



# Cambridge Crossing

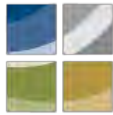
Cambridge, Massachusetts

## *Design Review Application – Parcel I Residential*



*Presented by:*

**DW NP Property, LLC**  
c/o DivcoWest Real Estate Investments  
200 State Street, 12<sup>th</sup> Floor  
Boston, MA 02109



**BEALS + THOMAS**

*Prepared by:*

**Beals and Thomas, Inc.**  
Reservoir Corporate Center  
144 Turnpike Road  
Southborough, MA 01772

*In collaboration with:*

**CBT Architects**  
**Galluccio & Watson, LLP**  
**Goulston & Storrs PC**  
**Michael Van Valkenburgh Associates, Inc.**

*Submitted in Compliance with the City of Cambridge Zoning Ordinance and M.G.L. c.40A*

**March 16, 2018**



# BEALS + THOMAS

BEALS AND THOMAS, INC.  
Reservoir Corporate Center  
144 Turnpike Road  
Southborough, MA 01772-2104

T 508.366.0560  
F 508.366.4391  
www.bealsandthomas.com  
Regional Office: Plymouth, MA

March 16, 2018

Mr. H. Theodore Cohen, Chair  
Cambridge Planning Board  
344 Broadway  
Cambridge, MA 02139

Via: Hand Delivery

Reference: Cambridge Crossing Parcel I Residential Design Review Application  
PB #179  
Cambridge, Massachusetts  
B+T Project No. 2084.56

Dear Chairman Cohen and Members of the Board:

On behalf of the Applicant, DW NP Property, LLC (an affiliate of DivcoWest), Beals and Thomas, Inc., respectfully submits this Design Review Application for Parcel I Residential (the Site), which is part of the larger Cambridge Crossing (formerly known as NorthPoint) development. The proposed development on Parcel I Residential is proposed to contain a residential building containing approximately 475 to 500 dwelling units comprising approximately 390,000 sf of Gross Floor Area (GFA). Parcel I is located entirely within Cambridge.

The attached Revised Package includes additional items which were identified by the Community Development Department as missing from the original submission on March 1, 2018. Please find the following items included as part of this Revised Package:

- A statistical Summary of the residential and affordable dwelling units constructed, in conformance with the requirements of Condition 19.d. of Special Permit #179;
- Revisions to drawings showing the overall dimensions, dimensions of major massing elements, and floor-to-floor dimensions;
- The inclusion of window and door openings on all floor plans;
- Labelling of exterior materials and colors on the elevations;
- Detailed elevations of the primary façade systems with section information to describe depth;
- Materials/color palette, additional details on window systems, and glazing specifications;
- Labelling of roof plan uses;
- Wind study;

- An exterior lighting plan depicting site, façade, and rooftop lighting;
- Preliminary Signage Plan;
- Massing studies/diagrams investigating the angling of the small building toward the park;
- A study of additional height for the podium as discussed at a previous meeting

As shown on the master plan included as part of this Application, the Site is bounded by Dawes Street to the north, Parcel I open space to the west, Parcel I Retail to the south, and North First Street to the east.

The Site is currently undeveloped vacant land. Parcel I is one of twenty (20) building parcels in the Cambridge Crossing mixed-use development. To date, condominium buildings on Lot S and Lot T, a rental residential building on Lot N, North Point Common, Child Street Park and related infrastructure and other public amenities (including the Brian P. Murphy Memorial Staircase) have been constructed at Cambridge Crossing. In addition, Parcel JK has obtained Design Review approval in Cambridge and Somerville, and building permit applications have been procured in both cities. The Parcel JK building is currently under construction. The surrounding roadway network was approved by the Planning Board on September 2, 2016, as part of Major Amendment #6, and is currently under construction.

The Parcel I Residential building contains approximately 475 to 500 dwelling units and ±390,000 sf of GFA. The building is proposed to be 20 stories of occupied floors with mechanical penthouse. The proposed building will be 220 feet in height, based on the Cambridge definition of building height. Approximately 238 to 250 parking spaces are proposed for Parcel I Residential, all of which will be internal to the building. Approximately 499 to 525 total bicycle parking spaces will be provided on-site.

A total of 73 short-term bicycle parking spaces will be provided on-site, which includes those located as part of Parcel I Residential, Parcel I Retail, and Parcel I Open Space.

In addition, the Applicant intends to subdivide the Parcel in the manner depicted on the enclosed Draft Subdivision Plan prepared by Beals & Thomas, Inc., dated December 21, 2016, and last updated February 23, 2018, to create three (3) separate parcels within what is now Parcel I: Parcel I-1, I-2, and I-3. The final subdivision plan will be submitted at a later date for approval and endorsement by the Planning Board.

Mr. H. Theodore Cohen, Chair  
Cambridge Planning Board  
March 16, 2018  
Page 3

As part of this application, we have included fifteen (15) copies, as well as a flash drive containing an electronic version, of the following materials for review by the Cambridge Planning Board:

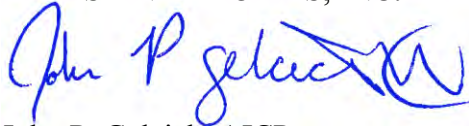
- Site Plans;
- Floor Plans and Building Sections;
- Architectural Elevations;
- A Zoning Compliance Summary;
- LEED/Green Building Compliance Summary;
- Shadow Study;
- Wind Study;
- Acoustical Report and Noise Mitigation Narrative;
- Preliminary Signage Plan;
- Compliance Checklist – Zoning Ordinance and NorthPoint Design Guidelines;
- Materials showing the cross-sections of abutting streets;
- Subdivision Plan, previously approved by the Cambridge Planning Board; and
- Draft Subdivision Plan.

There are no changes proposed to the approved uses on the Site nor are there any changes to the layout of roads serving the Site from that shown on the approved 40-scale Roadway Network Schematic Plan.

The Cambridge Crossing team is excited to meet with the Planning Board to review and discuss the evolution of design of the proposed project. Thank you for your consideration of the enclosed.

Very truly yours,

BEALS AND THOMAS, INC.



John P. Gelcich, AICP  
Senior Planner

Enclosures

JPG/mac/208456PT001B



**CAMBRIDGE CROSSING**

**DEVELOPMENT STATUS TABLE**

**Phase 1a**

<b>Building</b>	<b>Use(s)</b>	<b>Approved GFA per Special Permit Appendix I</b>	<b>GFA approved in thru Design Review</b>	<b>Project Status (i.e., Special Permit, Design Review Completed, Under Construction, Construction Completed)</b>
N	Residential	394,000	394,000 <sup>1</sup>	Construction Completed. Occupied.
	Retail	8,600	8,600	Construction Completed. Occupied.
S	Residential	112,398	112,398	Construction Completed. Occupied.
T	Residential	242,194	242,194	Construction Completed. Occupied.
JK	Office/Laboratory	370,000 Total	351,192	Under construction.
	Retail	TBD	14,700	Under construction.
W	Retail	18,000	16,337	Design Review Complete.
Q1	Retail	17,675 <sup>2</sup>	17,675	Minor Amendment Approved for GFA Increase. Revised Design Review to be submitted.
L	Residential	286,000 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD (Allowed)		Special Permit approval. Design Review timing TBD.
M	Residential	208,400 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.
I	Residential	390,000 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD		Special Permit approval. Design Review timing TBD.

<sup>1</sup> Development of Parcels N, S and T was completed before issuance of Major Amendment No. 6, and, therefore, the revision of Appendix I. As a result, Appendix I reflects the as-built GFA of each of N, S and T.

<sup>2</sup> Increased by Amendment No. 7 (Minor) from 14,000 square feet of GFA to 17,675 square feet of GFA.

**Phase 1b**

<b>Building</b>	<b>Use(s)</b>	<b>Approved GFA per Special Permit Appendix I</b>	<b>GFA approved in thru Design Review</b>	<b>Project Status (i.e., Special Permit, Design Review Completed, Under Construction, Construction Completed)</b>
G	Office/Laboratory	410,000	451,000	Special Permit approval. Design Review Submitted. Design Review completed in Boston.
H	Office/Laboratory	375,000	347,600	Special Permit approval. Design Review Submitted. Design Review completed in Boston.
EF	Office/Laboratory	400,000 Total	410,590	Special Permit approval. Design Review submitted in Somerville.
	Retail	TBD		Special Permit approval. Design Review submitted in Somerville.
C	Mixed-Use	348,000		Special Permit approval. Design Review timing TBD.
U	Office/Laboratory	320,000		Special Permit approval. Design Review timing TBD.

**Phase 2**

<b>Building</b>	<b>Use(s)</b>	<b>Approved GFA per Special Permit Appendix I</b>	<b>GFA approved in thru Design Review</b>	<b>Project Status (i.e., Special Permit, Design Review Completed, Under Construction, Construction Completed)</b>
A	Residential	175,000		Special Permit approval. Design Review timing TBD.
B	Residential	373,000 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD (Allowed)		Special Permit approval. Design Review timing TBD.
D	Mixed Use	340,000		Special Permit approval. Design Review timing TBD.
Q2	Office/Laboratory	147,387 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.
R	Mixed Use	148,945 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.
V	Residential	199,855 Total		Special Permit approval. Design Review timing TBD.
	Retail	TBD (Required)		Special Permit approval. Design Review timing TBD.

**Special Permit #179, Condition 19.d.**

**Statistical Summary of Dwelling Units Constructed**

Parcel	Total Residential Units	Approved GFA	Use(s)	All Residential Units							
				Studio		1 Bedroom		2 Bedroom		3 Bedroom	
				No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF
N	355	402,600	Residential Retail	74	501	180	732	85	1,030	16	1,392
S	99	112,398	Residential	0	--	94	921	5	1,285	0	--
T	230	242,194	Residential	40	663	138	878	51	1,044	1	1,923
JK	--	365,892	Office/Laboratory Retail	--	--	--	--	--	--	--	--

Parcel	Affordable Residential Units	Approved GFA	Use(s)	Affordable Residential Units <sup>1</sup>							
				Studio		1 Bedroom		2 Bedroom		3 Bedroom	
				No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF	No. Units	Avg. SF
N	41	402,600	Residential Retail	8	516	21	734	10	1,062	2	1,407
S	12	112,398	Residential	--	--	11	887	1	1,179	--	--
T	26	242,194	Residential	4	678	15	834	6	999	1	1,839
JK	--	365,892	Office/Laboratory Retail	--	--	--	--	--	--	--	--

Issued: March 16, 2018

<sup>1</sup> This chart assumes that these residential properties and affordable units are in compliance with the associated affordable housing covenants on record at the Middlesex County Registry of Deeds (Parcel N: Book 61574 Page 442; Parcel S: Book 45918 Page 224; Parcel T: Book 46408 Page 98). Additional information regarding these properties is available from the Housing Department at CDD.



**Cambridge  
Crossing**

**PARCEL I - RESIDENTIAL**



# CAMBRIDGE CROSSING PARCELS

## DESIGN REVIEW PACKAGE

MARCH 27, 2018



DIVCOWEST

cbt

MICHAEL  
VAN  
VALKENBURGH  
ASSOCIATES  
INC

BEALS + THOMAS

McNAMARA · SALVIA

HALEY  
ALDRICH

BALA | TMP

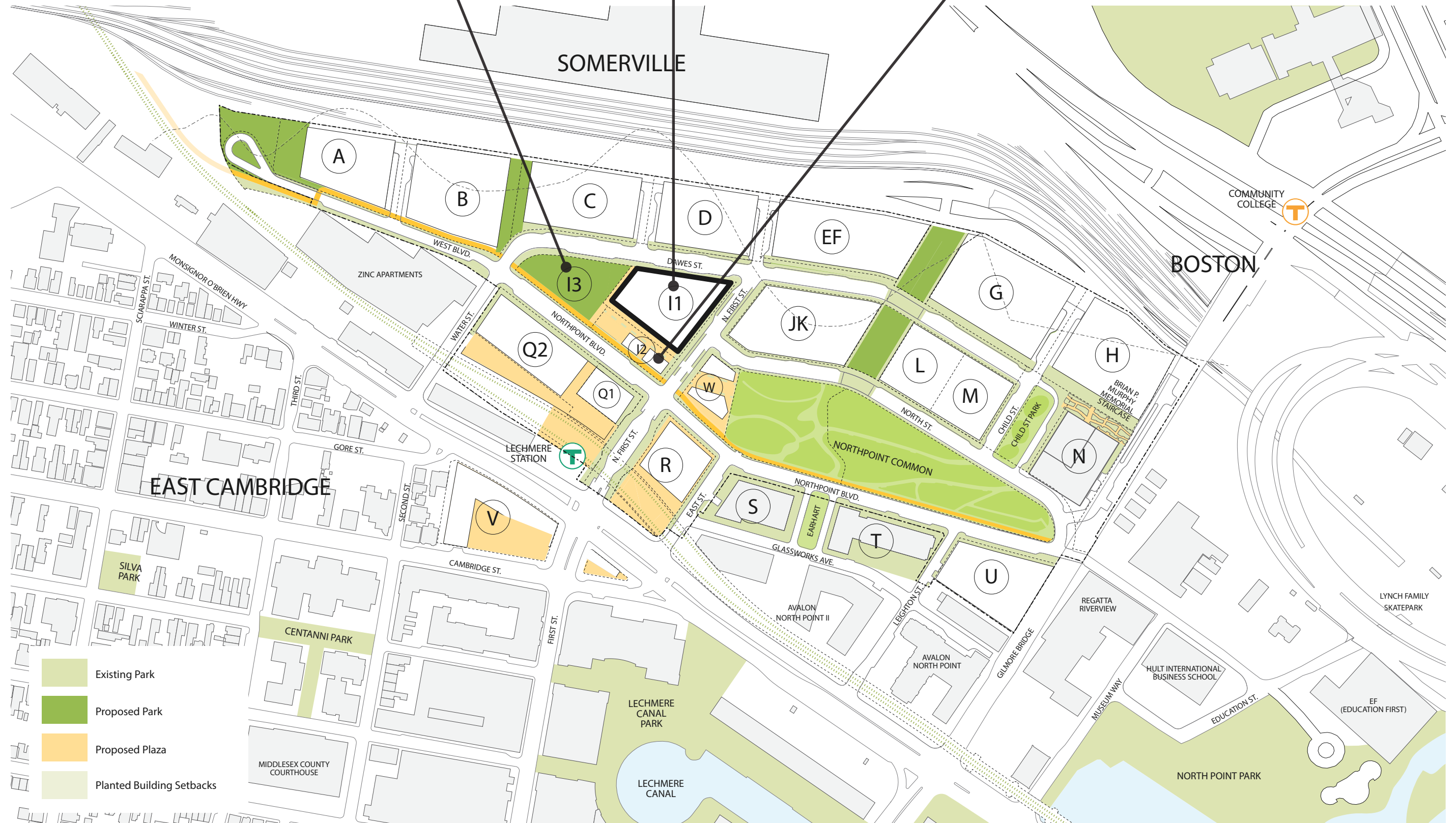


# LOCATION IN MASTER PLAN

PARCEL I  
OPEN SPACE

PARCEL I  
RESIDENTIAL

PARCEL I  
RETAIL





CAMBRIDGE CROSSING - PARCEL I  
EXISTING CONDITIONS



DIVCO WEST

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

BEALS + THOMAS

McNAMARA - SALVIA

HALEY ALDRICH

BALA | TMP



# NEIGHBOURING BUILDINGS



PARCEL S, PARCEL T, NORTHPOINT COMMON



PARCEL N (TWENTY | 20)



22 WATER STREET (ZINC)



BRIAN P. MURPHY MEMORIAL STAIRCASE





# DESIGN & PROJECT DESCRIPTION



**390,000** GROSS FLOOR AREA

**220'** TALL

**20** FLOORS (OCCUPIED)

**475-500** UNITS

**250** PARKING SPACES

**0.5** VEHICLE SPACES PER UNIT

**526** LONG TERM BICYCLE PARKING SPACES *(INCLUDING RETAIL)*

**1.05** BICYCLE SPACES PER UNIT





# RELATIONSHIP TO MASTER PLAN



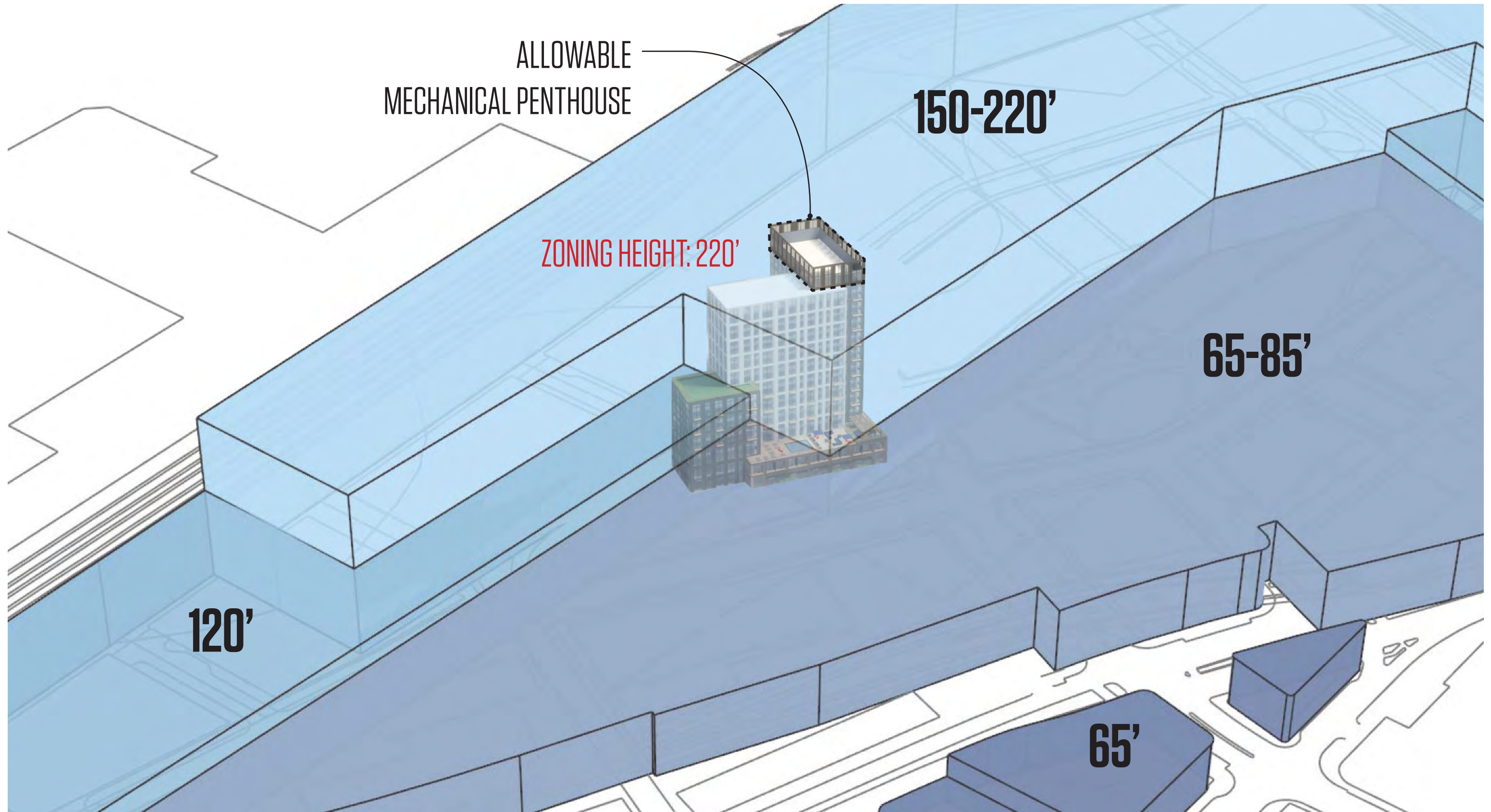


CAMBRIDGE CROSSING - PARCEL 1  
MASSING RATIONALE





CAMBRIDGE CROSSING - PARCEL I  
HEIGHT ZONE COMPLIANCE



DIVCOWEST.

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

BEALS + THOMAS

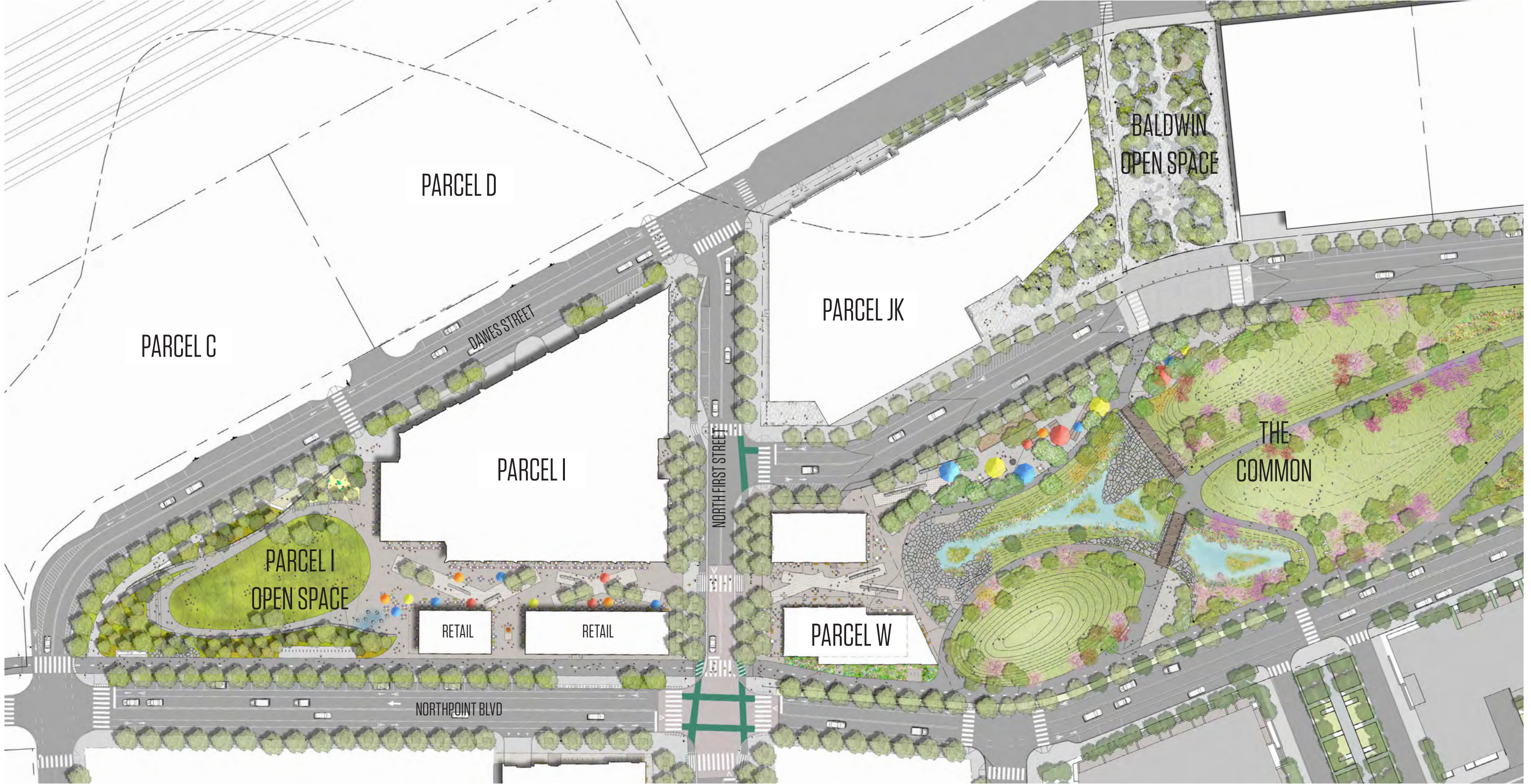
McNAMARA - SALVIA

HALEY ALDRICH

BALA | TMP



CAMBRIDGE CROSSING - PARCEL I  
 EXPANDED LANDSCAPE PLAN



DIVCO WEST

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

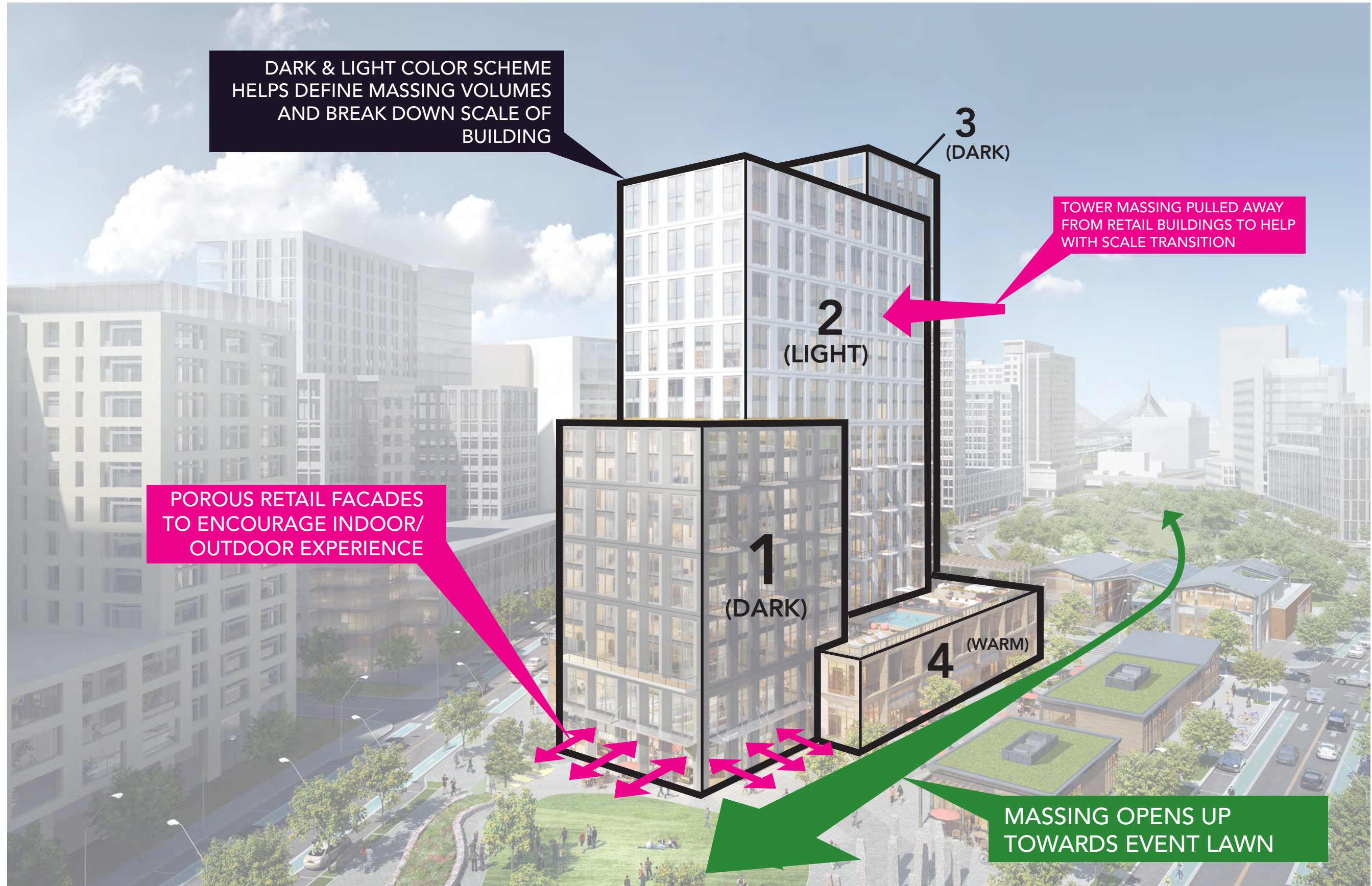
BEALS + THOMAS

McNAMARA - SALVIA

HALEY ALDRICH

BALA | TMP









\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING







SOUTHERN FACING BALCONIES  
CREATE RESIDENTIAL SCALE

TOWER HEIGHT LOCATED ALONG  
NORTH FIRST STREET TO  
REINFORCE URBAN STREET EDGE

RETAIL PODIUM HAS ITS  
OWN IDENTITY







\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING







\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING



DIVCO WEST

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

BEALS + THOMAS

McNAMARA - SALVIA

HALEY ALDRICH

BALA | TMP



# ADDITIONAL URBAN VIEWS



\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING





CAMBRIDGE CROSSING - PARCEL 1  
REVISED PODIUM DESIGN

PREVIOUS PODIUM



UPDATED PODIUM





CAMBRIDGE CROSSING - PARCEL 1  
REVISED PODIUM DESIGN

PREVIOUS PODIUM

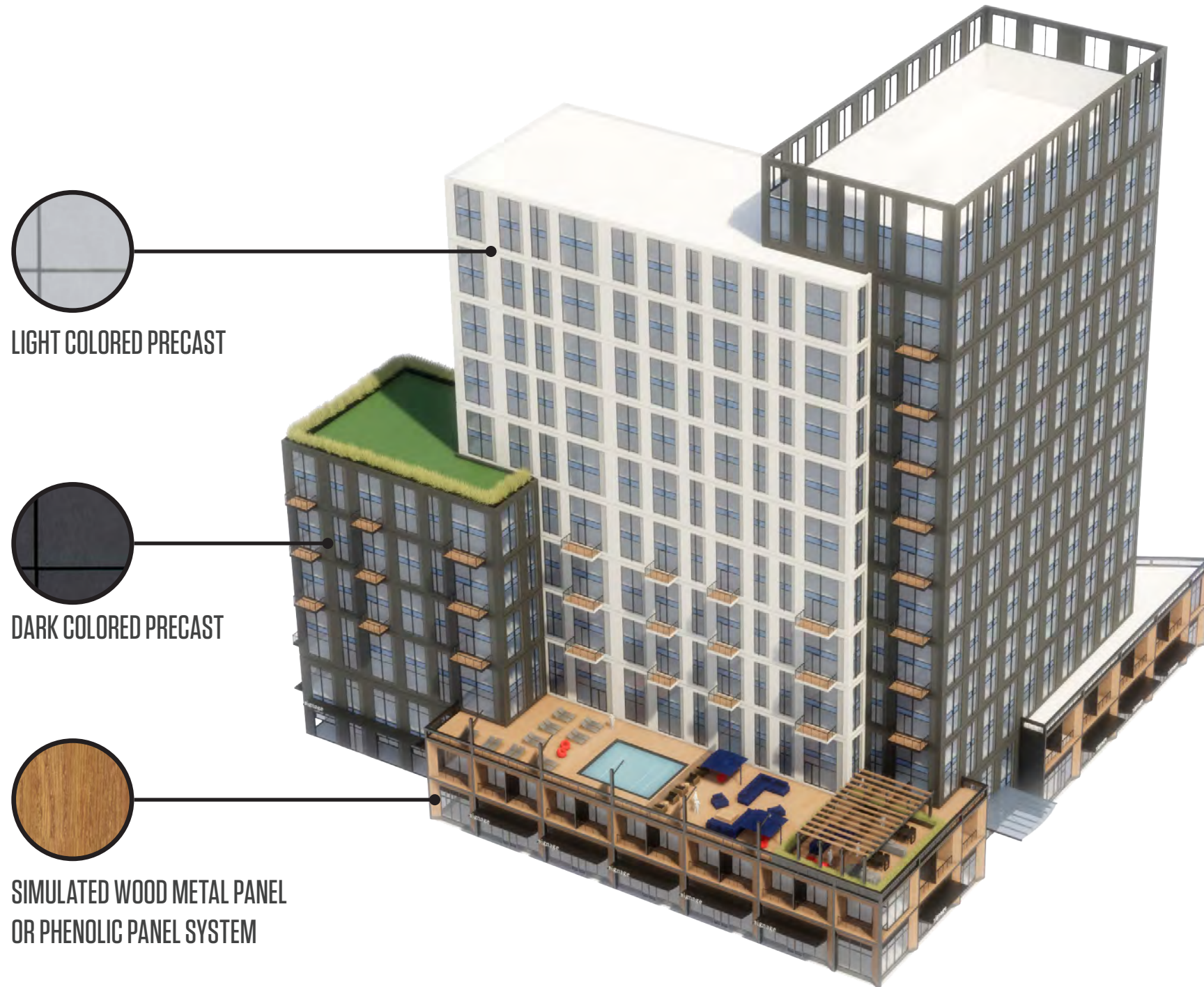


UPDATED PODIUM





# BUILDING MATERIALITY



LIGHT COLORED PRECAST

DARK COLORED PRECAST

SIMULATED WOOD METAL PANEL  
OR PHENOLIC PANEL SYSTEM

## TOWER FACADE SYSTEM

PRECAST CONCRETE W/ MINERAL WOOL INSULATION  
PAINTED ALUMINUM GLAZING SYSTEM W/ METAL PANEL SPANDREL  
GLAZING BASIS OF DESIGN: SOLARBAN 60

## PODIUM FACADE SYSTEM

COMPOSITE METAL OR PHENOLIC PANEL SYSTEM  
PAINTED ALUMINUM GLAZING SYSTEM  
GLAZING BASIS OF DESIGN: SOLARBAN 60

## ROOFING SYSTEM 1 - HIGH ROOF

HIGH ALBEDO ADHERED MEMBRANE ROOFING SYSTEM

## ROOFING SYSTEM 2 - GREEN ROOF

FUNCTIONAL GREEN ROOF SYSTEM - 2" MIN. PLANTING TRAYS AS DEFINED  
BY ARTICLE 22.30

## ROOFING SYSTEM 3 - AMENITY DECK

LEED COMPLIANT (SRI) PAVER/PEDESTAL SYSTEM

## ENERGY MODEL PERFORMANCE CRITERIA

ROOF U-VALUE: 0.032  
WALL U-VALUE: 0.055  
VERTICAL GLAZING: U-VALUE 0.36, SHGC 0.27  
WINDOW/WALL RATIO: 40%



# PODIUM - FACADE DETAILS

\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING

SIMULATED WOOD METAL PANEL  
OR PHENOLIC PANEL SYSTEM

PAINTED ALUMINUM  
GLAZING SYSTEM

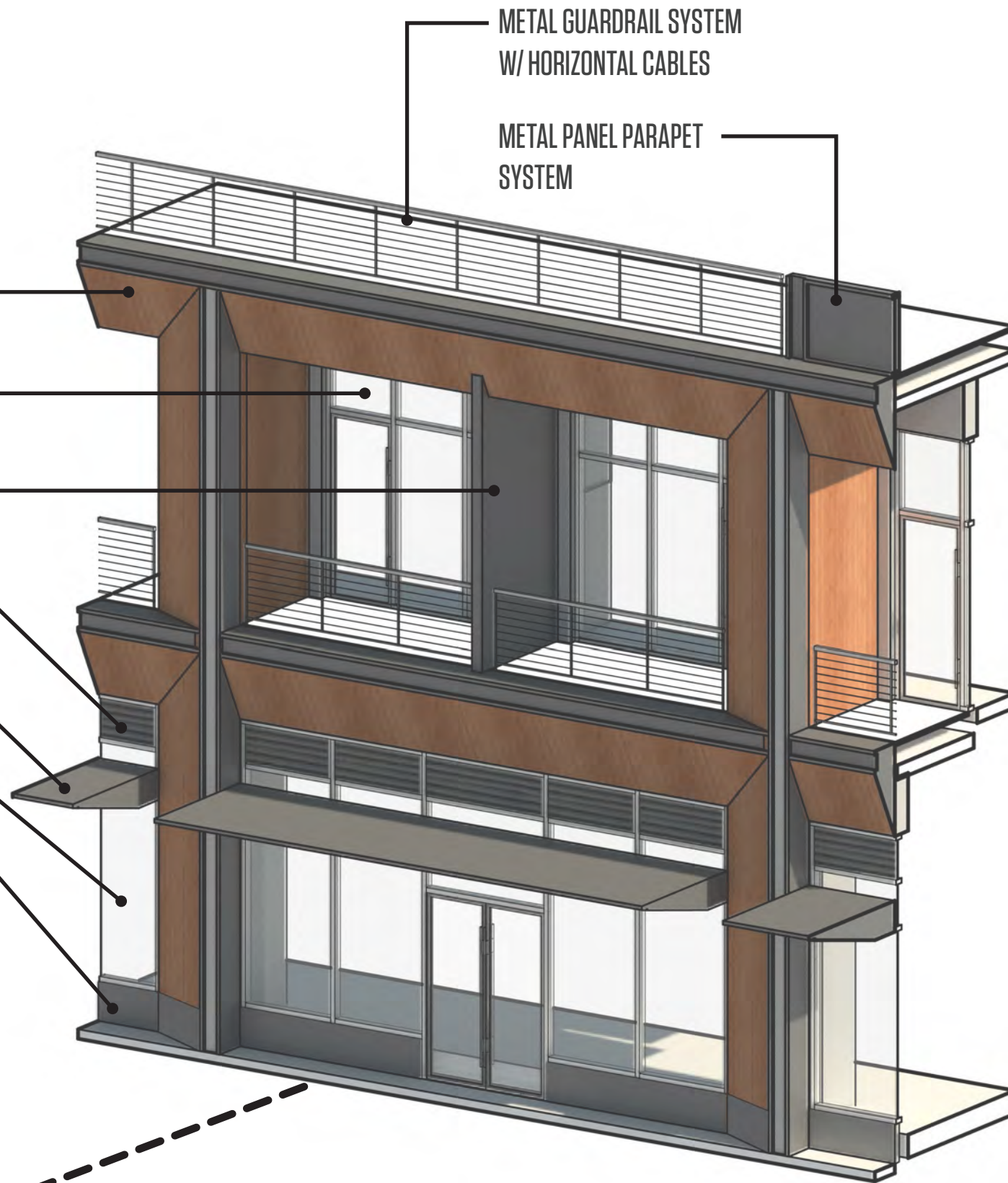
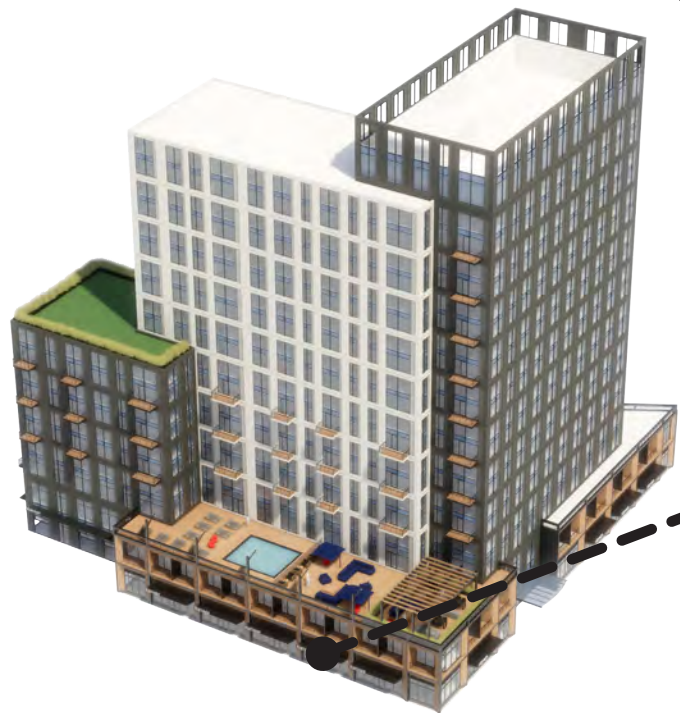
COMPOSITE METAL  
PANEL SYSTEM

PAINTED ALUMINUM  
LOUVER BAND

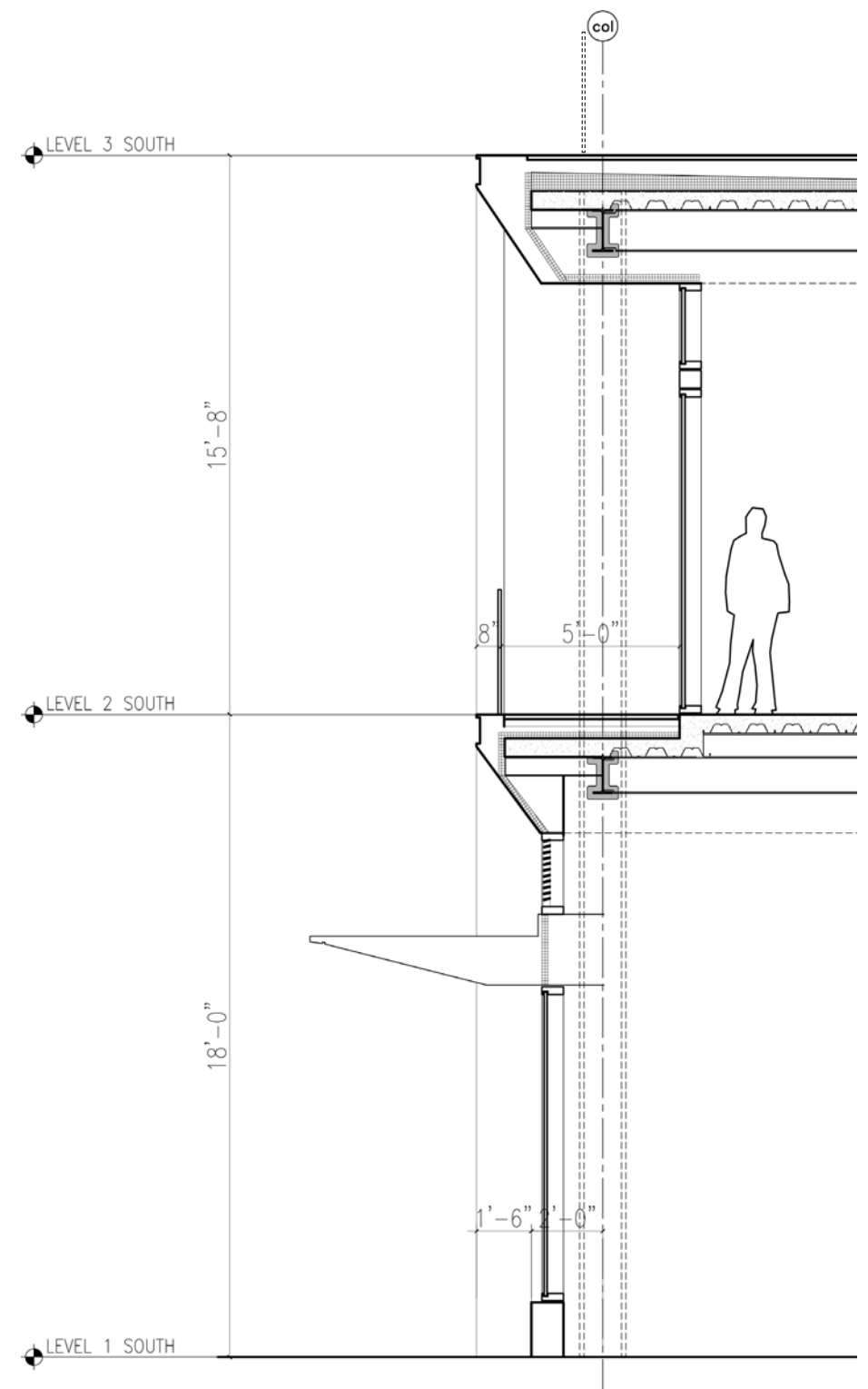
METAL PANEL CANOPY  
OR SIGNAGE (BY TENANT)

STOREFRONT (BY TENANT)

STONE BASE



PODIUM AXON

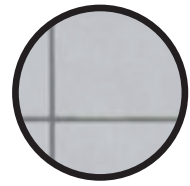


PODIUM SECTION





# TOWER - FACADE DETAILS



OR



LIGHT COLORED PRECAST

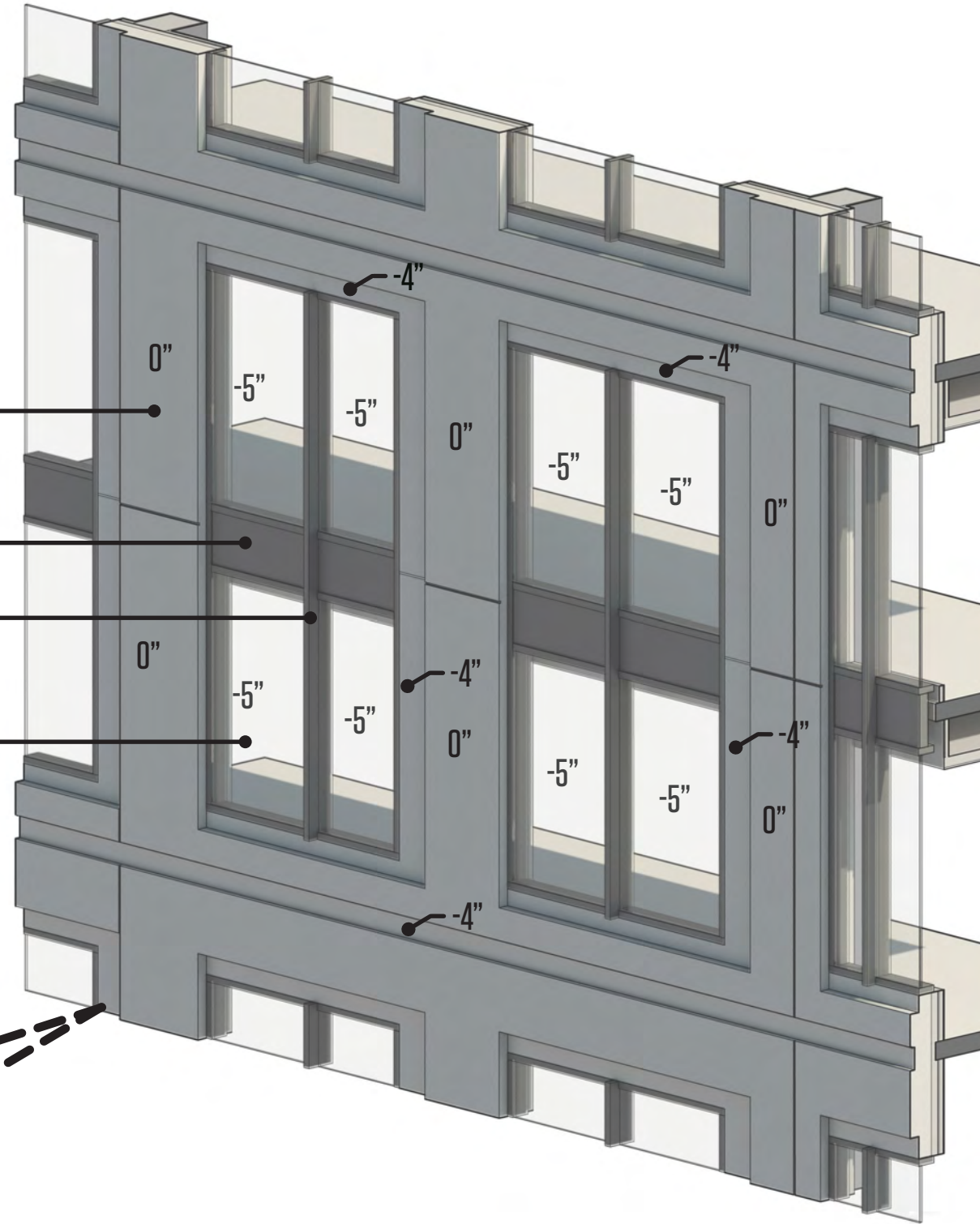
DARK COLORED PRECAST

PRECAST CONCRETE

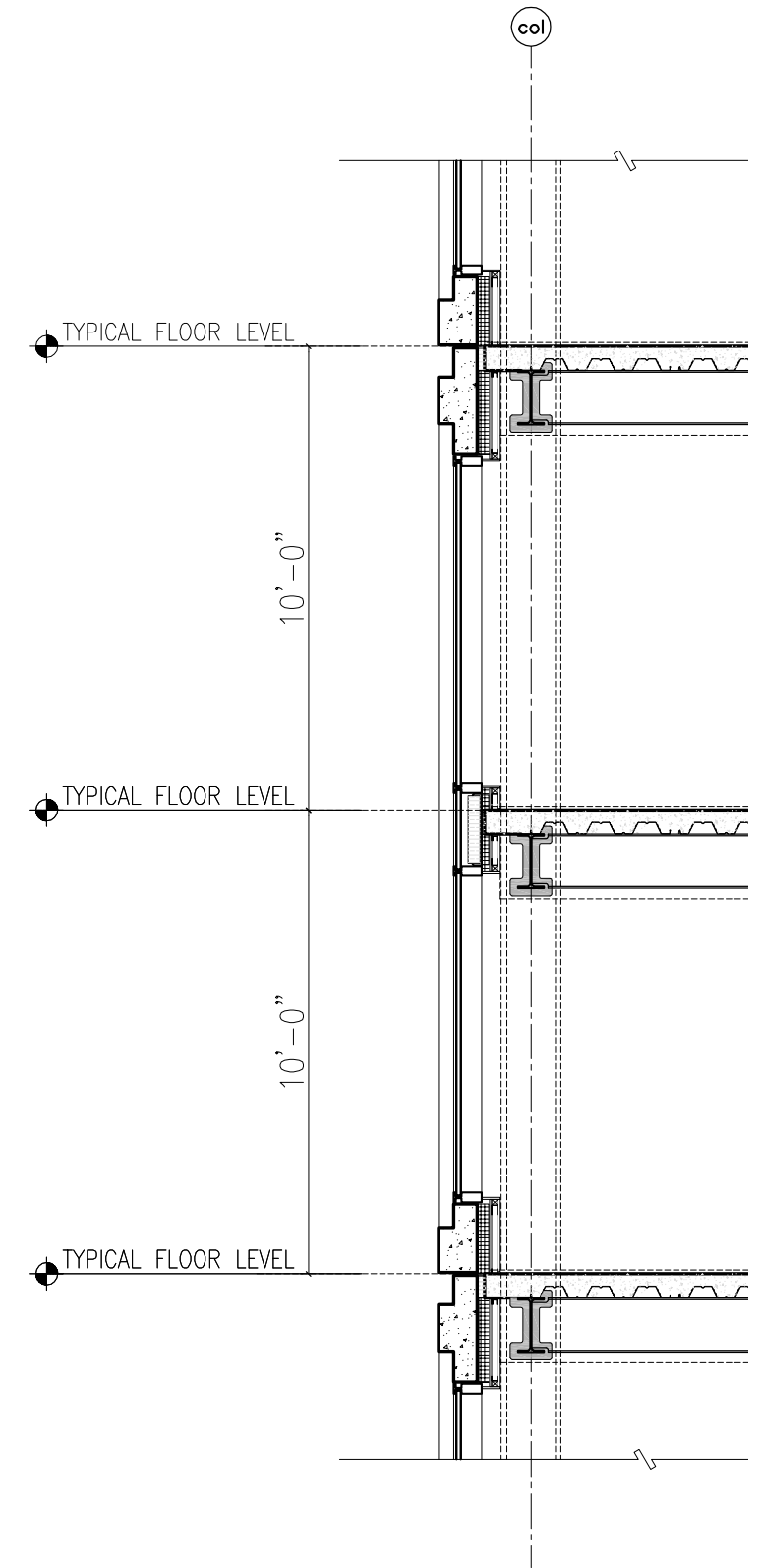
METAL PANEL SPANDREL

MULLION CAP EXTENSION

PAINTED ALUMINUM GLAZING SYSTEM



TOWER AXON



TOWER SECTION



# EAST BUILDING ELEVATION

- 21 MECHANICAL

---

- 20 RESIDENTIAL

---

- 19 RESIDENTIAL

---

- 18 RESIDENTIAL

---

- 17 RESIDENTIAL

---

- 16 RESIDENTIAL

---

- 15 RESIDENTIAL

---

- 14 RESIDENTIAL

---

- 13 RESIDENTIAL

---

- 12 RESIDENTIAL

---

- 11 RESIDENTIAL

---

- 10 RESIDENTIAL

---

- 09 RESIDENTIAL

---

- 08 RESIDENTIAL

---

- 07 RESIDENTIAL

---

- 06 RESIDENTIAL

---

- 05 RESIDENTIAL

---

- 04 RESIDENTIAL

---

- 03 RESIDENTIAL / AMENITY

---

- 02 RESIDENTIAL

---

- 01 RETAIL

10'-0" FTF  
TYP.



STOREFRONT, SIGNAGE, AND  
AWNINGS BY TENANT

RESIDENTIAL ENTRY

SIGNAGE ZONES

250'-0"

TOP OF MECH SCREEN

220'-0"

ZONING HEIGHT  
TOP OF OCCUPIED SPACE

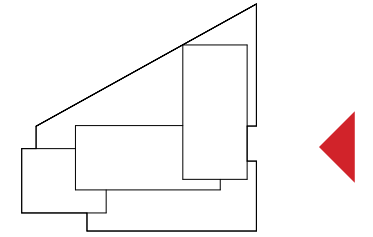
120'-0"

ZONING HEIGHT

32'-8"

PODIUM HEIGHT

0'-0"



\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING





# SOUTH BUILDING ELEVATION

- 21 MECHANICAL

---

- 20 RESIDENTIAL

---

- 19 RESIDENTIAL

---

- 18 RESIDENTIAL

---

- 17 RESIDENTIAL

---

- 16 RESIDENTIAL

---

- 15 RESIDENTIAL

---

- 14 RESIDENTIAL

---

- 13 RESIDENTIAL

---

- 12 RESIDENTIAL

---

- 11 RESIDENTIAL

---

- 10 RESIDENTIAL

---

- 09 RESIDENTIAL

---

- 08 RESIDENTIAL

---

- 07 RESIDENTIAL

---

- 06 RESIDENTIAL

---

- 05 RESIDENTIAL

---

- 04 RESIDENTIAL

---

- 03 RESIDENTIAL / AMENITY

---

- 02 RESIDENTIAL

---

- 01 RETAIL

10'-0" FTF  
TYP.



- 250'-0"  
TOP OF MECH SCREEN

---

- 220'-0"  
ZONING HEIGHT  
TOP OF OCCUPIED SPACE

---

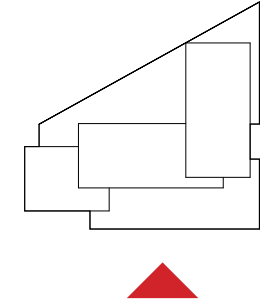
- 120'-0"  
ZONING HEIGHT

---

- 32'-8"  
PODIUM HEIGHT

---

- 0'-0"



\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING

# WEST BUILDING ELEVATION

- 21 MECHANICAL

---

- 20 RESIDENTIAL

---

- 19 RESIDENTIAL

---

- 18 RESIDENTIAL

---

- 17 RESIDENTIAL

---

- 16 RESIDENTIAL

---

- 15 RESIDENTIAL

---

- 14 RESIDENTIAL

---

- 13 RESIDENTIAL

---

- 12 RESIDENTIAL

---

- 11 RESIDENTIAL

---

- 10 RESIDENTIAL

---

- 09 RESIDENTIAL

---

- 08 RESIDENTIAL

---

- 07 RESIDENTIAL

---

- 06 RESIDENTIAL

---

- 05 RESIDENTIAL

---

- 04 RESIDENTIAL

---

- 03 RESIDENTIAL / AMENITY

---

- 02 RESIDENTIAL

---

- 01 RETAIL

10'-0" FTF  
TYP.

18' TALL MONOPOLE FIRE ANTENNA



STOREFRONT, SIGNAGE, AND  
AWNINGS BY TENANT

PUBLIC  
RESTROOMS

SIGNAGE ZONES

250'-0"

TOP OF MECH SCREEN

220'-0"

ZONING HEIGHT  
TOP OF OCCUPIED SPACE

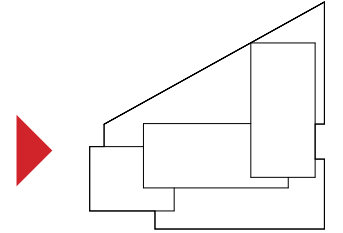
120'-0"

ZONING HEIGHT

32'-8"

PODIUM HEIGHT

0'-0"



\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING





# NORTH BUILDING ELEVATION

- 21 MECHANICAL
- 20 RESIDENTIAL
- 19 RESIDENTIAL
- 18 RESIDENTIAL
- 17 RESIDENTIAL
- 16 RESIDENTIAL
- 15 RESIDENTIAL
- 14 RESIDENTIAL
- 13 RESIDENTIAL
- 12 RESIDENTIAL
- 11 RESIDENTIAL
- 10 RESIDENTIAL
- 09 RESIDENTIAL
- 08 RESIDENTIAL
- 07 RESIDENTIAL
- 06 RESIDENTIAL
- 05 RESIDENTIAL
- 04 RESIDENTIAL
- 03 RESIDENTIAL / AMENITY
- 02 RESIDENTIAL
- 01 RETAIL

10'-0" FTF  
TYP.

18' TALL MONOPOLE FIRE ANTENNA



STOREFRONT, SIGNAGE, AND  
AWNINGS BY TENANT

PARKING  
ENTRY

BICYCLE  
ENTRY

LOADING

SIGNAGE ZONES

250'-0"

TOP OF MECH SCREEN

220'-0"

ZONING HEIGHT  
TOP OF OCCUPIED SPACE

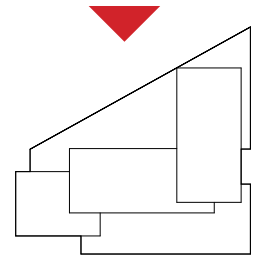
120'-0"

ZONING HEIGHT

32'-8"

PODIUM HEIGHT

0'-0"



\*REFER TO PG 17 FOR UPDATED PODIUM RENDERING



CAMBRIDGE CROSSING - PARCEL 1  
**BUILDING SECTION**

- 21 MECHANICAL

---

- 20 RESIDENTIAL

---

- 19 RESIDENTIAL

---

- 18 RESIDENTIAL

---

- 17 RESIDENTIAL

---

- 16 RESIDENTIAL

---

- 15 RESIDENTIAL

---

- 14 RESIDENTIAL

---

- 13 RESIDENTIAL

---

- 12 RESIDENTIAL

---

- 11 RESIDENTIAL

---

- 10 RESIDENTIAL

---

- 09 RESIDENTIAL

---

- 08 RESIDENTIAL

---

- 07 RESIDENTIAL

---

- 06 RESIDENTIAL

---

- 05 RESIDENTIAL

---

- 04 RESIDENTIAL

---

- 03 RESIDENTIAL / AMENITY

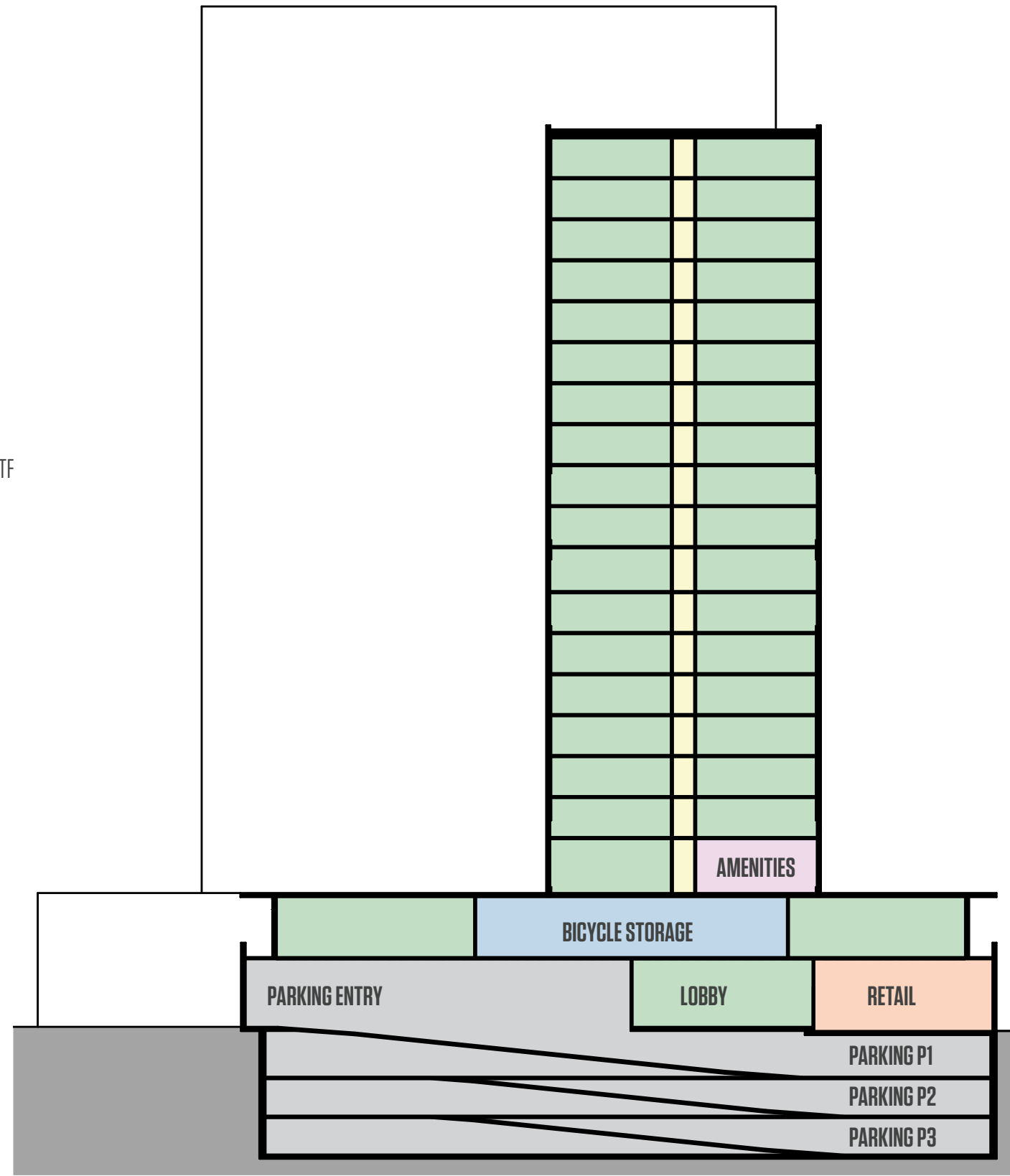
---

- 02 RESIDENTIAL

---

- 01 RETAIL

10'-0" FTF  
 TYP.



- 250'-0"  
TOP OF MECH SCREEN

---

- 220'-0"  
ZONING HEIGHT  
TOP OF OCCUPIED SPACE

---

- 120'-0"  
ZONING HEIGHT

---

- 32'-8"  
PODIUM HEIGHT

---

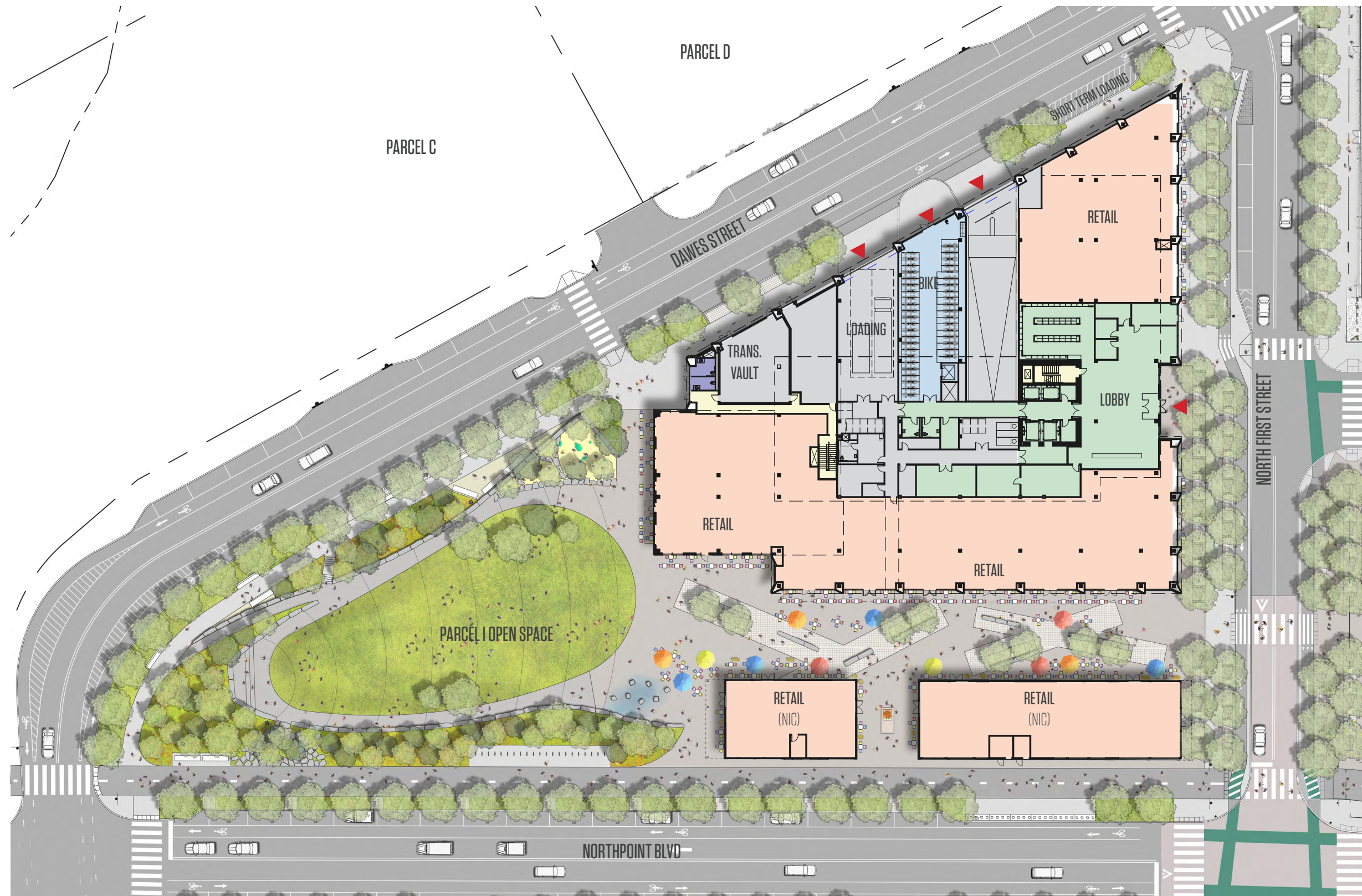
- 0'-0"

- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL





CAMBRIDGE CROSSING - PARCEL I  
 SITE PLAN



- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



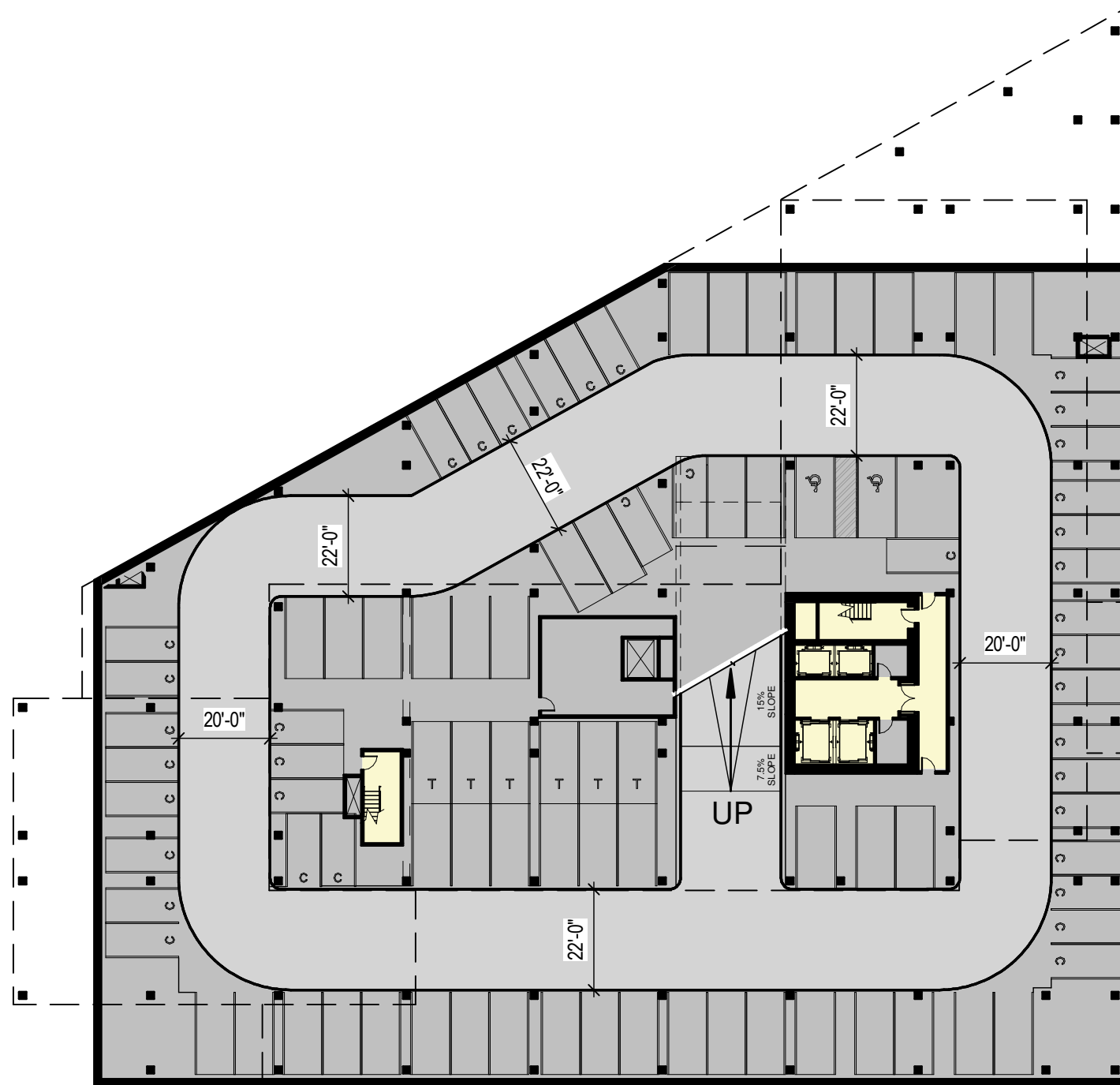
# PLAN - LEVEL P3

Compact (7 1/2 ft x 16 ft): 38  
 Standard (8 1/2 ft x 16 ft): 46  
 Handicap (12 ft x 18 ft): 2  
 Tandem (7 1/2 x 16 ft): 6 (not included in parking count)

**P3 Total Spaces: 86**

P1 Total Spaces: 81  
 P2 Total Spaces: 83  
 P3 Total Spaces: 86  
**Total Parking Spaces: 250**

- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



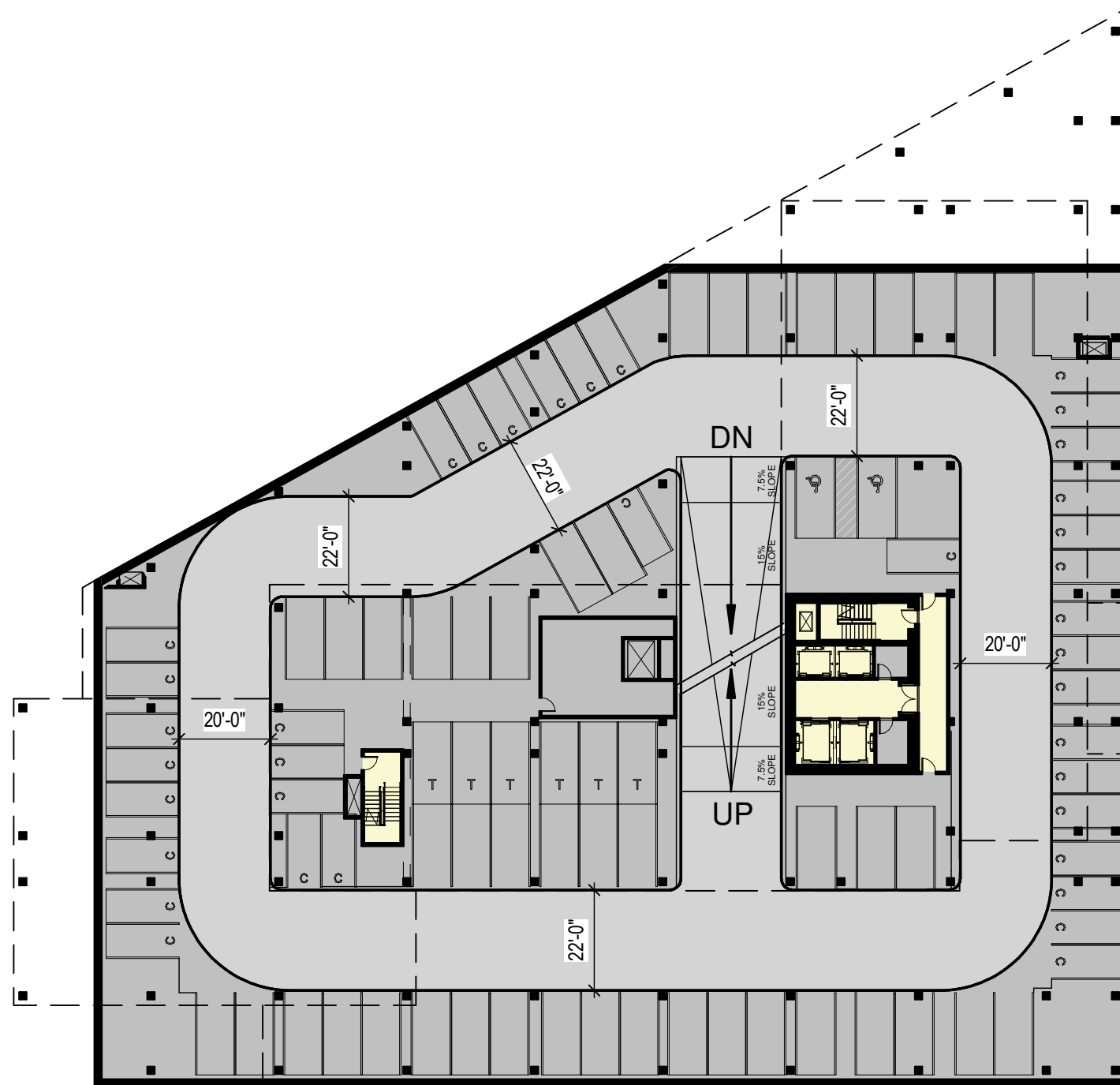


# PLAN - LEVEL P2

Compact (7 1/2 ft x 16 ft): 37  
 Standard (8 1/2 ft x 16 ft): 44  
 Handicap (12 ft x 18 ft): 2  
 Tandem (7 1/2 x 16 ft): 6 (not included in parking count)

**P2 Total Spaces: 83**

P1 Total Spaces: 81  
 P2 Total Spaces: 83  
 P3 Total Spaces: 86  
**Total Parking Spaces: 250**



- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



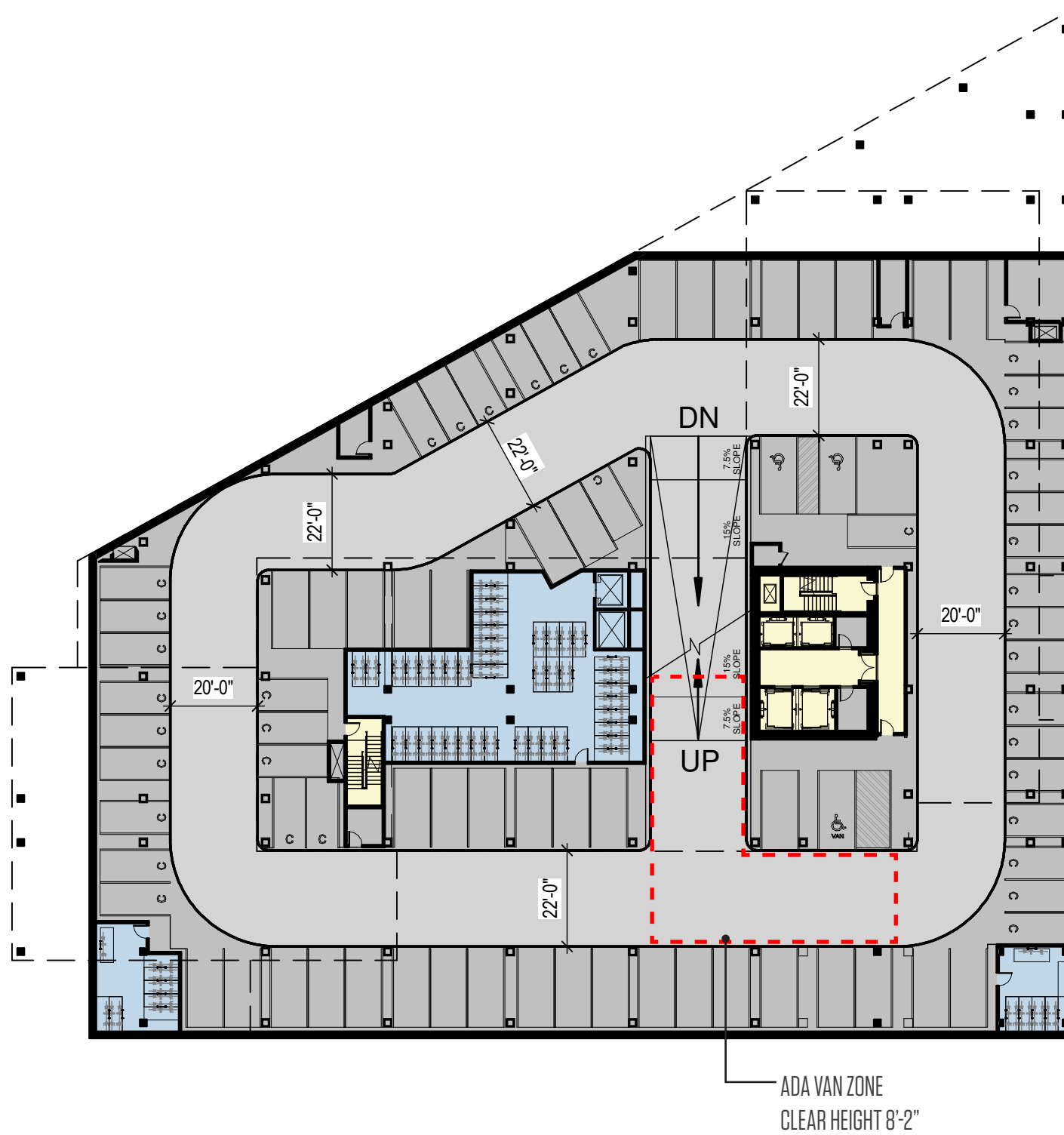
# PLAN - LEVEL P1

Compact (7 1/2 ft x 16 ft): 38  
 Standard (8 1/2 ft x 16 ft): 41  
 Handicap (12 ft x 18 ft): 2  
 Van (12 ft x 18 ft): 1 (not included in parking total)

**P1 Total Spaces: 81**

P1 Total Spaces: 81  
 P2 Total Spaces: 83  
 P3 Total Spaces: 86  
**Total Parking Spaces: 250**

- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL





# PLAN - GROUND LEVEL

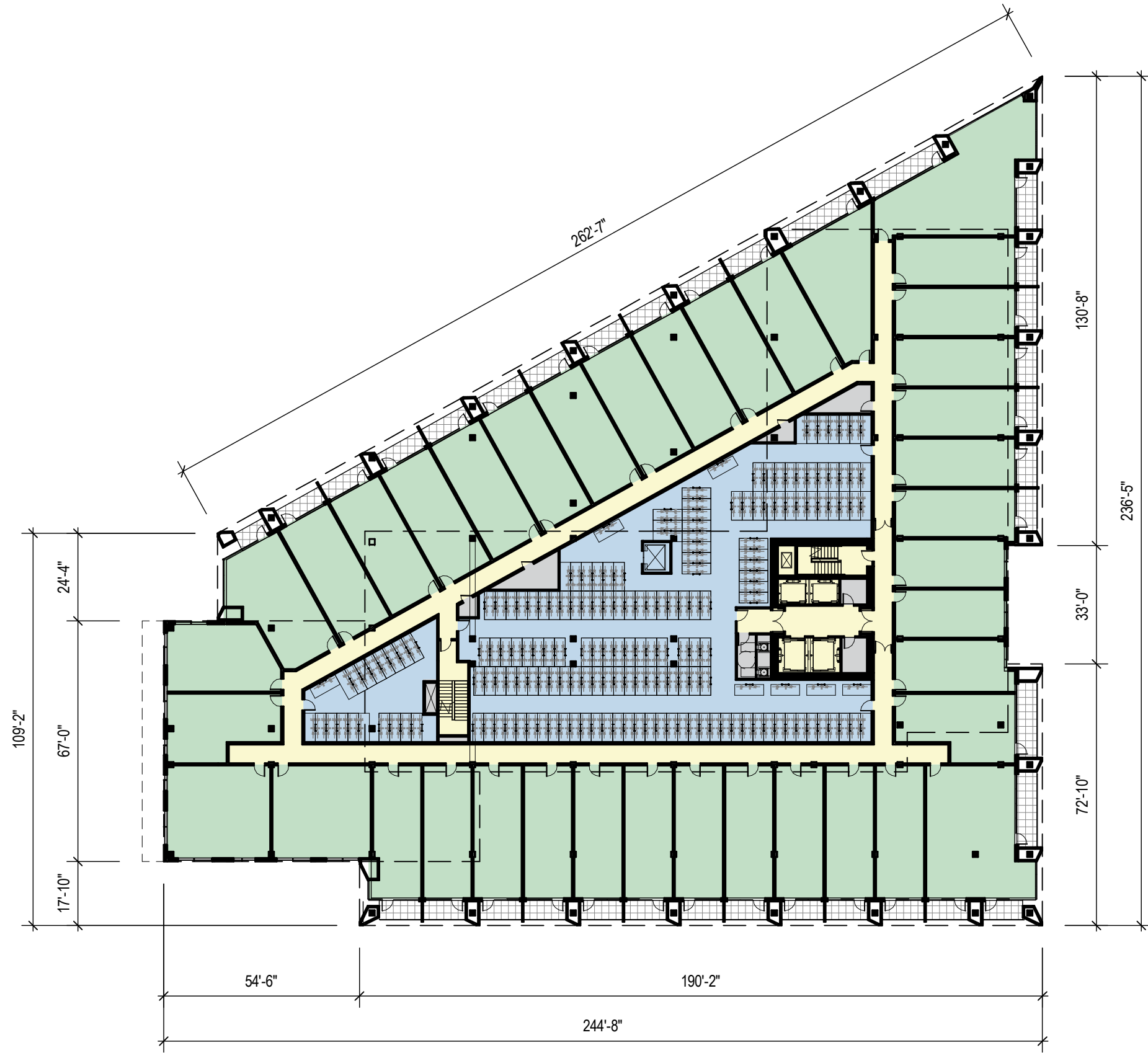


- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL





CAMBRIDGE CROSSING - PARCEL I  
 PLAN - LEVEL 02



- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



DIVCOWEST

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

BEALS + THOMAS

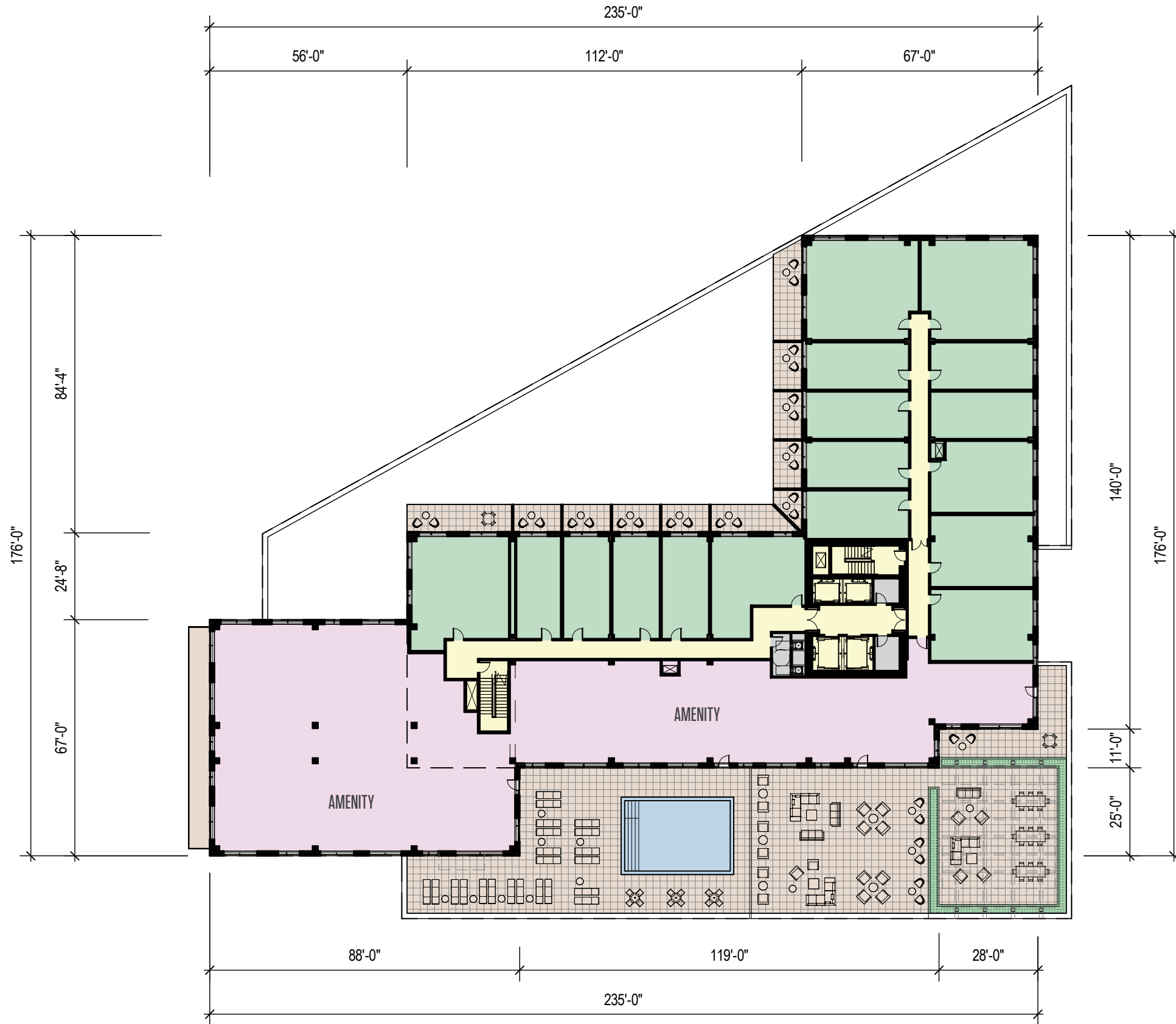
McNAMARA · SALVIA

HALEY ALDRICH

BALA | TMP



CAMBRIDGE CROSSING - PARCEL I  
 PLAN - LEVEL 03



- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



DIVCO WEST

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

BEALS + THOMAS

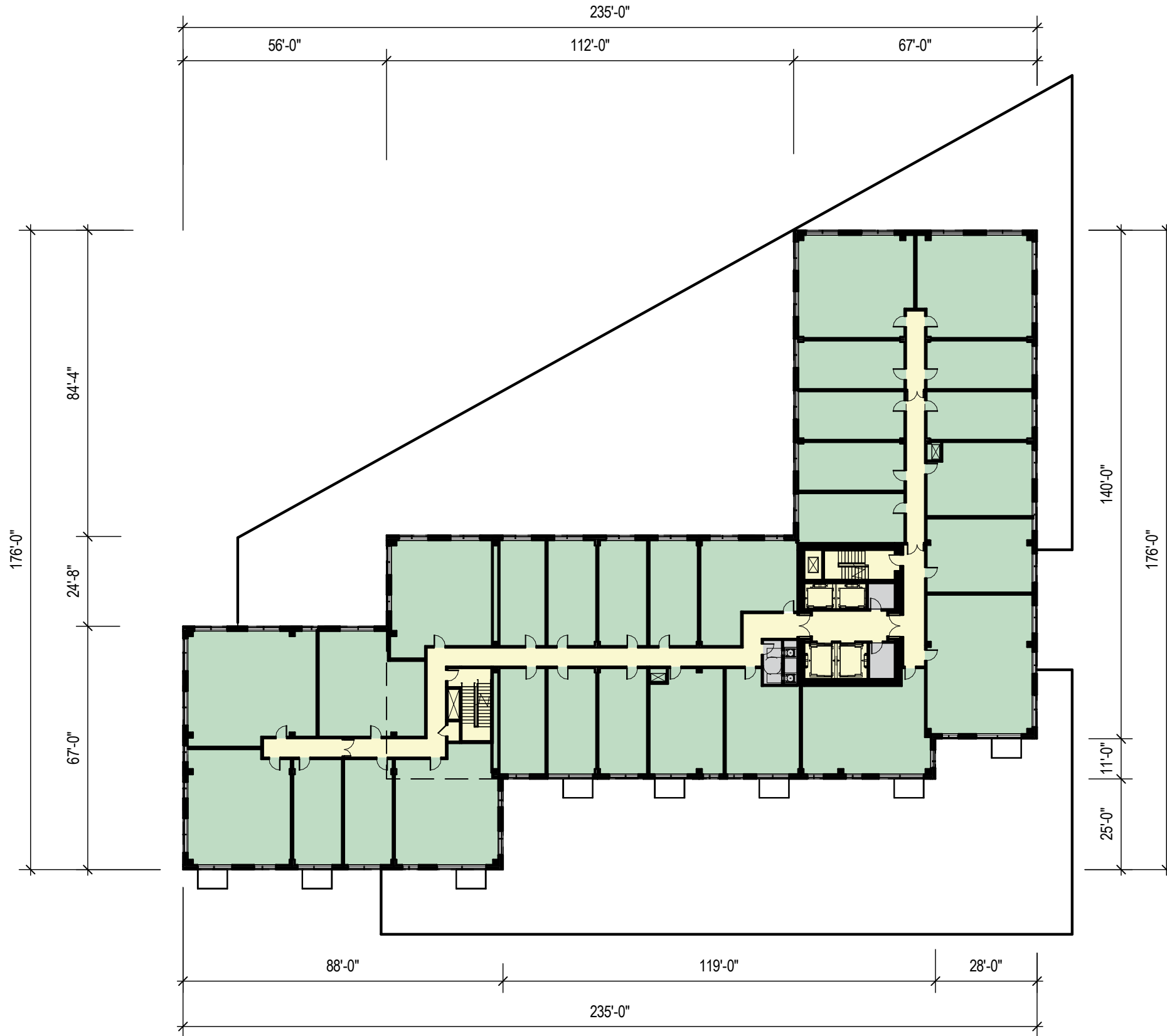


HALEY ALDRICH

BALA | TMP



CAMBRIDGE CROSSING - PARCEL I  
 PLAN - LEVELS 04-10



- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



DIVCOWEST

cbt

MICHAEL VAN VALKENBURGH ASSOCIATES INC

BEALS + THOMAS

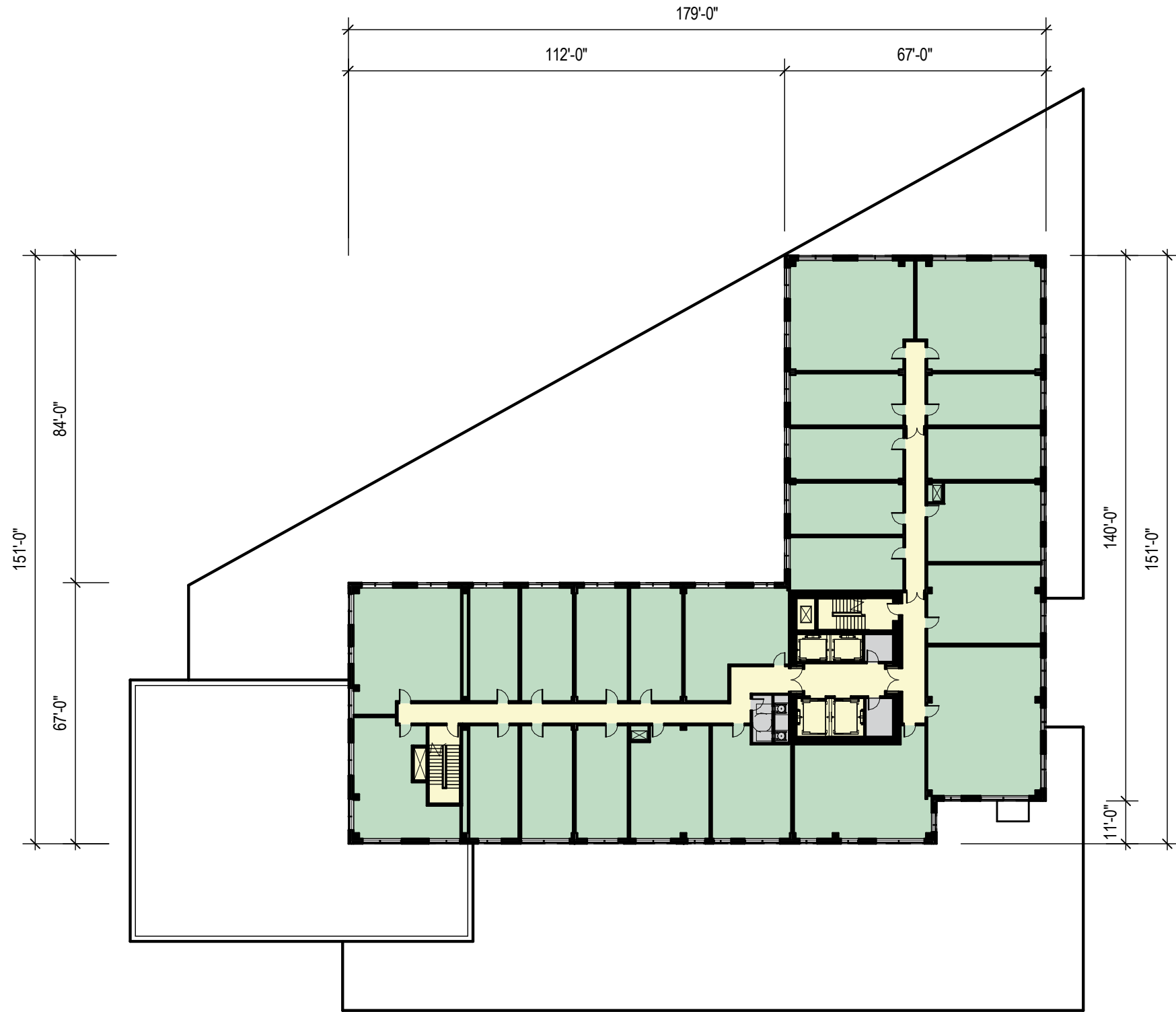


HALEY ALDRICH

BALA | TMP



CAMBRIDGE CROSSING - PARCEL I  
 PLAN - LEVELS 11-20



- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL





# PLAN - ROOF

## ROOFING SYSTEM 1 - HIGH ROOF

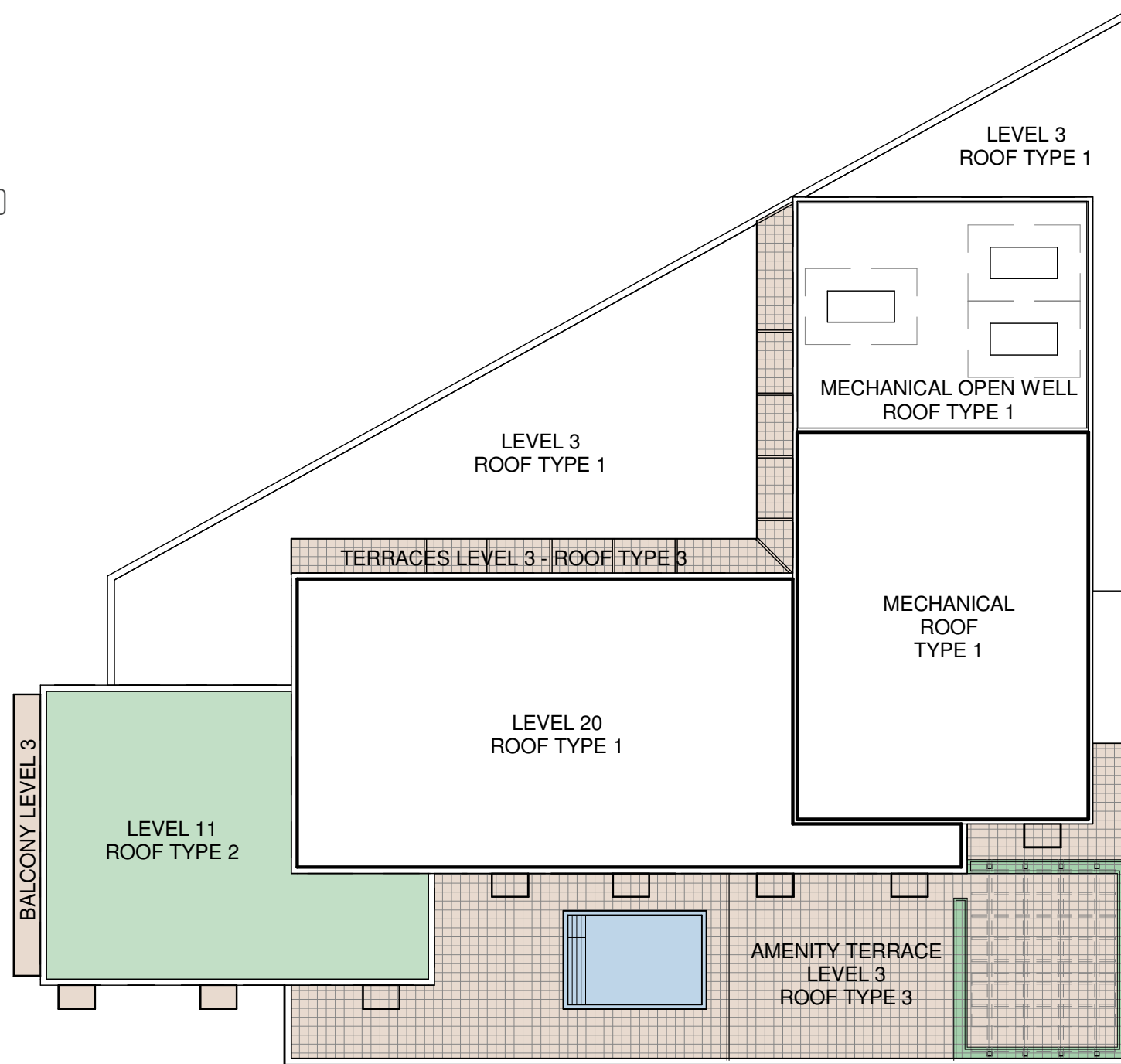
HIGH ALBEDO ADHERED MEMBRANE ROOFING SYSTEM

## ROOFING SYSTEM 2 - GREEN ROOF

FUNCTIONAL GREEN ROOF SYSTEM - 2" MIN. PLANTING TRAYS AS DEFINED BY ARTICLE 22.30

## ROOFING SYSTEM 3 - AMENITY DECK

LEED COMPLIANT (SRI) PAVER/PEDESTAL SYSTEM



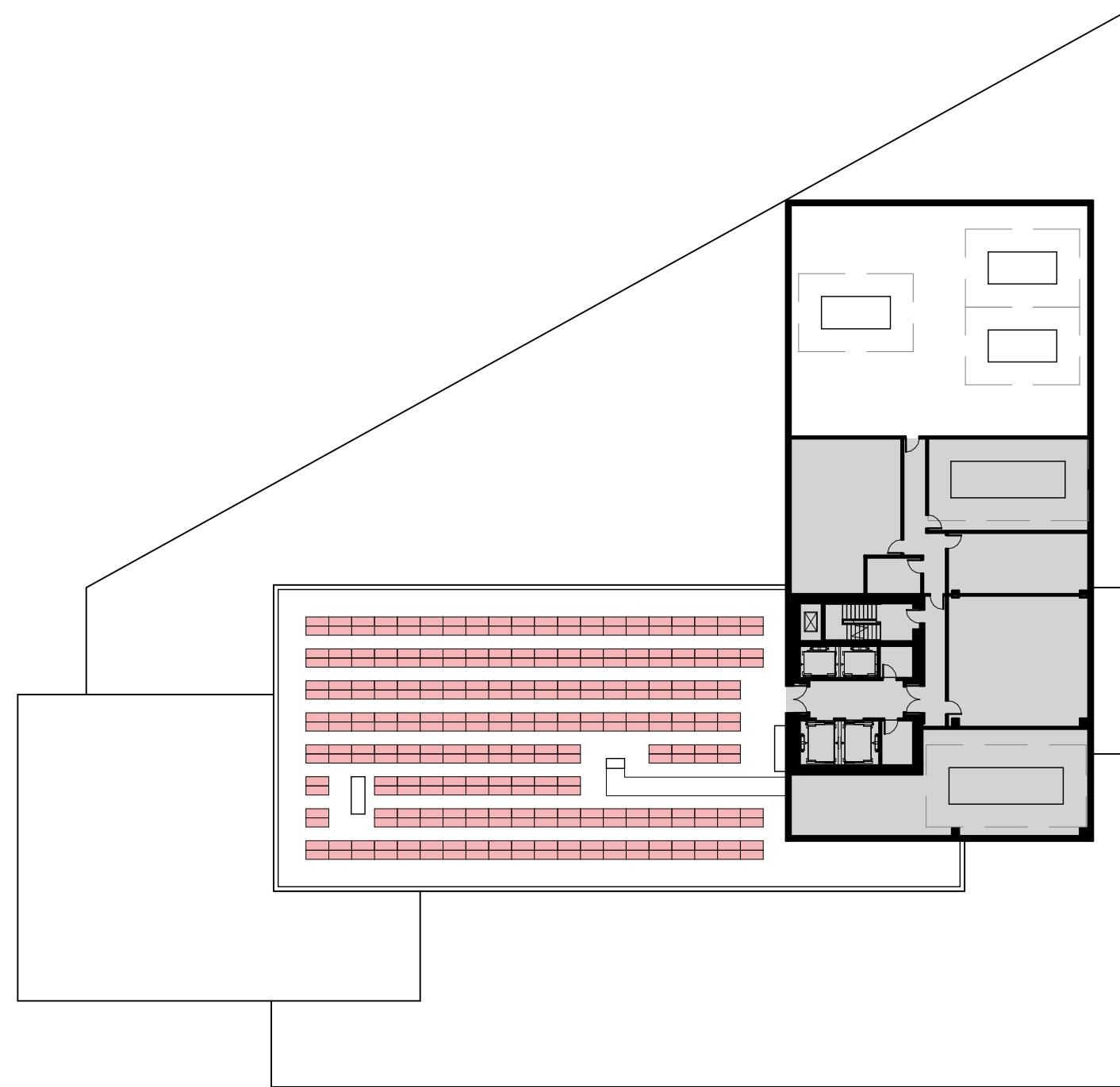
- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL





# SOLAR READY ROOF STUDY

QUANTITY OF RED PANELS	284	PANELS
AREA PER PANEL	10	FT <sup>2</sup>
AREA OF USEABLE PANELS	2830	FT <sup>2</sup>
ENERGY OUTPUT	17.5	W/FT <sup>2</sup>
OUTPUT CAPACITY	49,525	Watt-hr
OUTPUT CAPACITY	50	kWh
ANNUAL PRODUCTION	55	MWh/year
ESTIMATED BUILDING ANNUAL ELECTRICAL CONSUMPTION	7,350	MWh/year
PV PANELS (% OF ANNUAL CONSUMPTION)	0.74	%

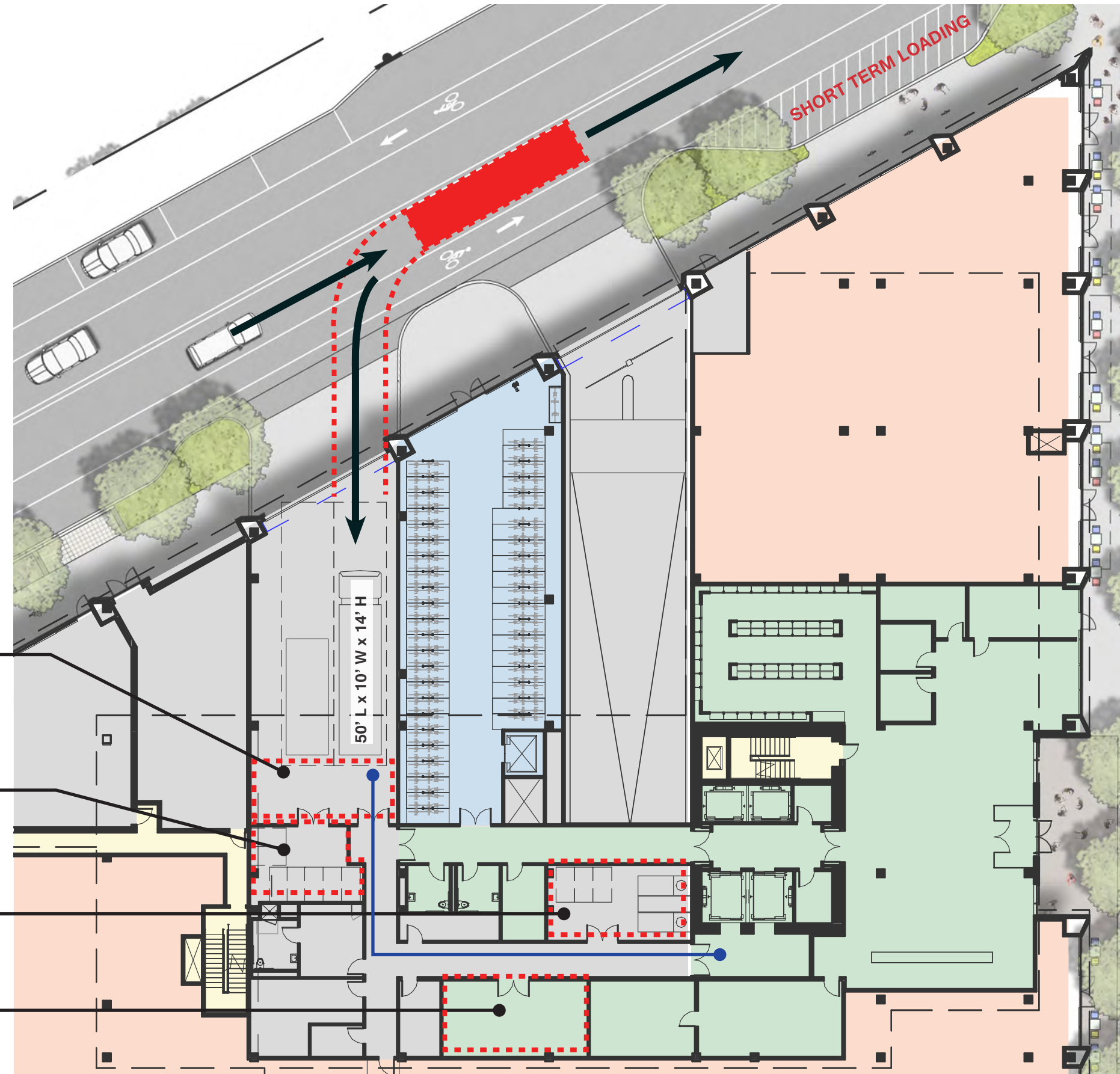


ROOF PLAN





CAMBRIDGE CROSSING - PARCEL I  
LOADING DIAGRAM



LOADING DOCK

TRASH HOLDING

TRASH ROOM

MOVE-IN

50' L x 10' W x 14' H

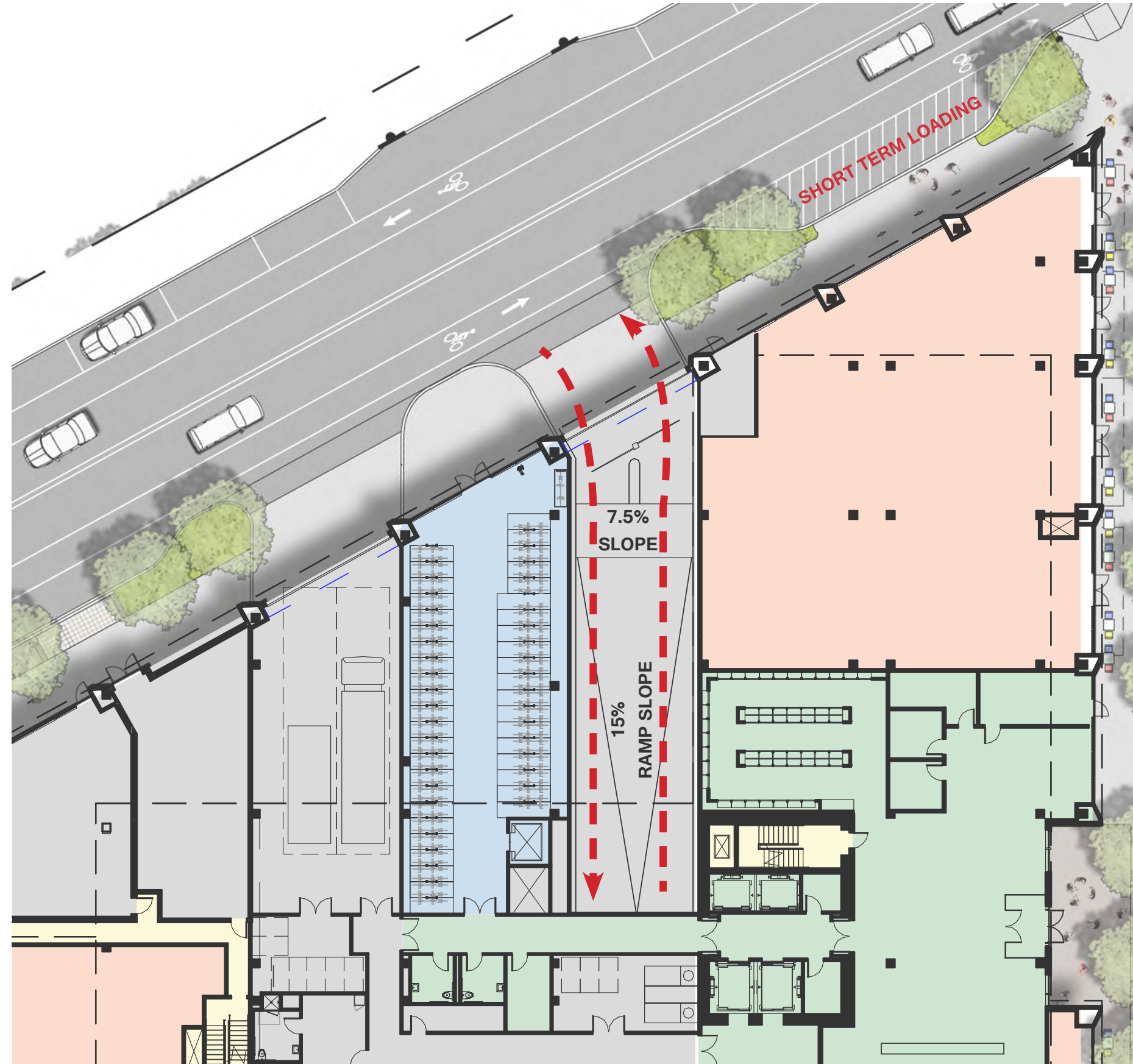
SHORT TERM LOADING

- RESIDENTIAL
- RES. CIRCULATION
- BOH / LOADING
- BIKE PARKING
- RETAIL



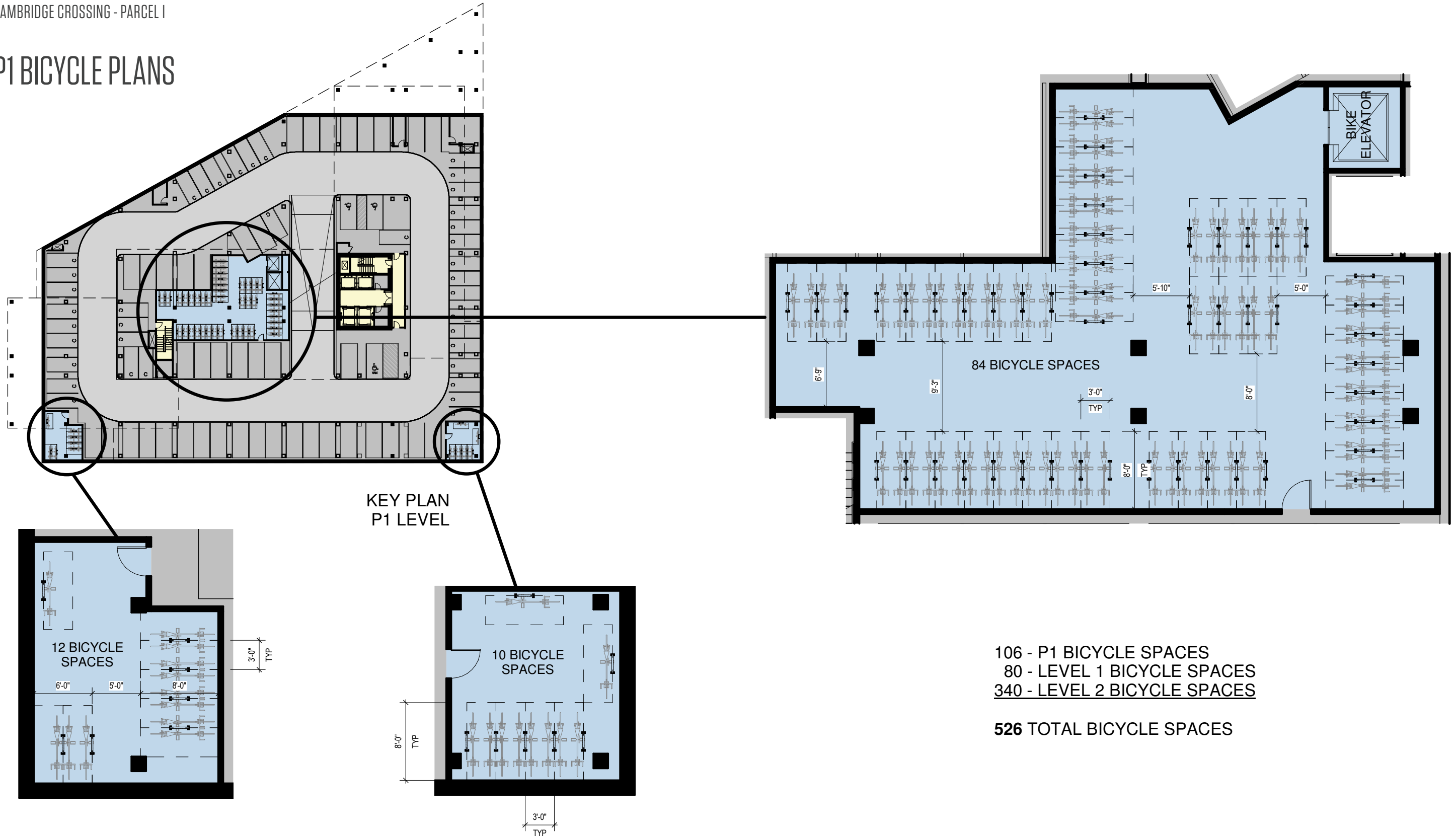


CAMBRIDGE CROSSING - PARCEL 1  
PARKING ENTRY DIAGRAM





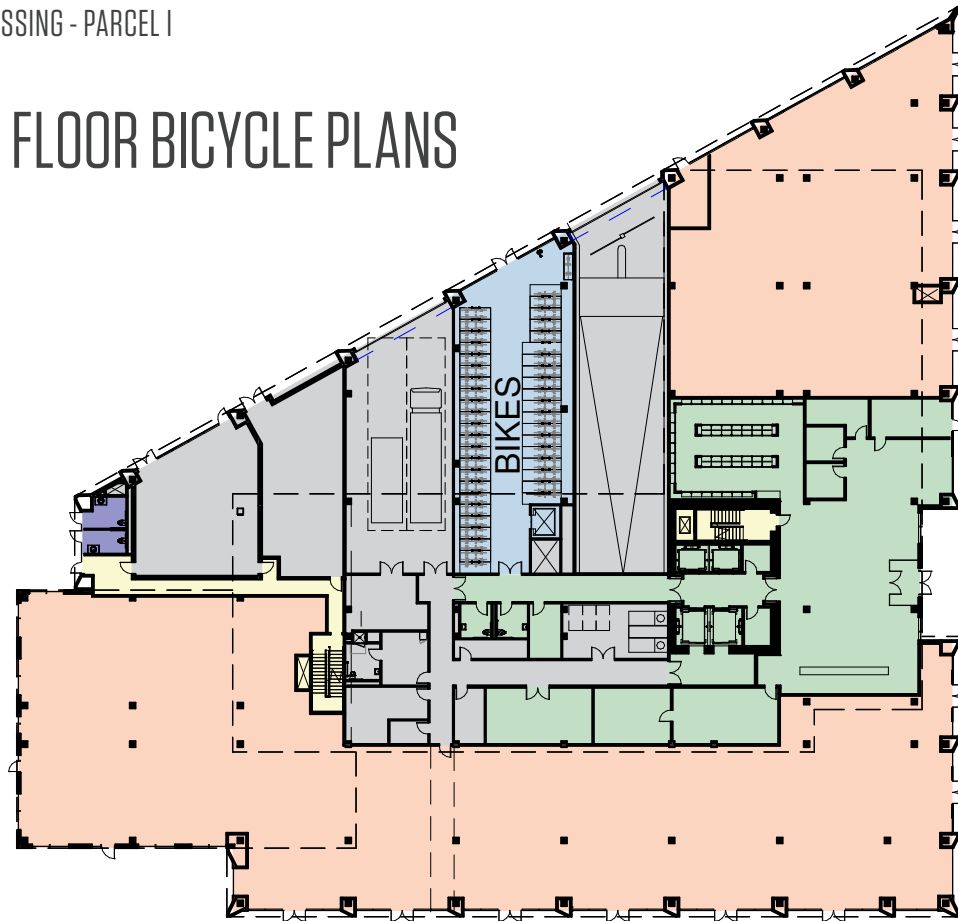
# P1 BICYCLE PLANS



106 - P1 BICYCLE SPACES  
80 - LEVEL 1 BICYCLE SPACES  
340 - LEVEL 2 BICYCLE SPACES  
**526 TOTAL BICYCLE SPACES**

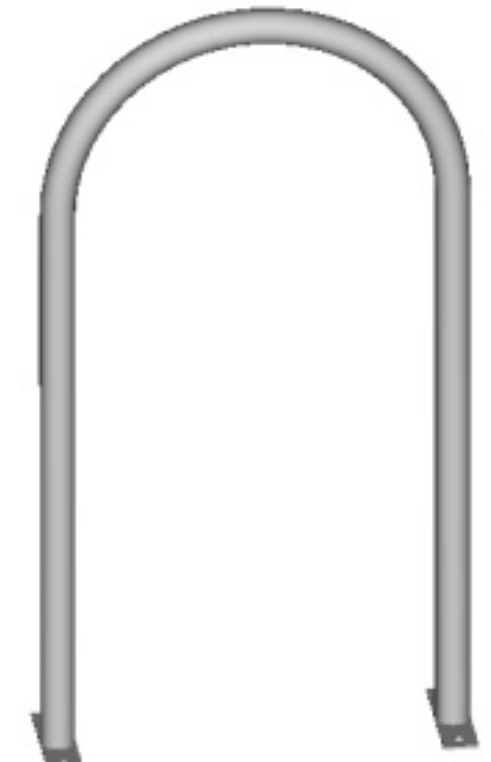
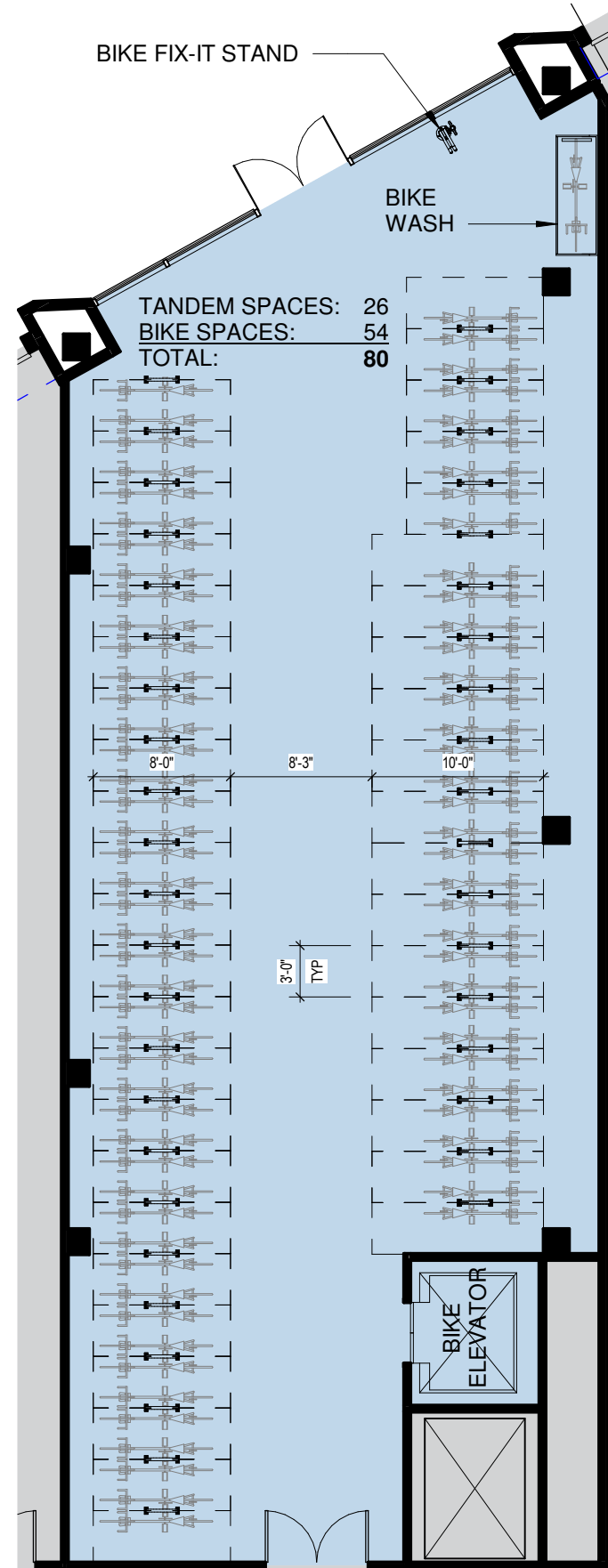


# GROUND FLOOR BICYCLE PLANS



KEY PLAN  
GROUND LEVEL

- 106 - P1 BICYCLE SPACES
- 80 - LEVEL 1 BICYCLE SPACES
- 340 - LEVEL 2 BICYCLE SPACES
- 526 TOTAL BICYCLE SPACES**



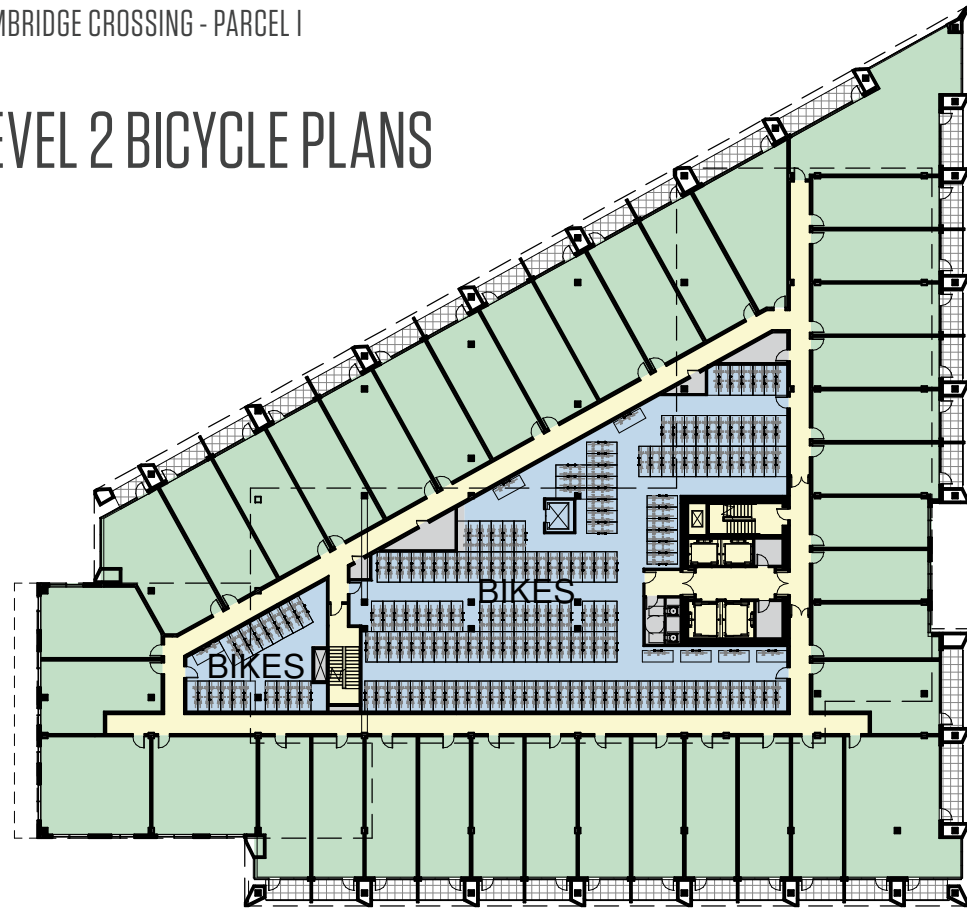
BIKE RACK BASIS OF  
DESIGN



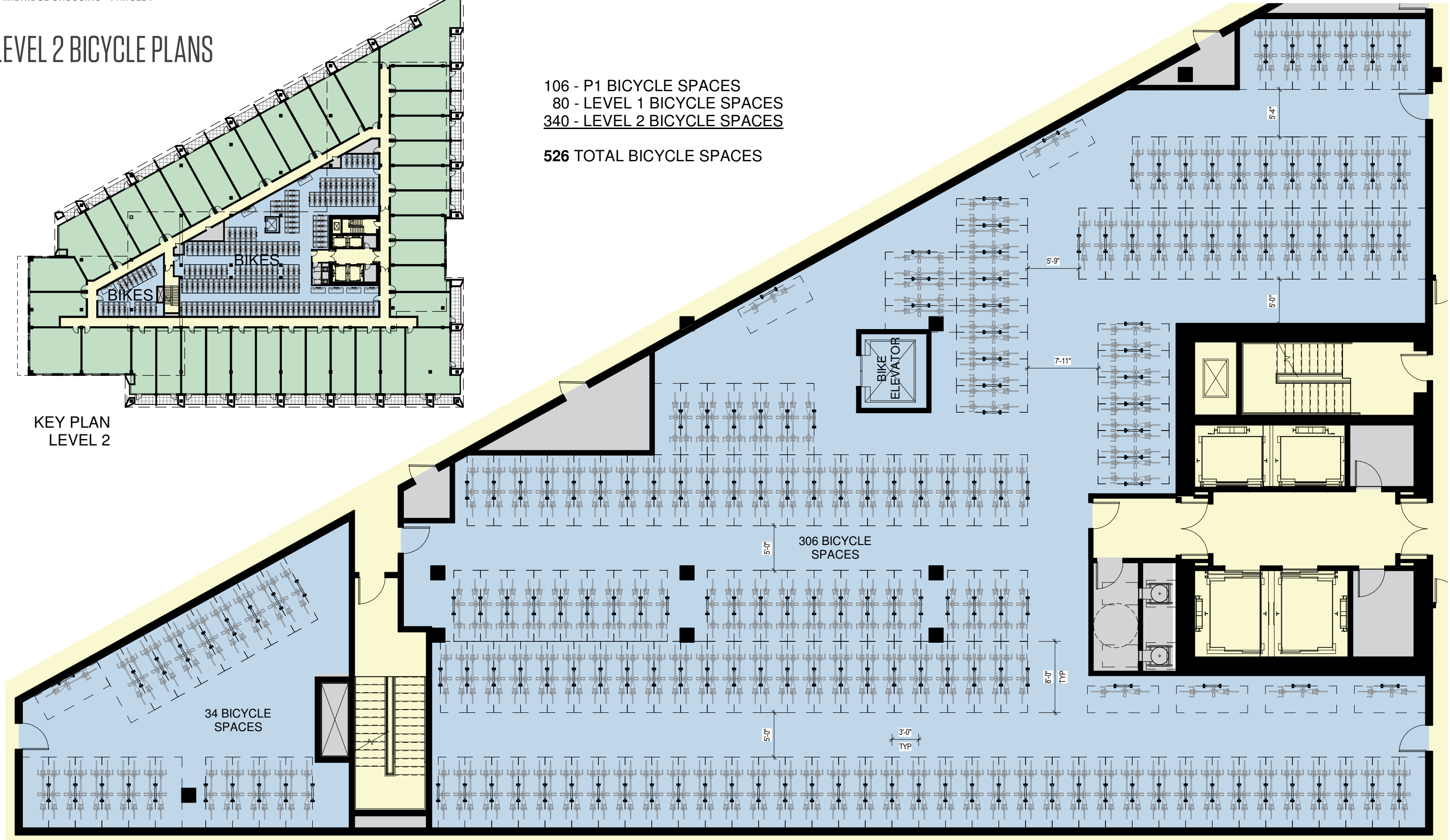


# LEVEL 2 BICYCLE PLANS

106 - P1 BICYCLE SPACES  
80 - LEVEL 1 BICYCLE SPACES  
340 - LEVEL 2 BICYCLE SPACES  
  
526 TOTAL BICYCLE SPACES

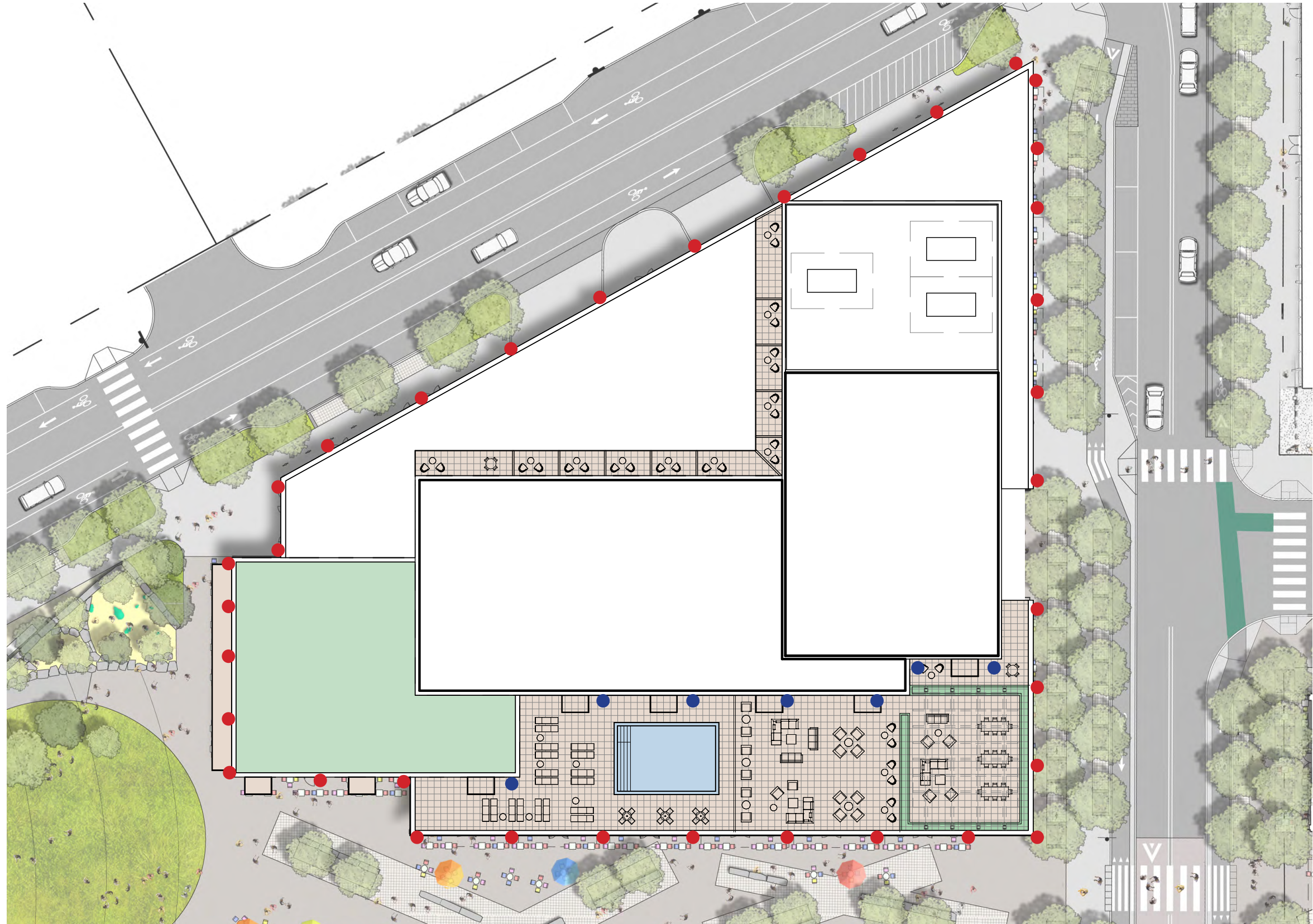


KEY PLAN  
LEVEL 2





CAMBRIDGE CROSSING - PARCEL 1  
**BUILDING LIGHTING PLAN**



- BUILDING MOUNTED  
PEDESTRIAN DOWNLIGHTING
- AMENITY TERRACE  
DOWNLIGHTING



MICHAEL  
 VAN  
 VALKENBURGH  
 ASSOCIATES  
 INC





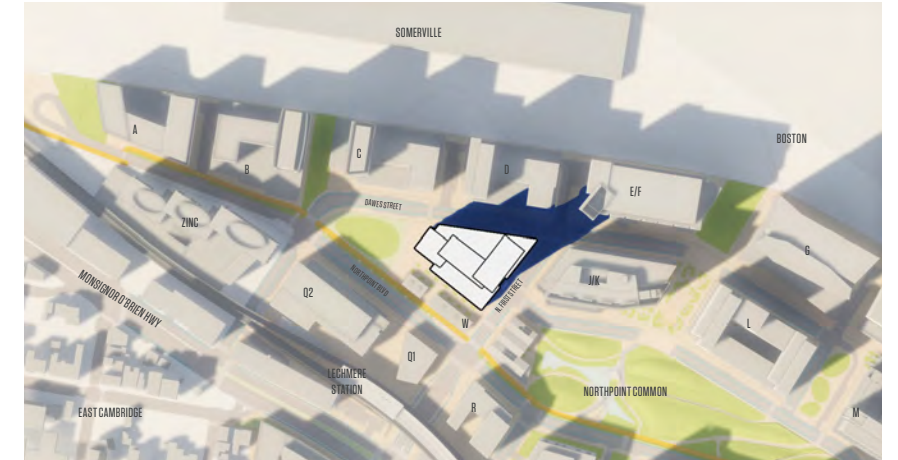
CAMBRIDGE CROSSING - PARCEL I  
SHADOW STUDY



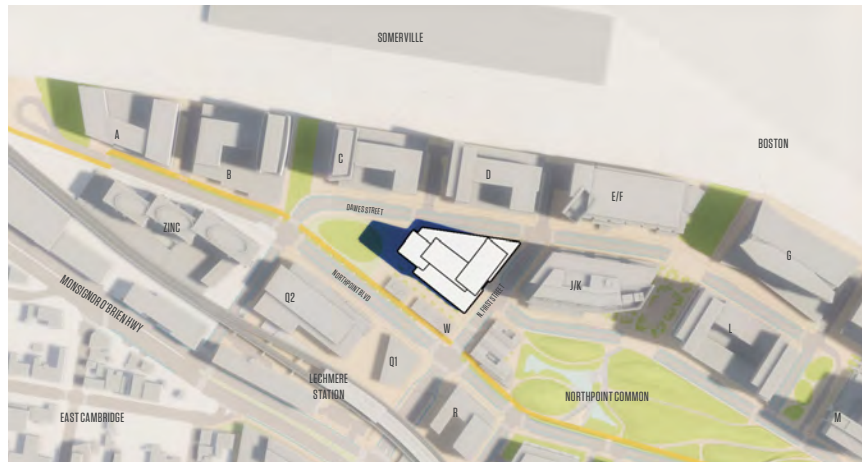
FALL & SPRING EQUINOX  
09:00 AM



FALL & SPRING EQUINOX  
12:00 NOON



FALL & SPRING EQUINOX  
3:00 PM



SUMMER SOLSTICE  
9:00 AM



SUMMER SOLSTICE  
12:00 NOON



SUMMER SOLSTICE  
3:00 PM



WINTER SOLSTICE  
9:00 AM



WINTER SOLSTICE  
12:00 NOON




WINTER SOLSTICE  
3:00 PM

 = NET NEW SHADOW







33 Moulton Street  
Cambridge MA 02138  
617 499 8000  
acentech.com

March 1, 2018

Jim Burke  
CBT Architects  
110 Canal Street  
Boston, MA 02114

**Subject** Community Noise Criteria and Control  
Cambridge Crossing Parcel I  
Cambridge, MA  
Acentech Project No. 628587

Dear Jim:

This letter describes the environmental noise criteria applicable to the Cambridge Crossing Parcel I residential project that you are designing, along with the noise mitigation strategies that the project will utilize in order to comply with those criteria.

**ENVIRONMENTAL NOISE CRITERIA**

**MassDEP Noise Regulation**  
MassDEP has a noise policy that prohibits building mechanical equipment from increasing the existing ambient noise levels by more than 10 dBA (A-weighted decibels); it also prohibits tonal noise. Measurements in the Cambridge Crossing (formerly Northpoint) area, including at Parcel J/K by Cavanaugh Tocci, and at both Parcel N and at the Zinc Apartments site by Acentech, indicate that the existing ambient noise levels on site are approximately 53 dBA, suggesting that allowable noise levels under the MassDEP regulation could be as high as 63 dBA at abutting properties. A design that complies with the Cambridge noise ordinance (discussed below) will also meet this regulation. Further, the Cambridge Crossing Parcel I noise emissions will be designed to avoid the tonal characteristic prohibited by the MassDEP regulation.

**Cambridge Noise Ordinance**  
Parcel JK is an office/lab building. The Cambridge noise requirement for commercial areas is 65 dBA as measured at the property line of the abutting commercial property. Parcels C, D, and R are the nearest residential parcels to the project site, and we understand that they are protected by the Cambridge noise control ordinance. The residential limits of the Cambridge regulation require that the building emissions not exceed 60 dBA during the daytime and 50 dBA at other times, as measured at the property lines of the abutting residential properties.

The Cambridge Crossing Parcel I building will be designed to meet the noise limits of the Cambridge regulation. As discussed below, our calculations indicate that the current design meets this standard.

**NOISE MITIGATION MEASURES**

The project's mechanical and architectural design takes a number of steps to limit noise emissions, as needed to meet applicable noise regulations including the residential limits of the Cambridge noise ordinance described above. These noise mitigation measures include the following, organized according to the major mechanical equipment planned for the project:

acoustics | av/it/security | vibration

Parcel I Noise Criteria and Design  
February 28, 2018  
Page 2 of 2

**Cooling Towers, at Upper Level Roof**

- Low-noise equipment selection
- Variable speed drives, arranged so that the cooling towers will operate at slower/quieter speeds when cooling load is reduced, including at night
- Equipment location, upper mechanical screening, and building massing, arranged to create a comprehensive acoustical barrier such that the upper floors the residential buildings at Parcels C and D will not have line-of-sight to the cooling tower equipment

**Energy Recovery Units, at Lower Level Mechanical Penthouse**

- Intake and discharge louvers sized to minimize velocities/sound
- Louver locations oriented to minimize residential exposure
- Sound attenuators at intake and/or discharge as necessary to comply with the Cambridge noise regulation

**Emergency Generator (Approx. 800 KW, Diesel Fired), at Lower Level Mechanical Penthouse**

- Located inside the mechanical penthouse
- Sound attenuators at both intake and discharge, specified in coordination with the generator selection in order to comply with the Cambridge noise regulation
- Critical grade muffler at generator exhaust, which will rise up through the roof
- Administrative control over testing schedule, to avoid times when residences are most likely to be occupied


**SUMMARY**

In summary, we are working with the project team to design the building to help ensure reasonable and appropriate sound level emissions that comply with the applicable environmental noise regulations. Based on our current calculations, the current design meets those criteria.


\*\*\*\*\*

Please let me know if you have any questions about the information in this report; my direct telephone number is 617.499.8086.

Sincerely,

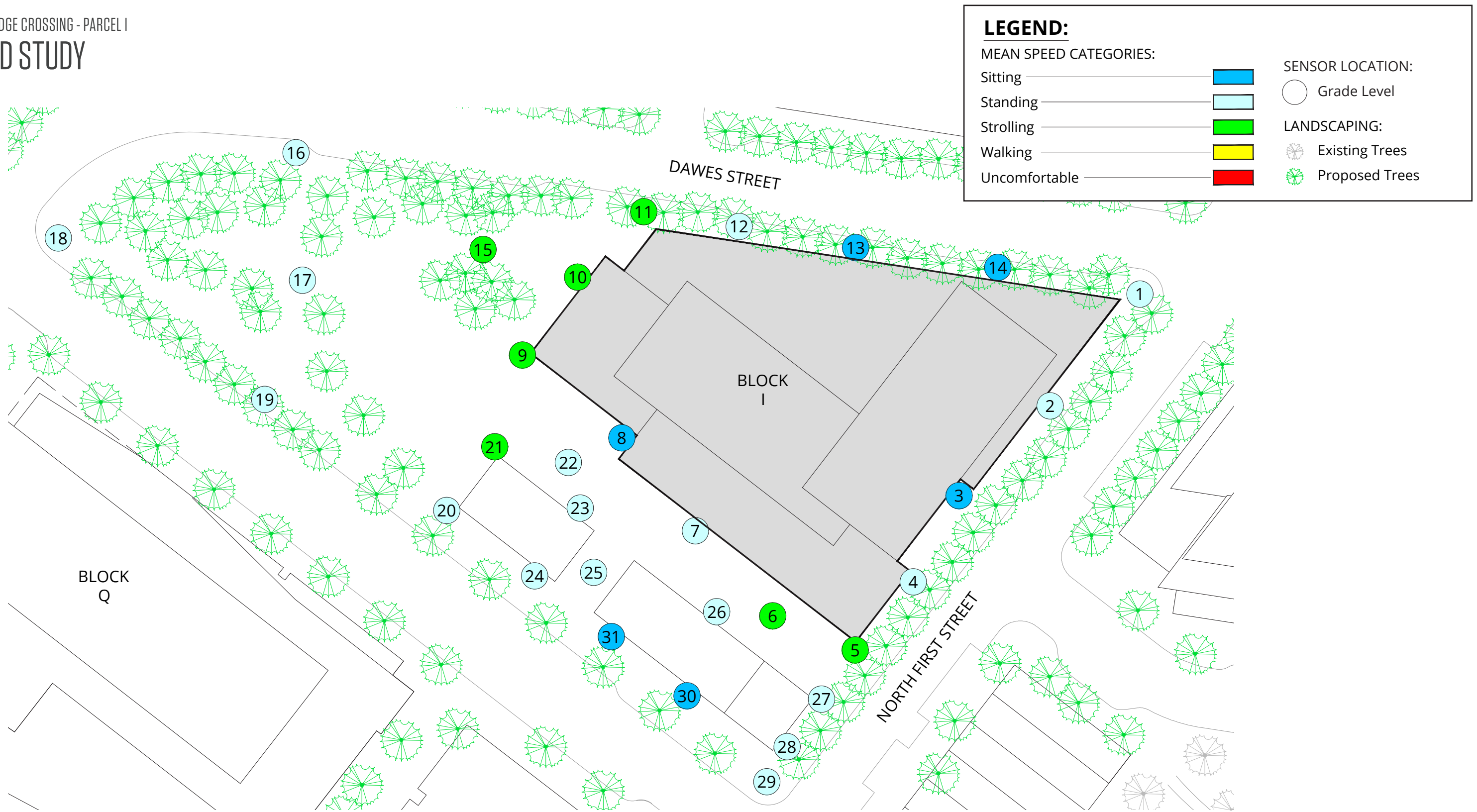


Benjamin E. Markham, LEED AP  
Director, Architectural Acoustics





# WIND STUDY



### LEGEND:

MEAN SPEED CATEGORIES:

- Sitting
- Standing
- Strolling
- Walking
- Uncomfortable

SENSOR LOCATION:

- Grade Level

LANDSCAPING:

- Existing Trees
- Proposed Trees

### PEDESTRIAN WIND COMFORT CONDITIONS

FULL BUILD WITH LANDSCAPING  
 SUMMER (MAY TO OCTOBER, 6:00 TO 23:00)

\* REFER TO FULL WIND STUDY FOR ADDITIONAL INFORMATION

