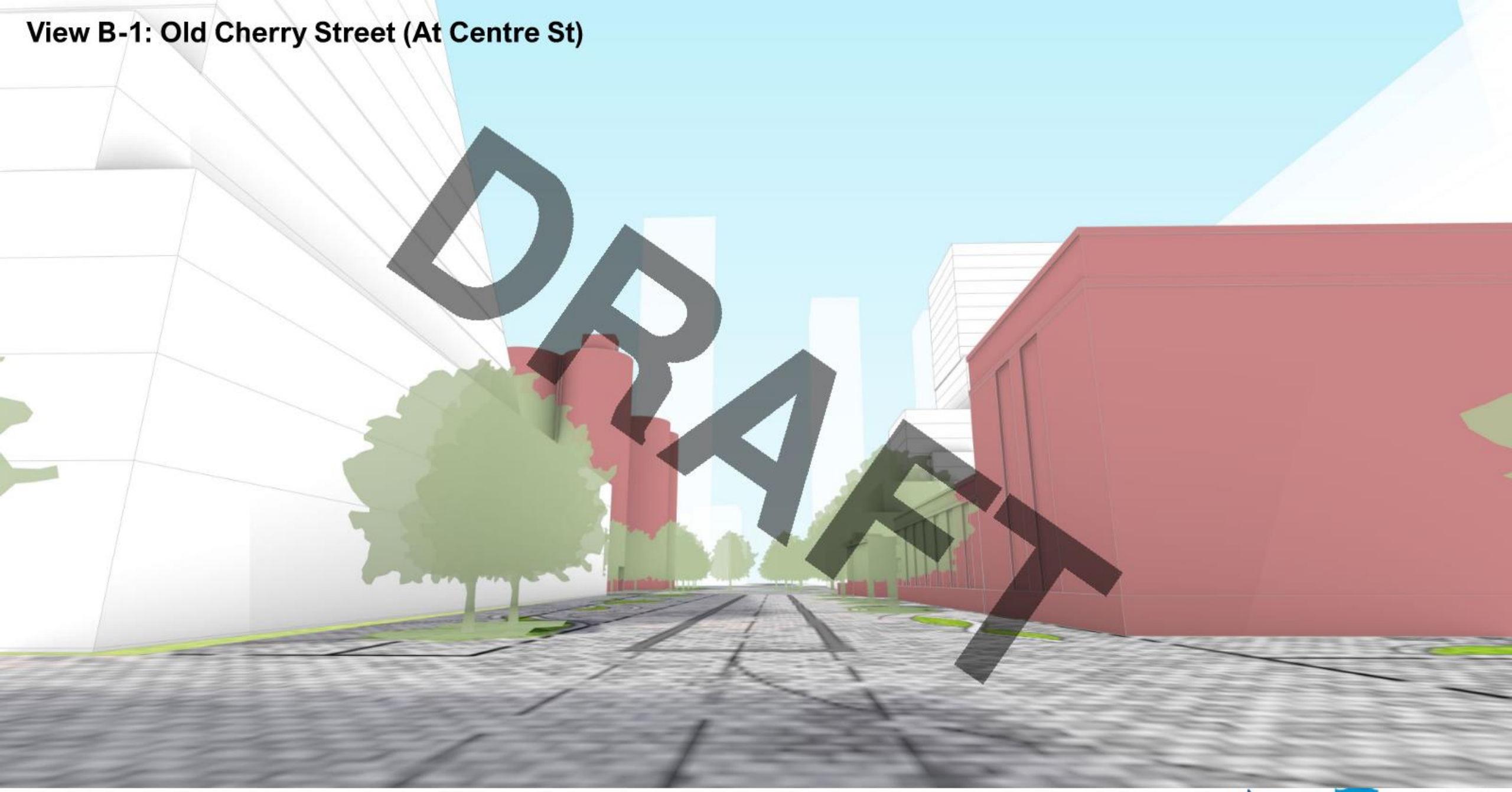


View B-1: Old Cherry Street (At Centre St)

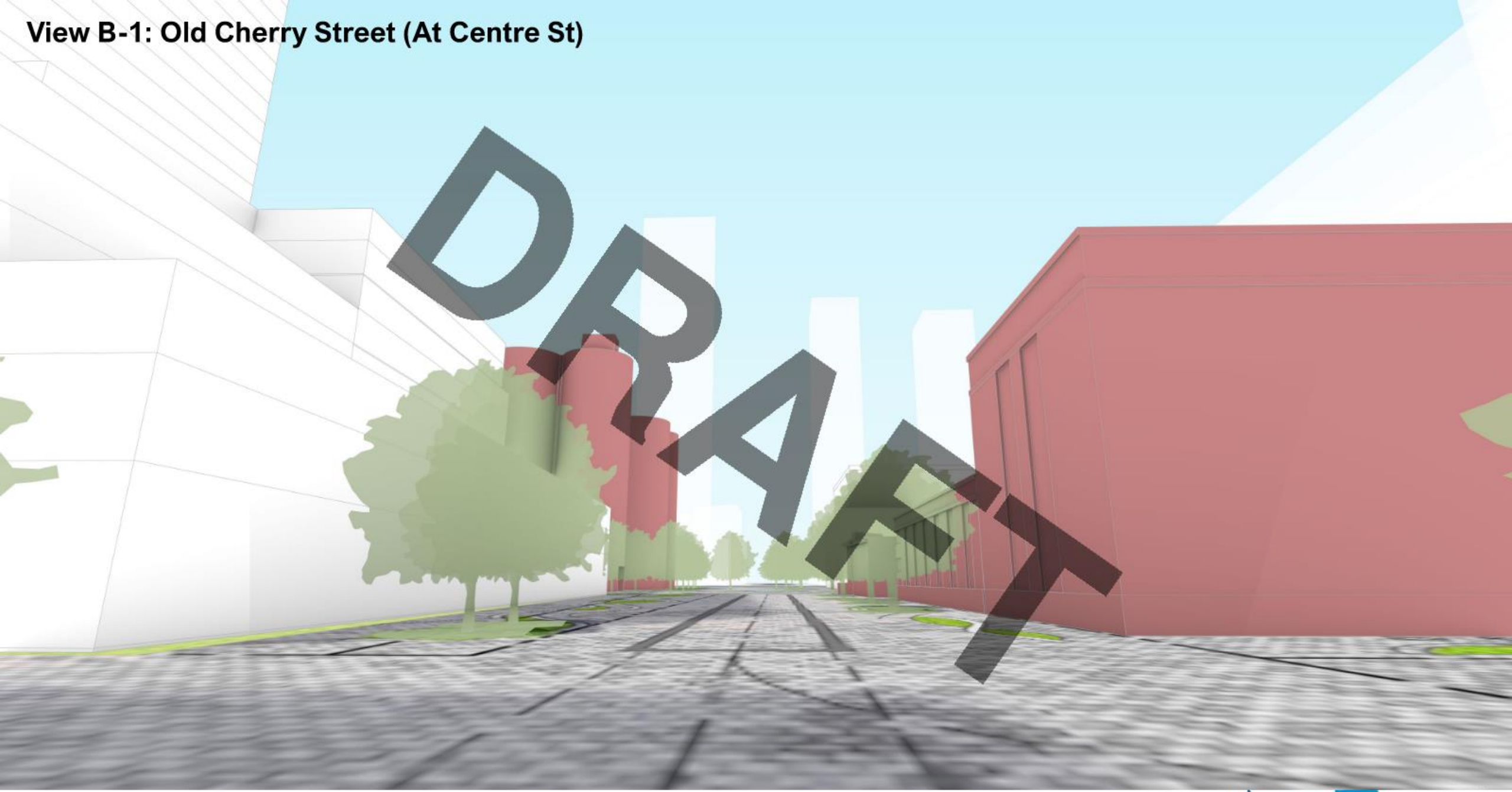


Approach 1- Density Focused south of Keating Channel

View B-1: Old Cherry Street (At Centre St)



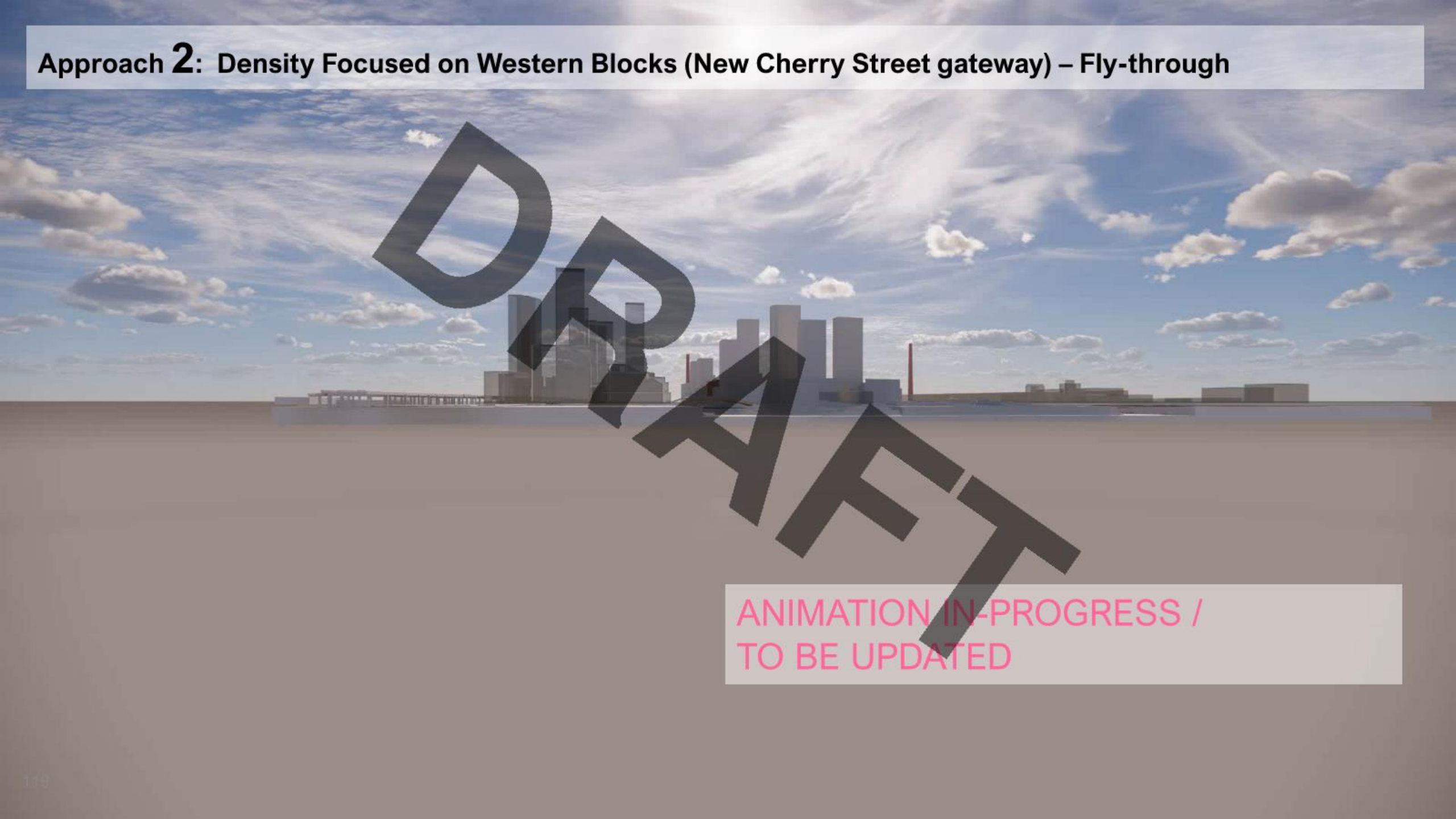
View B-1: Old Cherry Street (At Centre St)



Approach 1: Density Focused on Keating Channel & North Blocks – Fly-though

ANIMATION IN-PROGRESS /
TO BE UPDATED

Approach 2: Density Focused on Western Blocks (New Cherry Street gateway) – Fly-through



ANIMATION IN-PROGRESS /
TO BE UPDATED

Approach 3: Density Focused on Central Blocks – Fly-through