162 Queens Quay East

Detailed Design

September 25th, 2019

Site Context

162 Queens Quay East

Proponent: 162 Queens Quay GP Inc.
Design Team: Kirkor Architects, Alexander Budrevics
Review Stage: Detailed Design

Site Context
East Bayfront Precinct Plan

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Review Stage: Detailed Design

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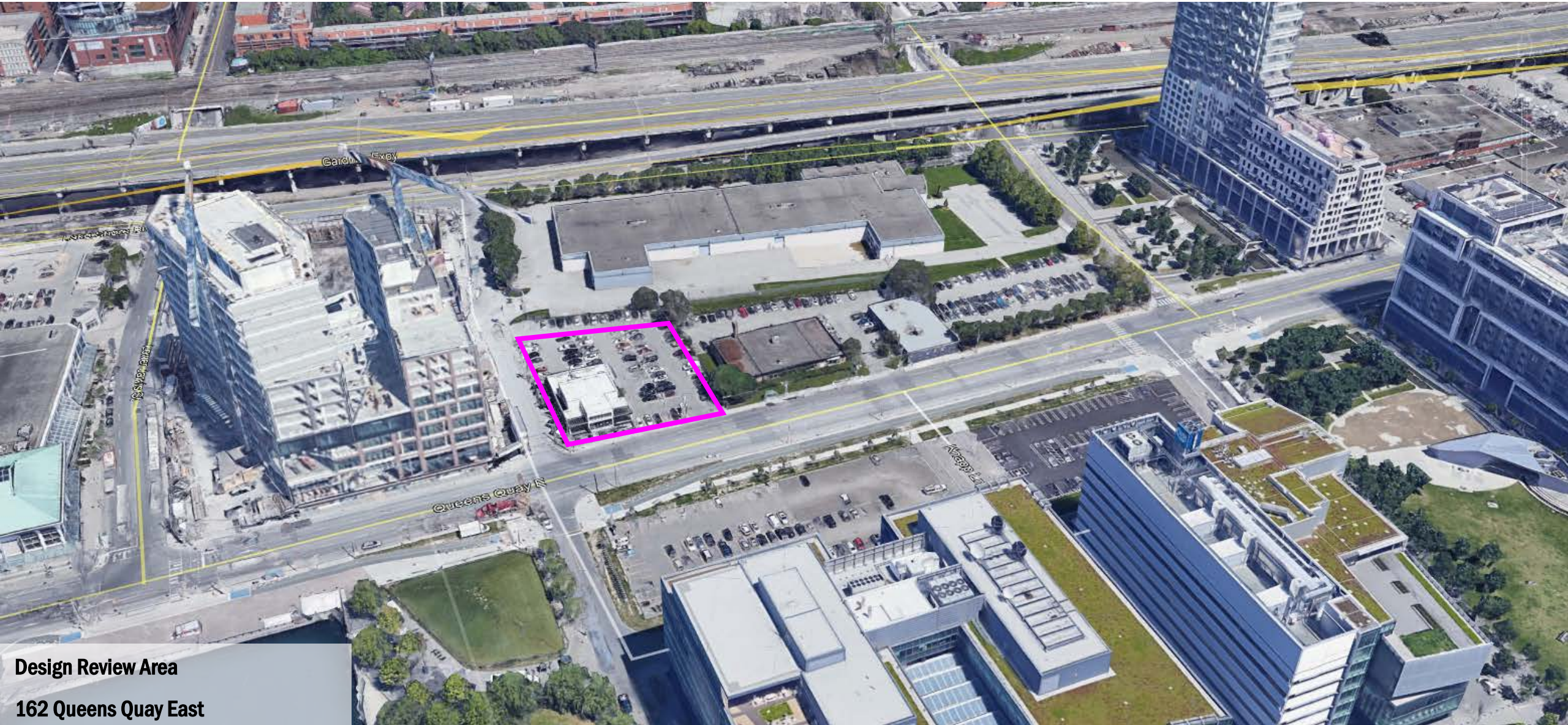

Site Context

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Review Stage: Detailed Design

Policy Context – Central Waterfront Secondary Plan

162 Queens Quay East

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Review Stage: Detailed Design

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.

Creating Dynamic and Diverse New Communities

(P31) Excellence in the design of...buildings, infrastructure...and public spaces...to achieve worldwide recognition

(P32) New development will be located...and massed to protect view corridors...and frame...the public realm...

Project Description & Background

162 Queens Quay East

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Review Stage: Detailed Design

- The development parameters defined through an appeal and subsequent Minutes of Settlement (2014).
- Shares a portion of the FedEx Block (215 Lake Shore Blvd. E & 178-180 Queens Quay East).
- 27,683 square metres of GFA with a 1.5 metre stepback 18.5-metres and a 36.9-metre podium stepping up to 68.5-metres plus MPH.
- The building program will be primarily residential with retail uses at grade.
- Cash-in-lieu contributions for affordable rental housing has been satisfied.
- Key Milestones for other buildings on the FedEx block:
    - 215 Lake Shore Blvd. East – targeting Spring 2019 for excavation and structural permits.
    - 178-180 Queens Quay East – Draft Plan of Subdivision submitted in 2018 and targeting submission of a Site Plan Approval application July 2019.

Site Context – 178+180 Queens Quay East

From July 2019 DRP – Issues Identification

162 Queens Quay East

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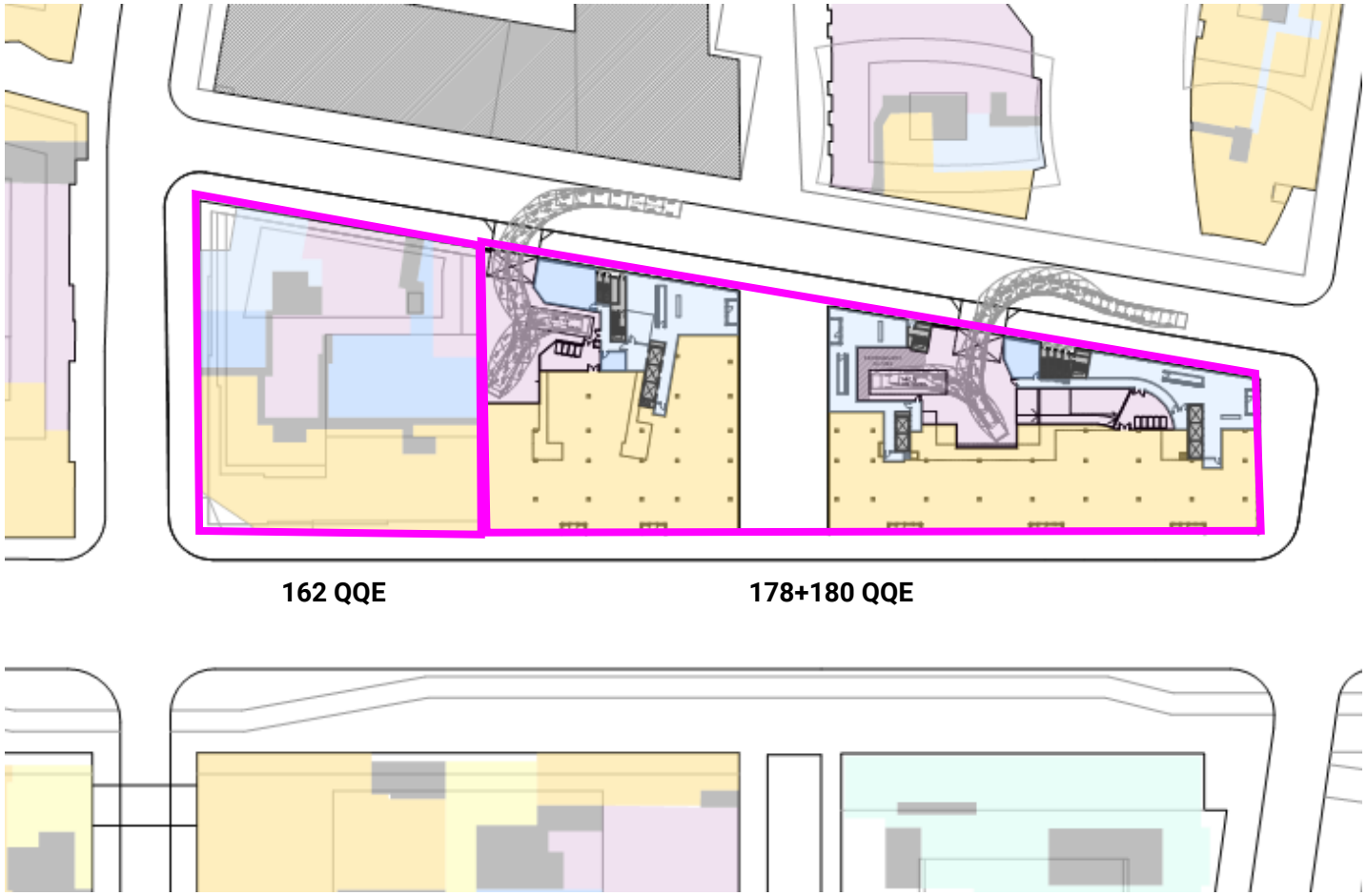
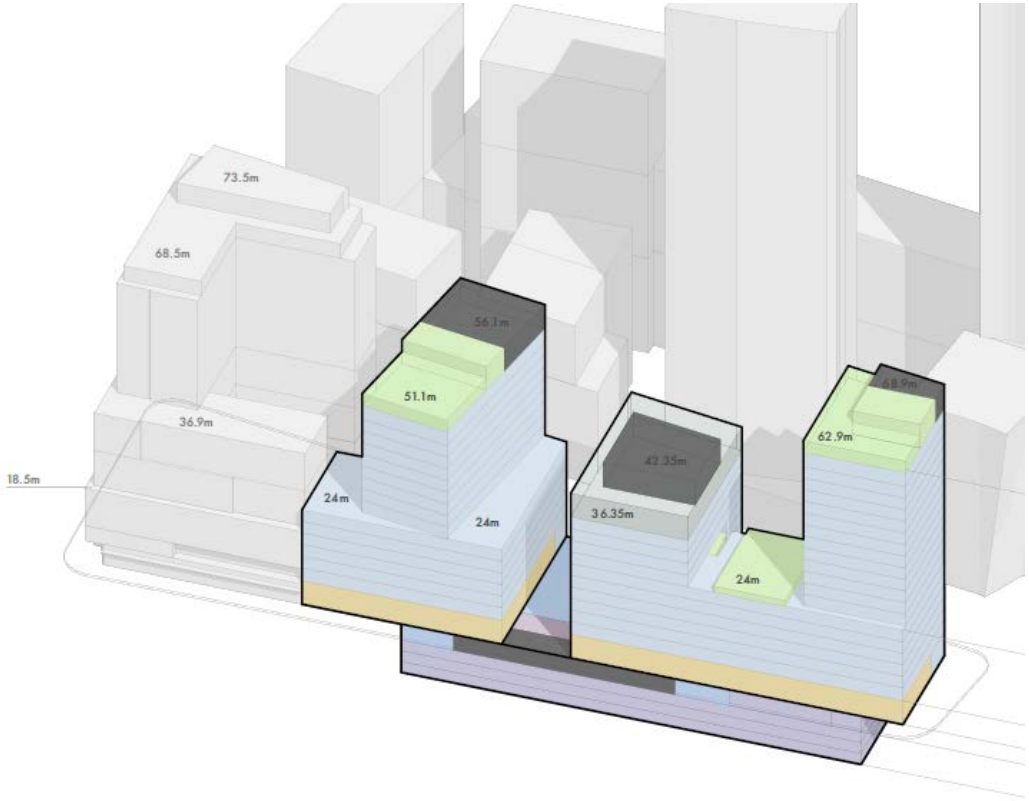


162 QQE

178+180 QQE

178+180 AOR Massing



Planning Context– OMB Settlements

162 Queens Quay East

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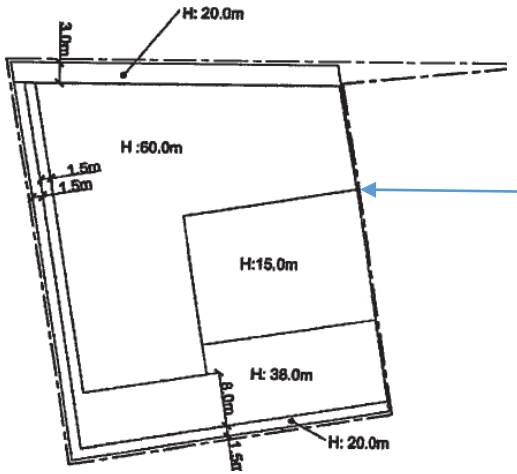
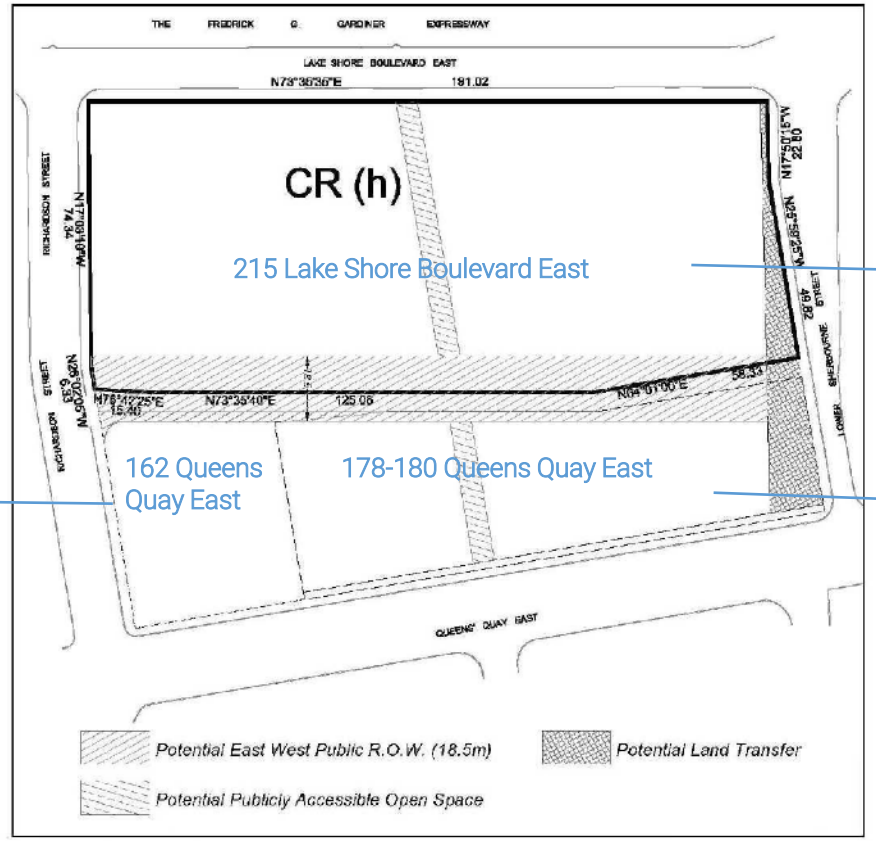
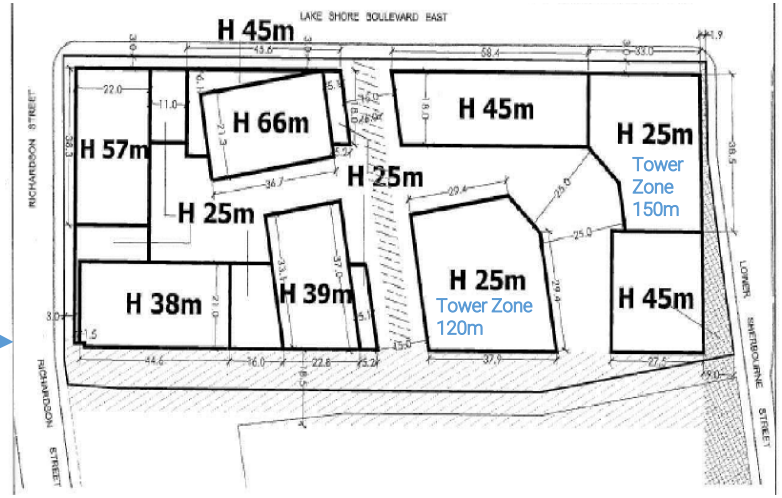
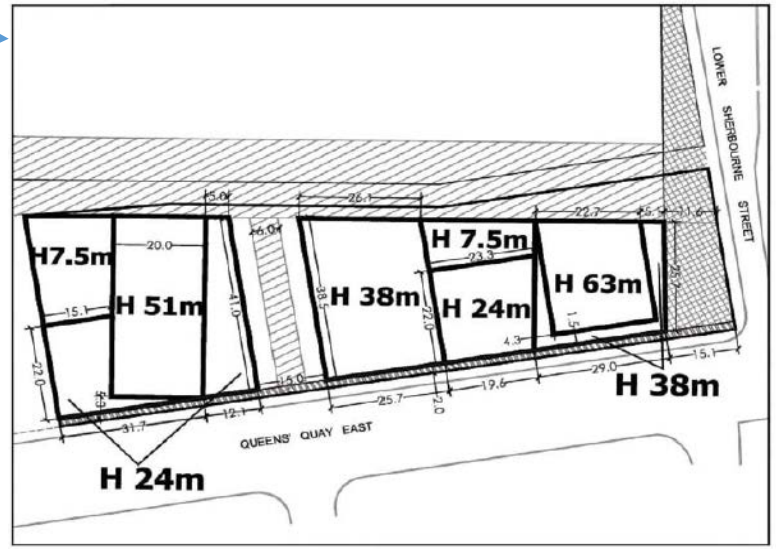
Review Stage: Detailed Design









Planning Context–
Consistent Podium Height

162 Queens Quay East

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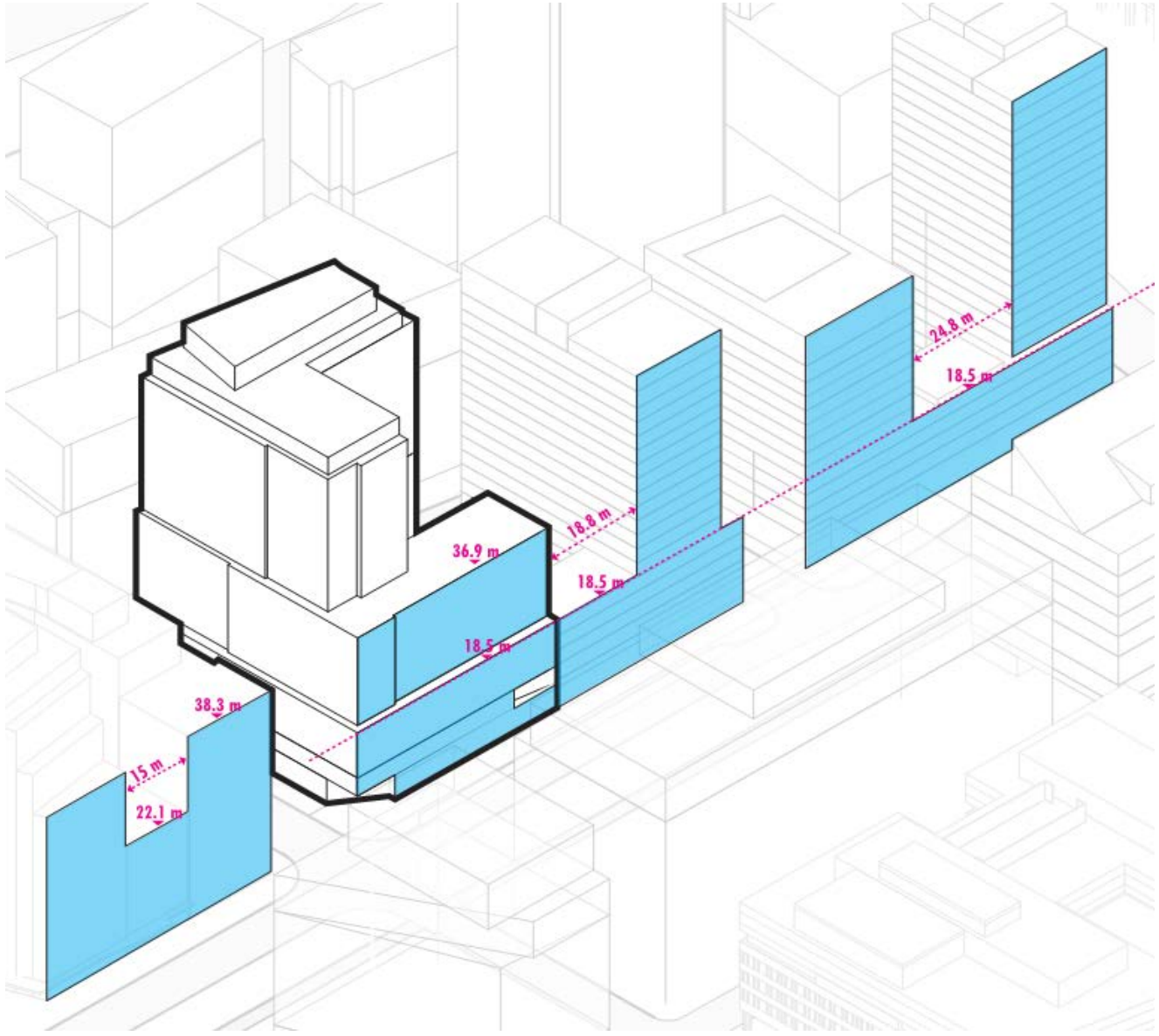
Review Stage: Detailed Design



Project Approval Stage

DRP Stream 2: Private land – Site Plan Approval

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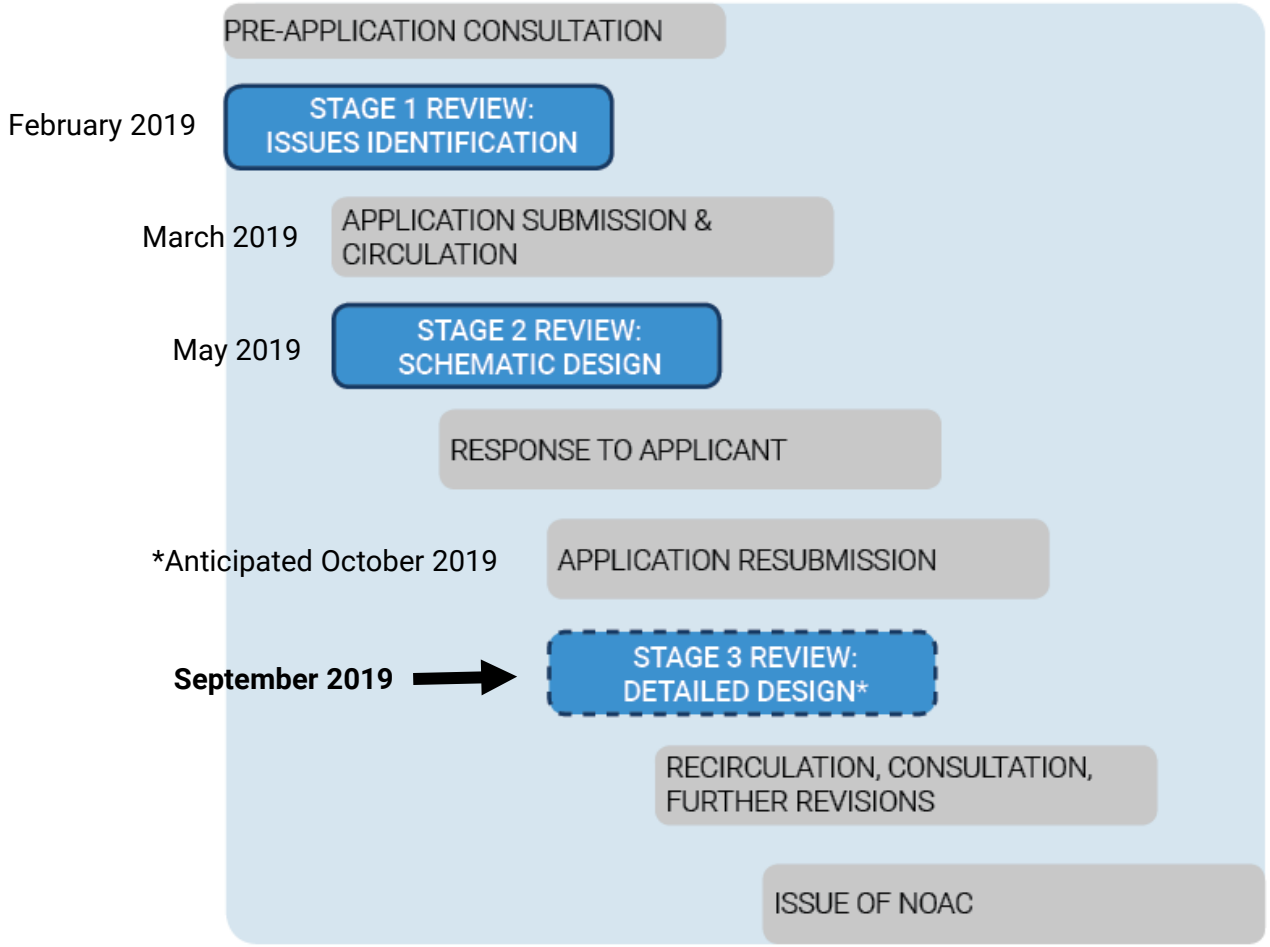

May 2019 DRP– Consensus comments

162 Queens Quay East

Proponent: 162 Queens Quay GP Inc.
Design Team: Kirkor Architects, Alexander Budrevics
Review Stage: Detailed Design

General

- The Panel is encouraged by the progress of the project.
- Consider stepping up the Queens Quay East podium façade near the adjacent building.
- Consider pushing the envelope of the exterior materiality and introduce subtler tones.
- Ensure that the landscape renderings are consistent with what is proposed.

Ground floor and public realm

- Consider the relationship between the Daniels development and 162 QQE, and address concerns for materiality, corner condition, canopy design and the reading of both buildings together.
- Consider moving the benches away from the building façade.
- Consider introducing more biodiversity in the green roof plantings and trees.
- The lightwell objective of bringing in light should be pushed further.

Planning for right-of-way of the new east-west street

- Explore the possibility of a shared ramp with the future adjacent building to preserve ground floor animation space.
- Consider moving the bike parking downstairs to free up valuable ground floor space.

Sustainability

- n/a

Areas for Panel Consideration- Waterfront Toronto

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Review Stage: Detailed Design

Building

- Does the **revised material palette and elevation** strategy meet or exceed WT's design excellence objectives?

Landscape / Public Realm

- Does the **proposed landscape treatment** at Queens Quay and Richardson provide continuity with the vision of Queens Quay East and the built west side of Richardson St.

- Does the proposed **Northwest building corner condition** and streetscape treatment support the future east-west street vision to accommodate services and drop-offs.?

- Does the proposed **skylight system and rooftop design** support the project's objectives of design excellence in amenities and landscape?

Sustainability

- Do the **revised sustainability targets** support Waterfront Toronto's sustainability objectives?

KIRKOR

WATERFRONT TORONTO
DESIGN REVIEW PANEL

162 QUEENS QUAY E.

TORONTO, ONTARIO

EMPIRE
armstrong

ALEXANDER BUDREVICS

KIRKOR

KIRKOR

1 EMPIRE armstrong

ALEXANDER BUDREVICS

KIRKOR

162 QUEENS QUAY EAST
TORONTO, ONTARIO

DATE : SEPTEMBER 18, 2019

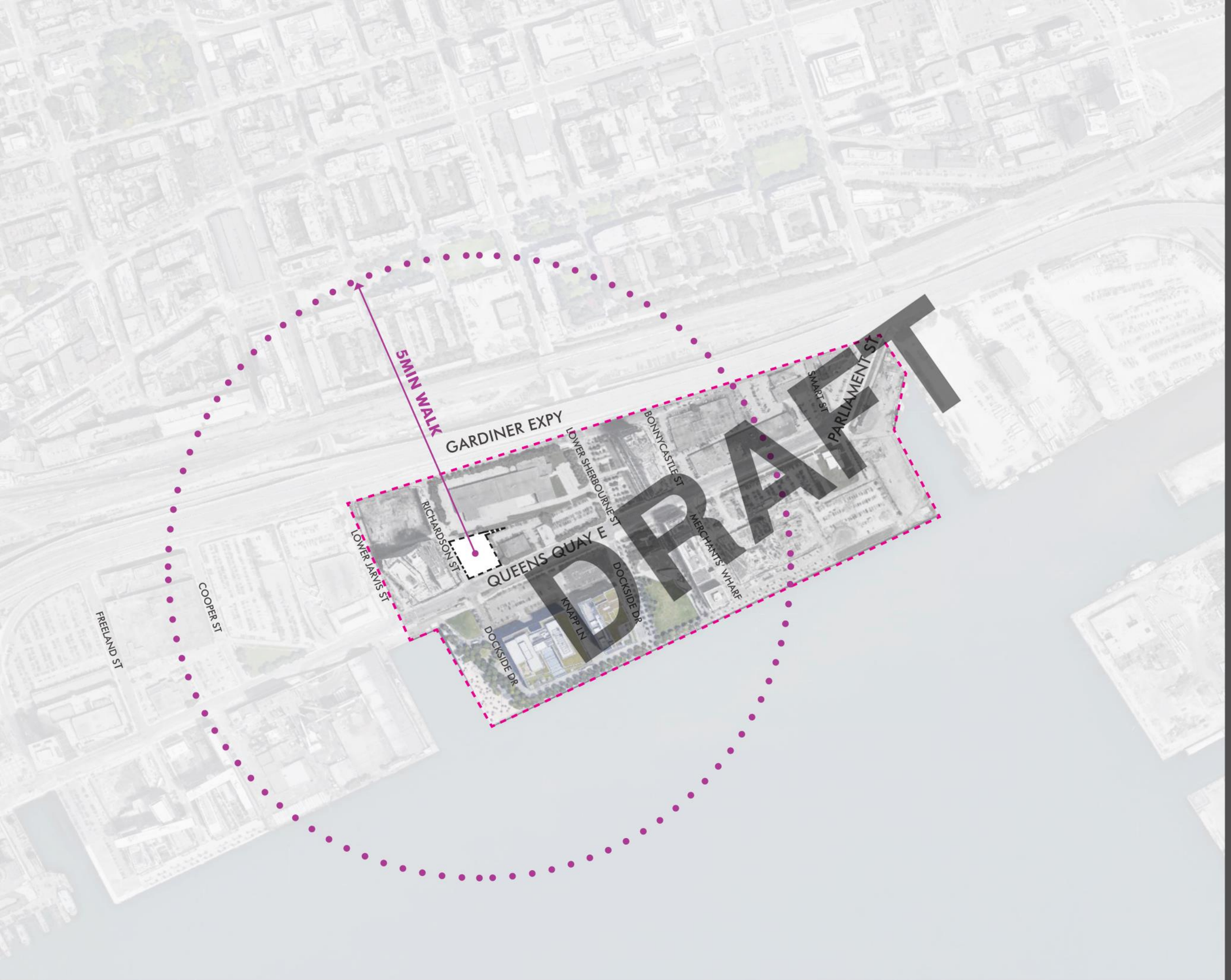
KIRKOR

01 | SITE LOCATION

CONTEXT PLAN

SITE

5 MIN WALKING RADIUS



DRP #2 ISSUES IDENTIFICATION

CONSENSUS COMMENTS:

- Consider relationship to EAST development. Distance between buildings
*Comment from 178 Queens Quay E. 1st DRP Meeting July 24, 2019
(page 5-9)

- Consider relationship with the DANIELS development to the west
(page 10-11)

- Consider the integrity of material contributing to the IDENTITY of the neighbourhood
(page 15)

- Consider MATERIALITY and introduce subtler tones
(page 16)

- SIMPLIFY the colors to express the massing
(page 17-20)

- More subtle lighting on the CANOPY
(page 26)

- DIVERSIFY materiality on the ground floor
(page 26-30)

- Increase SKYLIGHT areas to maximize light
(page 31-32)

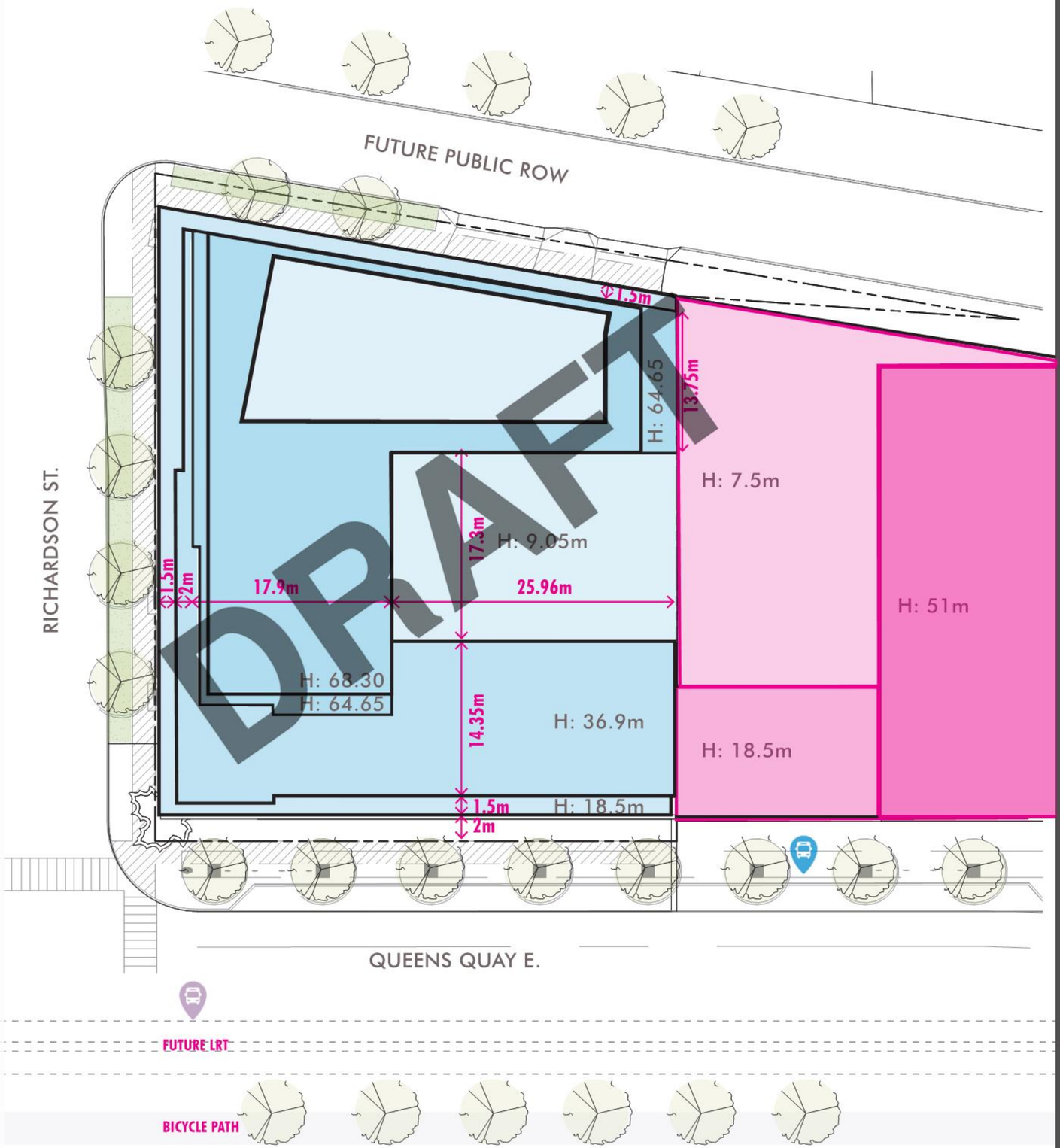
- Consider the Amenity facade and the canopy relationship
(page 22-23)

- Move benches and landscape away from the building facade on QUEENS QUAY STREETSCAPE
(page 34&39)

- Consider introducing more BIODIVERSITY in the green roof plantings and trees
(page 36-37)

- Explore the possibility of a shared RAMP

- Consider moving the BICYCLE parking downstairs



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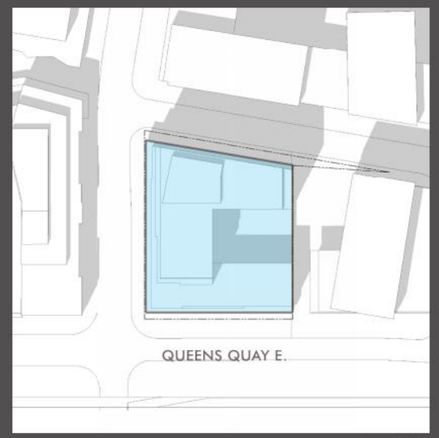
02 | SITE PLAN
PROPOSED

SITE PLAN



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03 | SITE MASSING
PROPOSED

LEGEND

PROPOSED PORJECT

ADJACENT DEVELOPMENT

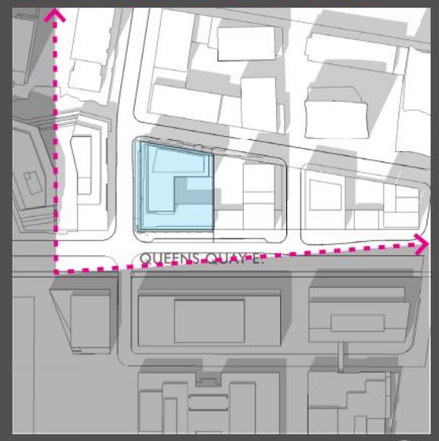
COMMENT

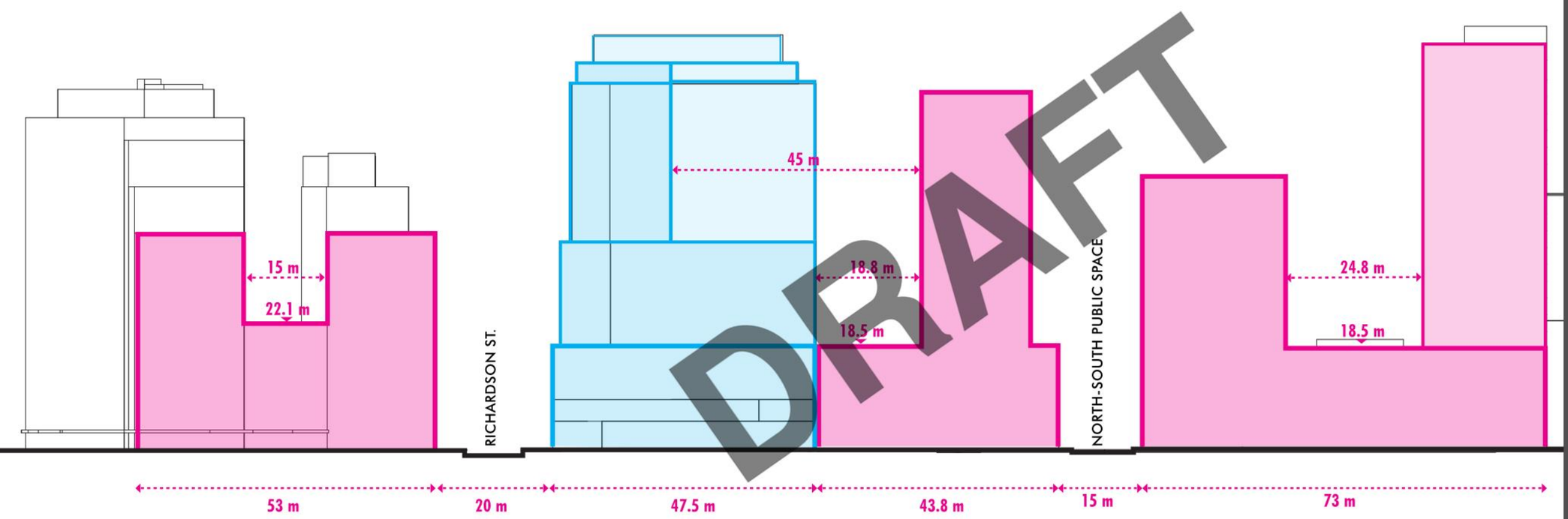
*made during 178 Queens Quay E. 1st DRP Meeting, July 24, 2019

- Consider a setback along the southeastern wing of the building (adjacent to 178 Queens Quay East) to create a larger setback between buildings.

RESPONSE

- The distance between the buildings fit within the overall pattern and context of Queens Quay. The current seperation distance is larger than that of Daniels to the East, and provides a smooth transition to the larger seperation distance between the 178 Queens Quay East center and eastern tower.





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03 SITE MASSING
STREET SECTION

LEGEND

PROPOSED PORJECT

ADJACENT DEVELOPMENT

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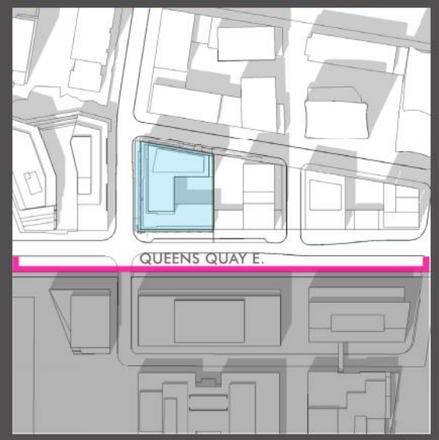
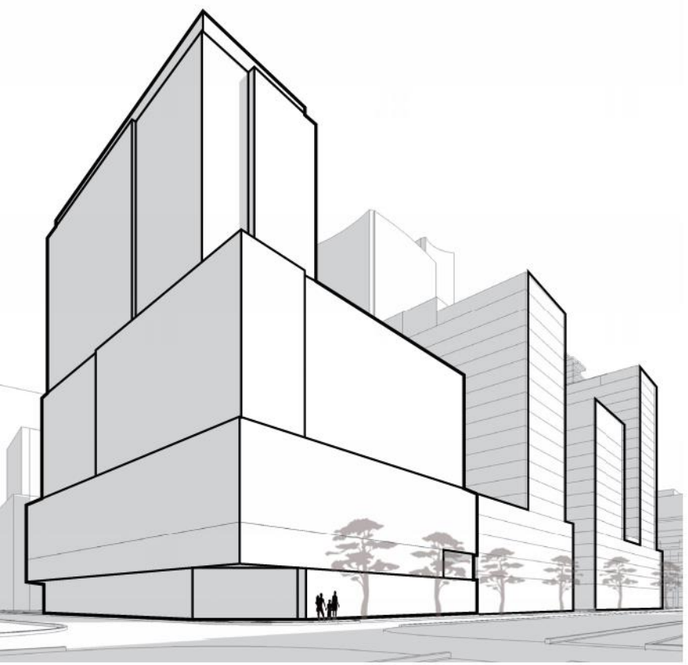
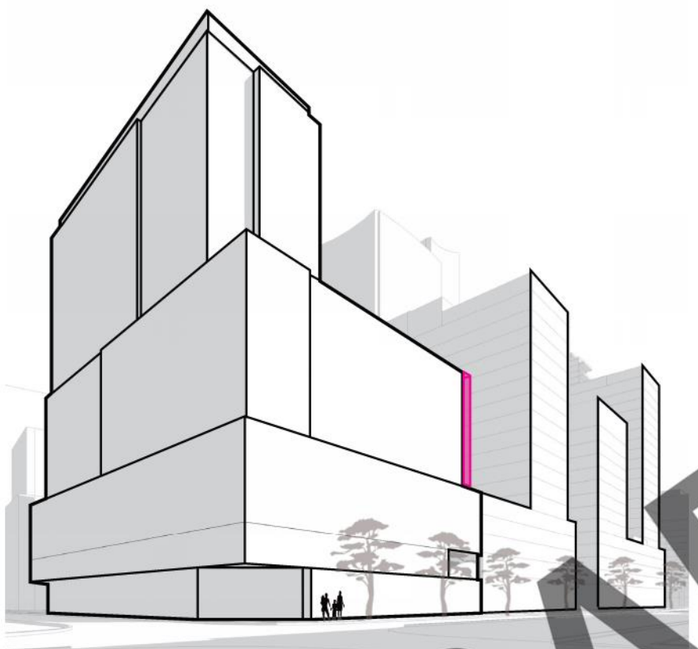


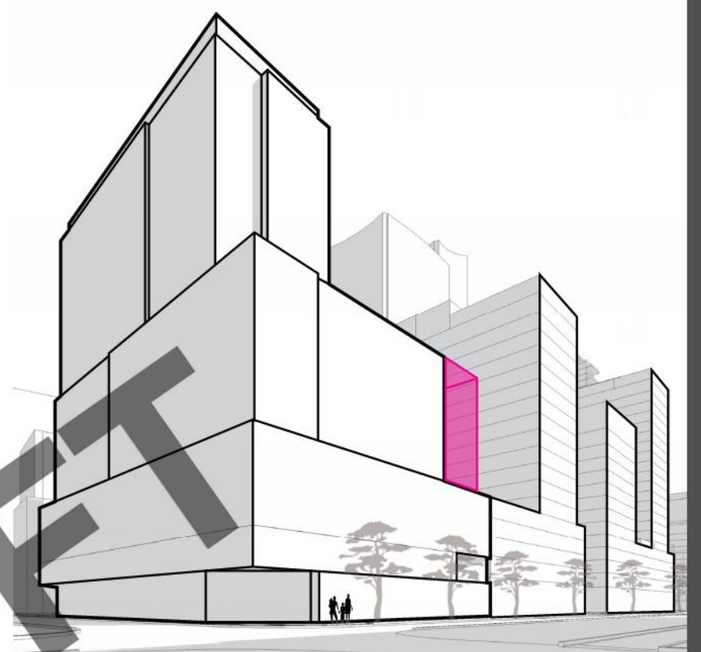
ORIGINAL MASSING



2M STEPBACK ON EAST



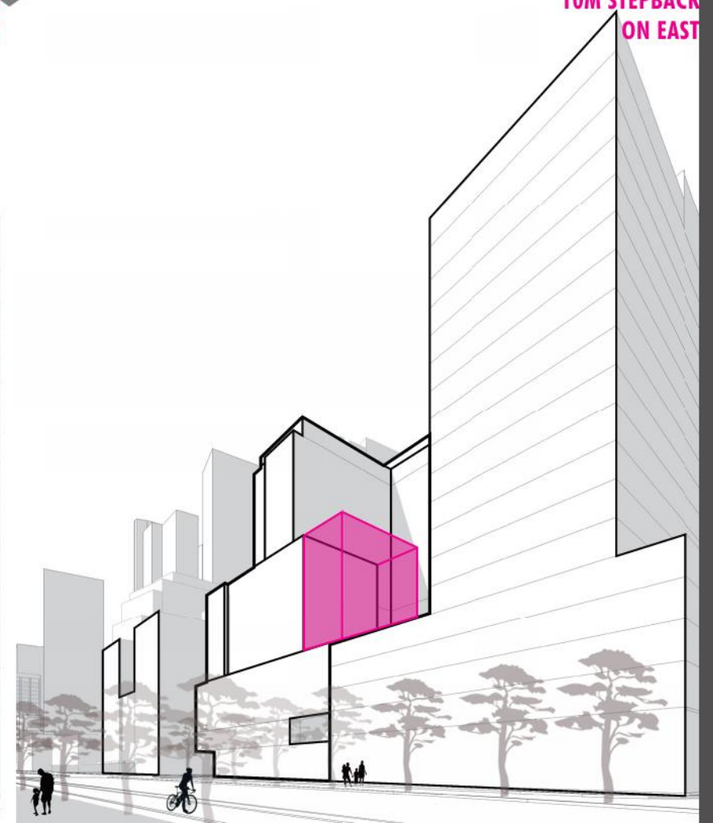
10M STEPBACK ON EAST



ORIGINAL MASSING

2M STEPBACK ON EAST

10M STEPBACK ON EAST



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03 SITE MASSING
STREET SECTION

LEGEND

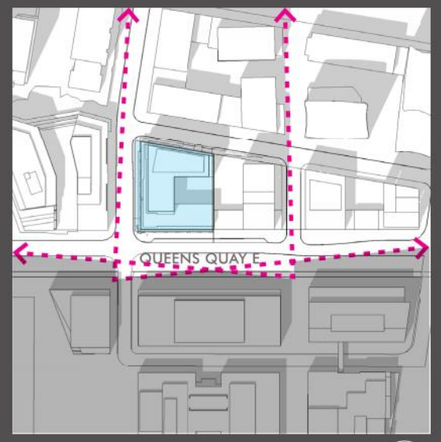
MASSING LOST

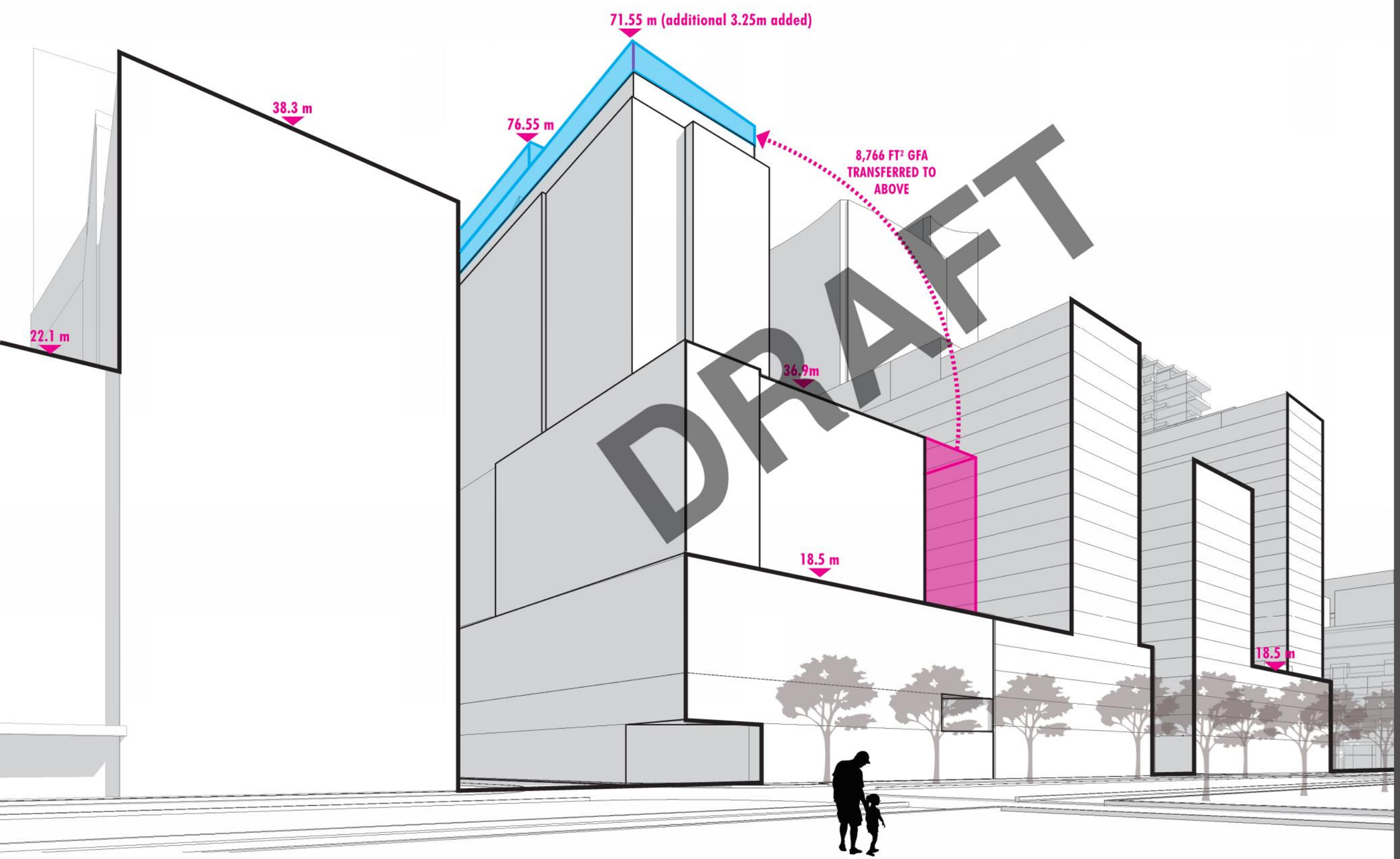
COMMENT
*made during 178 Queens Quay E. 1st DRP Meeting, July 24, 2019

- Consider a setback along the southeastern wing of the building (adjacent to 178 Queens Quay East) to create a larger setback between buildings.

RESPONSE

- A 2m setback on the eastern portion of the podium would not create a noticeable impact. A 10m setback would create a significant loss in GFA that would ultimately need to be added to the top of the building, increasing overall height and storeys.





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03 SITE MASSING
STREET VIEW

LEGEND

MASSING LOST

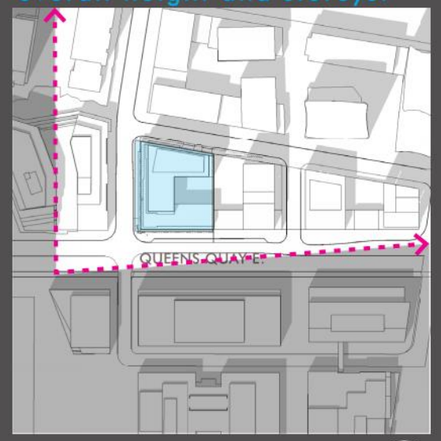
MASSING ADDED

COMMENT
*made during 178 Queens Quay E. 1st DRP Meeting, July 24, 2019

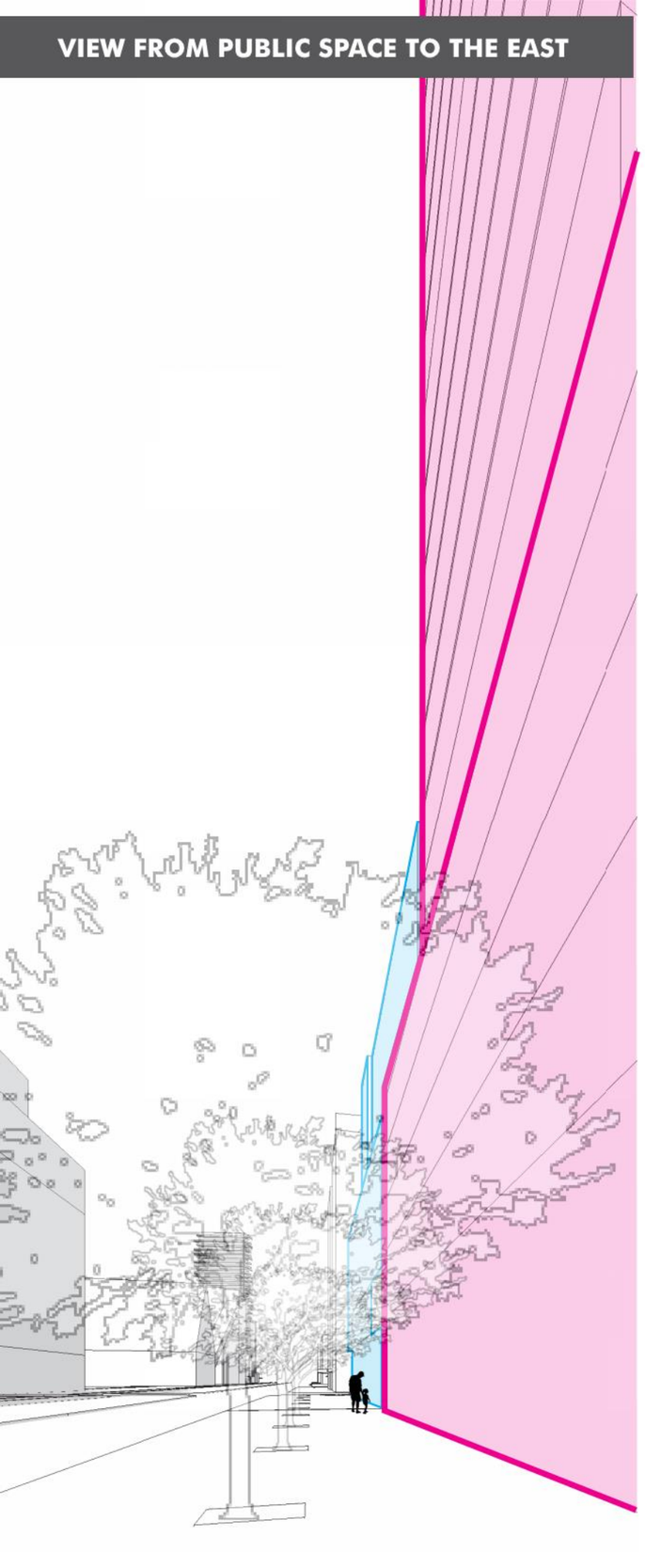
- Consider a setback along the southeastern wing of the building (adjacent to 178 Queens Quay East) to create a larger setback between buildings.

RESPONSE

- A 2m setback on the East would not create a noticable impact. A 10m setback would create a huge loss in GFA that would add an extra storey to the building.
- A 10m setback would create a great loss of GFA from the podium. This would ultimately need to be added to the top of the building, increasing overall height and storeys.



VIEW FROM PUBLIC SPACE TO THE EAST



VIEW FROM MID-BLOCK

VIEW NEXT TO SITE

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03 SITE MASSING

PEDESTRIAN VIEW OF CURRENT MASS

LEGEND

PROPOSED PORJECT

ADJACENT DEVELOPMENT

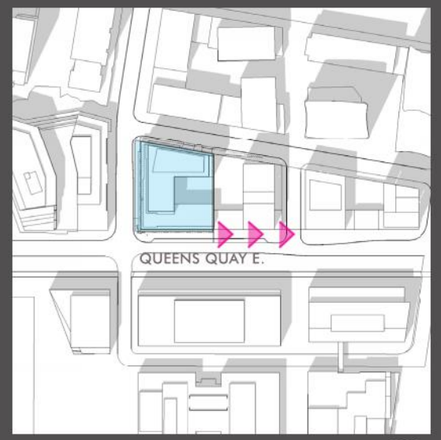
COMMENT

*made during 178 Queens Quay E. 1st DRP Meeting, July 24, 2019

- Consider a setback along the southeastern wing of the building (adjacent to 178 Queens Quay East) to create a larger setback between buildings.

RESPONSE

- The as-proposed massing of the podium does not impact the pedestrian realm along Queens Quay East. The distance between the buildings is not visible from street/pedestrian view and therefore the impacts are negligible.



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04 | SITE CONTEXT
RICHARDSON ST.

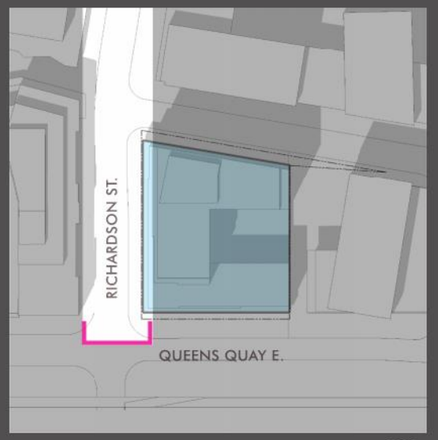
RICHARDSON ST.

COMMENT

- Consider the relationship between the Daniels development and 162 Queens Quay

RESPONSE

- The massing and materiallity of 162 Queens Quay East compliments the massing of the Daniels development. Additional stepbacks on 162 Queens Quay East add variability and interest to the streetscape.



04 | SITE CONTEXT
QUEENS QUAY E.

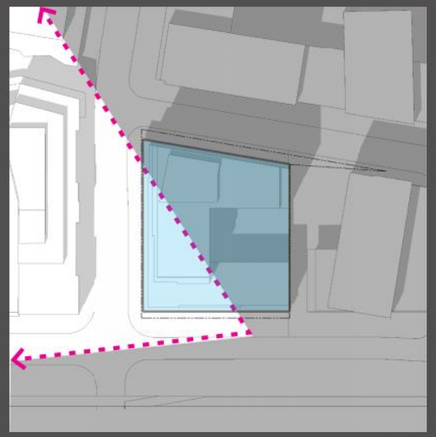
QUEENS QUAY EAST CORNER

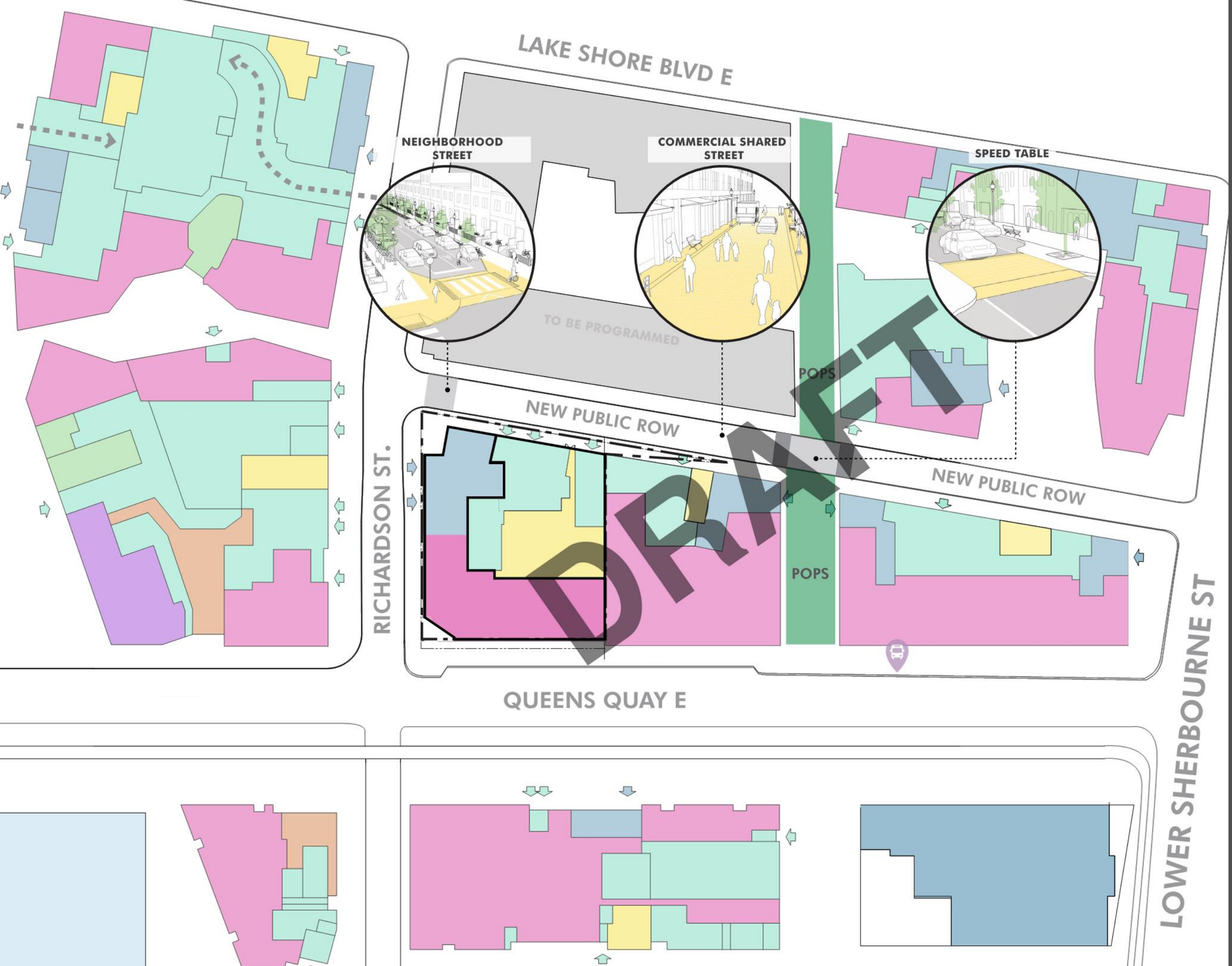
COMMENT

- Consider the relationship between the Daniels development and 162 Queens Quay

RESPONSE

- The South-West corner of 162 Queens Quay opens toward the Daniels building. The verticality in the panels and the grid of the windows found on both buildings compliment each other and create a common language using different materials.





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04 | SITE CONTEXT
BUILDING REALM

GROUND FLOOR PLANS

- RESIDENTIAL
- RETAIL
- BIKE PARKING
- SERVICE
- OFFICE
- INSTITUTIONAL
- RESTAURANT

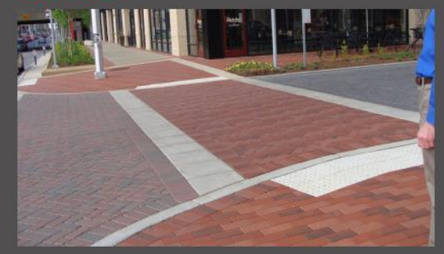
COMMENT

*As per comment from July 24, 2019

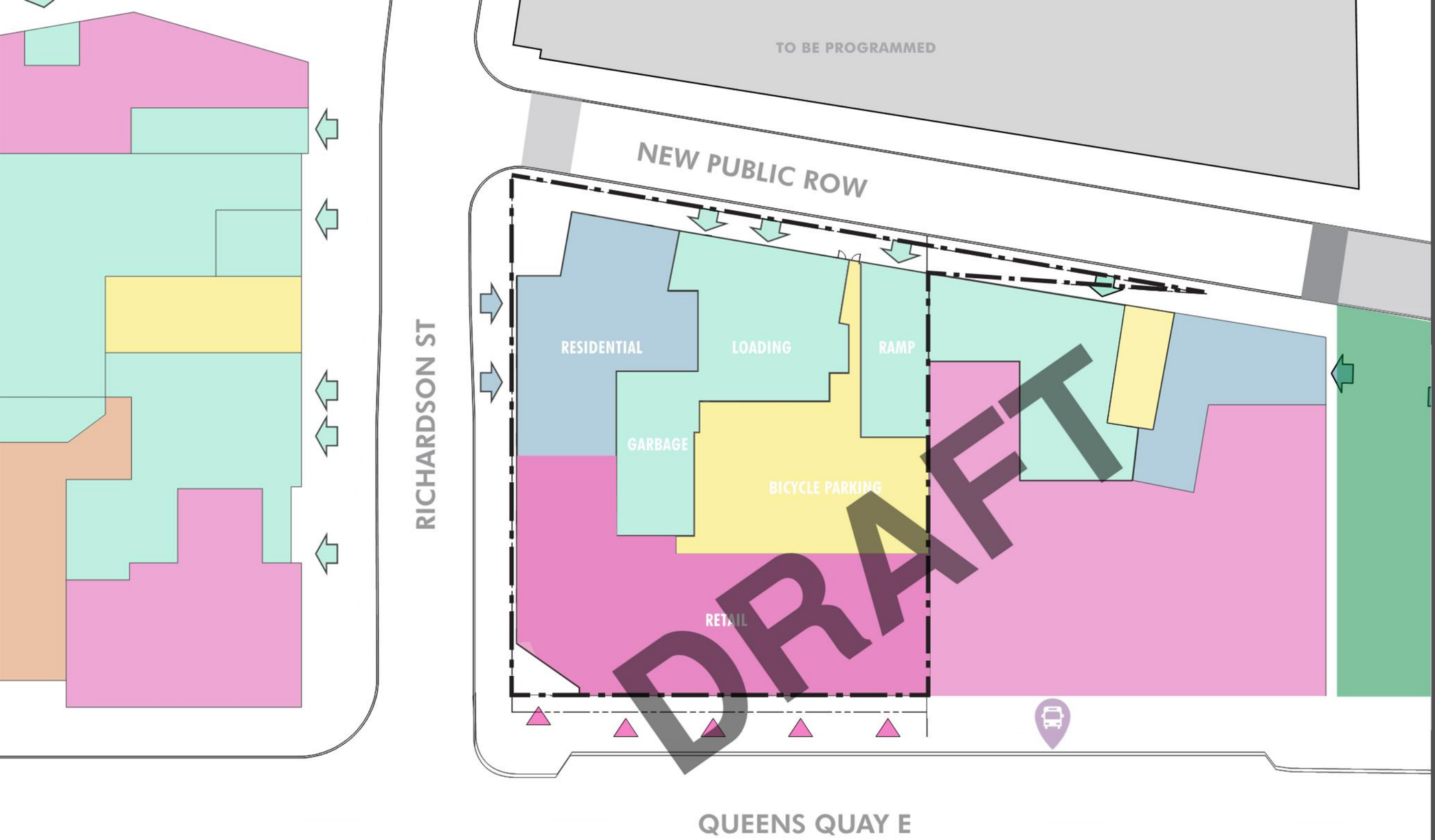
- Show more context program including adjacent streets in all directions, buildings, and public realm

RESPONSE

- Additional context shown. Opportunity to explore providing a different paver on the New Public ROW, and option to include a raised crosswalk between the POPS. These measures would define the New Street, assist with traffic calming and encourage a pedestrian friendly environment between blocks.



*Example of raised crossing



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05 | PROGRAM
BUILDING REALM

STREET FRONTAGES

- RESIDENTIAL ENTRANCE
- RETAIL FRONTAGE
- BIKE PARKING
- SERVICE ENTRANCE

05 | PROGRAM
BUILDING REALM

LEVEL 2 PROGRAM

- RESIDENTIAL
- REFUGE
- CO-WORKING
- SERVICE ENTRANCE
- BREAKOUT AREA
- YOGA ROOM
- FITNESS
- OUTDOOR AMENITY

06 | DESIGN CONCEPT
MATERIALS

EXISTING MATERIAL PALETTE

PROPOSED PORJECT

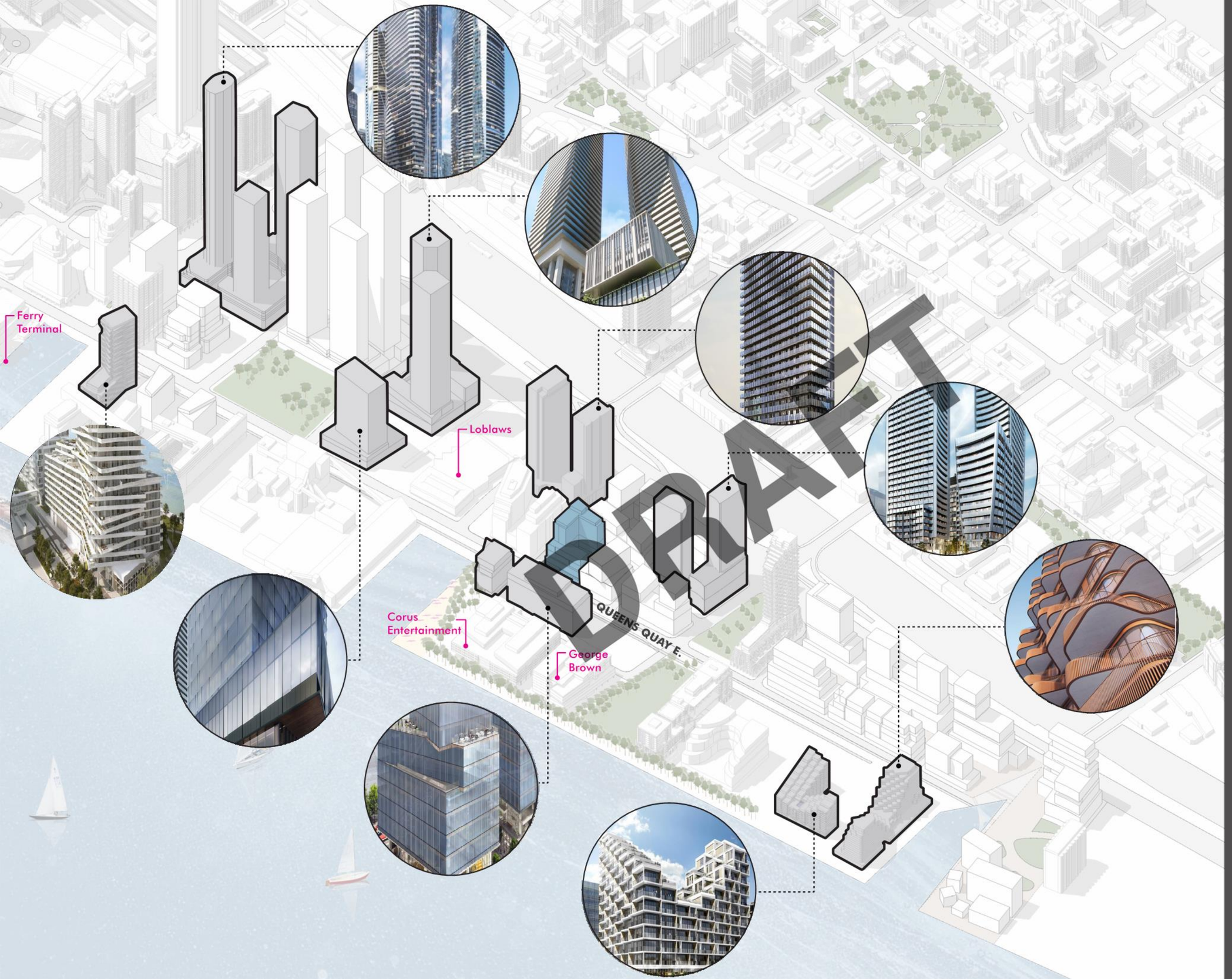
OTHER DEVELOPMENTS

COMMENT

- Consider the integrity of the material and how it contributes to the idenity of the neighbourhood

RESPONSE

- Analyzed and understood the existing and future materials found throughout the neighbourhood. Proposed materials compliment the other developments in a similar language.



WHITE METAL PANEL

CLEAR VISION GLASS PANEL

LIGHT GREY METAL PANEL

WOOD PANEL

SILVER/METALIC METAL PANEL

TYPICAL QUEENS QUAY RED SMALL PAVER

DRP I

DRP II

DRP III

DRP II - NORTH ELEVATION

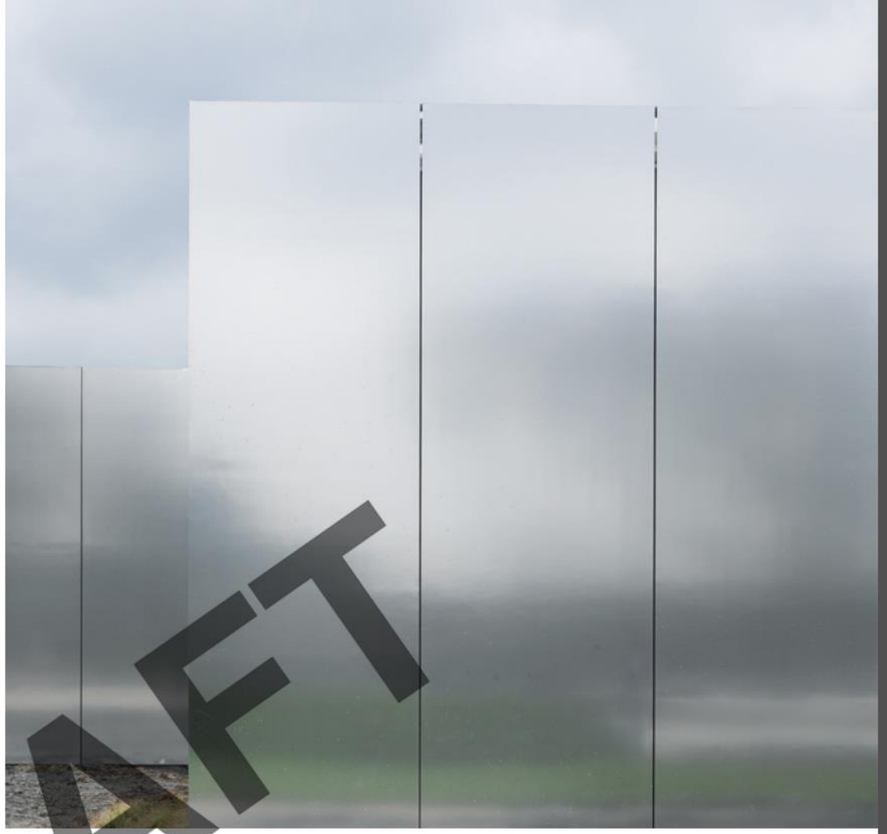
DRP II - WEST ELEVATION

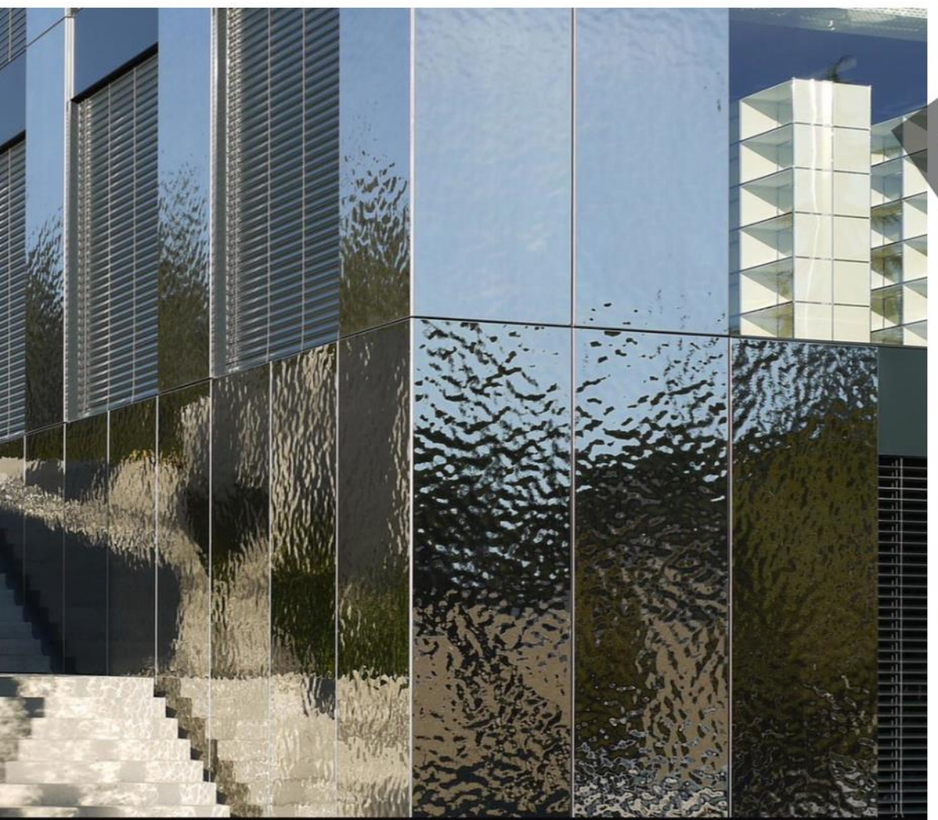
DRP II - SOUTH ELEVATION

CURRENT NORTH ELEVATION

CURRENT WEST ELEVATION

CURRENT SOUTH ELEVATION





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06 | DESIGN CONCEPT
MATERIAL PRECEDENTS

COMMENT

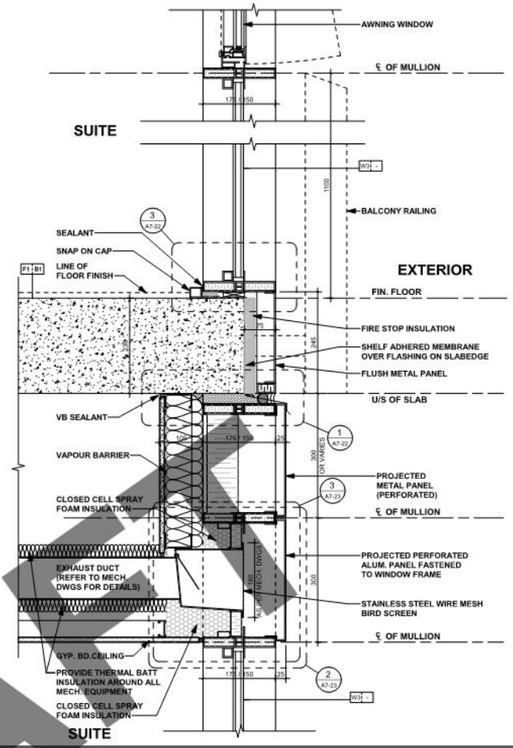
- Create subtle materiality changes. Consider tones of shimmer, silvers and grays.

RESPONSE

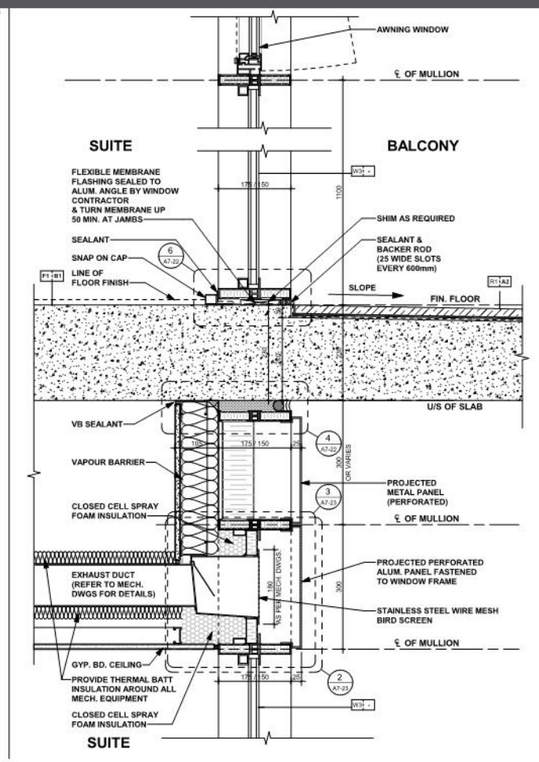
- Introduced reflective panels to create the effect of movement along the elevation as the sun and clouds move around the building throughout the day.

06 | DESIGN CONCEPT
ELEVATION DETAIL

BYPASS WINDOW WALL WITH VISION WINDOW



VISION WINDOW @ BALCONY & WINDOW WALL



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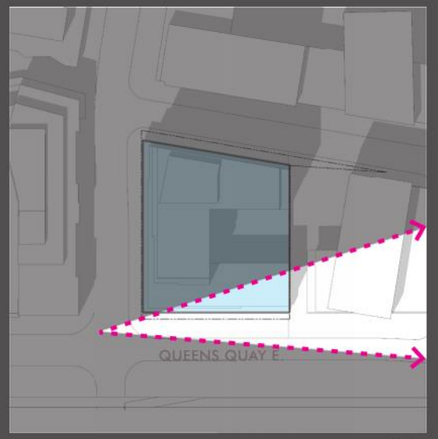
06 | DESIGN CONCEPT
RETAIL STREETSCAPE

COMMENT

- Consider diversifying the materials on the Ground floor

RESPONSE

- The Ground Floor mixes the panels used in the building with wooden panel details that bring a warmth to the streetscape and connects to the landscape



KIRKOR

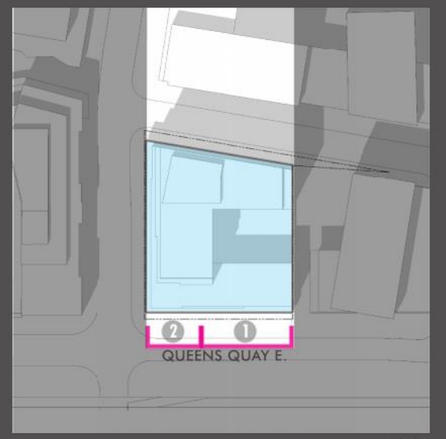
06 | DESIGN CONCEPT
GROUND ELEVATION

PARTIAL SOUTH ELEVATION

1. METAL PANEL - Snowfall White - 431R2183 - (Vaspar)
2. METAL PANEL - Duranar - Trout Gray - UC116675 - (PPG)
3. METAL PANEL - Silver Colour
4. VISION GLASS - RETAIL - Neutral 78/65 #2 - On Clear 6mm Double Glazing
5. VISION GLASS - TOWER - Neutral 50 - On Clear 24mm Double Glazing
6. CANOPY - METAL PANEL- Duranar - Trout Gray - UC116675 - (PPG)
7. CANOPY - WOOD PANEL, Clay Panel or Similar
8. MULLION - Duranar XLB - Graphite Gray - UC106708LB - (PPG)
9. SPANDRAL GLASS - Opaci Coat 300 - # 3-1338 Pigeon Grey - Vitro Clear

ELEVATION 1

ELEVATION 2



06 | DESIGN CONCEPT
GROUND ELEVATION

PARTIAL WEST ELEVATION

1. METAL PANEL - Snowfall White - 431R2183 - (Vaspar)
2. METAL PANEL - Duranar - Trout Gray - UC116675 - (PPG)
3. METAL PANEL - Silver Colour
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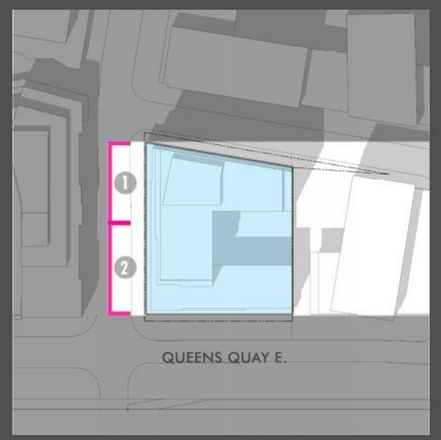
ELEVATION 1

ELEVATION 2



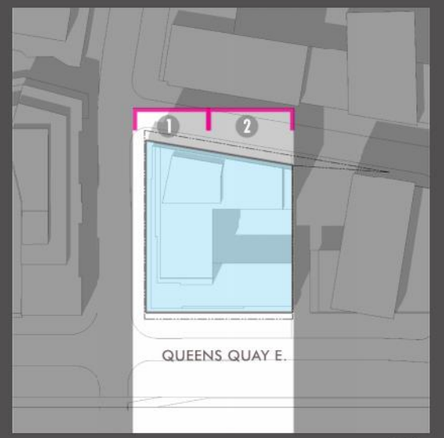
06 | DESIGN CONCEPT
GROUND ELEVATION

PARTIAL NORTH ELEVATION

1. METAL PANEL - Snowfall White - 431R2183 - (Vaspar)
2. METAL PANEL - Duranar - Trout Gray - UC116675 - (PPG)
3. METAL PANEL - Silver Colour
4. VISION GLASS - RETAIL - Neutral 78/65 #2 - On Clear 6mm Double Glazing
5. VISION GLASS - TOWER - Neutral 50 - On Clear 24mm Double Glazing
6. CANOPY - METAL PANEL- Duranar - Trout Gray - UC116675 - (PPG)
7. CANOPY - WOOD PANEL, Clay Panel or Similar
8. MULLION - Duranar XLB - Graphite Gray - UC106708LB - (PPG)
9. SPANDRAL GLASS - Opaci Coat 300 - # 3-1338 Pigeon Grey - Vitro Clear

ELEVATION 1

ELEVATION 2




SIGNAGE

KIRKOR

06 | DESIGN CONCEPT
3RD FLOOR SKYLIGHTS

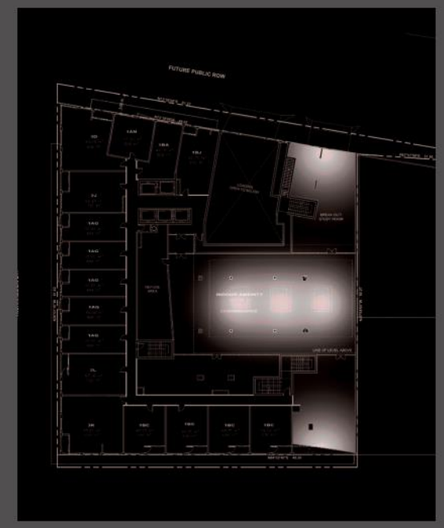
COMMENT

- Consider quality of light and maximize light in Amenity Area

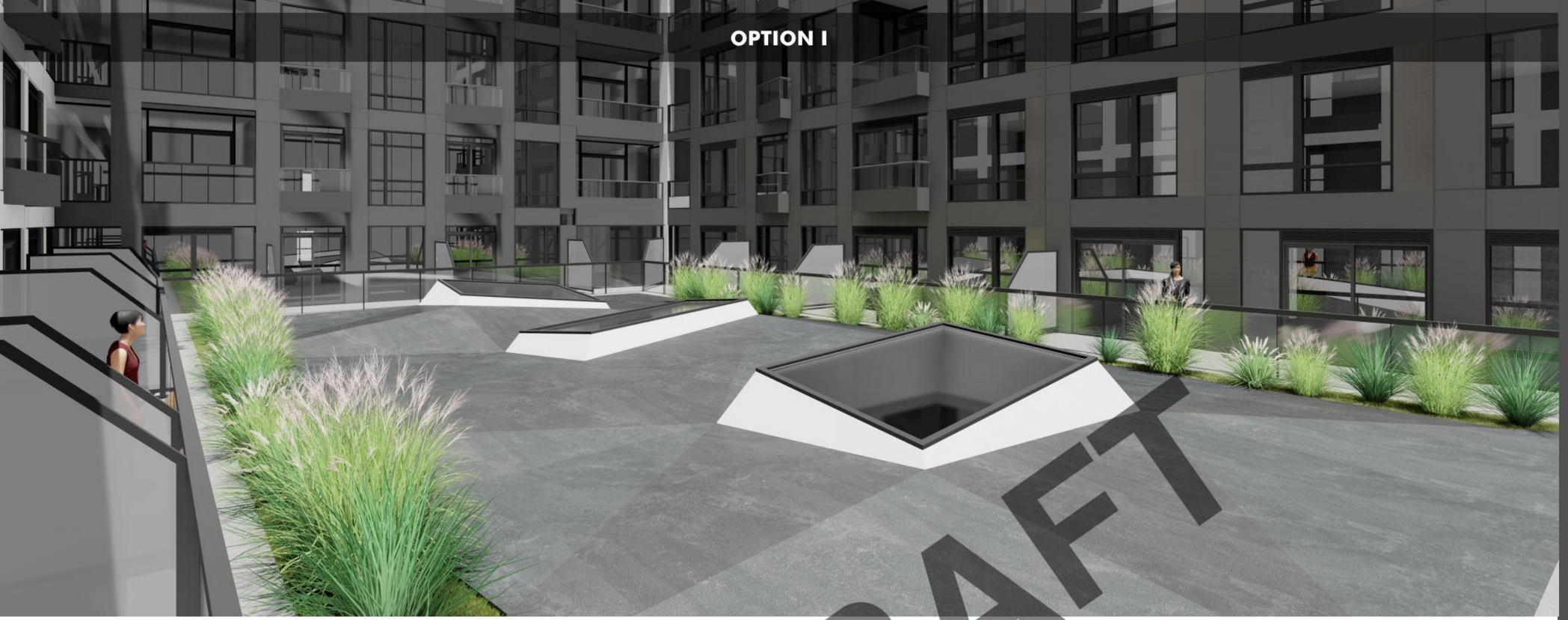
RESPONSE

- The proposed skylight takes advantage of the courtyard to allow light to flow into the proposed co-working area of the Amenity space.

*Subject to review by structural and window manufacturer



OPTION I



KIRKOR

06 | DESIGN CONCEPT
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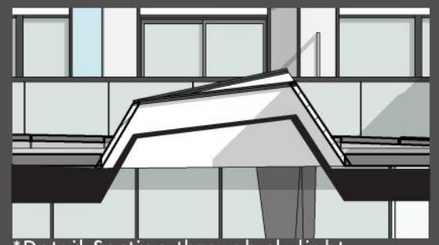
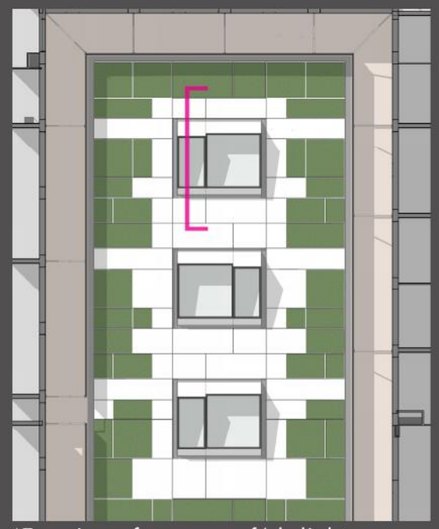
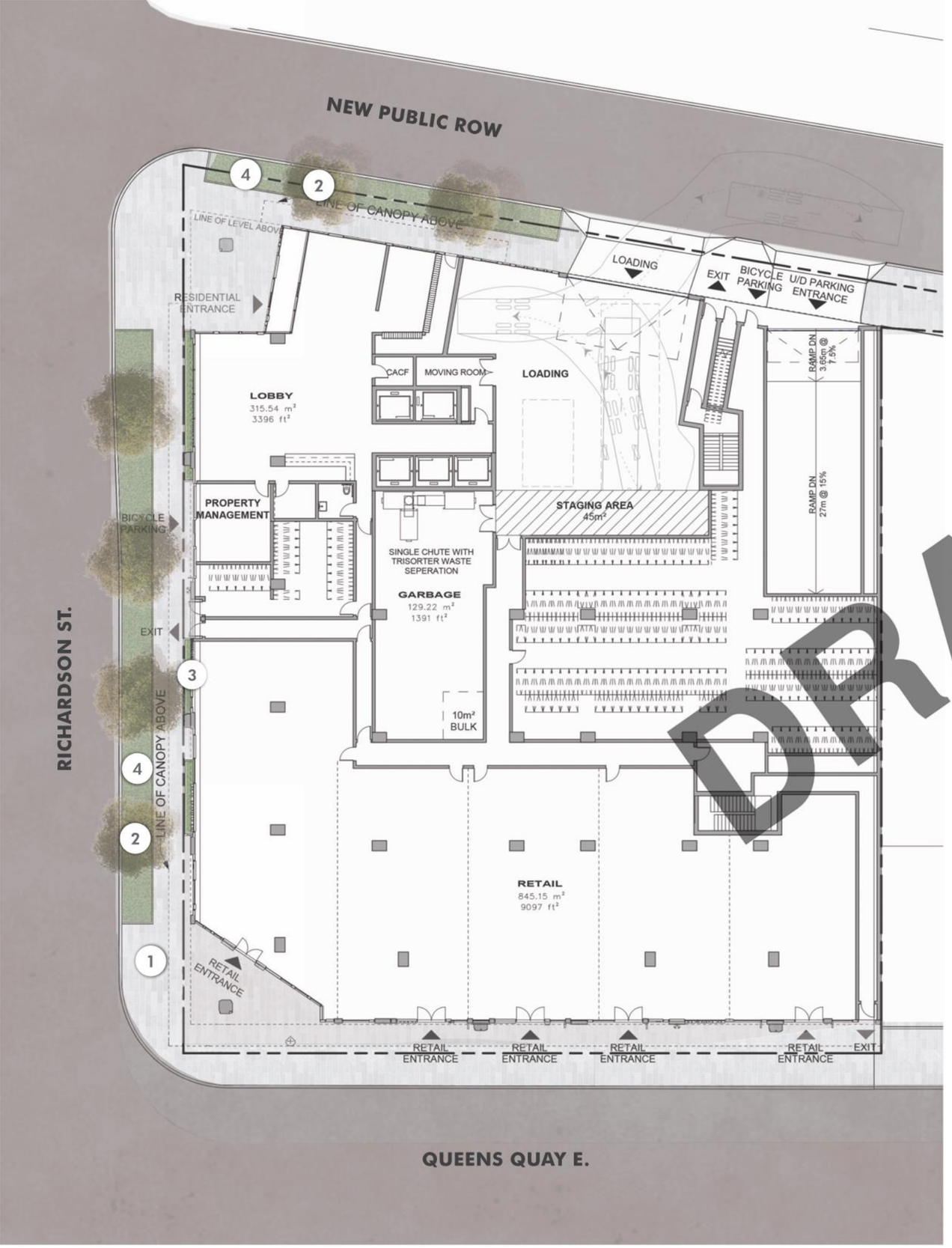
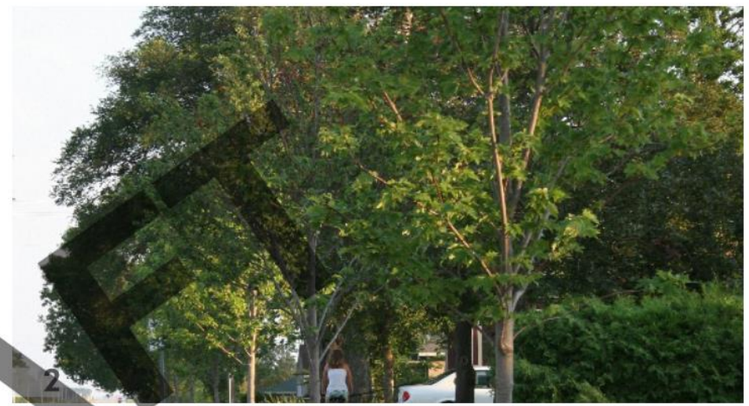


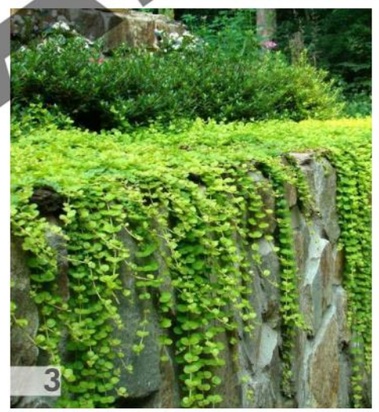
*Detail Section through skylight



*Top view of green roof/skylight







KIRKOR

07 | LANDSCAPE
PUBLIC REALM

LANDSCAPE PRINCIPLES INTERIM STREETSCAPE

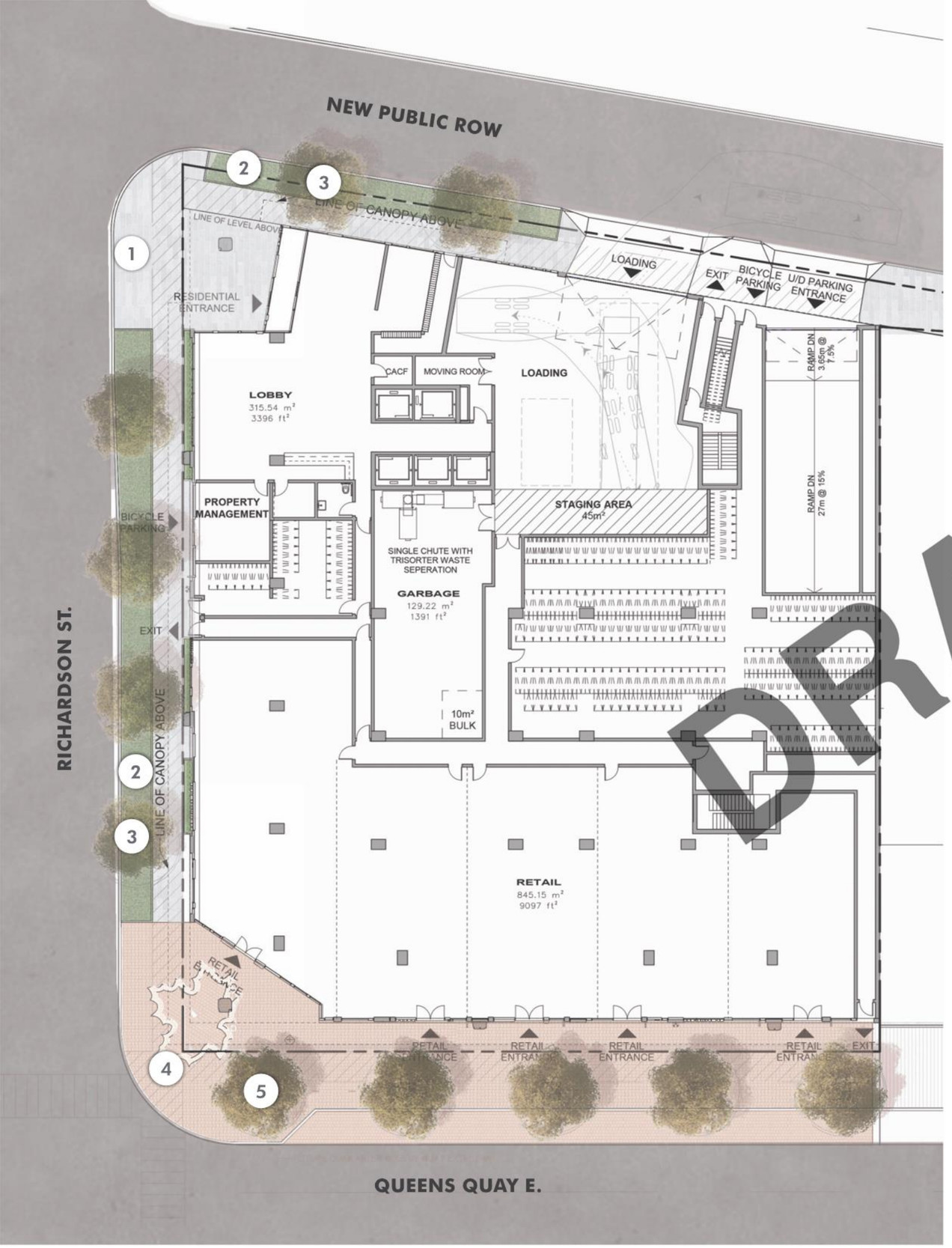
1. CONCRETE PAVER
2. TREES ALONG RICHARDSON AND NEW PUBLIC ROW
3. LOW CURB PLANTING ALONG BUILDING ON RICHARSON ST.
4. RAISED CURB PLANTER ALONG RICHARDSON AND NEW PUBLIC ROW

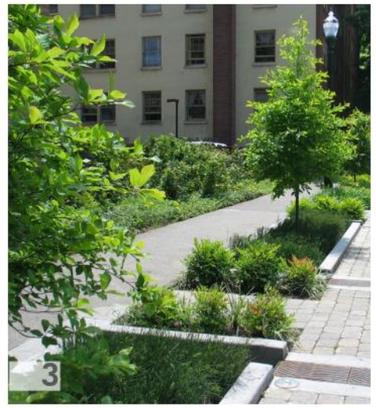
COMMENT

- Pull planting and benches away from the building face.

RESPONSE

- Planting and benches have been removed from along Queens Quay East. Prior to the Queens Quay widening there will be temporay concrete pavers along Queens Quay.
Along both Richardson Street and the New Public ROW, trees are proposed to be planted in raised curb beds to deter interference with species growth and survival.





KIRKOR

07 | LANDSCAPE
PUBLIC REALM

LANDSCAPE PRINCIPLES FUTURE STREETSCAPE

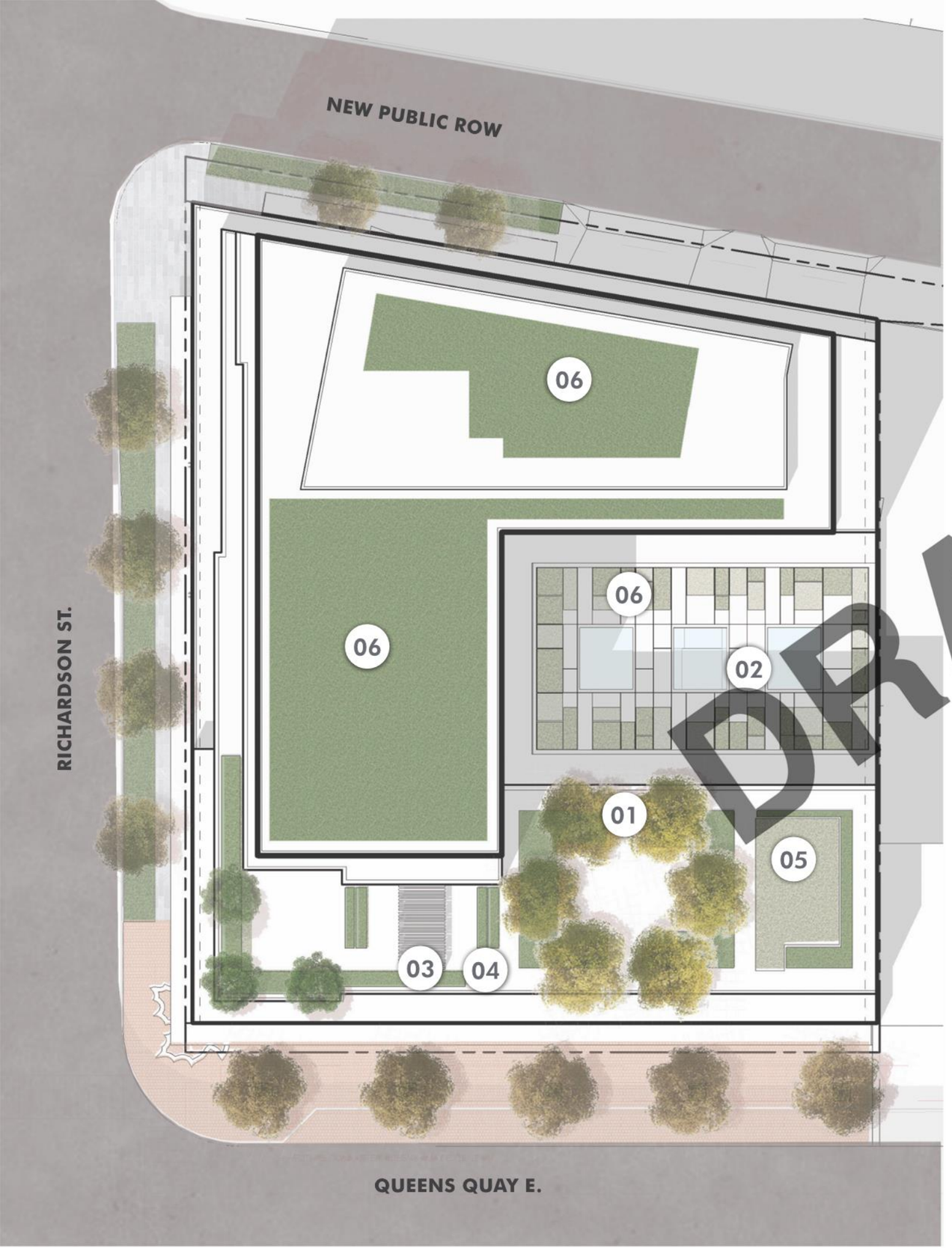
1. CONCRETE PAVER ALONG RICHARDSON AND NEW PUBLIC ROW
2. RAISED CURB PLANTER ALONG RICHARDSON AND NEW PUBLIC ROW
3. TREES ALONG RICHARDSON AND NEW PUBLIC ROW
4. SMALL RED PAVER WITH MAPLE LEAF ON QUEENS QUAY
5. TREES ALONG QUEENS QUAY

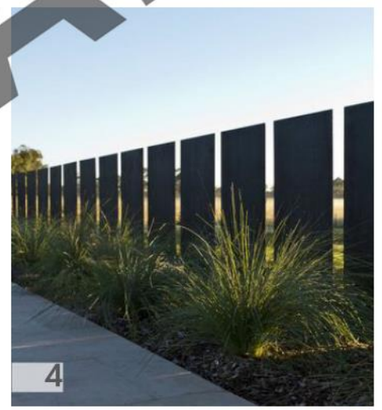
COMMENT

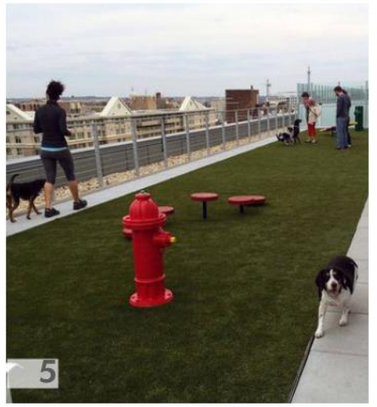
- Pull planting and benches away from the building face.

RESPONSE

- Plating and benches have been removed from along Queens Quay East. Following Queens Quay widening, the future streetscape incorporates the standard red granite paver and signature maple leaf at the intersection of Queens Quay East and Richardson St. Along both Richardson Street and Queens Quay, trees are proposed to be planted in raised curb beds to deter interference with species growth and survival.







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07 | LANDSCAPE
3RD & 12 FLOOR

LANDSCAPE PRINCIPLES

1. RAISED PLANTERS WITH TREES IN LOUNGE
2. INTEGRATED SKYLIGHTS
3. PERGOLA
4. PRIVACY SCREENING
5. DOG RUN
6. GREEN ROOF

Plant Selection

Edible · Birds · Pollinator · Drought Tolerant · Native · Winter Interest

Perennials & Ground Covers


Agastache Foeniculum


Asplenium Scolopendrium


Aster Laevis


Achillea Millefolium


Campanula Americana


Cornus Canadensis


Delosperma X 'Fire Spinner'


Eremurus X Isabellinus


Heuchera X 'Berry Smoothie'


Hosta 'Fire and Ice'


Podophyllum Peltatum


Matteuccia Struthiopteris

Deciduous Shrubs & Ornamental Grasses


Campsis Radicans


Ceanothus Americanus


Salic Purpurea 'Nana'


Andropopgon Gerardii


Deschampsia Fexuosa


Hakonechloa Macro

Large Shrubs, Ornamental Trees & Deciduous Shade Trees


Liriodendron Tulipifera


Ulmus Americana


Juniperus Virginiana


Cornus Florida

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07 | LANDSCAPE
DESIGN INTENT

ROOFTOP AMENITY
LEVEL 12

COMMENT

- Consider biodiversity

RESPONSE

- The proposed planting consists of native and pollinator supporter species. Where required the species are selected to be suitable for partial shaded or shaded conditions and drought tolerant. The planting ranges from deciduous shade trees to ornamental trees, evergreen large shrubs to ornamental grasses.

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07 | LANDSCAPE
DESIGN INTENT

ROOFTOP AMENITY
LEVEL 12

KIRKOR

07 | LANDSCAPE
QUEENS QUAY

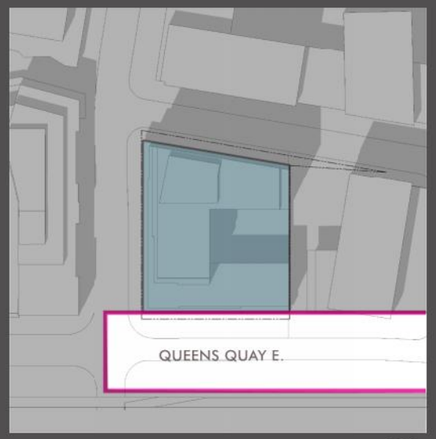
QUEENS QUAY EAST

COMMENT

- Follow the Queens Quay Revitalization Plan for landscaping along Queens Quay

RESPONSE

- Benches and planting along the front elevation of the building have been removed. Streetscape landscaping follows the Queens Quay Revitalization Plan and incorporates the standard circular tree pits, bicycle racks, garbage receptacles and red pavers.



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07 | LANDSCAPE
STREETSCAPE

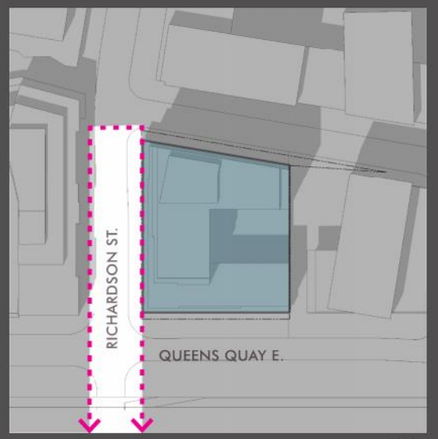
RICHARDSON ST.

COMMENT

- Define the four corners of the building and take advantage of future Queens Quay Streetscape

RESPONSE

- North-west corner is cut back and remains open creating both a visual and physical connection between Richardson and the New Public Road.

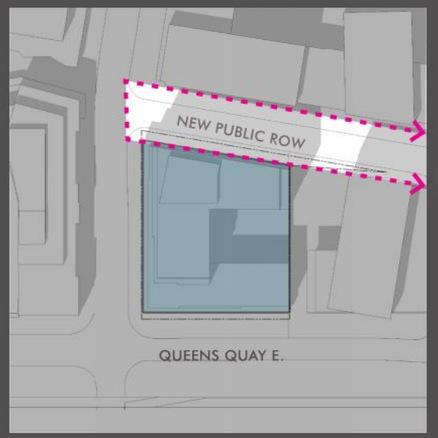


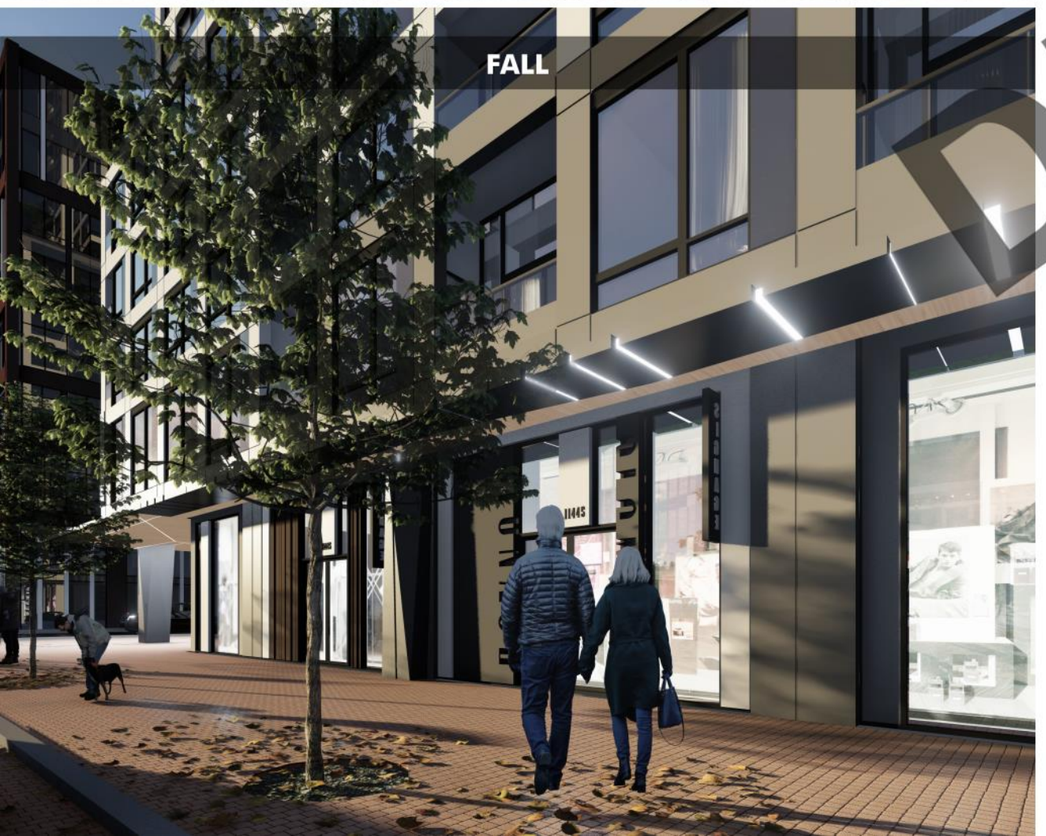
KIRKOR

07 | LANDSCAPE
FUTURE PUBLIC ROAD

FUTURE PUBLIC ROAD

- Future Public Road is landscaped and celebrated with a 1.2 m minimum pedestrian right of way and a building facade that interacts with the streetscape via internal and external balconies.





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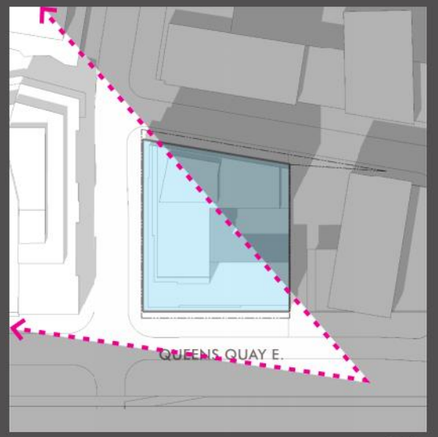
07 | LANDSCAPE
SEASONS



162 QUEENS QUAY EAST
TORONTO, ONTARIO

Date: September 18, 2019

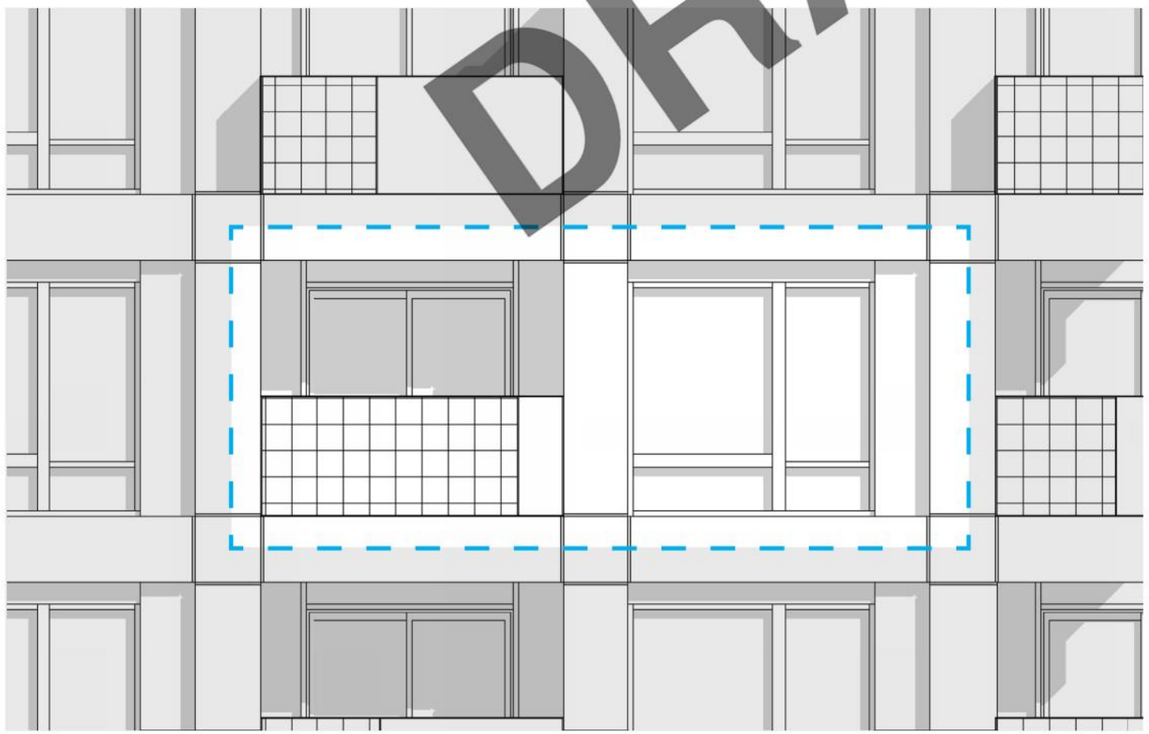
KIRKOR

08 | SUSTAINABILITY
PERFORMANCE GOALS

LEGEND

- RESIDENTIAL
- RETAIL
- BIKE PARKING
- RAMP
- CITY TRANSIT BUS STOP
- FUTURE LRT

TGS Category	Comment
Air Quality	**Reduced parking** rate provided, ample bikes, access to public transit, will significantly reduce vehicle use **High albedo materials** will be used for all hardscaping **60% green roof**
Energy	Building will **exceed 15% improvement over OBC** for Tier 1 requirements Connecting to **district energy system** , increased resilience **Best practice** commissioning **Resilience checklist** to be evaluated **Refuge area** provided in common area
Water	**Low flow plumbing fixtures** will be used **Erosion and Sediment Control Plan** will be used during construction **Stormwater** will be retained and re-used on site (methods still being confirmed) **Portable water for irrigation** will be reduced at least 60%
Ecology	**Adequate soil volumes** to be provided for all trees **Minimum 50% native, and 50% drought-tolerant species** **Bird friendly treatment** throughout the building as appropriate **Dark sky compliant exterior** lighting fixtures Green roof will have **biodiverse species**
Solid Waste	**Waste storage system** will be provided for residents **Dedicated bulky waste storage** will be provided **Construction and demolition waste** will be diverted from landfill



WINDOW TO WALL RATIO 48%

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08 | SUSTAINABILITY
ENERGY PERFORMANCE

LEGEND

TIER 1

TIER 2

* AS PER OMB SETTLEMENT (MAY 12, 2014) PROJECT IS REQUIRED TO MEET TIER 1 STANDARDS

ENERGY PERFORMANCE - INITIAL GOALS VS. CURRENT ACHIEVEMENTS

Currently meeting or exceeding all of the initial energy goals established at the beginning of the project:

PROGRAM / STANDARD	REQUIREMENT / INITIAL GOAL	PREVIOUS PERFORMANCE	ENWAVE CONNECTION	IMPROVED PERFORMANCE
TGS Tier 1	15% better than NECB 2015 SB-10 2017	15.2%	19.8%	26.5%
OBC SB-10				
Energy Use Intensity	170 kWh/m²/year	225.2	211.5	195.0
GHG Intensity	20 kgCo2e/m²/year	28.3	27.9	25.3
Thermal Demand Intensity	70 kWh/m²/year	68	68	65.4

EXISTING energy saving are primarily the result of:

- Envelope: relatively low window to wall ratio (~50%)
- High-performace glazing selection: Double-glazed IGUs with Low-e coating, argon gas and thermally broken frames
- Ventilation: 30cfm/suite corridor ventilation rate
- In-suite heat recovery ventilation units with at least 65% sensible heat recovery effectiveness
- Variable speed drives in primary pumps and fans

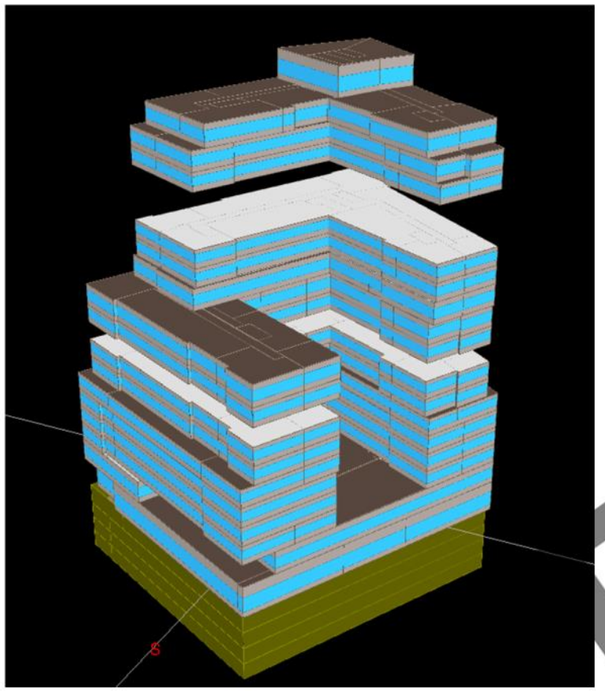
IMPROVED energy efficiency measures:

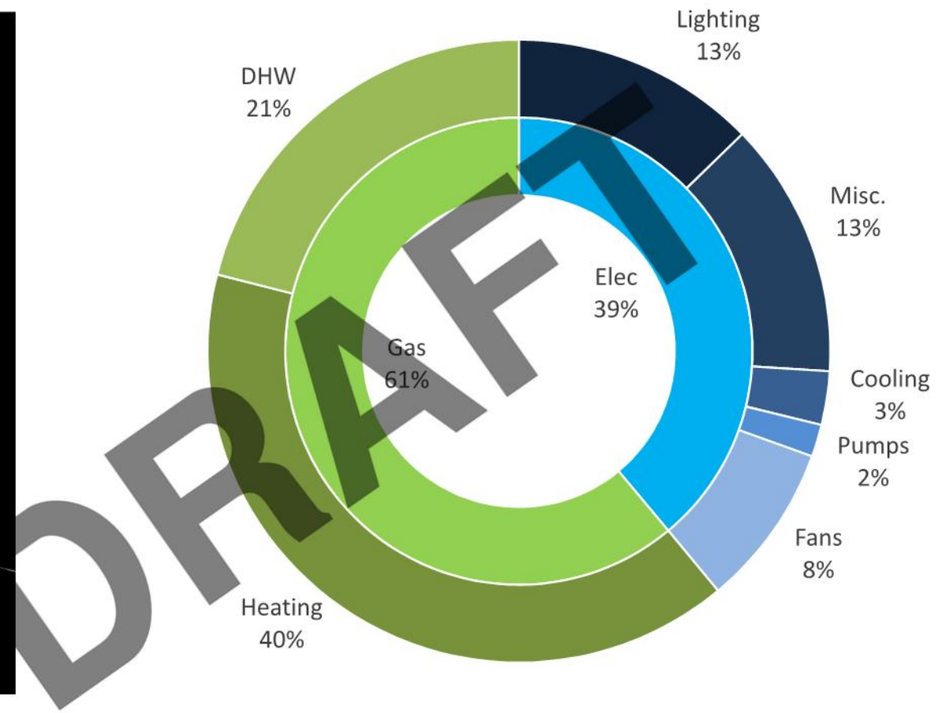
- Envelope: Improved spandrel performance with pinned continuous insulation
- Mechanical: Connect to Enwave district energy for heating, cooling and domestic. Improved resilience and energy efficiency.
- Plumbing: further reduced flow rate of plumbing fixtures
- Lighting: 10% reduction in lighting power density in common areas with LEDs and controls

LEGEND

EXISTING
IMPROVED

Energy Modelling Results





<u>TGS Tier 1</u>

Energy Savings :	15.0%
EUI :	170 ekWh/m²
GHGI :	20 kg CO_2/m²
TEDI :	70 ekWh/m²

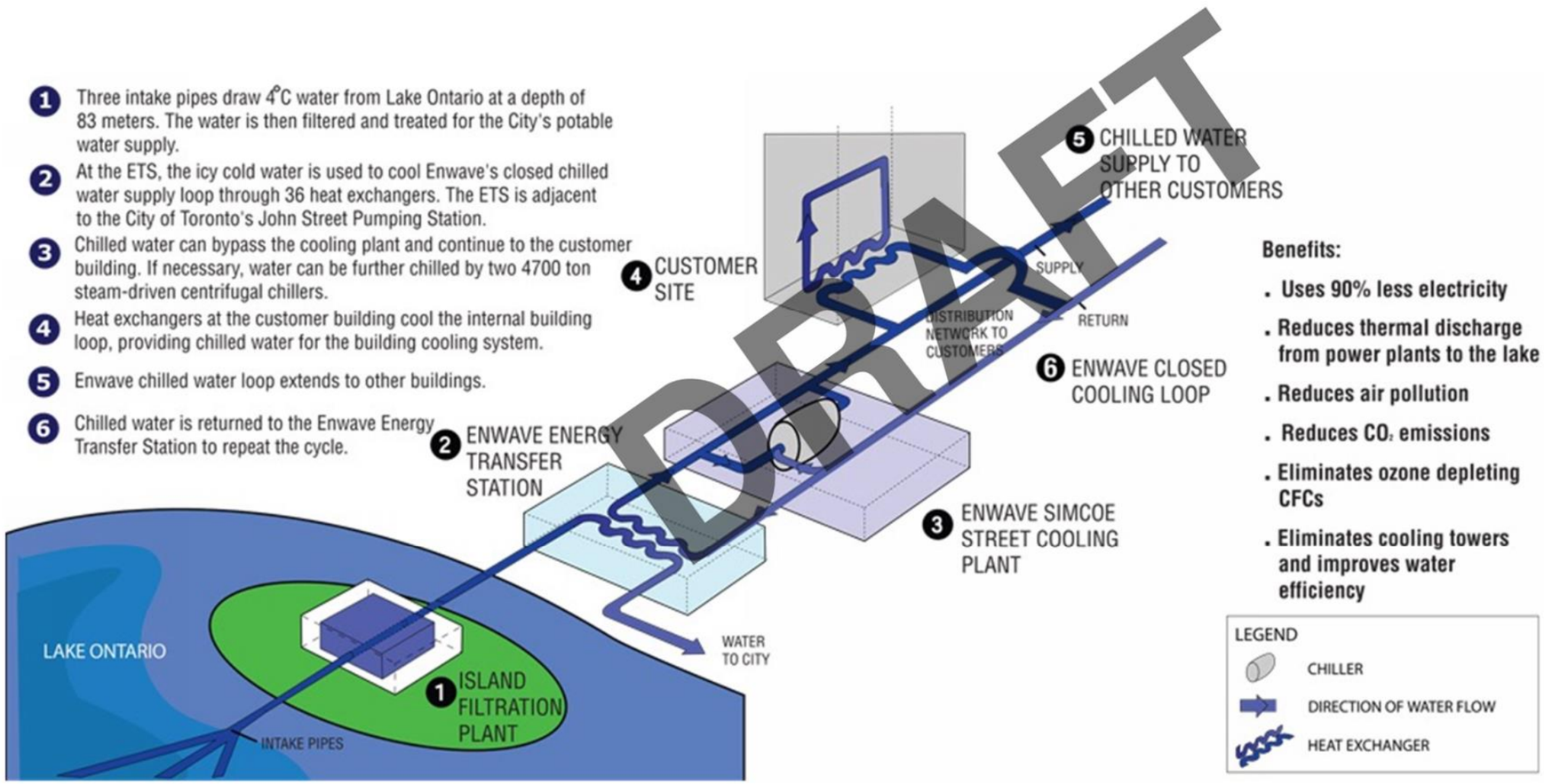
<u>162 Queens Quay Design</u>

Energy Savings :	26.5%
EUI :	195.0 ekWh/m²
GHGI :	25.3 kg CO_2/m²
TEDI :	65.4 ekWh/m²

Deep Lake Water Cooling System

enwave

1. Three intake pipes draw 4°C water from Lake Ontario at a depth of 83 meters. The water is then filtered and treated for the City's potable water supply.
2. At the ETS, the icy cold water is used to cool Enwave's closed chilled water supply loop through 36 heat exchangers. The ETS is adjacent to the City of Toronto's John Street Pumping Station.
3. Chilled water can bypass the cooling plant and continue to the customer building. If necessary, water can be further chilled by two 4700 ton steam-driven centrifugal chillers.
4. Heat exchangers at the customer building cool the internal building loop, providing chilled water for the building cooling system.
5. Enwave chilled water loop extends to other buildings.
6. Chilled water is returned to the Enwave Energy Transfer Station to repeat the cycle.



Benefits:

- **Uses 90% less electricity**
- **Reduces thermal discharge from power plants to the lake**
- **Reduces air pollution**
- **Reduces CO_2 emissions**
- **Eliminates ozone depleting CFCs**
- **Eliminates cooling towers and improves water efficiency**

LEGEND

- CHILLER
- DIRECTION OF WATER FLOW
- HEAT EXCHANGER

APPENDIX

PROJECT STATISTICS

162 Queens Quay East

TORONTO

RESIDENTIAL DEVELOPMENT SITE

August 30, 2019 Project No. 18-120

1.0 LOT AREA

Phase No.	m²	ft²	acres	hectares
Phase 1	2,808	30,226	0.69	0.28
Lot Area	**2,808**	**30,226**	**0.69**	**0.28**

2.0 PROJECT FLOOR AREAS

2.1 GFA PROPOSED

GFA PROPOSED RESIDENTIAL

*40.4.40.40 (3) In the Commercial Residential Zone category the gross floor area of a **mixed use building** is reduced by the area in the **building** used for: (A) parking, loading and bicycle parking below-ground; (B) required **loading spaces** at the ground level and required **bicycle parking spaces** at or above-ground; (C) storage rooms, washrooms, electrical, utility, mechanical and ventilation rooms in the **basement**; (D) shower and change facilities required by this By-Law for required **bicycle parking spaces**; (E) **amenity space** required by this By-Law; (F) elevator shafts; (G) garbage shafts; (H) mechanical penthouse, and (I) exit stairwells in the **building***

Floor Levels	no. floors	m²/fl	m²	ft²
Level 1	1	316	316	3,396
Level 2	1	1,044	1,044	11,242
Level 3	1	1,909	1,909	20,550
Level 4	1	1,888	1,888	20,318
Level 5	1	1,886	1,886	20,303
Level 6	1	1,690	1,690	18,191
Level 7-10	4	1,661	6,645	71,527
Level 11	1	1,620	1,620	17,440
Level 12	1	883	883	9,508
Level 13-20	8	1,065	8,523	91,745
Level 21	1	975	975	10,492
Total GFA			**27,380**	**294,711**

GFA PROPOSED RETAIL

Floor Levels	no. floors	m²/fl	m²	ft²
Level 1 - Retail	1	845	845	9,097
Total Retail GFA			**845**	**9,097**
GRAND TOTAL GFA			**28,225**	**303,809**

3.0 RESIDENTIAL AMENITY SPACE

3.1 REQUIRED AMENITY SPACE

Definition taken from Site Specific By-Law

(d) residential amenity space shall be provided in accordance with the following provisions:

*(i) **indoor residential amenity** space for a building on a lot shall be provided at a rate of 2 m² per dwelling unit for the first 100 dwelling units and at a rate of 1 m² per dwelling unit thereafter;*

*(ii) **outdoor residential amenity** space shall be provided at a rate of 1m² per dwelling unit;*

(iii) residential amenity space provided indoors may be provided in rooms which are not contiguous; and

(i) residential amenity space shall be required only for apartment buildings containing 20 or more dwelling units

	no. units	m²/u	m²	ft²
Indoor	100	2	200	2,153
	362	1	362	3,897
Outdoor	462	1	462	4,973
Total Amenity Space Required			**1,024**	**11,022**

3.2 RESIDENTIAL AMENITY SPACE PROVIDED

Indoor Amenity

Floor Levels	no. floors	m²/fl	m²	ft²
Level 2	1	1,067	1,067	11,485
Level 12	1	185	185	1,991
Total Indoor Amenity Space Provided			**1,252**	**13,476**

Outdoor Amenity

Floor Levels	no. floors	m²/fl	m²	ft²
Level 2	1	11	11	118
Level 12	1	523	523	5,631
Total Outdoor Amenity Space Provided			**534**	**5,750**
Total Amenity Space Provided			**1,786**	**19,226**

4.0 FLOOR SPACE INDEX

GFA of Site divided by LOT AREA **10.05 times**

5.0 UNIT COUNT

Floor Levels	no. floors	unit/fl	Total units
Level 1	1	0	0 units
Level 2	1	16	16 units
Level 3	1	33	33 units
Level 4	1	33	33 units
Level 5	1	33	33 units
Level 6	1	28	28 units
Level 7-10	4	29	116 units
Level 11	1	27	27 units
Level 12	1	16	16 units
Level 13-20	8	18	144 units
Level 21	1	16	16 units
Total Units			**462 units**

** Final unit count and distribution to be confirmed by market condition*

6.0 PARKING

6.1 PARKING REQUIRED

City of Toronto Former Zoning By-Law No. 438-86 Section 4 (5) Schedual 1 4(5).8 *Parking Space Requirements for Dwelling Units Dwelling unit (other than alternative housing or social housing) in a building containing more than 6 dwelling units, including those that are alternative housing or social housing; **(253-91)***

Parking Type (Condominium)	unit type	parking ratio		no. units	parking spaces
Resident					
	1 Bedroom	0.50	space/unit	340	170
	2 Bedroom	0.75	space/unit	72	54
	3 Bedroom	1.20	space/unit	50	60
Visitor		0.06	space/unit	462	28
Total Parking Required					**312**

6.2 PARKING RATE PROVIDED

Parking Type (Condominium)	unit type	parking ratio		no. units	parking spaces
Residential / Visitor		0.45	space/unit	462	210
Total Parking Provided					**210**

6.3 PARKING PROVIDED

Parking Type (Condominium)	Car Share	Multiplier	parking spaces
P1 Visitor / Commercial			48
P2 Resident			52
P3 Resident			54
P4 Resident			56
Total			**210**

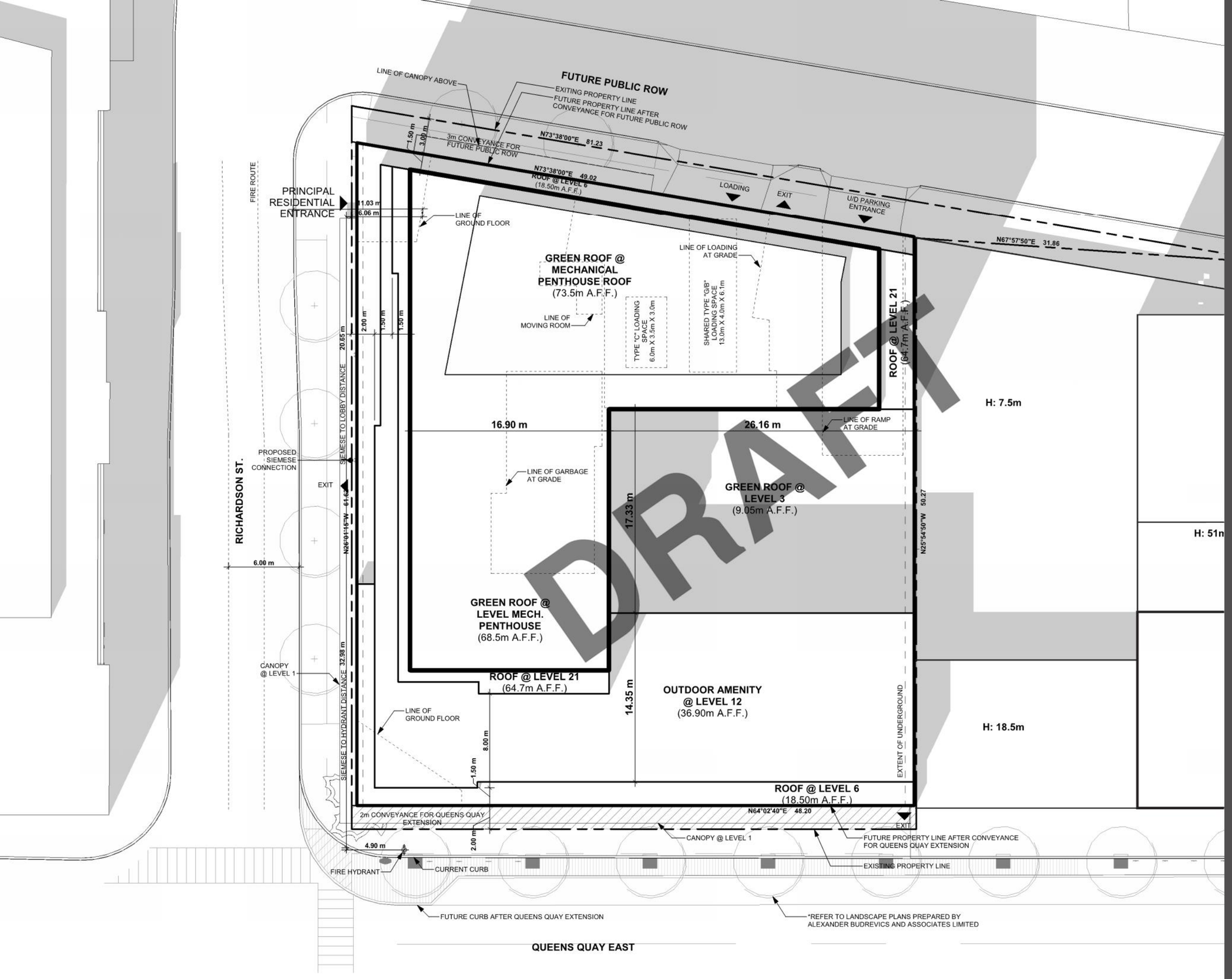
6.4 BICYCLE PARKING REQUIRED

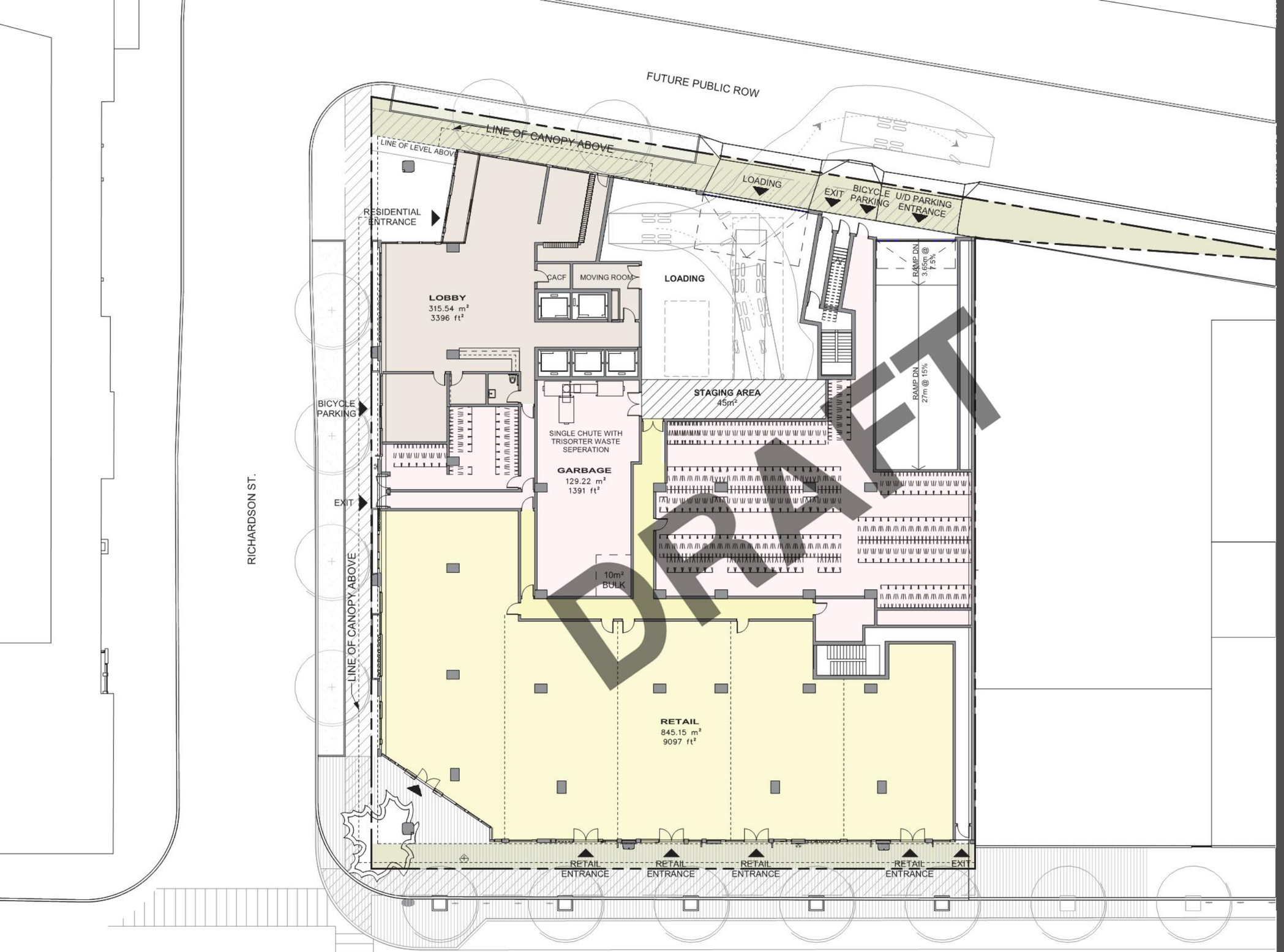
*230.5.10.1 (5) Bicycle Parking Space Requirements for Dwelling Units **Bicycle parking space** requirements for **dwelling units** in a **apartment building** or **mixed use building** are: (A) in Bicycle Zone 1, a minimum of 1.0 **bicycle parking spaces** for each **dwelling unit**, allocated as 0.9 "long-term" **bicycle parking space** per **dwelling unit** and 0.1 "short term" **bicycle parking space** per **dwelling unit***

Parking Type (Condominium)	parking ratio		no. units	parking spaces
Resident	0.90	space/unit	462	416
Visitor	0.10	space/unit	462	47
Total Parking Required	1	space/unit		**463**

6.5 BICYCLE PARKING PROVIDED

Parking Type (Condominium)	parking spaces
Level P1 (Resident)	105
Level 1 (Residential)	318
Level 1 (Visitor)	47
Total	**470**
Total Bicycle Parking Provided	**470**


FUTURE PUBLIC ROW
LINE OF CANOPY ABOVE
EXITING PROPERTY LINE
FUTURE PROPERTY LINE AFTER CONVEYANCE FOR FUTURE PUBLIC ROW
3m CONVEYANCE FOR FUTURE PUBLIC ROW
1.50 m
3.00 m
N73°38'00"E 81.23
N73°38'00"E 49.02
ROOF @ LEVEL 6
(18.50m A.F.F.)
LOADING
EXIT
U/D PARKING ENTRANCE
N67°57'50"E 31.86
FIRE ROUTE
PRINCIPAL RESIDENTIAL ENTRANCE
11.03 m
6.06 m
LINE OF GROUND FLOOR
GREEN ROOF @ MECHANICAL PENTHOUSE ROOF
(73.5m A.F.F.)
LINE OF MOVING ROOM
TYPE "C" LOADING SPACE
6.0m X 3.5m X 3.0m
SHARED TYPE "G/B" LOADING SPACE
13.0m X 4.0m X 6.1m
LINE OF LOADING AT GRADE
ROOF @ LEVEL 21
(64.7m A.F.F.)
H: 7.5m
2.00 m
1.50 m
1.50 m
20.65 m
SIEMESE TO LOBBY DISTANCE
16.90 m
26.16 m
LINE OF RAMP AT GRADE
PROPOSED SIEMESE CONNECTION
EXIT
LINE OF GARBAGE AT GRADE
RICHARDSON ST.
N26°01'15"W 61.66
17.33 m
GREEN ROOF @ LEVEL 3
(9.05m A.F.F.)
N25°54'50"W 50.27
H: 51m
6.00 m
GREEN ROOF @ LEVEL MECH. PENTHOUSE
(68.5m A.F.F.)
CANOPY @ LEVEL 1
SIEMESE TO HYDRANT DISTANCE 32.98 m
ROOF @ LEVEL 21
(64.7m A.F.F.)
14.35 m
OUTDOOR AMENITY @ LEVEL 12
(36.90m A.F.F.)
EXTENT OF UNDERGROUND
H: 18.5m
LINE OF GROUND FLOOR
8.00 m
1.50 m
ROOF @ LEVEL 6
(18.50m A.F.F.)
2m CONVEYANCE FOR QUEENS QUAY EXTENSION
N64°02'40"E 48.20
EXIT
2.00 m
4.90 m
CANOPY @ LEVEL 1
FUTURE PROPERTY LINE AFTER CONVEYANCE FOR QUEENS QUAY EXTENSION
EXISTING PROPERTY LINE
FIRE HYDRANT
CURRENT CURB
FUTURE CURB AFTER QUEENS QUAY EXTENSION
*REFER TO LANDSCAPE PLANS PREPARED BY ALEXANDER BUDREVICS AND ASSOCIATES LIMITED
QUEENS QUAY EAST



KIRKOR

08 | APPENDIX
GROUND FLOOR

LEGEND

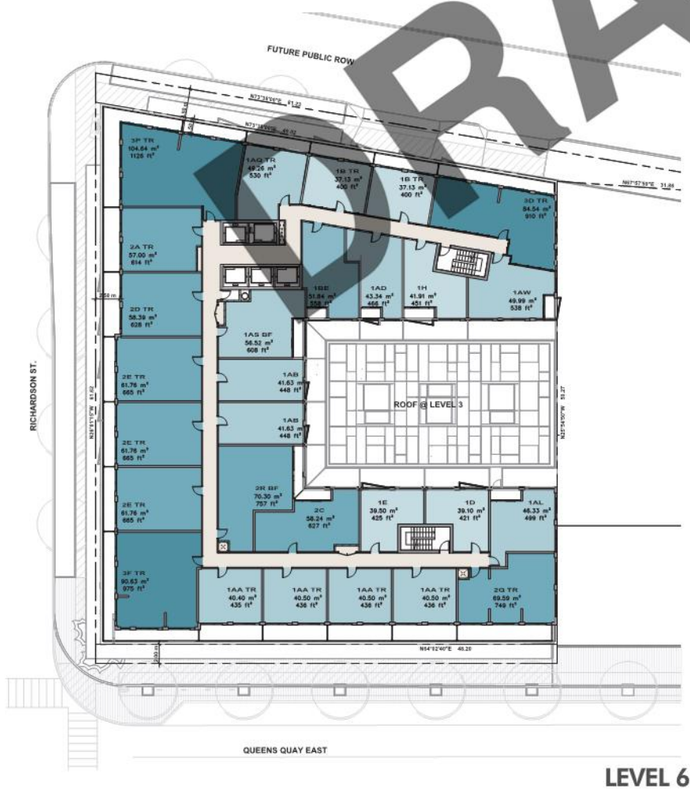
- LOBBY
- RETAIL
- AMENITY
- RESIDENTIAL
- SERVICE

LEVEL 2

LEVEL 3

LEVEL 4

LEVEL 5



LEVEL 6

LEVEL 7-10

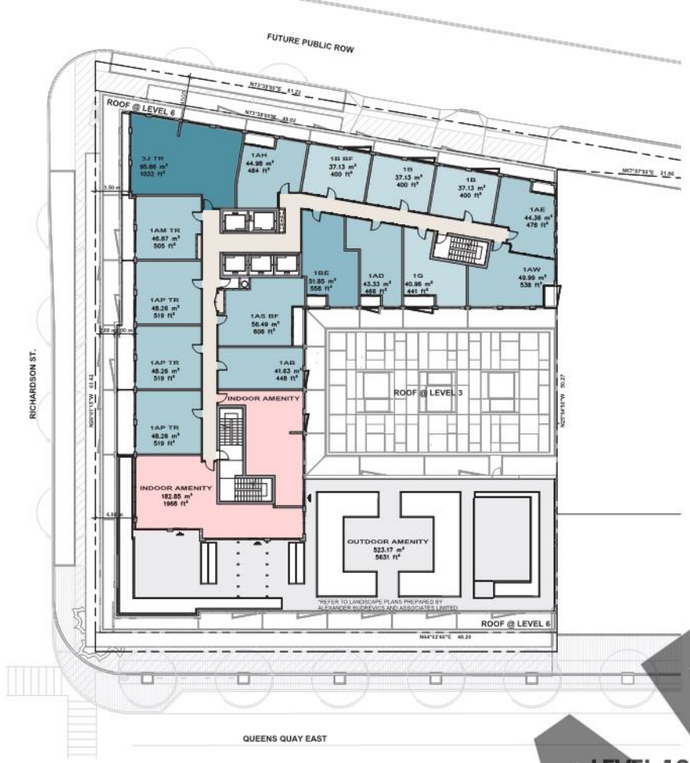
KIRKOR

08 APPENDIX
FLOOR PLATES

LEGEND

- LOBBY
- RETAIL
- AMENITY
- RESIDENTIAL
- SERVICE

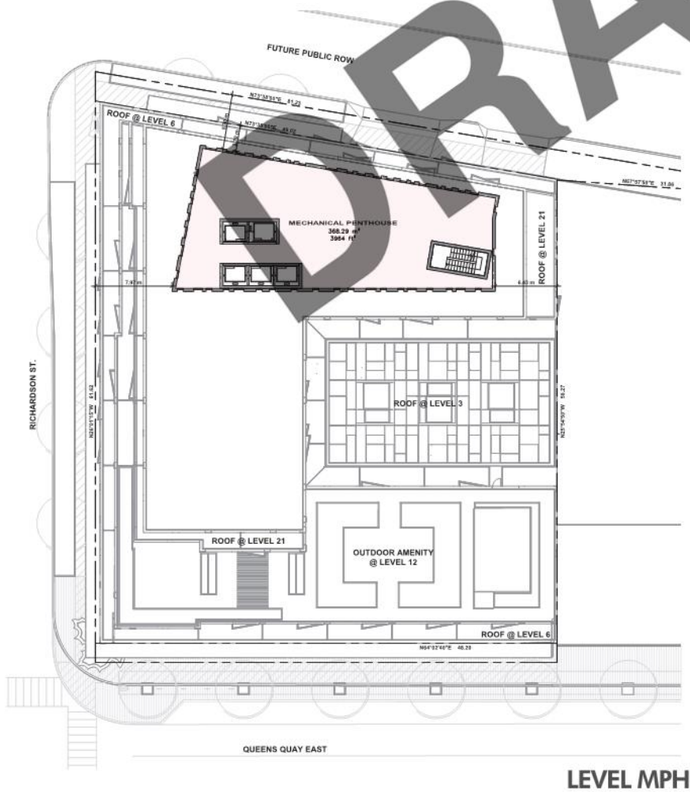
LEVEL 11



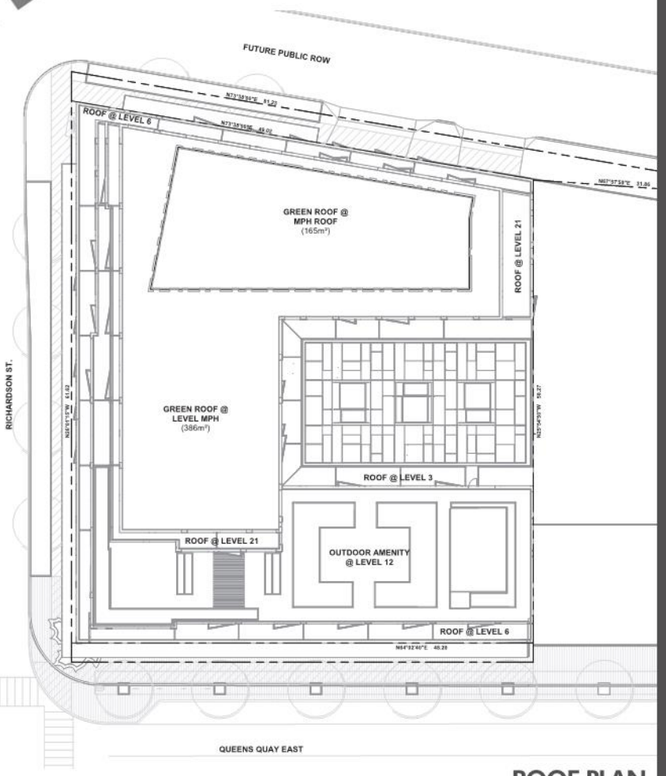
LEVEL 12

LEVEL 13-20

LEVEL 21



LEVEL MPH



ROOF PLAN

KIRKOR

08 APPENDIX
FLOOR PLATES

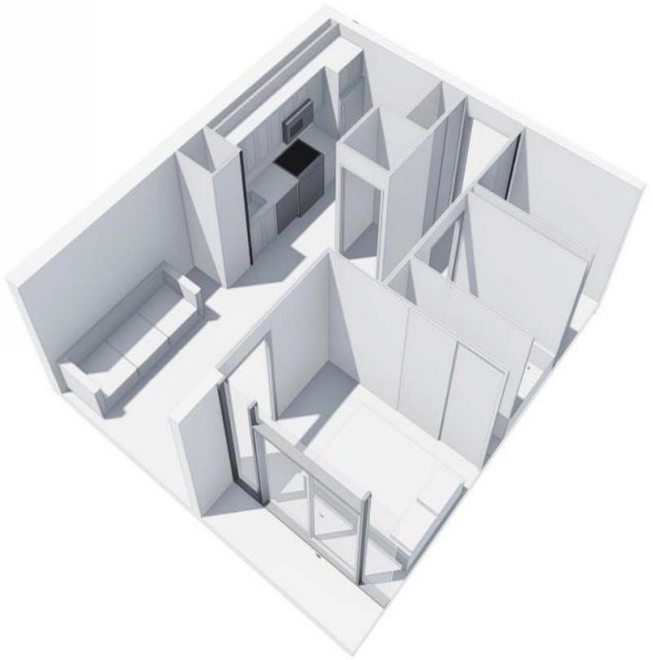
LEGEND

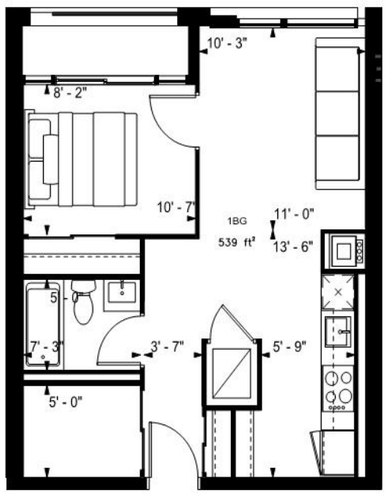
- LOBBY
- RETAIL
- AMENITY
- RESIDENTIAL
- SERVICE

08 APPENDIX
UNIT TYPOLOGIES

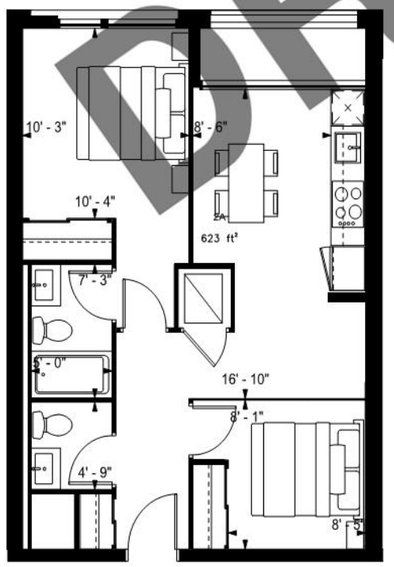
UNIT MIX

1 BEDROOM	75%
2 BEDROOM	15%
3 BEDROOM	10%

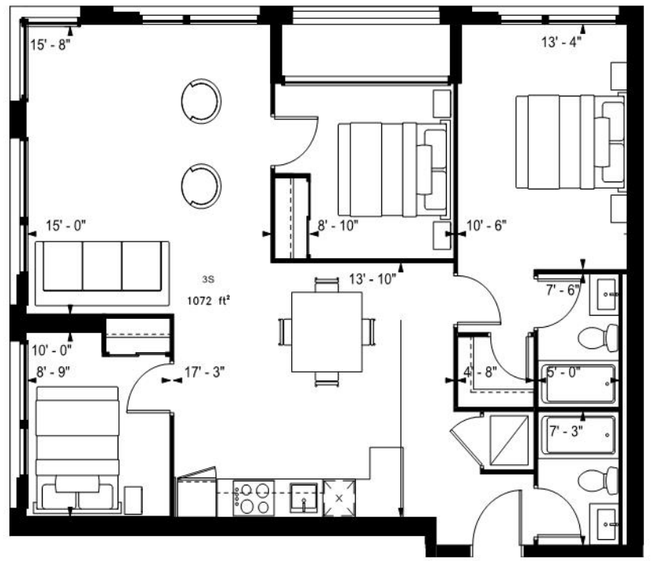




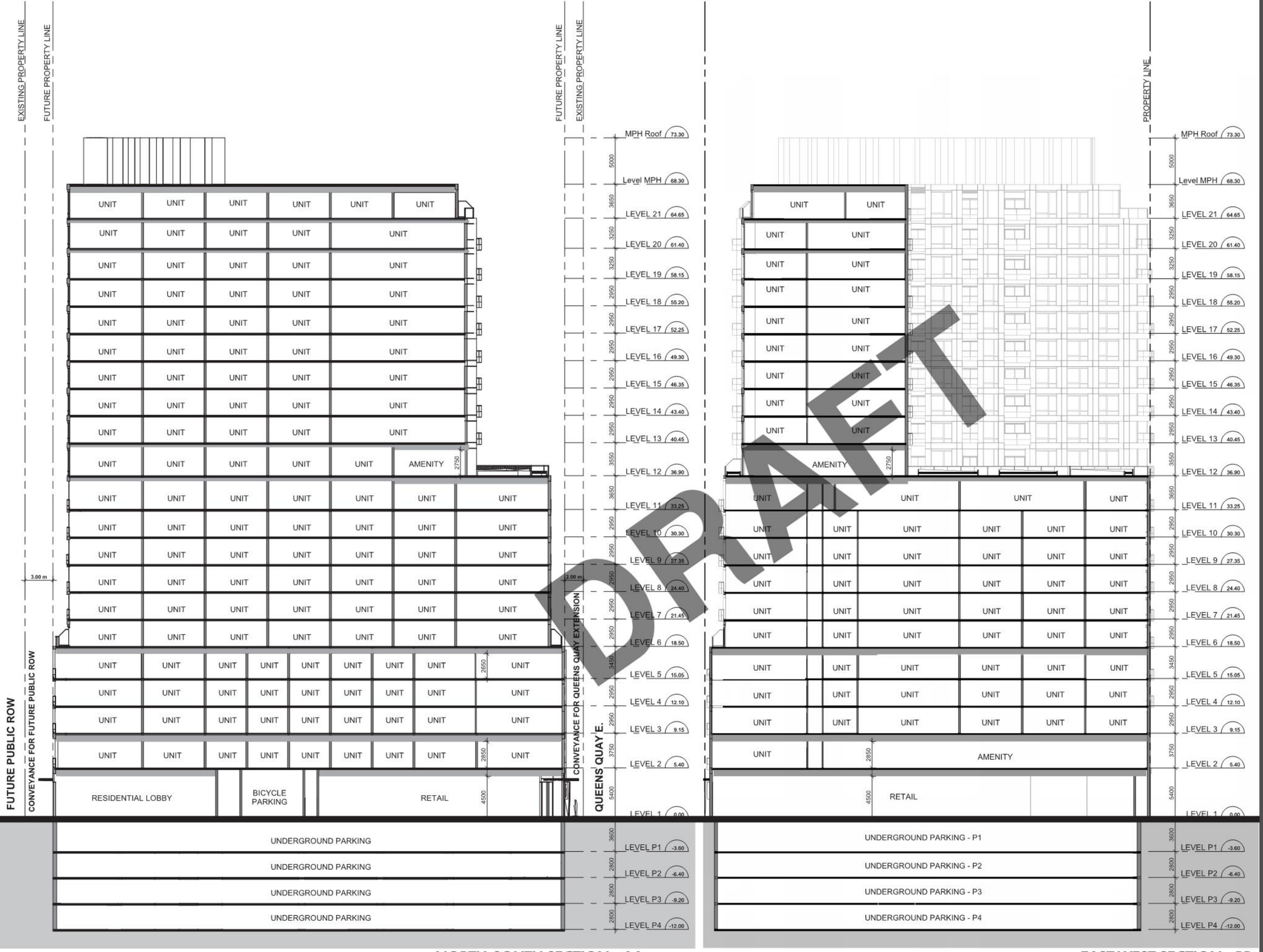
1 BEDROOM + DEN
539 ft²



2 BEDROOM
623 ft²

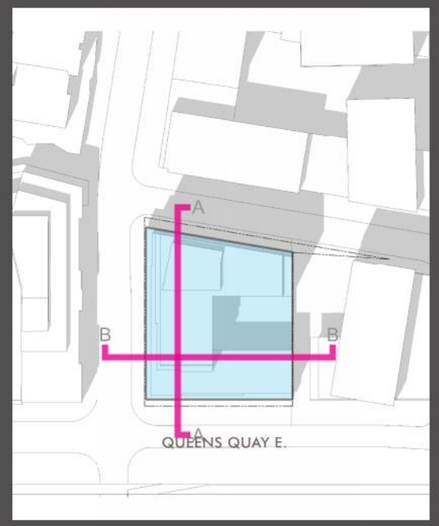


3 BEDROOM
1072 ft²



NORTH-SOUTH SECTION - AA

EAST-WEST SECTION - BB

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