



**3362 - 3364 VANNESS AVE
3347 CLIVE AVE**

REZONING APPLICATION

MAY 31, 2022

INTRACORP 
Building the Extraordinary

 **Boniface
Oleksiuk
Politano
Architects**

LEGAL DESCRIPTION

LOT 4, BLK 154, PLAN 16378 AND STRATA PLAN
LMS992, D.L. 37

ADDRESS

3362 - 3384 VANNESS
3347 CLIVE AVE

OWNER

INTRACORP VANNESS LIMITED PARTNERSHIP
600 - 550 BURRARD ST,
VANCOUVER BC, V6C 2B5

ARCHITECT

BONIFACE OLEKSIUK POLITANO ARCHITECTS
180 - 510 NICOLA ST,
VANCOUVER BC, V6G 3J7

ENVELOPE/ENERGY MODEL

BC BUILDING SCIENCE
611 BENT COURT,
NEW WESTMINSTER BC, V3M 1V3

STRUCTURAL

GLOTMAN SIMPSON
1661 WEST 5TH AVENUE,
VANCOUVER, BC V6J 1N5

MECHANICAL

REINBOLD ENGINEERING
400, 1580 WEST BROADWAY
VANCOUVER, BC V6J 5K8

ELECTRICAL

NEMETZ AND ASSOCIATES
2009 WEST 4TH AVENUE
VANCOUVER, BC V6J 1N3

LANDSCAPE

DURANTE KREUK
102 - 1637 WEST 5TH AVENUE
VANCOUVER BC V6J 1N5

CIVIL

APLIN & MARTIN CONSULTANTS LTD.
201-12448 82ND AVENUE
SURREY, BC V3W 3E9

0.1 TABLE OF CONTENTS

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1 INTRODUCTION

- 1.1 REZONING INTENT
- 1.2 REZONING RATIONALE
- 1.2 SITE LOCATION AND CONTEXT
- 1.3 EXISTING STREETScape
- 1.4 CONTEXT PHOTOS

2 DESIGN RATIONALE

- 2.1 POLICY RESPONSE
- 2.2 HEIGHT INTERPRETATION
- 2.3 ARCHITECTURAL EXPRESSION
- 2.3 ARCHITECTURAL EXPRESSION CONT'D
- 2.4 PUBLIC REALM - ART AND COLOUR
- 2.5 PUBLIC REALM - PEDESTRIAN MOVEMENT
- 2.6 ROOFTOP AND AMENITIES
- 2.8 3D VIEWS
- 2.9 SHADOW STUDIES

3 SUSTAINABILITY MEASURES

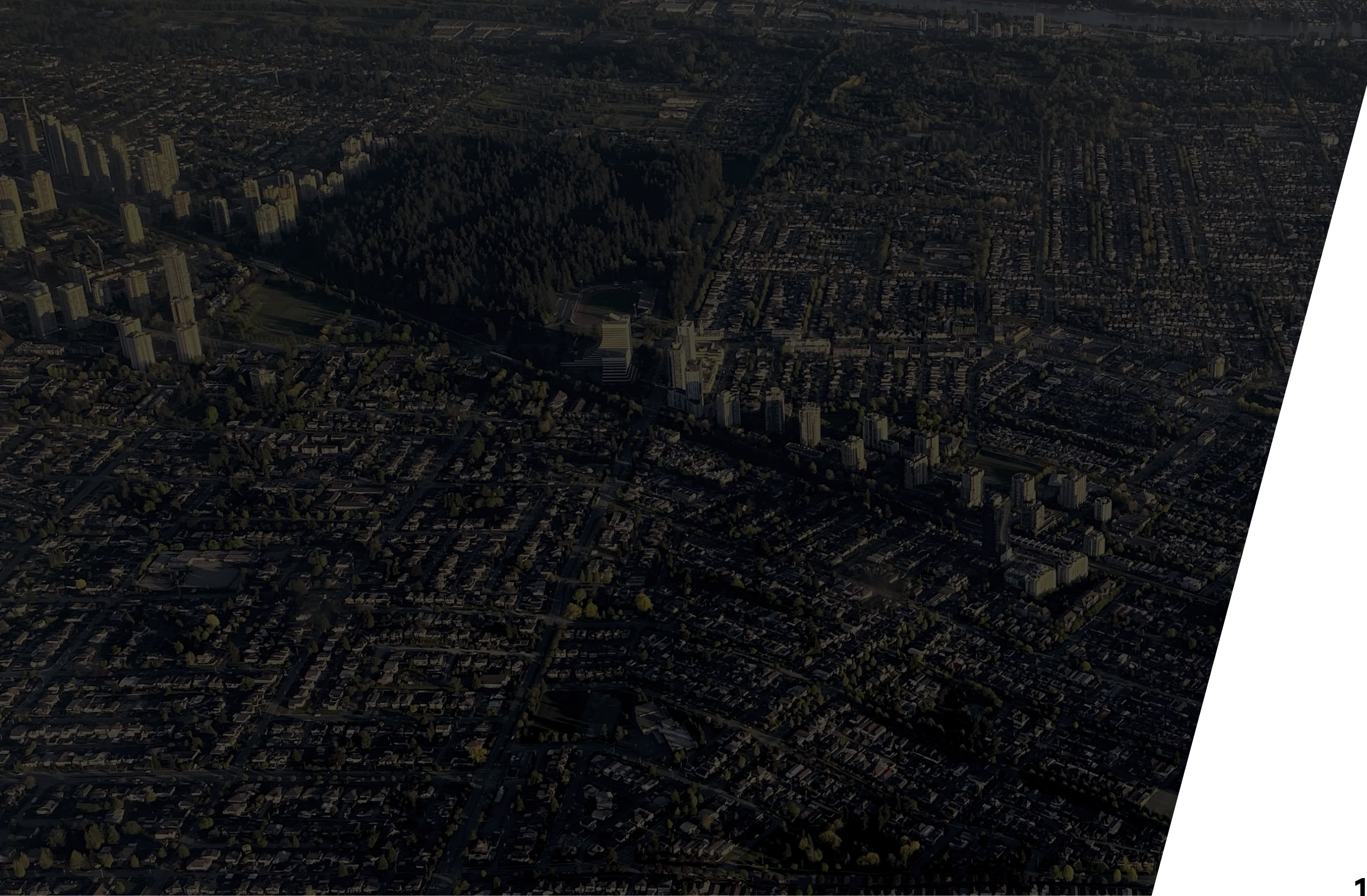
- 3.1 ENERGY MODEL
- 3.1 ENERGY MODEL CONT'D
- 3.2 EMBODIED CARBON
- 3.3 ZEBP CHECKLIST
- 3.4 INTEGRATED RAINWATER MANAGEMENT

4 DRAWING PACKAGE

- 4.1 BUILDING GRADES 32
- 4.2 SURVEY PLAN 33
- 4.3 PROJECT DATA 34
- 4.4 CONTEXT PLAN 36
- 4.5 SITE PLAN 37
- 4.6 FLOOR PLANS 38
- 4.6 ELEVATIONS 52
- 4.7 SECTIONS 55

5 LANDSCAPE DESIGN

- 5.1 LANDSCAPE PLANS 60



INTRODUCTION

1.1 REZONING INTENT

Proposal Summary

The existing site, which covers an area of 38,346sf, is comprised of several existing buildings located at the addresses of 3347 Clive Avenue & 3362-3384 Vanness Avenue.

3347 Clive is improved by a single-family detached home and 3362-3384 Vanness Avenue is improved by a 12 Storey mid-rise concrete tower, with 4 CRU's at grade and 8 townhomes.

The Vanness property was deemed "unlikely to redevelop" in the plan, because the existing 12 storey midrise was relatively new. However due to poor construction practices in the 90s and BC Building code policies at the time, the property is near the end of its economic life. The 63 existing residential strata lot owners and 3 commercial strata lot owners are burdened with a building envelope issue that has been deemed a potential life-safety threat by the City of Vancouver, resulting in and Unsafe Order issued

1.2 REZONING RATIONALE

The zoning for the current site is a combination of two CD-1 districts (218 + 201) that allow for the form of development currently present on site. The site was not deemed 'unlikely to develop' within the more recent Joyce-Collingwood Precinct Plan, so the provisions applied to similar transit adjacent sites were not extended to this site. The proposed rezoning brings the heights and densities in line with those of the sites identified for new towers nearest to the transit station. The proposal helps to deliver the Precinct Plan's aspirations to create compact, walkable development around the SkyTrain station; a more vibrant local shopping street along Vanness; a more connected neighbourhood by incorporating a mid-block connection integral to the public realm around the building; and significant new housing opportunities including family housing.

on October 7, 2019. With no insurance proceeds available to rectify this issue, the strata's only other recourse is to sell the property for redevelopment. If unable to redevelop, residents are expected to face a \$75,000 to \$100,000 per unit building assessment.

Intracorp is proposing a purpose built rental building with ground-oriented CRUs and a 500 m² private daycare. The proposal contemplates a percentage of below market rental pegged to a discount to the CMHC City-Wide average market rents. The percentage of below market will be determined through a CAC negotiation with Real Estate. We understand the City-Wide 20% below market affordability requirement, but due to lower rents in this neighbourhood, the 20% metric will over burden the economics for projects on the East Side while disproportionately benefiting properties downtown and west of Granville.

PROPOSED VARIANCES:

HEIGHT: from 120' to approximately 300' in line with the Plan's target. 189.5m max. Proposed = 193.3m. Additional height for shared amenity and mechanical space only.

DENSITY: from 3.5 FSR to 11.48 FSR proposed. 100% Secured rental.

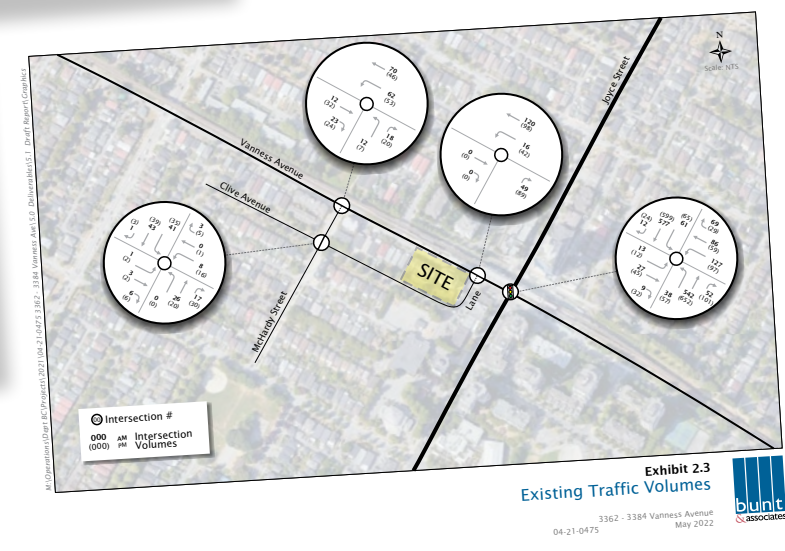
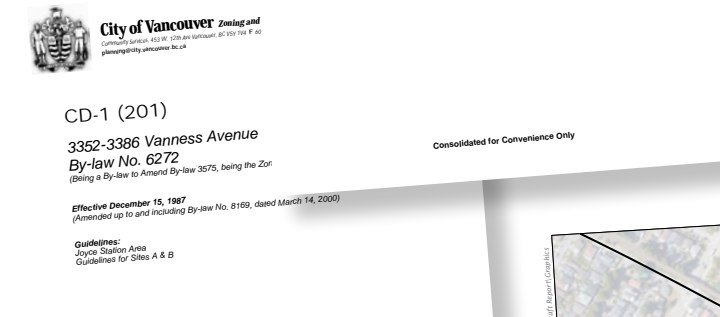
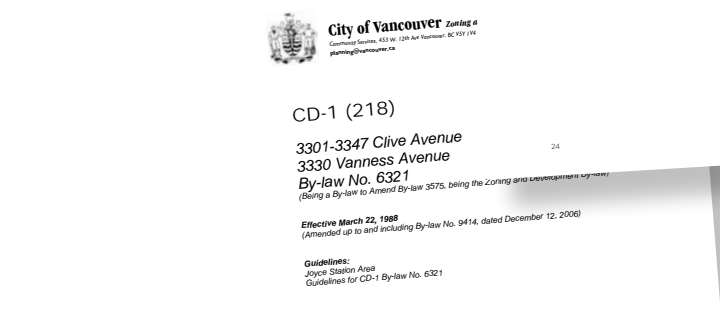
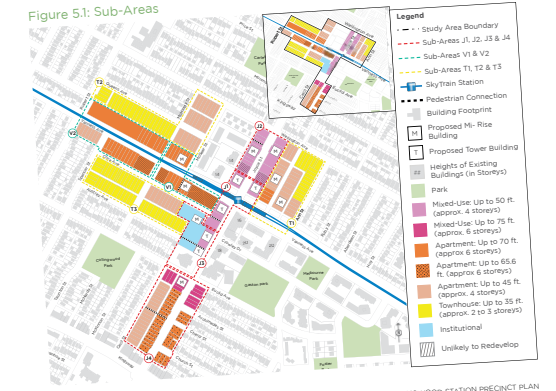
TOWER FLOORPLATE: from 80'x80' to 80'x85'. Tower separation of 80' maintained.

PARKING AND LOADING: Variances to quantity of vehicle parking and Class B loading stalls. Refer to Transportation Assessment and Management Study and TDM plan provided for details.

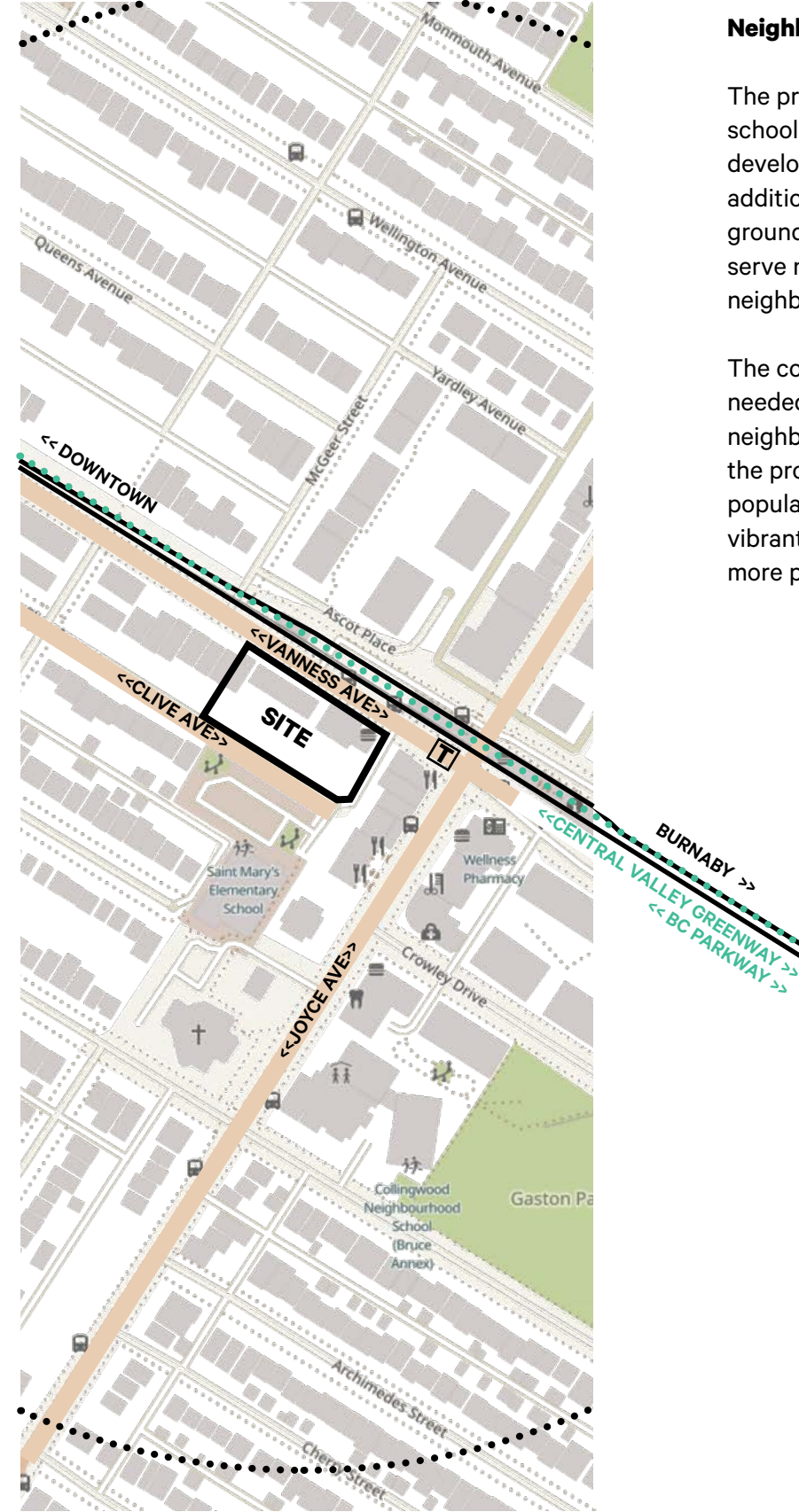
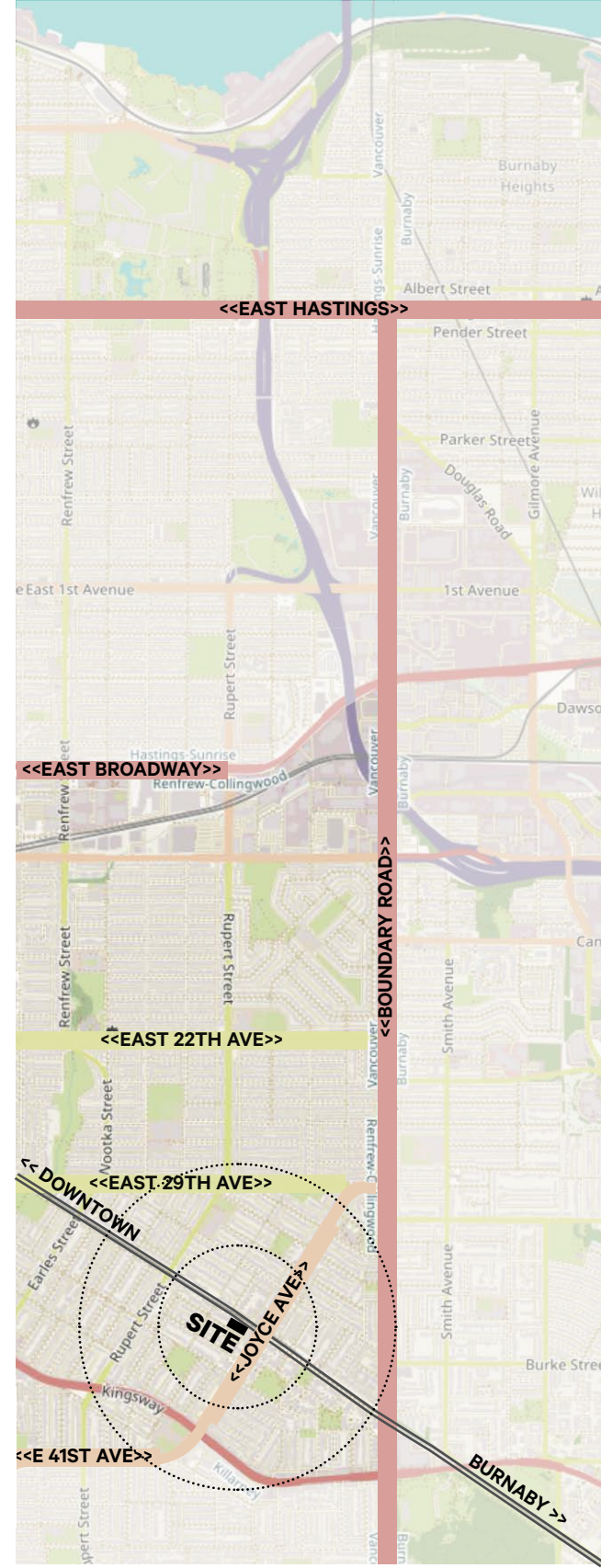
The form of development contemplates two residential towers, one at 34-storeys tall on the East end of the site, and the other at 31-storeys on the West. The towers are interconnected by a ±60 ft podium.

5 SUB-AREA POLICIES

This section provides information on the land use, building types and building heights proposed for each of the sub-areas. Detailed design guidelines are provided in Section 8.



1.2 SITE LOCATION AND CONTEXT



Neighbourhood Context

The project is located in an area that is served by park school and commercial facilities already, and the proposed development will reinforce the neighbourhood by creating additional access to shops and childcare located on the ground level of our development. The retail units will serve not only the residences in our project but also the neighborhood.

The combination of increased rental housing, much-needed childcare and convenient retail space linked to the neighbourhood through enhanced public realm features of the project will meet the needs of a growing and diverse population. These features will create a more active and vibrant local shopping street along Van Ness and foster a more physically and socially connected neighbourhood.

Site Along Transit

The site (3362 - 3364 Van Ness Ave, 3347 Clive Ave) falls within the Joyce - Collingwood sub area of Renfrew - Collingwood Neighbourhood. The site sits next to Joyce - Collingwood SkyTrain Station is connected to downtown Vancouver and New Westminster through the SkyTrain Expo Line. Since the 1990s, City of Vancouver, developers and the neighbourhood have been working cooperatively to create a transit-supportive, compact, increased - density, mixed-use community.

An expanded bus loop connected to the SkyTrain station provides additional space for buses including a new rapid bus to UBC. It also connects the BC Parkway across Joyce Street, completing a safer, more comfortable walking cycling pathway through the neighbourhood.

A Growing Community

The surrounding area is a growing community, but like the entire region, faced with housing challenges. Providing housing options for households of all income levels is critical to the social and economic health of the community. The Joyce - Collingwood Precinct Plan encourages the creation of a wide range of housing types to meet the diverse needs of the population.

The area has seen significant growth within recent years, with high - density residential tower developments constructed and planned surrounding the station.

Joyce Street today provides a limited range of small shops, restaurants and services for nearby residents and transit users. The irregular land-use mix combined with large setbacks from the street results in a weak commercial street frontage. The Community identified the desire for a broader range of shops and services to meet the needs of a growing and diverse population.

1.3 EXISTING STREETScape



EXISTING VANNESS AVE STREETScape

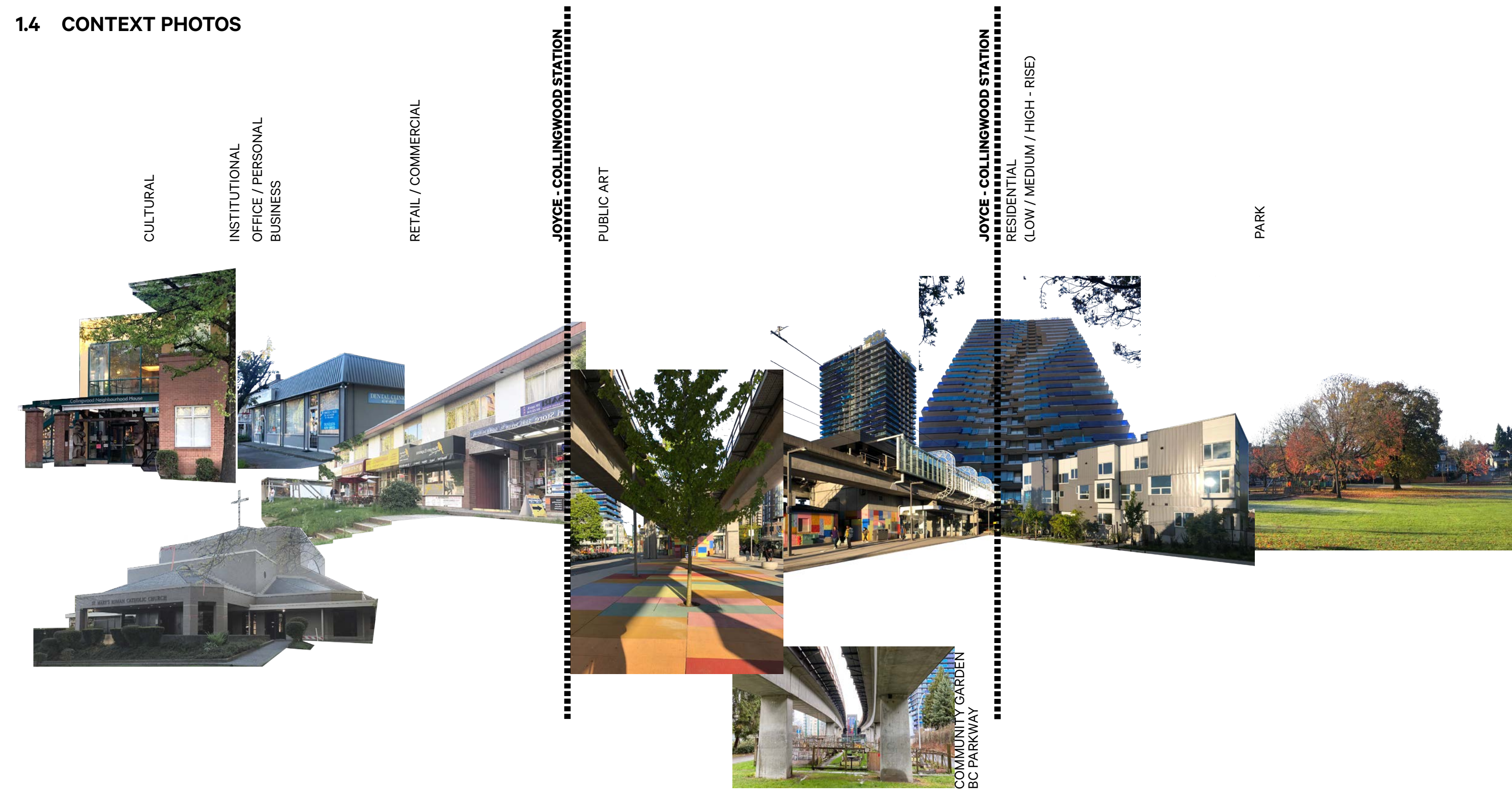


EXISTING CLIVE AVE STREETScape



VIEW OF SITE FROM 5058 JOYCE TOWER

1.4 CONTEXT PHOTOS



2 DESIGN RATIONALE

2.1 POLICY RESPONSE

EXISTING SITE CONDITIONS

Constructed in 1993, 3362-3384 Vanness Avenue is currently a strata condo containing 63 strata lots with 4 CRU's at grade and 8 townhomes. 3347 Clive is currently a single family home constructed in 1976. The age of the both buildings do not qualify as heritage homes and both buildings will not be retained. Our proposed development will comply with the Tenant Relocation and Protection Policy

HOUSING

This project will deliver 100% secured rental units with 35% family housing. A below market rental component will be determined through negotiations with the City's Real Estate Department. The below market rents will be pegged to a discount to the CMHC City-wide average rents.

-The proposal supports the shift to the right supply of housing, with strong emphasis on rental housing: it proposes approximately 679 rental secured rental suites within close proximity to public transit.

JOBS AND ECONOMY

The project contains ground oriented CRU space which will generate job space opportunities. The proposed childcare facility is an important workforce support as well as an employer.

The proposal helps address key challenges such as access to childcare, access to transportation options and access to housing options that are identified as supports to the workforce and economy.

This project will also create hundreds of well paying construction jobs in the City of Vancouver for several years and significantly increase the tax base for this property, providing additional revenues for the City in perpetuity.

Pre-pandemic statistics (Statistics Canada, 2016 Census) indicated that there are about 31,215 people working from home in the city of Vancouver across 20 economic sectors. This represents about 7.3% of all jobs in the

city. The COVID-19 (Coronavirus) pandemic has been an unprecedented shock to the world, with many organizations shifting to having their staff work remotely on very short notice. As of May 25, 2020, 30% of people in BC work remotely, compared to just 7% prior to the pandemic. Source: Robert Half, COVID-19 and the Workplace, April 30, 2020, Leger Weekly Pandemic Tracker, May 25, 2020

CITY-SERVING AMENITY

The project will provide a 37 space daycare to the community. Furthermore, we estimate a Public Art contribution of \$700k and a DCL of approximately \$14.9M.

ENERGY AND GREENHOUSE GASES

The project is in an area well serviced by transit being located mere steps from the Joyce-Collingwood Skytrain station.

Provision of extensive bicycle facilities (secure storage with dedicated elevator, charging, maintenance and end-of-trip facilities) and location on the BC Parkway Greenway system serves to encourage cycling trips; a mid-block connection is also proposed on the west edge of the project to help better link pedestrian connections within the neighbourhood.

A Traffic Demand Management plan is proposed to reduce the number of cars in our development and promote more sustainable modes of transportation.

The project will comply with the City's Green Buildings Policy For Rezoning.

ECOLOGY

The project maintains approx. 40% open space at grade and includes significant landscaped areas including a pedestrian link between Clive Ave. and Vanness Ave and a large outdoor play area for the childcare facility. Rooftops are used for common amenity spaces including urban agriculture and green roof space.

NEIGHBOURHOODS

The project is located in an area that is served by park school and commercial facilities already, and the proposed development will reinforce the neighbourhood by creating additional access to shops and childcare located on the ground level of our development. The retail units will serve not only the residences in our project but also the neighborhood.

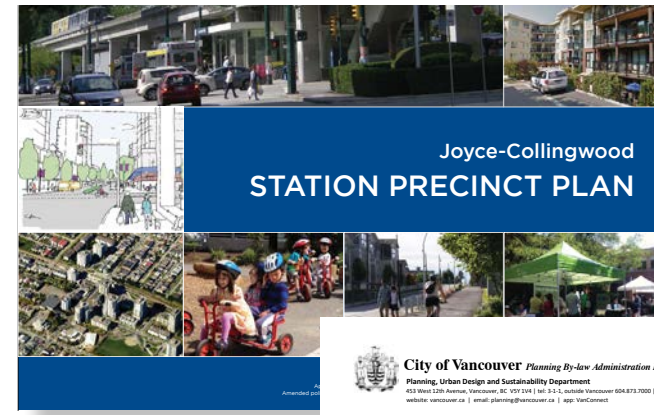
The combination of increased rental housing, much-needed childcare and convenient retail space linked to the neighbourhood through enhanced public realm features of the project will meet the needs of a growing and diverse population. These features will create a more active and vibrant local shopping street along Vanness and foster a more physically and socially connected neighbourhood.

MUNICIPAL INFRASTRUCTURE

Aplin & Martin Consultants Ltd. (Aplin Martin) has been retained by Intracorp Projects Ltd., to undertake the preliminary site servicing analysis and for any foreseeable offsite upgrades of water, storm, and sanitary services; road and other surface works; and the approximate cost associated with the potential upgrades. As this analysis is based on current knowledge and information, it is important to understand that this strategy should adapt over time with any new knowledge and information obtained in the future.

Included with the application is a rainwater management plan and a TAMs report.

The proposal supports sustainable modes of transportation through its onsite cycling facilities, access to cycling infrastructure and improvements to the pedestrian realm and access to public transit.



Joyce-Collingwood STATION PRECINCT PLAN

City of Vancouver Planning & Urban Administration Building Planning, Urban Design and Sustainability Department
GREEN BUILDINGS POLICY FOR REZONING - PROCESS AND REQUIREMENTS
Formerly Green Neighbourhood Process
Authored: Director of Planning
Reviewed: July 2014 and 2015
Amended: June 2014, June 8, 2015, January 14, 2016, April 28, 2017 and June 14, 2019
Applies to rezoning applications after April 28, 2017

Guidelines

Childcare Design Guidelines
Approved by Council February 4, 1993
Last amended December 10, 2010, September 10, 2020 and January 10, 2021

City of Vancouver Land Use and Development Policy and Guidelines

HIGH-DENSITY HOUSING FOR FAMILIES WITH CHILDREN GUIDELINES

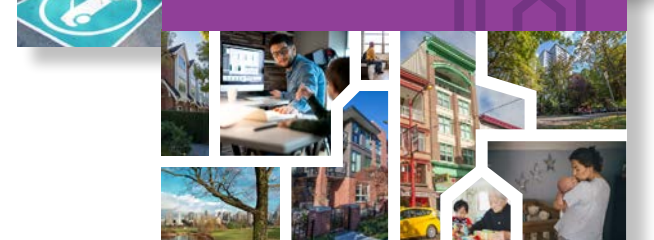
Approved by City Council on March 24, 1992
Revised on September 10, 2020



Transportation 2040



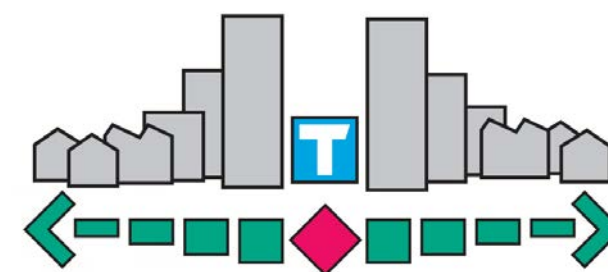
HOUSING VANCOUVER STRATEGY



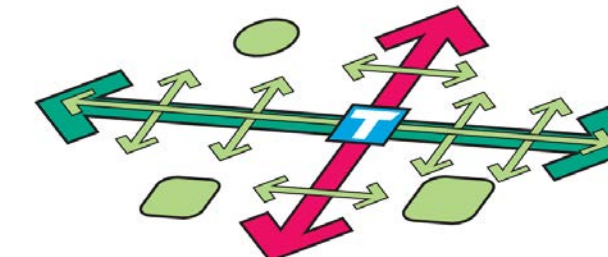
Joyce - Collingwood Station Precinct Plan includes a summary of aspirations and future directions for the district.

Aspirations: Key Ideas

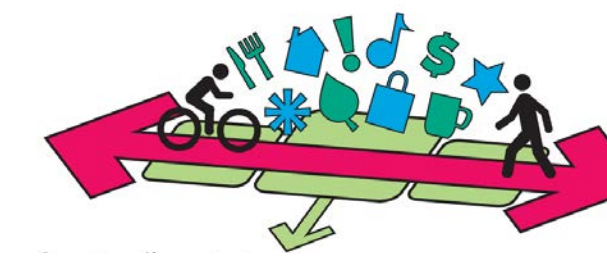
(Joyce - Collingwood Station Precinct Plan)



Transition Heights From Transit
(Joyce - Collingwood Station Precinct Plan)



Increase Neighbourhood Connectivity
(Joyce - Collingwood Station Precinct Plan)



Create Vibrant Streets
(Joyce - Collingwood Station Precinct Plan)

Aspirations: Future Planning + Development

(Joyce - Collingwood Station Precinct Plan)

Create more compact, mixed-use and walkable development around the SkyTrain station

This Proposal

Includes high-density towers, ground - level retails, daycare centre within walking distance of Joyce - Collingwood SkyTrain Station.

Create a more active, vibrant local shopping street

This Proposal

Includes ground level retail along Vanness Ave.
Allows for significant setback along Vanness Ave. frontage to create urban room for the community.

Create a more physically and socially connected neighbourhood with opportunities for improved public life

This Proposal

Draws inspiration from SkyTrain public art and integrates it into architectural and landscape design.
Provides mid-block connection between Vanness frontage to Clive Ave.

Improve access to transit

This Proposal

Is located immediately adjacent to the Joyce-Collingwood SkyTrain station transit node and places density with supporting retail and daycare facilities within steps of the SkyTrain station and bus loop.
The proposed mid-block connection improves pedestrian connectivity to and from the station into the neighbourhood to the south.

Create more opportunities for housing including family housing

This Proposal

Provides 100% secured rental units with 35% family units.

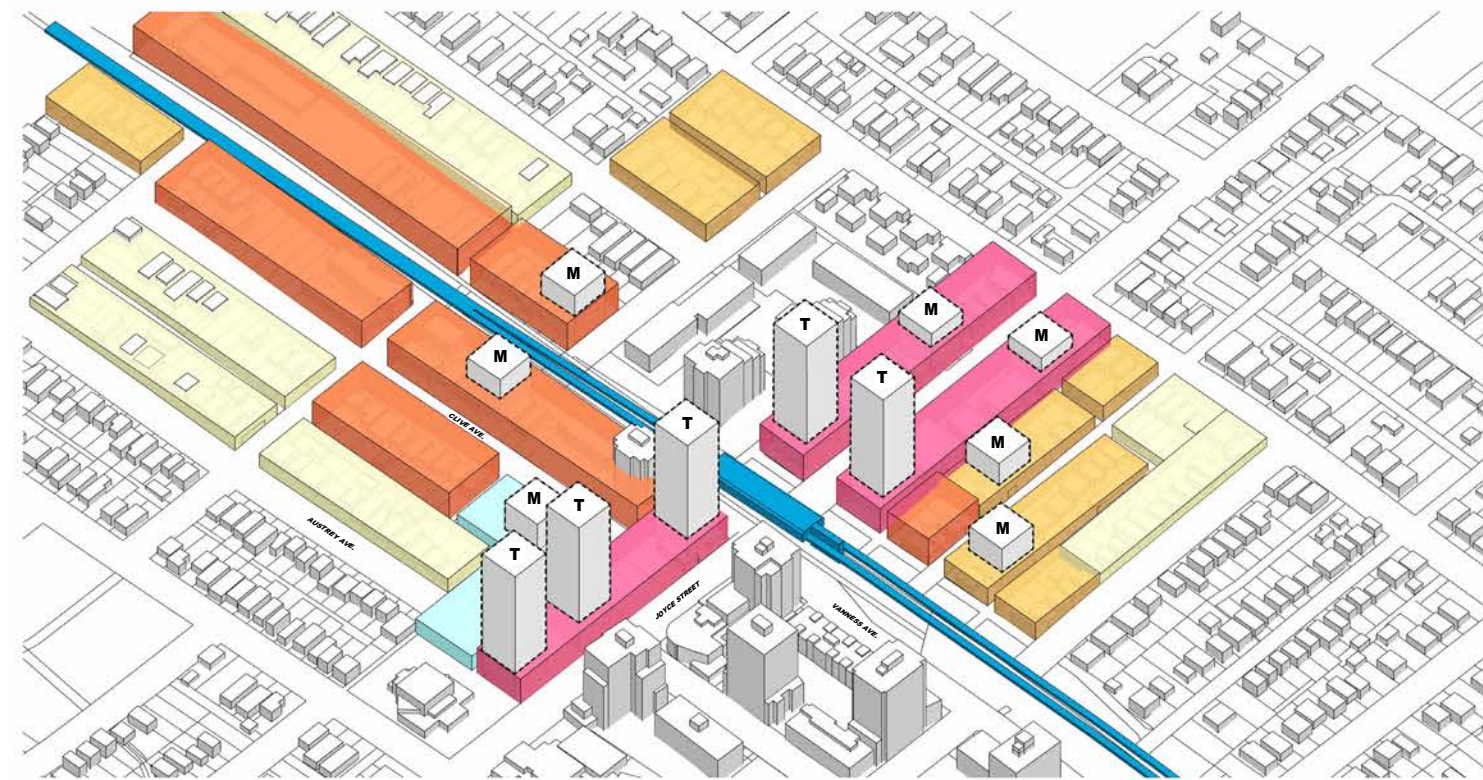
Prioritize neighbourhood needs to respond to growth

This Proposal

Includes a 37-space daycare centre
Maximizes opportunities to reduce greenhouse gases emissions as outlined in the subsequent section on the Low Emissions Green Buildings
Enhances air and water quality through landscape design and rainwater management.
Provides amenity and outdoor common spaces for residents.

2.2 HEIGHT INTERPRETATION

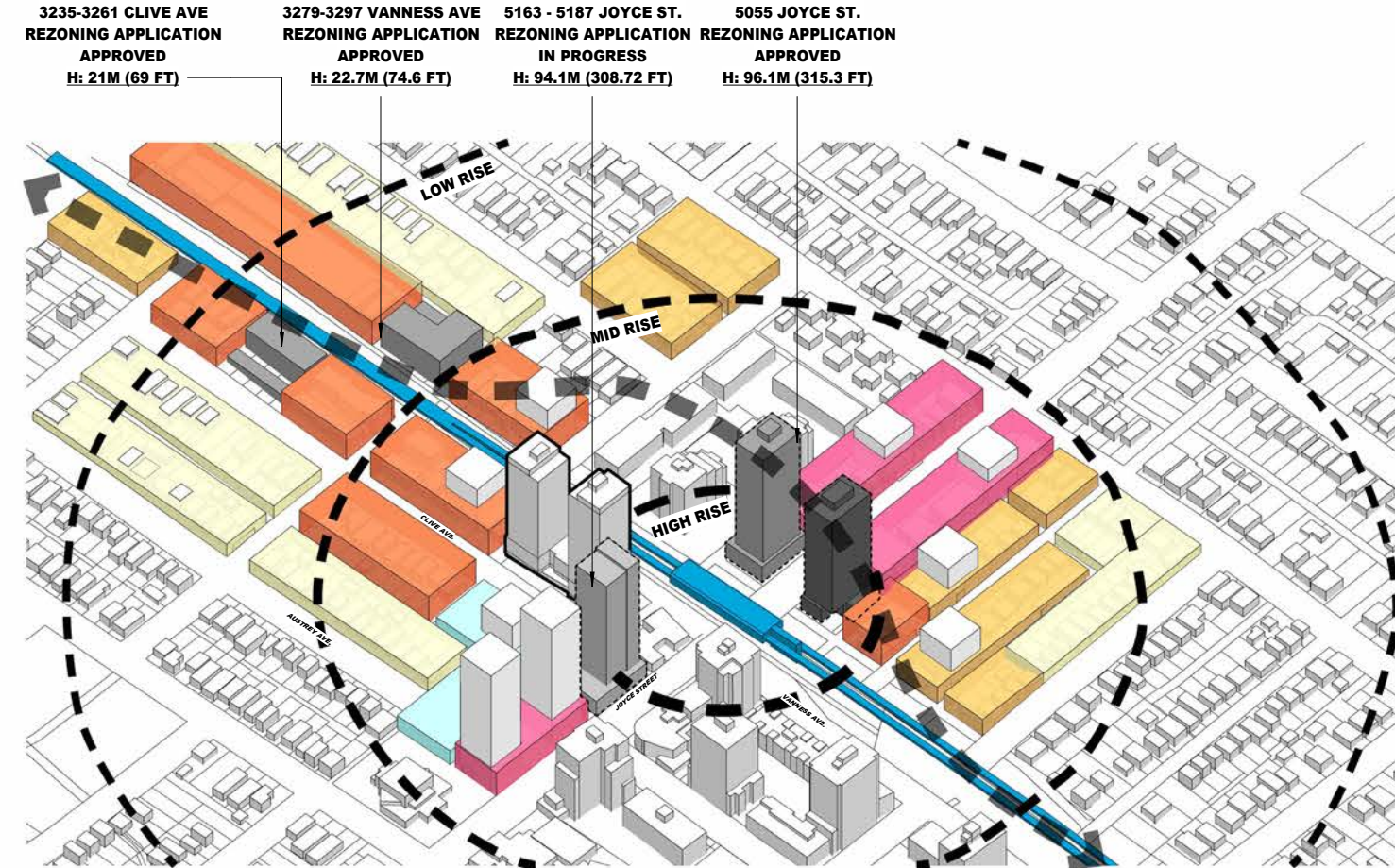
The JC Station Precinct Plan seeks to use the scale of buildings around the station to clearly mark the entry point to Collingwood Village and transition building height from highest adjacent to the station itself and reducing as distance increases. The two stepped towers proposed follow this pattern while providing transit-oriented, secured rental housing at this gateway site.



SUB-AREA POLICIES

3D REPRESENTATION OF JOYCE-COLLINGWOOD STATION PRECINCT PLAN BASED ON FIGURE 5.1, SECTION 5 SUB-AREA POLICIES

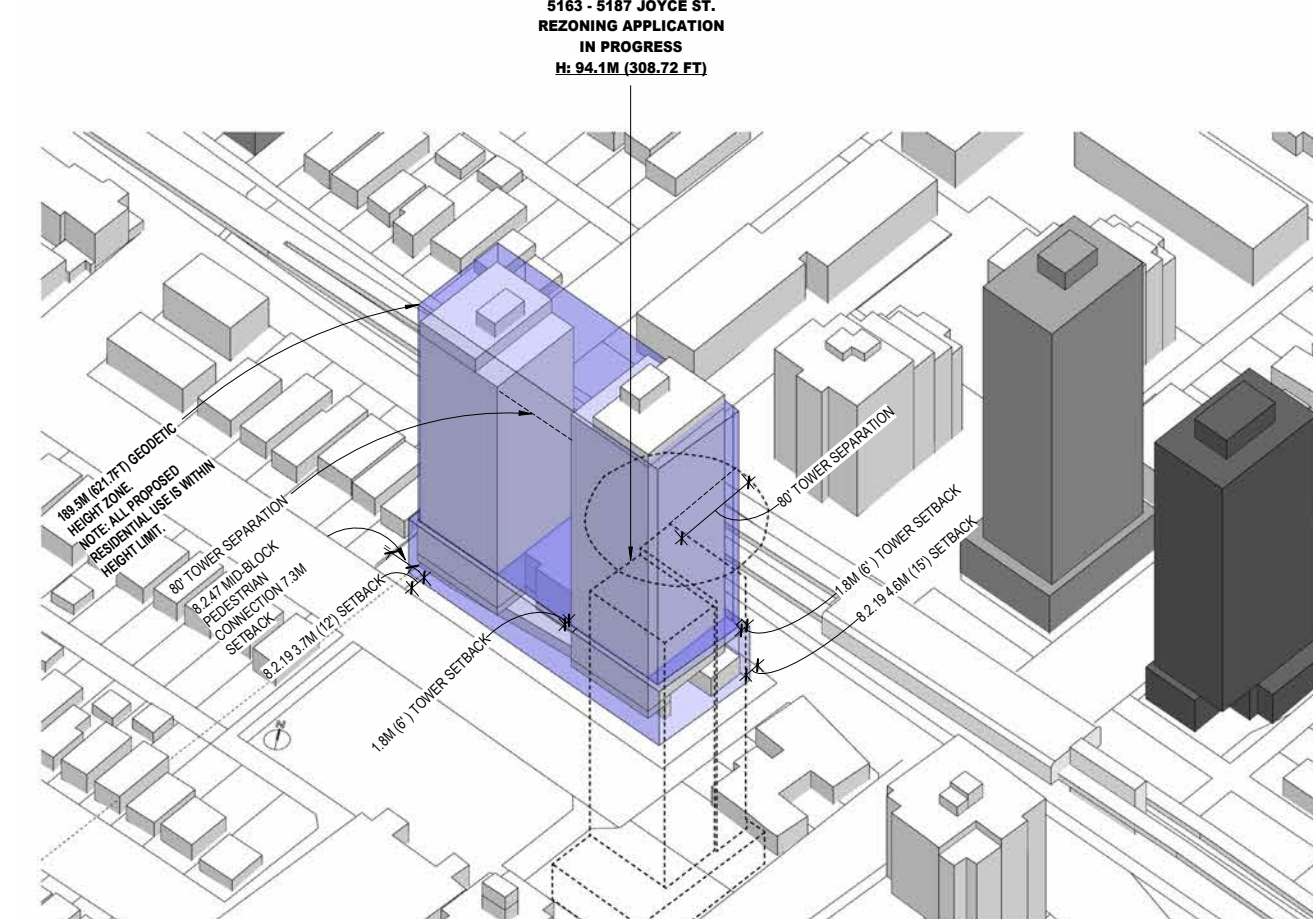
- T PROPOSED MID-RISE BUILDING
- M PROPOSED TOWER BUILDING
- MIXED-USE: UP TO 50FT. (APPROX. 6 STOREYS)
- APARTMENT: UP TO 70FT. (APPROX. 6 STOREYS)
- APARTMENT: UP TO 45FT. (APPROX. 4 STOREYS)
- TOWNHOUSE: UP TO 35FT. (APPROX. 2 TO 3 STOREYS)
- INSTITUTIONAL



HEIGHT TRANSITION

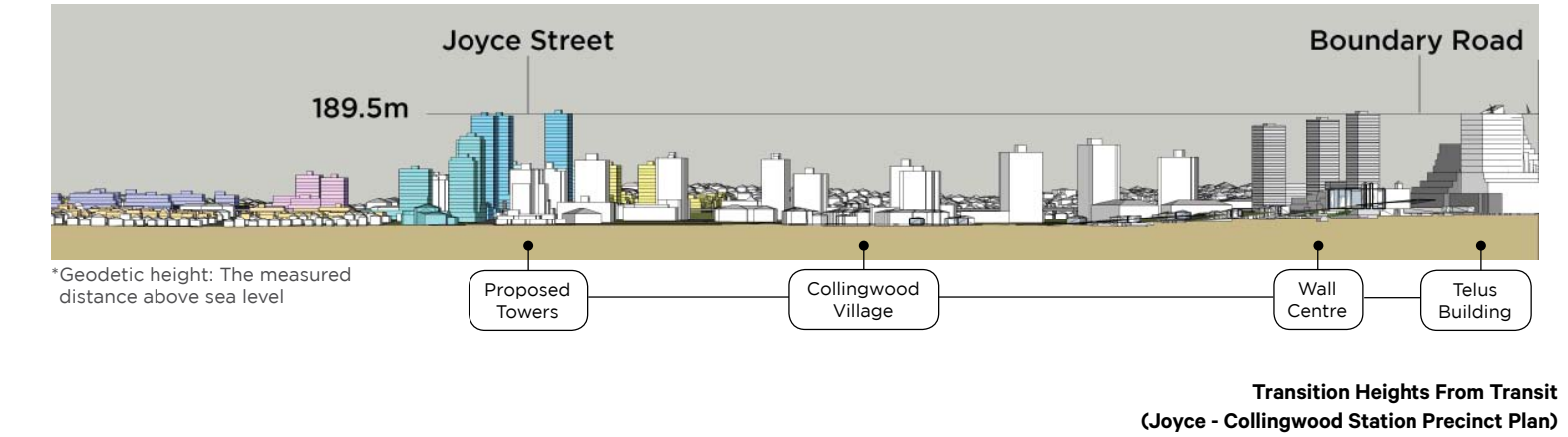
3D REPRESENTATION OF JOYCE-COLLINGWOOD STATION PRECINCT PLAN BASED ON FIGURE 3.2, SECTION 3.2 TRANSIT AS A FOCUS

"A BASIC PREMISE OF TRANSIT-ORIENTED DEVELOPMENT IS THAT DENSITY IS BEST LOCATED IN CLOSE PROXIMITY TO A TRANSIT STATION. AS PART OF THE STATION PRECINCT REVIEW, DENSITY WAS TESTED WITH THE TALLEST BUILDINGS AT THE STATION AND TRANSITIONING DOWN IN ALL DIRECTIONS AWAY FROM THE STATION..."



MASSING STUDY

NOTE: ALL PROPOSED RESIDENTIAL USE (MARKET RENTAL) IS WITHIN THE 189.5M (621.7') GEODETIC HEIGHT LIMIT.



Transition Heights From Transit (Joyce - Collingwood Station Precinct Plan)

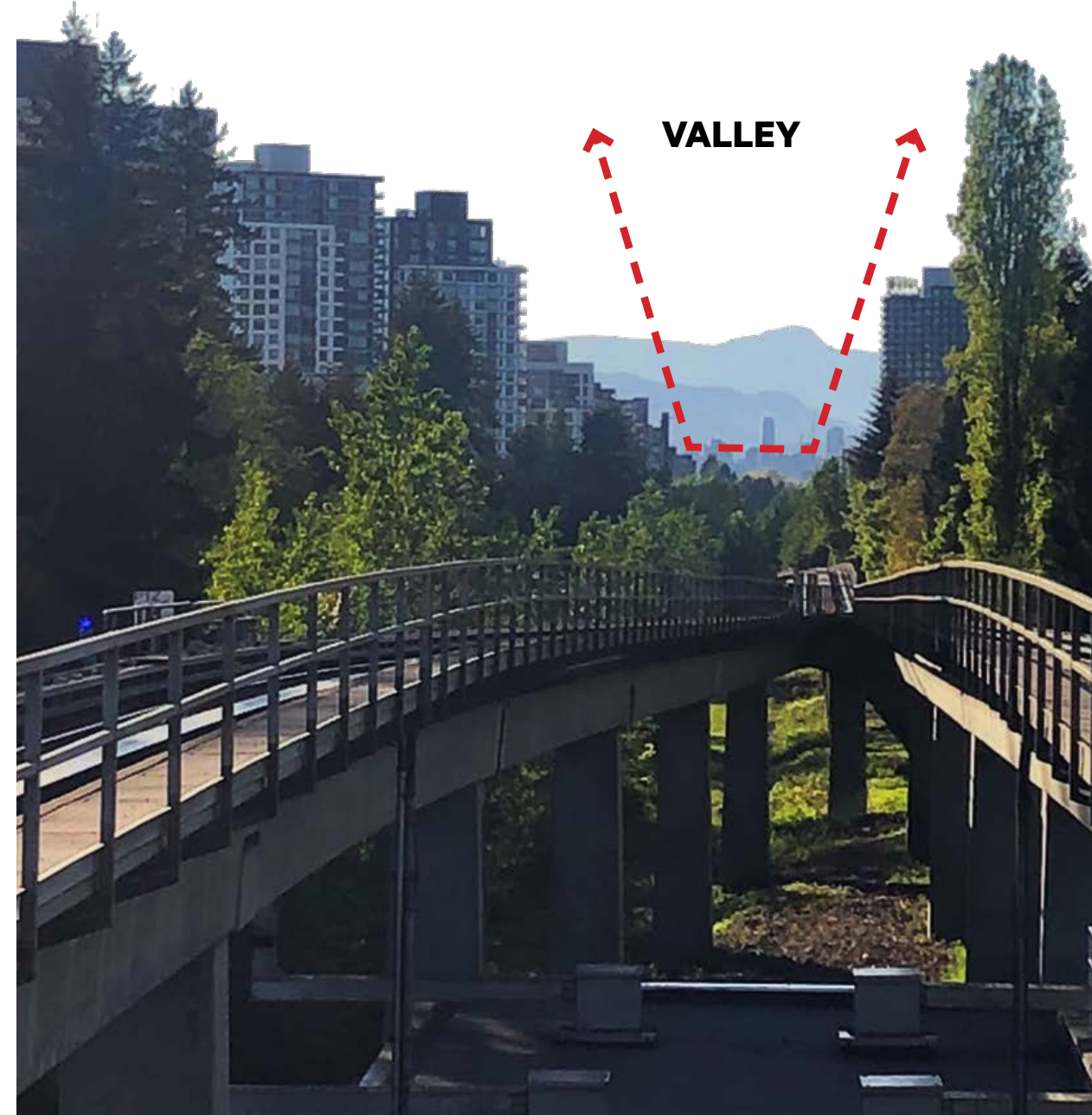
2.3 ARCHITECTURAL EXPRESSION

The architectural expression of the proposal draws on local features and landmarks to inform the massing and character of the new building.

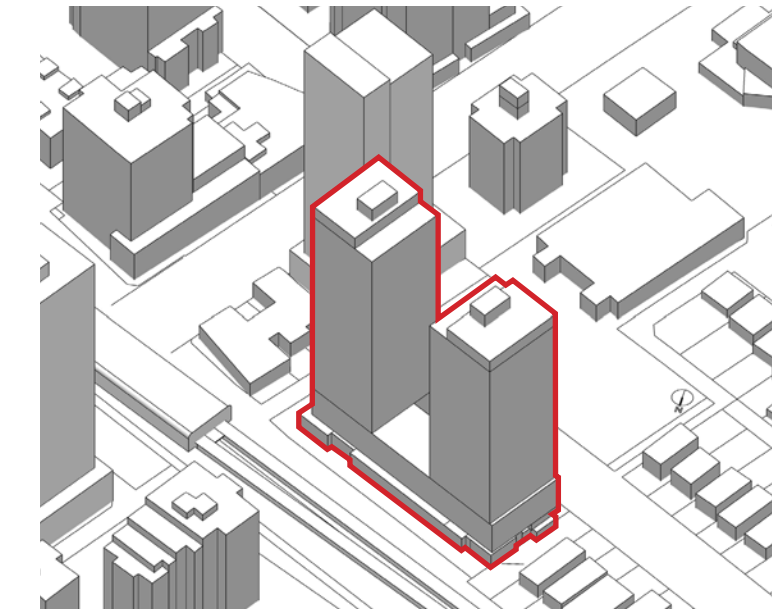
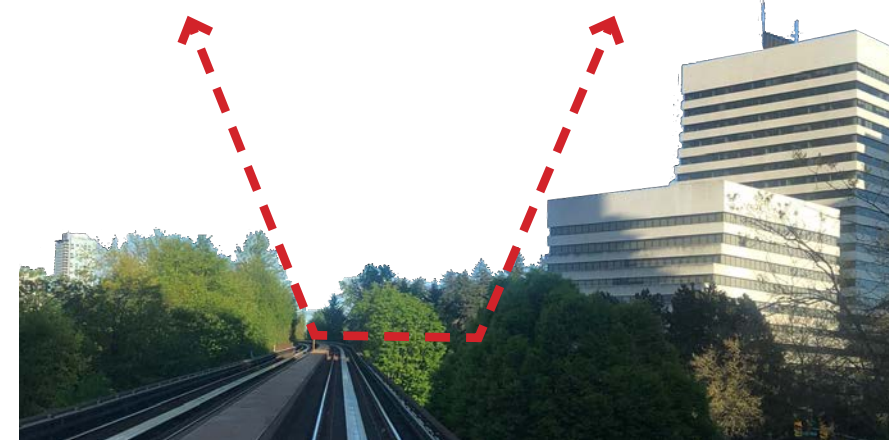
Vertical Massing:

A defining characteristic of the site is its location along the Expo Skytrain line that cuts an unusual valley through the city from downtown into Burnaby and beyond. The Central Valley Greenway that follows below and beside the guideway contributes to the distinctive V-shaped visual profile that splits the skyline of trees and buildings as it traverses the urban grid.

The twin-tower form of the proposal takes this tapered profile and applies it to the space between the towers to invoke the valley form opening to the sky and visually lightening as it rises. The valley bottom of both the Greenway and the lower levels of the project are populated by landscape, greenery, urban agriculture and public art. The taller portions of the two towers at the west and east edges bookend the site and lend to a varied roof-line. These outer edges present a more solid envelope to shield from low angle sun and improve insulation values over more typical glazed facades.



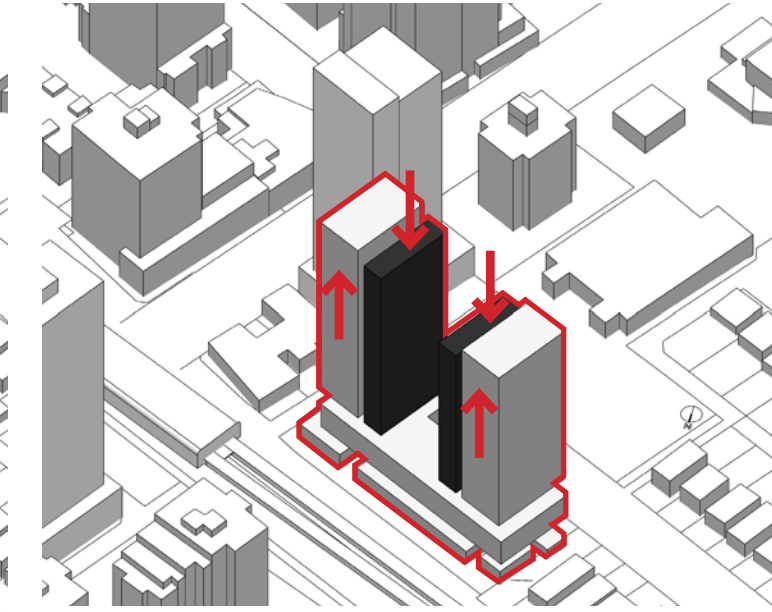
CENTRAL VALLEY GREENWAY



Base Massing

-Governed by tower separation between towers on and off site; a West side mid-block connection; tower floorplate guidelines; and 6-storey podium limit, the position of tower and massing of the building is determined by site and policy constraints.

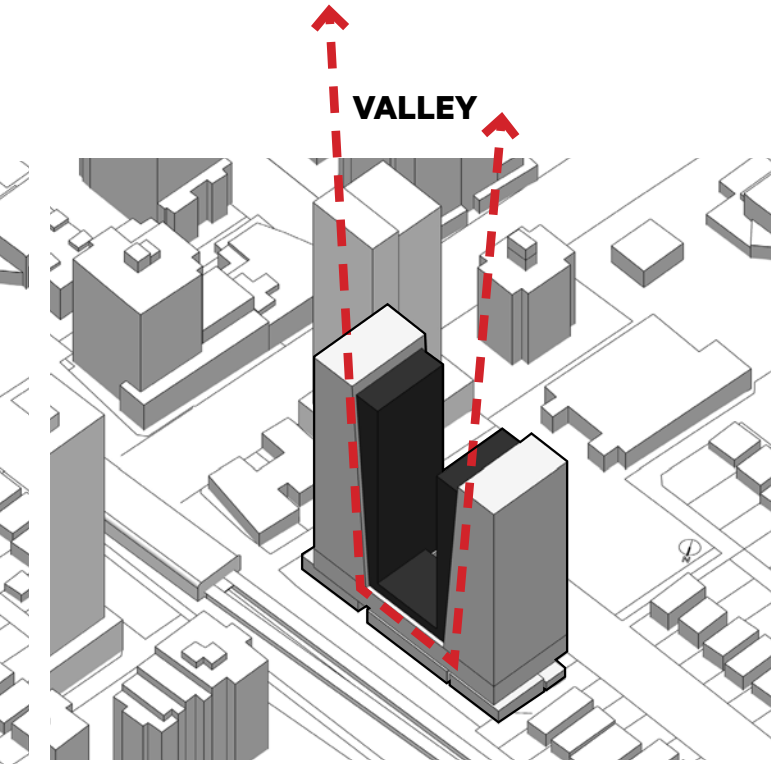
-Heights reduce from East to West with distance from the SkyTrain station.



Vertical Split

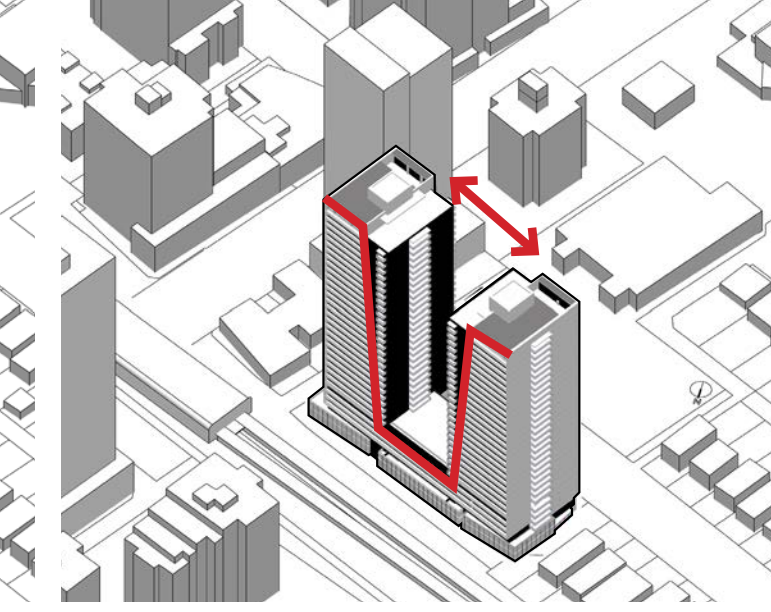
-Vertical break and contrasting colour/material improves visual slenderness of the towers

-Taller portions of towers frame the outer edges of the project and provide a varied roof-line



Tower Form Tapers Towards Top

-Narrowing towards the tower tops to create a varied roof profile and a lightening of visual mass as the building rises.



Visual separation

Tapered tower forms increase visual separation of the vertical massing while evoking the valley form of the SkyTrain guideway and Valley profile.

2.3 ARCHITECTURAL EXPRESSION CONT'D

Tower Expression:

Another source of local influence comes from the nearby Telus building identified within the Precinct Plan as the height-reference for all new development within the precinct. It presents a very recognizable architectural language of horizontal bands and a tapered profile -both of which are echoed in the proposed design.

Viewed from adjacent towers, and from the elevated station level, the overall silhouette of the design is perceptible. Bi-coloured privacy screens within the balconies along the north side present a changing experience for the observer in motion on a train.

East and west outer elevations of the two towers employ a metal panel system with punched windows to help control unwanted heat gain.

The overall window to wall ratio is kept low at approx. 40% to optimize energy efficiency of the envelope.

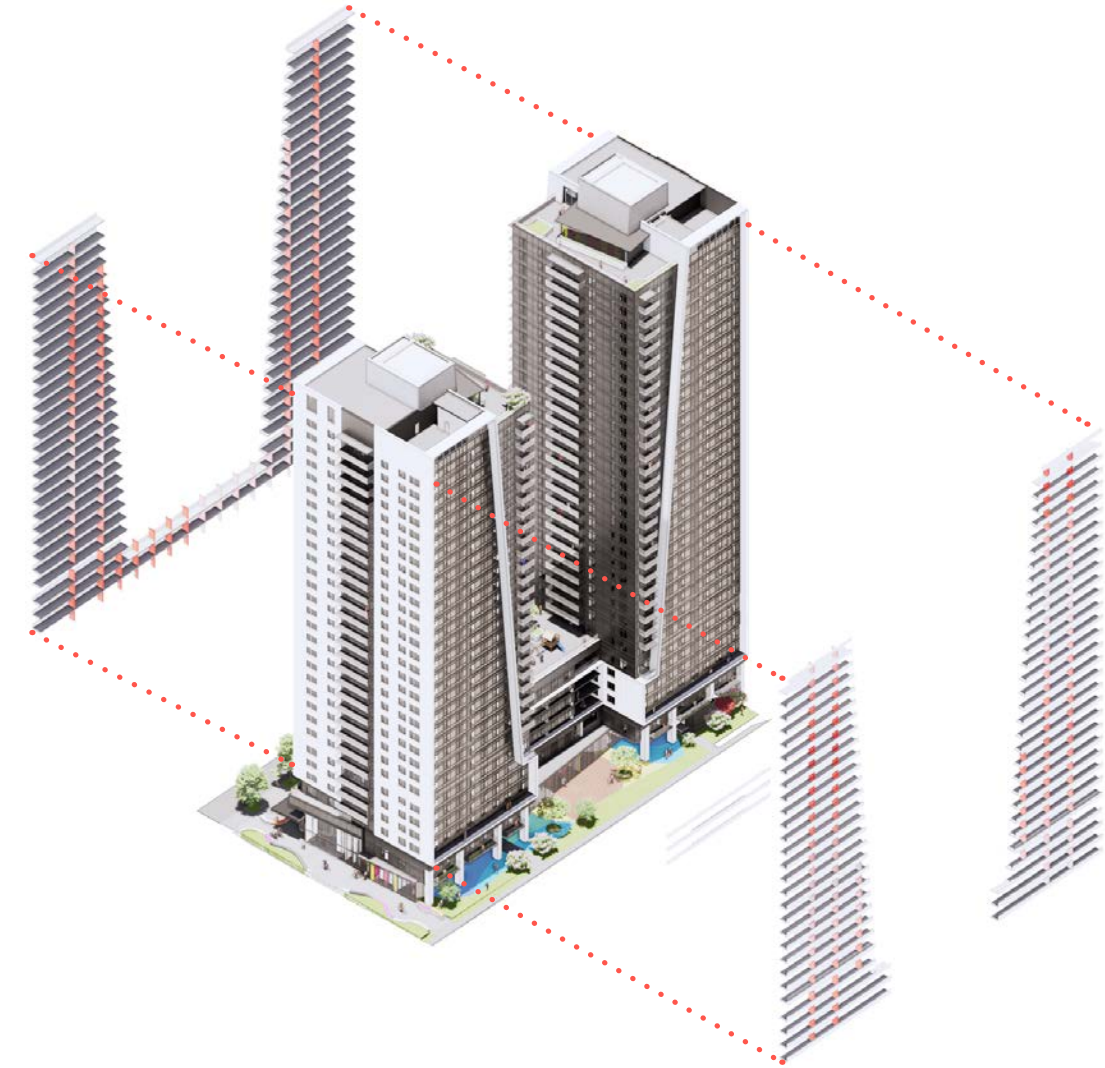
Long balcony bands on the south and north provide views and south shading in the summer.

Coloured privacy screens create a varied experience of the building depending on vantage point.



The height of towers under construction in Collingwood Village are regulated by the geodetic height of the most prominent building in the area - the Telus Office Building.

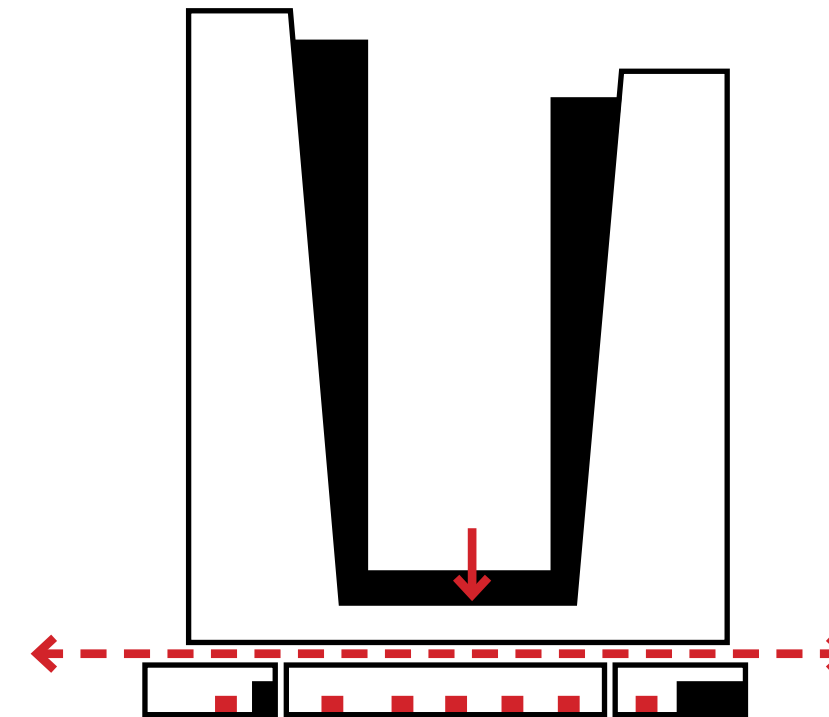
The proposal not only pays respect to the Telus building in terms of height, but recognizes and celebrates its unique architectural expression of the tapered building form and the distinctive black and white strips on the facade and strong vertical breaks.



Podium Expression:

The tapered upper portions of the towers are joined by a 6 storey podium element. The white bands of the north and south balconies and surrounding frame help to reduce the perceived height of the podium as it dives below the roof level and helps establish a defining horizontal split at level 2. This strong horizontal recess above the ground-level retail units along Vanness acknowledges the Skytrain track and station level.

Along Vanness, the retail facade is divided into 3 larger volumes that angle inward, guiding pedestrian movement around the base of the building. These larger volumes are further punctuated by inset entries for individual retail units and by the larger entry recesses of the residential lobbies facing Vanness. Continuous weather protection and a program of patterned paving, street furniture and planters help to animate and give scale, rhythm and amenity to the pedestrian realm.



ELEVATION DIAGRAM



2.4 PUBLIC REALM - ART AND COLOUR

Ground Level Expression:

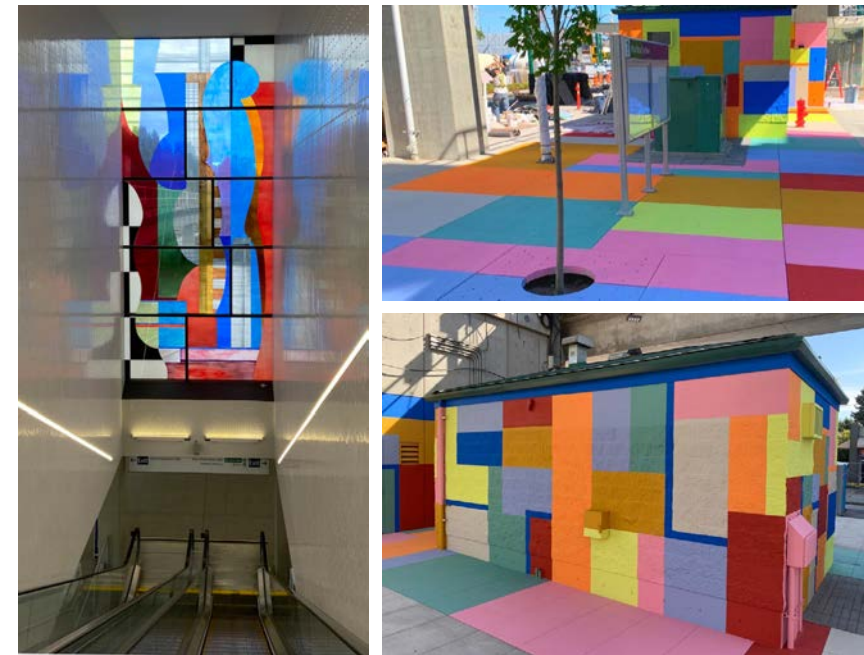
Of even greater importance than the visual appearance of the project is the consideration of the experience at ground level. The ground level expression is divided into a smaller rhythm of storefronts, colourful canopies and recessed entrances that all subtly angle from the eastern intersection towards the mid-block pedestrian connection along the west edge of the site. The angles are intended to guide pedestrians along the frontage to key access points of shop entries, residential lobbies and eventually around the site to the daycare on the southwest corner.

Inspired by the public art program incorporated into the Joyce Station improvements a strategy is proposed to draw the colourful ground-plane elements of the station across Vanness and into the site. Colourful landscape elements like street furniture, planting selection and patterned paving are used to draw the animated public realm from north to south along the Vanness frontage and down the new mid-block link and ultimately are integrated into the outdoor play areas and facade of the daycare facility incorporated into the ground level along the South side.

Further development of the public realm by integrating components of public art, way-finding and signage into the project are intended as the design is developed in subsequent stages.



GROUND PLAN



JOYCE-COLLINGWOOD STATION PUBLIC ART INSTALLATIONS



VANNESS COMMERCIAL FRONTAGE



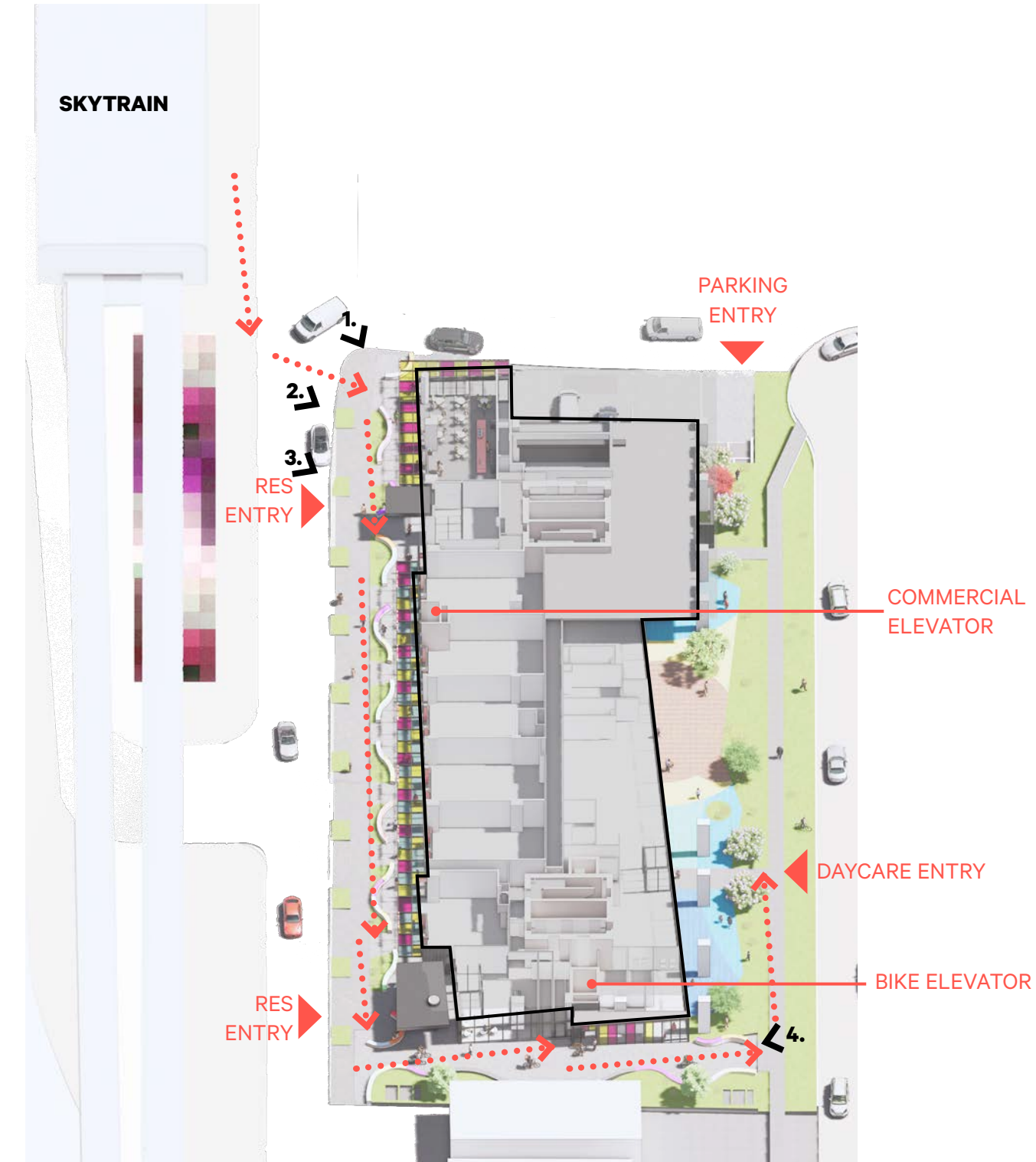
DAYCARE OUTDOOR PLAY AREA



WEST TOWER LOBBY AT MID-BLOCK CONNECTION

2.5 PUBLIC REALM - PEDESTRIAN MOVEMENT

Designed to subtly direct pedestrian traffic around the site and towards key entrances and features, the angled ground level tilts towards the main lobbies, public elevator and ultimately around the corner to the mid-block connection and daycare entrance to the south.



1. CORNER RETAIL UNIT AT LANE AND VANNESS LOOKING WEST



2. CORNER RETAIL UNIT AT LANE AND VANNESS LOOKING TOWARDS RESIDENTIAL LOBBY



3. RESIDENTIAL LOBBY CANOPY OF EAST TOWER



4. VIEW NORTH UP PEDESTRIAN CONNECTION AT DAYCARE

2.6 ROOFTOP AND AMENITIES

Both tower rooftops provide indoor and outdoor amenity spaces for the use of all tenants. These shared spaces offer access to view, social spaces (lounges, cooking facilities, barbecues).

At level 7 on top of the podium, the base of both towers is programmed as indoor amenity rooms for recreation and social activities. These spaces face one another across a large rooftop terrace that incorporates urban agriculture plots, children's play space and landscape features. Both sides of the building are linked by a covered walkway so that amenities may be shared by residents of both towers.



TOWER ROOFTOP INDOOR AND OUTDOOR AMENITY SPACES



PODIUM ROOFTOP AMENITY AT COVERED WALKWAY

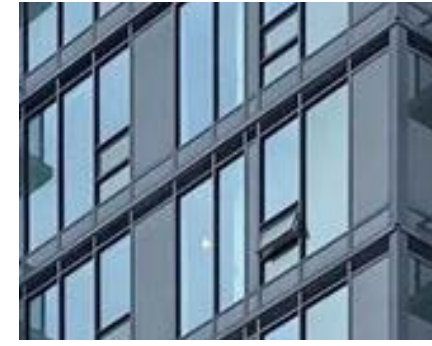
2.7 MATERIAL PALETTE



1. Window Wall Vision Glass



2. Mechanical Louvers



3. Window Wall Spandrel Glass



4. Curtain Wall



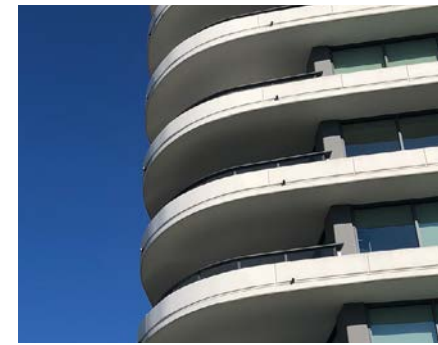
5. White Aluminum Composite Panel



6. Frosted Glass Balcony



7. Punched Windows/ Vision Glass



8. White Solid Balcony w/ Glass Railing



9. Storefront Curtain Wall



10. Coloured Glass Canopy



11. Curtain Wall Spandrel



12. Coloured Glass Curtain Wall

2.8 3D VIEWS



OVERALL VIEW FROM SOUTHWEST

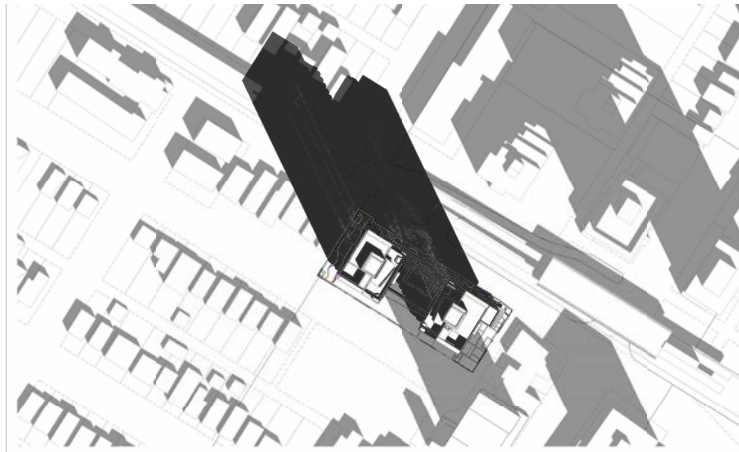


OVERALL VIEW FROM NORTHEAST

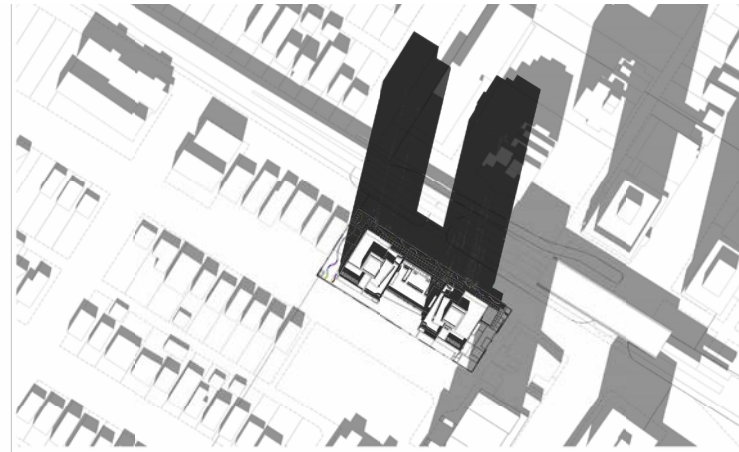
2.9 SHADOW STUDIES



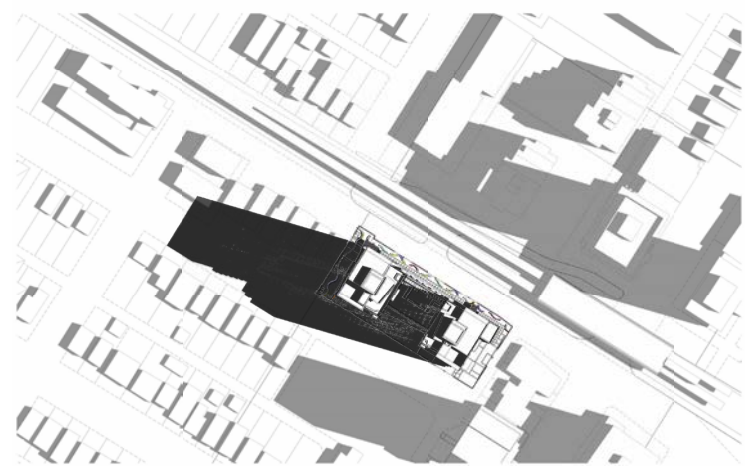
1 SHADOW STUDY MARCH 21ST 1000
SCALE: 1:1500



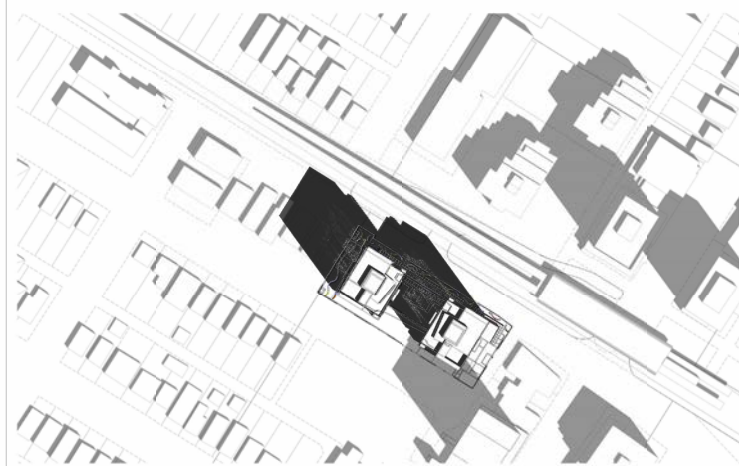
2 SHADOW STUDY MARCH 21ST 1200
SCALE: 1:1500



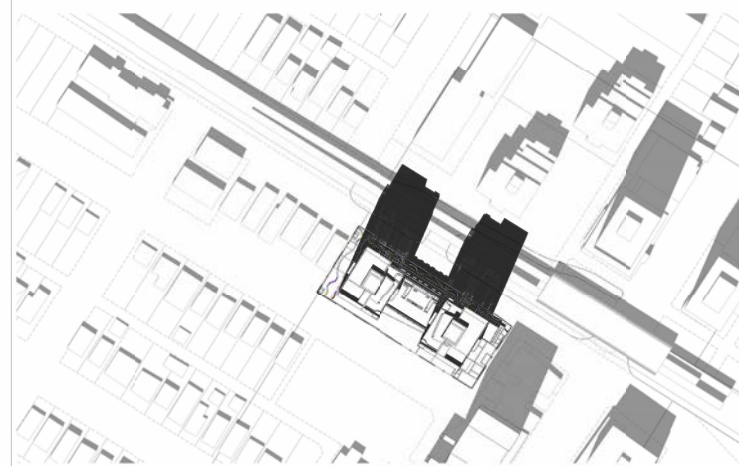
3 SHADOW STUDY MARCH 21ST 1400
SCALE: 1:1500



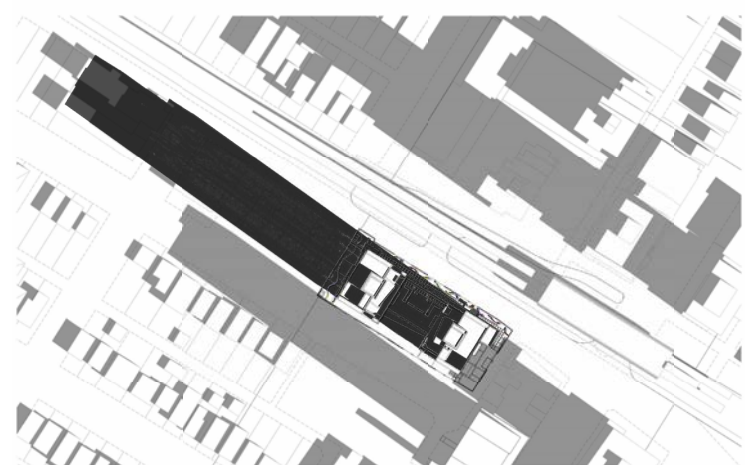
4 SHADOW STUDY JUNE 21ST 1000
SCALE: 1:1500



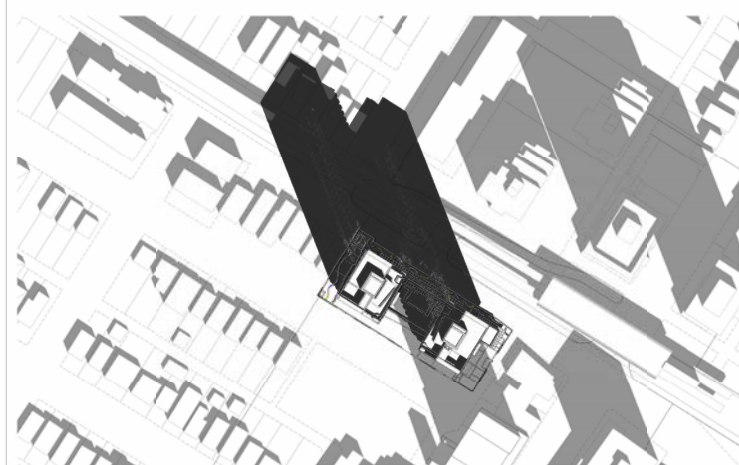
5 SHADOW STUDY JUNE 21ST 1200
SCALE: 1:1500



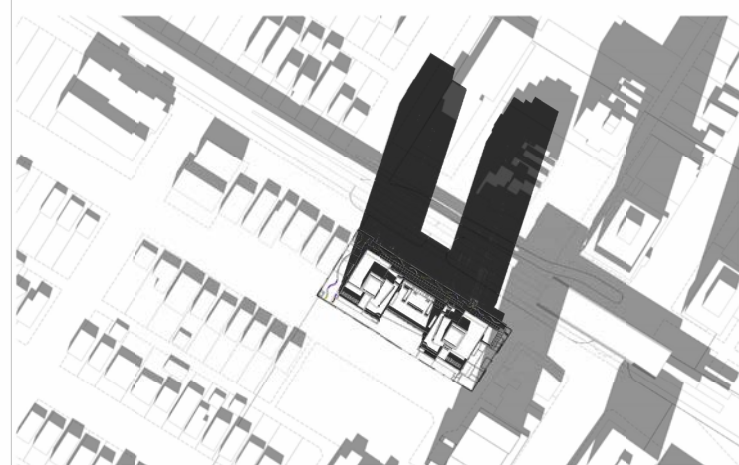
6 SHADOW STUDY JUNE 21ST 1400
SCALE: 1:1500



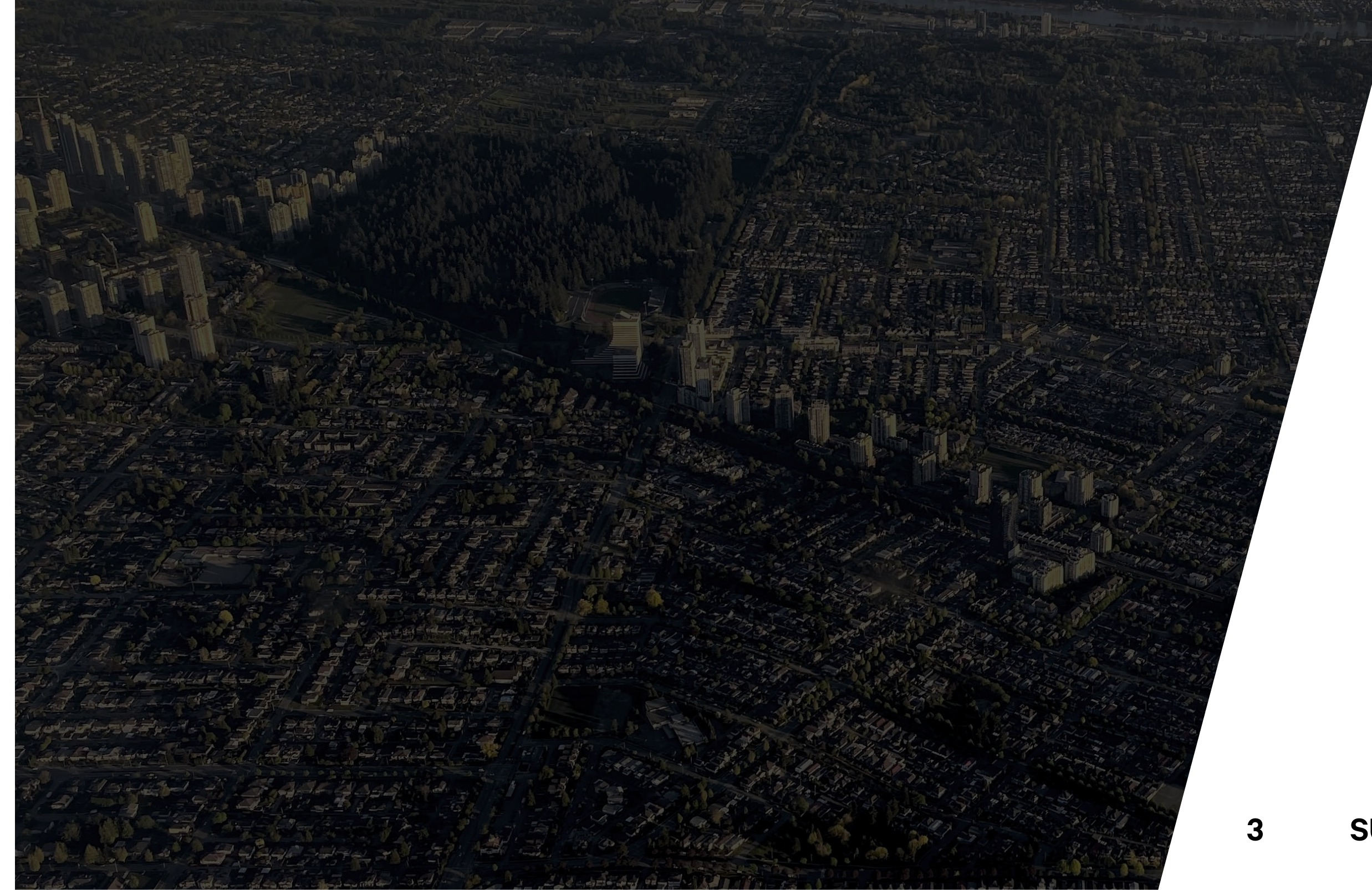
7 SHADOW STUDY SEPTEMBER 21ST 1000
SCALE: 1:1500



8 SHADOW STUDY SEPTEMBER 21ST 1200
SCALE: 1:1500



9 SHADOW STUDY SEPTEMBER 21ST 1400
SCALE: 1:1500



3 SUSTAINABILITY MEASURES

3.1 ENERGY MODEL

As this project is at preliminary design stage and the detailed design of building envelope, mechanical, and electrical systems are not available yet, the basis of design of such systems is established to comply with the applicable energy performance targets. Some of the assumptions in this energy submittal may change at later stages of the project as the detailed design of the contributing systems are developed.

The energy modeling has been executed in accordance with the *City of Vancouver Energy Modeling Guideline Version 2.0 (CoV-EMG)*. Thermal bridging calculations have been performed based on the *Building Envelope Thermal Bridging Guide Version 1.6 (BETBG)*. The building was modeled using IES-VE 2021 and the energy compliance results follow:

Energy Simulation – Results			BCBS
Metric	Proposed Design	Requirement ⁽¹⁾	Result
Thermal Energy Demand Intensity (TEDI) [kWh/m ² /y]	26.0	≤ 29.7	✓ Complies
Total Energy Use Intensity (TEUI) [kWh/m ² /y]	100.5	≤ 120.0	✓ Complies
Greenhouse Gas Intensity (GHGI) [kgCO ₂ /m ² /y]	5.3	≤ 5.9	✓ Complies

Notes:
1. Area-averaged based on the applicable performance targets from VBBL, refer to attached ZEBP energy checklist.

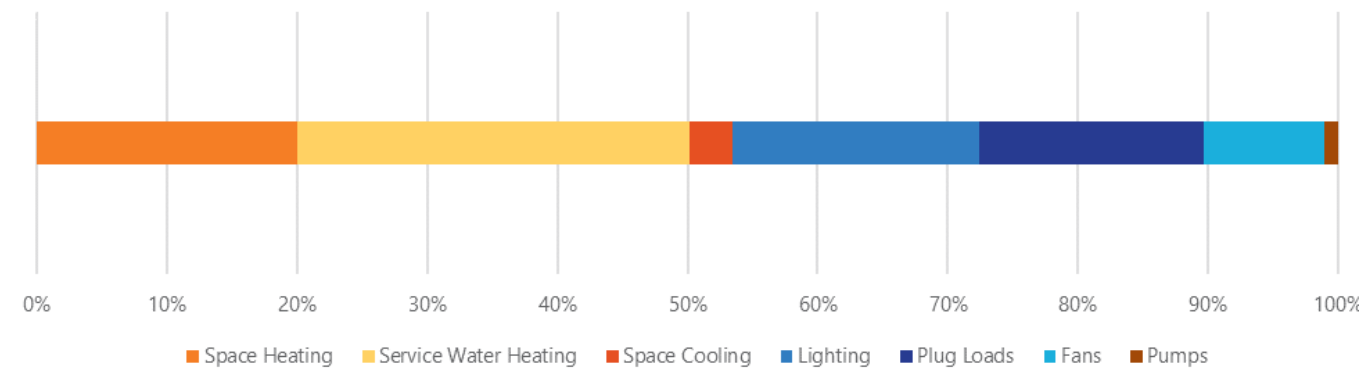


Figure 1: Energy Use Breakdown of the Building

Energy Simulation – Inputs		BCBS
1. Project Data		
Drawing Submittal	Architectural set of drawings provided by Boniface Oleksiuk Politano Architects, dated May 16, 2022.	
Address	3362 Vanness Avenue, Vancouver, BC	
Description	Type of Building / Construction: <ul style="list-style-type: none"> Non-combustible, Concrete Maximum Levels of Buildings: <ul style="list-style-type: none"> West Tower 30 Storeys / East Tower 33 Storeys Total Number of Suites: <ul style="list-style-type: none"> 679 Suites 	
2. Building and Location		
Location	Vancouver, BC	
Weather File	CAN_BC_VANCOUVER-INTL-A_1108395_CWEC.epw	
Modeling Software	IES-VE 2021	
Modeled Floor Area	Residential: 40,107 [m ²] / Retail: 1,276 [m ²]	
Vertical Surface Area to Floor Area Ratio		
Window to Wall Ratio	39%	
3. Building Envelope		
Exterior Walls	Thermally Enhanced Window Wall System (Starline 9600 series or equivalent): <ul style="list-style-type: none"> Spandrel: 4.5"/R18.9 Semi-Rigid in Backpan Slab Bypass: 2.5"/R10.5 Semi-Rigid over Slab Concrete / Steel-framed Walls: <ul style="list-style-type: none"> R14 Batt in 3 5/8" Steel Studs (R22 in 6") + 4"/R16.8 Semi-rigid Insulation Exterior with Thermal Clips Concrete Balconies / Parapets / Below-grade Elevator Lobby & Shaft Walls: <ul style="list-style-type: none"> Uninsulated Overall Wall Effective (BETBG): R6.2	

3.1 ENERGY MODEL CONT'D

Roofs	Roofs / Decks: <ul style="list-style-type: none"> 4"/R20 Rigid Insulation Continuous Above Overall Roof Effective (BETBG): R17.2
Exposed Floors	Over Parkade: <ul style="list-style-type: none"> 5"/R20 Spray Fibreglass Continuous Below Soffits: <ul style="list-style-type: none"> 5"/R21 Semi-rigid Below Overall Floor Effective (BETBG): R16.5
Glazing	Windows and Glazed Doors: <ul style="list-style-type: none"> Thermally Enhanced Double-glazed Aluminum (Starline 9600 series or equivalent) U_{OVERALL} ≤ 0.32, SHGC_{OVERALL} 0.31±0.02
Doors	Opaque Doors: <ul style="list-style-type: none"> U ≤ 0.4
Infiltration Rate	Standard: 0.2 [L/s/m ² facade]
4. Mechanical Systems	
Heating / Cooling	Suite / Amenity / Lobby: <ul style="list-style-type: none"> 4-Pipe Fan Coils Connected to Central Air Source Heat Pump System (COP_H 3+ & EER 10+) (Alternatively, air source VRF/VRV heat pump system with similar efficiencies) Retail (TI): <ul style="list-style-type: none"> Air Source Heat Pump System (COP_H 3+ & EER 10+) Corridor: <ul style="list-style-type: none"> Pre-heated Ventilation by Central Makeup Air Unit with Electric Heat
Ventilation	Suite: <ul style="list-style-type: none"> Direct Ventilation by HRV/ERV Sensible Recovery Efficiency (32 °F): 79%+ Ventilation Rate: ASHRAE 62 Ventilation Rates (15 cfm per person, Not Less Than 0.35 ACH, Not Overventilated) Amenity / Lobby / Retail (TI): <ul style="list-style-type: none"> Direct Ventilation by HRV/ERV Sensible Recovery Efficiency (32 °F): 79%+ Ventilation Rate: ASHRAE 62 Ventilation Rates, Not Overventilated Corridor: <ul style="list-style-type: none"> Pressurized at Maximum 15 cfm per Suite Door Maximum Supply Heating LAT: 65 °F Parkade: <ul style="list-style-type: none"> Supply & Exhaust Fans at ~0.75 [cfm/ft²]

Service Hot Water	Hot Water Demand and Schedule: <ul style="list-style-type: none"> Suite, Low Flow Faucets: <ul style="list-style-type: none"> Lavatory ≤ 1.2 GPM Kitchen, Shower ≤ 1.5 GPM Other / Schedules: NECB 2011 Table A-8.4.3.3.(1)B Service Water Heating System: <ul style="list-style-type: none"> 75% of Load by Condensing Gas Boilers (E_{th} 96%) and 25% by Electric Water Heaters
5. Lighting Systems	
Interior Lighting	Interior Lighting Power Density [W/m ²]: <ul style="list-style-type: none"> Suite: 5.0, NECB 2011 Table A-8.4.3.2.(1)G Amenity: 4.0, NECB 2011 Table A-8.4.3.2.(1)C Corridor / Lobby: 4.0, 24/7 Retail (TI): 15.5, NECB 2011 Table A-8.4.3.2.(1)C Stairway: 5.0, 24/7 Storage: 4.0, Appendix B of BC Hydro's Energy Modeling Guideline Elec/Mech: 4.5, Appendix B of BC Hydro's Energy Modeling Guideline Parking: 1.4, 24/7
Exterior Lighting	8 kW (Estimated), Astronomical Clock
6. Other	
Indoor Design Temperature	Suite (NECB 2011 Table A-8.4.3.2.(1)G): <ul style="list-style-type: none"> Heating: 18-22°C Cooling: 24°C Other: <ul style="list-style-type: none"> NECB 2011 Table A-8.4.3.3.(1)B
Occupancy	Suite: <ul style="list-style-type: none"> Studio / 1-Bedroom: 2 People 2-Bedroom+: 1 Person per Additional Bedroom Schedule: NECB 2011 Table A-8.4.3.2.(1)G Other: <ul style="list-style-type: none"> NECB 2011 Table A-8.4.3.3.(1)B
Plug Loads (Receptacle)	Suite: <ul style="list-style-type: none"> 5.0 [W/m²]; NECB 2011, Table A-8.4.3.2.(1)G (Electric in-suite cooking) Elevator: <ul style="list-style-type: none"> 3 x 3 kW; NECB 2011, Table A-8.4.3.2.(1)G 3 x 3 kW; NECB 2011, Table A-8.4.3.2.(1)C Other: <ul style="list-style-type: none"> NECB 2011 Table A-8.4.3.3.(1)B
GHG Emissions Factor	Electricity: <ul style="list-style-type: none"> 0.011 [kgCO_{2e}/kWh] Gas: <ul style="list-style-type: none"> 0.185 [kgCO_{2e}/kWh]

3.2 EMBODIED CARBON

EMBODIED CARBON – REZONING

BC Building Science Ltd. (BCBS) has been retained as the Building Envelope and Energy Consultant for this project. With this, we are providing calculations of the embodied carbon for consideration in meeting the requirements of the City of Vancouver Green Building Policy for Rezoning (CoV-GBPR).

The Athena Impact Estimator Version 5.4.0103 was used for the whole-building life cycle assessment and embodied emissions calculations. The following table summarizes the preliminary results of the calculations.

Embodied Emissions – 60 Year Life Cycle Summary at Rezoning *				BCBS
Global Warming Potential	4.33E+02	kgCO ₂ eq/m ²	7.21E+00	kgCO ₂ eq/m ² /y
Acidification Potential	2.43E+00	kgSO ₂ eq/m ²	4.04E-02	kgSO ₂ eq/m ² /y
Human Health Particulate	9.29E-01	kgPM _{2.5} eq/m ²	1.55E-02	kgPM _{2.5} eq/m ² /y
Eutrophication Potential	1.67E-01	kgNeq/m ²	2.78E-03	kgNeq/m ² /y
Ozone Depletion Potential	3.20E-06	kgCFC-11eq/m ²	5.33E-08	kgCFC-11eq/m ² /y
Smog Potential	4.29E+01	kgO ₃ eq/m ²	7.15E-01	kgO ₃ eq/m ² /y
Total Primary Energy	4.85E+03	MJ/m ²	8.08E+01	MJ/m ² /y

Notes (*)

- This table is prepared by, and is to be interpreted by, BC Building Science.
- Athena Impact Estimator Version 5.4.0103 was used for the whole-building life cycle and embodied emissions calculations.
- Embodied emissions are based on architectural (building envelope) and structural components.

The embodied emissions from building envelope and structural materials are calculated based on the following preliminary quantity take-offs. Because the detailed structural design of the building is not available at this rezoning stage, typical building structure components are assumed based on similar projects.

Embodied Emissions – 60 Year Life Cycle Inputs at Rezoning *				BCBS
Life Expectancy	60	years		
Building Height	102	m		
Gross Floor Area	41,728	m ²		
Foundations	3,375	m ²	Concrete foundation Concrete footing	
Walls – Above Grade	14,150	m ²	Window / curtain wall spandrel – insulated Concrete / steel-framed – insulated Concrete shear – uninsulated	
Walls – Below Grade	6,000	m ²	Concrete – uninsulated	
Columns	1,500	#	Concrete	
Roofs / Decks	1,650	m ²	Concrete – insulated Concrete – uninsulated	
Floors / Soffits	56,400	m ²	Concrete – uninsulated Concrete – insulated	
Glazing	7,150	m ²	Double-glazed with aluminum framing	

Notes (*)

- This table is prepared by, and is to be interpreted by, BC Building Science.
- Preliminary inputs are estimates based on available drawings. Detailed architectural and structure designs are not yet developed and therefore typical building components are assumed based on similar building designs.

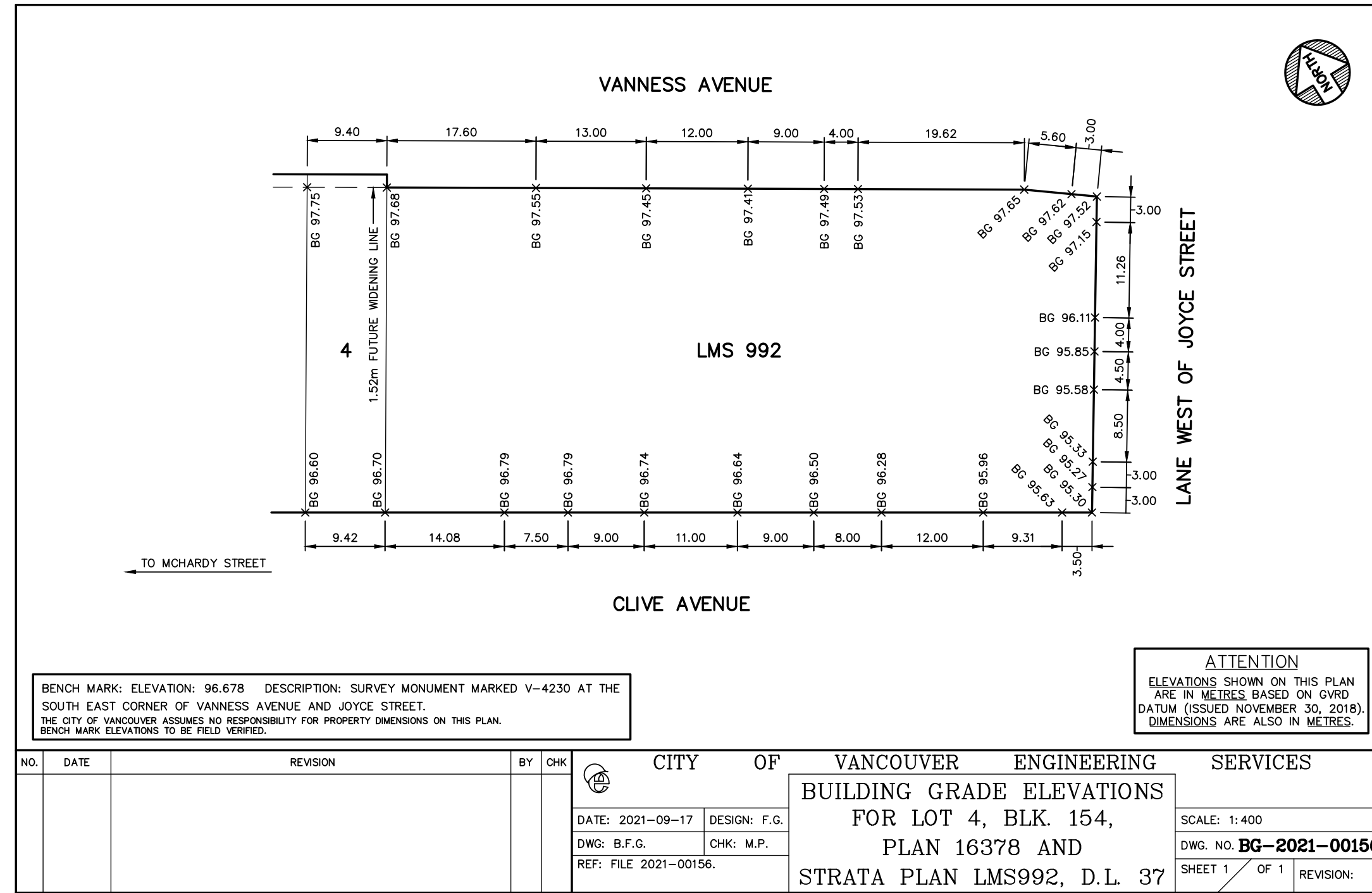
As most of the emissions are generated from the structural elements of the building that are not designed yet, more accurate calculations and potential reduction of emissions will be explored once the structural design is available at later stages of the project.

3.3 ZEBP CHECKLIST

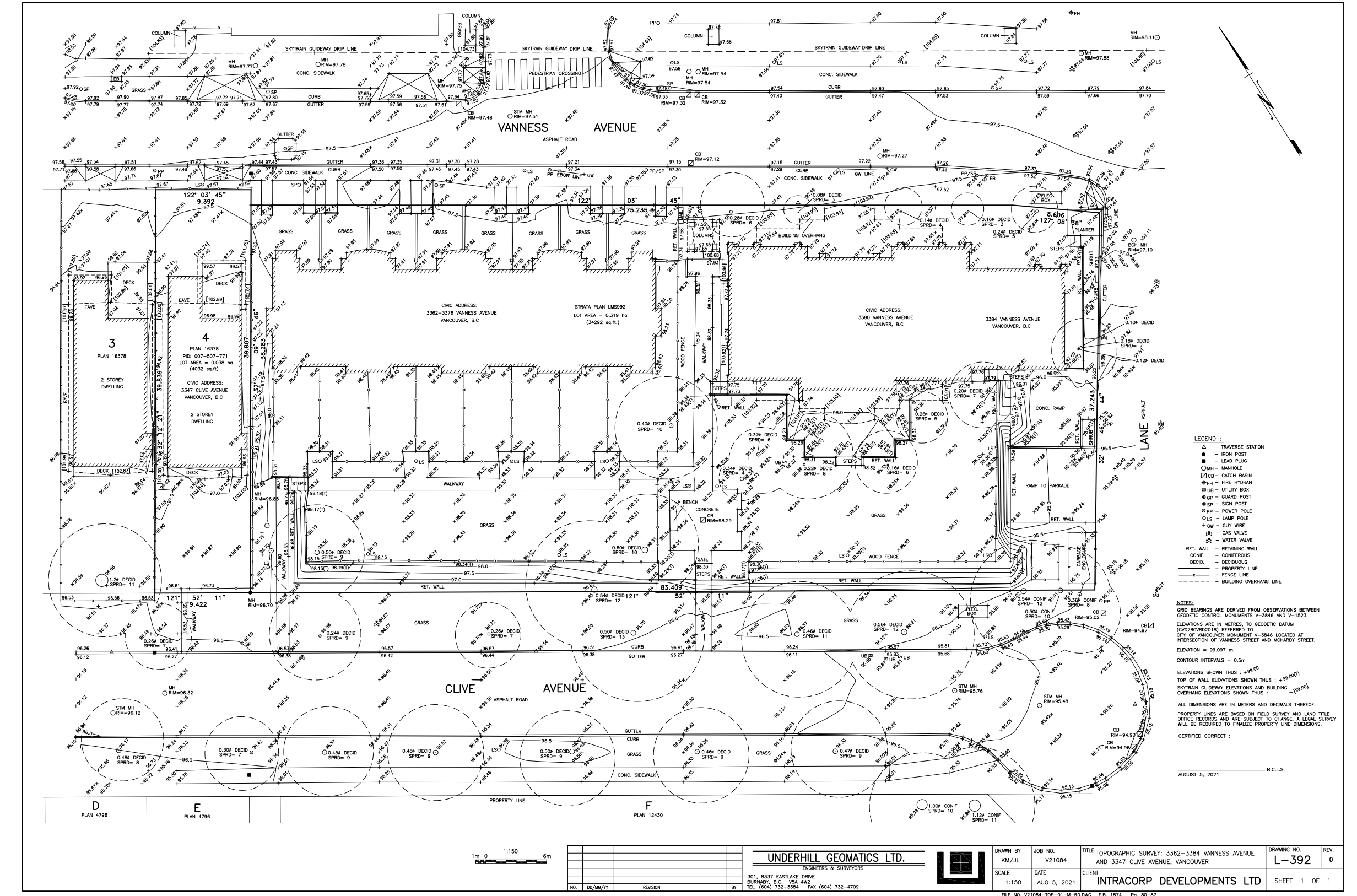
Zero Emissions Building Plan Energy Checklist									
VANCOUVER Large Buildings (Residential >3 Storeys, Mixed-Use, Commercial)					(If yes, this section may be left blank)				
Please complete all fields that apply to the project, using information that represents the current stage of design. For fields that do not apply or for which there is no information yet, please enter "N/A". Refer to the latest Green Building Policy for Rezoning (and supplementary Bulletin) at vancouver.ca/zeroemissions									
Project Information (enter all that apply)									
Project Address: 3362 Vanness Avenue, Vancouver, BC									
Secondary Address: [Blank]									
Project Working Title: Vanness									
Gross Floor Area indicated on Arch. Drawings (m ²): 41,728									
Parkade Area (m ²): 11,753									
Building Information and Performance Limits									
For building types with Performance Limits, enter this information in this section									
Building Type(s)	Modelled Floor Area (m ²)	Applicable Code or Policy, with or without LCES	LCES Type?	TEUI	TEDI	GHGI			
Residential, 7+ storeys (Group C except Hotel)	40,107	VBBL 2019 [amended Jun 1 2021], non LCES	N/A	120	30	6			
Retail (Group D & E except Office)	1,276	VBBL 2019 [amended Jun 1 2021], non LCES	N/A	120	20	3			
Total	41,383			0	0	0	TEDI limit for this portion of building: 29.7		
For other building types, create a baseline energy model to establish limits, and enter this information in this section									
Building Type	Modelled Floor Area (m ²)	Rezoning?	TEUI	TEDI	GHGI				
Enter Other Building Type Baseline Model Performance	Energy (kWh)	Em. Factor	Emissions (kgCO ₂ e)	TEUI	TEDI	GHGI			
Total Annual Electricity Use	0.011	-	Baseline: 0	0	0				
Total Annual Natural Gas Use	0.185	-	Target: 0	0	0				
Total Annual District Energy Use	0.070	-							
Total	-	-	-	-	-	-	-	-	-
Whole-Building Performance Limits									
Total Modelled Floor Area (m ²)	41,383	Yes	TEUI	TEDI	GHGI				
Modelled Floor Area within 5% of Gross Floor Area?			120.0	29.7	5.9				
Modelled Building Performance									
Energy (kWh)	Fuel Type	Em. Factor	Emissions (kgCO ₂ e)	TEUI	GHGI				
Interior Lighting	803,205	Electricity	0.011	8835.255	19.4	0.2			
Exterior Lighting	34,020	Electricity	0.011	374.22	1.0	0.0			
Space Heating	455,162	Electricity	0.011	5007.002	11.0	0.1			
Ventilation Heating	428,283	Electricity	0.011	4711.113	10.3	0.1			
Cooling	147,292	Electricity	0.011	1620.212	3.6	0.0			
Pumps	49,348	Electricity	0.011	542.828	1.2	0.0			
Fans	407,165	Electricity	0.011	4479.035	9.8	0.1			
Domestic Hot Water	1,008,805	Natural Gas	0.185	186628.925	24.4	4.5			
Plug Loads	763,054	Electricity	0.011	8393.594	18.4	0.2			
Domestic Hot Water - Electric	322,818	Electricity	0.011	3550.998	7.8	0.1			
Enter other end use here									
Enter other end use here									
Enter other end use here									
Enter other end use here									
Total Annual Electricity Use	3,410,387	0.011	37,514						
Total Annual Natural Gas Use	1,008,805	0.185	186,629						
Total Annual District Energy Use	-	0.070	-						
Total	4,419,192		224,143						
Total Electricity Generated On-Site (kWh)		% of Use	0.0%						
Total Purchased Renewable Electricity (kWh)		% of Use	0.0%						
Total Purchased Renewable Natural Gas (kWh)		% of Use	0.0%						
Note: purchases renewables used to demonstrate compliance must be secured to satisfaction of AHJ									
Adjusted Electricity Emissions Factor (kgCO ₂ e/kWh)	0.011								
Adjusted Natural Gas Emissions Factor (kgCO ₂ e/kWh)	0.185								
Annual Heat Demand of portions with Perf. Limits (kWh)	1,405,120					34.0			
Total Annual Heat Demand - for TEDI (kWh)	1,405,120								
Total Annual Cooling Demand - for info only (kWh)	737,939		17.8 kWh/m ²						
Modelled Whole-Building Performance									
				TEUI	TEDI	GHGI			
				106.8	34.0	5.4			
Corridor Pressurization Adjustment									
Heating Degree Days	2825								
Number of Suite Doors Pressurized	679								
Airflow for Pressurization per Door (L/s/door)	7.1								
Area of Corridors Pressurized (m ²)	3109.0								
Make-Up Air Fuel Type	Electricity								
Make-Up Air Emissions Factor	0.011								
Suite-level Metering for Space Heating	No	Adjustments for Corridor Pressurization	8.0	8.0	0.1				
Suite-level Metering for Space Heating: No									
Adjustments for Suite Metering of Heating: 1.6									
Note: select yes if the energy used for heating is metered at the suite level									
Adjusted TEDI Performance of Portions with Limits						26.0			
Adjusted Whole-Building Performance for Compliance				100.5	26.0	5.3			

Passive Cooling and Overheating Analysis			
Does this building have full mechanical cooling? Yes		(If yes, this section may be left blank)	
Does this building house vulnerable populations? If yes, please describe		(If yes, the overheated hours limit is 20hrs rather than 200hrs)	
Overheated Hours	Peak Temp. (°C)		
Critical Zone #1			
Critical Zone #2			
Optional - Critical Zone #3			
Optional - Critical Zone #4			
Optional - Critical Zone #5			
Modelled Inputs			
Modelled Above-Ground Wall Area (m ²)	18,350	Vertical facade-to-Floor Area Ratio (V FAR)	0.44
Window-to-Wall Area Ratio (WWR)	39%	Window-to-Floor Area Ratio	0.17
Assumed Airtightness (L/2m2fac)	0.2		
Tested Airtightness (L/2m2fac)	TBD at Occupancy		
Infiltration Rate (L/s/m ²)	TBD at Occupancy		
Wall Effective R-Value - incl. thermal bridging (m ² K/W)	1.1	Average Floor Edge Psi-Value (W/m ² K)	0.76
Roof Effective R-Value - incl. thermal bridging (m ² K/W)	3.0	Avg. Window Transition Psi-Value (W/m ² K)	0.22
Average Window Effective U-Value (W/m ² K)	1.79	Window Solar Heat Gain Coefficient	0.31
Average Suite Occupant Density (m ² /pers)	20.0	Average Lighting W/m ²	4
Average Suite Ventilation Rate (L/s/m ²)	0.4	DHW Low-Flow Savings (%)	25
Average HRV Effectiveness	79%	DHW Drain Heat Recovery Effectiveness	0%
Heating System Type (fuel, plant, distribution, etc.): Suite, Amenity, Lobby: 4-Pipe Fancoils Connected to Central Air Source Heat Pump; Retail: ASHP			
Cooling System Type (fuel, plant, distribution, etc.): Suite, Amenity, Lobby: 4-Pipe Fancoils Connected to Central ASHP; Retail: ASHP			
DHW System Type (fuel, plant, distribution, etc.): Combined Central Condensing Gas Boilers and Electric Water Heaters			
Solar Shading Strategies (type, location, operation, etc.): Distributed Balconies, Low-E Coating(s) on Glass			
Modeller Information			
Modeller Name: Farshid Bagheri, P. Eng.			
LZ: These results have been created using the COV Energy Modelling Guidelines version: 2			
Company: BC Building Science Ltd.			
Phone Number: 604 520 6456 Ext. 133			
Email: farshid@bcbuildingscience.com			
ZEBP Energy Checklist v1.10 - 2022-02-09			

4.1 BUILDING GRADES



4.2 SURVEY PLAN



4.3 PROJECT DATA

GFA TOTAL

AREAS - GFA BY LEVEL											
Building #	LEVELS	Number of Levels	Area per Level	Total Area (ft ²)	Total Area (m ²)	A (R+ C)		B		C	
						Total Area (ft ²)	Total Area (m ²)	Total Area (ft ²)	Total Area (m ²)	Total Area (ft ²)	Total Area (m ²)
LEVEL 01	POOLUM	LEVEL 01	1	1284.1 SF	1284.1 SF	1181.7 m ²					
LEVEL 02	POOLUM	LEVEL 02	1	1938.4 SF	1938.4 SF	1793.9 m ²					
LEVEL 03-06	POOLUM	LEVEL 03-06	4	18191.8 SF	72767.3 SF	6703.3 m ²					
LEVEL 07	W TOWER	LEVEL 07	1	6800.0 SF	6800.0 SF	6317.7 m ²					
LEVEL 08-30	W TOWER	LEVEL 08-30	23	6800.0 SF	156400.0 SF	14530.0 m ²					
LEVEL 08-33	E TOWER	LEVEL 08-33	26	6800.0 SF	176800.0 SF	16425.0 m ²					
ROOF (E TOWER)		ROOF (E TOWER)	1	3621.5 SF	3621.5 SF	3355.0 m ²					
ROOF (W TOWER)		ROOF (W TOWER)	1	3781.2 SF	3781.2 SF	3501.4 m ²					
ROOF (W TOWER)		ROOF (W TOWER)	1	7027.0 SF	7027.0 SF	6520.9 m ²					

AREAS - GROSS FLOOR AREA

Building #	Level/Levels	Count	Name	Number of Levels	Area per Level	Total Area (ft ²)	Total Area (m ²)
LEVEL 01	POOLUM	LEVEL 01	1	1	1284.1 SF	1284.1 SF	1181.7 m ²
LEVEL 02	POOLUM	LEVEL 02	1	1	1938.4 SF	1938.4 SF	1793.9 m ²
LEVEL 03-06	POOLUM	LEVEL 03-06	4	4	18191.8 SF	72767.3 SF	6703.3 m ²
LEVEL 07	W TOWER	LEVEL 07	1	1	6800.0 SF	6800.0 SF	6317.7 m ²
LEVEL 08-30	W TOWER	LEVEL 08-30	23	23	6800.0 SF	156400.0 SF	14530.0 m ²
LEVEL 08-33	E TOWER	LEVEL 08-33	26	26	6800.0 SF	176800.0 SF	16425.0 m ²
ROOF (E TOWER)		ROOF (E TOWER)	1	1	3621.5 SF	3621.5 SF	3355.0 m ²
ROOF (W TOWER)		ROOF (W TOWER)	1	1	3781.2 SF	3781.2 SF	3501.4 m ²
ROOF (W TOWER)		ROOF (W TOWER)	1	1	7027.0 SF	7027.0 SF	6520.9 m ²

EXCLUSIONS

EXCL. (STORAGE)				EXCL. (AMENITY)				EXCL. (TOTAL)			
E		F		D = E + F		G = B + E + F		H = C		I = D + G	
LEVELS	Total Area (ft ²)	Total Area (m ²)	LEVELS	Total Area (ft ²)	Total Area (m ²)	LEVELS	Total Area (ft ²)	Total Area (m ²)	LEVELS	Total Area (ft ²)	Total Area (m ²)
LEVEL 01	10.0 m ²	0.0 m ²	LEVEL 01	10.0 m ²	0.0 m ²	LEVEL 01	10.0 m ²	0.0 m ²	LEVEL 01	10.0 m ²	0.0 m ²
LEVEL 02	10.0 m ²	0.0 m ²	LEVEL 02	10.0 m ²	0.0 m ²	LEVEL 02	10.0 m ²	0.0 m ²	LEVEL 02	10.0 m ²	0.0 m ²
LEVEL 03-06	10.0 m ²	0.0 m ²	LEVEL 03-06	10.0 m ²	0.0 m ²	LEVEL 03-06	10.0 m ²	0.0 m ²	LEVEL 03-06	10.0 m ²	0.0 m ²
LEVEL 07	10.0 m ²	0.0 m ²	LEVEL 07	10.0 m ²	0.0 m ²	LEVEL 07	10.0 m ²	0.0 m ²	LEVEL 07	10.0 m ²	0.0 m ²
LEVEL 08-30	10.0 m ²	0.0 m ²	LEVEL 08-30	10.0 m ²	0.0 m ²	LEVEL 08-30	10.0 m ²	0.0 m ²	LEVEL 08-30	10.0 m ²	0.0 m ²
LEVEL 08-33	10.0 m ²	0.0 m ²	LEVEL 08-33	10.0 m ²	0.0 m ²	LEVEL 08-33	10.0 m ²	0.0 m ²	LEVEL 08-33	10.0 m ²	0.0 m ²
ROOF (E TOWER)	10.0 m ²	0.0 m ²	ROOF (E TOWER)	10.0 m ²	0.0 m ²	ROOF (E TOWER)	10.0 m ²	0.0 m ²	ROOF (E TOWER)	10.0 m ²	0.0 m ²
ROOF (W TOWER)	10.0 m ²	0.0 m ²	ROOF (W TOWER)	10.0 m ²	0.0 m ²	ROOF (W TOWER)	10.0 m ²	0.0 m ²	ROOF (W TOWER)	10.0 m ²	0.0 m ²
ROOF (W TOWER)	10.0 m ²	0.0 m ²	ROOF (W TOWER)	10.0 m ²	0.0 m ²	ROOF (W TOWER)	10.0 m ²	0.0 m ²	ROOF (W TOWER)	10.0 m ²	0.0 m ²

NET FSR

FSR (RESIDENTIAL)		FSR (COMMERCIAL)	
Total Area (ft ²)	Total Area (m ²)	Total Area (ft ²)	Total Area (m ²)
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²
1000.0 SF	929.0 m ²	1000.0 SF	929.0 m ²

BALCONIES & TERRACES

EXCL. (BALCONY) - LEVEL 02-07				EXCL. (BALCONY) - LEVEL 08-30 W TOWER VARIANT BALCONIES				EXCL. (BALCONY) - LEVEL 08-33 E TOWER REPETITIVE BALCONIES				EXCL. (BALCONY) - LEVEL 08-33 E TOWER VARIANT BALCONIES			
LEVELS	Area per Level	Total Area	Total Area (m ²)	LEVELS	Area per Level	Total Area	Total Area (m ²)	LEVELS	Area per Level	Total Area	Total Area (m ²)	LEVELS	Area per Level	Total Area	Total Area (m ²)
LEVEL 02	100.0 SF	100.0 SF	92.9 m ²	LEVEL 02	100.0 SF	100.0 SF	92.9 m ²	LEVEL 02	100.0 SF	100.0 SF	92.9 m ²	LEVEL 02	100.0 SF	100.0 SF	92.9 m ²
LEVEL 03	100.0 SF	100.0 SF	92.9 m ²	LEVEL 03	100.0 SF	100.0 SF	92.9 m ²	LEVEL 03	100.0 SF	100.0 SF	92.9 m ²	LEVEL 03	100.0 SF	100.0 SF	92.9 m ²
LEVEL 04-05	100.0 SF	200.0 SF	185.8 m ²	LEVEL 04-05	100.0 SF	200.0 SF	185.8 m ²	LEVEL 04-05	100.0 SF	200.0 SF	185.8 m ²	LEVEL 04-05	100.0 SF	200.0 SF	185.8 m ²
LEVEL 06	100.0 SF	100.0 SF	92.9 m ²	LEVEL 06	100.0 SF	100.0 SF	92.9 m ²	LEVEL 06	100.0 SF	100.0 SF	92.9 m ²	LEVEL 06	100.0 SF	100.0 SF	92.9 m ²
LEVEL 07	100.0 SF	100.0 SF	92.9 m ²	LEVEL 07	100.0 SF	100.0 SF	92.9 m ²	LEVEL 07	100.0 SF	100.0 SF	92.9 m ²	LEVEL 07	100.0 SF	100.0 SF	92.9 m ²
LEVEL 08	100.0 SF	100.0 SF	92.9 m ²	LEVEL 08	100.0 SF	100.0 SF	92.9 m ²	LEVEL 08	100.0 SF	100.0 SF	92.9 m ²	LEVEL 08	100.0 SF	100.0 SF	92.9 m ²
LEVEL 09	100.0 SF	100.0 SF	92.9 m ²	LEVEL 09	100.0 SF	100.0 SF	92.9 m ²	LEVEL 09	100.0 SF	100.0 SF	92.9 m ²	LEVEL 09	100.0 SF	100.0 SF	92.9 m ²
LEVEL 10	100.0 SF	100.0 SF	92.9 m ²	LEVEL 10	100.0 SF	100.0 SF	92.9 m ²	LEVEL 10	100.0 SF	100.0 SF	92.9 m ²	LEVEL 10	100.0 SF	100.0 SF	92.9 m ²
LEVEL 11	100.0 SF	100.0 SF	92.9 m ²	LEVEL 11	100.0 SF	100.0 SF	92.9 m ²	LEVEL 11	100.0 SF	100.0 SF	92.9 m ²	LEVEL 11	100.0 SF	100.0 SF	92.9 m ²
LEVEL 12	100.0 SF	100.0 SF	92.9 m ²	LEVEL 12	100.0 SF	100.0 SF	92.9 m ²	LEVEL 12	100.0 SF	100.0 SF	92.9 m ²	LEVEL 12	100.0 SF	100.0 SF	92.9 m ²
LEVEL 13	100.0 SF	100.0 SF	92.9 m ²	LEVEL 13	100.0 SF	100.0 SF	92.9 m ²	LEVEL 13	100.0 SF	100.0 SF	92.9 m ²	LEVEL 13	100.0 SF	100.0 SF	92.9 m ²
LEVEL 14	100.0 SF	100.0 SF	92.9 m ²	LEVEL 14	100.0 SF	100.0 SF	92.9 m ²	LEVEL 14	100.0 SF	100.0 SF	92.9 m ²	LEVEL 14	100.0 SF	100.0 SF	92.9 m ²
LEVEL 15	100.0 SF	100.0 SF	92.9 m ²	LEVEL 15	100.0 SF	100.0 SF	92.9 m ²	LEVEL 15	100.0 SF	100.0 SF	92.9 m ²	LEVEL 15	100.0 SF	100.0 SF	92.9 m ²
LEVEL 16	100.0 SF	100.0 SF	92.9 m ²	LEVEL 16	100.0 SF	100.0 SF	92.9 m ²	LEVEL 16	100.0 SF	100.0 SF	92.9 m ²	LEVEL 16	100.0 SF	100.0 SF	92.9 m ²
LEVEL 17	100.0 SF	100.0 SF	92.9 m ²	LEVEL 17	100.0 SF	100.0 SF	92.9 m ²	LEVEL 17	100.0 SF	100.0 SF	92.9 m ²	LEVEL 17	100.0 SF	100.0 SF	92.9 m ²
LEVEL 18	100.0 SF	100.0 SF	92.9 m ²	LEVEL 18	100.0 SF	100.0 SF	92.9 m ²	LEVEL 18	100.0 SF	100.0 SF	92.9 m ²	LEVEL 18	100.0 SF	100.0 SF	92.9 m ²
LEVEL 19	100.0 SF	100.0 SF	92.9 m ²	LEVEL 19	100.0 SF	100.0 SF	92.9 m ²	LEVEL 19	100.0 SF	100.0 SF	92.9 m ²	LEVEL 19	100.0 SF	100.0 SF	92.9 m ²
LEVEL 20	100.0 SF	100.0 SF	92.9 m ²	LEVEL 20	100.0 SF	100.0 SF	92.9 m ²	LEVEL 20	100.0 SF	100.0 SF	92.9 m ²	LEVEL 20	100.0 SF	100.0 SF	92.9 m ²
LEVEL 21	100.0 SF	100.0 SF	92.9 m ²	LEVEL 21	100.0 SF	100.0 SF	92.9 m ²	LEVEL 21	100.0 SF	100.0 SF	92.9 m ²	LEVEL 21	100.0 SF	100.0 SF	92.9 m ²
LEVEL 22	100.0 SF	100.0 SF	92.9 m ²	LEVEL 22	100.0 SF	100.0 SF	92.9 m ²	LEVEL 22	100.0 SF	100.0 SF	92.9 m ²	LEVEL 22	100.0 SF	100.0 SF	92.9 m ²
LEVEL 23	100.0 SF	100.0 SF	92.9 m ²	LEVEL 23	100.0 SF	100.0 SF	92.9 m ²	LEVEL 23	100.0 SF	100.0 SF	92.9 m ²	LEVEL 23	100.0 SF	100.0 SF	92.9 m ²
LEVEL 24	100.0 SF	100.0 SF	92.9 m ²	LEVEL 24	100.0 SF	100.0 SF	92.9 m ²	LEVEL 24	100.0 SF	100.0 SF	92.9 m ²	LEVEL 24	100.0 SF	100.0 SF	92.9 m ²
LEVEL 25	100.0 SF	100.0 SF	92.9 m ²	LEVEL 25	100.0 SF	100.0 SF	92.9 m ²	LEVEL 25	100.0 SF	100.0 SF	92.9 m ²	LEVEL 25	100.0 SF	100.0 SF	92.9 m ²
LEVEL 26	100.0 SF	100.0 SF	92.9 m ²	LEVEL 26	100.0 SF	100.0 SF	92.9 m ²	LEVEL 26	100.0 SF	100.0 SF	92.9 m ²	LEVEL 26	100.0 SF	100.0 SF	92.9 m ²
LEVEL 27	100.0 SF	100.0 SF	92.9 m ²	LEVEL 27	100.0 SF	100.0 SF	92.9 m ²	LEVEL 27	100.0 SF	100.0 SF	92.9 m ²	LEVEL 27	100.0 SF	100.0 SF	92.9 m ²
LEVEL 28	100.0 SF	100.0 SF	92.9 m ²	LEVEL 28	100.0 SF	100.0 SF	92.9 m ²	LEVEL 28	100.0 SF	100.0 SF	92.9 m ²	LEVEL 28	100.0 SF	100.0 SF	92.9 m ²
LEVEL 29	100.0 SF	100.0 SF	92.9 m ²	LEVEL 29	100.0 SF	100.0 SF	92.9 m ²	LEVEL 29	100.0 SF	100.0 SF	92.9 m ²	LEVEL 29	100.0 SF	100.0 SF	92.9 m ²
LEVEL 30	100.0 SF	100.0 SF	92.9 m ²	LEVEL 30	100.0 SF	100.0 SF	92.9 m ²	LEVEL 30	100.0 SF	100.0 SF	92.9 m ²	LEVEL 30	100.0 SF	100.0 SF	92.9 m ²
LEVEL 31	100.0 SF	100.0 SF	92.9 m ²	LEVEL 31	100.0 SF	100.0 SF	92.9 m ²	LEVEL 31	100.0 SF	100.0 SF	92.9 m ²	LEVEL 31	100.0 SF	100.0 SF	92.9 m ²
LEVEL 32	100.0 SF	100.0 SF	92.9 m ²	LEVEL 32	100.0 SF	100.0 SF	92.9 m ²	LEVEL 32	100.0 SF	100.0 SF	92.9 m ²	LEVEL 32	100.0 SF	100.0 SF	92.9 m ²
LEVEL 33	100.0 SF	100.0 SF	92.9 m ²	LEVEL 33	100.0 SF	100.0 SF	92.9 m ²	LEVEL 33	100.0 SF	100.0 SF	92.9 m ²	LEVEL 33	100.0 SF	100.0 SF	92.9 m ²
ROOF (E TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (E TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (E TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (E TOWER)	100.0 SF	100.0 SF	92.9 m ²
ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²
ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²	ROOF (W TOWER)	100.0 SF	100.0 SF	92.9 m ²

RESIDENTIAL FSR: 3942 m² / 360.3 m² + 11.11 FSR
TOTAL FSR: 1134

SITE INFORMATION

ADDRESS: 1382 - 1384 VANNESS AVE, VANCOUVER, BC
3547 CLOVE AVE, VANCOUVER, BC

EXISTING ZONE: CD-1 (201)
CD-1 (218)

EXISTING USE: MULTI-FAMILY RESIDENTIAL, RETAIL, COMMERCIAL, SINGLE-FAMILY RESIDENTIAL

PROPOSED USE: MULTI-FAMILY RESIDENTIAL, RETAIL, COMMERCIAL, CHILD-CARE

PROPOSED SITE AREA: 38,323.88 SF (3,563.3 m²)

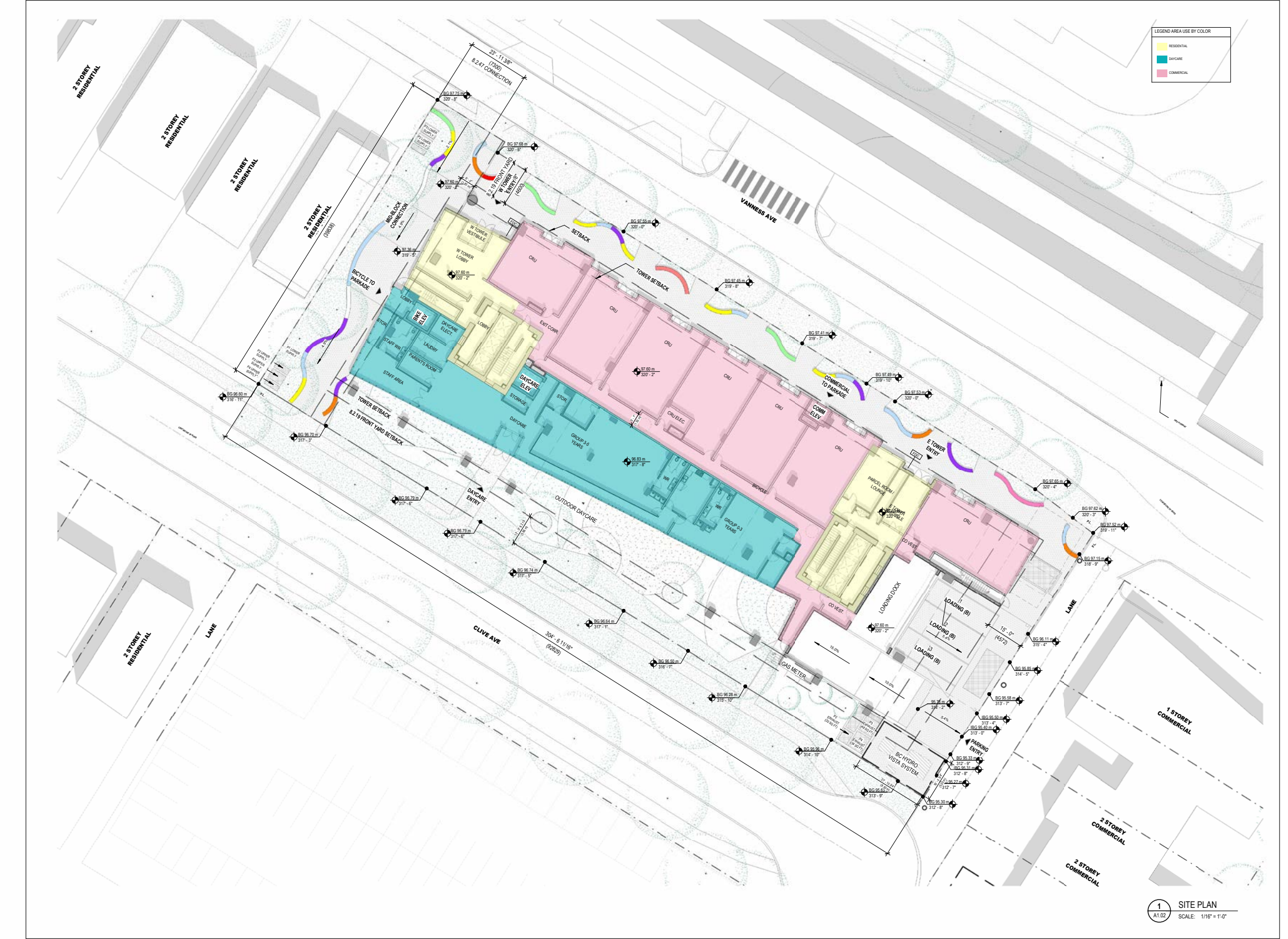
MAX HEIGHT PERMITTED: MAX GEODETIC 181.5M (597 FT)
(PRECINCT PLAN 1.2)

COMMERICAL BYLAW 659.7.2.1: 1 COMMERCIAL FLOOR AT 8' (2.6M)
+ 33 RESIDENTIAL

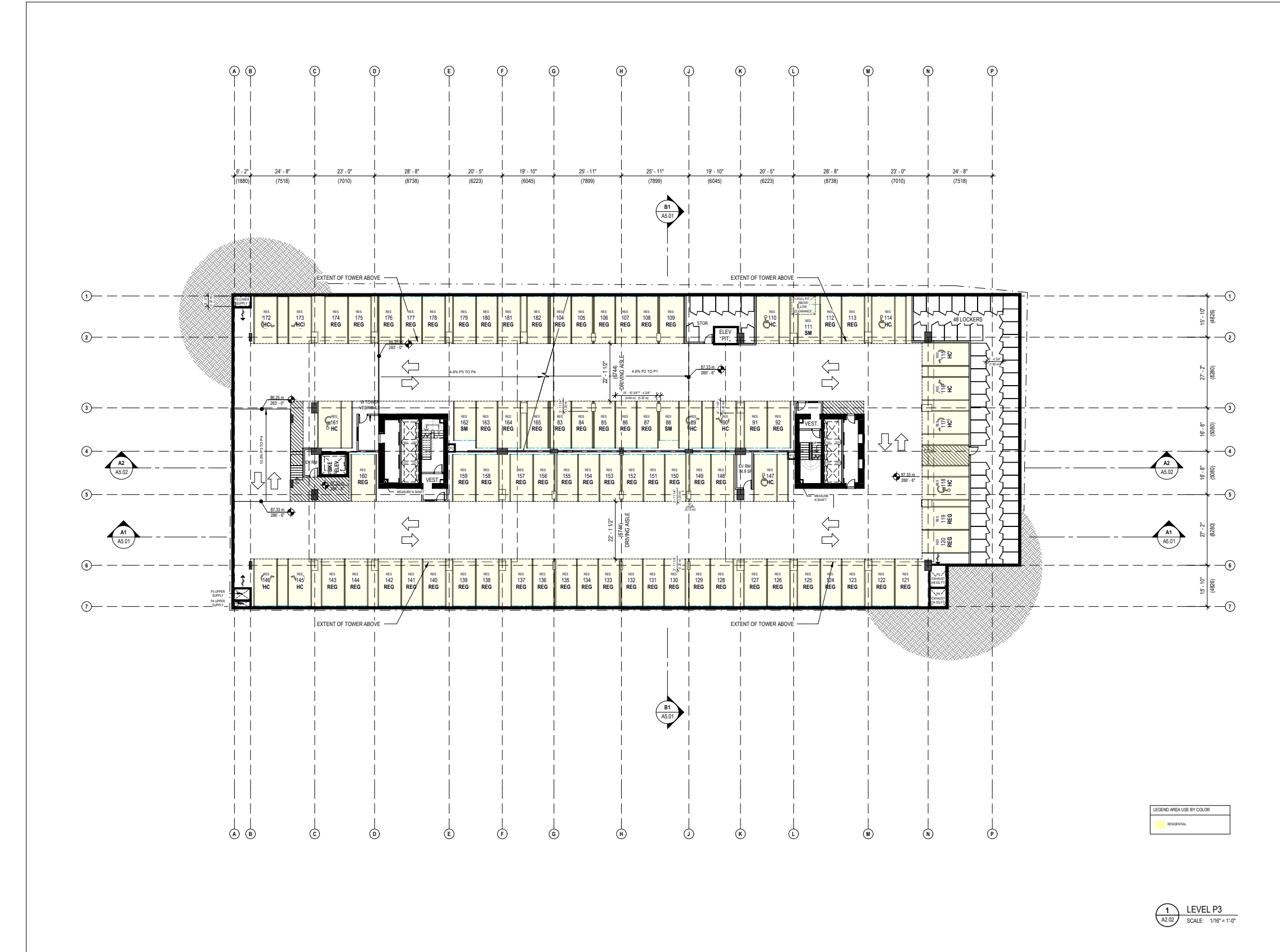
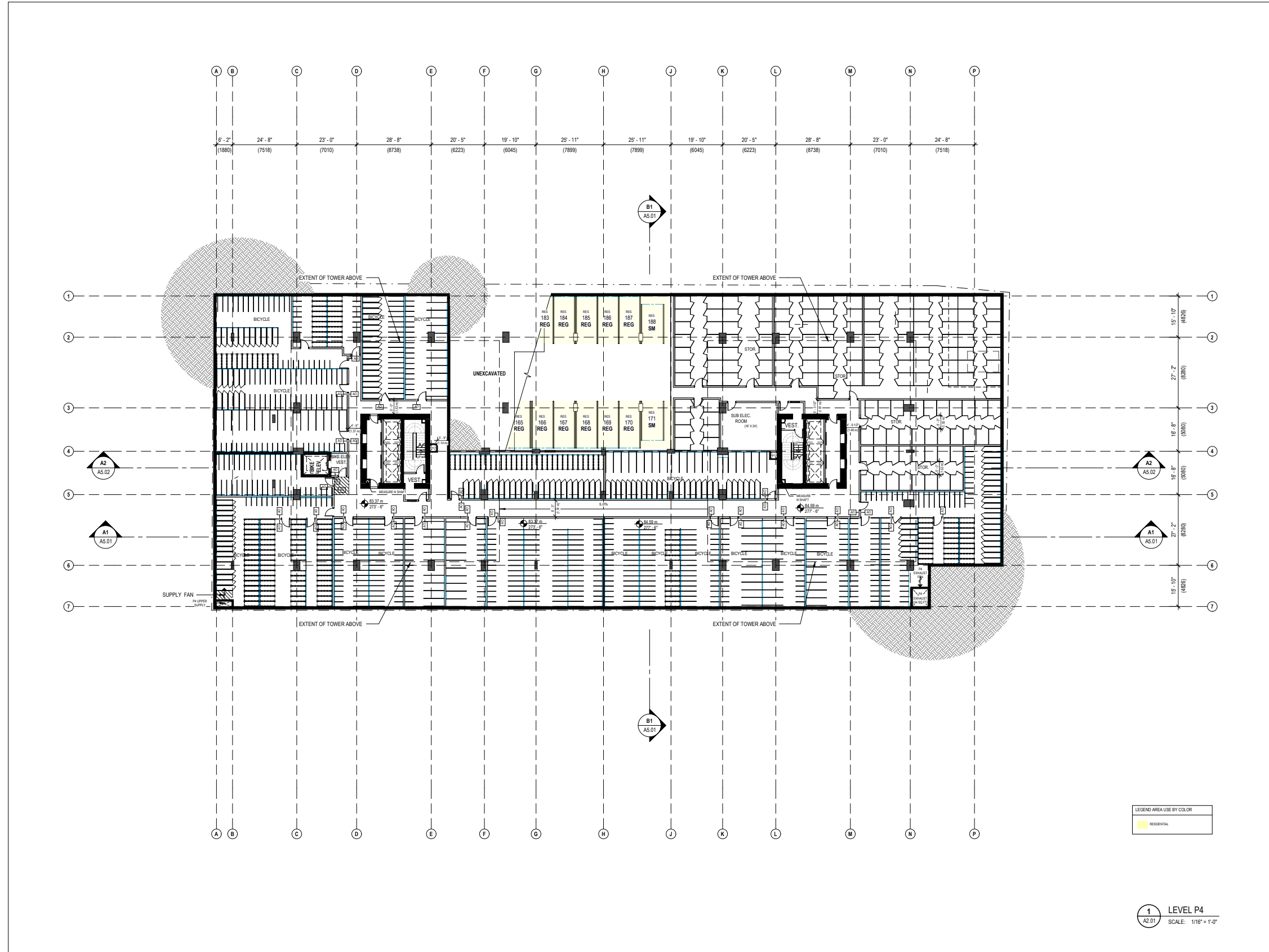
4.4 CONTEXT PLAN

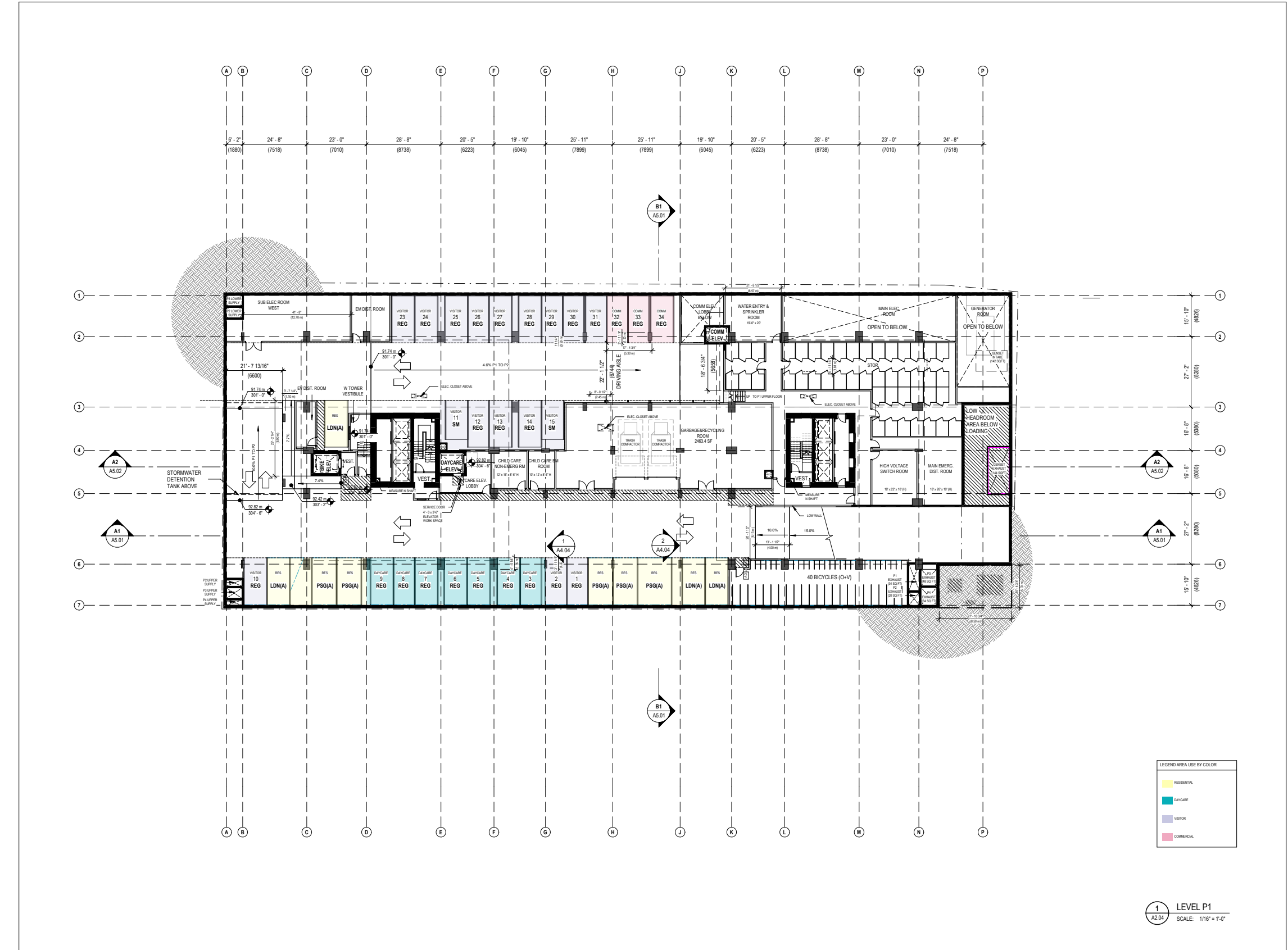
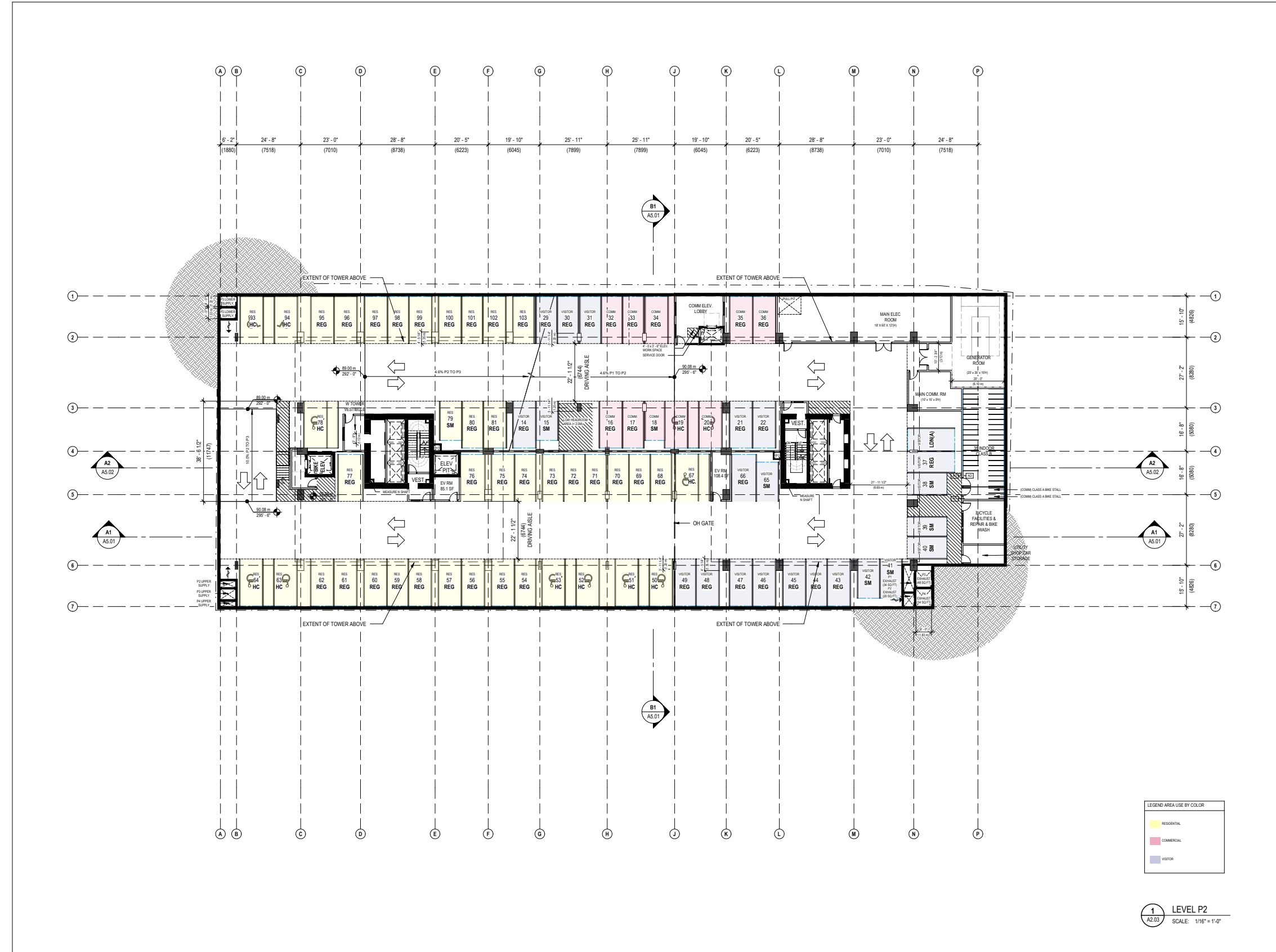


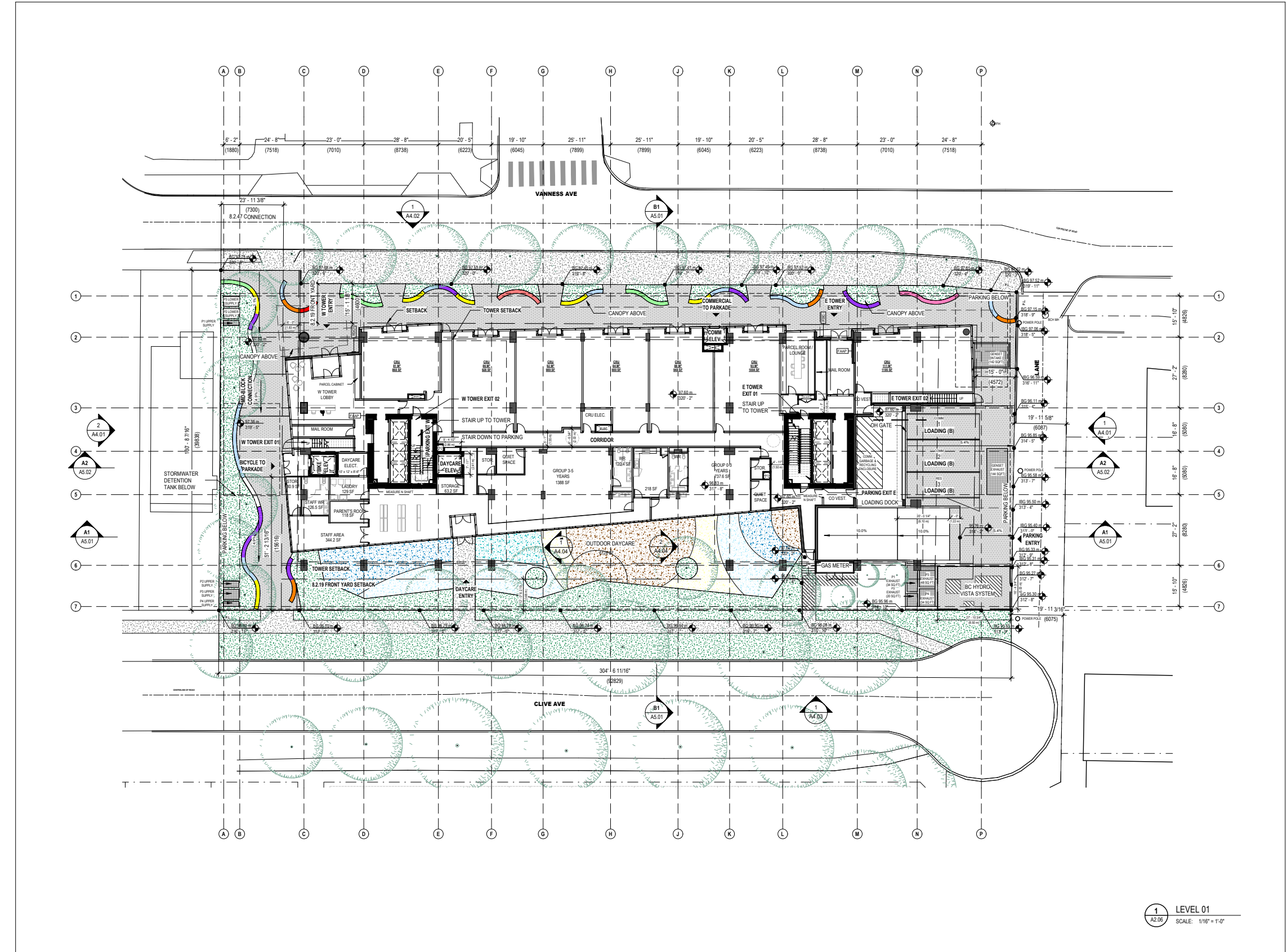
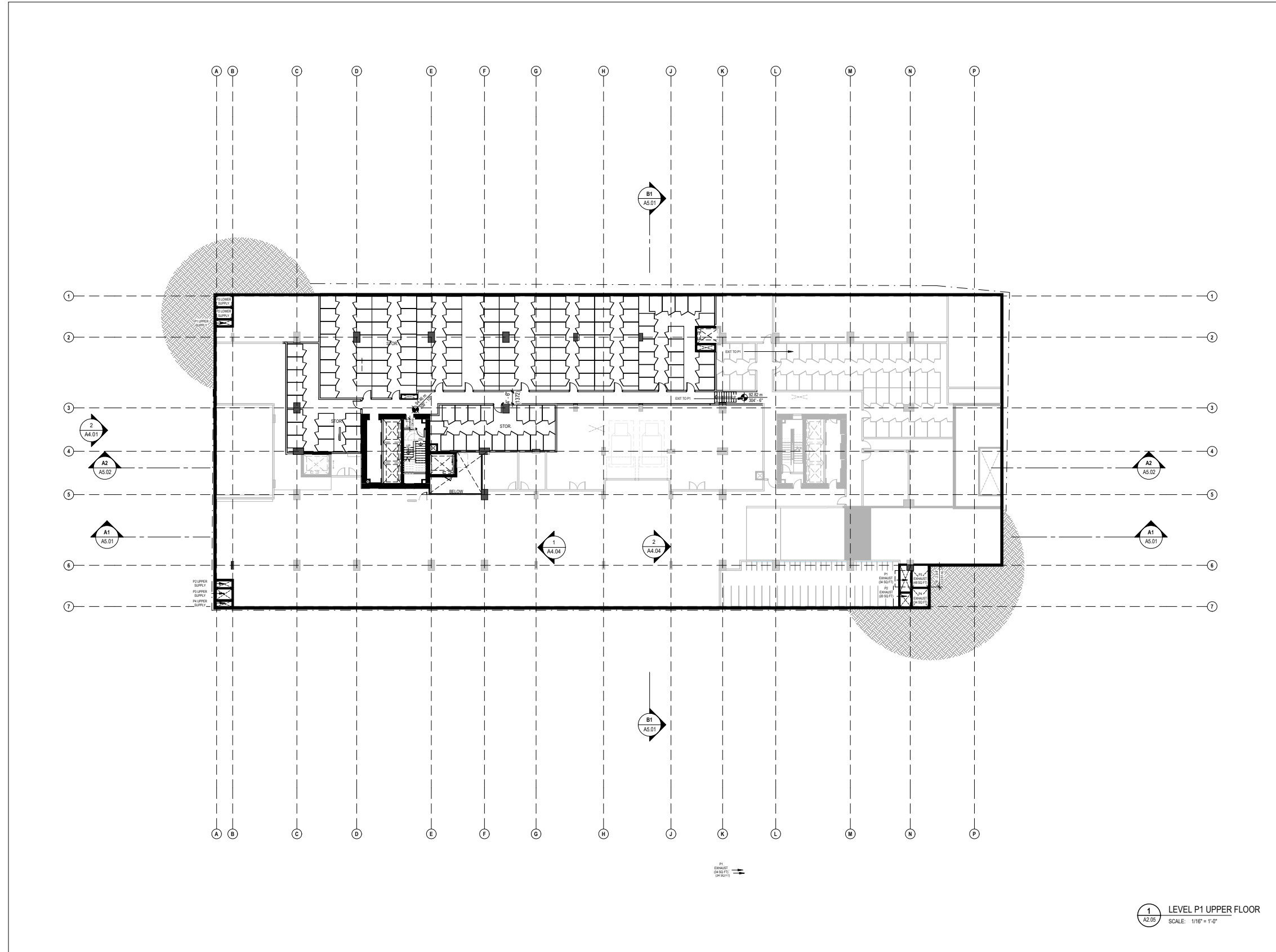
4.5 SITE PLAN

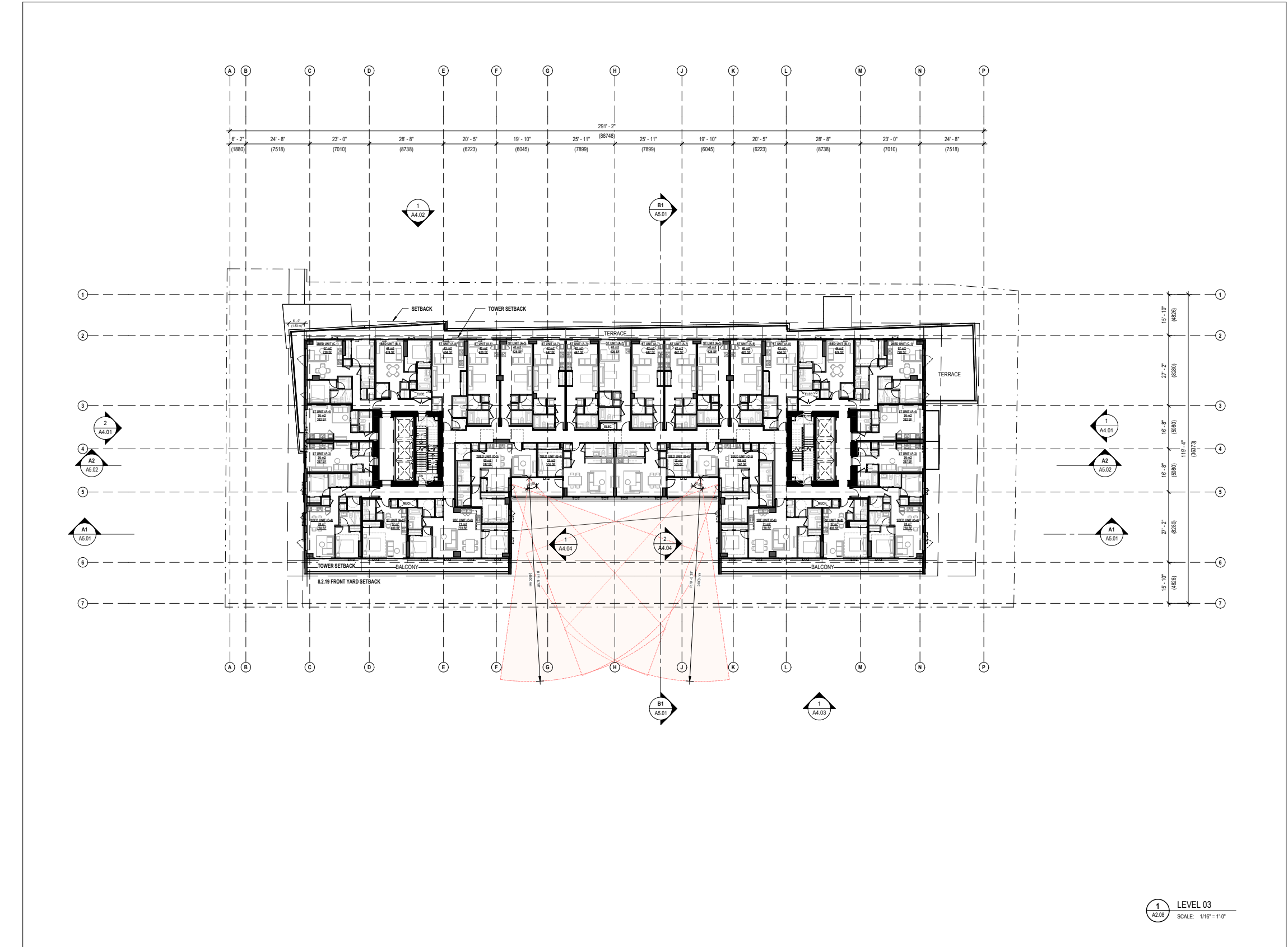
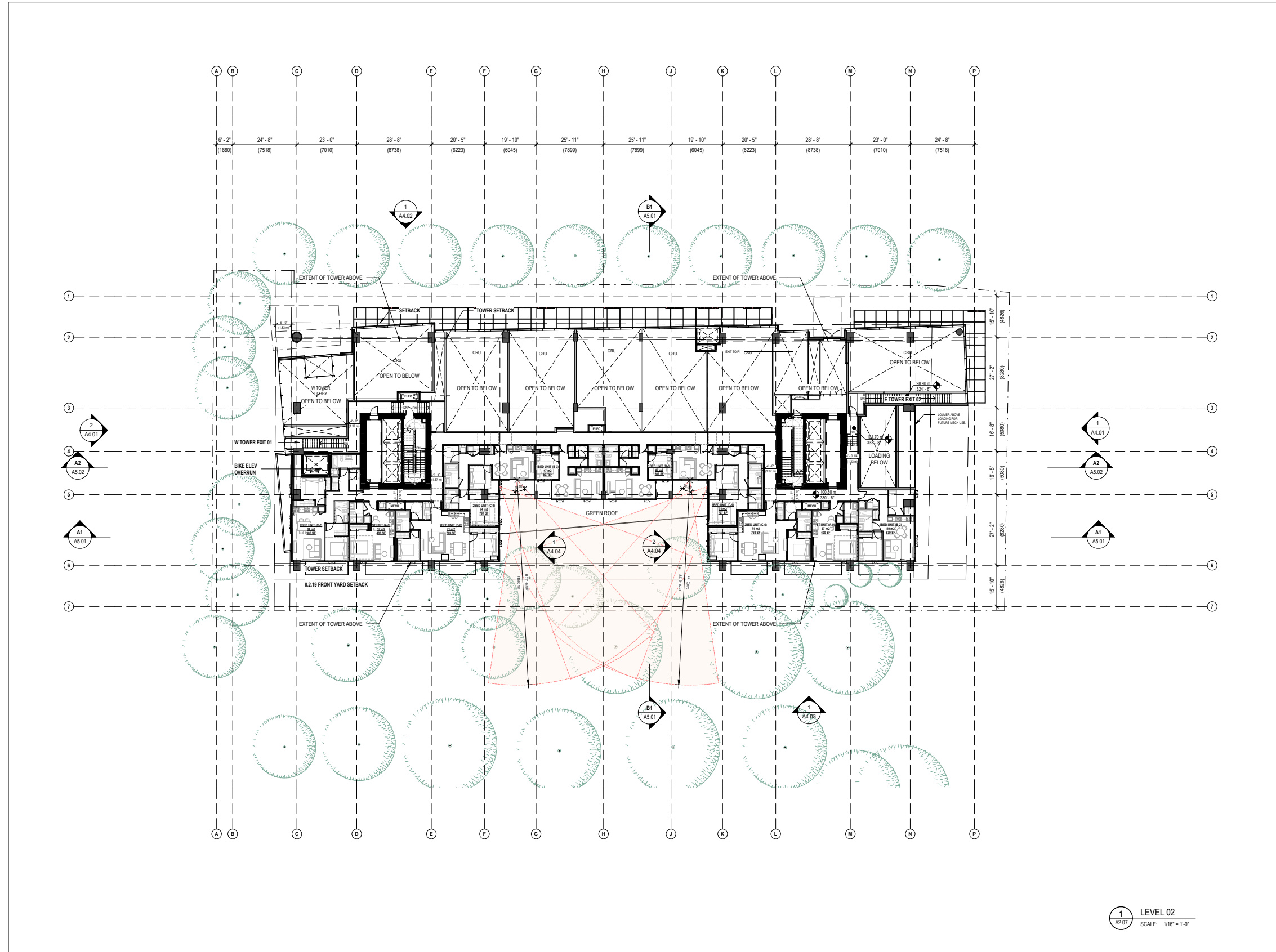


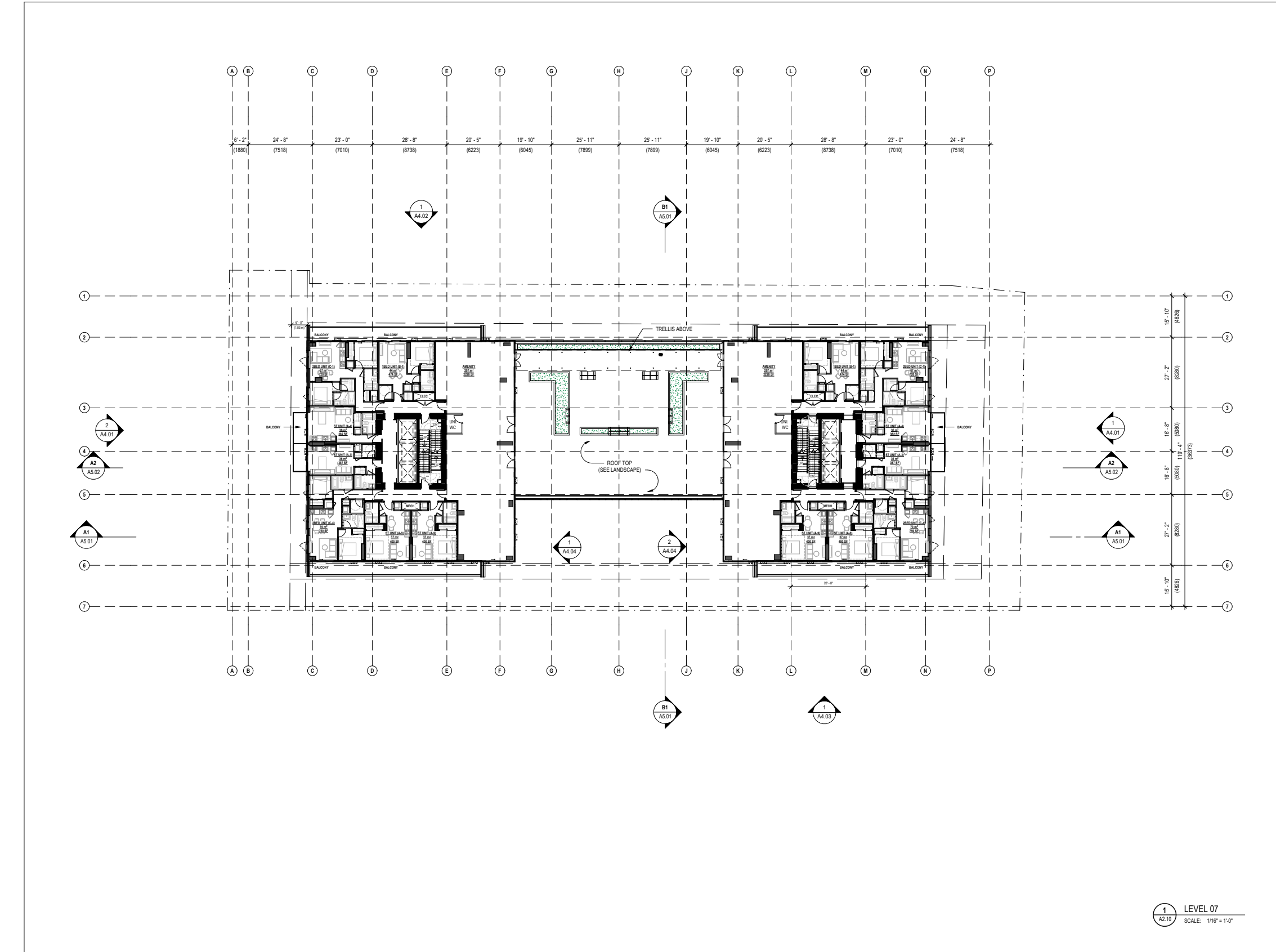
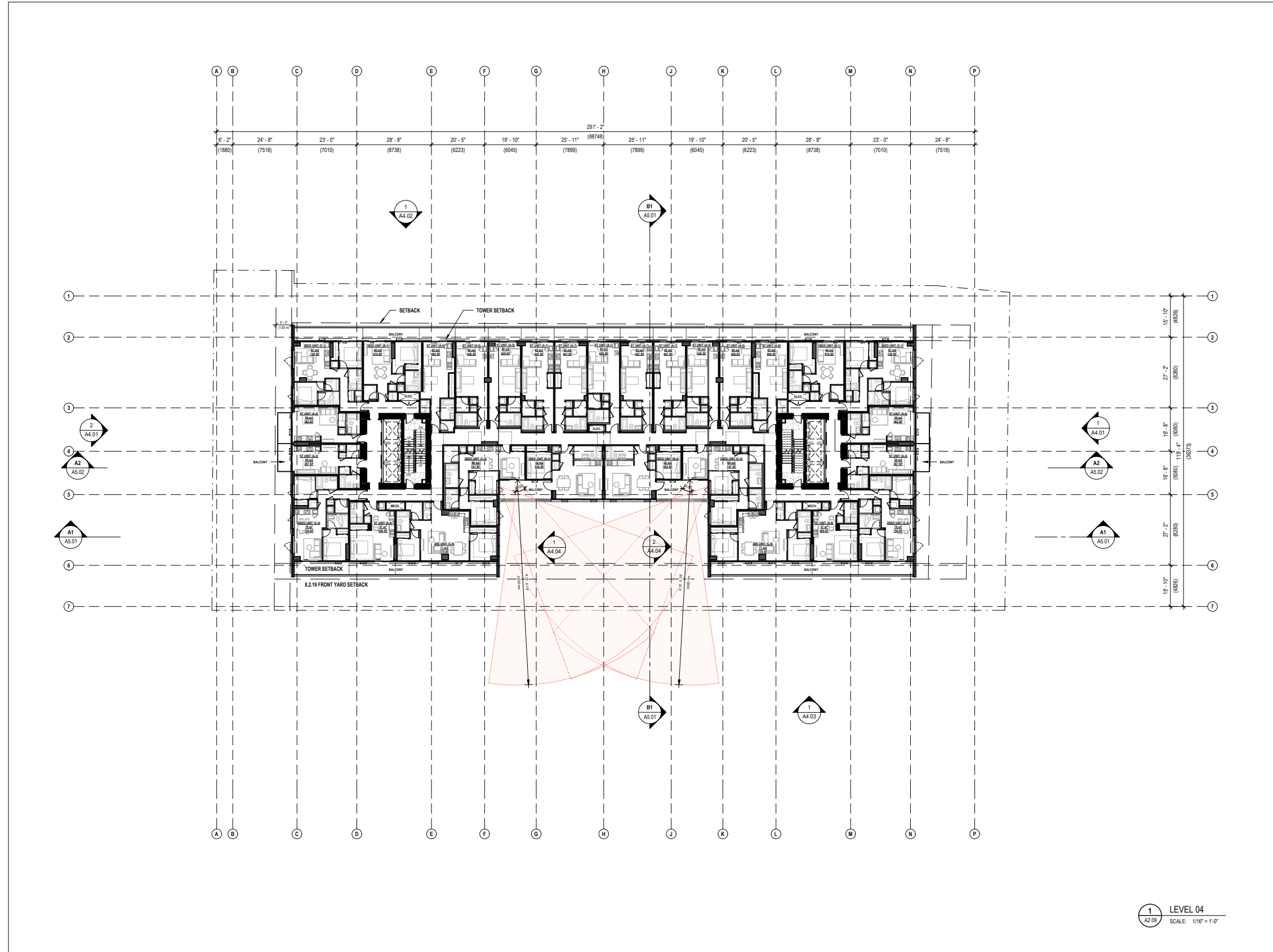
4.6 FLOOR PLANS

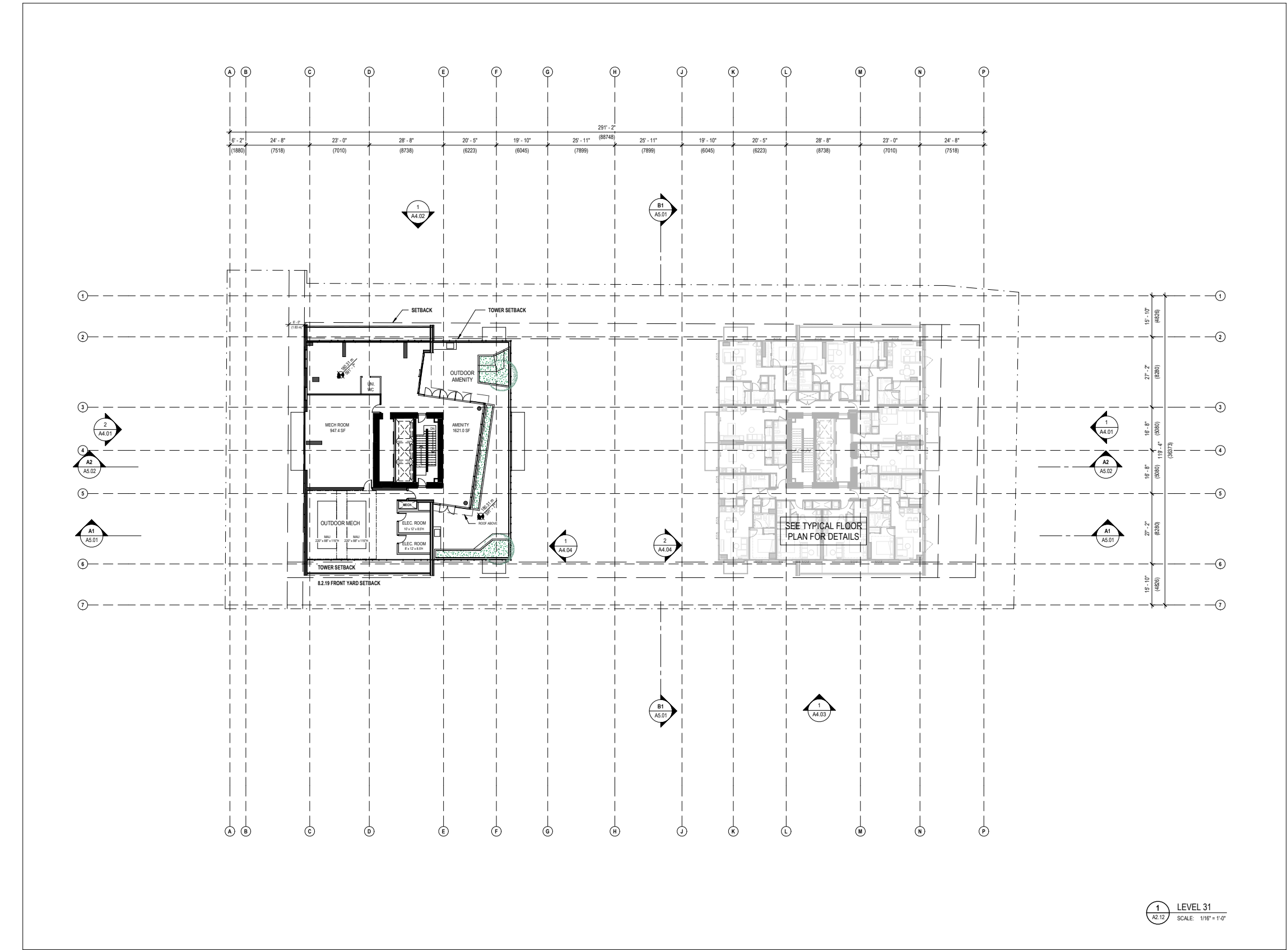
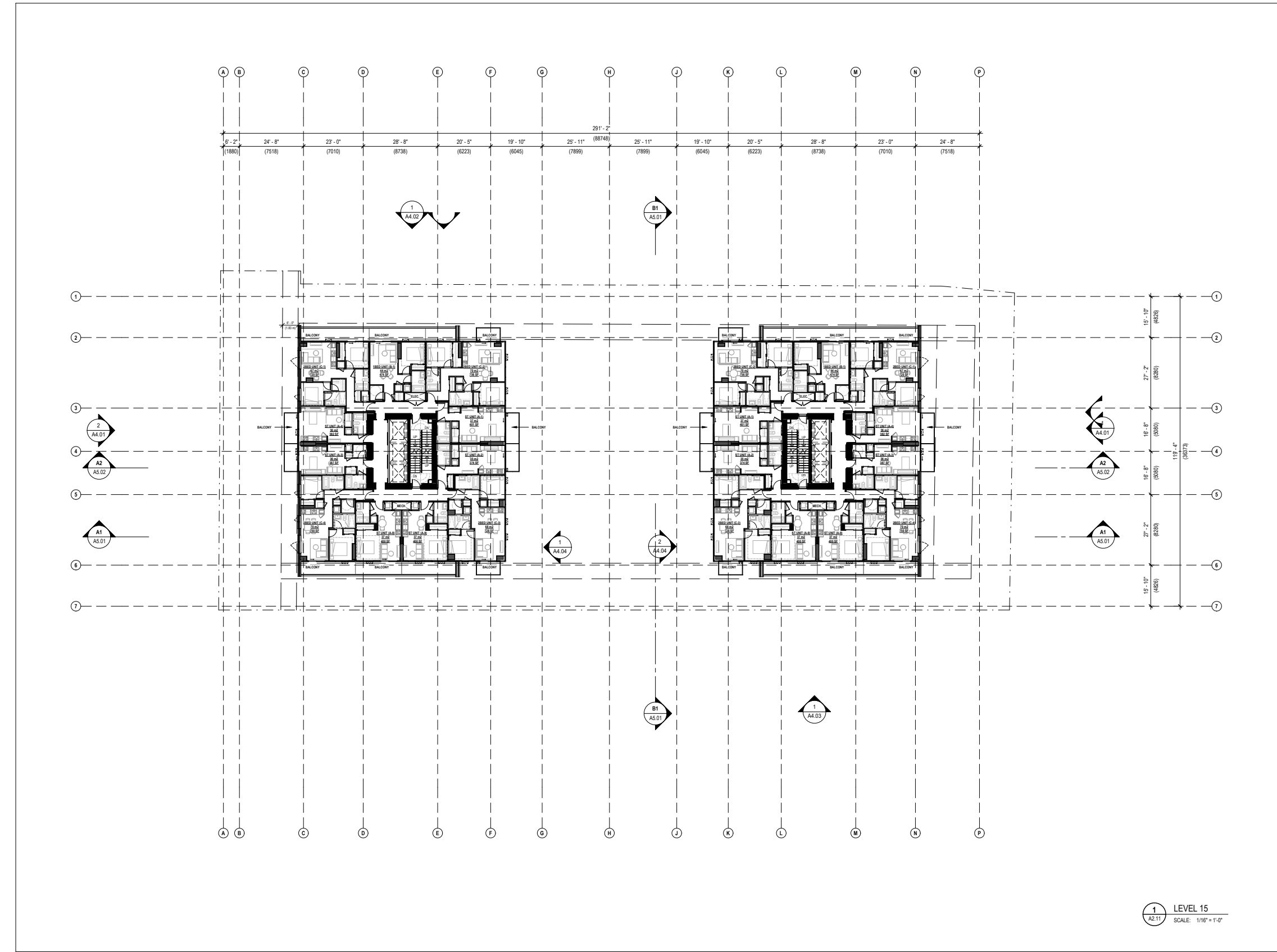


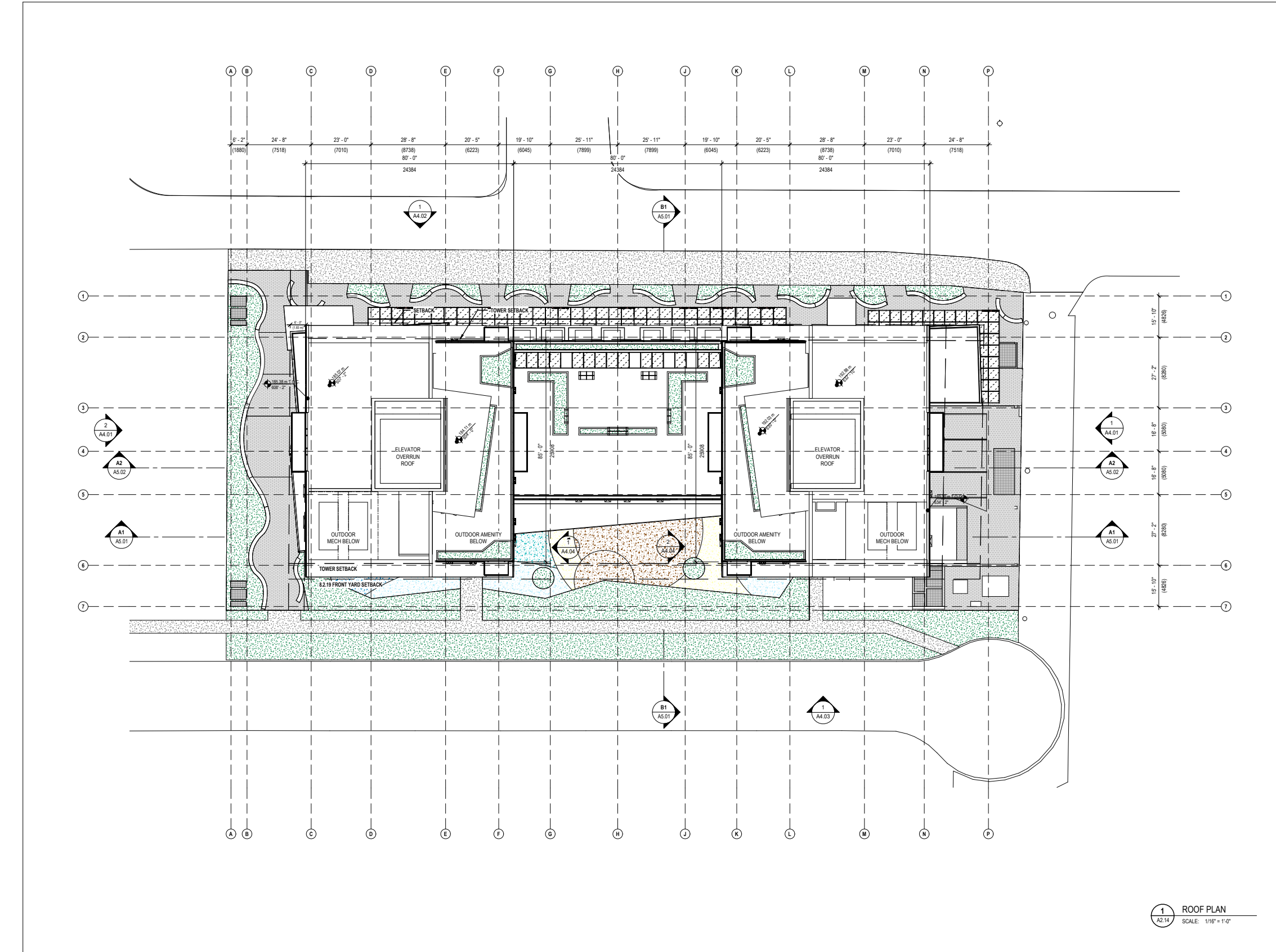
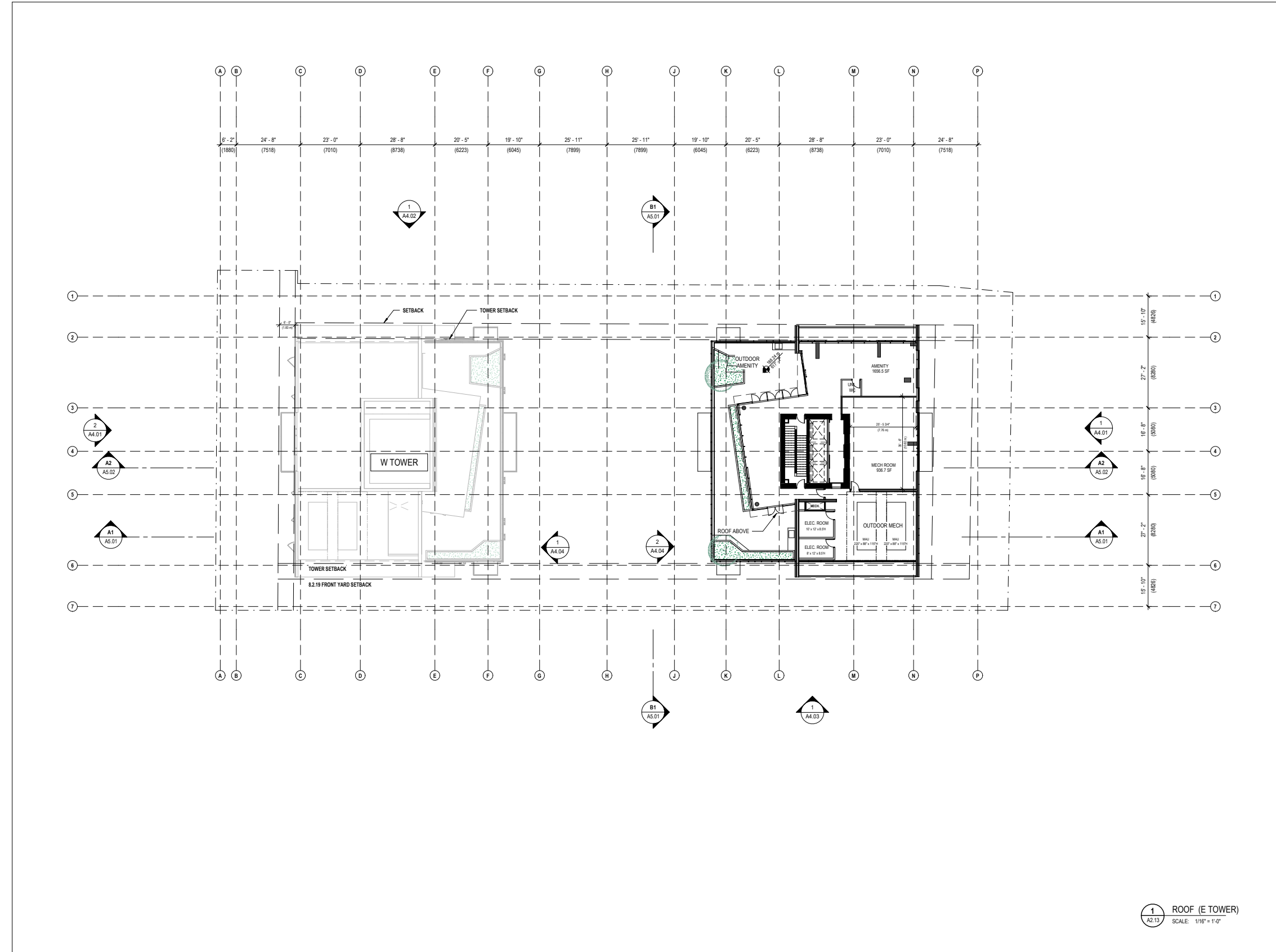




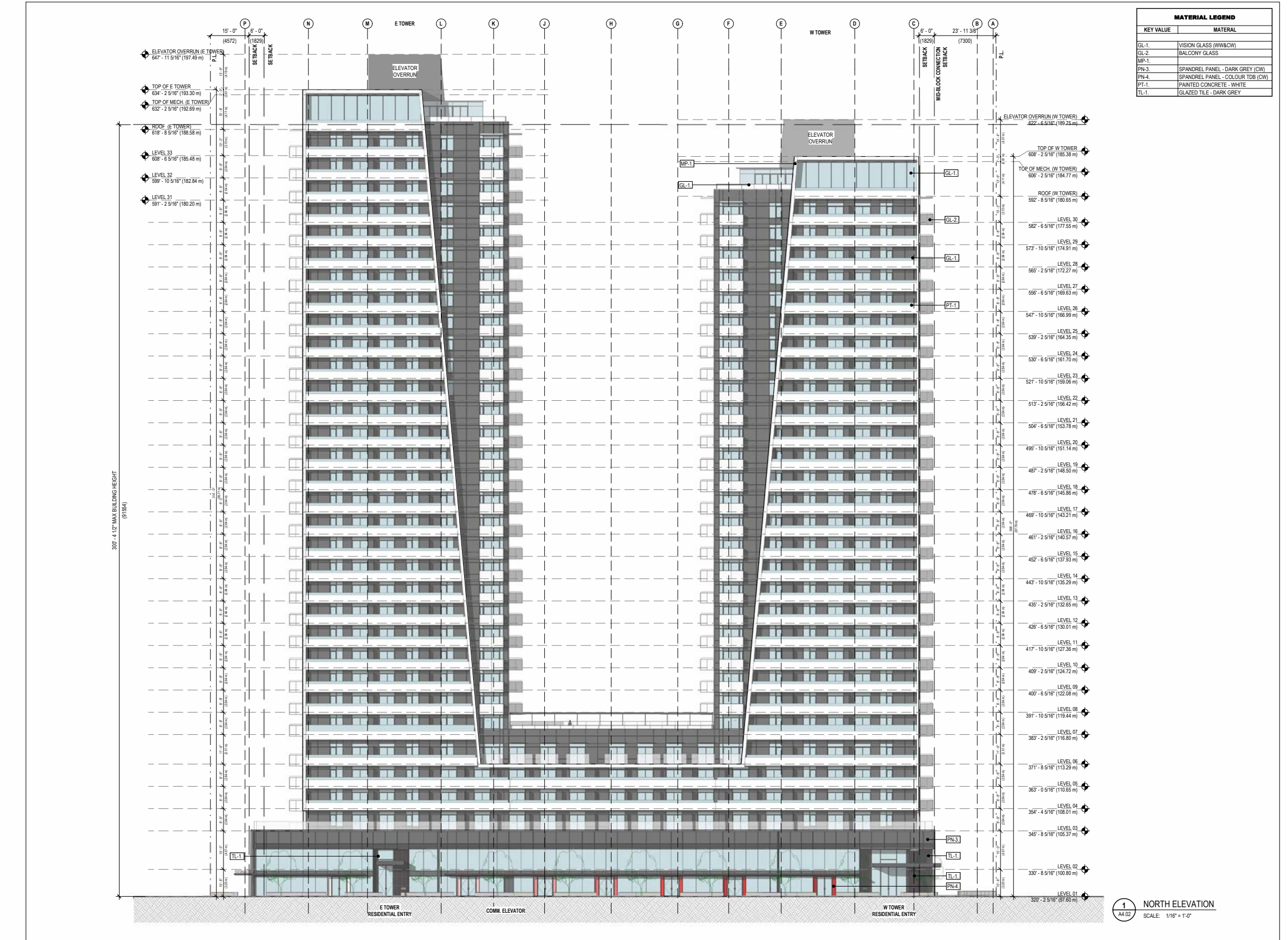




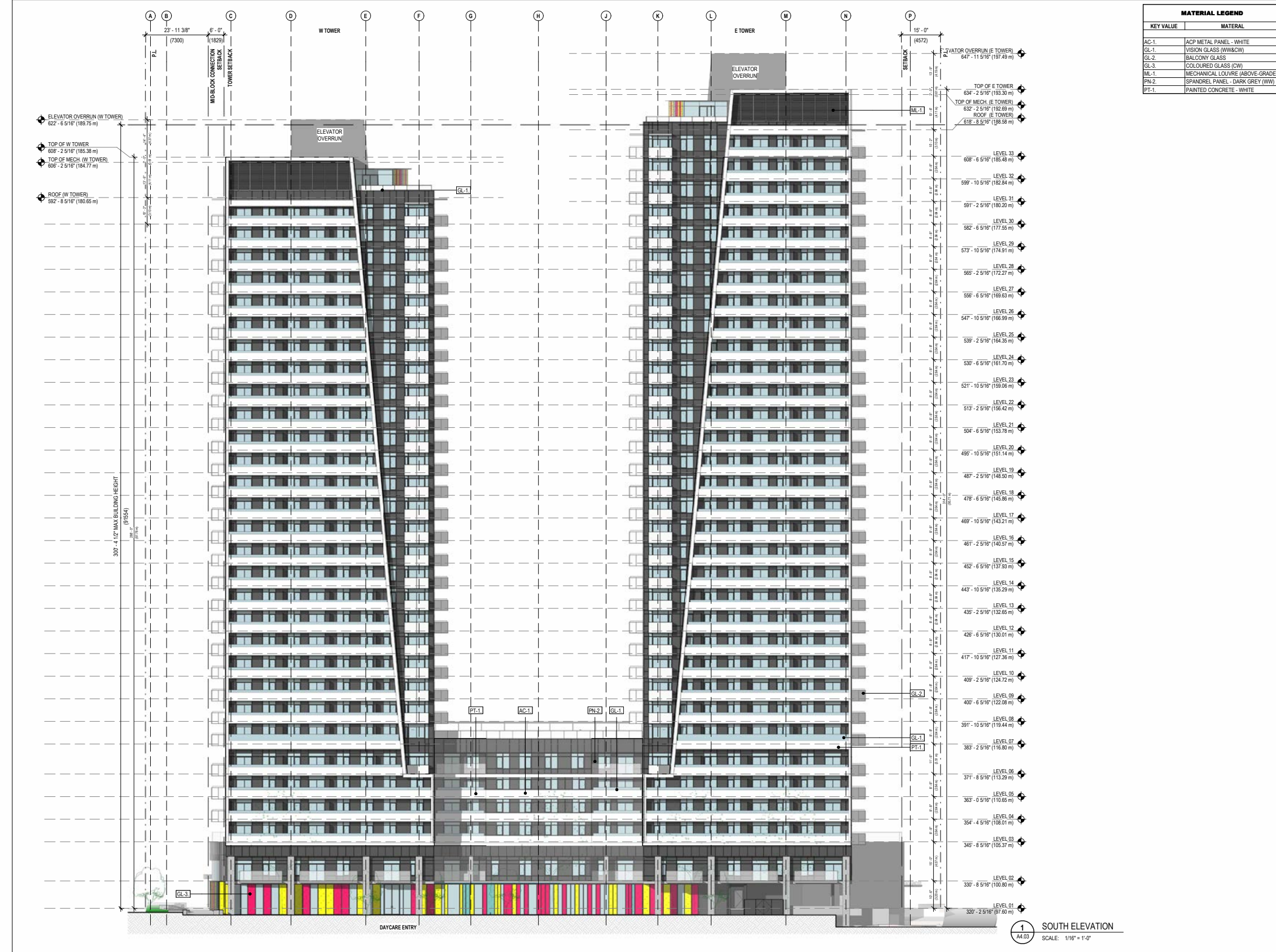


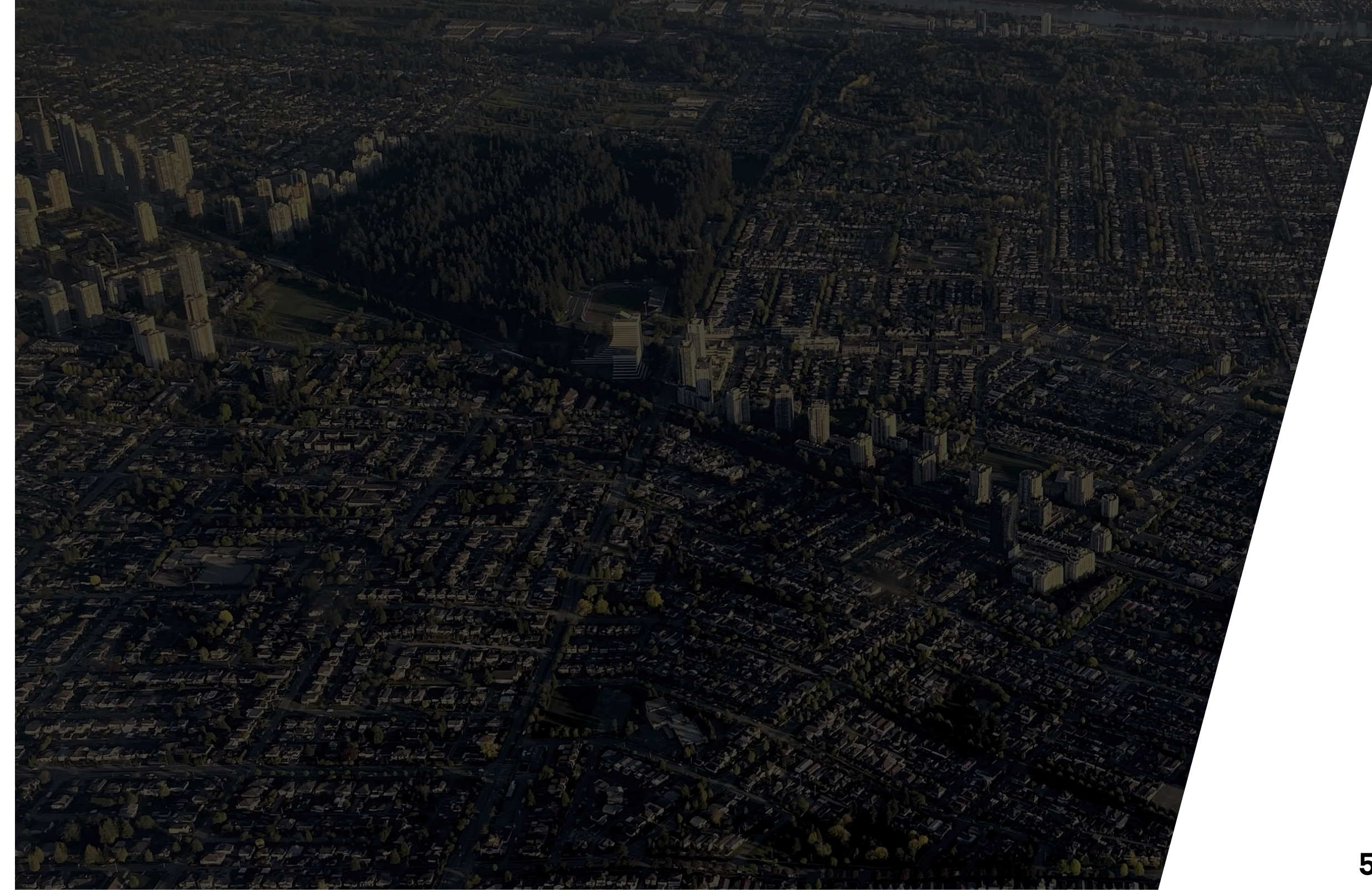


4.6 ELEVATIONS

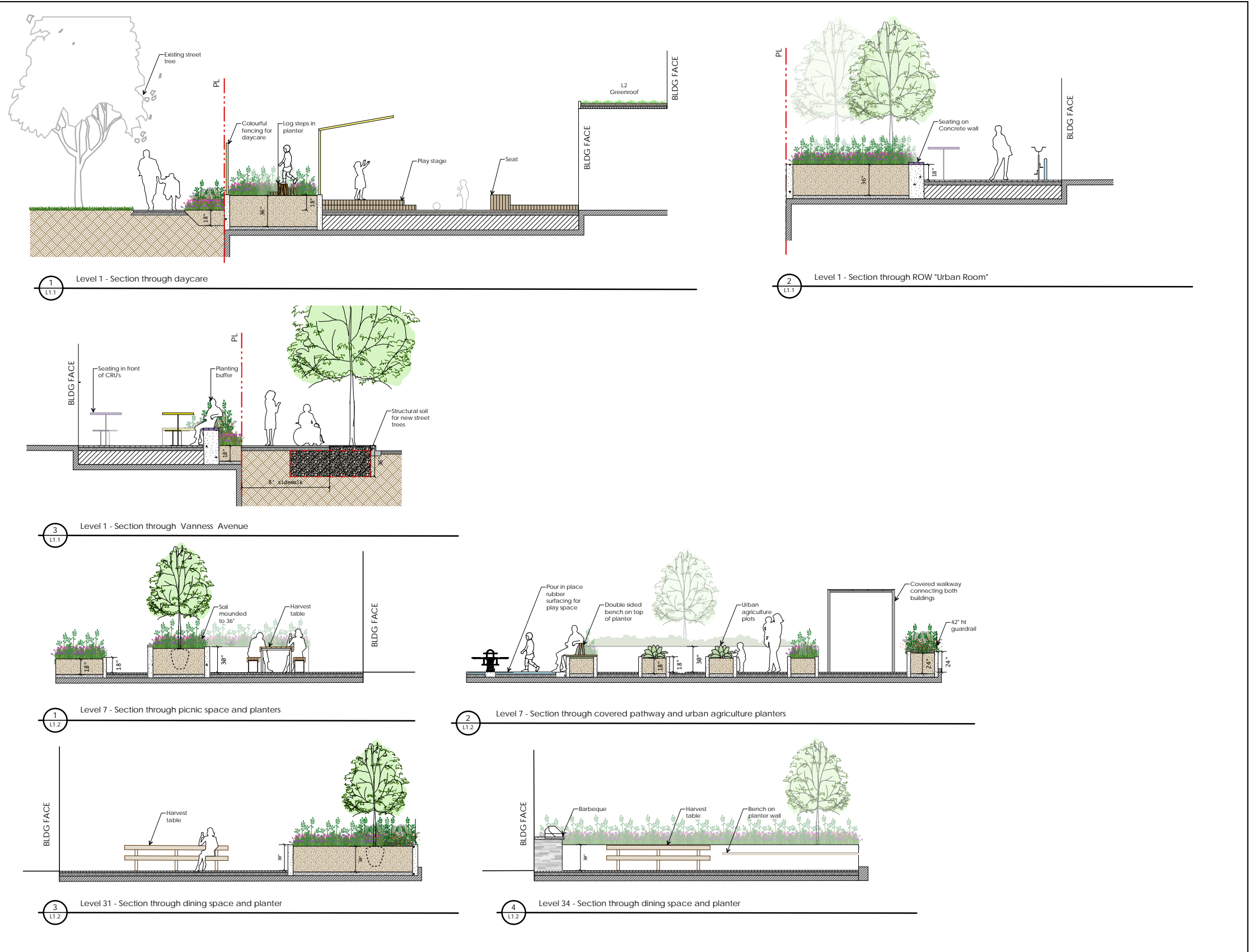


4.7 SECTIONS





5 LANDSCAPE DESIGN



03	31 MAY 2022	ISSUED FOR REZONING
02	06 MAY 2022	CONCEPT
01	16 DEC 2021	CONCEPT
no.:	date:	item:
Revisions:		
Stamp:		

durantekrekuk
 DURANTE KREUK LTD. LANDSCAPE ARCHITECTS
 102 - 1637 West 5th Avenue Vancouver B.C. V6J 1N6
 P 604.684.4611 | F 604.684.0577 | www.dk.bc.ca
 Client:

INTRACORP
 Project:
**3362 VANNESS AVE,
 VANCOUVER,
 BC**
 PROJECT NORTH

Drawn by: JM
 Checked by: PK
 Date: 16 DECEMBER 2021
 Scale: 1/16"=1'-0"
 Drawing Title:

SECTIONS

Project No.:
21114
 Sheet No.:

L2.1