



NEUF 
ARCHITECT(E)S

ZIBI BLOCK 204 HIGH-RISE CONDOMINIUM

DESIGN BRIEF
SITE PLAN CONTROL (SPA) RE-SUBMISSION

315 MIWATE PRIVATE
OTTAWA, ON
PROJECT 12791
SEPTEMBER 15TH, 2022

OWNER



ARCHITECT



LANDSCAPE ARCHITECT



PLANNER



PEDESTRIAN WIND STUDY AND ACOUSTICS



TRAFFIC AND CIVIL ENGINEER



GEOTECHNICAL AND ENVIRONMENTAL



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01.

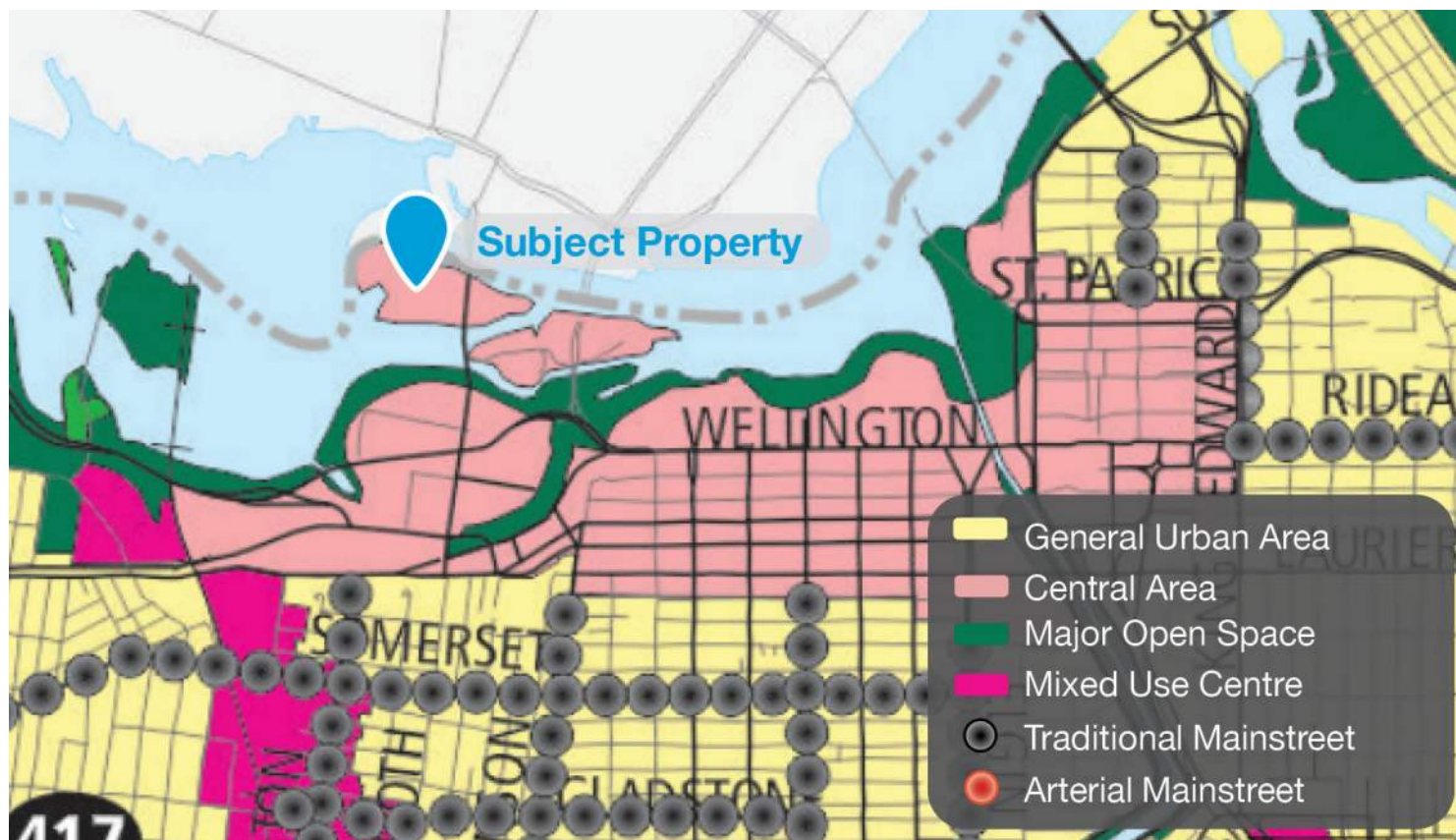
**APPLICATION SUBMISSION
RESPONSE TO CITY DOCUMENTS**

1.1 APPLICATION SUBMISSION

The current applications apply to Block 204 of the Zibi Development on Chaudière Island West, in the City of Ottawa.

The purpose of the current applications is to permit the development of the property with a high-rise, mixed-use building with a 8-storey podium (7 full storeys plus a mezzanine level containing only storage and ancillary use spaces) that features commercial uses at-grade along Miwàte Private and Chaudière Private, with residential units above.

To facilitate the proposed development, Zoning By-law Amendment and Site Plan Control applications are required. The Zoning By-law Amendment application would permit the mezzanine floor within the podium while the Site Plan application will help facilitate the development of the lands.



1.2 RESPONSE TO CITY DOCUMENTS

CITY OF OTTAWA OFFICIAL PLAN

- The site is designated Central Area within the Official Plan (OP). The Central Area is the economic and cultural heart of the city and the symbolic heart of the nation, based on its unique combination of employment, government, retail, housing, entertainment and cultural activities.
- The Central Area is identified in the OP as a target area for intensification. The proposed development will help achieve the goal for intensification within the downtown core by redeveloping a vacant parcel of land in proximity to transit, services and amenities.
- The proposed development conforms with the evaluative criteria set out in Section 2.5.1 and 4.11 of the OP dealing with issues of design, access and traffic, lighting, privacy and amenity space, and other considerations. The proposed development has ensure that the high-rise tower will be sufficiently separated from the adjacent high-rise towers.
- The subject property is in an area of Foreground Height Control as per Annex 8A of the OP. This annex is applied in conjunction with the Central Area land use policies to protect the visual integrity and symbolic primacy of the Parliament Buildings and other national symbols. Buildings constructed in areas of foreground height control must not rise above the ridgeline of the roof of the Centre Block.

CENTRAL AREA SECONDARY PLAN

- The subject property is located within the “LeBreton Flats” character area of the Central Area Secondary Plan and is to site-specific policies established through Official Plan Amendment No. 143 (OPA 143) in coordination with the approval of the Zibi Master Plan.
- Block 204 is located in the Chaudière West district which is intended to accommodate a mix of uses and to establish a lively mixed-use area with several stand along residential and mixed-use buildings.
- The proposed development will conform to the vision and policies for the Zibi lands as stated in the Central Area Secondary Plan.

COMPREHENSIVE ZONING BY-LAW

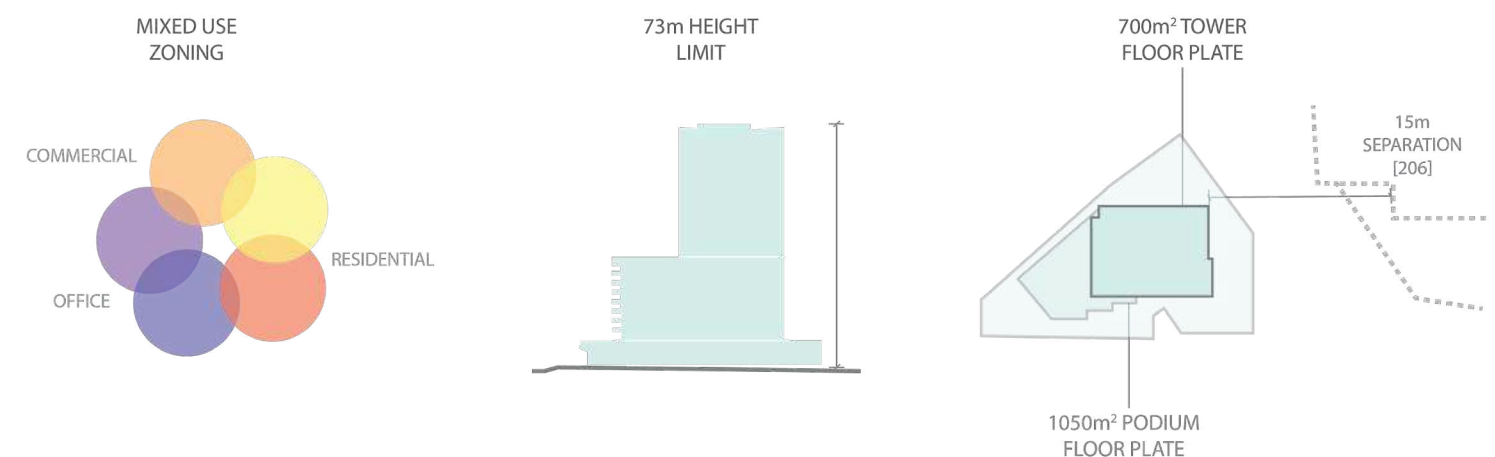
- The lands are currently zoned “Mixed-Use Downtown Zone, Subzone 5, Exception 2172, Schedule 332 (MD5[2172] S332)” in the City’s Zoning By-law.
- The purpose of the MD zone is to support the Central Area, as the central place in the region for employment and shopping while also allowing residential, cultural and entertainment uses. It is also intended to facilitate more intense, compatible and complementary development to sustain an active, pedestrian-oriented environment at street level.
- Schedule 332 is a site-specific schedule that limits building heights within each of the districts. For the Chaudière West district, including the subject property, the maximum building height is 73 metres.
- A Zoning By-law Amendment is required to permit a greater podium height for Block 204 (up to 10 storeys). The extra floor will accommodate a second level mezzanine that will contain only storage lockers and rental office, allowing for a better configuration of residential units on upper levels, as well as for the provision of more bicycle parking spaces on the P1 level allowing the development to meet the One Planet Living goal of 1 bicycle parking space per unit. No residential units will be permitted within the mezzanine level.

CITY OF OTTAWA DRAFT NEW OFFICIAL PLAN

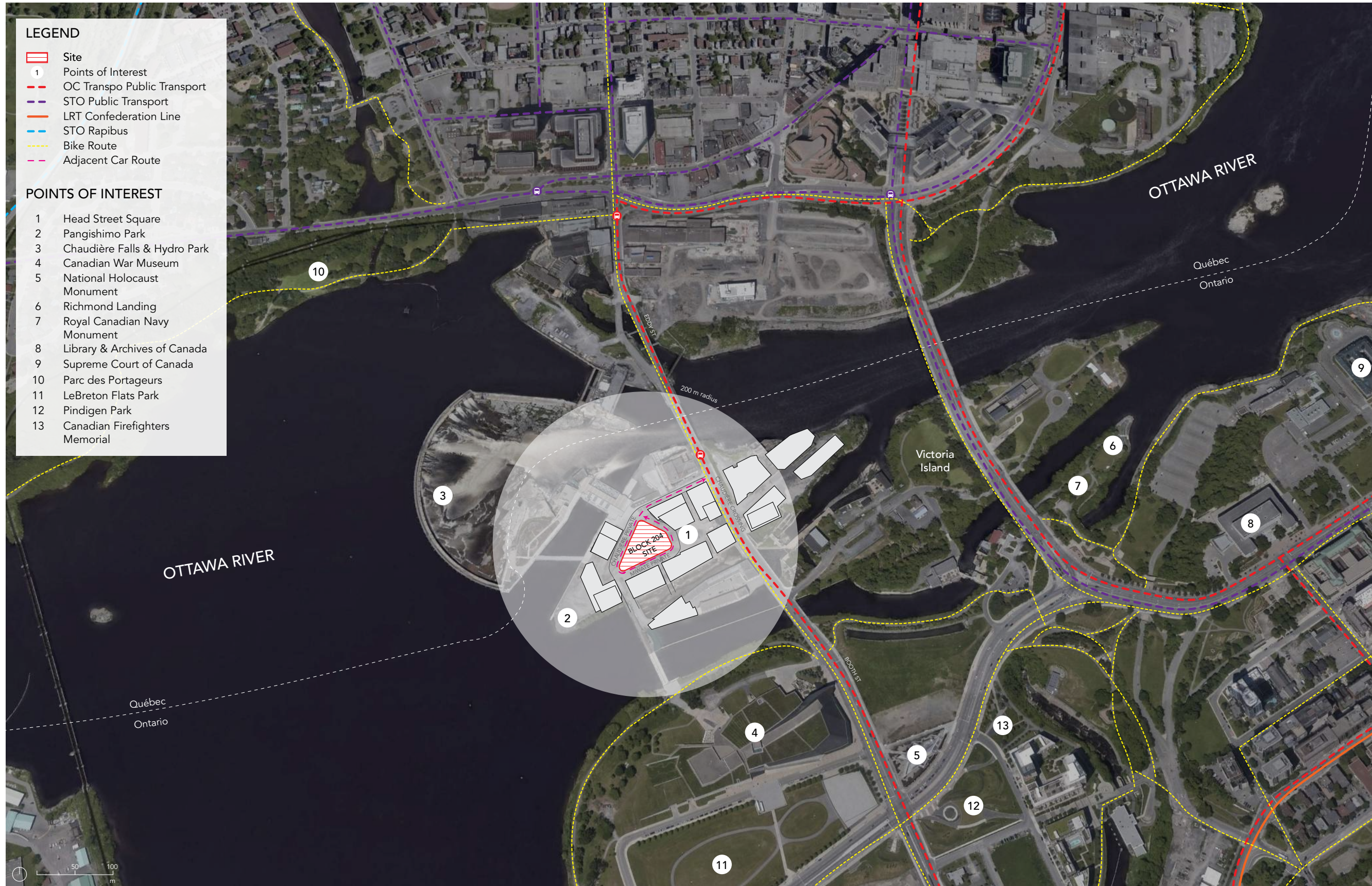
- Ottawa City Council adopted the New Official Plan on November 24, 2021 and it is currently awaiting Ministerial approval. The New Official Plan is not currently in force.
- In the New Official Plan, the subject lands are within the Downtown Core Transect and the Ottawa River Island Special District Designation. This policy framework for the site is meant to guide high-rise, mixed-use development near the City’s Light Rail Transit System and established well-served Downtown Core.
- The subject property is no longer located within a Secondary Plan in the New Official Plan, rather, it has been designated as the Ottawa River Islands Special District, which has incorporated the existing policies from the Central Area Secondary Plan.
- The intensification at this location, where it will be redeveloped a previous industrial and currently vacant site, contributes to a land use pattern that is consistent with a 15-minute neighbourhood.

HERITAGE CONSIDERATIONS

- The proposed development does not include any public realm components that are subject to the Zibi Heritage Interpretive Plan.
- Head Street Square, located adjacent to the subject property, communicates the theme of “Renewal” – the changing character of the site through history, the evolution of Ottawa as the National Capital, and the ambitions of environmental sustainability.



1.3 CONTEXT PLAN



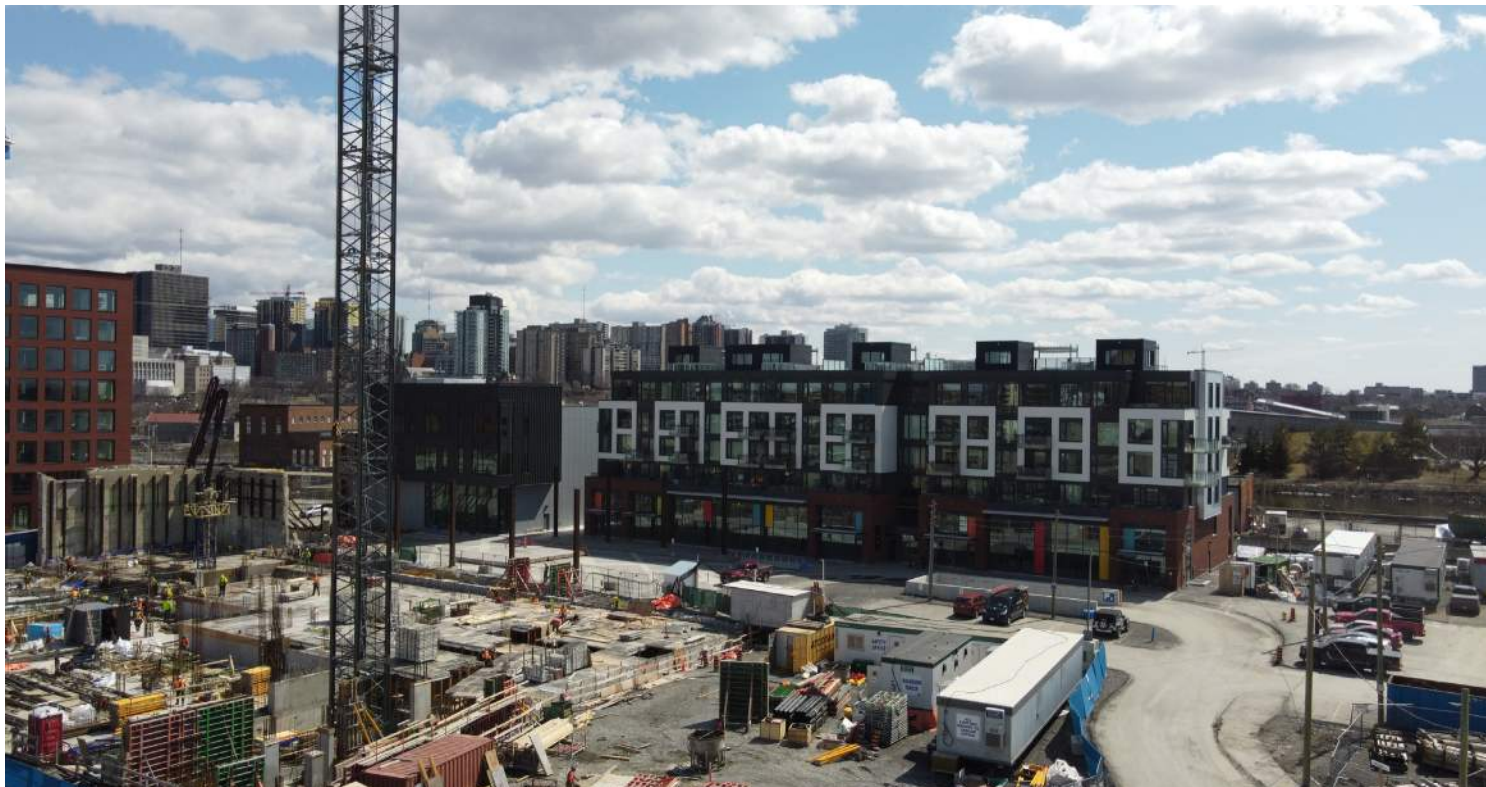
1.3 SITE PHOTOS



NORTH



EAST

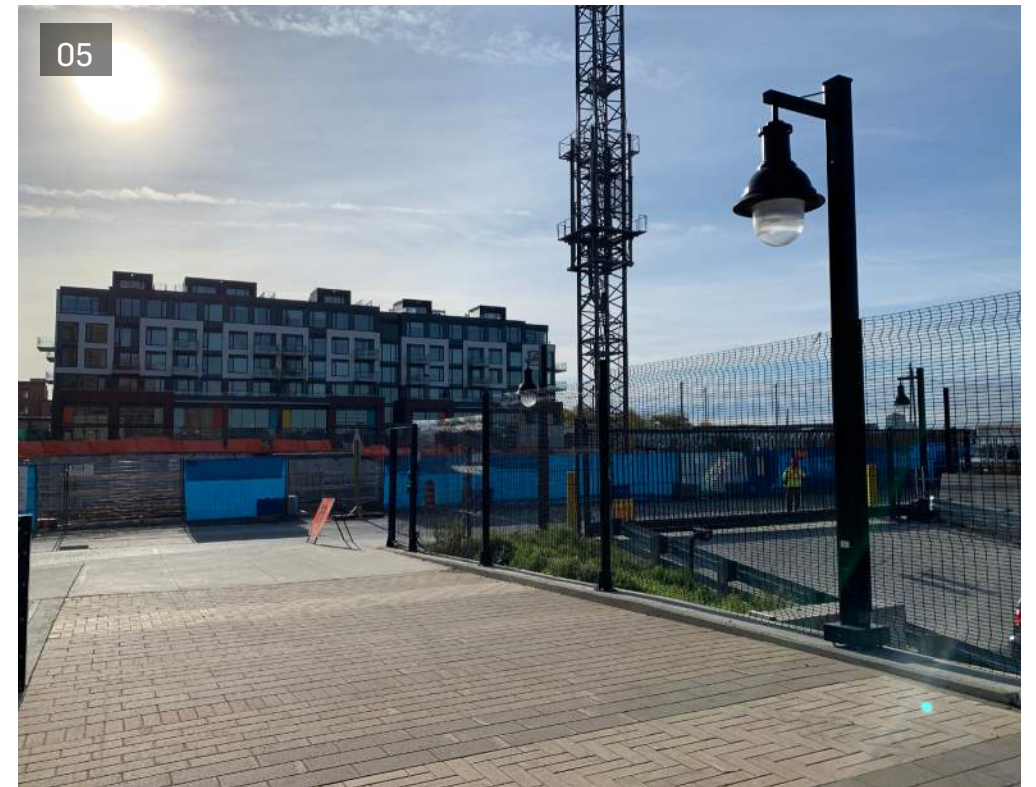
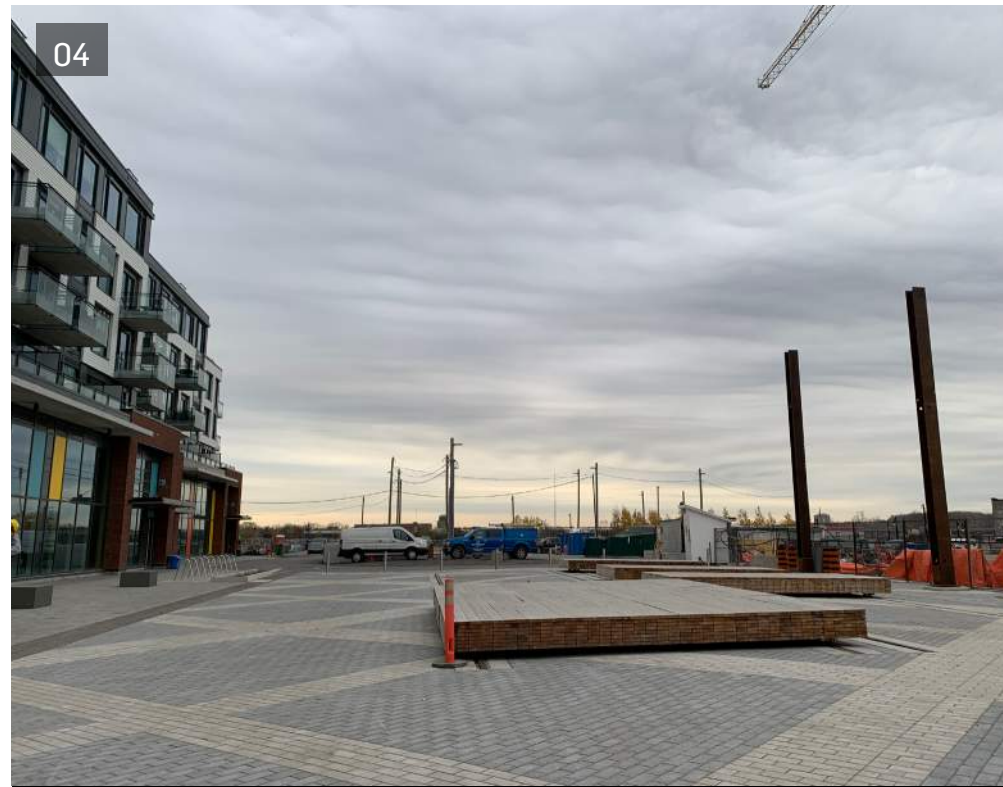


SOUTH



WEST

1.3 SITE PHOTOS

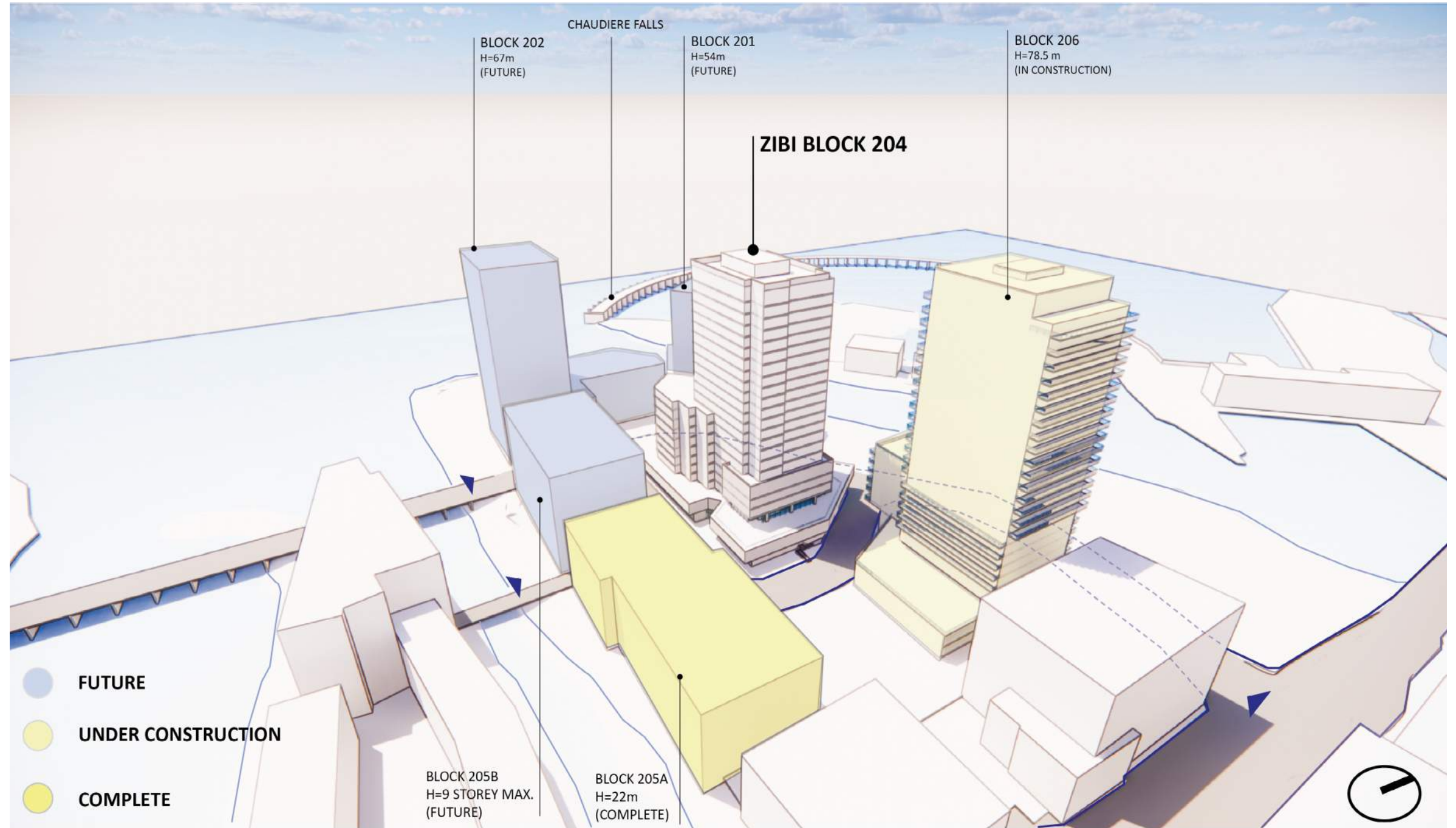


1.3 ADJACENT BUILDINGS

IMPORTANCE OF BUILDING IN CONTEXT

Block 204 is a unique and important site in the context of the Zibi Development. It is the final face enclosing Head Street Square and is the focal point of one of the site's key views from Booth Street into the western portion of Chaudière Island.

Special care is taken regarding the location of the tower on the site in relation to not only the existing and in-progress surrounding buildings but also future developments to come west and south of Block 204.



1.3 KEY PHYSICAL ELEMENTS

CONTEXTUAL CUES: CHAUDIÈRE FALLS, THE OTTAWA RIVER AND LOCAL HARDSCAPES

The natural and industrial history of the site provides a unique opportunity to connect the Zibi project to its surroundings.

The approach to materiality and massing for the proposed building at Block 204 takes cues from a number of site elements including the rushing water and layered rock formations of the Chaudiere Falls, as well as the sound and energy of the flowing Ottawa River that surrounds the site.

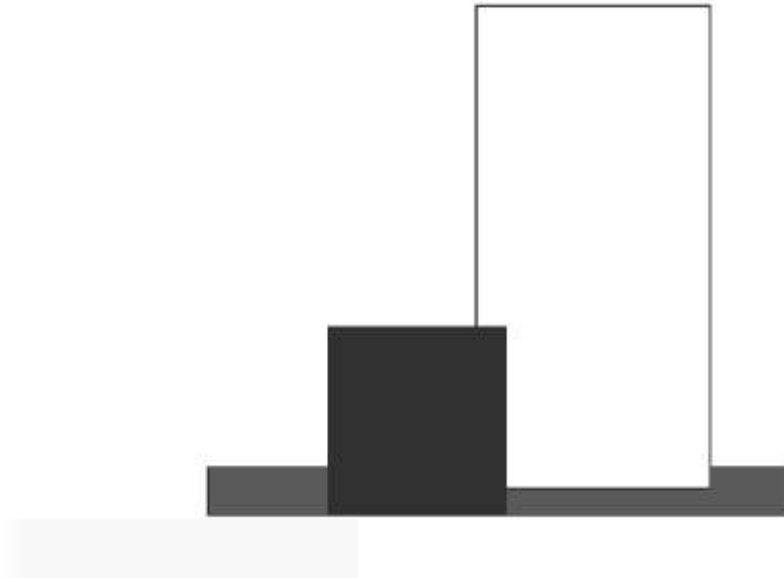


DESIGN PARTI: 3 ELEMENTS FALLS, ROCK FACE & THE RIVER

The design parti for Block 204 is informed by three distinct elements of the site: the Falls, Rock Face and the River.

The aim for the massing and materiality is to:

- Connect the three elements through common design features
- Create a tactile ground plane that relates to the existing urban setting
- Serve as the final framing face of Head Street Square
- Blend the tower component into the sky through light-colour materials





02. DESIGN PROPOSAL

DESIGN PROPOSAL

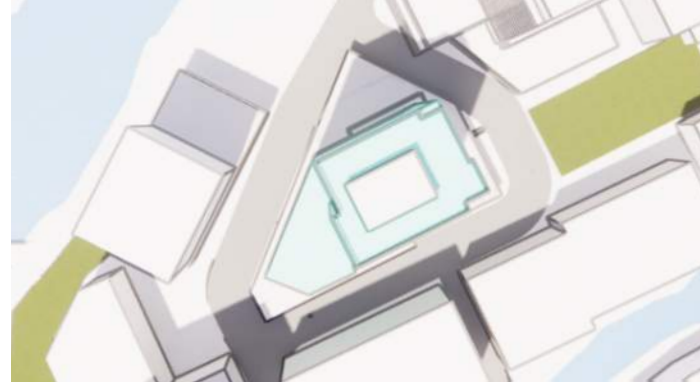
OUR APPROACH & PROJECT PRINCIPLES

Our approach to the design of Block 204 is rooted in the overall goals of the Zibi Development Master Plan.



ICONIC LOCATION WITHIN THE WATERFRONT COMMUNITY REQUIRING A STRONG DESIGN VISION

The distinct canopy element surrounding the ground plane volume aims to create a strong design feature that is recognizable to the Block 204 development.



REDUCE SHADOWING AND WIND IMPACT

The tower orientation is configured to reduce the shadow impact of the development on Head Street Square. Key exterior spaces such as amenity terraces are located on the east, south and west portions of the site to maximize sunlight exposure. Prevailing winds are considered in the balcony placement on the tower as well as the use of an extensive canopy to protect the residential entrance at grade.



IMPROVE THE PUBLIC REALM AND HEAD STREET SQUARE

The feature tenant at the southeast corner of the site is provided with the opportunity for exterior patio space facing Head Street Square to reinforce the activation of the public realm.



PROTECT AND ENHANCE VIEW CORRIDORS TO CHAUDIÈRE FALLS AND NATIONAL CAPITAL REGION'S MOST BEAUTIFUL LANDMARKS

Views were studied to ensure the placement of the tower on the site minimized the view impact on the site from key areas. The tower massing is considered relative to existing and future buildings on the island and to maximize the porosity of the permitted massing.



REDUCE BUILT-FORM IMPACT

The tower is set back considerably from the property line to minimize the effect on the public realm. In addition the use of light-coloured cladding material aims to blend the tower with the sky on the south facade.



CELEBRATE HERITAGE

The industrial heritage of the site is celebrated through the materiality and tectonics of the proposed podium and tower volumes. The design parti is a nod to the natural heritage of the site through the introduction of three distinct elements: Chaudière Falls, rock formations and the Ottawa River.



INTEGRATE WITH THE STRONG EXISTING CONTEXT AND LANDSCAPE

Pedestrian-friendly spaces are continued in line with the overall landscape design principles for the Zibi development. The setback at the residential entrance on the north of the site and feature sculptural element will contribute to the creation of livable neighbourhood spaces that can be enjoyed by all.

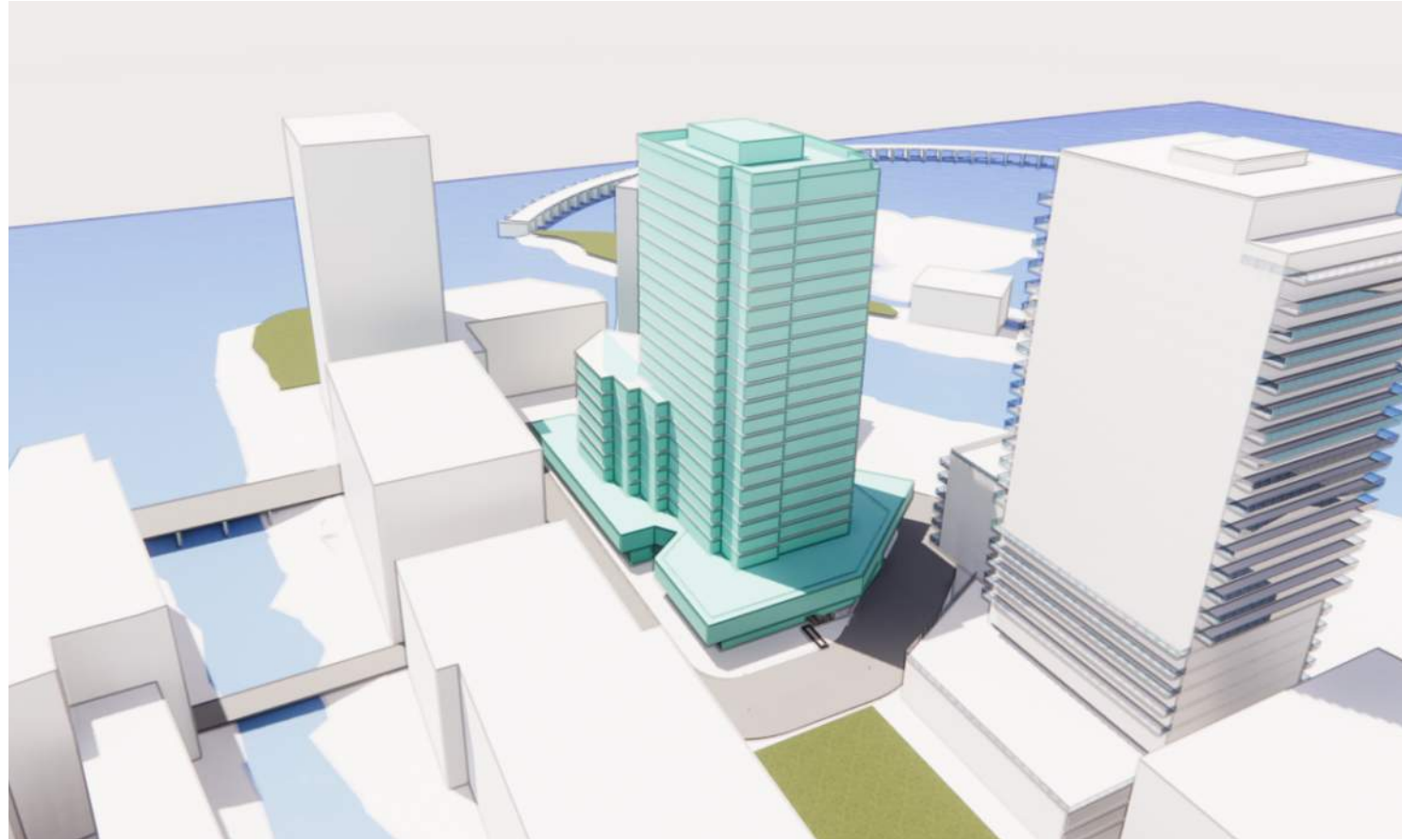


PROMOTE SUSTAINABLE AND ECO-FRIENDLY DESIGN PRINCIPLES

Block 204 aims to bring a healthy lifestyle to the forefront by creating a feature bicycle storage room conveniently located at the front of the residential lobby and encouraging the use of stairs through the use of supergraphics and well-designed stair cores. The project will continue the One Planet Living standards and certification set forth for all Zibi projects.

2.1 DESIGN PROGRESSION

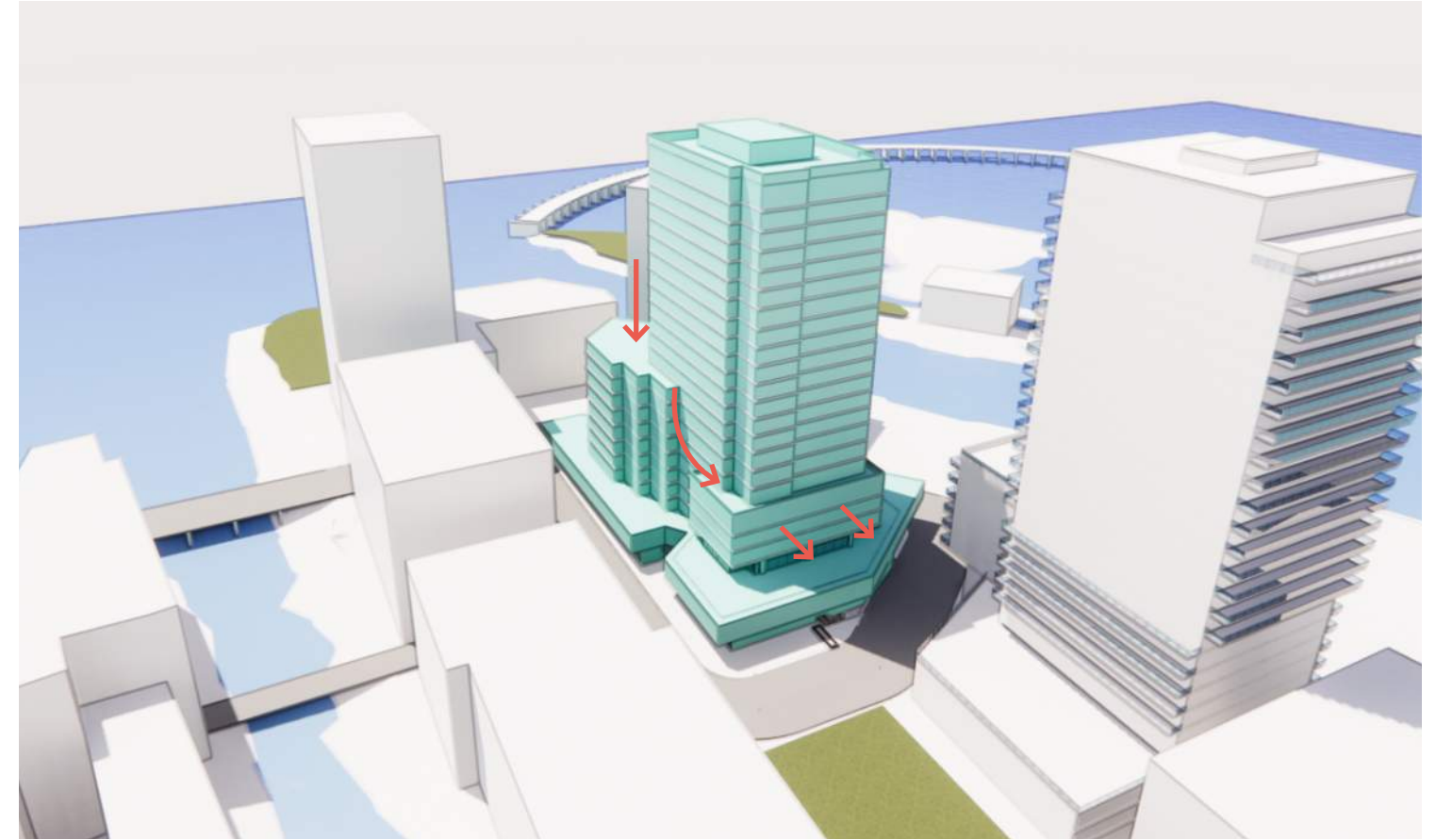
SPA - APRIL 21, 2022



SPA COMMENTS

1. Podium Height - The proposed building should have a higher podium facing Head Street Square to better frame its western edge and provide a sense of enclosure and visual termination to the square and to match the heights of the surrounding buildings.
2. Materiality - The contrast between the black and white materials creates a complexity which the building may not need. The Panel recommends the proponent use a single material and a lighter coloration for the tower to knit better with the context and for the building to fade into the sky.
3. Ground Floor - The double base and the lower canopy podium facing the square lack human scale; the Panel believes a mid-rise base is more appropriate to create a street wall and sense of enclosure for the square and meet the one-to-one base-to-street ratio.

ADJUSTMENTS FOR SPA RE-SUBMISSION - SEPTEMBER 1, 2022



DESIGN ADJUSTMENTS BASED ON COMMENTS

1. Podium Height - The revised design creates a wrap-around massing through the 5-8 storey podium, which provides an enclosing face to the square of the east side of the site.
2. Materiality - The coloration of the tower has been reduced to just white with cementitious bands highlighting each level. The use of glazed spandrel panels aim to create a softer transition between solid and opaque portions of the tower along the horizontal.
3. Ground Floor - The project team feels that the double-height ground floor with a roof terrace at Head Street Square provides the opportunity for an activated connection between the ground tenant and users of the residential outdoor space with the public realm. Further, by setting the podium and tower volume back, the design team feels this improves the pedestrian experience by minimizing the shadow effect on the square.

SPA SUBMISSION, APRIL 21, 2022

HEAD STREET SQUARE



RESIDENTIAL ENTRANCE



WEST FACADE



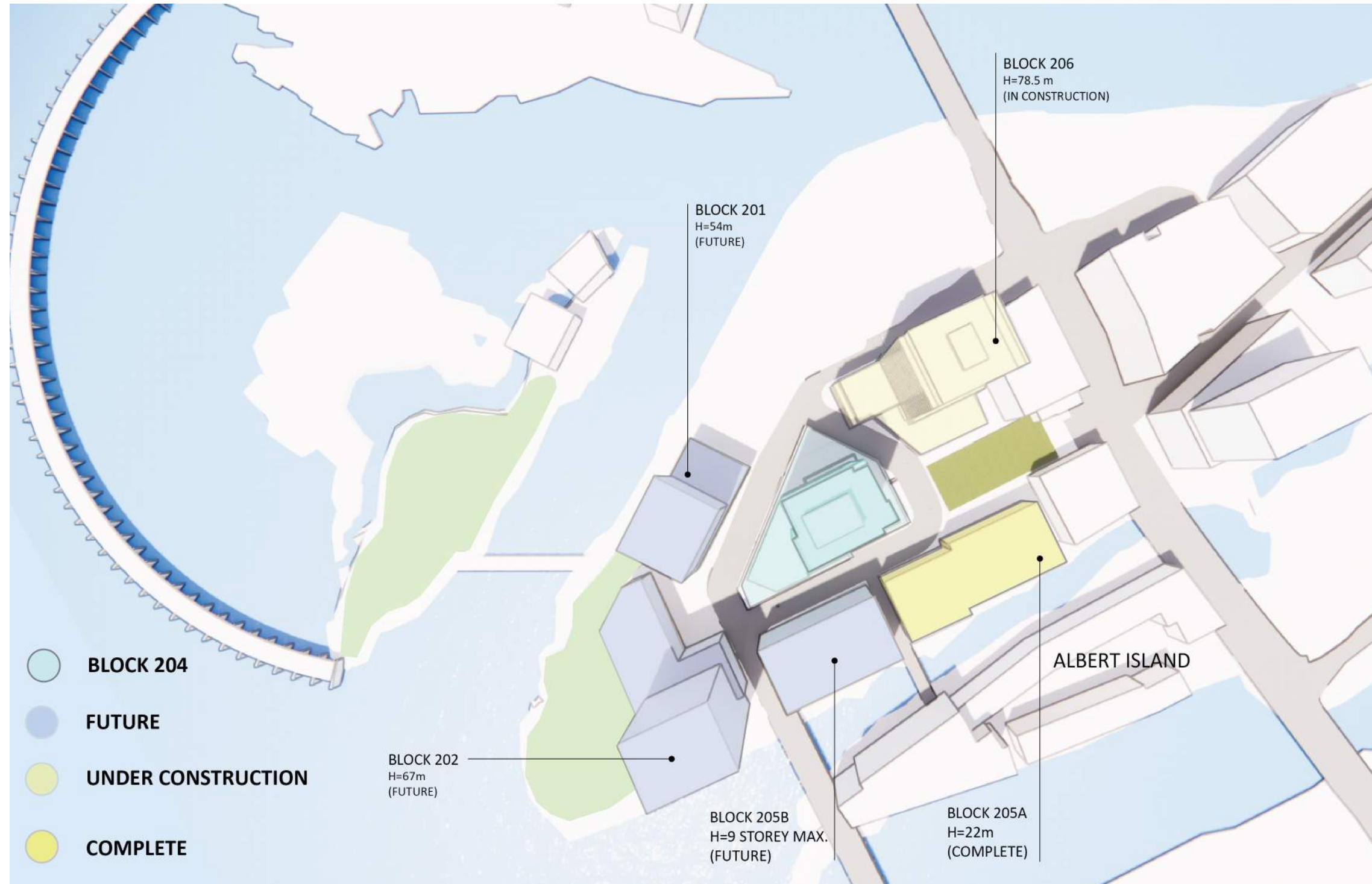
SPA SUBMISSION, SEPT 1, 2022



Taking into consideration the UDRP's comments on creating a stronger podium presence on Head Street Square, the revised design pushes out the eastern mid-podium volume to create a more gradual transition from the two-storey ground floor to the tower volume.

At the residential entrance on the northeast corner of the site, the mid-podium continues to wrap around erodes away before the 5-storey and 8-storey volumes meet - a nod to the rock erosion at the falls.

2.1 DESIGN PROGRESSION



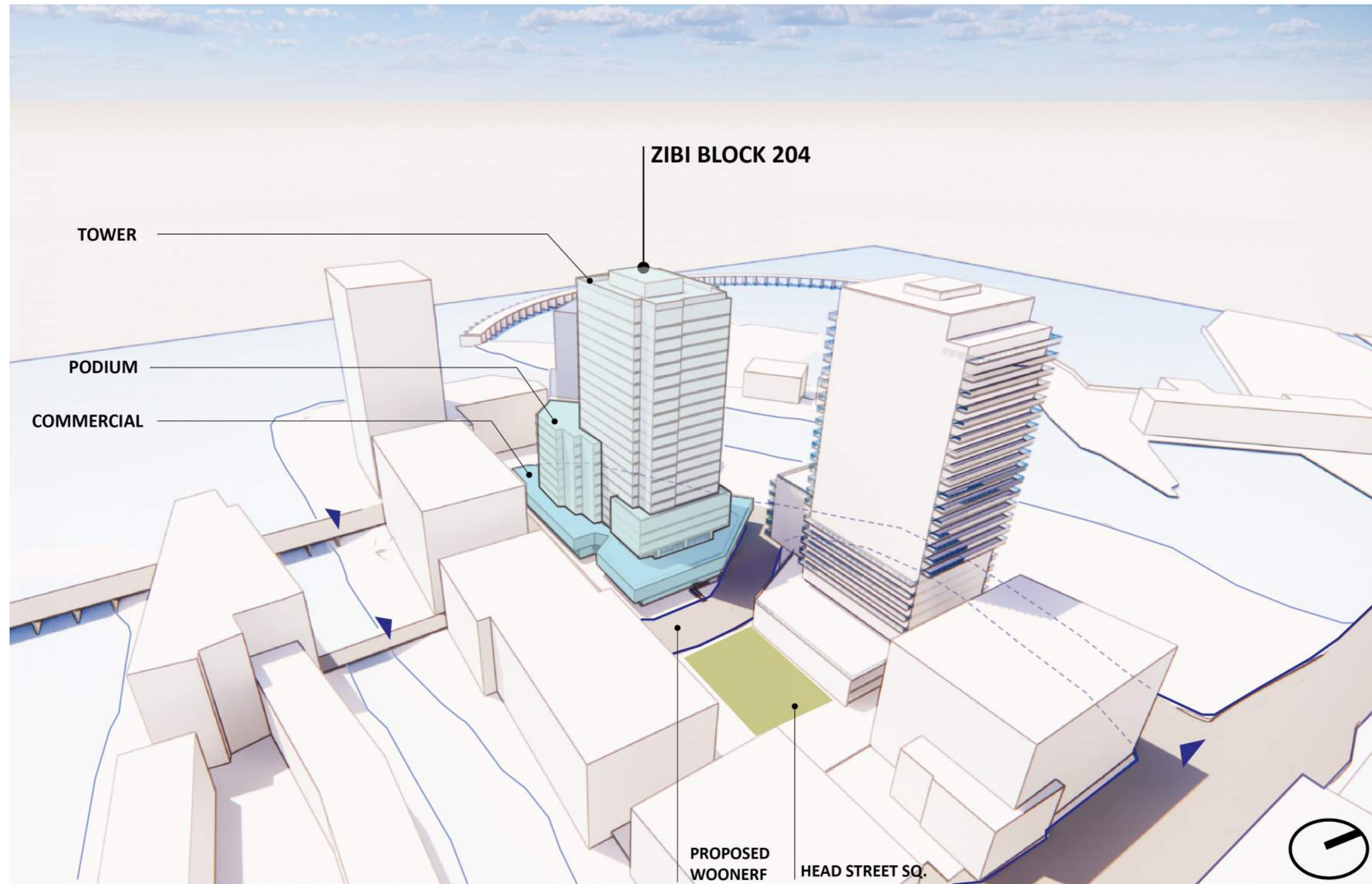
BUILDING SCALE & SETBACKS

The tower is generously set back from the commercial ground volume to create a less imposing presence on the public realm and create breathing room between adjacent towers.

The 700sm floor plate requirements are respected and ensure the scale of the tower fits within the context of the Zibi Development Master Plan.

Of the upper volumes, the northwest facade of the 9-storey podium volume reaches closest to the property line. Carve-outs are created to not only introduce balconies for the lower units, but to also mitigate effects of the mass on Chaudiere Private.

2.2 MASSING & SCALE

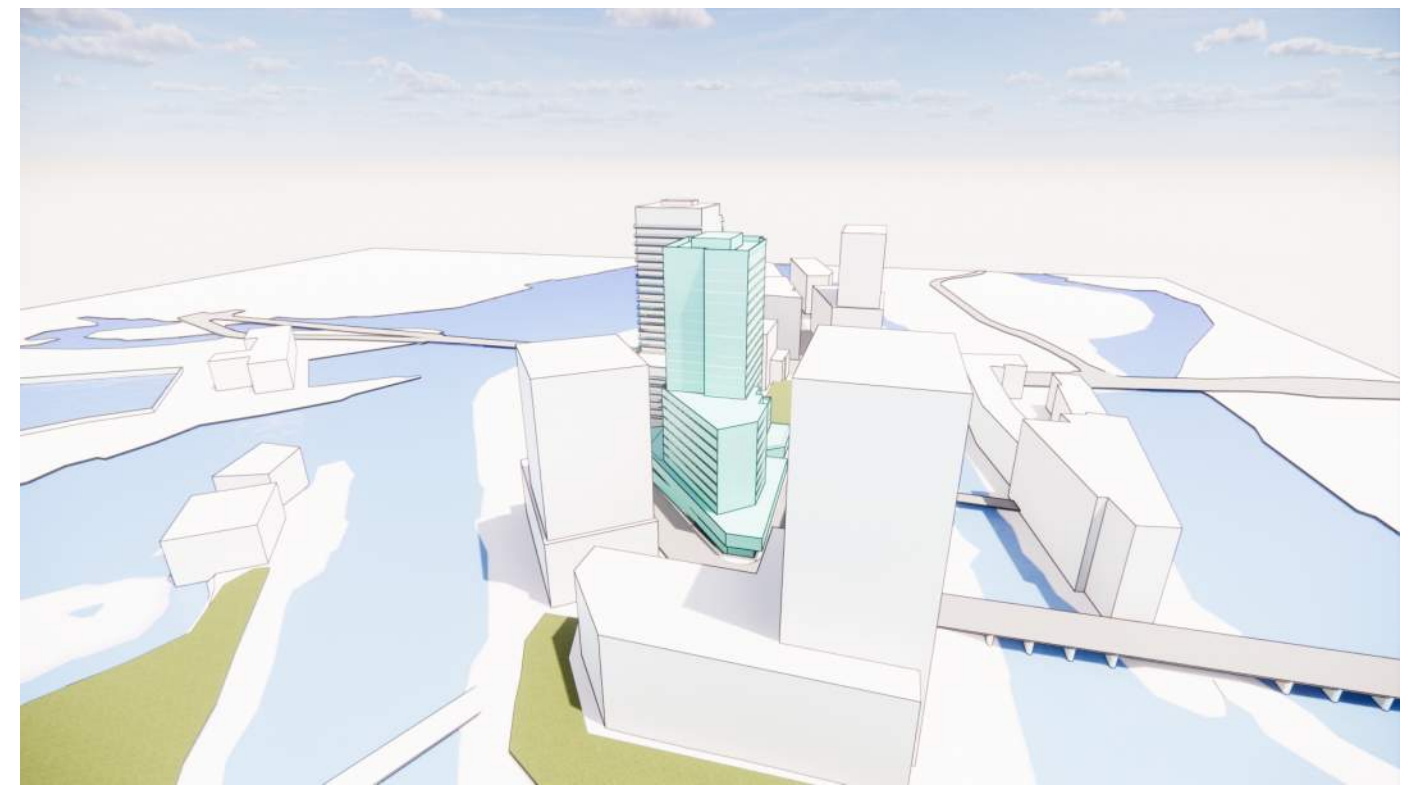
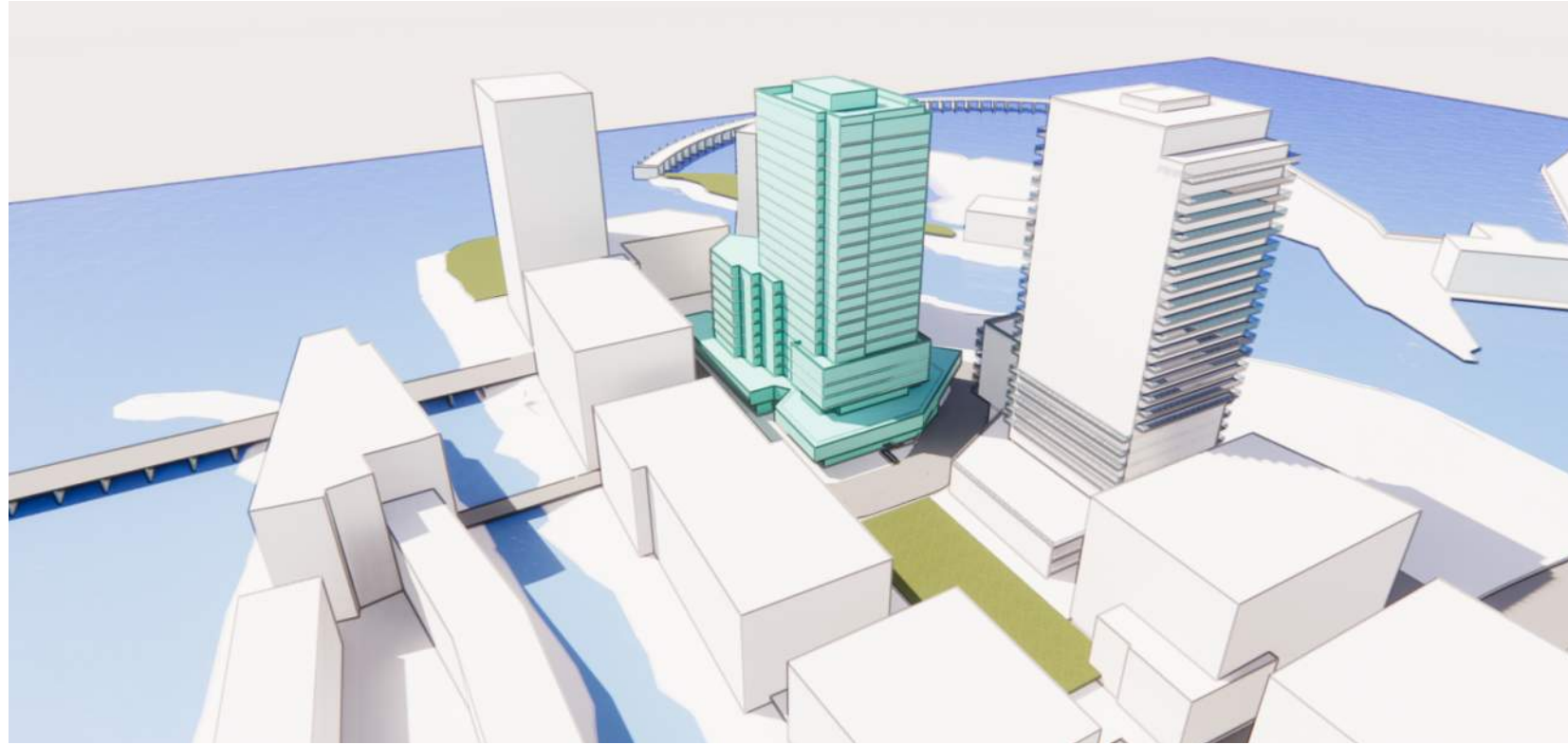


BUILDING MASSING

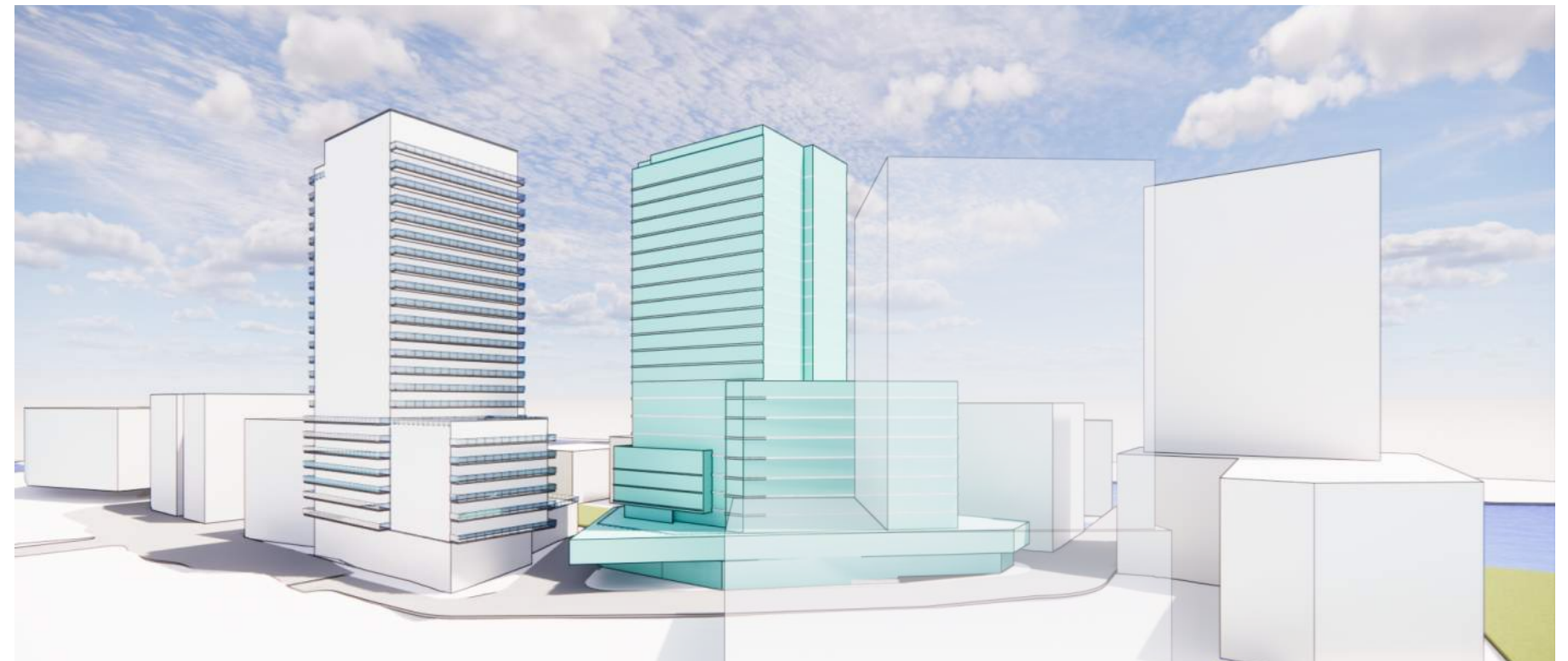
In addition to celebrating three key elements of the site, the building massing and placement of balconies respond to the key views and prevailing winds of the site in order to create comfortable environments for residents and users of the site.

Alcove balconies are prioritized on the north face for added protection and floating balconies are placed on the east and corners to maximize exterior space toward the river and downtown Ottawa.

CONCEPTUAL MASSING VIEWS



Pedestrian view from Booth Street

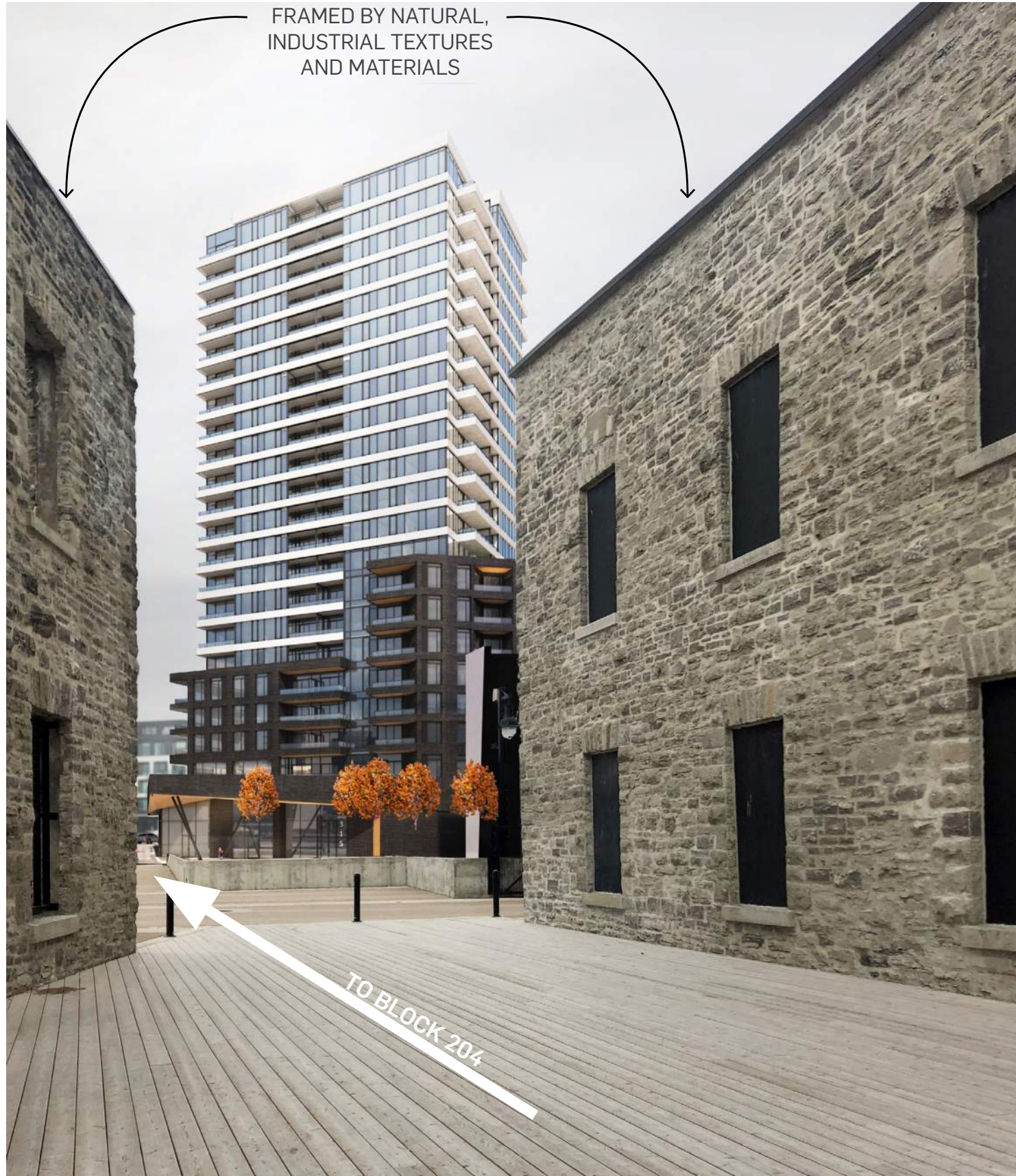


View from northwest corner



View from Summer Pavillion

2.2 VIEWS & CONTEXTUAL CUES

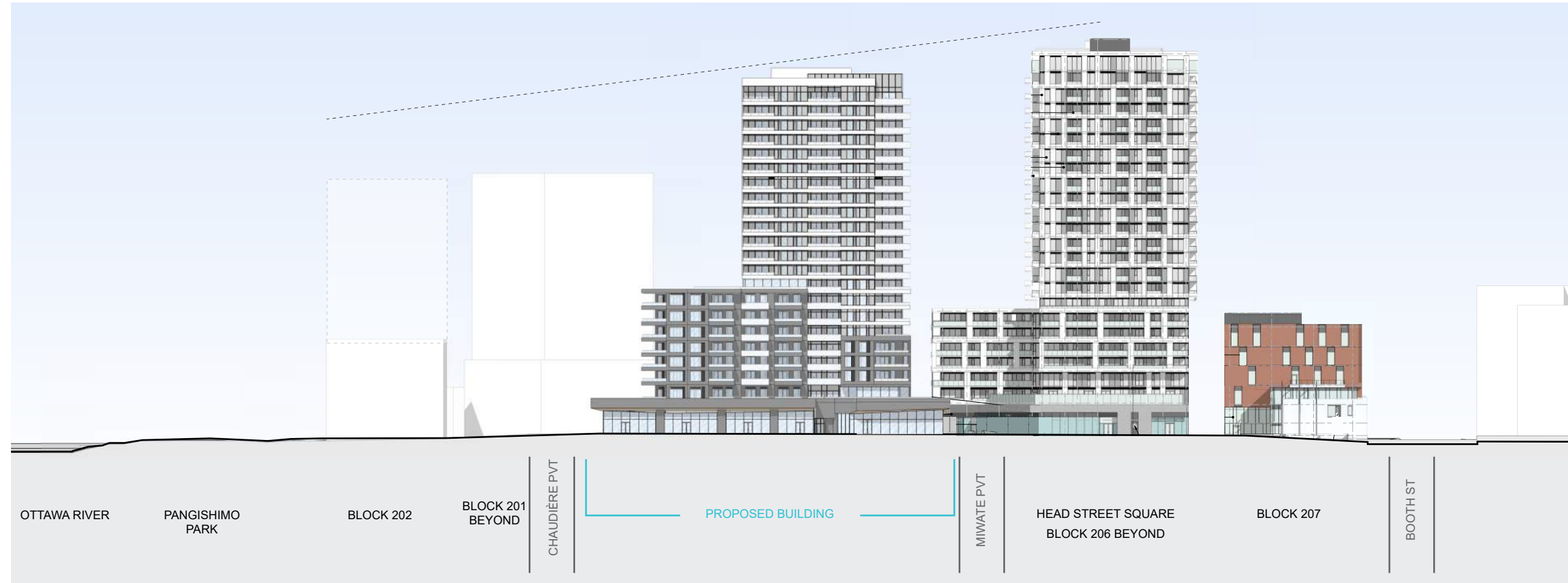


FRAMED VIEWS

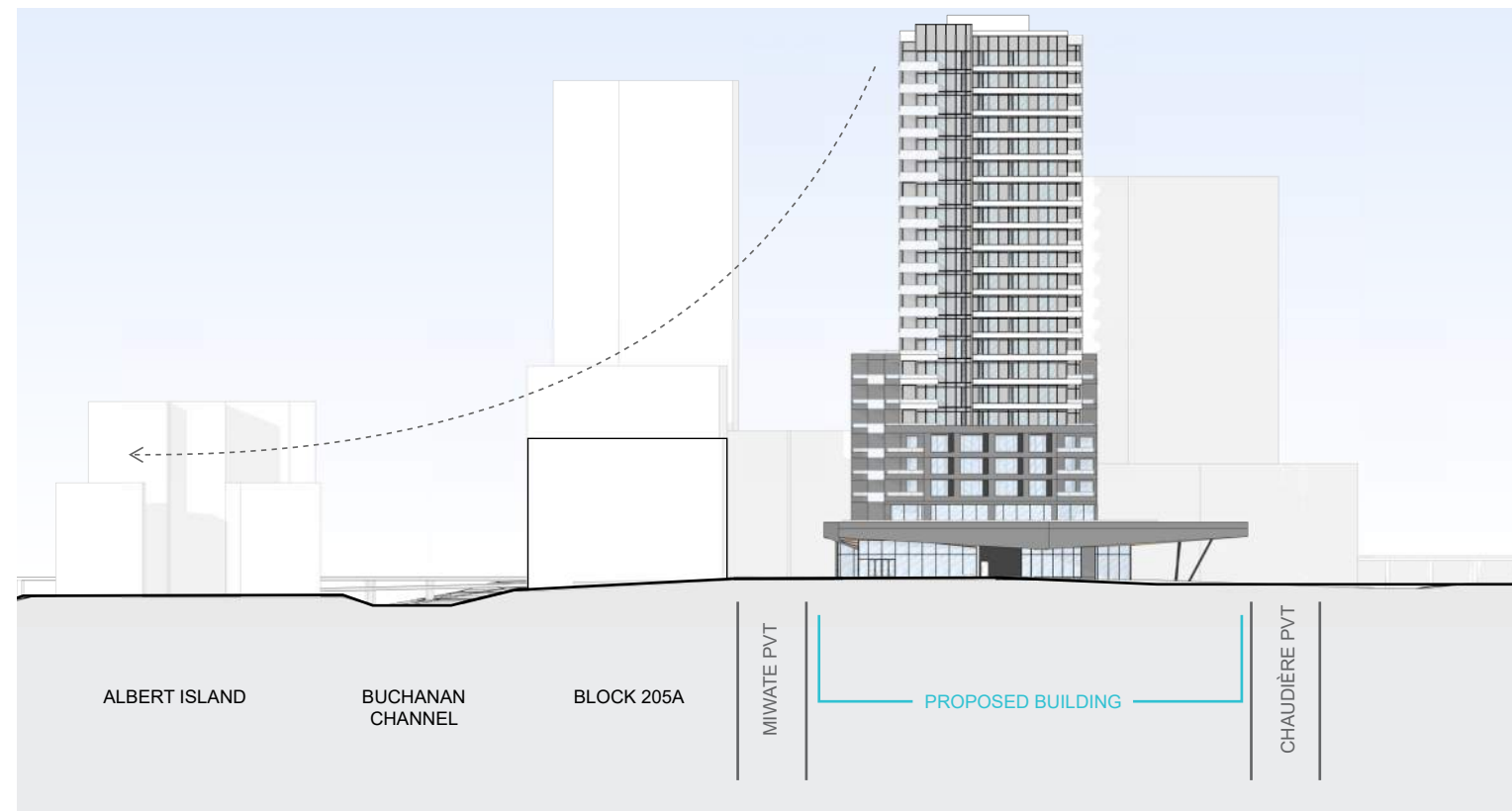
While views from the proposed building to its surroundings are important in the orientation and placement of the massing on the site, it is equally important from an urban design perspective to consider the framed views from around the site toward Block 204. These framed view studies not only inform the massing and geometry, but also guide decisions on materiality, tectonic scale and textures to either blend with the surroundings or contrast with the framed view.

2.2 BUILDING TRANSITION

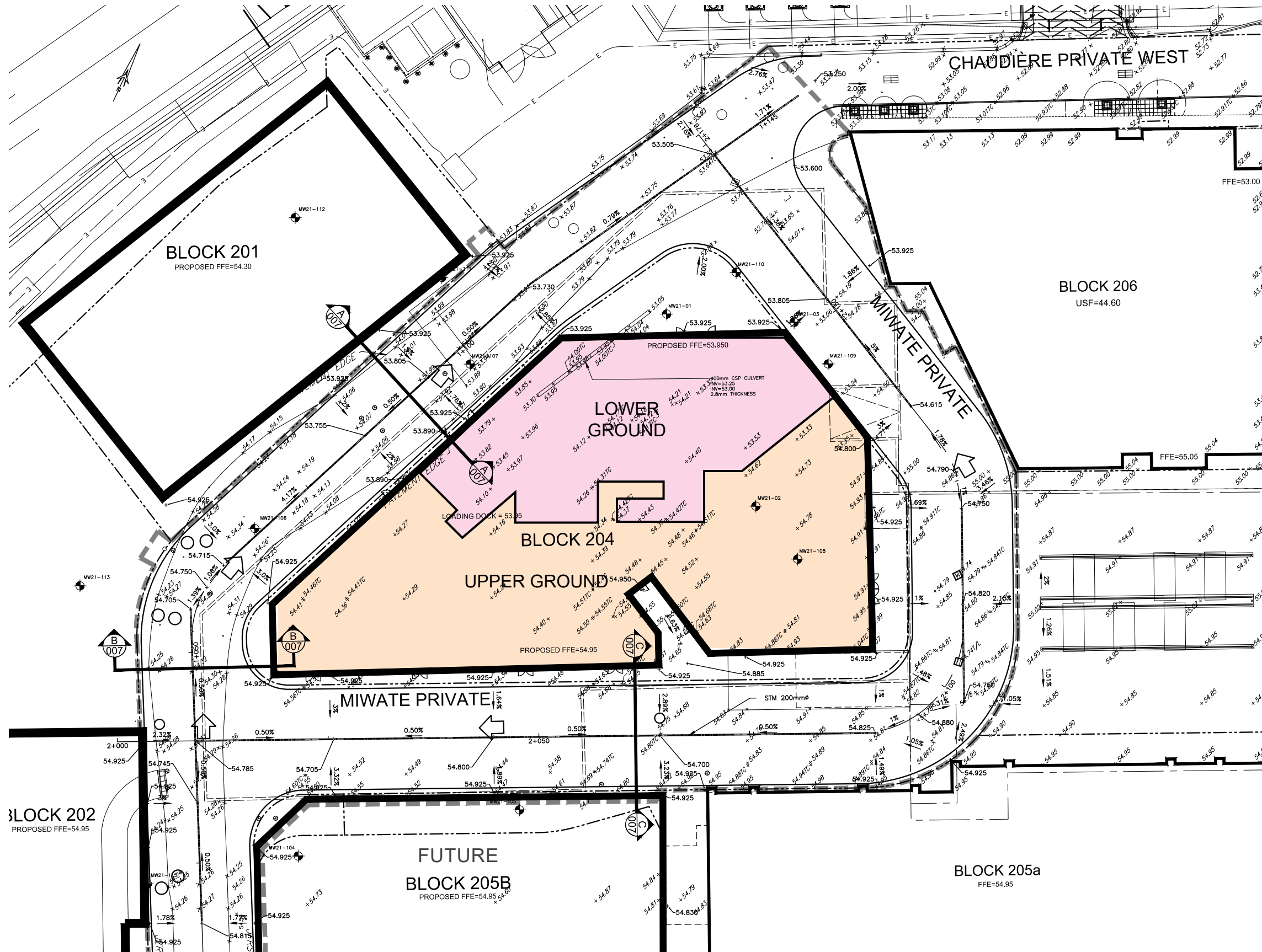
MIWATE PRIVATE - NORTH-SOUTH



MIWATE PRIVATE - EAST-WEST



GRADING



GRADING CHALLENGES

In order to negotiate the significant grade change across the site, upper and lower ground levels are introduced to ensure all areas remain universally accessible from the street. By strategically delineating the upper and lower ground floors at the back of house, grades adjacent to the active retail frontages and residential lobby are kept generally flat, and do not exceed 4-5% along the frontages without entrances and back of house spaces.

2.3 PUBLIC REALM

STREETSCAPE

To create a truly shared street in accordance with Zibi community goals and One Planet principles. These pedestrian-priority spaces will contribute to the creation of livable neighbourhood spaces.

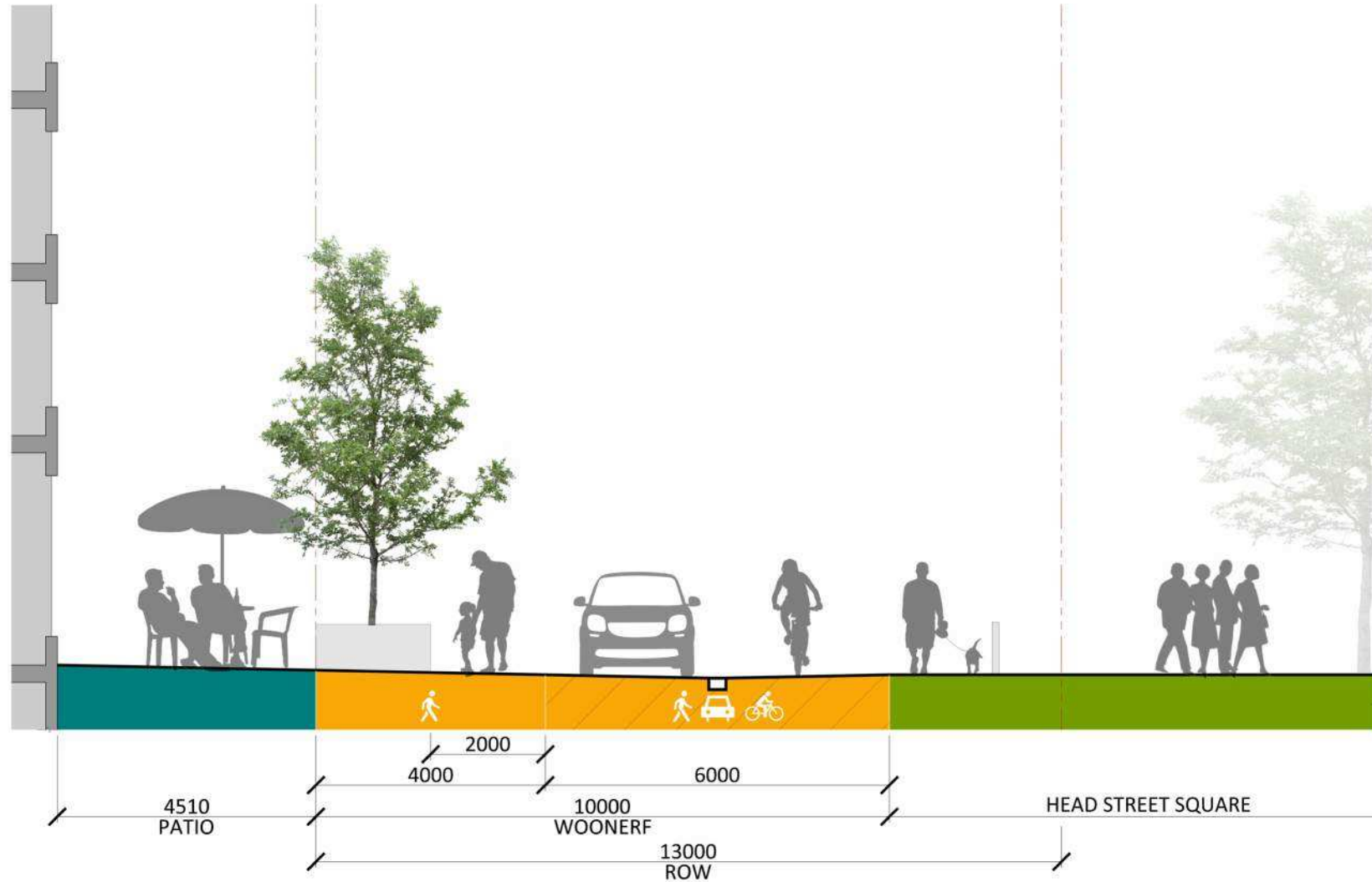
GOALS	OBJECTIVES	DESIGN STRATEGIES
Shared	<ul style="list-style-type: none"> Reduce real and perceived edges Blur traditional 'vehicle' and 'pedestrian' separation Overlap user zones Create a pedestrian priority space 	<ul style="list-style-type: none"> Curbless Gradient paving pattern Continuous surface material Reduced speed limit Pedestrian-scale elements
Safe	<ul style="list-style-type: none"> Define entrances, gateways, transitions Ensure a safe, protected pedestrian zone Introduce a buffer zone with physical barriers Ensure clear path of travel for all users Suggest user zones Slow traffic 	<ul style="list-style-type: none"> Linear buffer zone has trees, furniture Continuous 2m clear pedestrian zone Tactile indicators Reduced speed limit Traffic signs Visual edge with paving pattern and buffer elements Linear drain in roadway acts as a centerline Depressed curb and transition at municipal street interface
Accessible / Inclusive	<ul style="list-style-type: none"> Reduce barriers Create visual edge for directional wayfinding Address visual impairment Provide seating 	<ul style="list-style-type: none"> Curbless Continuous surface material Pedestrian and vehicle zones have different paver colours Directional tactile paving at crosswalks Tactile warning indicator strips at intersection Linear directional tactile studs in pedestrian zone Align edge of site furnishings Includes accessible site furniture
Community Character	<ul style="list-style-type: none"> Repeat elements throughout the community Use materials to delineate different areas Allow for integration of public art Follow One Planet principles 	<ul style="list-style-type: none"> Shared street design Family of high quality materials and finishes Family of high quality site furnishings Native plant material palette
Flexible / Adaptable	<ul style="list-style-type: none"> Enable event and flexible space Enable tenant usage Allow for integration of public art 	<ul style="list-style-type: none"> Curbless Continuous surface material Movable furniture Building-mounted signs and lighting
Environment	<ul style="list-style-type: none"> Encourage healthy urban trees Encourage biodiversity Capture storm water runoff Encourage multi-modal transportation Limit or avoid use of road salt where feasible 	<ul style="list-style-type: none"> Soil cells for tree planting Native plant palette Direct stormwater to planters Shared street design
Multi-Season	<ul style="list-style-type: none"> Facilitate winter snow clearing Recommend operational activities 	<ul style="list-style-type: none"> Raised elements define edges: planters, bollards and street trees Snow stakes to define edges



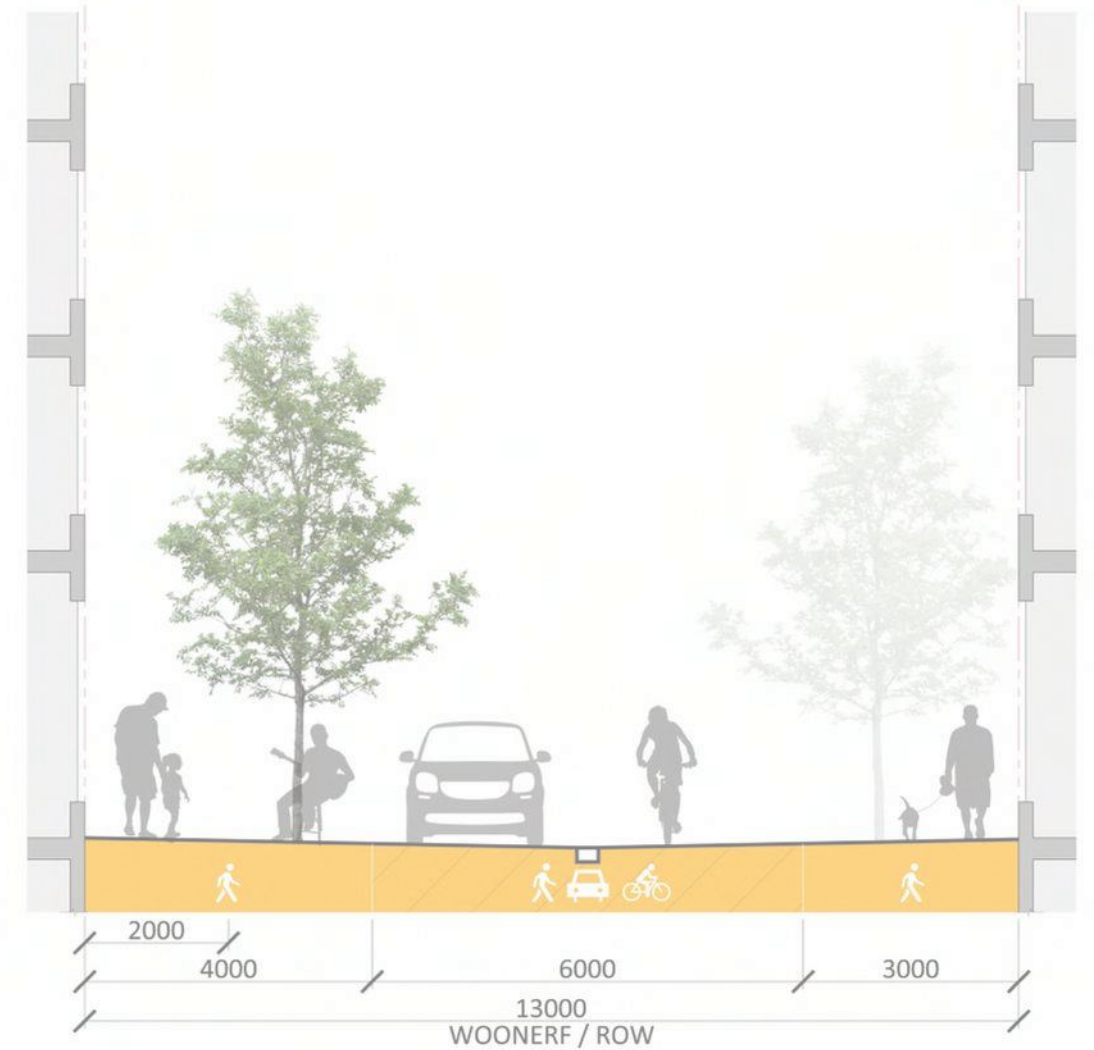
2.3 PUBLIC REALM

STREETSCAPE - STREET SECTIONS

The location of the feature tenant patio on the east side of Block 204 is strategically placed to continue the activation of the ground plane from Head Street Square across the woonerf and onto the property.



EAST STREETSCAPE FACING HEAD STREET SQUARE



TYPICAL WOONERF STREETSCAPE

2.3 PUBLIC REALM

LANDSCAPE PLAN (NTS)



2.3 PUBLIC REALM

LANDSCAPE STRATEGY

The approach to landscape at the northern portion of the site aims to create a secondary "sister square" to Head Street Square to articulate the entrance to the pedestrian-priority area of Zibi.

The space required for a drop-off zone is provided in front of the residential entrance to allow for resident, parcel and visitor pick-ups and drop-offs. The overall paving is continuous to enforce the pedestrian-priority area and safety is ensured by providing bollards in front of the building facade.

Aligned under the opening in the entrance canopy is a space dedicated to a feature sculptural element, which not only further identifies the main residential corner of the site, but also echoes the restored pulper located east across the woonerf on the Block 206 property.

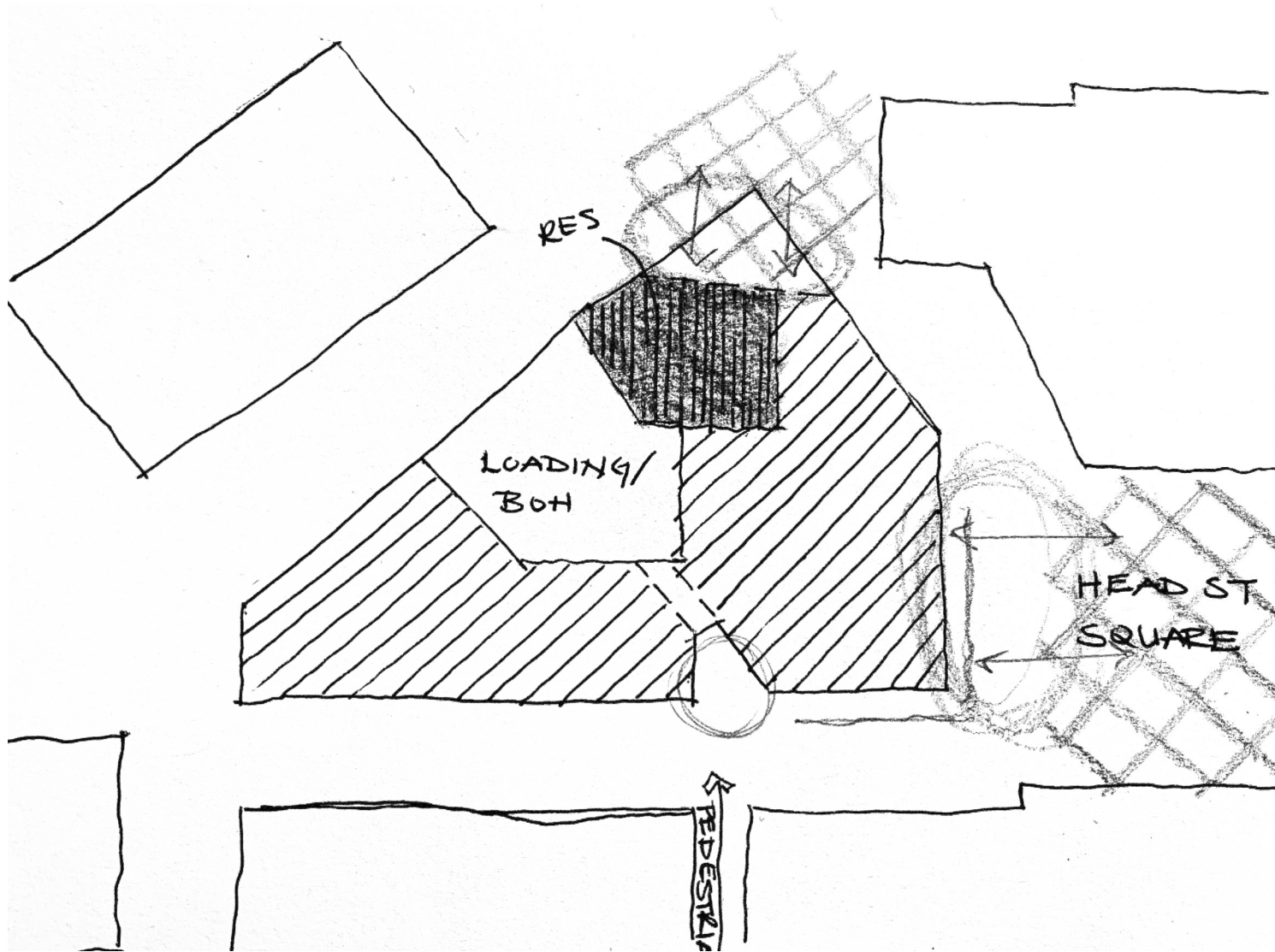


2.3 PUBLIC REALM

GROUND & RELATIONSHIP TO PUBLIC REALM

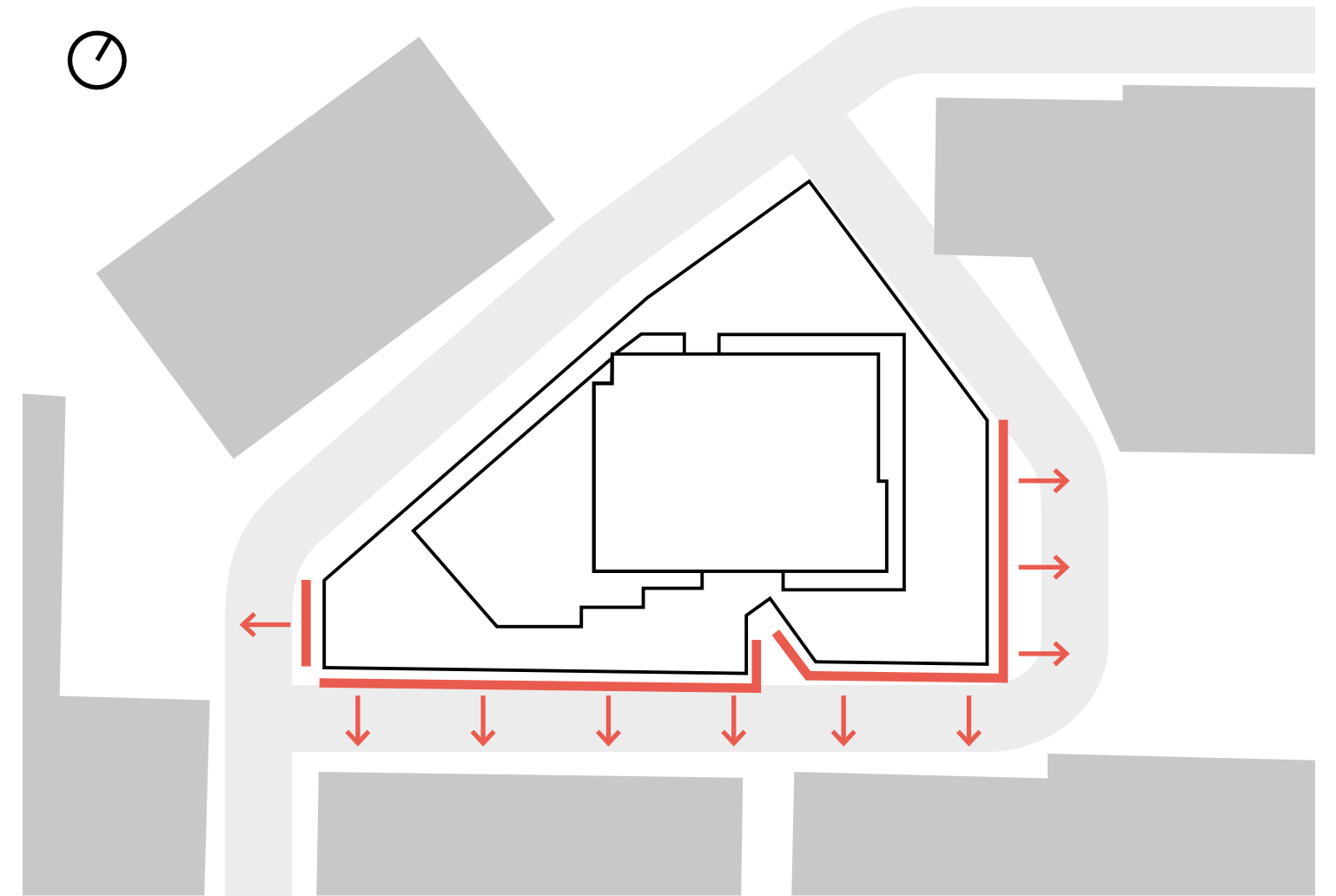
APPROACH

The sculpting of Block 204's ground floor plane is informed by the site's views, programmatic adjacencies and existing and future pedestrian circulation. A unique aspect of Block 204 is its lack of a "back-of-house face". Every facade is street-facing and plays an important role in establishing a vibrant pedestrian experience while meeting the functional requirements of a commercial / residential development.



ACTIVATE THE PERIMETER

The entrances to commercial tenant spaces are located at the south and eastern face of the ground floor and play a particularly important role in the activation of the woonerf.

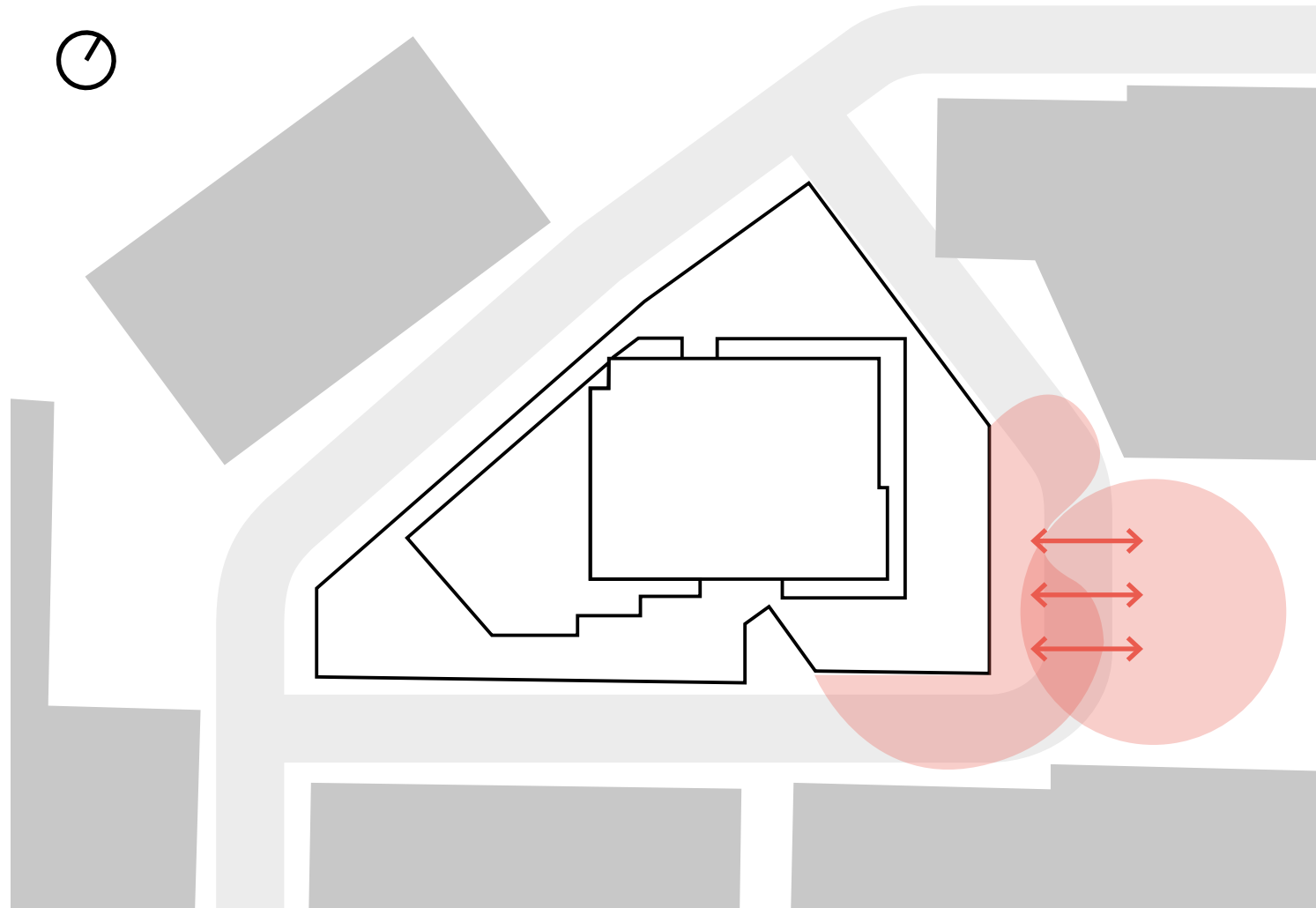


2.3 PUBLIC REALM

GROUND & RELATIONSHIP TO PUBLIC REALM

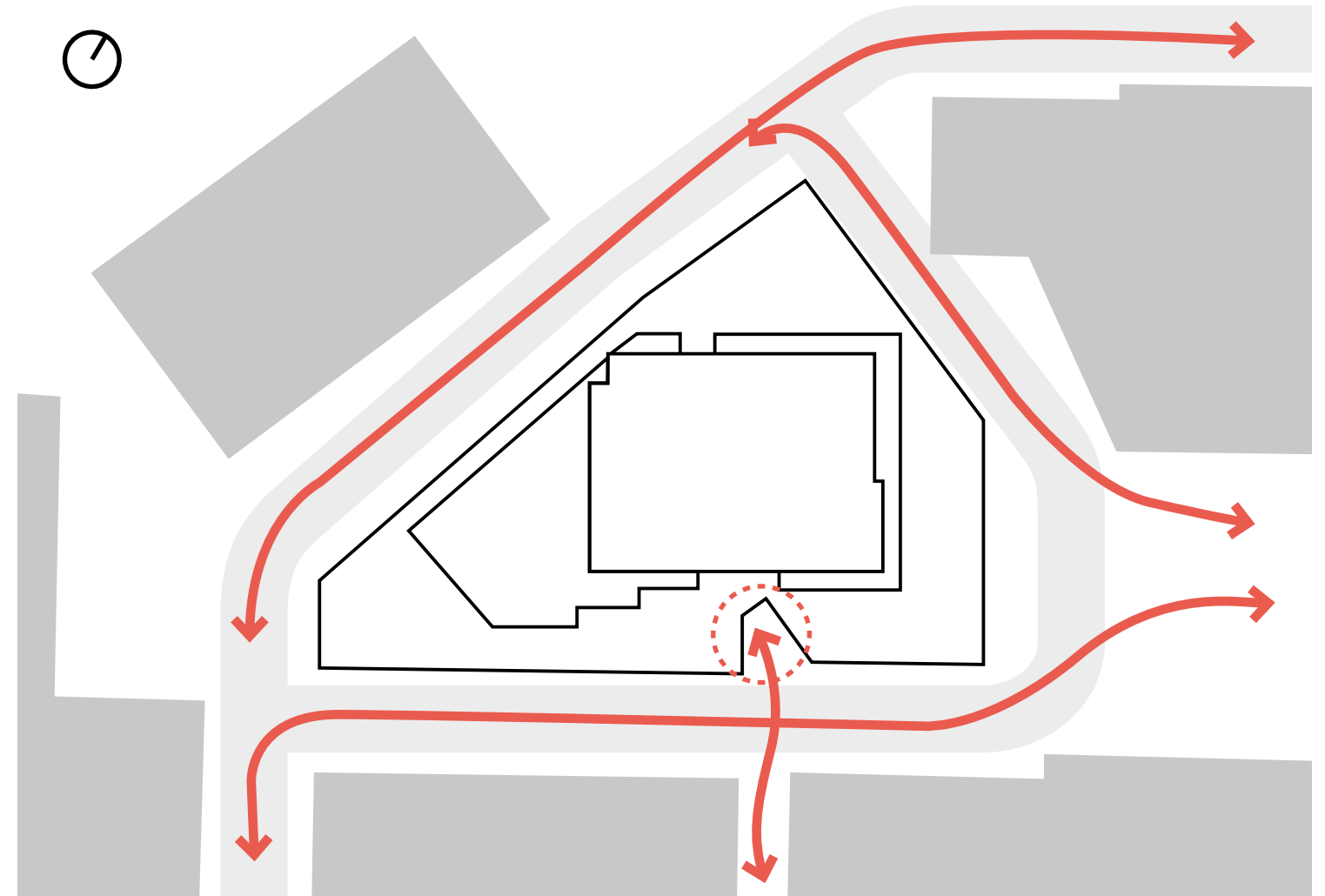
RE-ENFORCE RELATIONSHIP WITH HEAD STREET SQUARE

The setback of the eastern volume provides the opportunity to create a strong relationship between a commercial patio space and Head Street Square.



RESPOND TO PERMEABILITY OF DEVELOPMENT

The mass is notionally divided in two by the future pedestrian bridge axis between Block 205A and 205B. This provides the opportunity to setback the east side of mass adjacent to Head Street Square and create a more human scale and dynamic southern face.

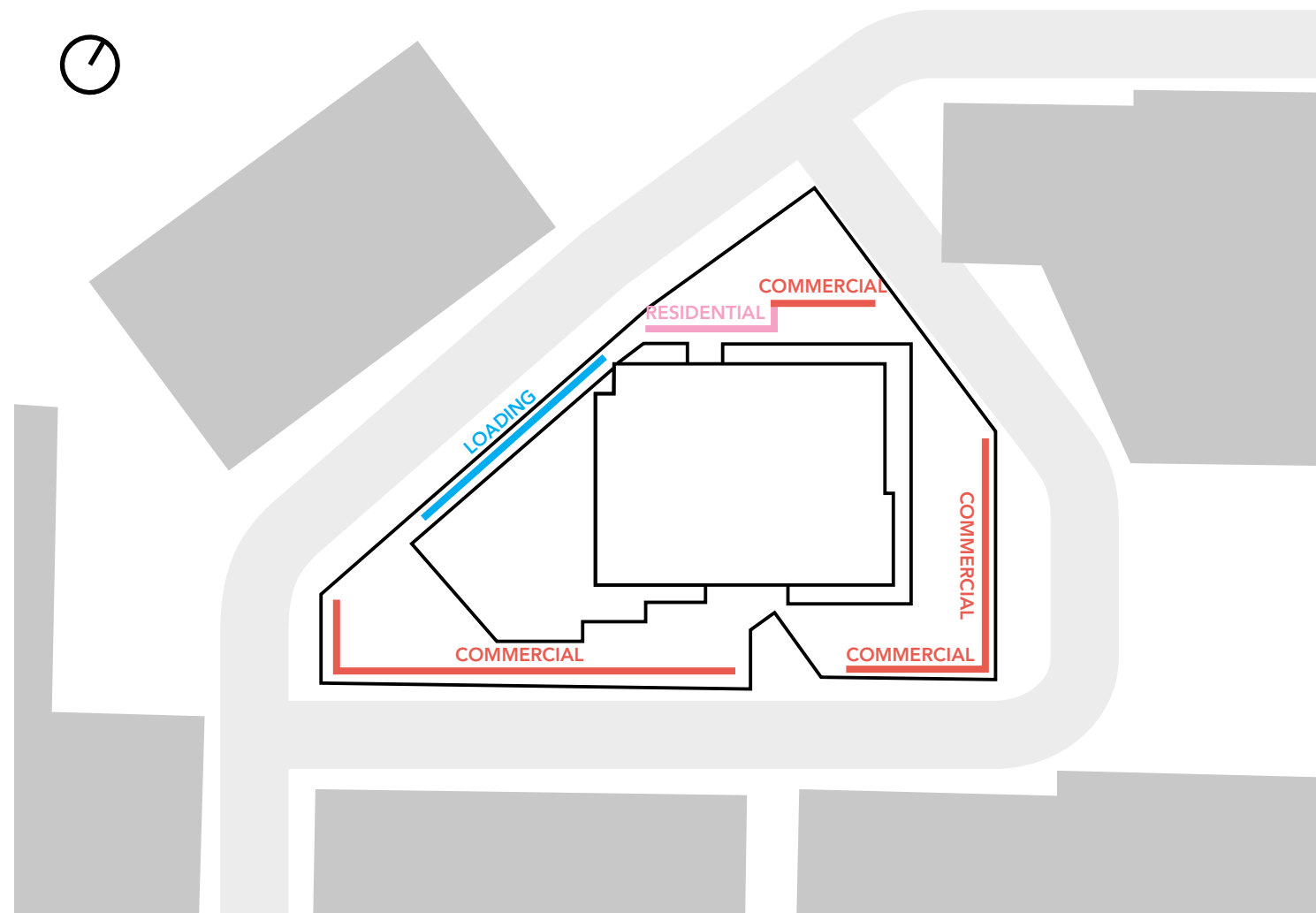


2.3 PUBLIC REALM

GROUND & RELATIONSHIP TO PUBLIC REALM

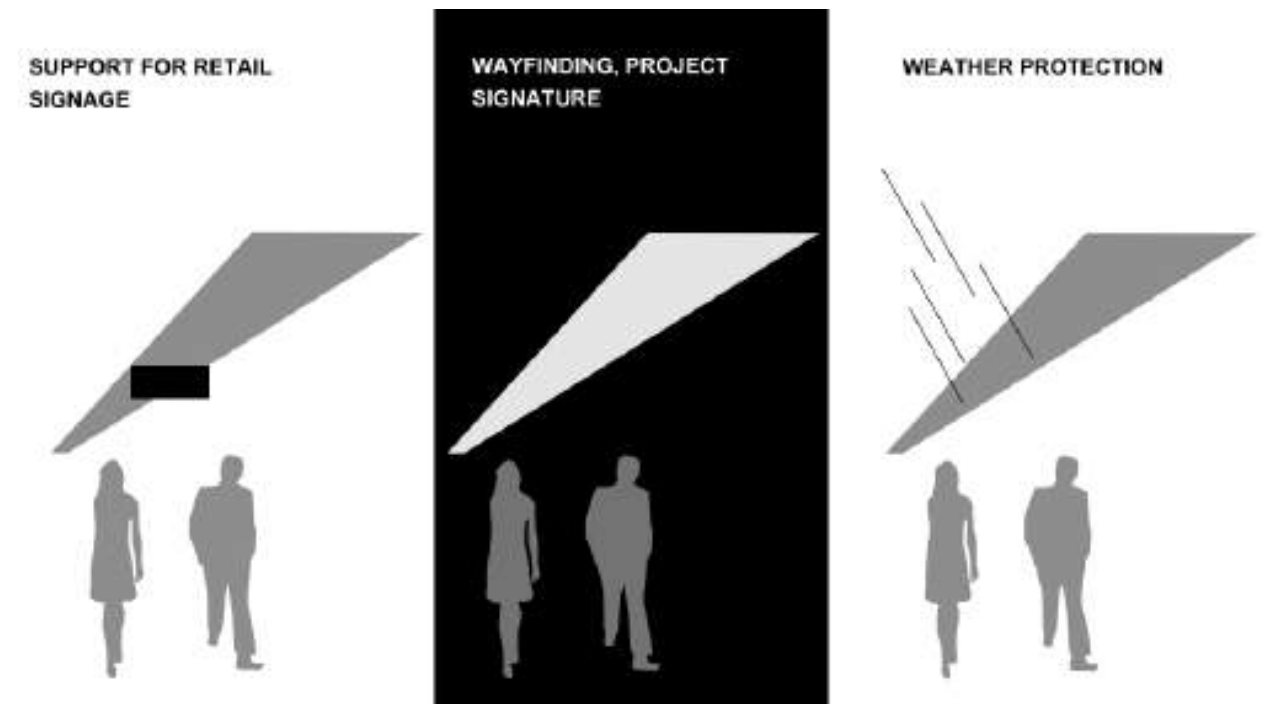
ARCHITECTURAL EXPRESSION ON ALL FACES

Understanding the unique situation of Block 204 in that there is no "back-of-house face", the design aims to animate the northwest facade utilizing soft angles, apertures and layers to bring attention to functions such as the residential entrance, and obscure back-of-house areas such as the loading dock.



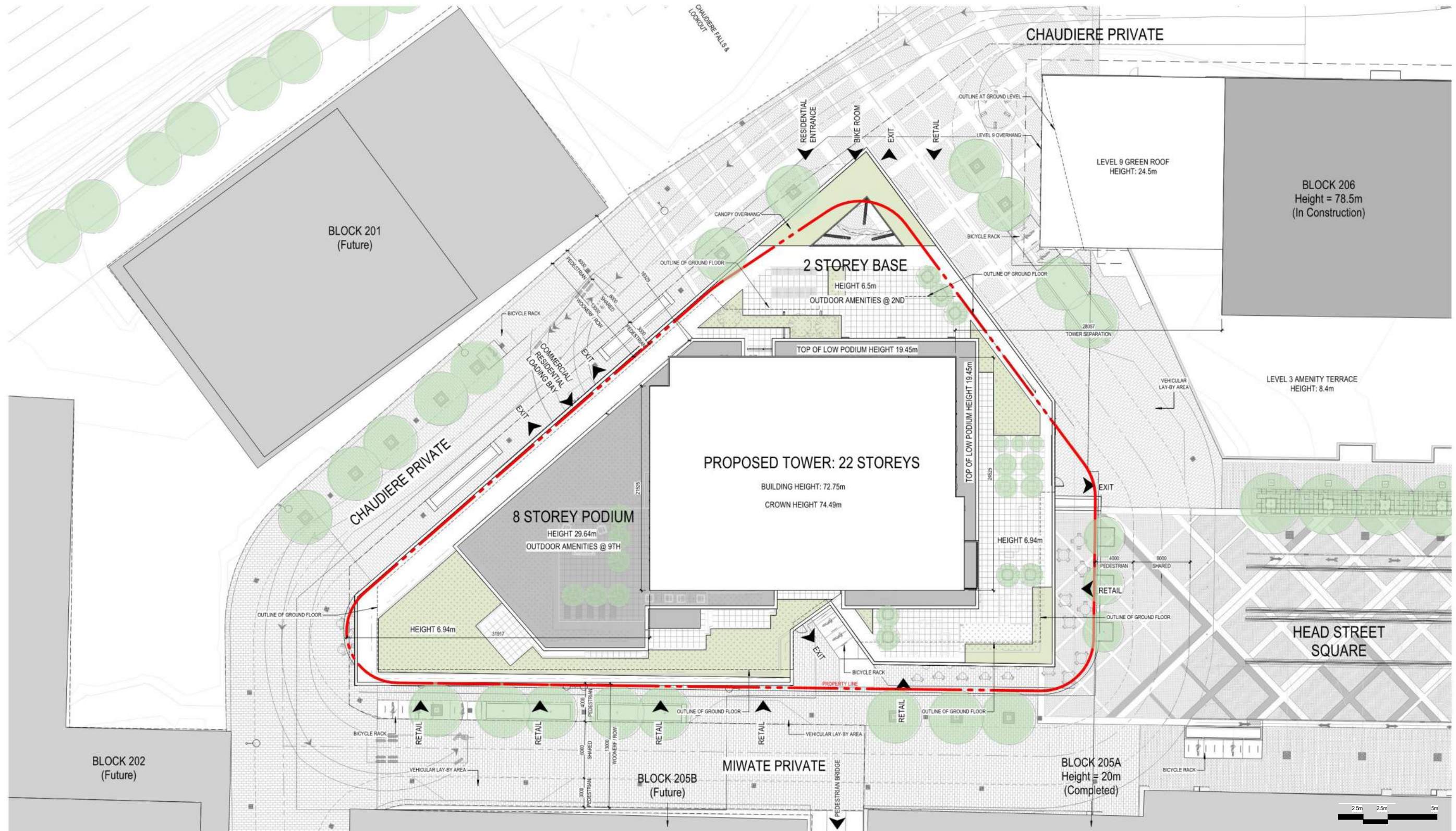
RETAIL FRONTAGE, SIGNAGE AND SOFFIT

The continuous soffit surrounding the entire building perimeter provides the opportunity for a curated and harmonized signage strategy for ground floor commercial tenants. The underside of the soffit ranges from 12.8ft to 14ft providing ample display area to activate the public realm on all sides of the block.



2.4 BUILDING DESIGN

SITE PLAN



2.4 BUILDING DESIGN - ARTICULATION & MATERIALITY



GROUND PLANE ARTICULATION & MATERIALITY

The materiality of the ground plane draws inspiration from the striated rock formation of Chaudiere Falls as well as the existing colour palette of the site, which leans toward cooler, grey tones.

The expressive canopy that surrounds the entire double-height ground plane of the building creates a dynamic volume that rises to create openings for retail frontage and residential entrances, and falls for utilitarian areas that do not need to be highlighted along the building's facade.

The canopy is set out from the building creating a consistent wooden soffit that not only provides shelter at the building entrances but also creates the opportunity for a harmonized signage strategy among the retail tenants. Furthermore, the canopy extends to create shaded areas for the feature tenant facing Head Street Square.

The canopy is most prominent at the residential entrance located on the north side of the site where it comes to a point and has an opening cut out to allow light to pass through and highlight the feature sculptural landscape element.

The building face at ground level is squared off at the north point to allow for a passive drop-off zone and provide ample breathing room between vehicular and pedestrian areas. The entrance to residential lobby is set back slightly to differentiate from the feature bicycle storage room and create a dynamic facade.



SHALE ROCK



GLENDYNE SLATE QUARRY, QUEBEC

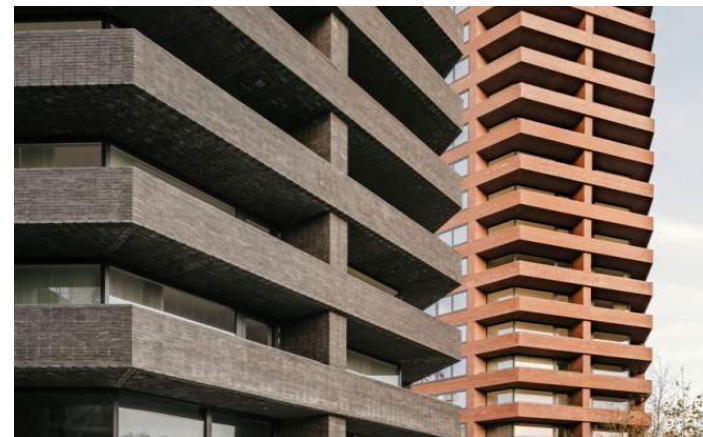
2.4 BUILDING DESIGN

PODIUM ARTICULATION & MATERIALITY

The 9-storey podium volume aims to embody the industrial character of the Zibi site through the use of a repetitive supergrid that recalls industrial warehouse buildings. Within the supergrids, full-glazed and half-glazed balconies are introduced for each unit to create variation on the facade.

On the south side of the property moving west to east, the podium gradually steps in to create balconies with views facing Head Street Square and downtown Ottawa.

In order to reflect the rocky formations and dark, cooler colours of the site, dark grey cladding wraps the podium and up the north and northeast face of the tower.



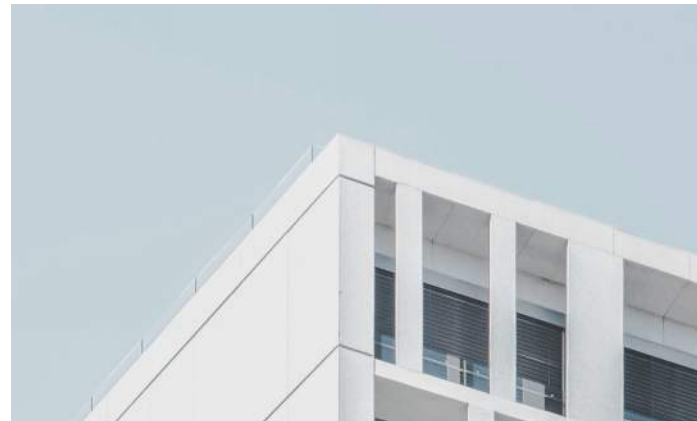
2.4 BUILDING DESIGN

TOWER ARTICULATION & MATERIALITY

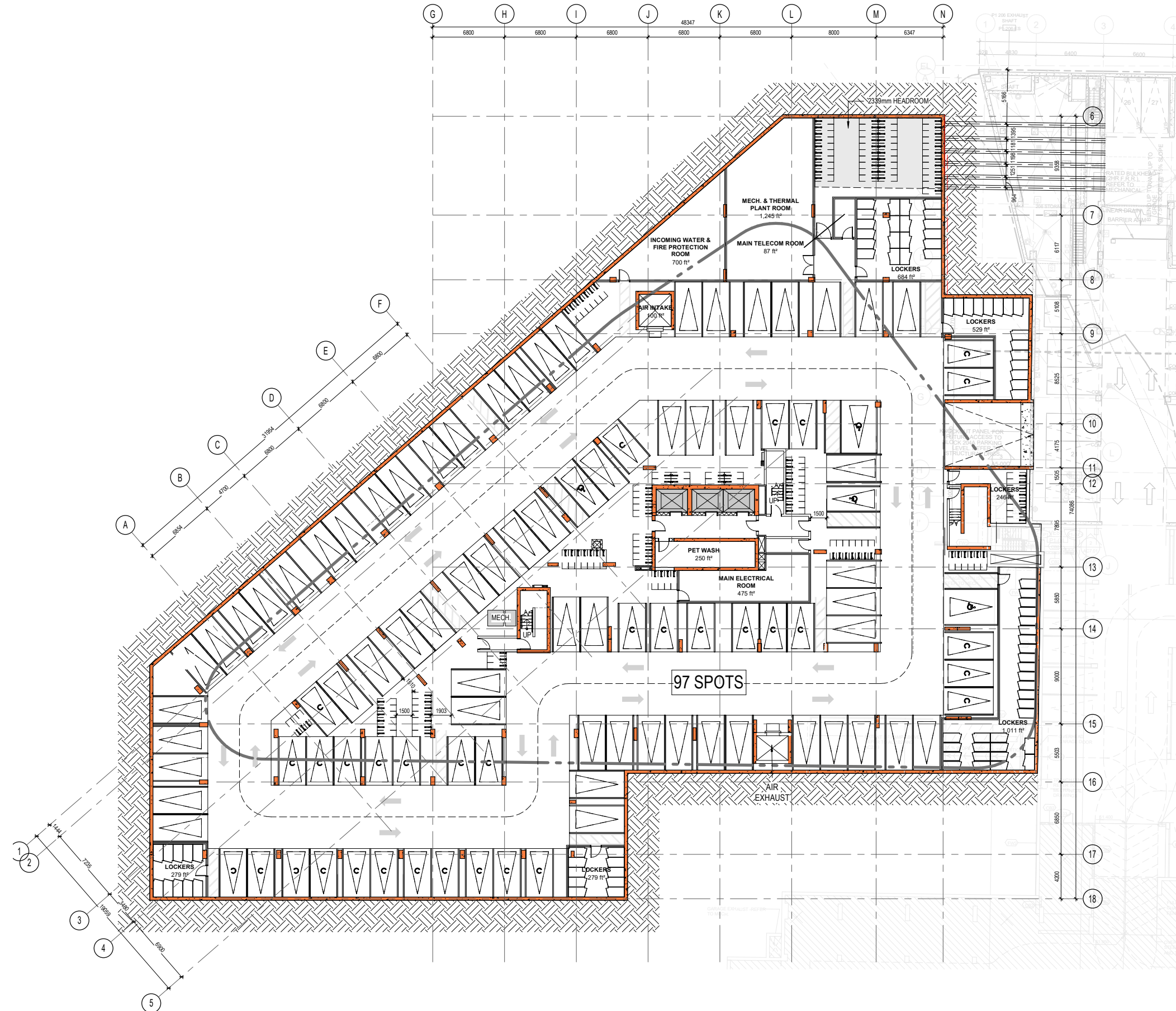
The tower component of the proposed building takes inspiration from the rushing water of the Chaudiere Falls and aims to create a form that is light and airy and blends with the sky to mitigate visual impact from the street.

The light-coloured cladding is complimented with light-coloured glazed spandrel panels to create a gradual connection with the sky.

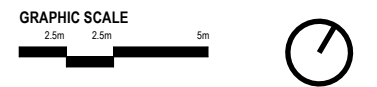
The building's crown is articulated with sloping angles which distinguish the different tower materials and relate back to the ground floor canopy articulation.



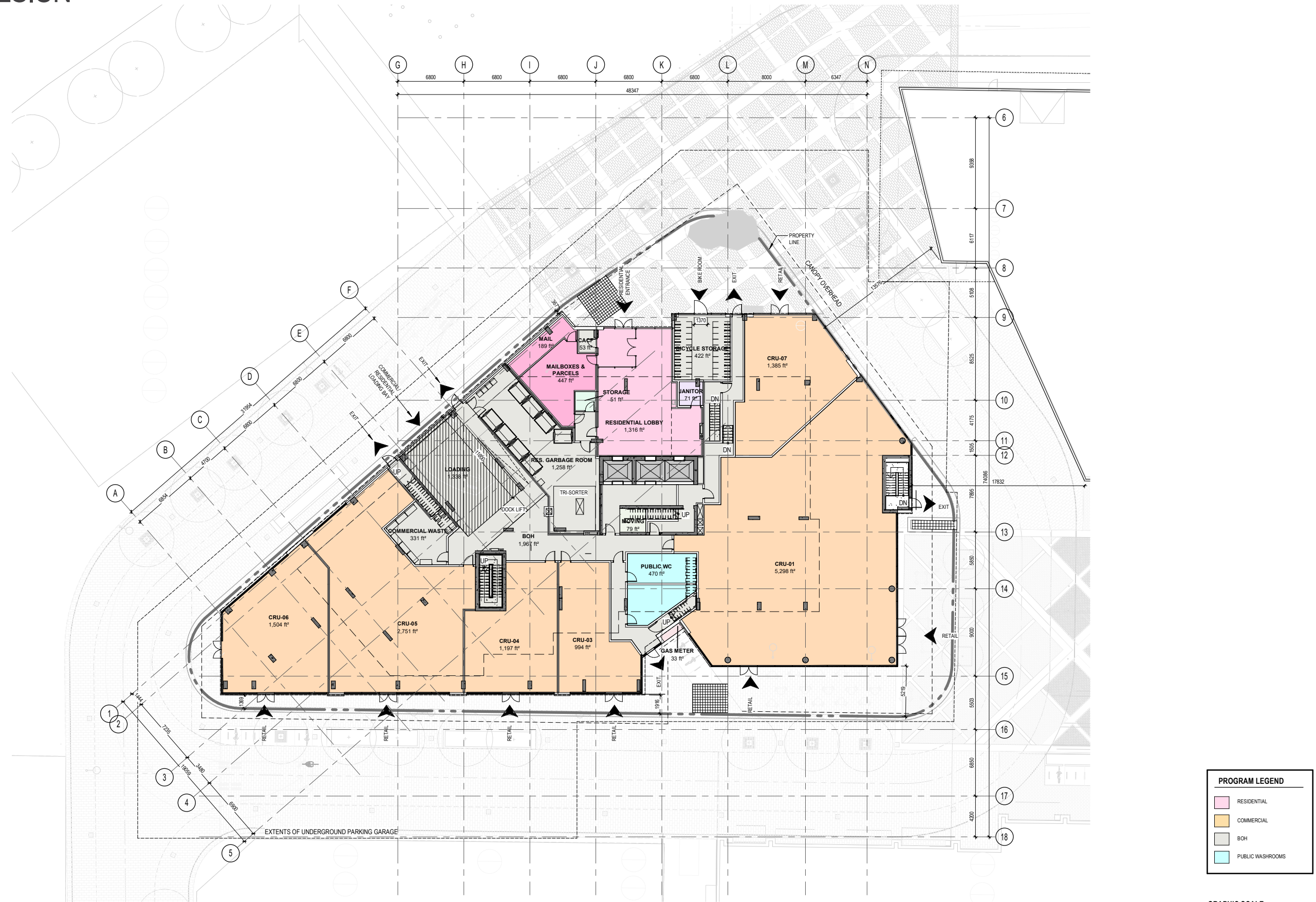
2.4 BUILDING DESIGN



PARKING LEVEL P1

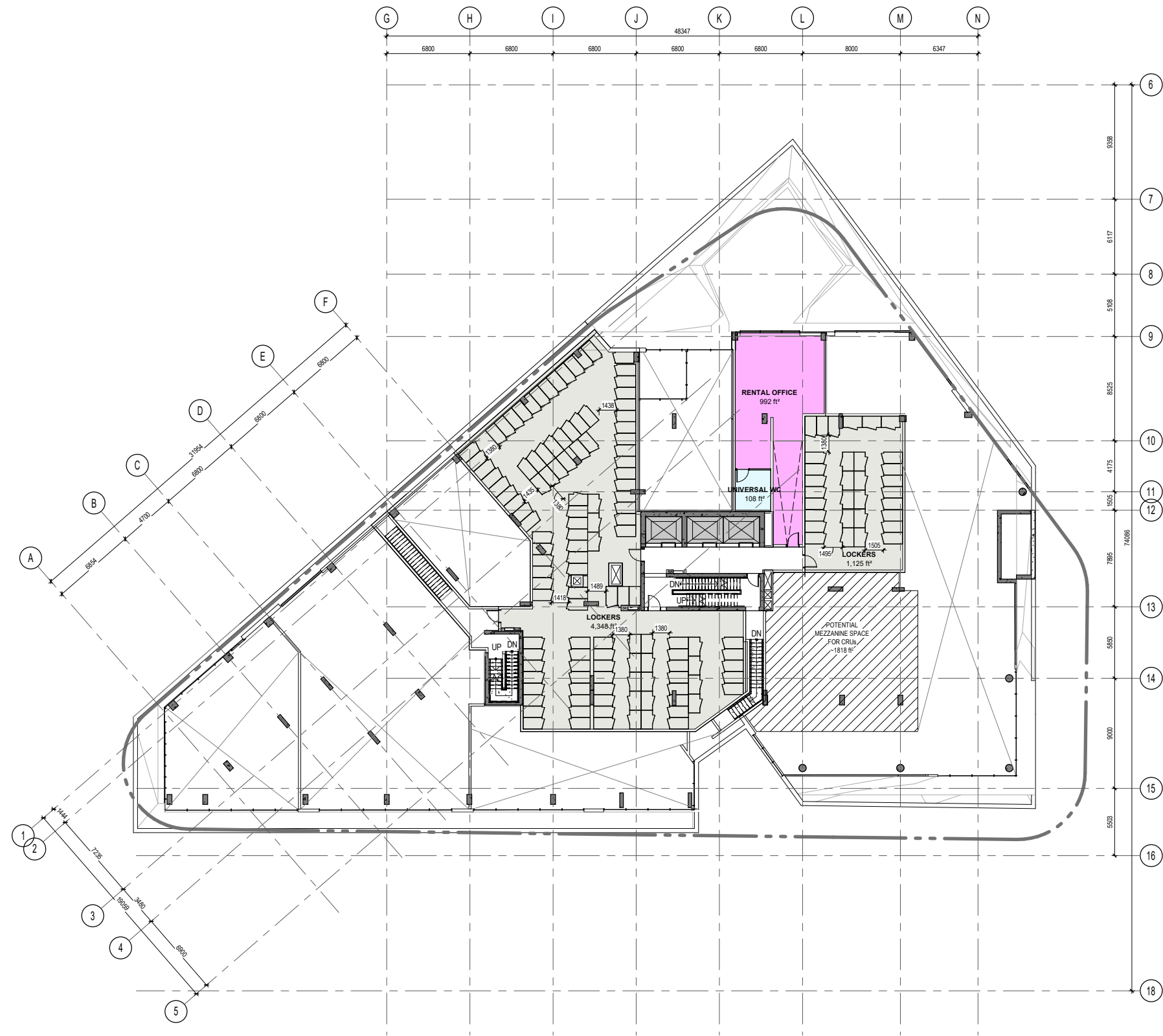


2.4 BUILDING DESIGN

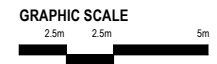


GROUND FLOOR PLAN

2.4 BUILDING DESIGN



PROGRAM LEGEND	
	RENTAL OFFICE
	BOH
	UNIVERSAL WC



MEZZANINE PLAN

2.4 BUILDING DESIGN



PROGRAM LEGEND	
[Yellow Box]	STUDIO
[Red Box]	1 BR
[Orange Box]	1 BR + D
[Teal Box]	2 BR
[Light Blue Box]	2 BR + D
[Light Green Box]	2 BR BF
[Grey Box]	COMMON / BOH
[Pink Box]	TERRACE

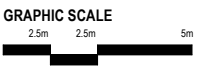


LEVEL 2 | AMENITY TERRACE

2.4 BUILDING DESIGN



PROGRAM LEGEND	
	STUDIO
	1 BR
	1 BR + D
	2 BDR
	2 BDR + D
	2 BDR BF
	COMMON / BOH
	TERRACE



LEVEL 3-5 PLAN (PODIUM)

2.4 BUILDING DESIGN



PROGRAM LEGEND	
[Yellow Box]	STUDIO
[Red Box]	1 BR
[Orange Box]	1 BR + D
[Teal Box]	2 BR
[Blue Box]	2 BR + D
[Light Green Box]	2 BR BF
[Grey Box]	COMMON / BOH
[Pink Box]	TERRACE



LEVEL 6-8 PLAN (PODIUM)

2.4 BUILDING DESIGN



An amenity terrace is located on the roof of the 8 storey podium accessible from an interior amenity space for residents to enjoy the view toward the Ottawa River in a more intimate-scaled setting. A 6ft glass guard surrounds the amenity terrace to provide clear views while protecting from strong winds .

LEVEL 9 | AMENITY TERRACE

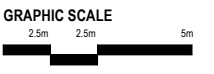
PROGRAM LEGEND	
	STUDIO
	1 BR
	1 BR + D
	2 BR
	2 BR + D
	2 BR BF
	COMMON / BOH
	TERRACE



2.4 BUILDING DESIGN



PROGRAM LEGEND	
[Yellow Box]	STUDIO
[Red Box]	1 BR
[Orange Box]	1 BR + D
[Teal Box]	2 BR
[Light Blue Box]	2 BR + D
[Light Green Box]	2 BR BF
[Grey Box]	COMMON / BOH
[Pink Box]	TERRACE

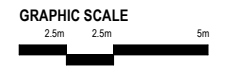


LEVEL 10 PLAN

2.4 BUILDING DESIGN

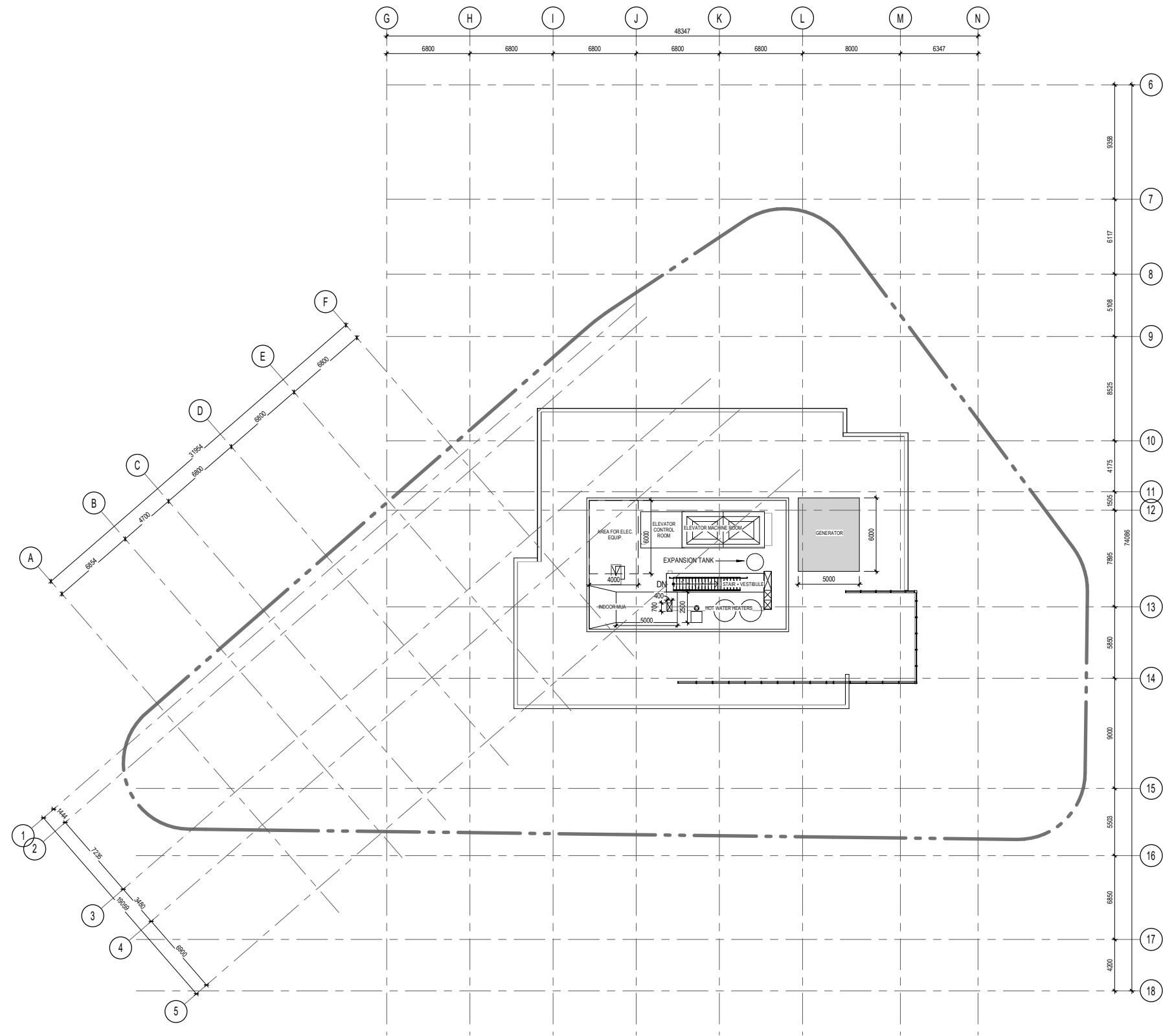


PROGRAM LEGEND	
[Yellow Box]	STUDIO
[Red Box]	1 BR
[Orange Box]	1 BR + D
[Teal Box]	2 BR
[Light Blue Box]	2 BR + D
[Light Green Box]	2 BR BF
[Grey Box]	COMMON / BOH
[Pink Box]	TERRACE



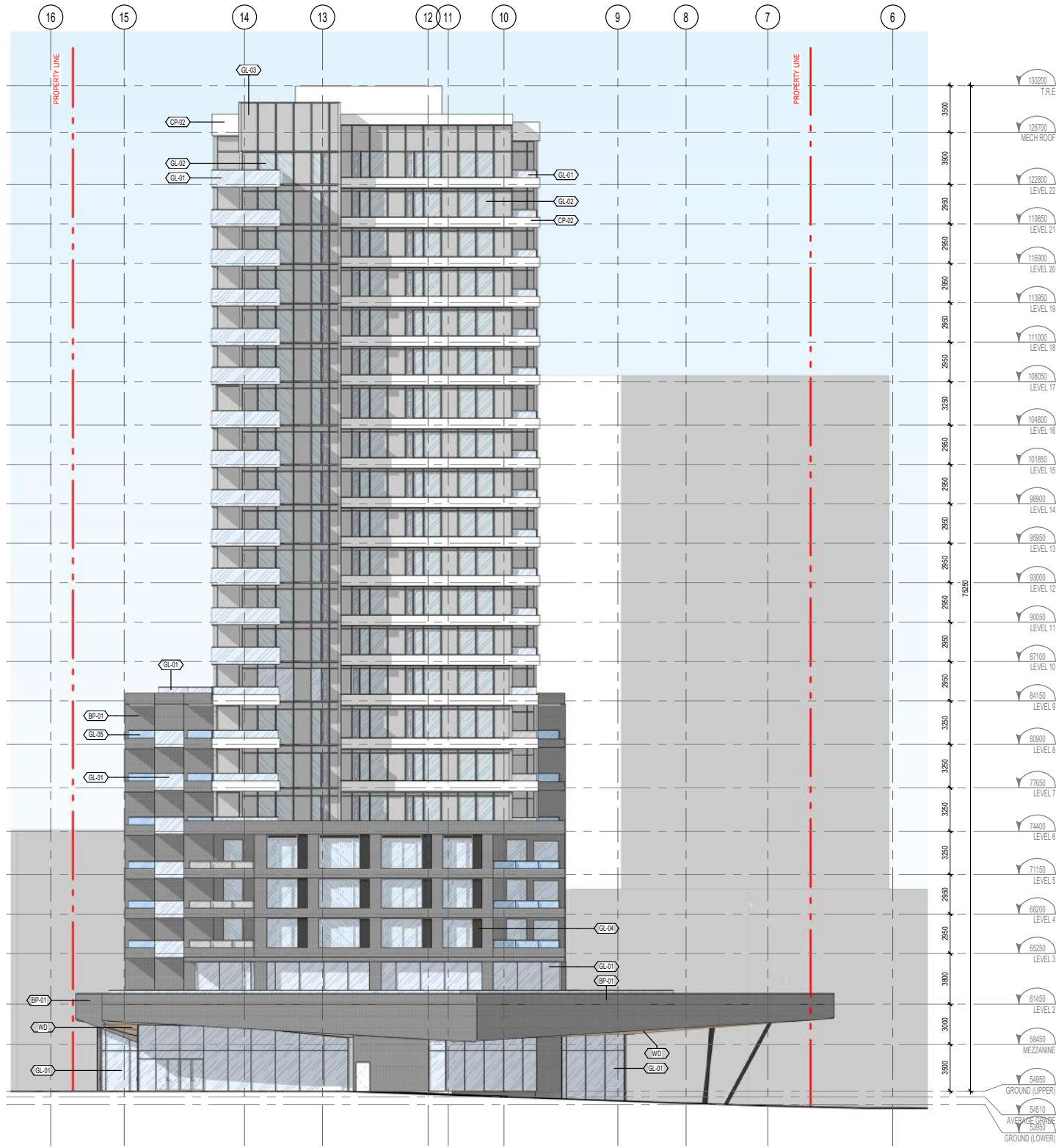
LEVEL 11-22 PLAN (TOWER TYPICAL)

2.4 BUILDING DESIGN

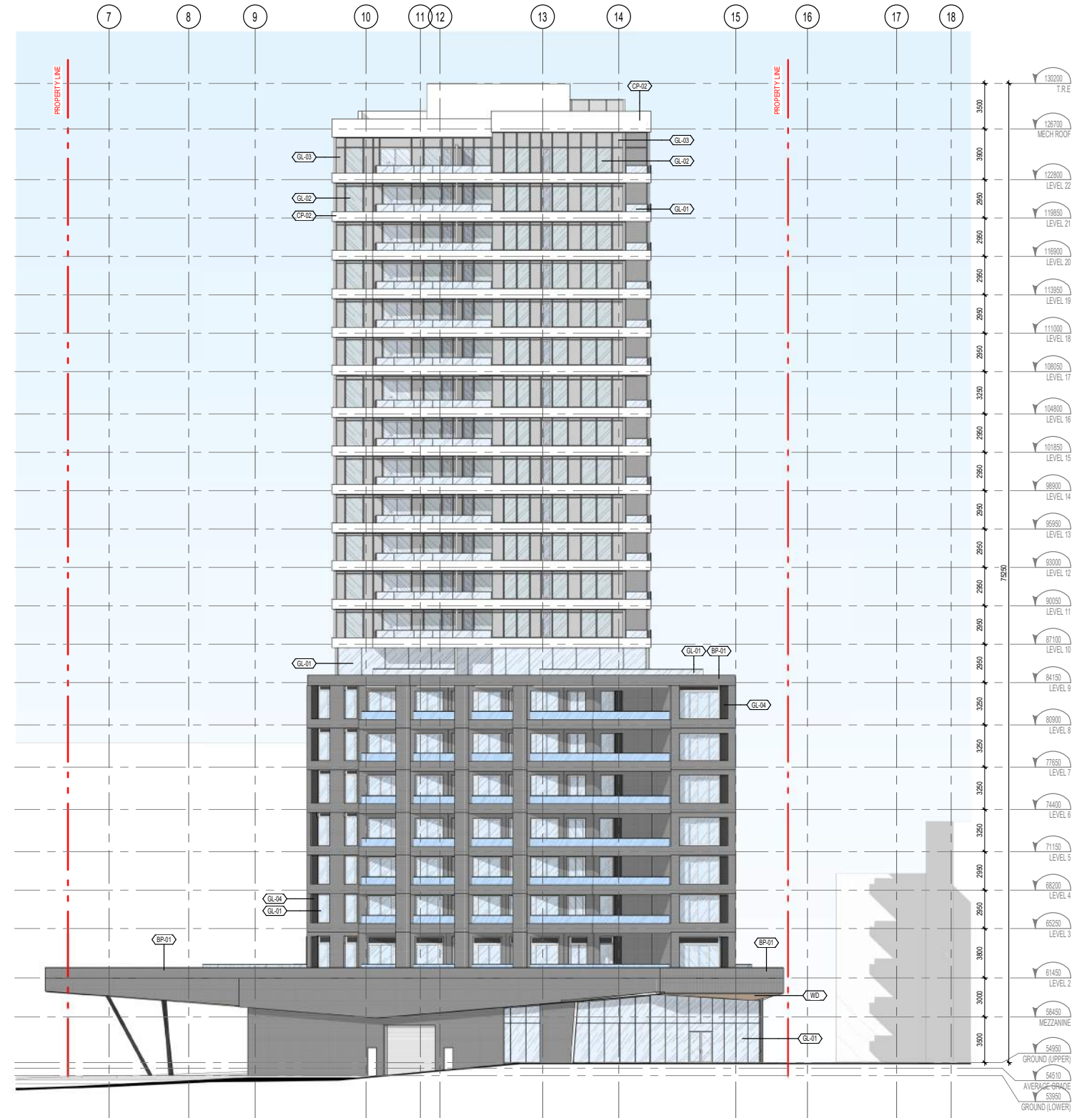
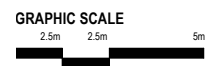


MECHANICAL PENTHOUSE

2.4 BUILDING DESIGN



EAST ELEVATION

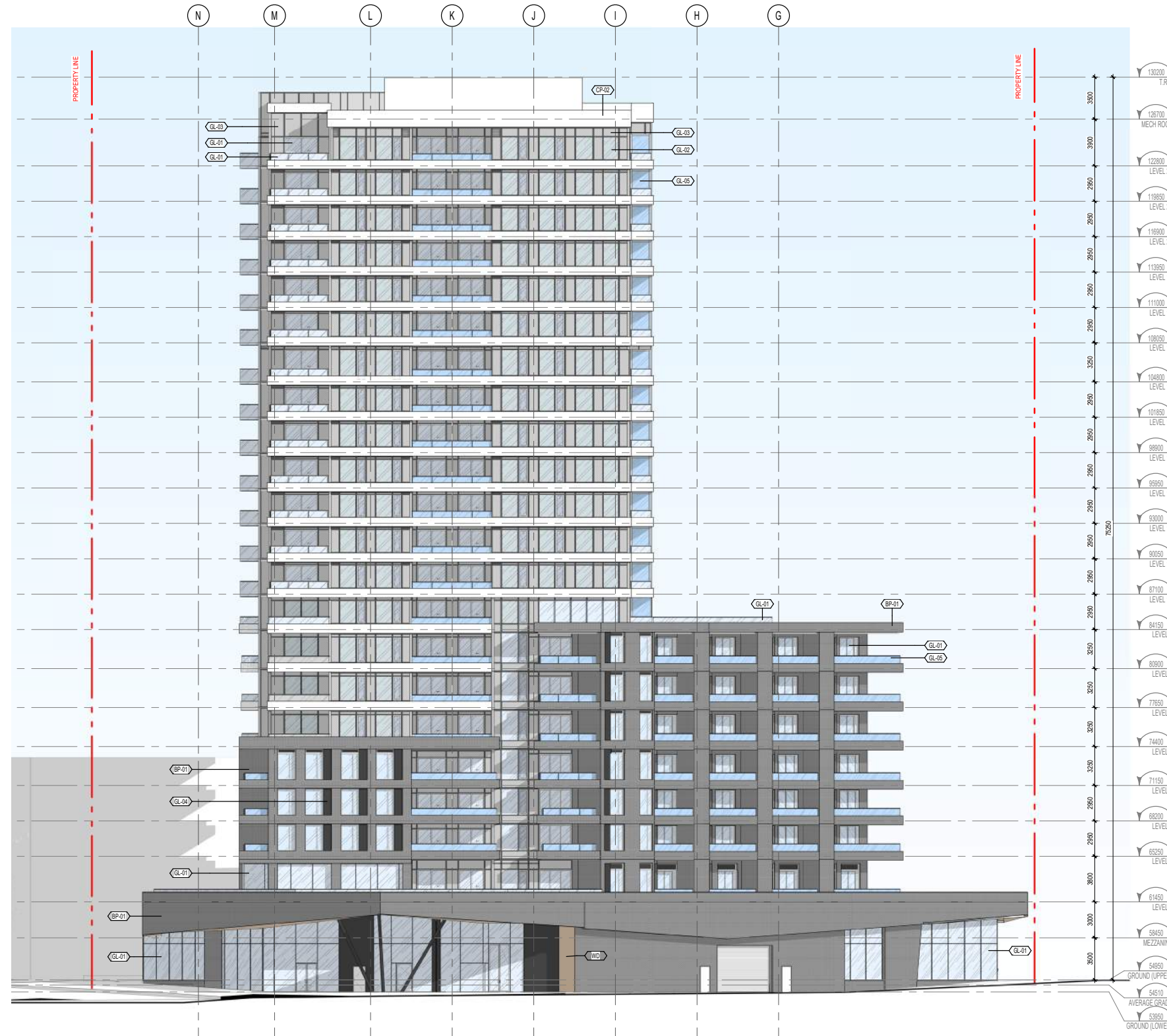


WEST ELEVATION

MATERIAL LEGEND

	GL-01	CLEAR GLAZING		GL-05	FROSTED GLASS PANEL
	GL-02	STATE - TINTED GLASS		CP-02	WHITE CEMENTITIOUS CLADDING
	GL-03	STATE - SPANDREL PANEL		BP-01	DARK GREY BRICK CLADDING
	GL-04	DARK SPANDREL GLAZING		WD	WOOD SLAT CLADDING

2.4 BUILDING DESIGN



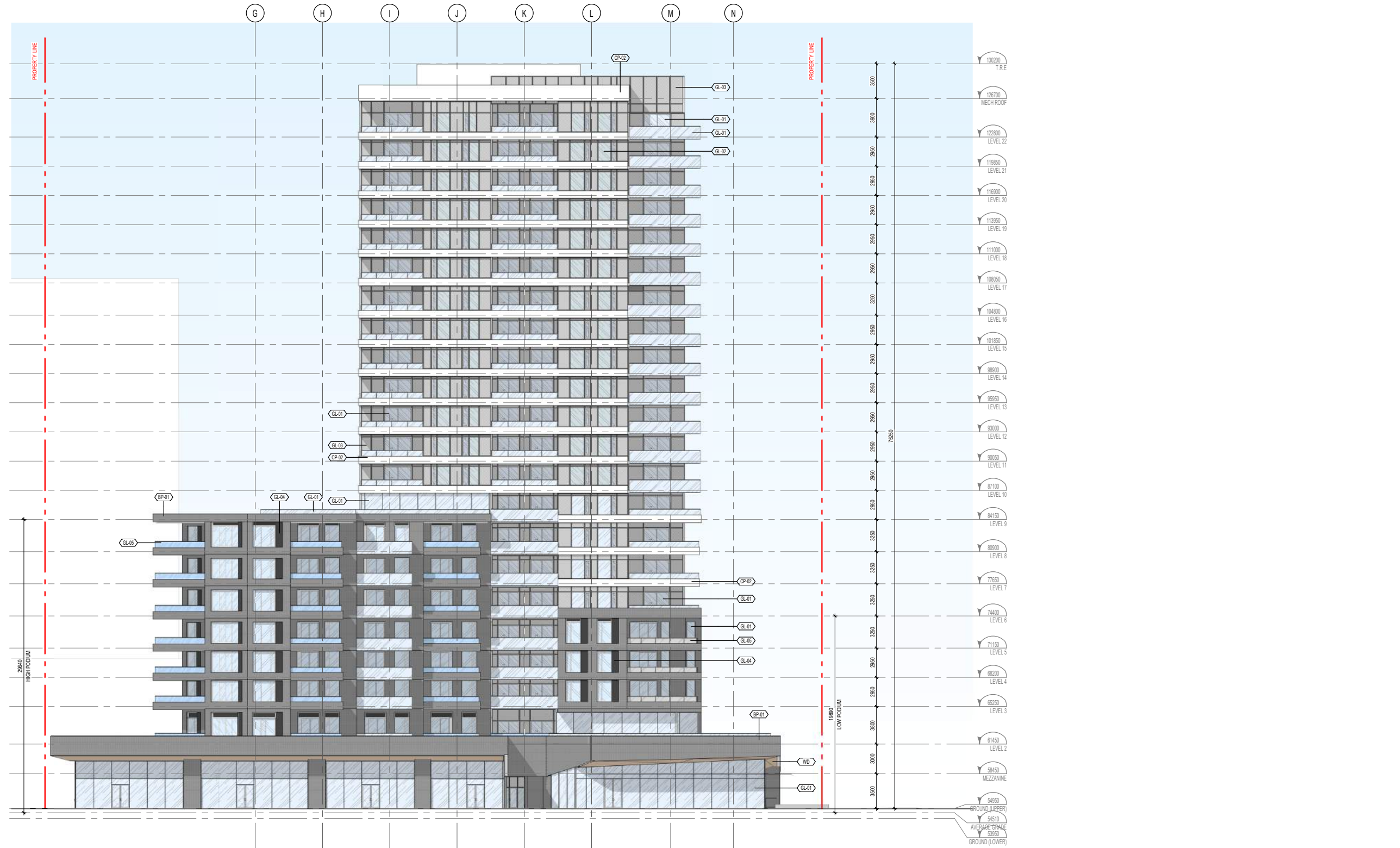
NORTH ELEVATION

MATERIAL LEGEND

	GL-01	CLEAR GLAZING		GL-05	FROSTED GLASS PANEL
	GL-02	STATE - TINTED GLASS		CP-02	WHITE CEMENTITIOUS CLADDING
	GL-03	STATE - SPANDREL PANEL		BP-01	DARK GREY BRICK CLADDING
	GL-04	DARK SPANDREL GLAZING		WD	WOOD SLAT CLADDING



2.4 BUILDING DESIGN

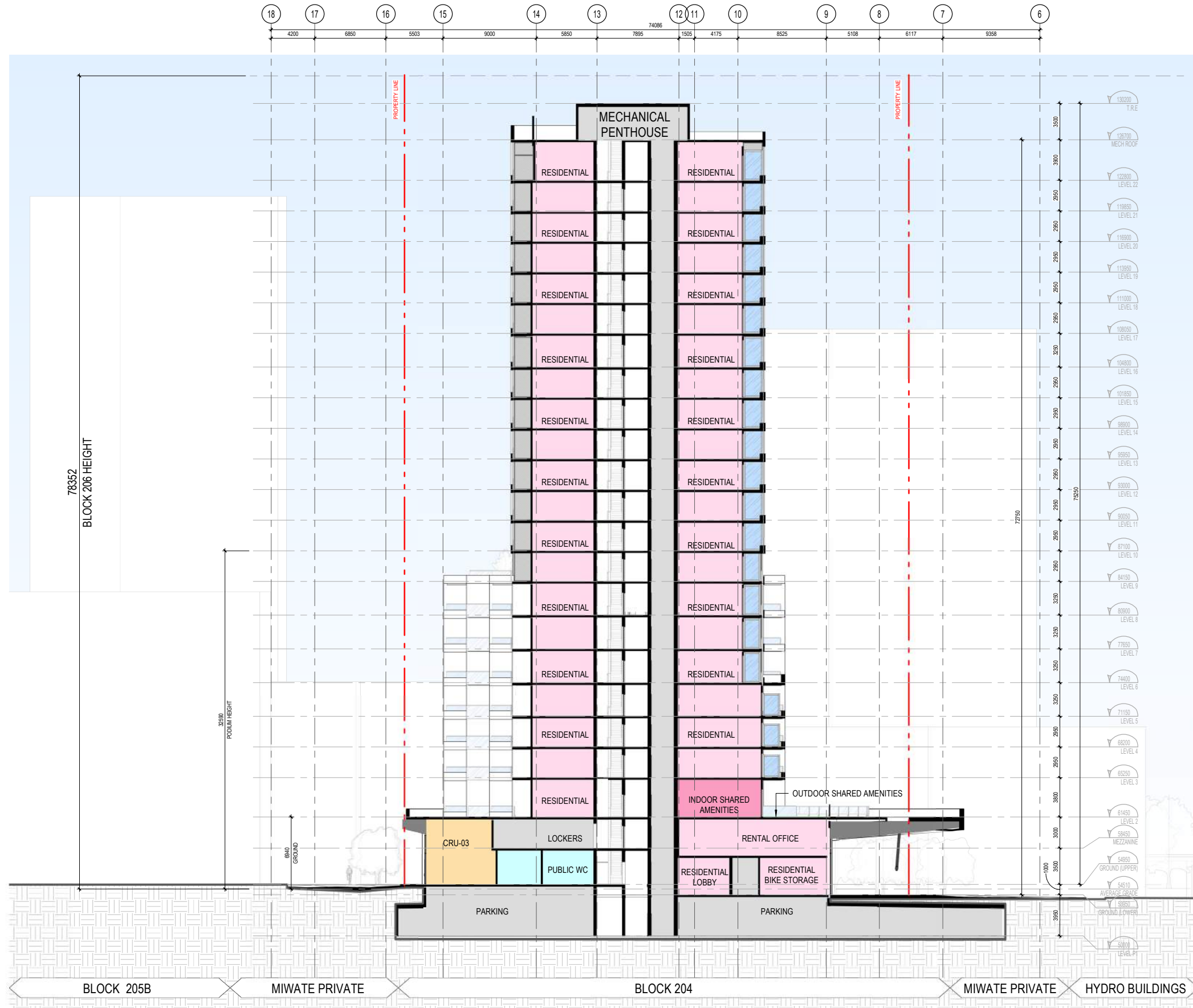


SOUTH ELEVATION



MATERIAL LEGEND					
	GL-01	CLEAR GLAZING		GL-05	FROSTED GLASS PANEL
	GL-02	STATE - TINTED GLASS		CP-02	WHITE CEMENTITIOUS CLADDING
	GL-03	STATE - SPANDREL PANEL		BP-01	DARK GREY BRICK CLADDING
	GL-04	DARK SPANDREL GLAZING		WD	WOOD SLAT CLADDING

2.4 BUILDING DESIGN



NORTH-SOUTH BUILDING SECTION

2.4 BUILDING DESIGN



EAST-WEST BUILDING SECTION



2.5 SUSTAINABILITY FEATURES



ARCHITECTURAL

The project will continue the One Planet Living standards and certification set forth for all Zibi projects.

- The site is conveniently located within walking distance to transit and bicycle routes
- Bicycle parking highlighted to promote health and wellness
- Use of tri-sorters to assist in waste diversion from landfill
- Massing permits fresh air and sunlight for each unit
- Entrance vestibules to reduce heat loss
- Integration of green roofs
- Use of high-quality, durable materials to prolong the life cycle of the building and to support a long term ownership of the purpose-built rental building
- Selection of materials with high Solar Reflectance Index (SRI) for heat island considerations
- Use of regional materials considered
- Consideration for energy efficient appliances



MECHANICAL

The base mechanical design incorporates energy conservation and sustainable design measures in order to reduce the building's operating costs, lower the impact it will have on the environment and improve the quality of the indoor environment. Some of the measures incorporated or to be considered are as follows:

WATER USAGE

- Low flow fixtures to minimize water usage
 - All lavatory faucets must be ≤ 1.9 lpm.
 - All Kitchen faucets must be ≤ 5.7 lpm
 - All showers must be ≤ 6.6 lpm
 - All water closets must be ≤ 4.8 lpf.

INDOOR AIR QUALITY

- Ventilation systems shall meet the requirements of ASHRAE 62.1 and MERV 13 filtration on air handling equipment to increase indoor air quality
- Thermal comfort requirements with individual occupant control (ASHRAE 55)
- Monitor ventilation rate of the MUA unit and have seasonal turndown when stack effect requires less pressurization in the summer compared to winter. Alternatively to this we can use a pressure sensor at the mid-plane to constantly adjust the supply air to meet pressurization needs. In either scenario the unit will always be above minimum flow rates per 62.1.
- Include CO2 monitoring for large common spaces and retail spaces

ACOUSTICS

- Meet industry standards such as ASHRAE HVAC applications

ELECTRICAL

- All lighting fixture are to be LED and lighting power density to meet the Ontario Building Code (OBC) SB-10 requirements which are more stringent than ASHRAE 90.1.
- Interior Lighting zones: Lighting controls to be provided as per ASHRAE 90.1
- Exterior Lighting zones: For all exterior luminaires located inside the project boundary; do not exceed the following percentages of total lumens emitted above horizontal. Classify the project under one lighting zone per elevation using the lighting zones definitions provided in the Illuminating Engineering Society and International Dark Sky Association (IES/IDA) Model Lighting Ordinance (MLO) User Guide.
- Electric Vehicle: Install electrical vehicle supply equipment (EVSE) in 20% of all parking spaces used by the project. In public spaces, provide priority access where possible, clearly identify and reserve these spaces for the sole use by plug-in electric vehicles. The EVSE must:
 - a) Provide a Level 2 charging capacity (208 – 240 volts) or greater.
 - b) Comply with the relevant regional or local standard for electrical connectors, such as SAE Surface Vehicle Recommended Practice J1772, SAE Electric Vehicle Conductive Charge Coupler or IEC 62196 of the International Electro technical Commission for projects outside the U.S.
 - c) Be networked or Internet addressable and be capable of participating in a demand-response program or time-of-use pricing to encourage off-peak charging.

2.6 SHADOW ANALYSIS



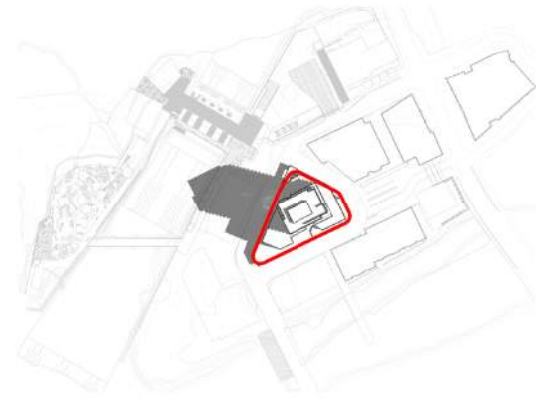
DECEMBER 21ST 9AM
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DECEMBER 21ST 12PM
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DECEMBER 21ST 3PM
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JUNE 21ST 9AM
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APPENDIX

REFERENCE TO URBAN DESIGN GUIDELINES

GUIDELINE OBJECTIVES

- Promote high-rise buildings that contribute to views and vistas and enhance the character and the image of the city;
- Address compatibility and the relationship between high-rise buildings and their existing and planned context;
- Create human-scaled, pedestrian-friendly streets, and attractive public spaces that contribute to livable, safe and healthy communities;
- Coordinate and integrate parking, services, utilities, and public transit into the design of the building and the site; and
- Promote development that responds to the physical environment and micro-climate through design

01. CONTEXT

VIEWES AND VISTAS

1.1 Identify existing and future landmarks with the associated views and vistas. Existing and future landmarks with associated views and vistas are typically determined by the Official Plan (OP), a Secondary Plan and/or a CD.

See view analysis provided in this package.

1.2 The Official Plan has established a series of views and angular planes in the Central Area and the vicinity to protect the visual integrity of the Parliament Buildings and other important national symbols. These views and angular planes must be respected in the development process. A comprehensive view analysis, including a three-dimensional computer model is required to evaluate the potential impact of the proposed development on these views and view planes.

See view analysis provided in this package.

1.3 A comprehensive view analysis will be required when a proposed high-rise building is located within an emerging downtown district, particularly in an area adjacent to the established views and view planes. Such an analysis should explore how the proposed development will be integrated into the background views of the Parliament Buildings and other national symbols or frame the foreground views of these elements by:

1. Extending and extrapolating the existing views and views planes;
2. Establishing new views and view planes; and
3. Enhancing the characteristics of the skylines.

See view analysis provided in this package.

1.4 In the absence of Council policies, the proposal for a high-rise development should clarify whether or not the proposed building will be a landmark building or a background building through a thorough context analysis, documented in the Design Brief or Scoped Design Brief.

The proposed building is a significant addition to the community as it not only brings a new residential community but also acts as the West anchor to Head Street Square with significant ground floor commercial spaces to activate the public realm. While the ground floor acts as a landmark anchor to the square, the tower remains a background building in the overall context of the Zibi project. A landmark building is planned at the western most point of the island in a future phase to mark the edge of the development.

1.6 If the proposed high-rise building is determined to be a background building that will frame important views and vistas, the context analysis should indicate:

1. The characteristics of the views and vistas;
2. The characteristics of the background that frames the views and vistas, such as the scale, skyline, fenestration patterns, texture, materials, and color; and
3. How the proposed high-rise building will respect and enhance the characteristics of the background.

The proposed building is within an urban context with adjacent mid- and low-rise buildings. The building will enhance the character of the Zibi skyline through its articulated massing and quality of materials. The height and position of the building is consistent with the surrounding context and creates a continuity of buildings stepping down toward the island shoreline.

The view of the building from the east is framed by existing buildings and will allow a view of the short edge of the building. This view highlights the slender edge of the building in the north-south direction.

BACKGROUND BUILDING

1.9 A background building should:

1. Respect and enhance the existing and planned views and vistas through the placement of the building, height transitions, setbacks and step backs, and landscaping; and
2. Respect and enhance the overall character of the existing and planned urban fabric and the skyline by maintaining a harmonious relationship with the neighbouring buildings through means such as height transition, built form design, fenestration patterns, color, and materials without necessarily being the same.

The proposed building respects the existing views and vistas by positioning the point tower toward the centre of the site. The height and scale are consistent with the neighbouring Block 206 building. Additionally, the building's materials and fenestration sizes will be consistent with the surrounding buildings and residential nature. The balconies and fenestration patterns will provide a dynamic rhythm on the building facade and bring a unique design to the site.

CITY, COMMUNITY, OR NEIGHBOURHOOD LEVEL

1.10 When a high-rise building or group of high-rise buildings are proposed within an identified growth area, design the buildings nearer the edge of the growth area to be progressively lower in height than those in the "centre" (Diagram 1-1).

In a site cross section from the west to east and north to south, the new building follows the gradual height increase away from the water.

AT THE SITE LEVEL

1.12 Include base buildings that relate directly to the height and typology of the existing or planned street wall context.

The building podium and ground floor heights are tied directly to the level of the height of Block 205B and 206 respectively. The scale and levels of this podium are consistent with the surrounding buildings. From a pedestrian viewpoint, the podium will provide a welcoming scale at street level.

LOT CONFIGURATION

1.15 The lot should abut the public realm, including streets, parks, plazas, and privately owned public spaces (POPS) on at least two sides.

The building provides activation along Chaudiere and Miwate Private for the public on all sides of the building. The north side of the building is set back considerably from the property line to provide an extended semi-public realm in front of the residential entrance through feature landscape design.

HERITAGE BUILDINGS ON ADJACENT PROPERTIES

1.22 Respect the overall historic setting, including protecting and enhancing views of the adjacent heritage buildings through placement, scale, and design of the high-rise building.

The proposed building respects the overall historic setting of the Zibi site through carefully selected materiality and colours consistent with the character of the site.

1.23 Respect the character of the adjacent heritage buildings by integrating high-quality, contemporary design cues, particularly at the base of the building.

The proposed building features a contemporary canopy design at the same height at neighbouring building podiums.

02. BUILT FORM

EXPERIENCE

2.1 Enhance and create the overall pedestrian experience in the immediate surrounding public spaces (including POPS) through the design of the lower portion, typically the base, of the building, which:

1. Fits into the existing urban fabric, animates existing public spaces, and frames existing views; and
2. Creates a new urban fabric, defines, and animates new public spaces, and establishes new views

The building and its main residential entrance has been set back along the north side of the site on Chaudiere Private to provide public space, drop-off areas, landscape areas and pedestrian circulation space. The significant grade change on the site is negotiated by introducing a lower and upper ground level to allow for the public realm to be gradually sloped without need for ramps and stairs. The feature tenant located on the east side of the site is set back from the property line to allow for a large exterior patio space directly adjacent to Head Street Square to continue the activation of the public realm onto the Block 204 property.

EXPRESSION

2.2 Enhance and create the image of a community and a city through the design of the upper portion of the building, which is often comprised of a middle and a top that:

1. Protects and/or creates views and landmarks; and
2. Respects and/or enriches urban fabric and skylines

The design of the proposed tower enhances the Zibi skyline by introducing unique cladding treatments and a dynamic pattern evoking the rushing movement of the Chaudiere Falls.



PLACEMENT

2.13 Place the base of a high-rise building to form continuous building edges along streets, parks, and public spaces or Privately Owned

Public Space (POPS):

1. Where there is an existing context of street wall buildings, align the facades of the base with adjacent building facades;
2. In the absence of an existing context of street wall buildings, create a new street wall condition to allow for phased development and evolution.

The continuous canopy at the double-height of the ground floor creates a consistent building edge around the building at Chaudiere and Miwate Private. The canopy height takes cues from surrounding building podium heights and the position of the tower is consistent with the location outlined in the Master Plan, which prioritizes views between buildings from key areas.

2.14 Additional setbacks beyond the zoning requirements and existing prevalent patterns may be necessary and appropriate at street corners, transit stops, building entrances, and other locations to accommodate heavy pedestrian traffic and public and private amenities.

The proposed building is set back from the property line at the north side of the site to provide necessary space for drop-off and public space in front of the main residential entrance.



BASE: ARTICULATION AND MATERIALS

2.20 Respect the character and vertical rhythm of the adjacent properties and create a comfortable pedestrian scale by:

1. Breaking up a long façade vertically through massing and architectural articulation to fit into the existing finer grain built form context (Figure 2-13);
2. Determining appropriateness of larger-scale façades in certain areas, such as along the ceremonial routes (Figure 2-14); and
3. Introducing multiple entrances, where possible, through creative store layout and organization where a large format retail use is located on the ground floor.

2.21 Use high-quality, durable, and environmentally sustainable materials, an appropriate variety in texture, and carefully crafted details to achieve visual interest and longevity for the facade.

2.22 Use bird-friendly best management practices in accordance with the City's guidelines. In particular, apply visual markers or use low reflectance materials on all exterior glazing within the first 20m of the building above grade.

2.23 The ground floor of the base should be animated and highly transparent. Avoid blank walls, but if necessary, articulate them with the same materials, rhythm, and high-quality design as more active and animated frontages. (Refer to guideline 3.12).

The base of the building is articulated through a series of entries and functions within the building. At the north side the transparent entrance to the residential entrance is set back slightly from the building face and the entrance to the feature bicycle storage room. The east face of the podium

is defined by the feature tenant and exterior patio space. The south face of the building is split in two. The east end is a continuation of the feature tenant space and moving westward there is a break in the massing aligned with the future pedestrian bridge south toward Albert Island. After the break, the facade is continued with glass commercial tenant entrances and frontages.

The masonry / stone cladding of the canopy reaches down to the ground plane along the northern facade to provide a high-quality material facade at the service spaces.



MIDDLE: TOWER FLOOR PLATES

2.24 Encourage small tower floor plates to minimize shadow and wind impacts, loss of sky views, and allow for the passage of natural light into interior spaces (Figure 2-15):

1. The maximum tower floor plate for a high-rise residential building should be 750m² (Diagram 2-8) (700m² floor plate for Zibi specific zoning);
2. The maximum tower floor plate for a high-rise office building should be 2,000m²; and
3. Larger tower floor plates may be considered in suburban locations with design features to mitigate shadow and wind impacts, maintain sky views, and allow for access to natural lights.

To allow for a maximum separation between adjacent properties the tower mass is located in the centre of the site and as a single mass.

MIDDLE: SEPARATION BETWEEN TOWERS

2.25 Provide proper separation distances between towers to minimize shadow and wind impacts, and loss of sky views, and allow for natural light into interior spaces:

1. The minimum separation between towers should be 23m (Diagram 2-9);
2. A tower must provide a minimum 11.5m setback from the side and/or rear property lines when abutting another high-rise building (Diagram 2-9);
3. The minimum separation between a tower over 30-storeys and a neighbouring tower should be 25m; and
4. A tower over 30 storeys must setback a minimum of 12.5m from the side and/or rear property line when abutting another tower over 30 storeys, and 13.5m when abutting a tower up to 30 storeys

To allow for a maximum separation between adjacent properties the building mass is located in the center of the site and as a single mass.

MIDDLE: STEP BACKS FROM BASE

2.29 Step back the tower, including the balconies, from the base to allow the base to be the primary defining element for the site and the adjacent public realm, reducing the wind impacts, and opening sky views:

1. A step back of 3m or greater is encouraged.
2. The minimum step back, including the balconies, should be 1.5m; and

3. Where development lots are very narrow (less than 30m), such as in the Central Area and emerging downtown districts, and a step back is difficult to achieve, use various design techniques to visually delineate the tower from the base (Figure 2-16). Use other measures to mitigate shadow and wind impacts.

The podium volume is stepped back from the double-height ground floor mass to reduce the impact on the public realm.

- 2.30 Up to one third of a tower frontage along a street or a public space may extend straight down to the ground to address the street corner or create a forecourt for the entrance. At these locations, features such as canopies and overhangs are required to mitigate pedestrian level wind impacts (Diagram 2-11)

The canopies, balconies and building articulation will mitigate pedestrian level wind impacts. The tower massing is separated from the podium massing through architectural articulation and balcony elements to provide a distinct treatment for the building mass.

MIDDLE: ARTICULATION AND MATERIALS

- 2.31 Orient and shape the tower to minimize shadow and wind impacts on the public and private spaces.

Refer to wind and shadow studies in this submission.

- 2.32 Articulate the tower with high-quality, sustainable materials and finishes to promote design excellence, innovation, and building longevity, including:

1. Orienting and shaping the tower to improve building energy performance, natural ventilation, and daylighting;
2. Articulating the facades to respond to changes in solar orientation, wind effects, and context; and
3. Where possible, include operable windows to provide natural ventilation and help reduce mechanical heating and cooling requirements

The proposed cladding system will maximize daylight while ensuring the glazing specification will be optimized to reduce overheating in summer and maximum solar gains in the winter. The building design provides for daylighting for a minimum of 75% of the regularly occupied floor area. All residential units will include balconies to maximize outdoor spaces for residents and allow for large door openings onto the balconies.



- 2.33 For a background building, create a fenestration pattern, and apply colour and texture on the facades that are consistent with and complement the surrounding context.

The fenestration pattern and balconies on the tower provide consistent facade texture that will compliment the surrounding context.

TOP

- 2.35 The top should be integral to the overall architecture of a high-rise building, either as a distinct or lighter feature of the building or a termination of the continuous middle portion of the tower.

- 2.36 Integrate roof-top mechanical or telecommunications equipment, signage, and amenity spaces into the design and massing of the upper floors.

- 2.37 The top should make an appropriate contribution to the character of the city skyline:

1. For a background building, the top should fit into the overall character and contribute to the harmony of the city skyline; and
2. For a landmark building, the top should enrich the city skyline by creating a new focal point.

The crown of the building is angled slightly to create an interesting focal point in the Zibi skyline. The series of sloping angles recall the organic forms of the ground floor canopy and are reminiscent of the natural elements that inspired the design approach. Most of the mechanical elements have been integrated into the tower crown to minimize their impact on the top profile of the building.

03. PEDESTRIAN REALM

SPACE BETWEEN CURB AND BUILDING FACE

3.1 Provide a minimum 6m space between the curb and the building face along the primary frontages of a high-rise building, including the City-owned portion within the right-of-way (ROW) and the building setback area:

1. The pedestrian clearway must be within the ROW;
2. On a street with commercial character, introduce hard surfaces between the curb and the building face to maximize the walkable area and provide flexible spaces to accommodate seasonal uses such as outdoor patios, where appropriate; and c. on a street with residential character, introduce landscaping and/or residential patios between the sidewalk and the building face to allow for public-private transition.

The ground floor of the building is setback from the property line continuously to provide a walkway in addition to the integrated pathway in the woonerf design. Landscaping and feature tenant patio space enhance the public realm experience. The residential entrance outdoor space provides a transition between public and private space.

- 3.2 At locations with high foot traffic volumes, such as the Central Area and the emerging downtown districts, a wider curb to building face space may be desirable to accommodate pedestrians, street furniture, signs, displays, and vendor space:

1. Provide increased building setbacks at the street corner, where appropriate (Figure 3-3); and
2. In areas where the streets are narrow and building setback is difficult to achieve, provide additional pedestrian spaces through pedestrian easements, and use arcaded, colonnaded and cantilevered building bases to augment the width of the pedestrian space at grade.
3. The pedestrian space within the arcade and colonnade, or under the cantilever should be a minimum 2.5m wide and 2 storeys high. Refer to guidelines in the Downtown Moves for detailed reference (Figures 3-4, and 3-5).

The proposed alignment for residential entrance will allow for increase pedestrian, bicycle and vehicular traffic.

03. PEDESTRIAN REALM

PUBLIC SPACES

3.4 Where appropriate, particularly in densely populated areas such as the Central Area and the emerging downtown districts, provide at grade or grade-related public spaces such as plazas, forecourts, and public courtyards, which may be under public or private ownership.

3.5 The public spaces should:

1. Complement and be integrated into the existing network of public streets, pathways, parks, and open space;
2. Provide direct visual and physical connections to the surrounding public streets, pathways, parks, and open spaces;
3. Support the proposed high-rise development particularly at grade functions;
4. Allow for year-round public use and access; and
5. Maximize safety, comfort and amenities for pedestrians.

3.6 When a public space is privately owned, it should:

1. Be perceived as a public space not as a private space; and
2. Be properly signed to welcome the public where appropriate.

3.7 When a privately owned public space is intended to be a POPS and recognized by the City in exchange for height and/or density bonus, it should meet the City's design criteria such as minimum area and location.

Refer to Section 2.3 Public Realm.

BUILDING ACCESS

3.10 Locate the main pedestrian entrance at the street with a seamless connection to the sidewalk.

3.11 Where the main pedestrian entrance is located away from the sidewalk provide a direct, clearly defined pedestrian connection such as a walkway or a pedestrian plaza, between the main pedestrian entrance and the sidewalk.

All residential and commercial entrances are directly accessible off the pedestrian walkways.

ANIMATION

3.12 Animate the streets, pathways, parks, open spaces, and POPS by:

1. Introducing commercial and retail uses at grade on streets with commercial character (Figure 3-12);
2. Incorporating ground-oriented units with usable front entrances, and front amenity spaces on streets with residential character (Figure 3-13);
3. Providing greater floor to ceiling height at the ground floor to allow for flexibility in use over time;
4. Providing a minimum of 50% of clear bird-friendly glazing on the portions of the ground floor that face the pedestrian realm;
5. Providing a range of amenities appropriate to the context to meet the needs of a diversity of potential uses, including seniors and children, residents and employers, local people and visitors; and
6. Providing public arts that suits the scale and character of the high-rise building and the surrounding pedestrian realm.

The ground floor has an increased floor to floor height to create a strong and animated presence on the ground plane for commercial tenants and residential spaces such as the feature bicycle storage room.

Public amenities such as washrooms are accessible from the pedestrian walkway to facilitate the third space use of the site. Additionally, integrated feature art and landscape elements further activate the ground plane and draw attention to the site as a unique addition to the Zibi development.

3.13 Apply Crime Prevention Through Environmental Design principles.

7.

The public nature of the building, amenities, and context will promote a safe environment through well-lit and highly visible spaces.





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