NEUF
ARCHITECT(E)S

ZIBI BLOCK 204 HIGH-RISE CONDOMINIUM

URBAN DESIGN REVIEW PANEL

315 MIWATE PRIVATE
OTTAWA, ON
PROJECT 12791
JUNE 3RD, 2022

OWNER

dream

ARCHITECT

NEUF ARCHITECT(E)S

LANDSCAPE ARCHITECT

CSW

PLANNER

FOTENN

PEDESTRIAN WIND STUDY AND ACOUSTICS

GRADIENTWIND ENGINEERS & SCIENTISTS

TRAFFIC AND CIVIL ENGINEER

CIMA+

GEOTECHNICAL AND ENVIRONMENTAL

exp.

TABLE OF CONTENTS

01.

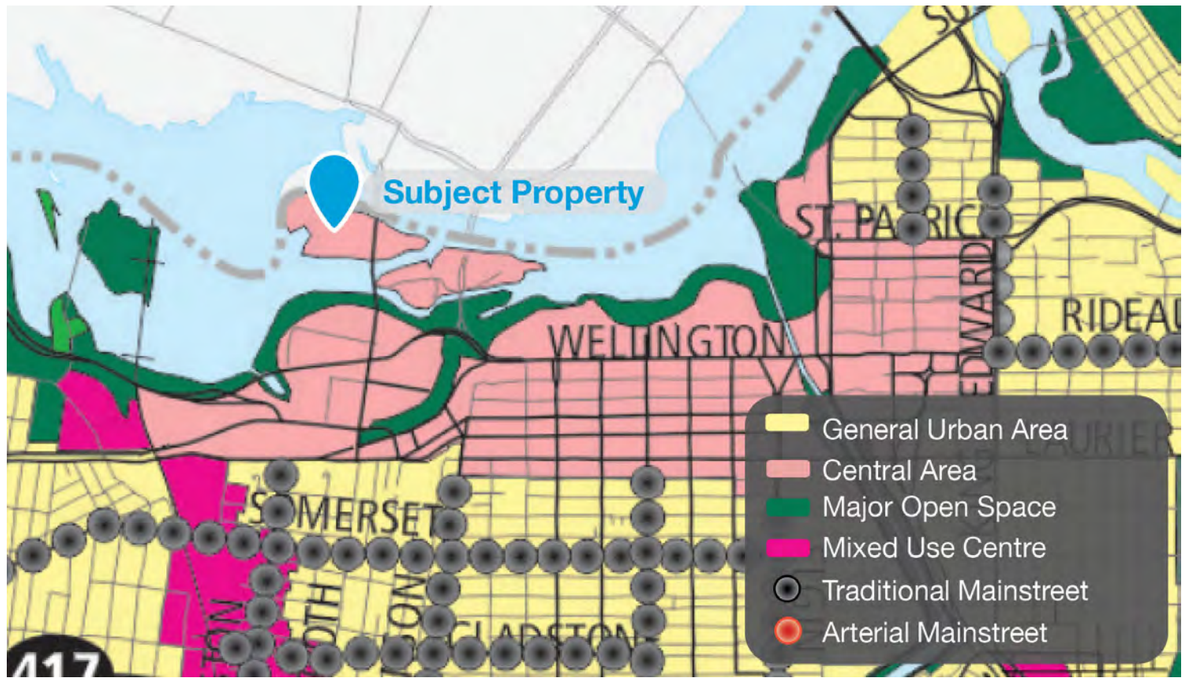
APPLICATION SUBMISSION
RESPONSE TO CITY DOCUMENTS

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 10-storey podium (9 full storeys plus a mezzanine level containing only storage and ancillary use spaces) that features commercial uses at-grade along Mìwàte 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.

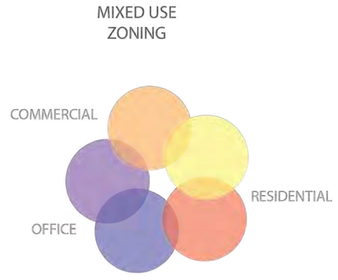
- The subject property is no longer located within a Secondary Plan in the New Official Plan, rather, it has been designated as the Ottawa River Islands Special District, which has incorporated the existing policies from the Central Area Secondary Plan.

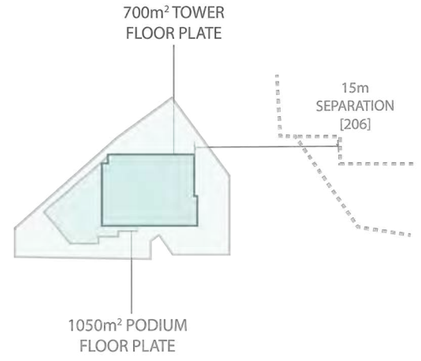
- The intensification at this location, where it will redeveloped a previous industrial and currently vacant site, contributes to a land use pattern that is consistent with a 15-minute neighbourhood.

HERITAGE CONSIDERATIONS

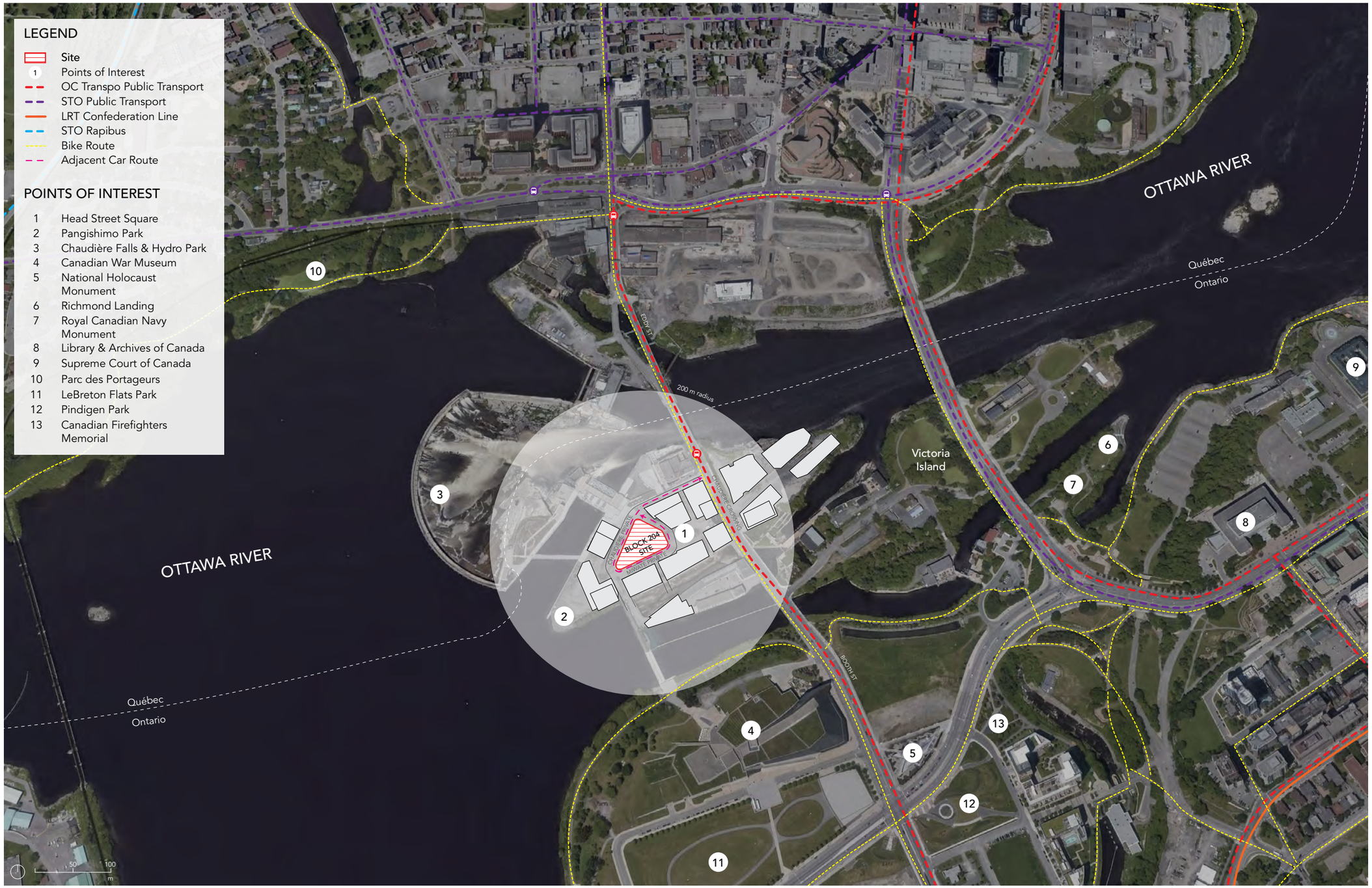
- The proposed development does not include any public realm components that are subject to the Zibi Heritage Interpretive Plan.

- 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.

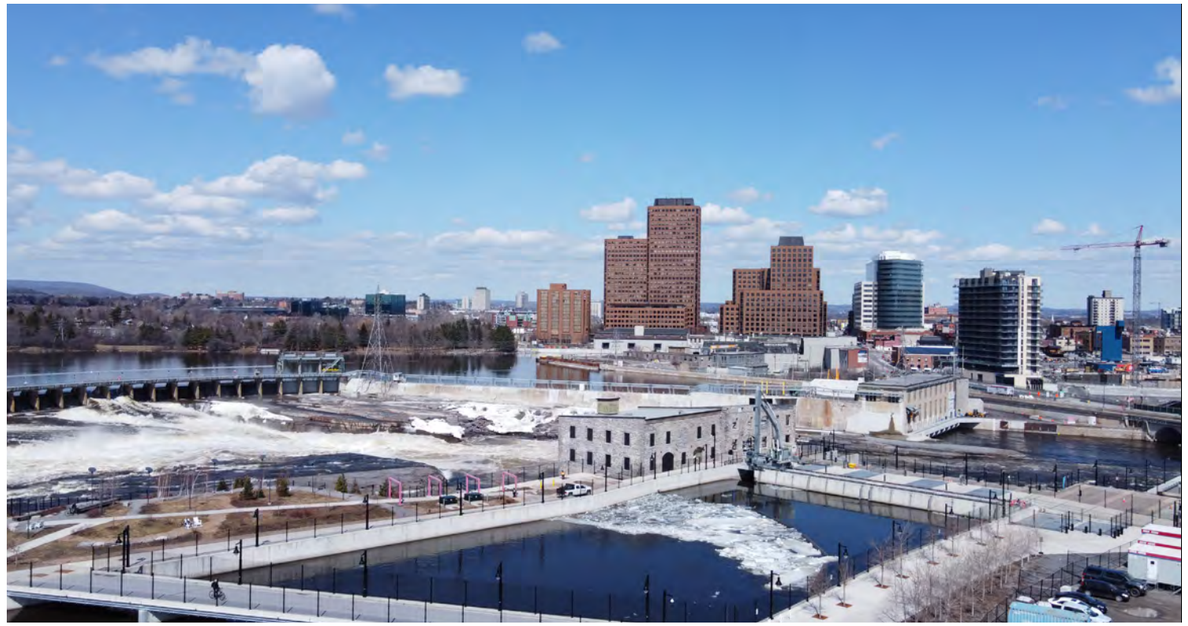




1.3 CONTEXT PLAN

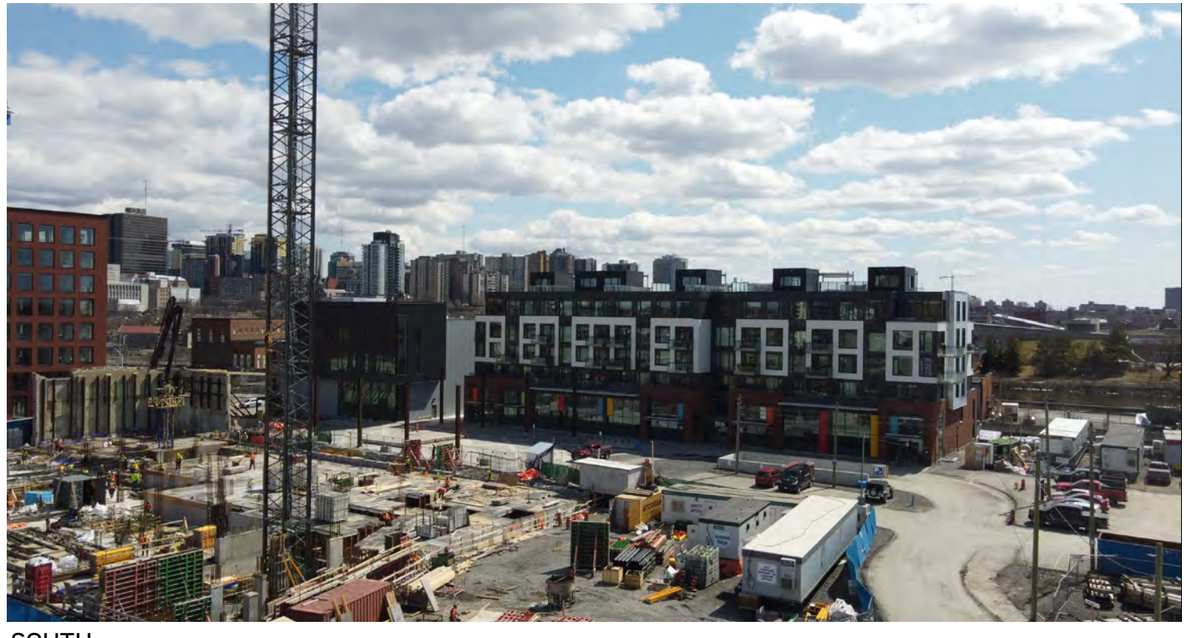


1.3 SITE PHOTOS



NORTH

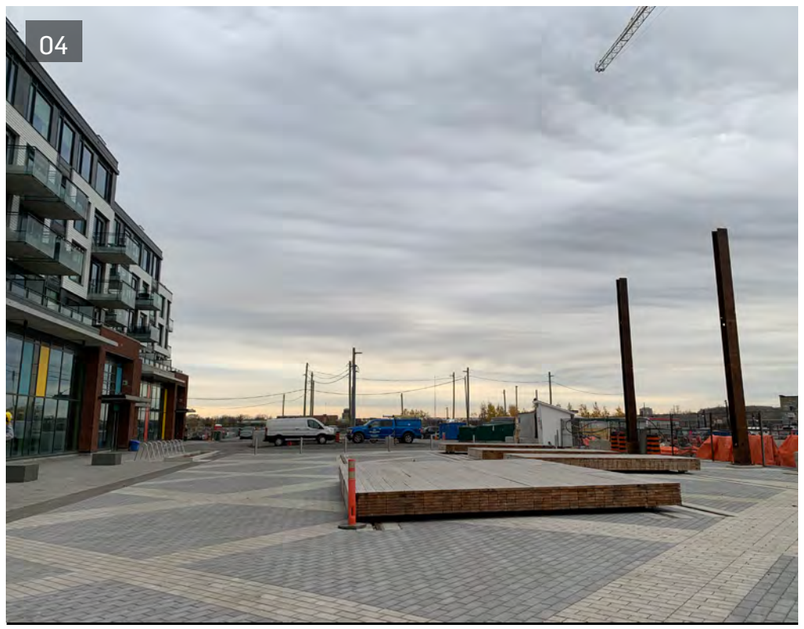
EAST

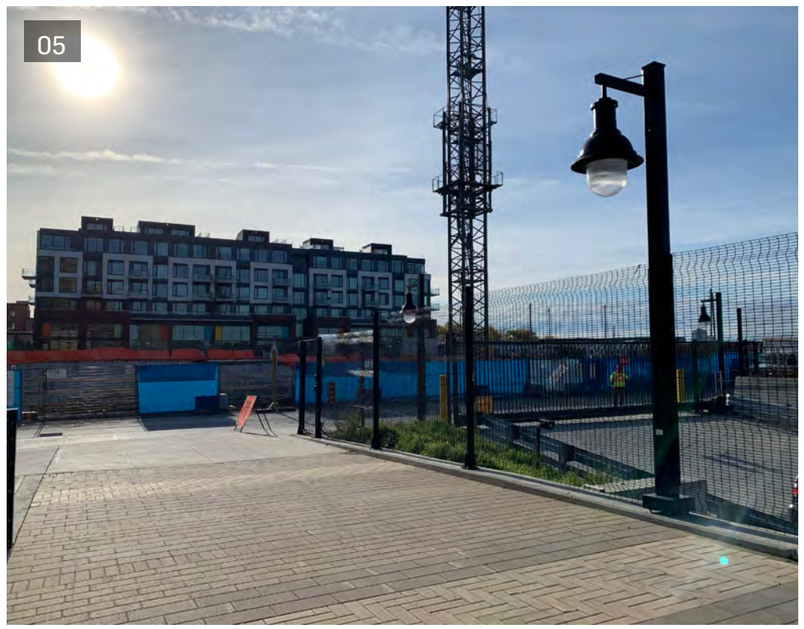


SOUTH

WEST

1.3 SITE PHOTOS



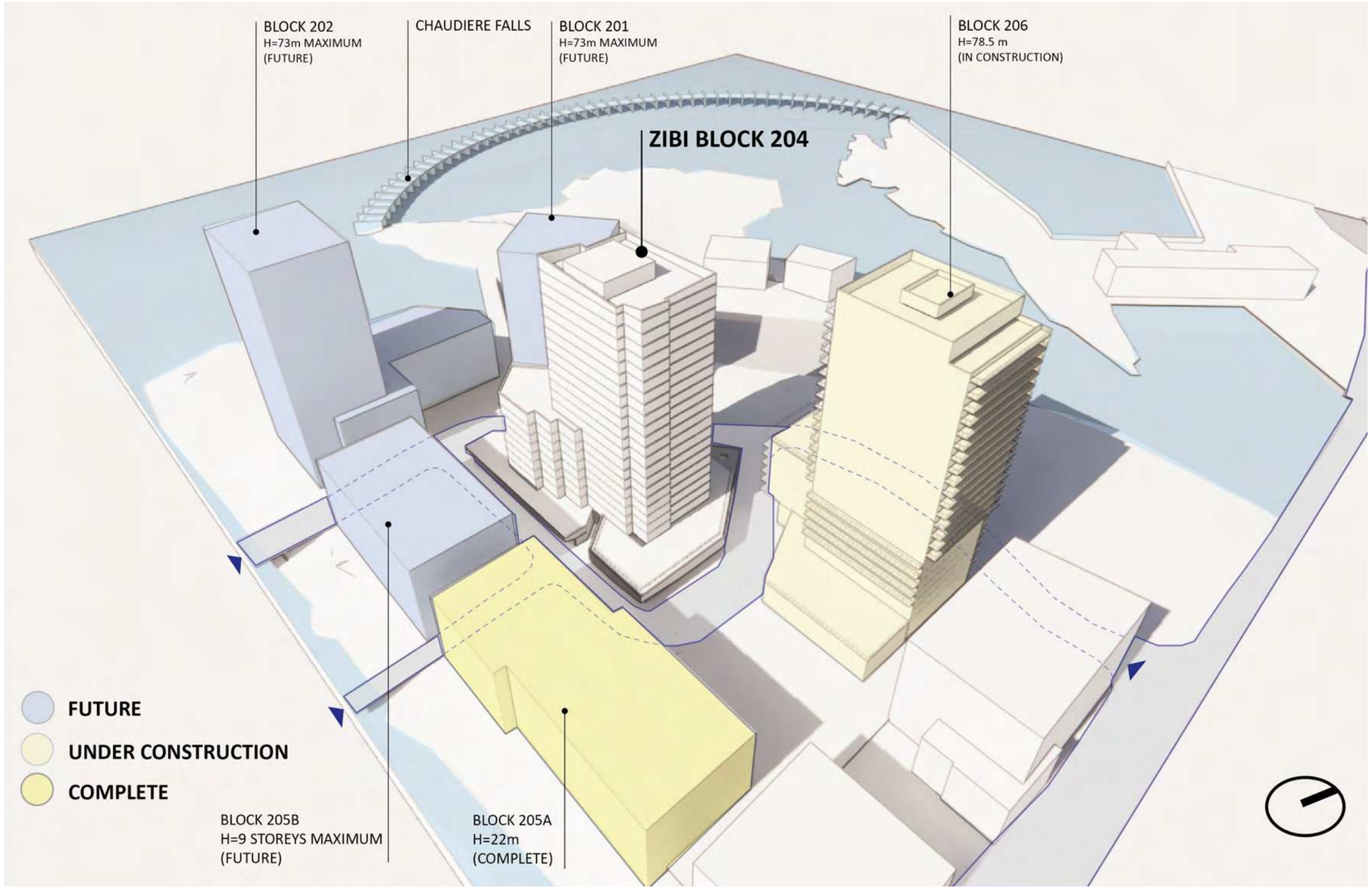


1.3 ADJACENT BUILDINGS

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.

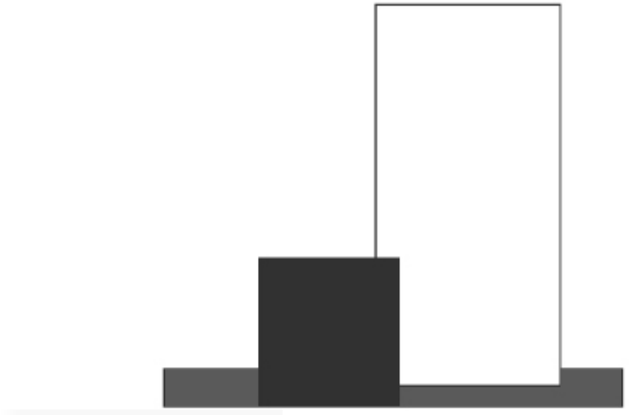


1.3 KEY PHYSICAL ELEMENTS

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.

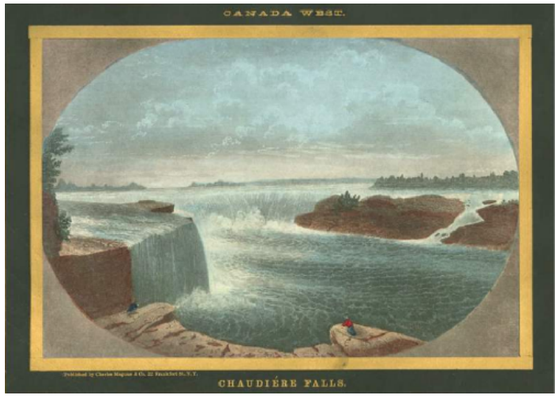


DESIGN PARTI: 3 ELEMENTS FALLS, ROCK FACE & THE RIVER

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

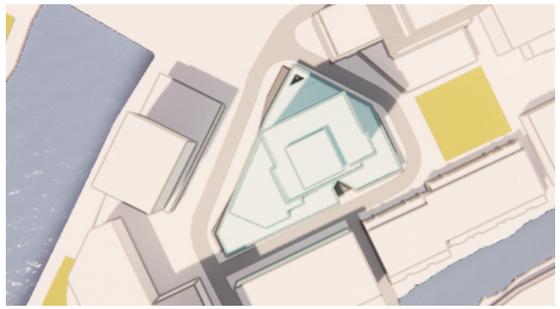
DESIGN PROPOSAL

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

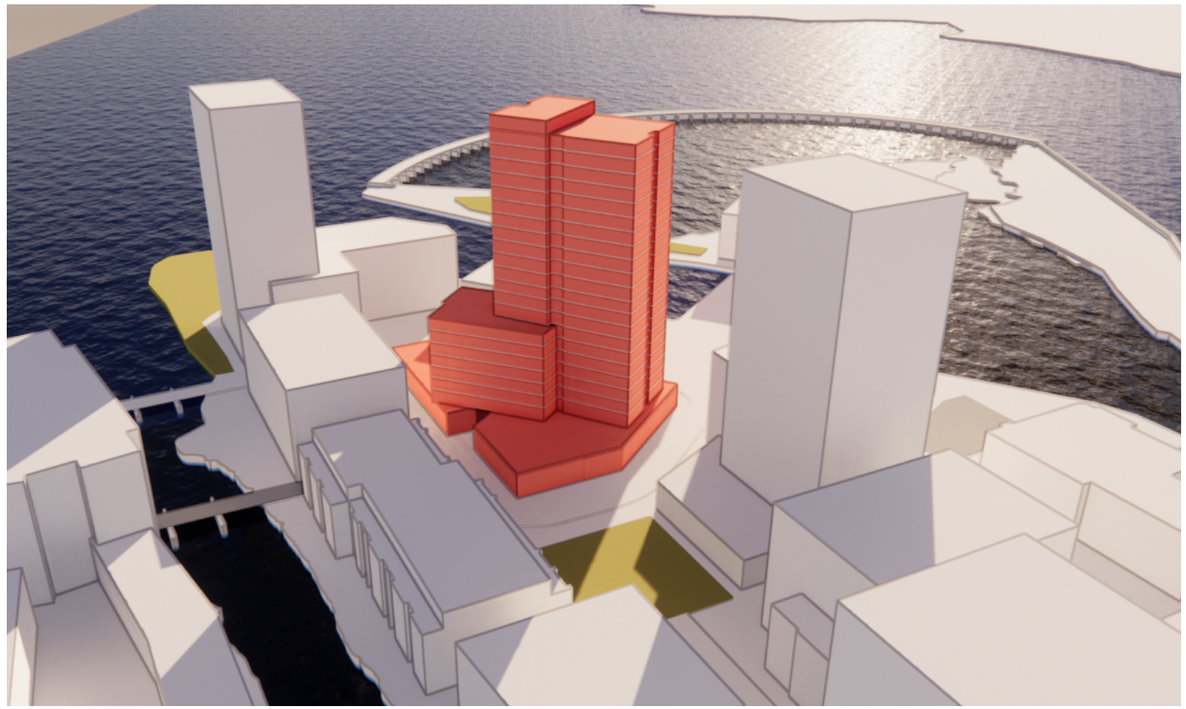
Pedestrian-friendly spaces are continued in line with the overall landscape design principles for the Zibi development. The setback at the residential entrance on the north of the site and feature sculptural element will contribute to the creation of livable neighbourhood spaces that can be enjoyed by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

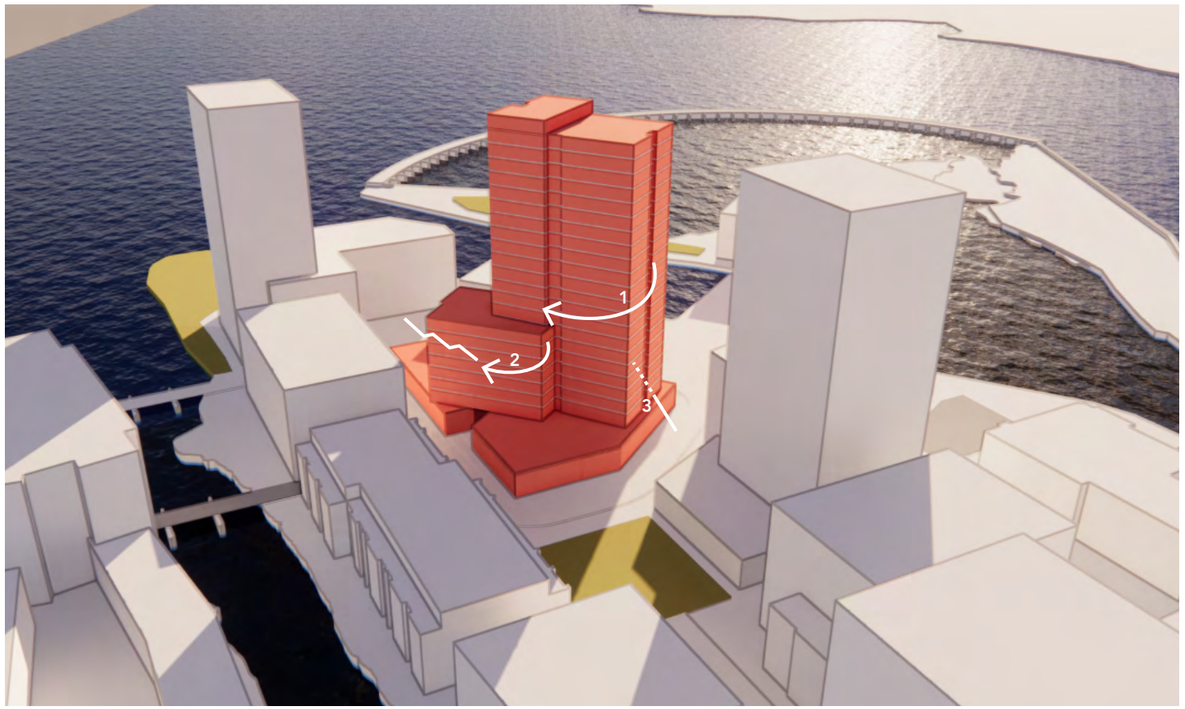
UDRP PRE-CONSULTATION MEETING JANUARY 2022



SUMMARY OF COMMENTS RECEIVED BY UDRP DURING PRE-CONSULTATION MEETING

1. Tower Orientation - Reshape the orientation to be consistent with the Master Plan direction that provided a degree of porosity and views through to the Capital landscape.
2. Podium & Ground Floor - Podium should read as part of the street network and surrounding industrial context rather than a transitional element to the tower. A more substantial [ground plane] of two storeys and increase step back would break up the mass of the building and create a relationship with the surrounding buildings and public realm.
3. Building Massing - Proposed massing is imposing and affects the level of porosity on the site. The proponent should consider establishing a woonerf or internal street with access to retail at the ground level with potentially a bridge connecting the podium at the second storey.

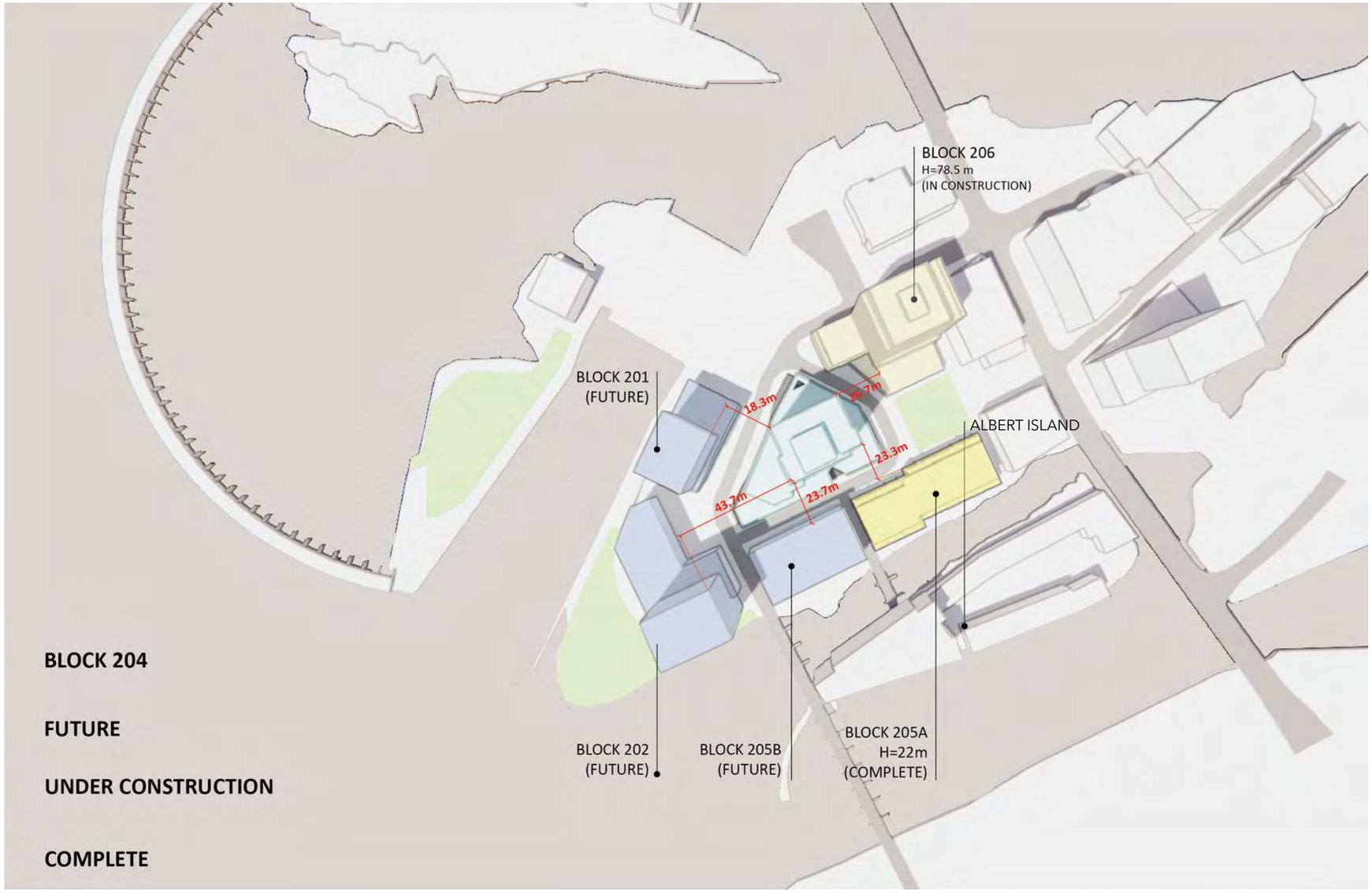
ADJUSTMENTS FOR SPA



DESIGN ADJUSTMENTS BASED ON COMMENTS

1. Tower Orientation - Tower has been rotated to align with neighbouring buildings consistent with Master Plan direction.
2. Podium & Ground Floor - The ground floor height ranges between 6-7m providing opportunity for the commercial tenants to have a significant presence on the woonerf and Head Street Square. The 9-storey podium is rotated to align with the woonerfs to create a mid-height presence on the street while the tower is set back to the centre of the site to reduce its effects on the public realm and increase the porosity of the overall massing on the island.
3. Building Massing - the ground plane massing is cut at the north side of the site to increase the porosity of the development and reduce the pedestrian travel distance around the block. This setback creates a large plaza area with the woonerf. The corners of the podium are treated with transparent facades to permit further permeability through at the ground level.

2.1 DESIGN PROGRESSION



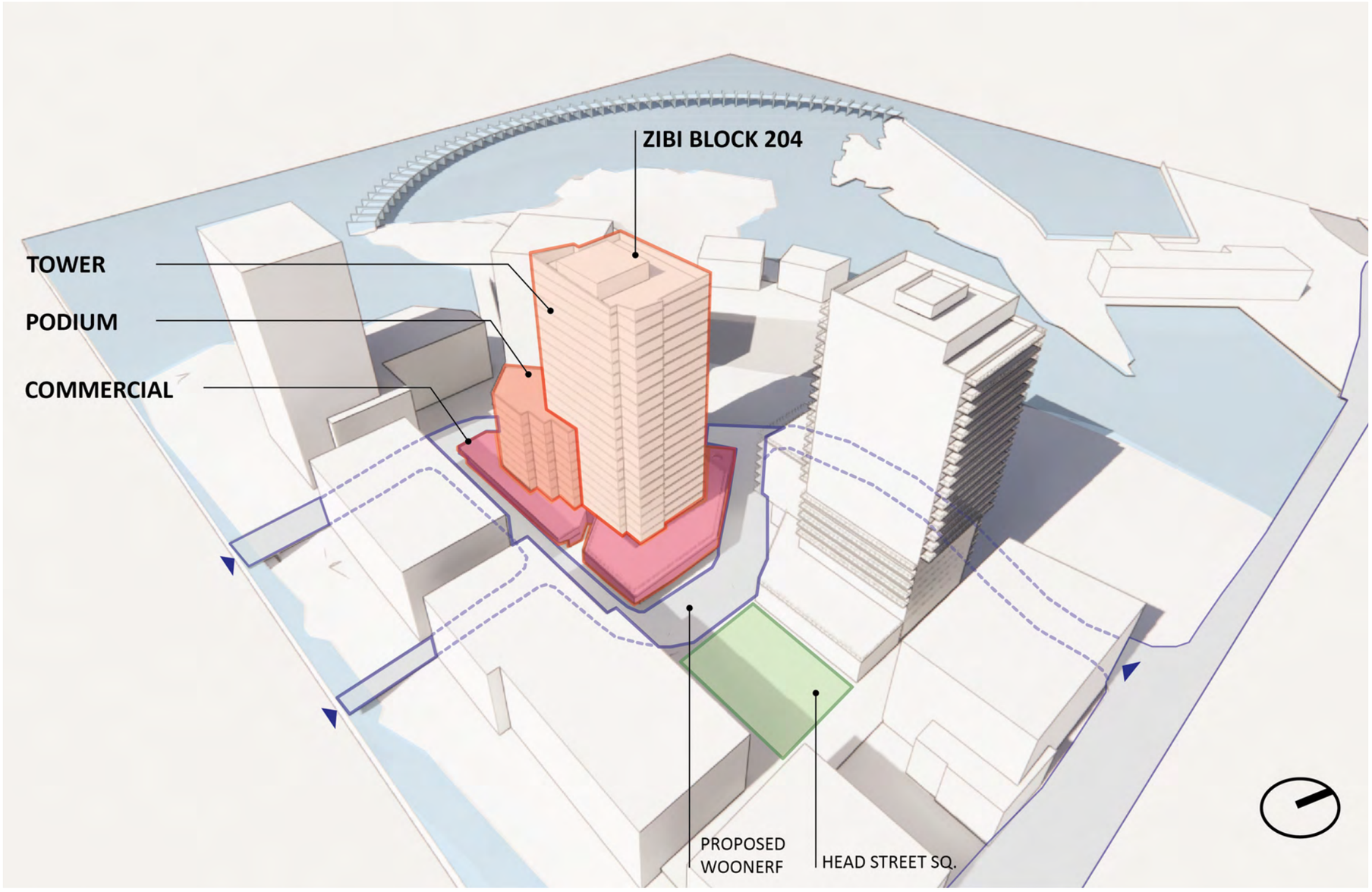
BUILDING SCALE & SETBACKS

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

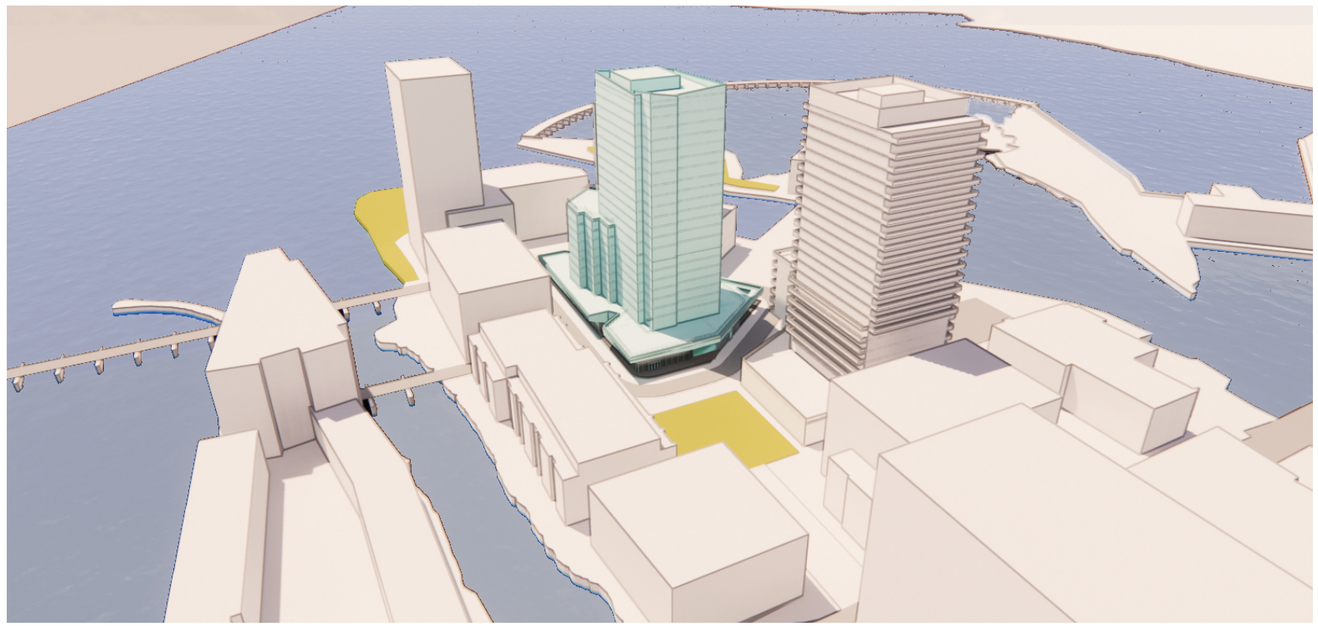


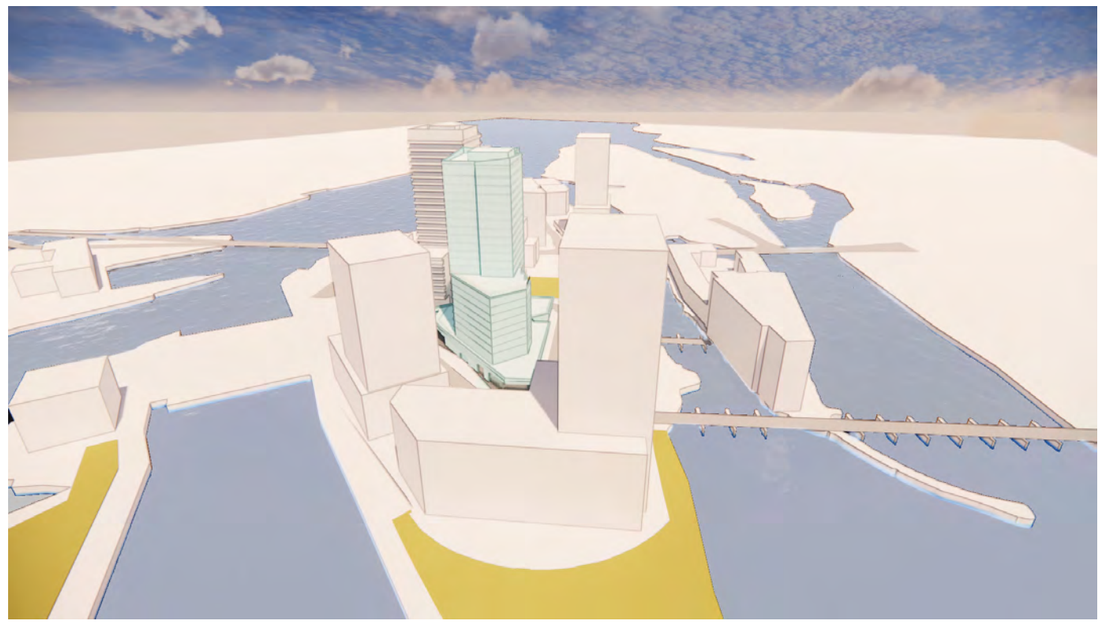
BUILDING MASSING

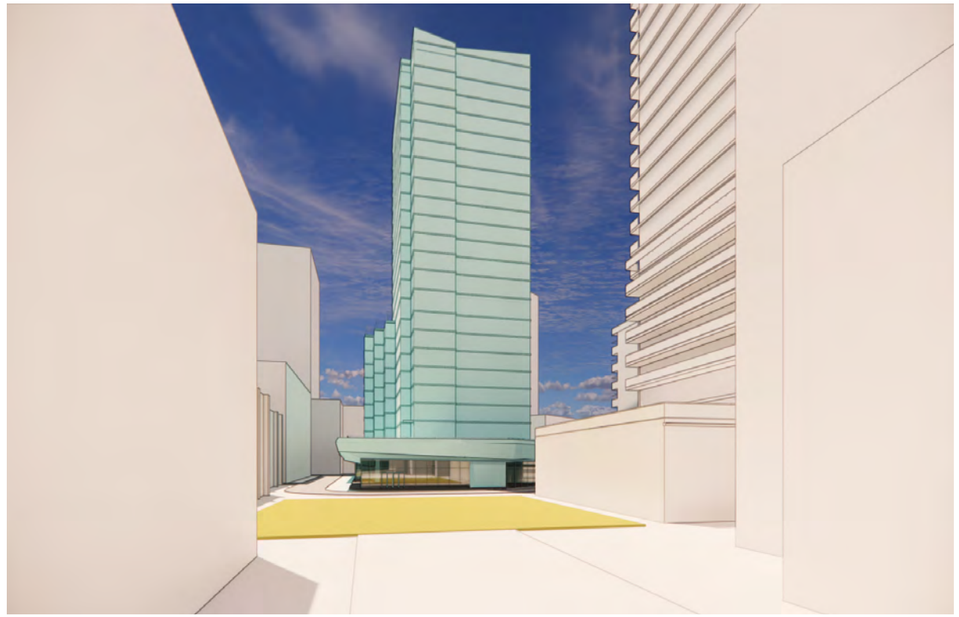
In addition to celebrating three key elements of the site, the building massing and placement of balconies respond to the key views and prevailing winds of the site in order to create comfortable environments for residents and users of the site.

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

NCC VIEWS

View from Summer Pavillion

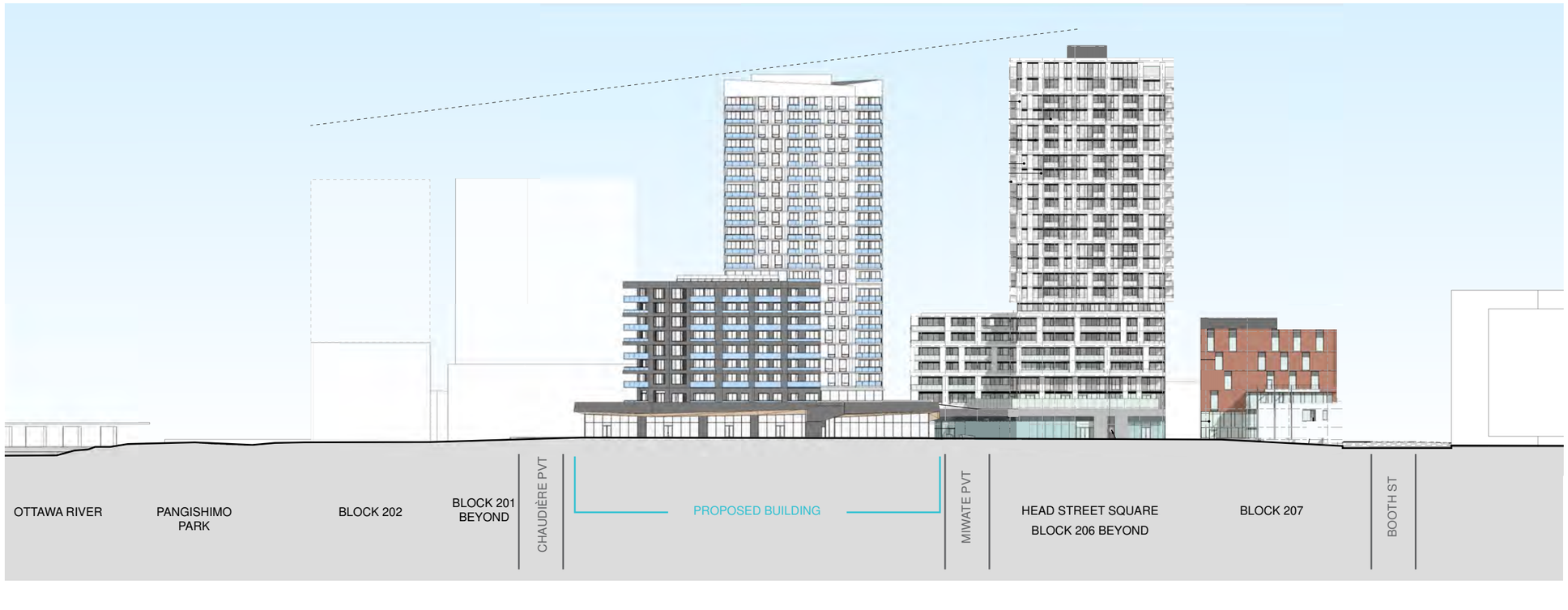
2.2 VIEWS & CONTEXTUAL CUES

FRAMED VIEWS

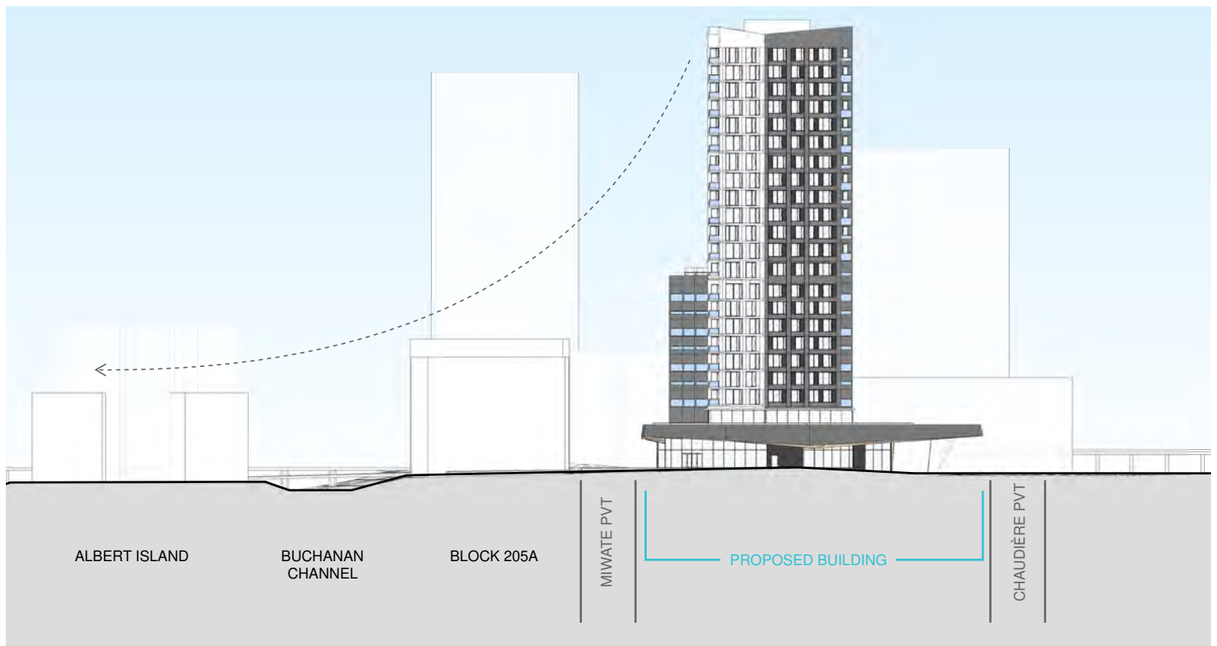
While views from the proposed building to its surroundings are important in the orientation and placement of the massing on the site, it is equally important from an urban design perspective to consider the framed views from around the site toward Block 204. These framed view studies not only inform 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

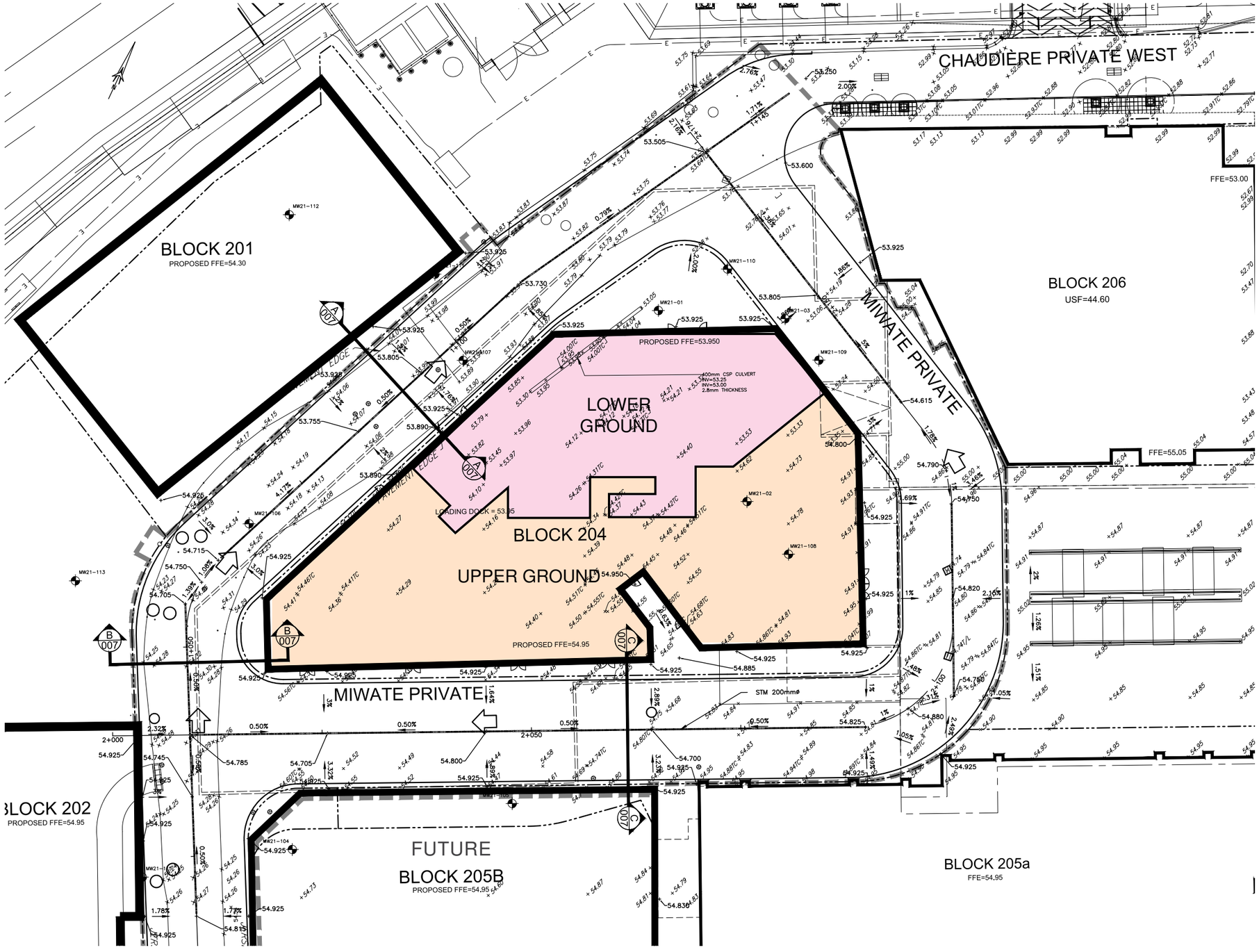
MIWATE PRIVATE - NORTH-SOUTH



MIWATE PRIVATE - EAST-WESET



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

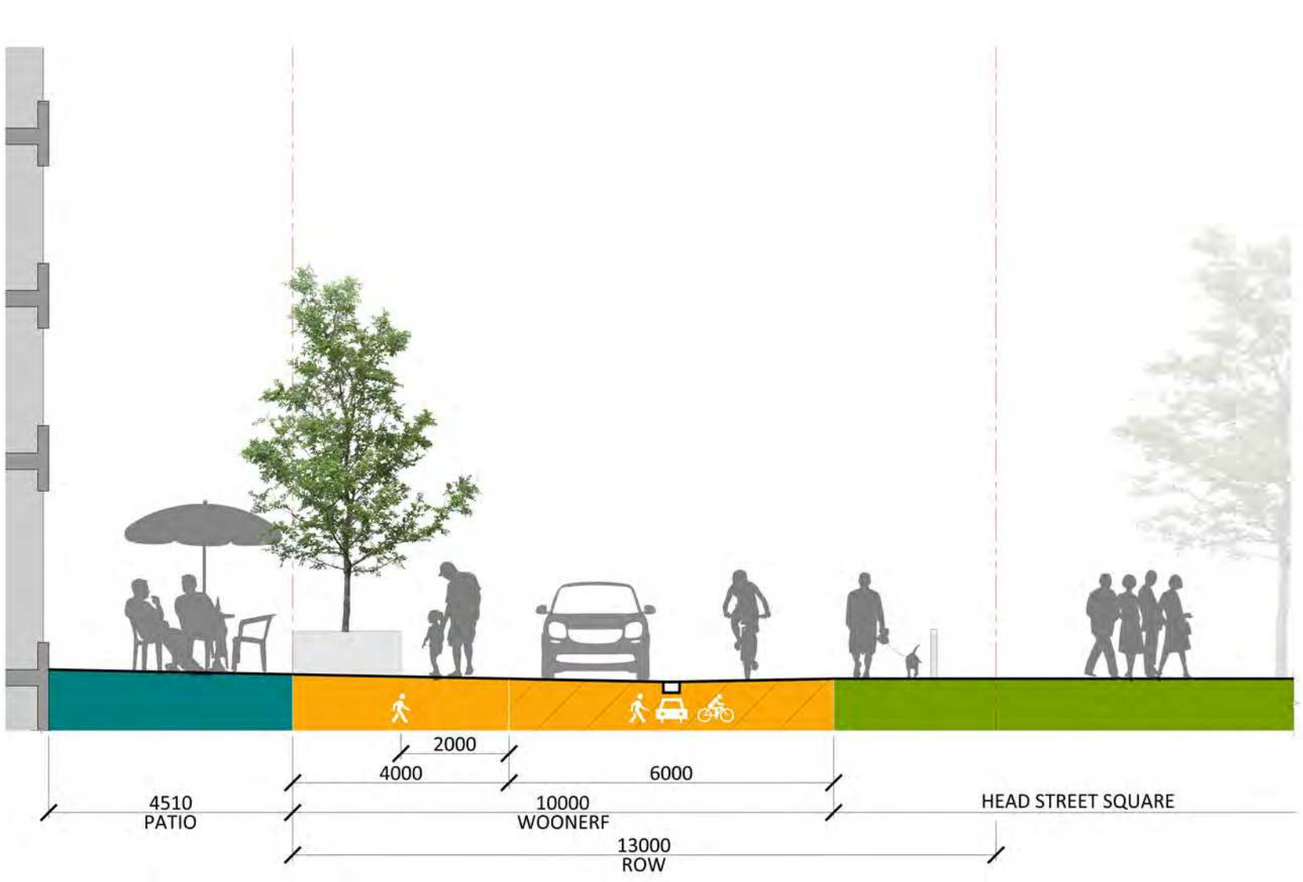
To create a truly shared street in accordance with Zibi community goals and One Planet principles. These pedestrian-priority spaces will contribute to the creation of livable neighbourhood spaces.

GOALS	OBJECTIVES	DESIGN STRATEGIES
Shared	• Reduce real and perceived edges • Blur traditional 'vehicle' and 'pedestrian' separation • Overlap user zones • Create a pedestrian priority space	• Curbless • Gradient paving pattern • Continuous surface material • Reduced speed limit • Pedestrian-scale elements
Safe	• 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	• 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	• Reduce barriers • Create visual edge for directional wayfinding • Address visual impairment • Provide seating	• 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	• Repeat elements throughout the community • Use materials to delineate different areas • Allow for integration of public art • Follow One Planet principles	• Shared street design • Family of high quality materials and finishes • Family of high quality site furnishings • Native plant material palette
Flexible / Adaptable	• Enable event and flexible space • Enable tenant usage • Allow for integration of public art	• Curbless • Continuous surface material • Movable furniture • Building-mounted signs and lighting
Environment	• Encourage healthy urban trees • Encourage biodiversity • Capture storm water runoff • Encourage multi-modal transportation • Limit or avoid use of road salt where feasible	• Soil cells for tree planting • Native plant palette • Direct stormwater to planters • Shared street design
Multi-Season	• Facilitate winter snow clearing • Recommend operational activities	• Raised elements define edges: planters, bollards and street trees • Snow stakes to define edges

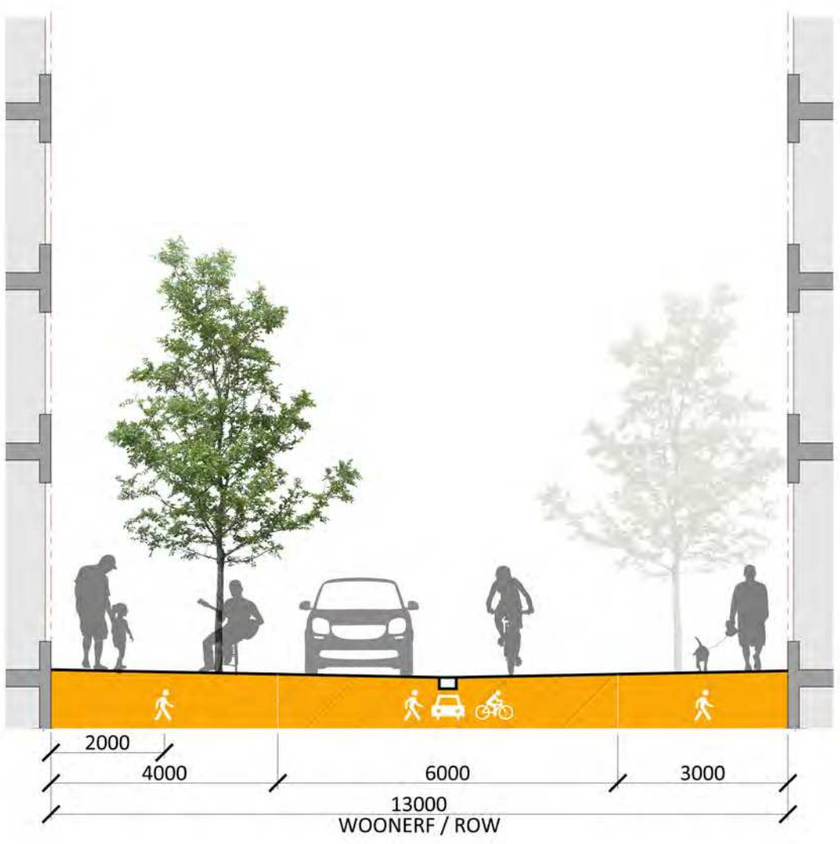
2.3 PUBLIC REALM

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.

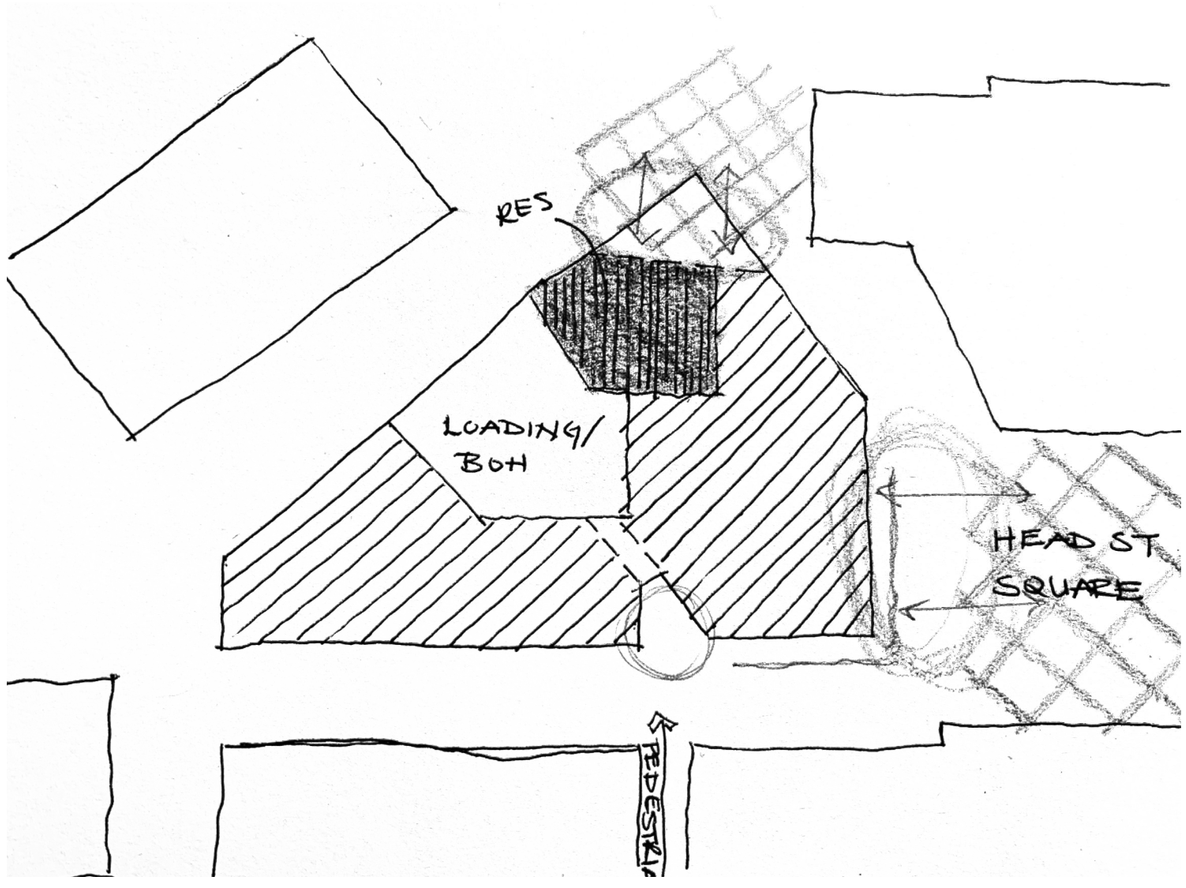
Aligned under the opening in the entrance canopy is a space dedicated to a feature sculptural element, which not only further identifies the main residential corner of the site, but also echoes the restored pulper located east across the woonerf on the Block 206 property.

2.3 PUBLIC REALM

GROUND & RELATIONSHIP TO PUBLIC REALM

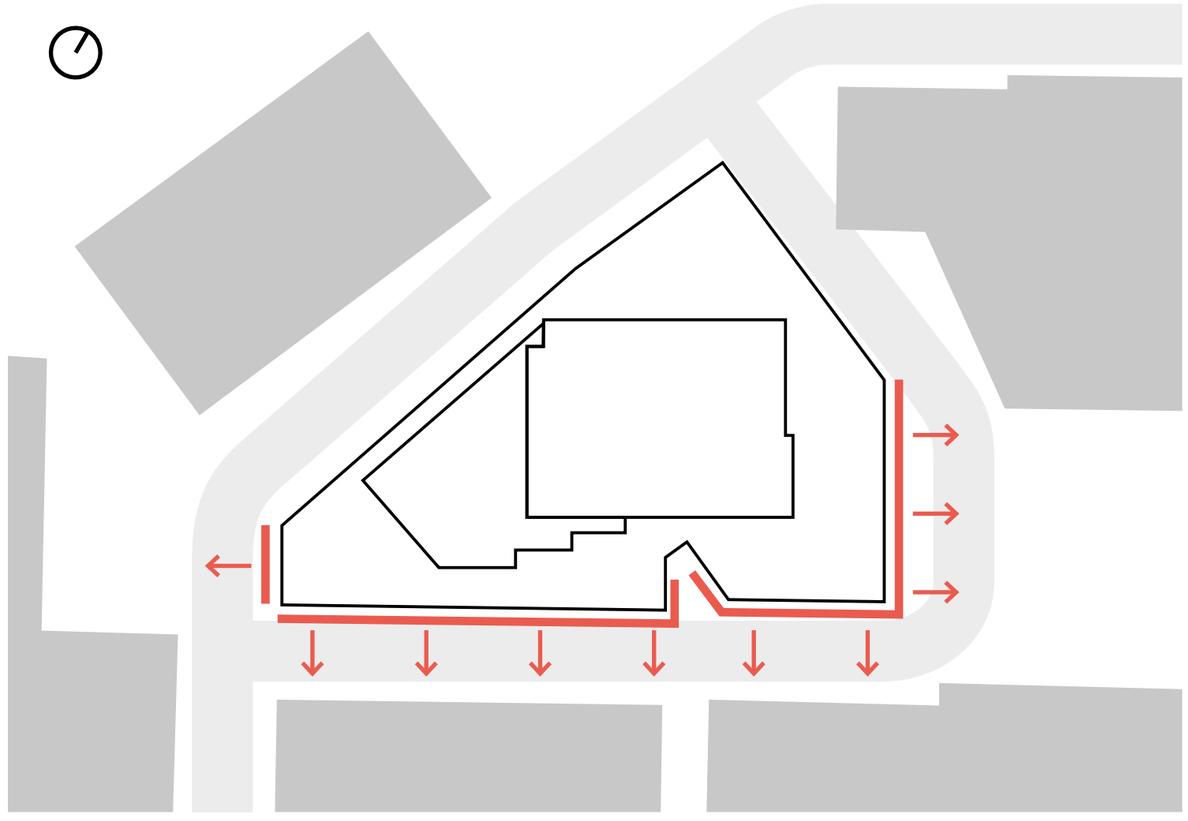
APPROACH

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.

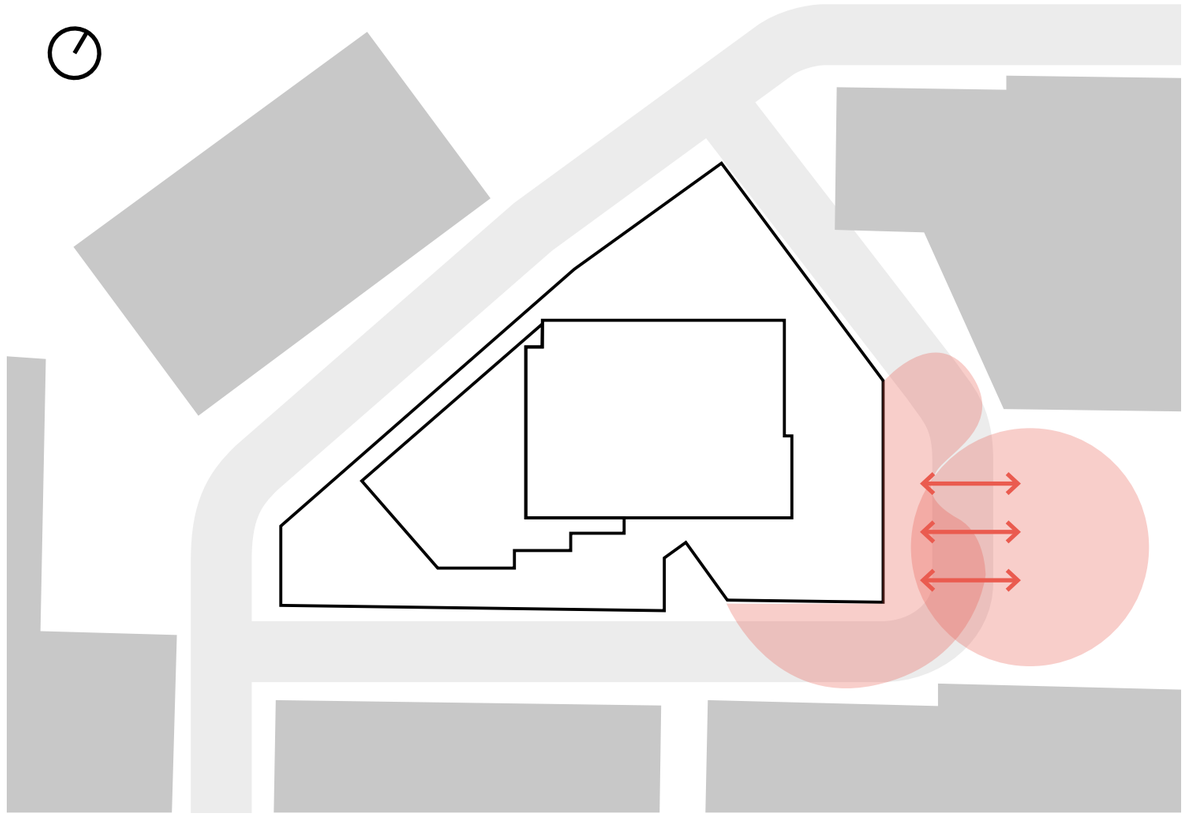


2.3 PUBLIC REALM

GROUND & RELATIONSHIP TO PUBLIC REALM

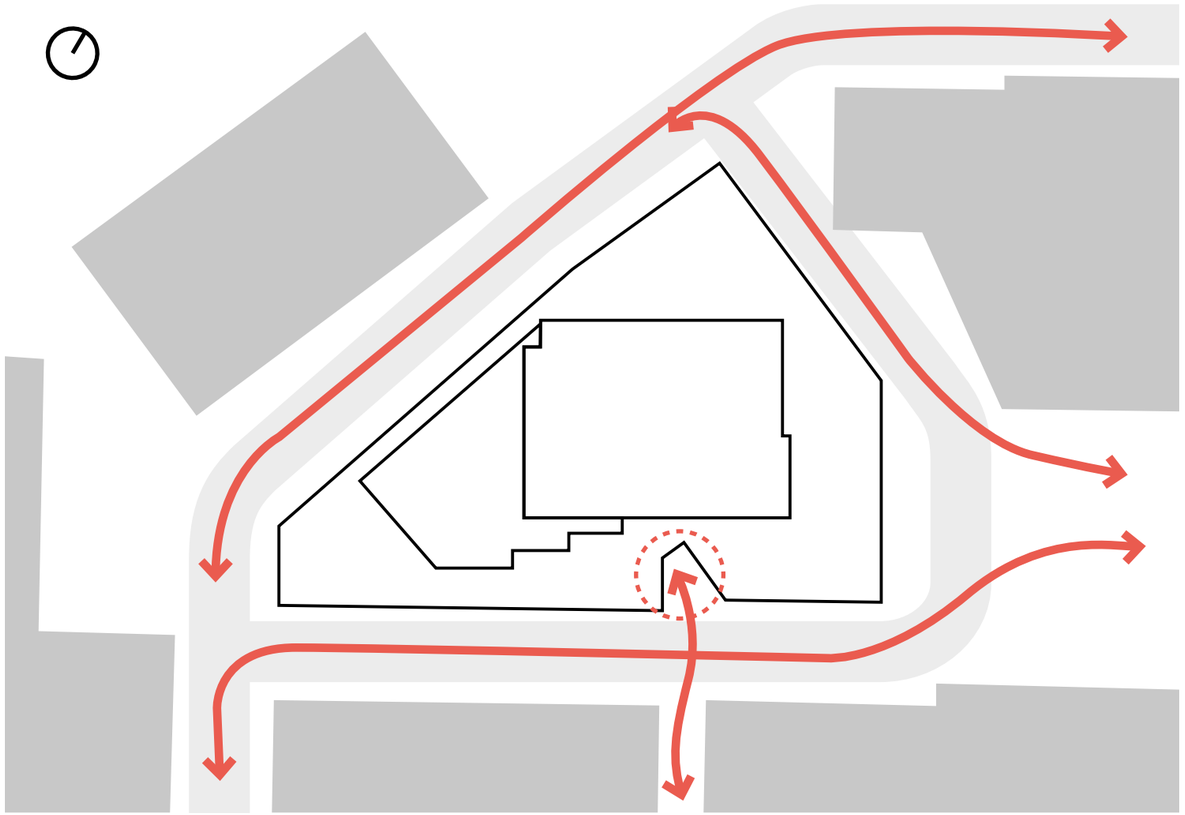
RE-ENFORCE RELATIONSHIP WITH HEAD STREET SQUARE

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.

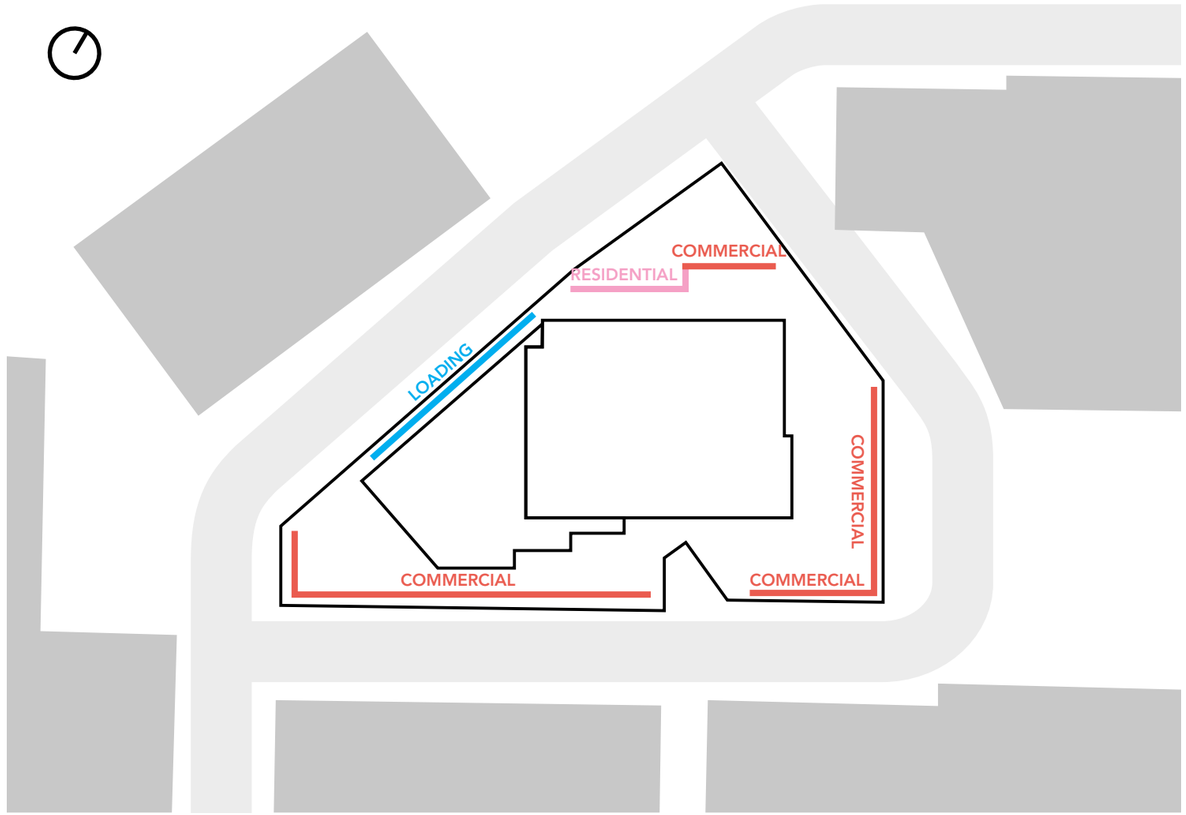


2.3 PUBLIC REALM

GROUND & RELATIONSHIP TO PUBLIC REALM

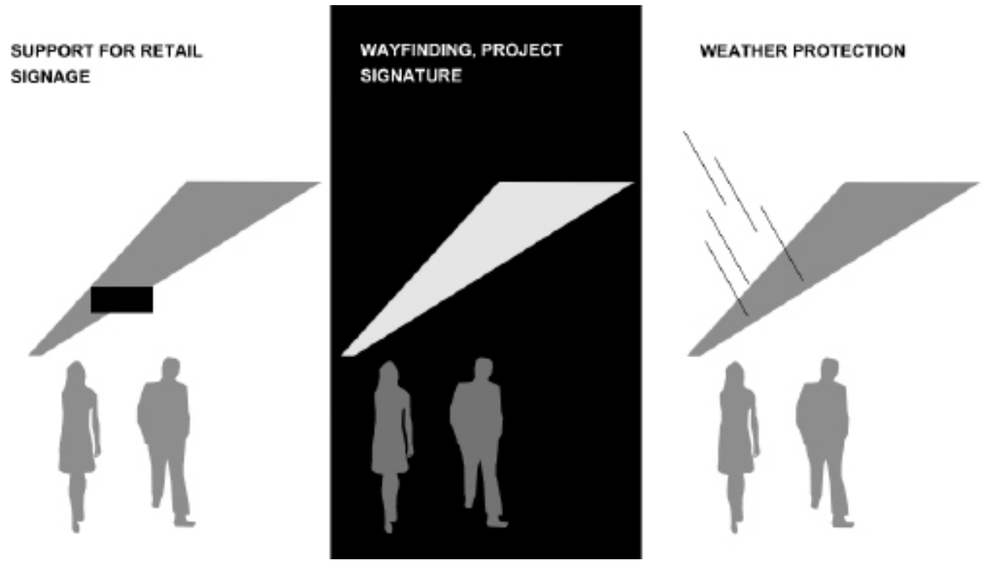
ARCHITECTURAL EXPRESSION ON ALL FACES

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.



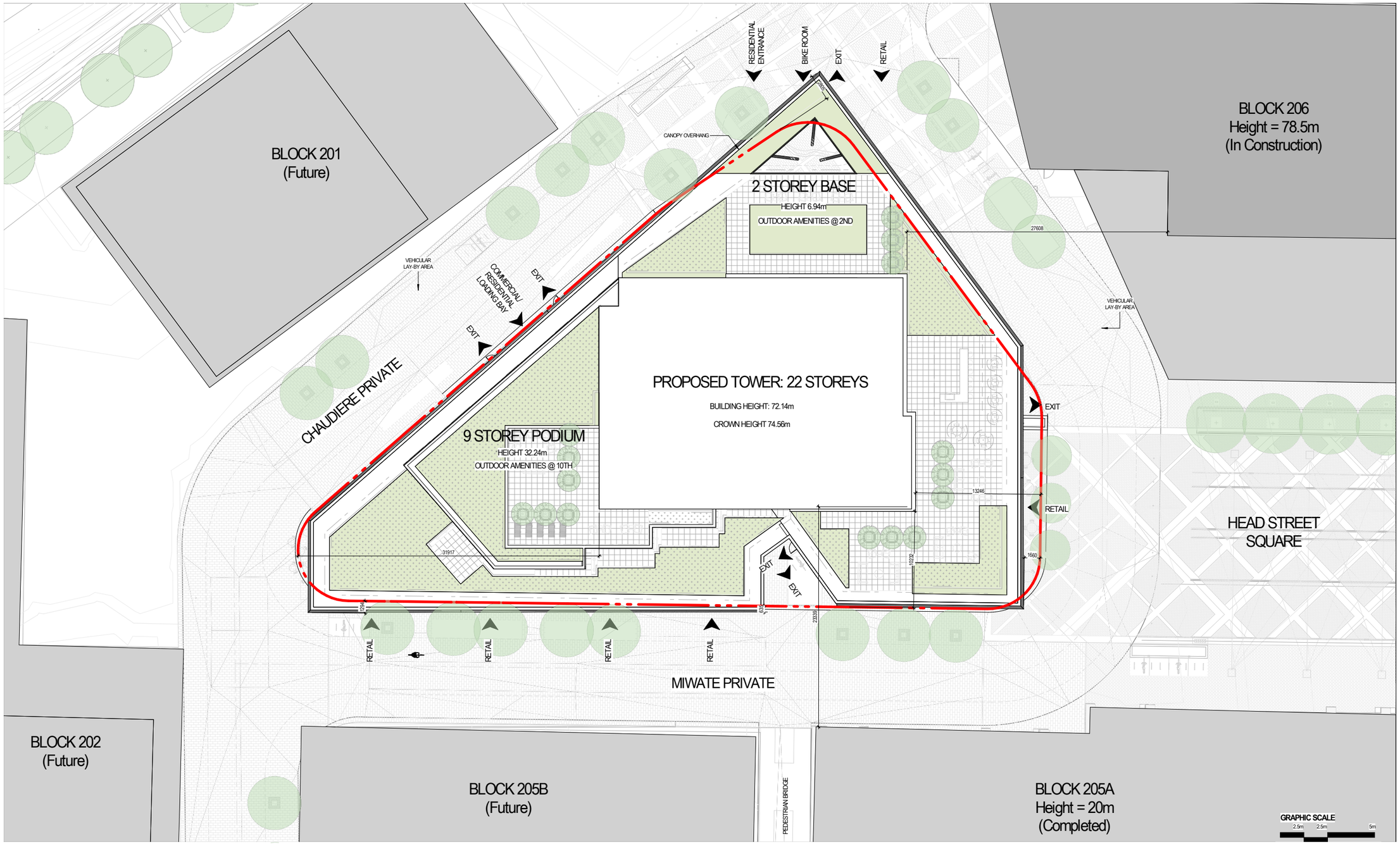
RETAIL FRONTAGE, SIGNAGE AND SOFFIT

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

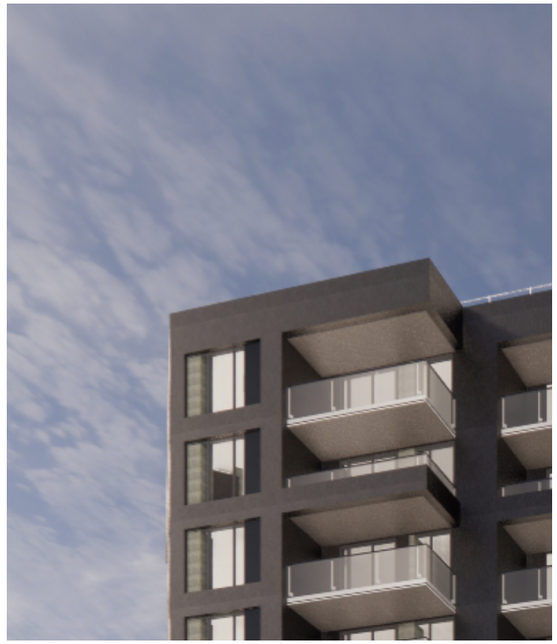
2.4 BUILDING DESIGN

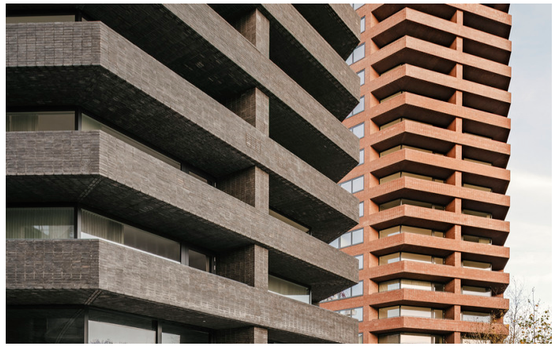
PODIUM ARTICULATION & MATERIALITY

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

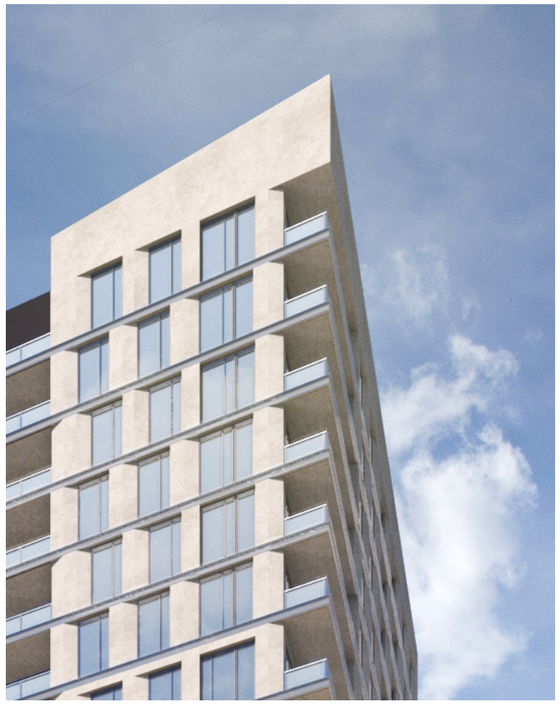
TOWER ARTICULATION & MATERIALITY

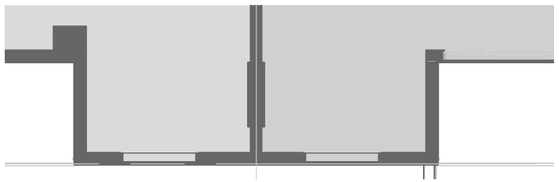
The tower component of the proposed building takes inspiration from the rushing water of the Chaudiere Falls and aims to create a form that is light and airy and blends with the sky to mitigate visual impact from the street.

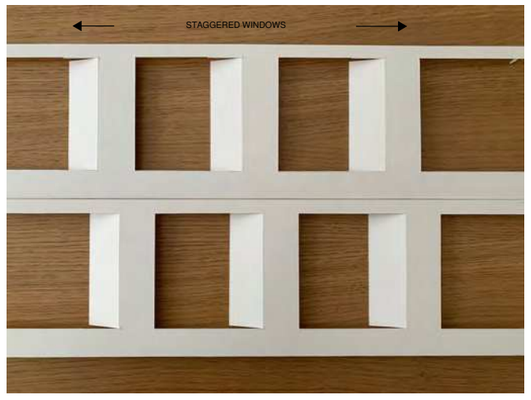
An alternating A-B-A-B window and cladding pattern creates a dynamic yet subdued effect on the facade.

The light metal cladding is sculpted with angled planes to further express a presence of movement on the site.

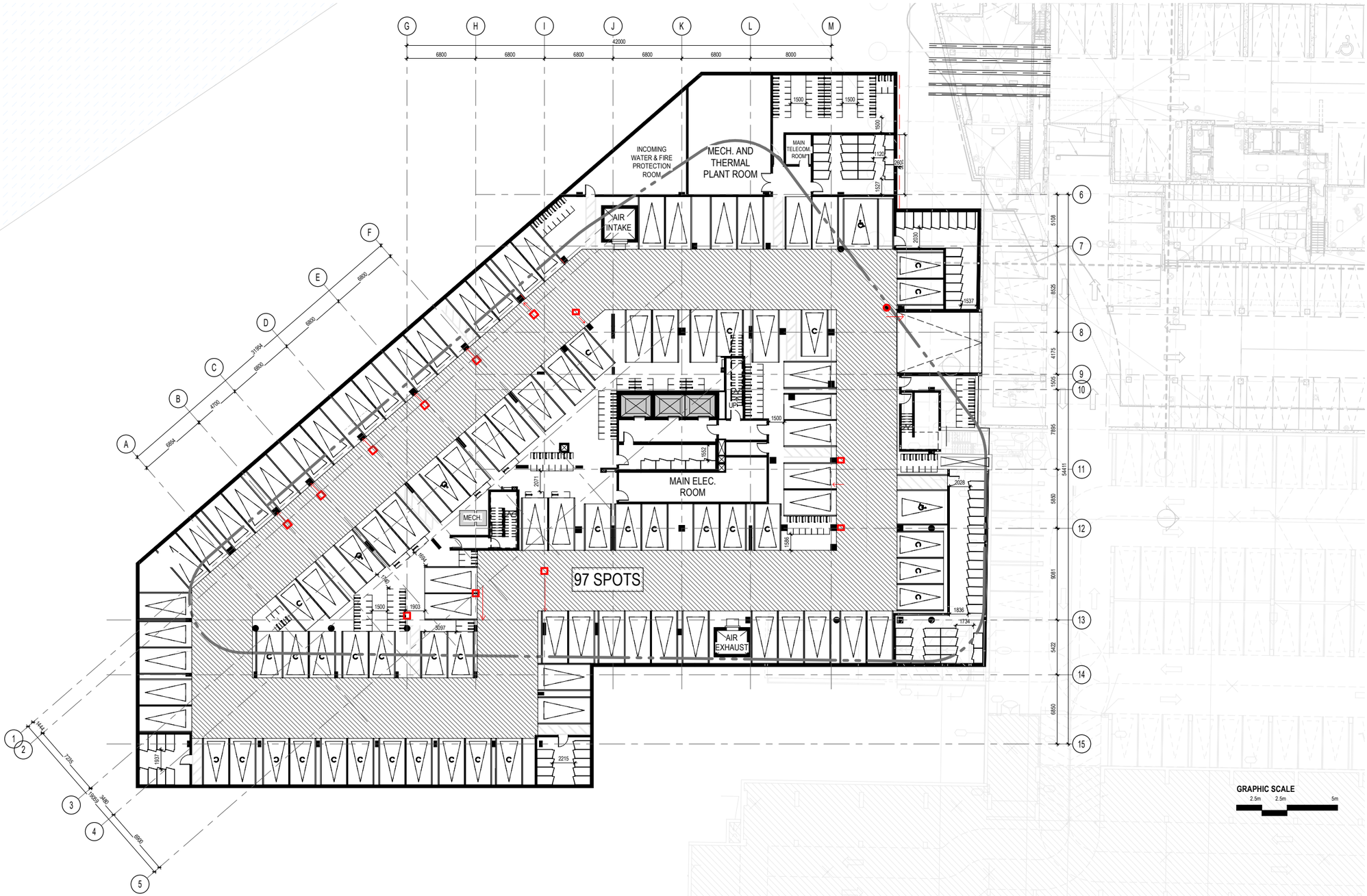
The building's crown is articulated with sloping angles which distinguish the different tower materials and relate back to the ground floor canopy articulation.





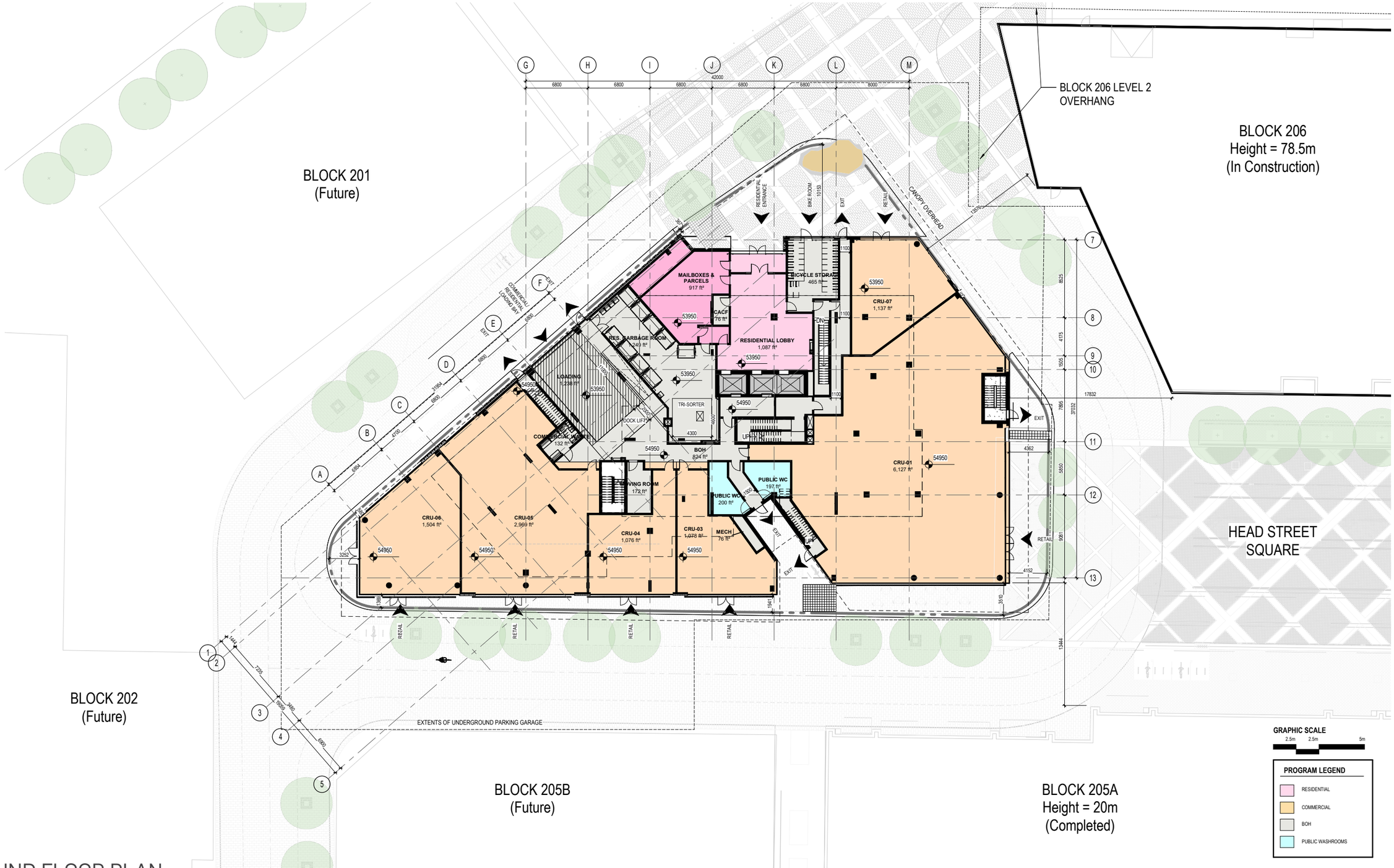


2.4 BUILDING DESIGN



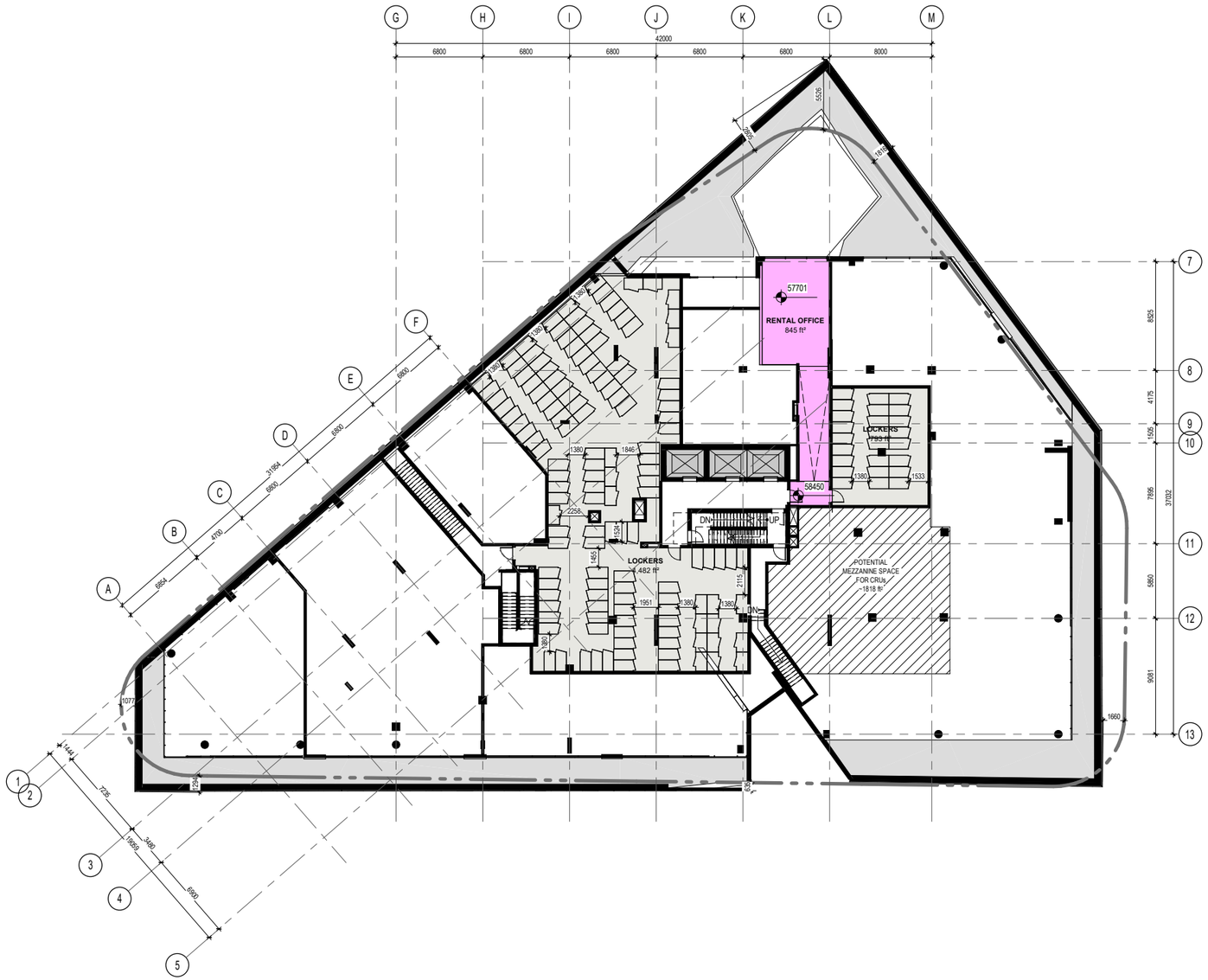
PARKING LEVEL P1

2.4 BUILDING DESIGN



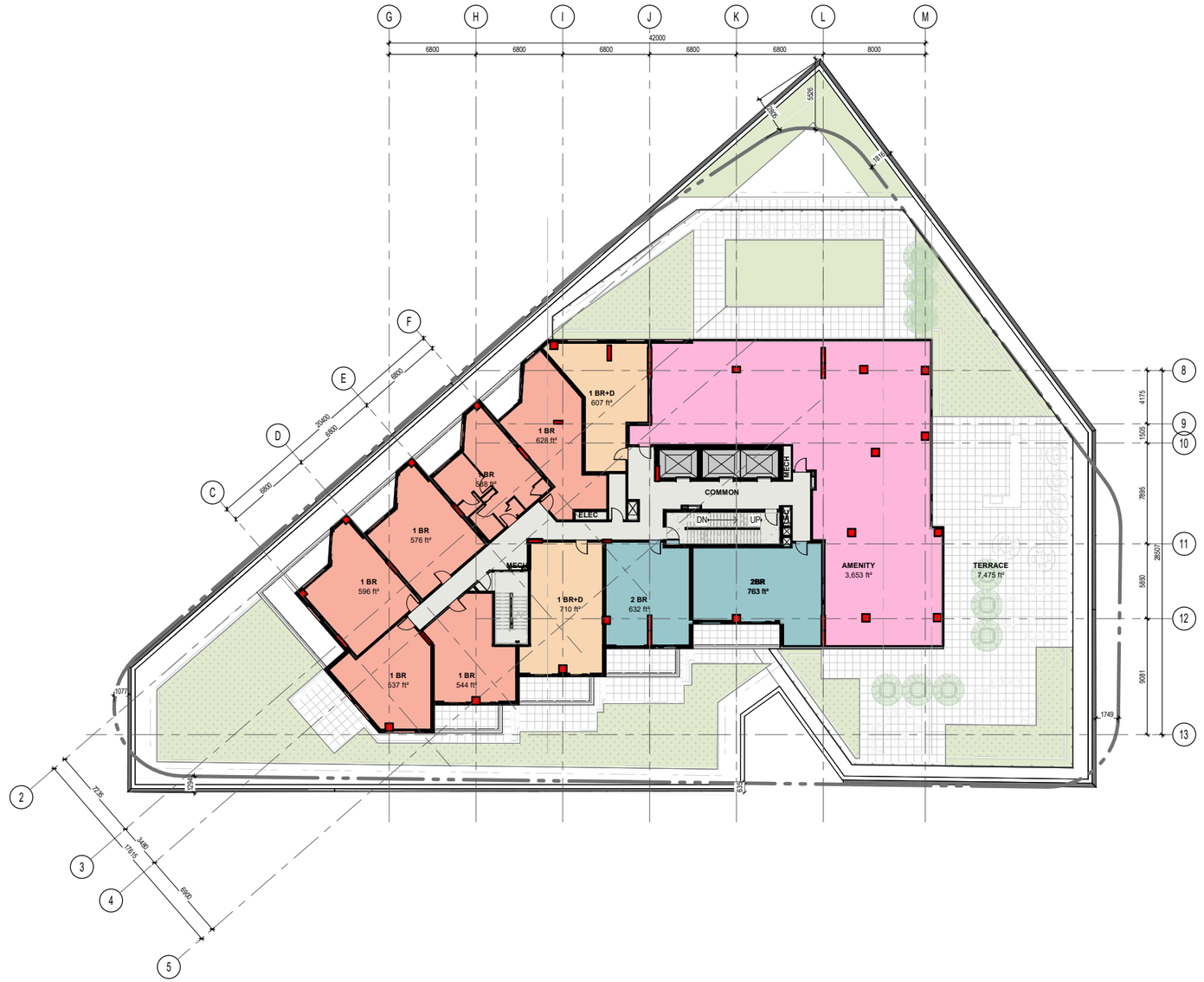
GROUND FLOOR PLAN

2.4 BUILDING DESIGN



MEZZANINE PLAN

2.4 BUILDING DESIGN



GRAPHIC SCALE

2.5m 2.5m 5m

PROGRAM LEGEND

- STUDIO
- 1 BR
- 1 BR + D
- 2 BDR
- AMENITY
- COMMON / BOH

LEVEL 2 | AMENITY TERRACE

2.4 BUILDING DESIGN

GRAPHIC SCALE

2.5m 2.5m 5m

PROGRAM LEGEND

- STUDIO
- 1 BR
- 1 BR + D
- 2 BDR
- COMMON / BOH

LEVEL 3 PLAN

2.4 BUILDING DESIGN

GRAPHIC SCALE

2.5m 2.5m 5m

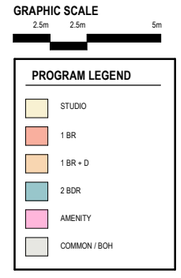
PROGRAM LEGEND

- STUDIO
- 1 BR
- 1 BR + D
- 2 BDR
- COMMON / BOH

LEVEL 4 PLAN (PODIUM TYPICAL)

2.4 BUILDING DESIGN

An amenity terrace is located on the roof of the 9 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 10 | AMENITY TERRACE

2.4 BUILDING DESIGN

GRAPHIC SCALE

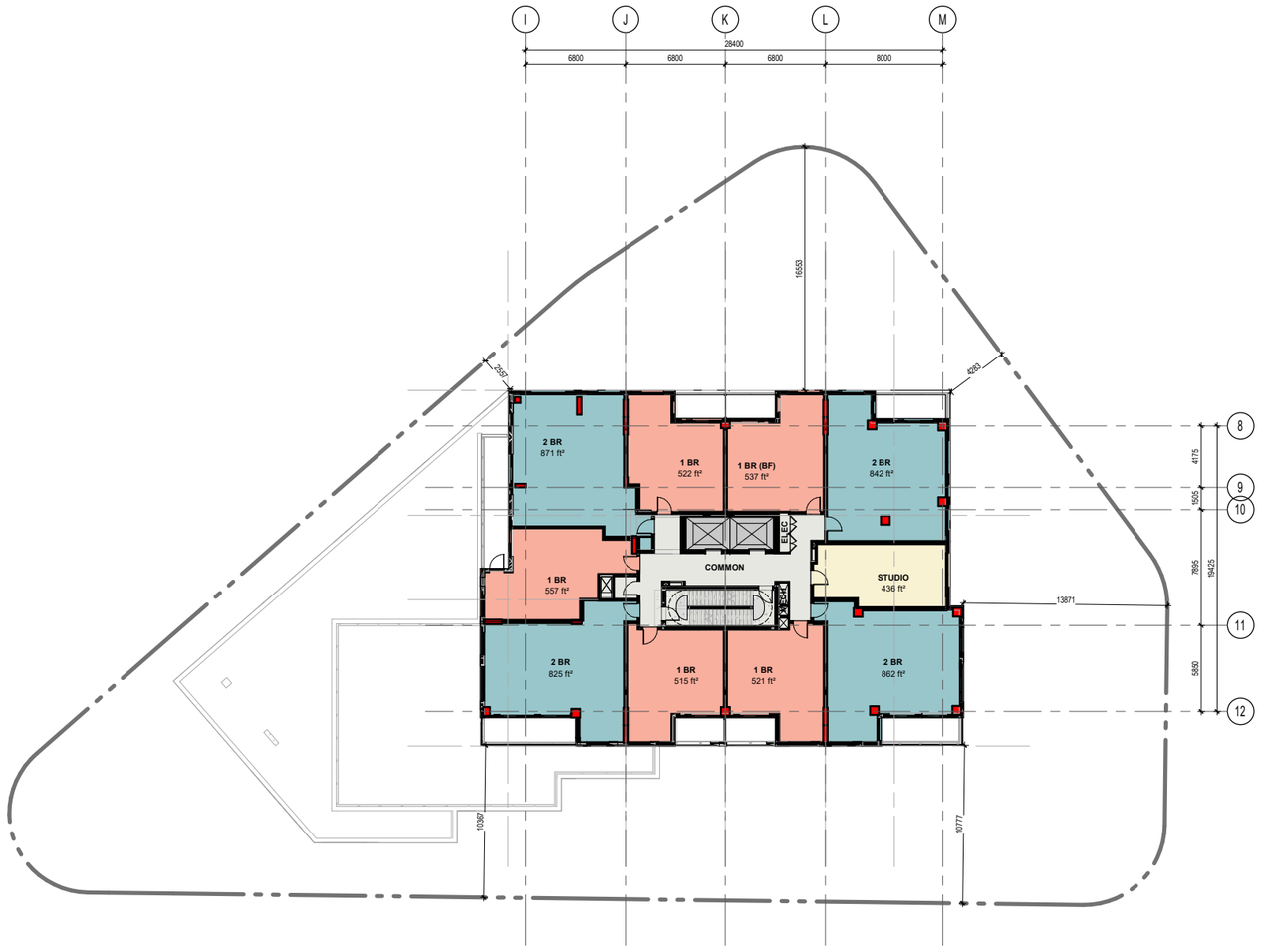
2.5m 2.5m 5m

PROGRAM LEGEND

- STUDIO
- 1 BR
- 1 BR + D
- 2 BDR
- COMMON / BOH

LEVEL 11 PLAN

2.4 BUILDING DESIGN

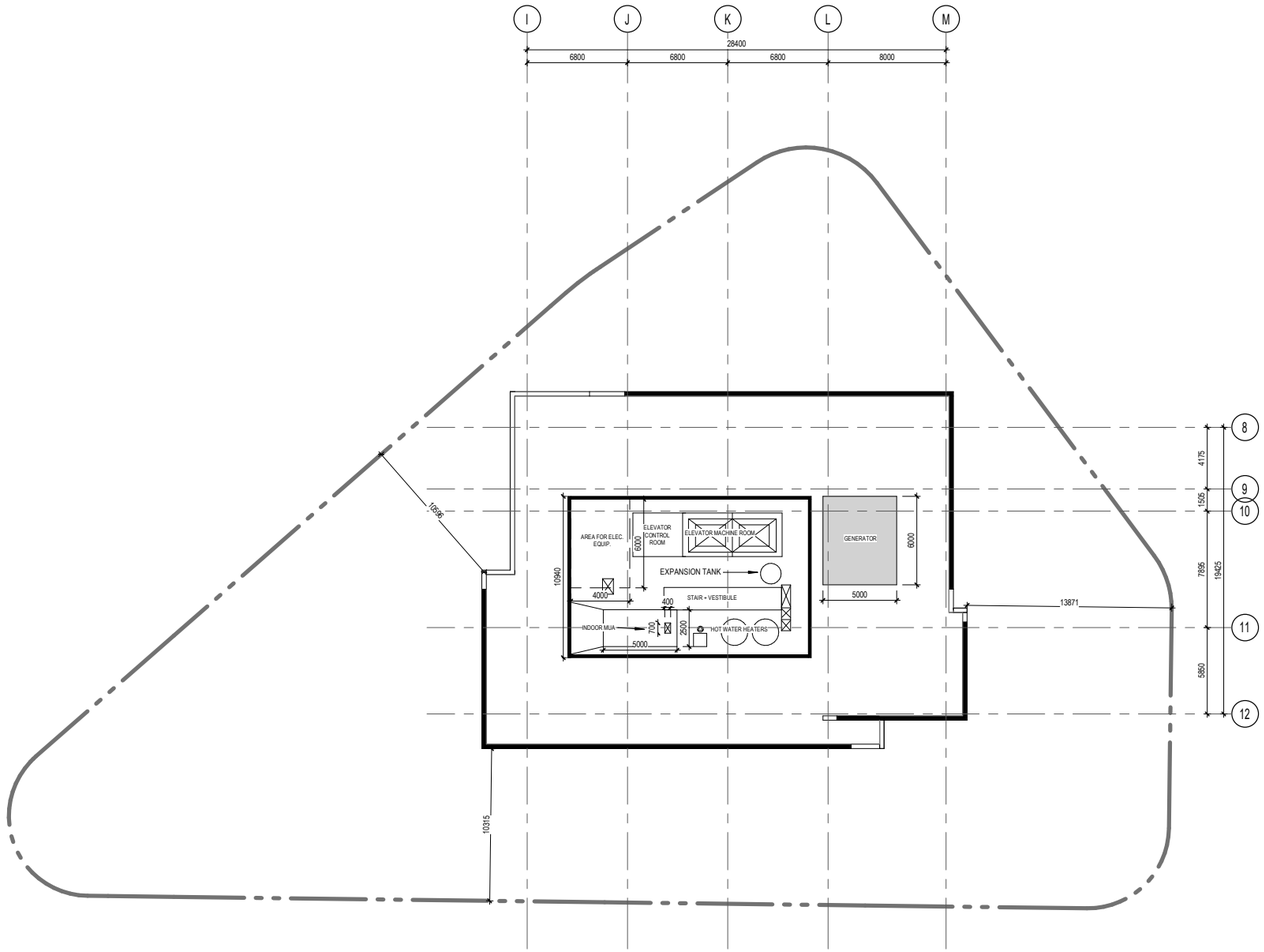


GRAPHIC SCALE
2.5m 2.5m 5m

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

LEVEL 12 PLAN (TOWER TYPICAL)

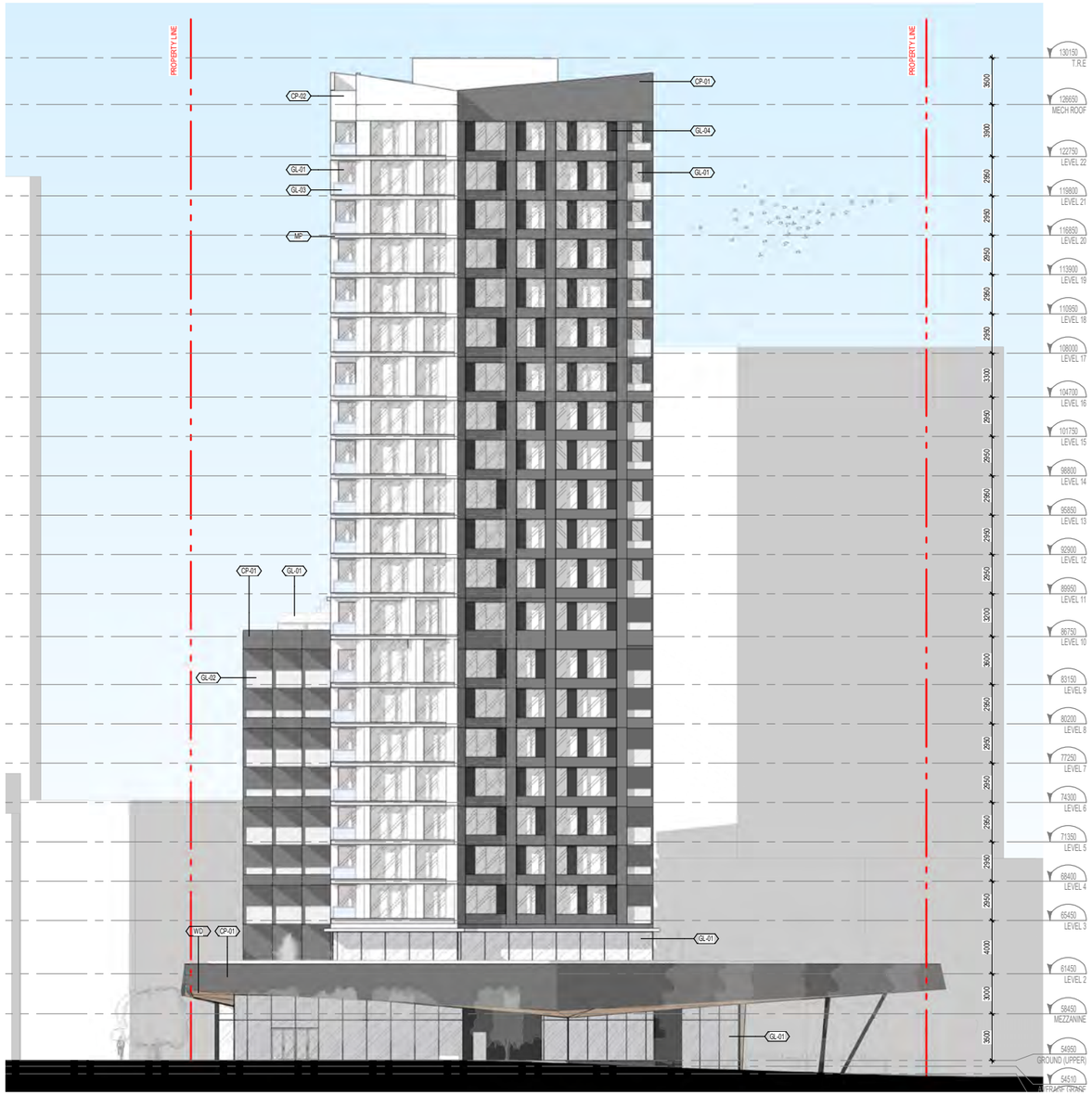
2.4 BUILDING DESIGN



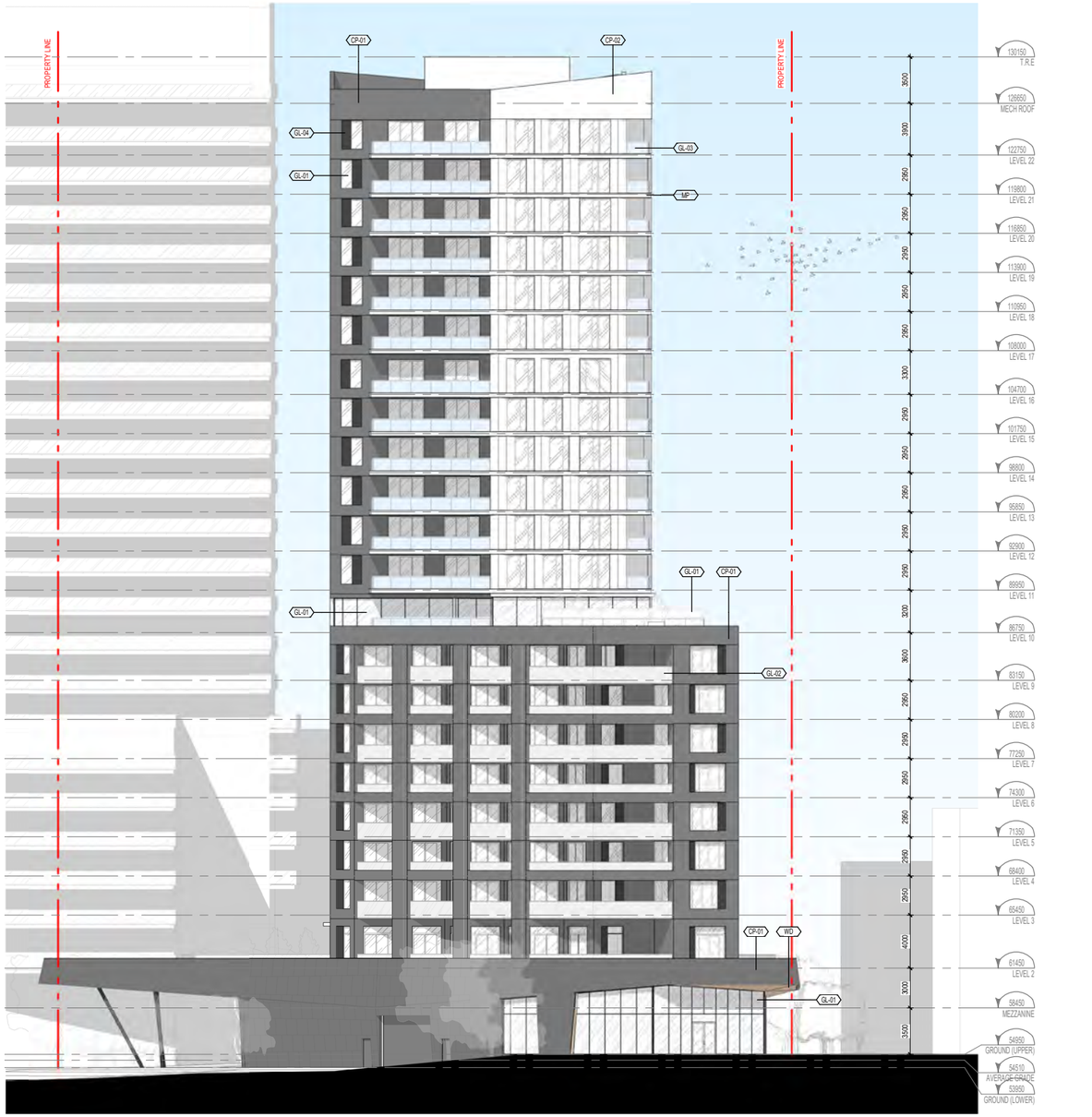
GRAPHIC SCALE
2.5m 2.5m 5m

MECHANICAL PENTHOUSE

2.4 BUILDING DESIGN



EAST ELEVATION

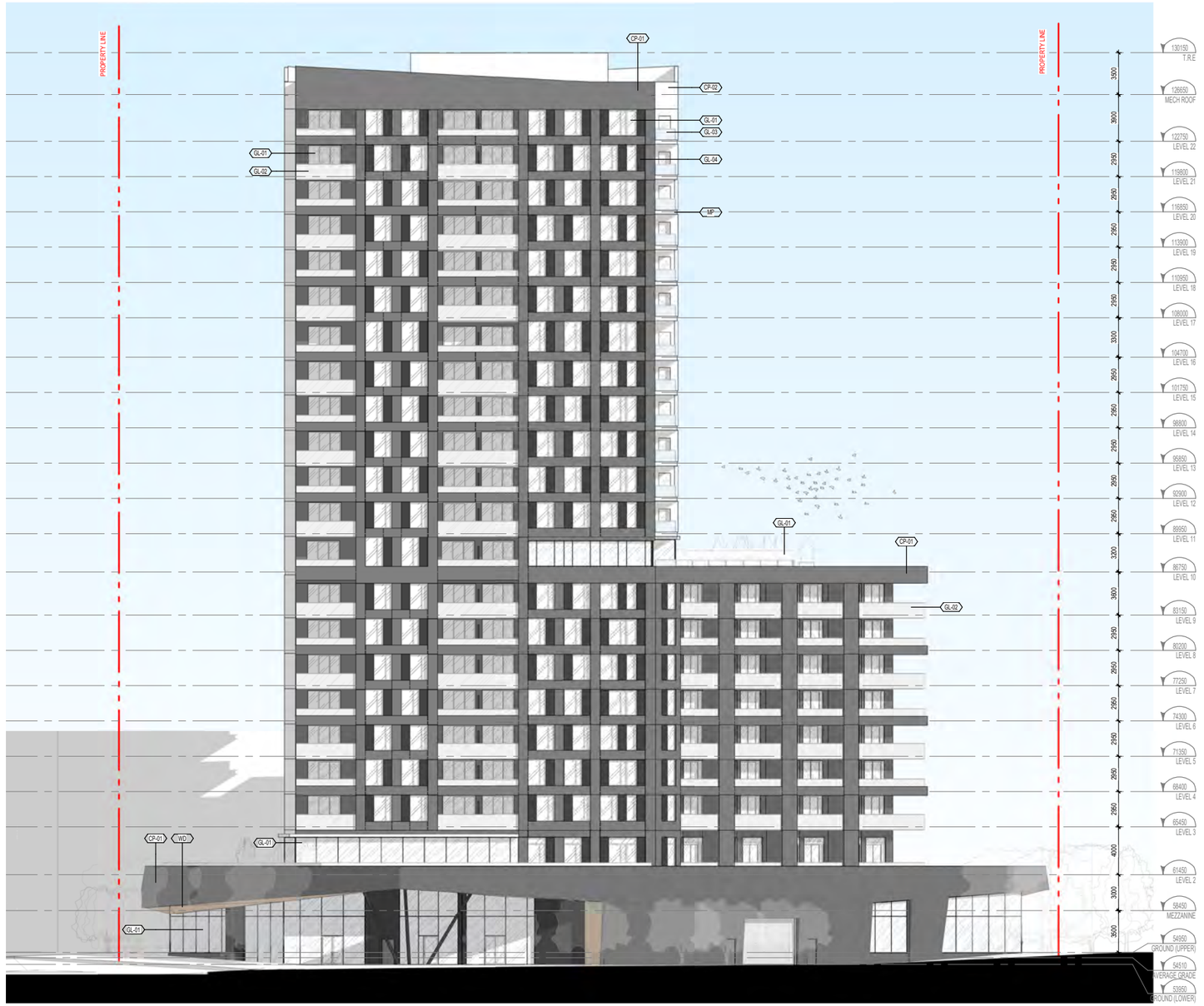


WEST ELEVATION

MATERIAL LEGEND

GL-01	CLEAR GLAZING	CP-01	GREY CEMENTITOUS CLADDING
GL-02	GREY-TINTED FROSTED GLASS RAIL	CP-02	WHITE CEMENTITIOUS CLADDING
GL-03	FROSTED GLASS RAIL	MP	METAL PANEL
GL-04	DARK SPANDREL GLAZING	WD	WOOD SLAT CLADDING

2.4 BUILDING DESIGN

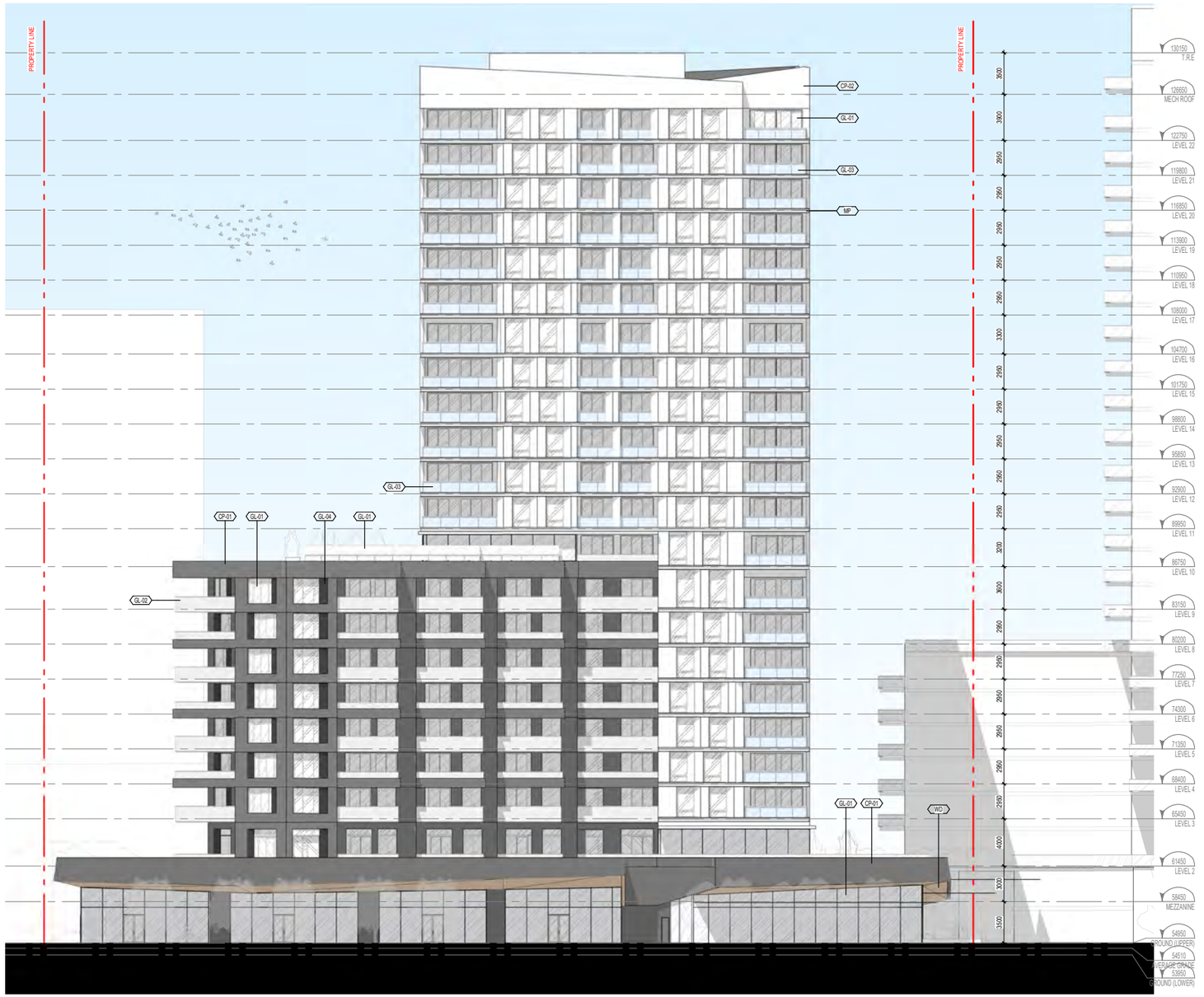


NORTH ELEVATION

MATERIAL LEGEND

GL-01	CLEAR GLAZING	CP-01	GREY CEMENTITOUS CLADDING
GL-02	GREY-TINTED FROSTED GLASS RAIL	CP-02	WHITE CEMENTITIOUS CLADDING
GL-03	FROSTED GLASS RAIL	MP	METAL PANEL
GL-04	DARK SPANDREL GLAZING	WD	WOOD SLAT CLADDING

2.4 BUILDING DESIGN



SOUTH ELEVATION

MATERIAL LEGEND

GL-01	CLEAR GLAZING	CP-01	GREY CEMENTITOUS CLADDING
GL-02	GREY-TINTED FROSTED GLASS RAIL	CP-02	WHITE CEMENTITIOUS CLADDING
GL-03	FROSTED GLASS RAIL	MP	METAL PANEL
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 then 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:

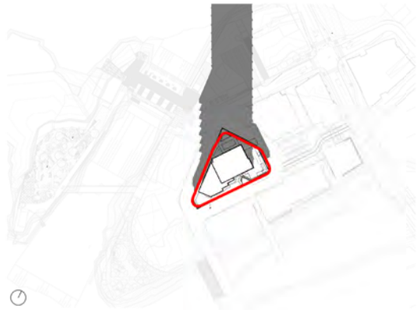
  a) Provide a Level 2 charging capacity (208 – 240 volts) or greater.

  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.

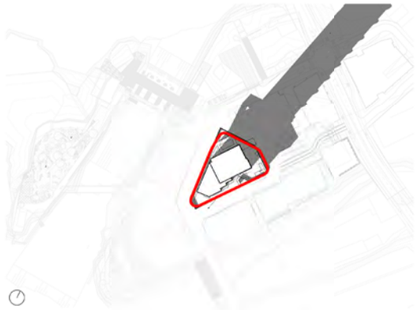
  c) Be networked or Internet addressable and be capable of participating in a demand-response program or time-of-use pricing to encourage off-peak charging.

2.6 SHADOW ANALYSIS

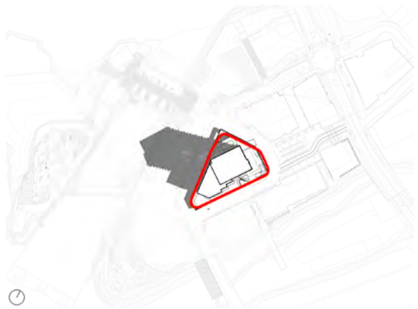
DECEMBER 21ST 9AM
1 : 2500
3 A101



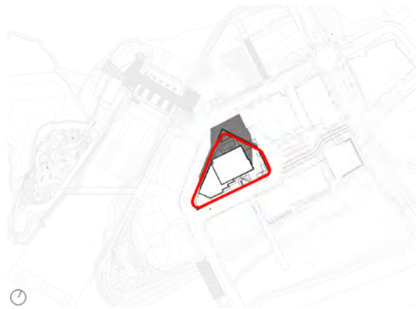
DECEMBER 21ST 12PM
1 : 2500
2 A101



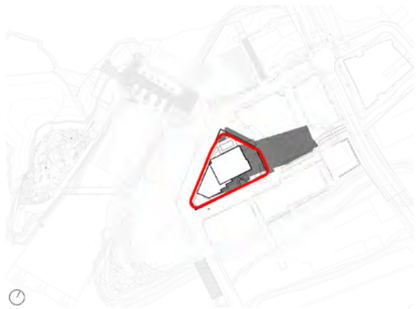
DECEMBER 21ST 3PM
1 : 2500
1 A101



JUNE 21ST 9AM
1 : 2500
6 A101

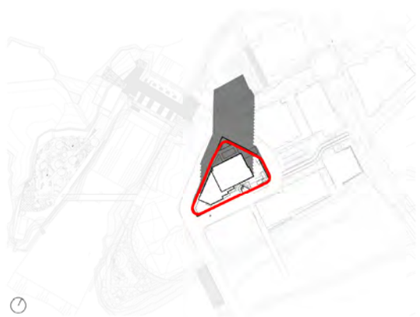


JUNE 21ST 12PM
1 : 2500
5 A101

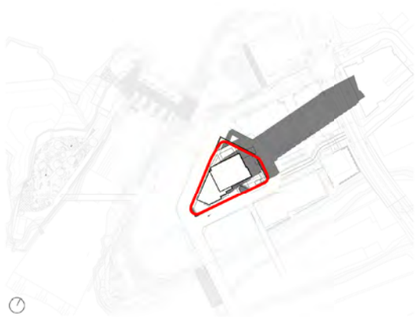


JUNE 21ST 3PM
1 : 2500
4 A101

MARCH/SEPTEMBER 21ST 9AM
1 : 2500
9 A101



MARCH/SEPTEMBER 21ST 12PM
1 : 2500
8 A101



MARCH/SEPTEMBER 21ST 3PM
7

APPENDIX

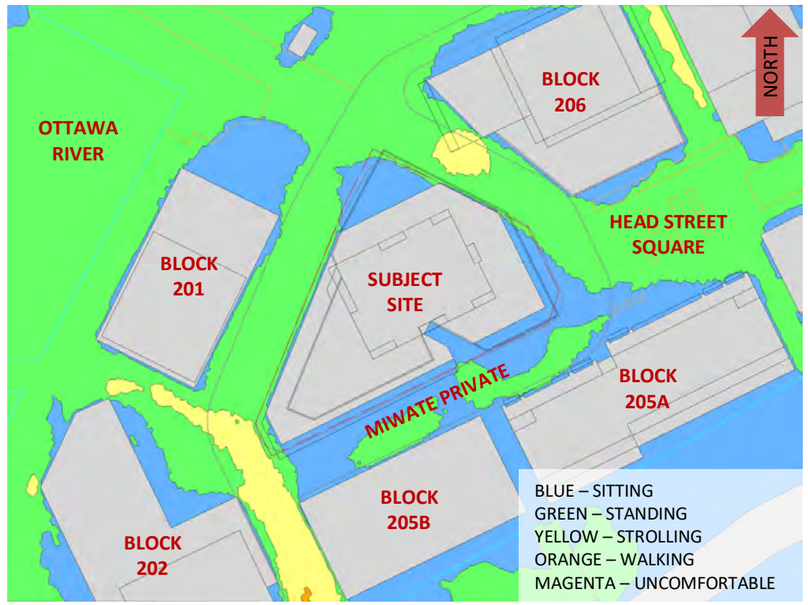


FIGURE 3A: SPRING – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

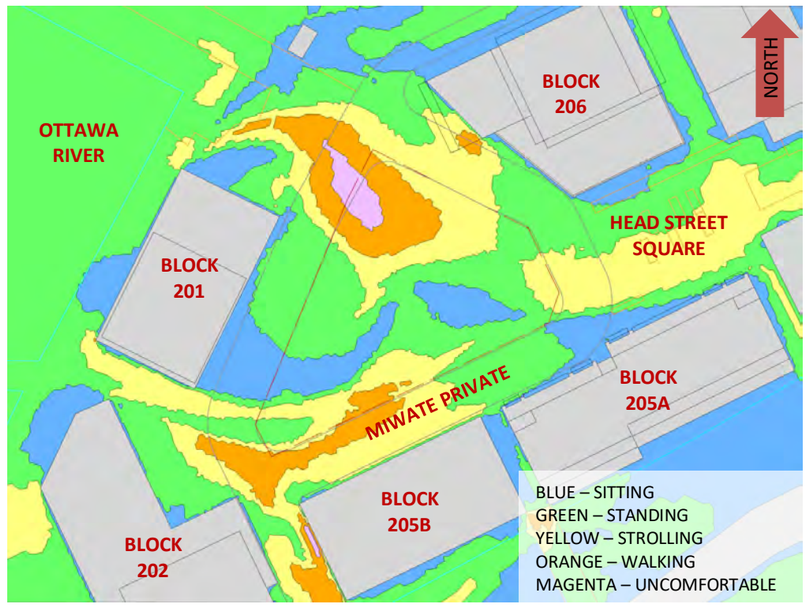


FIGURE 3B: SPRING – WIND COMFORT, GRADE LEVEL– EXISTING MASSING

GRADIENTWIND
ENGINEERS & SCIENTISTS

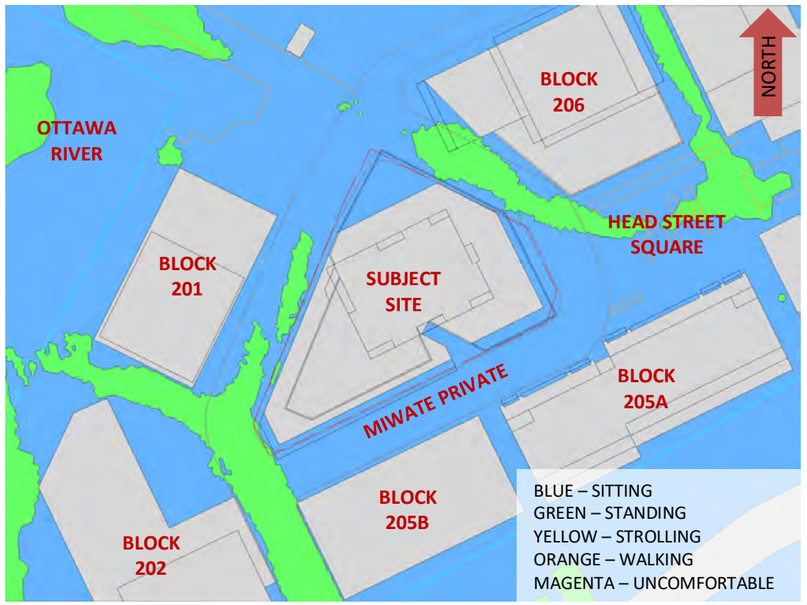


FIGURE 4A: SUMMER – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

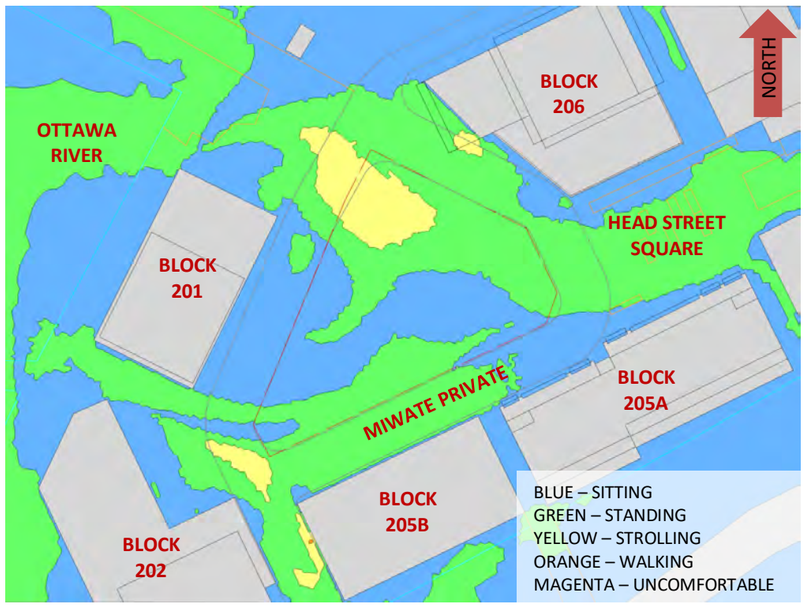


FIGURE 4B: SUMMER – WIND COMFORT, GRADE LEVEL– EXISTING MASSING

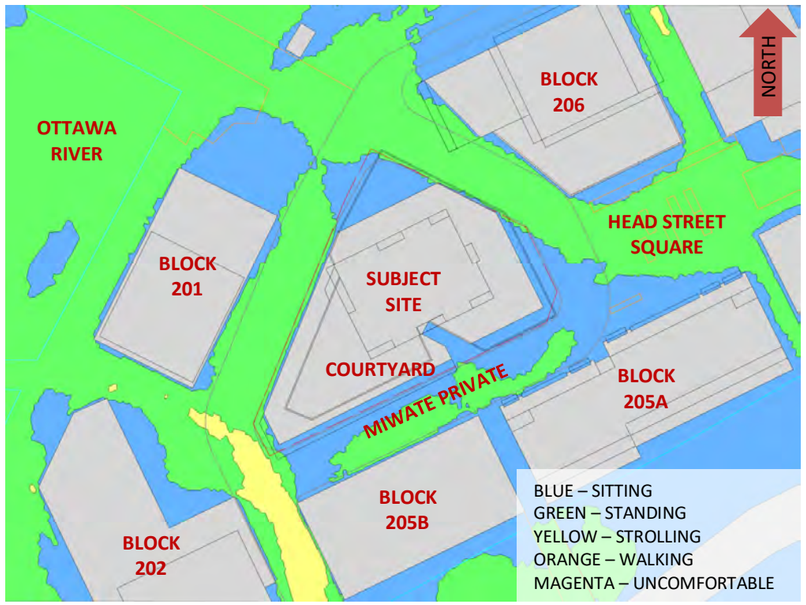


FIGURE 5A: AUTUMN – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

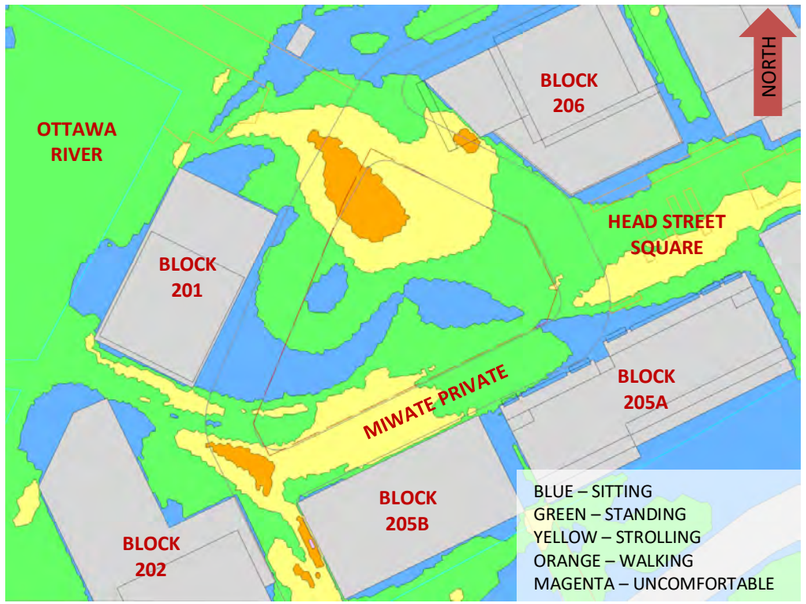


FIGURE 5B: AUTUMN – WIND COMFORT, GRADE LEVEL– EXISTING MASSING

GRADIENTWIND
ENGINEERS & SCIENTISTS

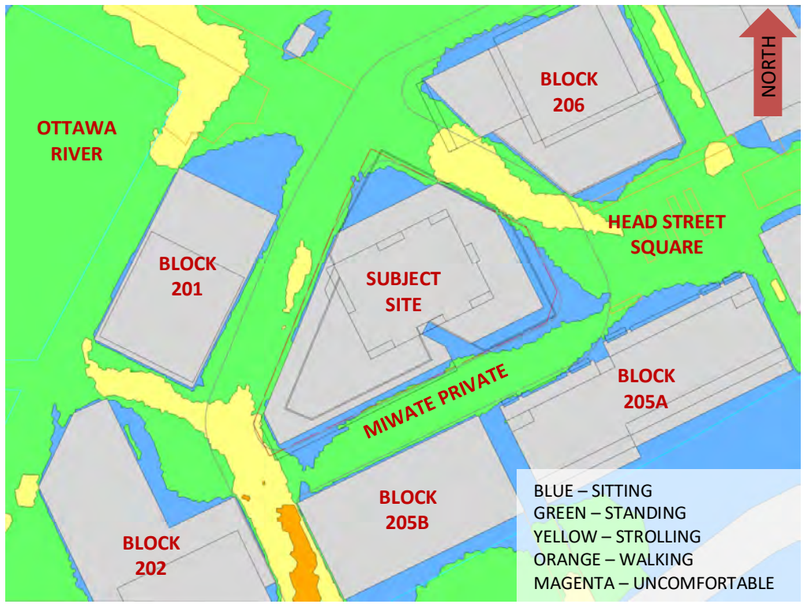


FIGURE 6A: WINTER – WIND COMFORT, GRADE LEVEL – PROPOSED MASSING

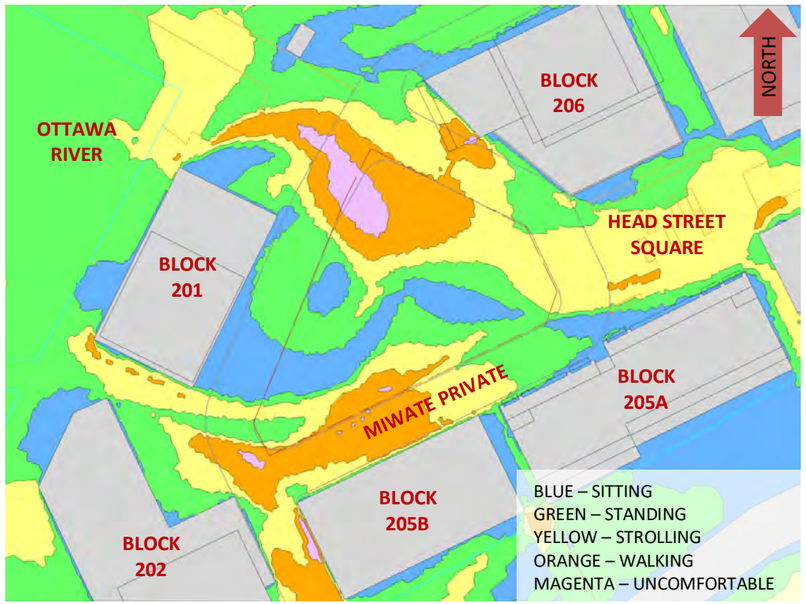


FIGURE 6B: WINTER – WIND COMFORT, GRADE LEVEL– EXISTING MASSING

PREPARED BY

NEUF
ARCHITECT(E)S