



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

November 3, 2016

Mr. Kevin Prior, Chair
Somerville Planning Board
City Hall
93 Highland Avenue
Somerville, MA 02143

Via: Hand Delivery

Reference: Lot JK Design and Site Plan Review
NorthPoint
Somerville, Massachusetts
B+T Project No. 2084.02

Dear Chairman Prior 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 and Site Plan Review (DSP) Application for Lot JK (the Site), which is part of the larger NorthPoint development partially located in Somerville, Boston, and Cambridge, Massachusetts. The proposed development is the construction of a 370,000 gross square foot mixed-use building and associated landscaping.

As shown on the master plan for NorthPoint, the Site is bounded by North Street to the south, North First Street to the west, Dawes Street to the north, and a new park/civic space to the east. The Application herein is submitted in accordance with Section 5.4 of the City of Somerville Zoning Ordinance (SZO).

As part of the DSP Application, we have submitted the following materials for review by the Somerville Planning Board:

- Completed Application for Design and Site Plan Submission;
- Legal Description of the Property;
- Property Title Report;
- Property Deed;
- Locus Map;
- Project Description;
- Design Review Package, including building renderings, floor plans, elevations, materials palette,
- Environmental Analysis, and other required information;
- Site Plans;
- Landscaping Plans;
- Transportation Analysis Memorandum;
- Infrastructure Analysis;
- Construction Plan; and
- Required filing fees.

CONTACT INFORMATION OF THE DEVELOPMENT TEAM

Owner/Applicant:

DivcoWest
One Kendall Square
Suite B3201
Cambridge, MA 02139
Tom Sullivan, President, Development
Division
617-720-7400
tsullivan@divcowest.com

Development Advisor:

The HYM Investment Group, LLC
One Congress Street
10th Floor, Suite 101
Boston, MA 02114
Thomas N. O'Brien, Managing Director
(617) 248-8905
tobrien@hyminvestments.com

Architect:

Jacobs
Chris Leary AIA, Principal Managing Director
One Broadway – 10th floor
Cambridge, MA 02142 USA
1.617.250.4910
Chris.leary@jacobs.com

Traffic Engineer:

Vanasse Hangen Brustlin, Inc.
99 High Street, 10th Floor
Boston, MA 02110
Susan P. Sloan-Rossiter, Principal
(617) 607-2930
ssloanrossiter@vhb.com

Landscape Architect:

Michael Van Valkenburgh Associates, Inc.
231 Concord Avenue
Cambridge, MA 02138
Chris Matthews, Associate Principal
(617) 864-2076
cmatthews@mvvainc.com

Civil Engineer:

Beals and Thomas, Inc.
144 Turnpike Road
Southborough, MA 01772
Richard Kosian, Executive Vice President
(508) 366-0560
rkosian@bealsandthomas.com

Legal Counsel:

Goulston & Storrs, PC
400 Atlantic Avenue
Boston, MA 02110
Deborah S. Horwitz, Esquire
(617) 574-4123 dhorwitz@goulstonstorrs.com

Legal Counsel:

Galluccio & Watson, LLP
1498 Cambridge Street
Cambridge, MA 02139
Anthony D. Galluccio, Partner and Founder
(617) 945-2577
anthonygalluccio@comcast.net

LEGAL DESCRIPTION OF PROPERTY

Three certain parcels of land in the Commonwealth of Massachusetts, County of Middlesex, City of Somerville, situated on the southeasterly boundary of the City of Somerville common with the City of Cambridge and shown in part on a plan recorded at the Middlesex County Registry of Deeds as plan 937 of 2012. More particularly bounded and described as follows:

First Parcel

Beginning at a point at the most northeasterly corner of the parcel herein described, thence running;

Westerly 1026 feet more or less by the city boundary between the City of Somerville and City of Cambridge, said course being by the centerline of the former Millers River channel, to a point, thence turning and running;

S 81° 14' 38" E 488 feet more or less to a point, thence turning and running;

S 77° 22' 25" E 264 feet more or less to the point of beginning, said last two courses being by land now or formerly of MBTA.

Containing 3.46 acres, more or less.

Second Parcel

Beginning at a point at the most northeasterly corner of the parcel herein described, said point being N 81° 14' 38" W 327 feet more or less from the most westerly corner of the first parcel, thence running;

Westerly 579 feet more or less by the city boundary between the City of Somerville and City of Cambridge, said course being by the centerline of the former Millers River channel, to a point, thence turning and running;

S 81° 14' 38" E 521 feet more or less to the point of beginning, said last course being by land now or formerly of MBTA.

Containing 0.87 acres, more or less.

Third Parcel

Beginning at a point at the most northeasterly corner of the parcel herein described, said point being N 81° 14' 38" W 258 feet more or less from the most westerly corner of the second parcel, thence running;

Westerly	317 feet more or less by the city boundary between the City of Somerville and City of Cambridge, said course being by the centerline of the former Millers River channel, to a point, thence turning and running;
N 02° 23' 37" W	28 feet more or less to a point, thence turning and running;
S 67° 40' 27" E	42.82 feet to a point, thence turning and running;
S 81° 14' 38" E	203 feet more or less to the point of beginning, said last three courses being by land now or formerly of MBTA.

Containing 0.37 acres, more or less.

PROJECT DESCRIPTION

The Site is currently undeveloped vacant former railroad land. It is one of twenty (20) building parcels in the NorthPoint mixed-use development. To date, condominium buildings on Lot S and Lot T, a rental residential building on Lot N, Northpoint Common, Child Street Park and related infrastructure and other public amenities (including the Brian P. Murphy Memorial Staircase) have been constructed in NorthPoint. The proposed building on Lot JK will be the first commercial building to be constructed in NorthPoint. The surrounding roadway network is currently undergoing preliminary construction preparation. The Site is located in the North Point Special District (NPSD).

The new Lot JK building is an approximately 370,000 gross square foot Commercial Building to be used for a combination of Commercial Office, R&D and/or Laboratory, and Retail and Consumer Services uses. The proposed building will be approximately 143 feet high (as calculated pursuant to the SZO), plus three levels of underground parking containing approximately 348 parking spaces. The Ground Floor includes approximately 15,000 square feet of Retail and Consumer Services, accessed from the street or public area of the building lobby. The Site is located in the middle of NorthPoint and will eventually be surrounded with other commercial and residential uses in the larger mixed-use development. Because of the master planned nature of NorthPoint, the Applicant has a vested interest in ensuring high quality development on all sides of the Site and can control the overall condition in NorthPoint over multiple parcels to create the desired urban streetscape.

As shown on the master plan for NorthPoint, the Site is bounded by North Street to the south, North First Street to the west, Dawes Street to the north, and a new park/civic space to the east. The south side of the Site faces the large NorthPoint Common, a focal point of the entire NorthPoint development.

The building's two story base has been designed to relate to the scale and massing of the proposed surrounding buildings. The building has been set back from the property line along

the roadways to provide generous sidewalks and an enhanced public realm. The base of the building has incorporated a series of framed openings to give a sense of rhythm, scale and texture. Each frame is separated with a natural looking wood pier which will be illuminated at night with a soft glow. The ground floor incorporates a large amount of glass to allow greater transparency and connectivity to the retail and tenant spaces which will activate the street life.

There are no legal judgments, action, covenants, conditions, or restrictions that control the proposed development.

ZONING CONFORMANCE

The Site is located within the NPSD. The stated purpose of the NPSD is to “establish regulations supporting the development of a comprehensively planned neighborhood of mixed-use, moderate- to high-density development within easy walking distance to transit...” The proposed development provides a high-density, mixed-use building within easy walking distance to transit within a comprehensively planned neighborhood. As such, the development proposed for Lot JK conforms with the purpose of the NPSD.

The design of the building and layout of the Site conforms to all requirements of the SZO except Section 6.9.6.D.1.a, for which a Variance Application has been submitted simultaneously with this DSP Application; and Section 6.6.10, for which a Special Permit application has also been submitted to the Planning Board for review and approval. Both of those applications relate to providing loading along Dawes Street.

Additional information regarding the Site’s conformance with zoning is included in the attached Design Review Package.

TRANSPORTATION ANALYSIS

A transportation analysis memorandum, confirming Lot JK’s conformance to the previous approved transportation plan as part of the Neighborhood Development Plan is attached.

INFRASTRUCTURE ANALYSIS

The water, storm water drainage, sewer, energy, and electrical utility systems will be provided to the Site through Cambridge. The capacity and adequacy of these utility systems will be sufficiently upgraded as necessary to serve the Site. The Project will not use any of Somerville’s municipal services. As the Site is currently undeveloped and vacant, there is not anticipated to be significant impacts or disruptions to vehicular or pedestrian circulation, or impacts affecting any civic or recreation space or streetscape improvements during construction.

The proposed development will include a stormwater management system designed to mitigate potential impacts the Project could have on the existing watershed. Stormwater controls have been proposed to provide water quality treatment, total suspended solids removal and promote groundwater recharge. The proposed system has been designed to comply to the maximum extent practical with:

- The 2008 Massachusetts Department of Environmental Protection (DEP) Stormwater Management Handbook, and
- City of Cambridge Wastewater and Stormwater Management Guidelines.

In accordance with the approved stormwater master plan for the NorthPoint, stormwater from Lot JK will be directed south to NorthPoint Common, and will ultimately be conveyed to the Lechmere Canal. The proposed drainage system consists of deep sump hooded catch basins, proprietary water quality inlets, an irrigation cistern and subsurface infiltration system. All stormwater Best Management Practices (BMPs) were designed to treat a minimum of the first 1.0 inch of runoff generated by the on-site impervious areas. The BMPs have been designed to provide sediment and total phosphorus removal, and promote groundwater infiltration.

The stormwater master plan for Northpoint was permitted through the City of Cambridge, and largely constructed in 2007 along with Archstone North Point Phase I and NorthPoint buildings on Lots S and T. The system is designed to convey flow from the Archstone North Point and NorthPoint properties to a newly constructed outfall at the Lechmere Canal. It utilizes the centrally located NorthPoint Common for stormwater treatment. The Common includes a series of sediment forebays, swales, and Miller's Pond is a wet pond that provides sediment removal and nutrient removal.

Under proposed conditions roof runoff from the building proposed on Lot JK will be directed to a 16,000-gallon cistern located within Baldwin Park where it can be reused to irrigate the green roof areas and the landscaped areas in the park. Overflow from the cistern will drain to a subsurface infiltration system within Baldwin Park, where it can recharge groundwater and nutrient removal can occur. Overflow from the subsurface infiltration system will drain to Miller's Pond, and finally be directed to the Lechmere Canal.

Non-structural good housekeeping measures such as, source control, pollution prevention measures, and regular maintenance of the on-site stormwater best management practices are outlined in the Site Owner's Manual. In compliance with the Total Maximum Daily Load (TMDL) issued by the Massachusetts Department of Environmental Protection for the Charles River, fertilizers, herbicides and pesticides that contain phosphorus are prohibited and cannot be used on-site.

In compliance with the City of Cambridge requirements, the proposed storm drain system was analyzed based on the 25-year storm event using EPA SWMMM. The system has been designed to maintain freeboard of 1.5-feet below the road grade during the 25-year design storm event.

Mr. Kevin Prior, Chair
Somerville Planning Board
November 3, 2016
Page 7

The estimated sewage generation for Lot JK is 47,750 gallons per day (GPD). The estimated electricity consumption is 10,097 kVA. The estimated water consumption is 89,280 GPD. The estimated gas load is 51,000 CFM at 2 PSI.

DEVELOPMENT PLAN

A development plan for construction is attached to this application.

A construction management program is included as part of this application.

We understand that the Planning Director will provide the requisite notice to Parties in Interest advertising the public hearing associated with this request.

We have included a check made out to the City of Somerville in the amount of \$8,500.00 (maximum fee) as required for the filing fees associated with Design and Site Plan Review. Also included are the \$350.00 Advertising and Notice Fee and \$25.00 Abutters List Fee.

We look forward to meeting with the Planning Board to review and discuss the proposed project. Thank you for your consideration of this application.

Very truly yours,

BEALS AND THOMAS, INC.

John P. Gelcich, AICP
Senior Planner

Enclosures

JPG/---/208402LT072



CITY OF SOMERVILLE MASSACHUSETTS

Joseph A. Curtatone, Mayor

Office of Strategic Planning and Community Development (OSPCD)
City Hall 3rd Floor, 93 Highland Avenue, Somerville, MA 02143
(617) 625-6600 ext. 2500

DESIGN AND SITE PLAN (DSP) SUBMITTAL • COVER PAGE

In accordance with Article 5 of the Somerville Zoning Ordinance, the undersigned hereby submits the attached design and site plan for review according to applicable procedures and provisions of the Somerville Zoning Ordinance. Submittal materials required by this form are included as part of this submittal package.

Project NorthPoint Parcel JK

Agent Name Mark Johnson Phone 617-914-8600 Email mjohnson@divcowest.com

OWNER

APPLICANT

Name DW NP Property, LLC c/o DivcoWest Real Estate Services

Name DW NP Property, LLC c/o DivcoWest Real Estate Services

Address One Kendall Square, Ste. B3201
Cambridge, MA 02139

Address One Kendall Square, Ste. B3201
Cambridge, MA 02139

Phone 617-720-7400 Email rmashaal@divcowest.com

Phone 617-720-7400 Email rmashaal@divcowest.com

As Owner, I make the following representations:

1. I hereby certify that I am the owner of the property identified on this application form.
2. I hereby certify that the applicant named on this application form has been authorized by me to apply to develop and/or use the property listed above for the purposes indicated in this application.
3. I hereby certify that the agent, engineer and/or architect listed on this application form have been authorized to represent this application before the Planning Staff, the Planning Board, and/or the Zoning Board of Appeals.
4. I will permit Planning Staff to conduct site visits on my property.
5. Should the ownership of this parcel change before the board(s) have acted on this application, I will provide updated information and new copies of this signature page.

As Applicant, I make the following representations:

1. The information supplied on and with this application form is accurate to the best of my knowledge.
2. If the current use of the property is a nonconforming use, I will furnish proof to the satisfaction of the SPGA that the nonconforming use is legal.
3. I will make no changes to the approved project plans without the prior approval of the SPGA.
4. If the proposed project is subject to linkage (SZO Article 15), I will sign all documents required by the Planning Staff/SPGA governing the amount and the method of payment of the linkage fee.
5. I will return the notice sign or pay for its replacement.
6. I will pay the fees associated with this application, including but not limited to: advertising the case in the newspaper and mailing notices to abutters.
7. I hereby certify that the agent, engineer and/or architect listed on this application form have been authorized by me to represent me before the Planning Staff, the Planning Board and/or the Zoning Board of Appeals as it relates to the development and/or use of this property.

DW NP Property, LLC by

DW NP Property, LLC by

Signature

Signature

owner, corporate officer, trustee
Executive Vice President of its general partner

owner, corporate officer, trustee, legal representation
Executive Vice President of its general partner

CITY OF SOMERVILLE USE ONLY

CASE NUMBER _____

ZONING DISTRICT(S) _____ WARD/ALDERMAN _____

WAIVER(S)/SPECIAL PERMIT(S) REQUIRED? YES ☐ () NO ☐

VARIANCE REQUIRED? YES ☐ () NO ☐

FILING FEE _____ ADD FEE _____

PLANNING MEETING DATE _____ ENGINEERING MEETING DATE _____

DESIGN REVIEW DATE _____

HEARING DATE _____

CITY CLERK STAMP

Design and Site Plan Fee Schedule

	BASE FEE	ADDITIONAL FEE	MAX. FEE	AD FEE	ABUTTERS FEE
Review/Final Submittal	\$300	\$5.00 per linear foot of thoroughfare \$0.20 per square foot of civic or recreation space \$0.20 per gross square foot of non-commercial floor space \$100/dwelling unit	\$8,500	\$350	\$25
Revision, Major Amendment	\$225	\$5.00 per linear foot of thoroughfare \$0.20 per square foot of civic or recreation space \$0.20 per gross square foot of non-commercial floor space \$100/dwelling unit	\$8,500	\$350	\$25
Revision, Minor Amendment	\$150	n/a	n/a	n/a	n/a
Subdivision	\$400	\$100/lot	\$6,500	\$250	\$25
Lot Split, Lot Merger, or Lot Line Adjustment	\$400/action	n/a	\$400/action	n/a	n/a

OFFICE OF STRATEGIC PLANNING AND COMMUNITY DEVELOPMENT

City Hall 3rd Floor . 93 Highland Avenue . Somerville, MA 02143

617-625-6600 ext. 2500

M-W 8:30 AM - 4:30 PM, Th 8:30 AM - 7:30 PM, F 8:30 AM - 12:30 PM

DESIGN AND SITE PLAN (DSP) SUBMITTAL REQUIREMENTS

Applicants shall meet with the Office of Strategic Planning and Community Development and the Engineering Department prior to the submission of any design and site plan to ascertain applicable submittal requirements. A completed copy of this form shall be included with any design and site plan submittal package. All plans shall be prepared by a registered architect, landscape architect, land surveyor, or professional engineer, as applicable.

GENERAL DOCUMENT AND GRAPHIC STANDARDS

1. All required materials shall be submitted as follows:

	REVIEW SUBMITTAL	FINAL SUBMITTAL	FORMAT	DOCUMENT SIZE	PLAN SHEET SIZE
Physical Copies:	3	8	printed bound booklet	8.5x11	foldable 11"x 17" (plans not to scale)
Electronic Copies:	1	1	.pdf	8.5x11	24"x 36" min.
	1	1	.dwg	n/a	24"x 36" min.

2. Review copies of design and site plans shall be submitted to the City Clerk's office per §5.4.4.A of the Somerville Zoning Ordinance. Final copies shall be submitted to the Planning Division for distribution to the Planning Board no less than 20 days prior to the scheduled Public Hearing.
3. All plan drawings shall include a title block with the project name, plan issue date, sheet number, sheet title, registrant stamp, registrant contact information, scale, revision number and date, assessor's map-block-lot number(s), and 2"x 2" City Clerk stamp block.
4. All thoroughfares and other civic and recreation spaces shall be clearly labeled.
5. A north arrow and scale shall be provided on each map or plan.

REQUIRED FOR ALL DESIGN & SITE PLAN SUBMITTALS (in addition to Cover Page)

Written/Graphic Information

1. Contact information (company name, business address, telephone number, designated contact, & email address) for each member or firm of the development team, including legal representation and all project consultants
2. Legal description of property, including meets and bounds
3. Property title report including current ownership and purchase options of all parcels in the development site
4. Property deed
5. Identification of any existing legal judgments, actions, covenants, conditions, and/or restrictions that may control development, if applicable
6. A locus map

Required Supplied Received

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

REQUIRED FOR THE SUBDIVISION OF LAND, LOT SPLITS, LOT MERGERS, OR LOT LINE ADJUSTMENTS

Plan Drawings

1. A forty (1" to 40') scale or larger subdivision plan prepared in accordance with the Deed Indexing Standards of the Commonwealth of Massachusetts, latest edition, including but not limited to the following:
 - a. Municipal boundaries
 - b. Lot lines
 - c. Abutting properties including legal address, ownership information, and deed book number/page, plan, and map references
 - d. Existing buildings, fences, and retaining walls

Required Supplied Received

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REQUIRED FOR THOROUGHFARE DESIGN & SITE PLAN SUBMITTALS

Written/Graphic Information

1. Written narrative describing the project, including but not limited to the following:
 - a. Zoning conformance review, including satisfaction of the purpose and provisions for the specific district(s) where the thoroughfare is located
 - b. Identification of any requested waivers or variances, as required
 - c. Conformance review of city policy and/or other plans deemed appropriate by the Planning Board, as applicable
 - d. A development plan, setting forth the anticipated timing of construction and opening of the thoroughfare
 - e. A construction management program including, but not limited to, plans for construction vehicle access routes, on-site construction worker parking, designation of material storage methods and locations, and designation of construction hours

Required Supplied Received

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Plan Drawings

	Required	Supplied	Received
1. Key plan, as necessary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Plan legend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Vehicular lane and sidewalk width cross sections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Twenty (1" to 20') scale or larger drawings including, but not limited to, the following:			
a. General plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Profile plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Utility & drainage plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Layout plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Grading plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Landscape/planting plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Traffic & street lighting plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Construction drawings including, but not limited to, the following:			
a. Pavement section detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Sidewalk detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Curb detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Wheel chair ramp detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Driveway/alley crossing detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Crosswalk detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Gutter inlet detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Water/sewer			
i. Trench detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Catch basin detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Connection & tie-in detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Manhole detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Hydrant detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Public furniture			
i. Bench detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Trash receptacle detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Light pole(s) detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Light pole foundation detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Bike rack detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vi. Retaining wall/seat wall detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
vii. Bollard detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Landscape			
i. Street tree detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Planting bed detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Shrub detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Ground cover detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Fence detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Traffic Management			
a. Signal plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Sign summary sheet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Loop detector detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Lighting wire diagram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Utility and slope cross sections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REQUIRED FOR CIVIC SPACE DESIGN & SITE PLAN SUBMITTALS

Written/Graphic Information

Required Supplied Received

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 1. Written narrative describing the project, including but not limited to the following: | | | |
| a. Identification of the proposed space by type | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Description of the intended built character guiding the design of the space | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Zoning conformance review, including satisfaction of the purpose and provisions for the specific district(s) where the civic or recreation space is located | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Identification of any requested special permits or variance, as required | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Conformance review of city policy and/or other plans deemed appropriate by the Planning Board, as applicable | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. A development plan, setting forth the anticipated timing of construction and opening of the proposed space | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. A construction management program including, but not limited to, plans for construction vehicle access routes, on-site construction worker parking, designation of material storage methods and location, and designation of construction hours | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. A shadow study illustrating shadows cast by surrounding buildings according to the City of Somerville's Illustrating Building Shadows requirements. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Plan Drawings

Required Supplied Received

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 1. Neighborhood civic space plan, if applicable, identifying the subject space within the plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Twenty (1" to 20') scale or larger plan drawings including, but not limited to, the following: | | | |
| a. Existing conditions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Site preparation/demolition plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Materials plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Layout plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Paving plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Grading/drainage plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Utilities plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Landscape/planting plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Electrical & lighting plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Irrigation plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Construction drawings including, but not limited to, the following: | | | |
| a. Paving surfaces detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Curb and edges detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Walls and fencing detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Public furniture | | | |
| i. Seating detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. Trash receptacle detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iii. Light pole(s) detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv. Light pole foundation detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| v. Bike rack detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| vi. Bollard detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Landscape | | | |
| i. Tree planting detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. Planting bed detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iii. Shrub detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv. Ground cover detail | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Illustrated plant list | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

REQUIRED FOR LOT/BUILDING DESIGN & SITE PLAN SUBMITTALS

Written/Graphic Information

Required Supplied Received

- | | | | |
|---|-------------------------------------|-------------------------------------|--------------------------|
| 1. Project description including, but not limited to, the following: | | | |
| a. Identification of the proposed building(s) by type, as applicable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Description of design intent guiding the character of the lot or building | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Zoning conformance review, including satisfaction of the purpose and provisions for the specific district(s) where the lot or building is located | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Zoning conformance statistical summary, including the following: | | | |
| i. Facade build out | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. Floorplate of each floor (sq. ft.) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Building height (stories and feet) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Ground floor occupation | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| v. First floor fenestration percentage | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| vi. Total floor area by use category | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| vii. Total dwelling unit count | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| viii. Total dwelling unit count by number of bedrooms | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ix. Number of parking and loading spaces by type | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Identification of any requested special permits or variances, as required | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. Conformance review of city policy and/or other plans deemed appropriate by the Planning Board, as applicable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. A development plan, setting forth the anticipated timing of construction and occupancy of the proposed development | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h. A construction management program including, but not limited to, plans for construction vehicle access routes, on-site construction worker parking, designation of material storage methods and locations, and designation of construction hours | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Pedestrian level perspective renderings or illustrations depicting the interface between the proposed building(s) frontage and the public realm (one per front lot line; pedestrians not included). | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Description of how the design of the building's base (generally) and first floor (specifically) creates a positive interface between the proposed building(s) frontage and the public realm. | | | |
| 4. Renderings or illustrations depicting the proposed building(s) in context with surrounding structures (existing and proposed). | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Building material identification, including color and texture | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Site and Building Design

Plan Drawings

Required Supplied Received

- | | | | |
|--|-------------------------------------|-------------------------------------|--------------------------|
| 1. Twenty (1" to 20') scale or larger plan drawings including, but not limited to, the following: | | | |
| a. Existing site plan, illustrating: | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i. Topography (2 ft. contour lines) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. Lot lines | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Existing buildings and structures, as applicable, including area, stories, principal use, and actual setbacks | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Location, caliper, and species of individual trees of 6-inch caliper or more, if applicable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| v. Natural features and significant geologic formations | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Proposed site plan, illustrating: | | | |
| i. Lot lines, setback lines, and built-to lines | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. Building footprint, including floor plate size | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Continuous facade widths | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Facade build out calculation | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| v. Actual facade setback distances, at all differing points | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| vi. Individual tenant spaces and lobbies, color differentiated by use | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| vii. Frontage widths for tenant spaces and lobbies | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| viii. Primary pedestrian entrances/exits for individual tenant spaces and lobbies | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ix. Outdoor amenity areas, including size | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Floor plans, illustrating: | | | |
| i. Total floor plate size for each floor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

	Required	Supplied	Received
ii. Individual uses/spaces, color differentiated by use, for each floor (residential units should be color differentiated by bedroom count)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Indoor and outdoor amenity areas, including size	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Ground level landscape plan, including:			
i. Plant schedule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Illustrated plant list	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Electrical and lighting plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Building sections (one per front lot line), illustrating:			
a. Individual floors, color differentiated by use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Height measurements, including the height of each story and building height in total	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Facade/elevation renderings (all sides), illustrating:			
a. Vertical and horizontal articulation of each facade (in full)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Fenestration pattern of each facade (in full), including solid to void analysis for each floor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Close-up of the building's base (one per front lot line)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Construction drawings including, but not limited to, the following:			
a. Pavement section detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Sidewalk detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Curb detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Wheel chair ramp detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Driveway/alley crossing detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Furnishings			
i. Bench detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Trash receptacle detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Light pole(s) and light pole foundation detail(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Bike rack detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Retaining wall/seat wall detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
vi. Bollard detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Landscape			
i. Street tree detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Planting bed detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Shrub detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Ground cover detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Fence Detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Transportation Analysis

Written/Graphic Information

	Required	Supplied	Received
1. Summary of the proposed development program for the lot or building	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Identification of existing conditions:			
a. Site specific (including adjacent thoroughfares and building facades across the street from the site):			
i. Site access (pedestrian entrances to individual ground floor spaces and lobbies)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Primary pedestrian routes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Bicycling routes/lanes/paths, including all existing ground level bicycle parking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Pavement markings including parking and loading areas, driveways, and circulation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. On-street motor vehicle parking inventory, by type (metered, handicapped, no-parking, etc.)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Within a quarter (1/4) mile study area:			
i. Public transportation including location, types, and service and ridership statistics for study area stations/stops	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Bicycling routes/lanes/paths	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Car and bicycle sharing locations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Off-street motor vehicle parking inventory, by type (surface lot, above ground structure, underground structure)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Proposed future conditions:			
a. Site specific (including adjacent thoroughfares and building facades across the street from the site):			
i. Pedestrian, bicycle, and roadway infrastructure improvements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Site access (pedestrian entrances to individual ground floor spaces and lobbies)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Proposed curb cut or sidewalk changes, if applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Short and long term bicycle parking/storage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Vehicular circulation, maneuvering, and access to the site/building(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
vi. Off-street motor vehicle parking inventory, including layout, access, count, and size	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
vii. Car and bicycle sharing locations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
viii. On-street motor vehicle parking inventory, by type (metered, handicapped, no-parking, etc.)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ix. Loading docks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Within a quarter (1/4) mile study area			
i. Pedestrian, bicycle, and roadway infrastructure improvements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. A multi-modal transportation demand analysis of existing and proposed future conditions following procedures outlined in the 2010 Highway Capacity Manual. Analysis shall include study of demand, capacity, trip distribution, and circulation for sidewalks, bike facilities, public transportation, travel lanes, and intersections for appropriate modes. AM, PM, and daily trip generation rates and modal splits shall be based on regional comparables of similar principal uses provided by the Office of Strategic Planning and Community Development or other sources deemed appropriate by the Planning Board. In the absence of applicable comparables, ITE Trip Generation (latest edition) data may be substituted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. A transportation demand management plan describing measures taken to encourage the reduction of single-occupancy vehicular trips including, but not limited to, the following:			
a. Ride-sharing incentives and information dissemination	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Set-asides for high-occupancy-vehicles, including number and location	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Mass transit information dissemination	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. MBTA pass sales and subsidies	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Direct station links or pedestrian connections	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Encouragement of flexible work hours	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Restrictions on service and good deliveries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. A transportation demand monitoring plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Infrastructure Analysis

Written/Graphic Information

- | | Required | Supplied | Received |
|--|-------------------------------------|-------------------------------------|--------------------------|
| 1. Estimated water and electricity consumption, sewage generation, and energy requirements for the building(s) | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Analysis of the capacity and adequacy of existing water, storm water drainage, and sewer, energy (including gas), and electrical communications (including telephone, fire alarm, computer, cable, etc) utility systems, and identification of required system upgrades or connections to accommodate the proposed development. Impacts due to any required system upgrades or connections requiring a significant public or utility investment, creating a significant disruption in vehicular or pedestrian circulation, or affecting any civic or recreation space or streetscape improvements shall be described. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Plan Drawings

- | | Required | Supplied | Received |
|--|-------------------------------------|-------------------------------------|--------------------------|
| 1. Twenty (1" to 20') scale or larger utility plan drawing identifying all existing and proposed utilities including but not limited to water, sanitary sewer, storm drainage, electrical, telephone, data, CATV, and natural gas utilities. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Construction drawings including, but not limited to, the following: | | | |
| a. Water/sewer | | | |
| i. Trench detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. Catch basin detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Connection & tie-in detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Manhole detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| v. Hydrant detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| vi. Detention basin and outlet detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| vii. Infiltration device detail | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Environmental Analysis

Written/Graphic Information

- | | Required | Supplied | Received |
|---|-------------------------------------|-------------------------------------|--------------------------|
| 1. Identification of existing M.G.L. Chapter 21E reports and/or other environmental assessments, analysis, clean-up studies, enforcement actions, or related documentation related to the site | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Shadow analysis illustrating both existing and net new shadows according to the City of Somerville's Illustrating Building Shadows requirements | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Wind analysis documenting potential pedestrian level winds (PLW's) adjacent to and in the vicinity of the project site according to the City of Somerville's Measuring Pedestrian Level Wind Impacts and identification of proposed mitigation for any uncomfortable winds generated at outdoor pedestrian areas | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Solar glare analysis ensuring that no visual impairment or discomfort is caused on nearby thoroughfares, civic and recreation spaces, or pedestrian areas and that no solar heat buildup is caused in any nearby buildings due to reflective spot glare | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Air quality analysis verifying that emissions from any parking facility and/or building heating and mechanical systems will not violate state or federal ambient air quality standards | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Construction impact analysis and management program including, but not limited to, the following: | | | |
| a. A study of and mitigation plan for impacts on public safety from noise, dust, pollutant emissions, waste generation and disposal, and | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. plans for construction vehicle access routes, on-site construction worker parking, designation of material storage methods and locations, and designation of construction hours | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. A plan for solid and hazardous waste removal identifying any known toxic or hazardous wastes on or buried in the development site, pursuant to the requirements of M.G.L. Chapter 21E | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Analysis of sub-soil conditions, the potential for ground movement and settlement during construction, and the impact on adjacent buildings and utility lines and a description of foundation construction methodology | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Analysis of the impact of construction on groundwater levels and resulting effects on surrounding structures and building foundations | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

22895

BEALS AND THOMAS, INC.
RESERVOIR CORPORATE CENTER
144 TURNPIKE ROAD
SOUTHBOROUGH, MASSACHUSETTS 01772

Middlesex Savings Bank 22
SOUTHBOROUGH, MA 01772
53-7122/2113



Eight Thousand Five Hundred and no/100

DATE

AMOUNT

11/02/16

22895

\$8,500.00

PAY
TO THE
ORDER
OF

**CITY OF SOMERVILLE
93 HIGHLAND AVENUE
SOMERVILLE MA 02143**



[Signature]
AUTHORIZED SIGNATURE

⑈022895⑈ ⑆211371227⑆ 800308165⑈

Security features. Details on back.



22896

BEALS AND THOMAS, INC.
RESERVOIR CORPORATE CENTER
144 TURNPIKE ROAD
SOUTHBOROUGH, MASSACHUSETTS 01772

Middlesex Savings Bank 22
SOUTHBOROUGH, MA 01772
53-7122/2113



Three Hundred Fifty and no/100

DATE

AMOUNT

11/02/16

22896

\$350.00

PAY
TO THE
ORDER
OF

**CITY OF SOMERVILLE
93 HIGHLAND AVENUE
SOMERVILLE MA 02143**



[Signature]
AUTHORIZED SIGNATURE

⑈022896⑈ ⑆211371227⑆ 800308165⑈

Security features. Details on back.



22897

BEALS AND THOMAS, INC.
RESERVOIR CORPORATE CENTER
144 TURNPIKE ROAD
SOUTHBOROUGH, MASSACHUSETTS 01772

Middlesex Savings Bank 22
SOUTHBOROUGH, MA 01772
53-7122/2113



Twenty Five and no/100

DATE

AMOUNT

11/02/16

22897

\$25.00

PAY
TO THE
ORDER
OF

**CITY OF SOMERVILLE
93 HIGHLAND AVENUE
SOMERVILLE MA 02143**



[Signature]
AUTHORIZED SIGNATURE

⑈022897⑈ ⑆211371227⑆ 800308165⑈

Security features. Details on back.





**COMMITMENT FOR TITLE INSURANCE
SCHEDULE A**

This commitment is subject to underwriting/rate approval if the proposed transaction exceeds
\$50,000,000.00

Case Number: C21292

Connection Number: 19263221

(Revised April 10, 2015)
(Revised April 13, 2015)
(Revised May 1, 2015)
(Revised June 29, 2015)
(Revised July 20, 2015)
(Revised July 23, 2015)
(Revised August 5, 2015)
(Revised August 7, 2015)
(Revised August 12, 2015)
(Revised August 18, 2015)

1. Effective Date: **August 18, 2015**

2. Policy or Policies to be issued:

(a) ALTA Owner's Policy - (6/17/06)

Amount: **\$291,040,268.46**

PROPOSED INSURED: **DW NP Property, LLC, a Delaware limited liability company**

(b) ALTA Loan Policy – (6/17/06)

Amount: **\$ NA**

PROPOSED INSURED: **NA**

3. Title to the fee simple estate or interest in the land described or referred to in this commitment is at the effective date hereof vested in:

CJUF III Northpoint LLC, by virtue of:

(a) Deed from Boston and Maine Corporation, dated as of August 19, 2010 and recorded in the Suffolk County Registry of Deeds in [Book 46807, Page 256](#) , and in the Middlesex South County Registry of Deeds in [Book 55212, Page 330](#) (PARCEL ONE)

(b) Deed from Boston and Maine Corporation dated June 11, 2014, and recorded in Middlesex South County Registry of Deeds in [Book 63899, Page 200](#) (PARCEL TWO)

(c) Quitclaim Deed from Boston and Maine Corporation, dated October 31, 2014 and recorded in the Suffolk County Registry of Deeds in Book 53735, Page 196, and recorded in the Middlesex South Registry of Deeds in Book 64544, Page 596. (PARCEL THREE)

4. The land referred to in this Commitment is described as follows:

All that certain parcel of land located in the cities of Cambridge, Somerville and Boston, Counties of Middlesex and Suffolk, Commonwealth of Massachusetts, all more particularly described in Exhibit "A" attached hereto and made a part hereof

NOTE: As hereinafter used, "recorded with Middlesex" shall mean "recorded with the Middlesex County Registry of Deeds (Southern District)" and "recorded with "Suffolk" shall mean "recorded with the Suffolk County Registry of Deeds".

Countersigned at Boston, Massachusetts

Schedule A – Part I

**Commonwealth Title Insurance Company
265 Franklin Street, 8th Floor
Boston, MA 02110-3113
(800) 621-0051**

Philip M. Saba
Vice President

NOTE: This Commitment is an offer to issue one or more title insurance policies. It is not a title insurance policy or an abstract of title, a report on the condition of title, legal opinion, opinion of title or similar representation of title. The Company shall have no liability other than that set forth in this Commitment. Any title search or examination that has been conducted for the preparation of this Commitment (i) has been conducted solely for the Company's determination of insurability under the terms of this Commitment and (ii) has not been conducted for any other person, including a Proposed Insured. Only a Proposed Insured, designated on Schedule A, may rely on this Commitment, and then only to acquire a title insurance policy from the Company in accordance with the terms and provisions of this Commitment. If the Company has not completed the Proposed Policy Amount on Schedule A, the offer of the Commitment is to issue a title insurance policy limited to an Amount of Insurance of no more than \$100,000.

EXHIBIT "A"

All those certain parcels of land located in the Cities of Cambridge and Somerville, Middlesex County and Boston, Suffolk County, Commonwealth of Massachusetts, and more particularly described as follows:

PARCEL ONE:

Parcel 1 on a plan entitled "North Point – "Central Park" Parcel Subdivision Plan of Land in Boston, Cambridge and Somerville, Massachusetts, Suffolk and Middlesex Counties", dated August 16, 2010, prepared by Gunther Engineering, a division of Digital Geographic Technologies, Inc., and recorded as [Plan 597 of 2010](#) (Middlesex) and [Plan Book 2010 Pages 270 and 271](#) (Suffolk).

Together with all right, title and interest in and to the private street known as Water Street as more particularly shown on the Plan, to the midline thereof and adjoining Parcel 1 described above, excepting therefrom so much of Water Street as may be owned in fee by the MBTA by virtue of the documents recorded with Middlesex at [Book 13117, Page 113](#) and at [Book 13156, Page 34](#).

Together with the right to use the "private" portion of Water Street as shown on the Plan.

Less and except the following described premises:

- (1) Parcel N set forth in a deed from CJUF III Northpoint LLC to NP Parcel N Owner LLC, dated December 12, 2012 and recorded with Middlesex in Book 60764, Page 223 and shown on Plan 937 of 2012; and
- (2) That certain parcel of land described in a deed from CJUF III Northpoint LLC to Massachusetts Bay Transportation Authority, dated as of November 20, 2013 and recorded with Middlesex in [Book 62977, Page 343](#)

PARCEL TWO (Central Park Parcel and Lot FP):

Parcel 1:

A certain parcel of land situated in the Commonwealth of Massachusetts, County of Middlesex, City of Cambridge, located on the northerly side of North Point Boulevard and being shown as "**CENTRAL PARK' PARCEL**" on a plan entitled "North Point – "Central Park Parcel", Subdivision Plan of Land in Boston, Cambridge and Somerville, Massachusetts, Suffolk and Middlesex Counties", dated August 16, 2010, prepared by Gunther Engineering, recorded in Middlesex County Registry of Deeds as [Plan 597 of 2010](#). Being more particularly bounded and described as follows:

Beginning at a point at the most southeasterly corner of the parcel, said point being on the northerly line of North Point Boulevard, thence running;

N 75° 22' 38" W	134.49 feet to a point, thence turning and running;
NORTHWESTERLY	by a curve to the right having a radius of 1979.00 feet a length of 48.78 feet to a point, thence turning and running;
N 73° 57' 53" W	632.12 feet to a point, thence turning and running;
NORTHWESTERLY	by a curve to the right having a radius of 224.00 feet and a length of 22.75 feet to a point, thence turning and running;
N 68° 08' 47" W	37.98 feet to a point, thence turning and running;
NORTHWESTERLY	by a curve to the right having a radius of 425.00 feet and a length of 94.54 feet to a point, said last six courses being by the northerly line of North Point Boulevard, thence turning and running;

N 57° 16' 47" W	256.98 feet to a point, thence turning and running;
N 11° 15' 41" E	91.06 feet to a point, thence turning and running;
S 81° 14' 36" E	200.13 feet to a point, thence turning and running;
S 73° 25' 09" E	14.60 feet to a point, thence turning and running;
S 81° 06' 44" E	67.29 feet to a point, thence turning and running;
S 74° 39' 04" E	33.61 feet to a point, thence turning and running;
S 81° 14' 36" E	178.52 feet to a point, thence turning and running;
S 85° 07' 47" E	40.27 feet to a point, thence turning and running;
NORTHEASTERLY	by a curve to the right having a radius of 319.00 feet and a length of 105.10 feet to a point, thence turning and running;
S 58° 22' 52" E	128.90 feet to a point, thence turning and running;
S 51° 45' 29" E	30.35 feet to a point, thence turning and running;
S 58° 22' 52" E	137.29 feet to a point, thence turning and running;
S 64° 25' 22" E	33.25 feet to a point, thence turning and running;
S 58° 22' 52" E	273.25 feet to a point, thence turning and running;
SOUTHEASTERLY	by a curve to the right having a radius of 30.08 feet and a length of 47.17 feet to a point, thence turning and running;
S 31° 28' 09" W	35.15 feet to a point, thence turning and running;
SOUTHWESTERLY	by a curve to the right having a radius of 4.00 feet and a length of 5.11 feet to the point of beginning. All of said courses being by Parcel 1.

Parcel 2:

A certain parcel of land situated in the City of Cambridge, County of Middlesex, Commonwealth of Massachusetts, being more particularly shown as "**Lot FP**" on a plan entitled "Condominium Site Plan of Sierra & Tango Condominium in Cambridge, Massachusetts, Middlesex County, Scale 1" = 30', 10 January 2008, Gunther Engineering", recorded with the Middlesex S. D. Registry of Deeds as [Plan No. 449 of 2008](#).

Together with the benefit of the following which are appurtenant to PARCEL ONE AND PARCEL TWO:

- a. Easements granted in Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC, Sierra Plus Tango LLC, as Trustee of Sierra + Tango Condominium Trust and Boston and Maine Corporation, dated April 1, 2011 and recorded with Middlesex in Book 56683, Page 375, and recorded with Suffolk in Book 47761, Page 232, as amended by First Amendment dated December 12, 2012 and recorded with Middlesex in Book 60764, Page 220, as affected by Assignment and Assumption of Northpoint Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC and DW NP Property, LLC dated as of August ___, 2015 and recorded with Middlesex in Book ___, Page ___ and with Suffolk in Book ___, Page ___.

PARCEL THREE:

A certain parcel of land situated partly in the City of Cambridge and partly in the City of Boston, Commonwealth of Massachusetts, Counties of Middlesex and Suffolk, located on Charlestown Avenue and

This Commitment is invalid unless the Insuring Provisions and Schedules A and B are attached.

being shown as **Parcel 2** on a plan entitled "North Point – "Central Park" Parcel, Subdivision Plan of Land in Boston, Cambridge and Somerville, Massachusetts, Suffolk and Middlesex Counties", dated August 16, 2010, prepared by Gunther Engineering, recorded in Middlesex County Registry of Deeds as [Plan 597 of 2010](#) and recorded in Suffolk County Registry of Deeds in [Plan Book 2010 Pages 270](#) and [271](#).

Together with the benefit of the following, as appurtenant to PARCEL ONE, PARCEL TWO and PARCEL THREE:

- A. Easements reserved by Grantor in paragraph 2 of that certain Release Deed and Grant of Easement from The Boston and Maine Corporation to Massachusetts Bay Transportation Authority, dated July 1, 1992, and recorded with the Suffolk County Registry of Deeds in [Book 17577, Page 179](#) and with Middlesex in [Book 22186, Page 479](#), as affected by Confirmatory Release Deed and Grant of Easement dated July 20, 1993 and recorded with Suffolk in [Book 19013, Page 1](#) and with Middlesex in [Book 24467, Page 562](#), which easement rights are in the property shown as "B&M Access Easement" on a plan recorded with the Suffolk County Registry of Deeds as Plan 17577, Page 179 and Middlesex County Southern District Registry of Deeds as Plan 546 of 1992.
- B. Easements to use and access the "Developer Crossover Easement Area", granted in the Northpoint Parking Easement Agreement between CJUF III, Northpoint LLC and Massachusetts Bay Transportation Authority, dated February 23, 2015, and recorded in Middlesex in Book 65048, Page 251.
- C. Easements set forth in that certain Easement Agreement by and between North Point Apartments Limited Partnership, Archstone North Point II LLC, AVB Maple Leaf Apartments Limited Partnership and CJUF III Northpoint LLC, dated July 31, 2015, and recorded in Suffolk in Book 54872, Page 23, and in Middlesex in Book 65856, Page 233.
- D. Easements set forth in Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC, NP Parcel N Owner LLC and the Boston and Maine Corporation, dated April 12, 2013 and recorded with Middlesex in Book 61625, Page 397 and recorded with Suffolk in Book 51306, Page 54, as affected by Northpoint Parcel N Deed Covenants by and between CJUF III Northpoint LLC and NP Parcel N Owner LLC dated April 11, 2013 and recorded with Middlesex in Book 61625, Page 496, affected by First Amendment to Northpoint Agreement of Covenants, Easements and Restrictions dated August 21, 2014, recorded with Suffolk in Book 53465 Page 37 and with Middlesex in Book 64210 Page 280, as affected by Second Amendment to Northpoint Agreement of Covenants, Easements and Restrictions dated June 12, 2015, recorded with Suffolk in Book 54628, Page 334, and recorded with Middlesex in Book 65567, Page 343, as affected by Assignment and Assumption of Northpoint Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC and DW NP Property, LLC dated as of August ____, 2015 and recorded with Middlesex in Book ____, Page ____ and with Suffolk in Book ____, Page ____.

NOTE: Acreage is not insured.



**COMMITMENT FOR TITLE INSURANCE
SCHEDULE B - SECTION 1**

REQUIREMENTS

Case Number: C21292

The following are the requirements to be complied with:

1. Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.
 2. Proper instrument(s) creating the estate or interest to be insured must be executed and duly filed for record to-wit:
 - (a) Duly authorized and executed deed from the party identified in Schedule A, Item 3, vesting fee title in the proposed insured owner; and
- Note: Section 6 of Notices of Activity and Use Limitations referenced in Schedule B, Section 2 below should be reviewed when drafting any conveyance documents.
3. Intentionally omitted.
 4. If Survey coverage is requested, prior to closing the company must be in receipt of a satisfactory survey and surveyor's report. The Survey exceptions set forth in Schedule B, Section 2, standard exception 2 will be eliminated or amended in accordance with the facts disclosed thereby.
 5. Receipt of properly executed Parties in Possession and Mechanic's Lien Affidavit in order to delete or modify exceptions set forth in Schedule B, Section 2, Standard Exceptions 1 and 3.
 6. If the insured premises have undergone construction or repair in the past 93 days, satisfactory evidence should be provided at or prior to closing that said improvements and/or repairs or alterations are complete and; that the contractor, subcontractors, labor and material men are all paid in full.
 7. In the event that the Company will be responsible for recording the closing documents,
 - (a) at least 24 hours before closing, provide this office with a copy of the form of deed, mortgage, and all other documents to be recorded; and
 - (b) along with the original documents for recording, provide this office with two copy sets of all documents to be recorded.
 8. Issuance of a final title insurance policy is conditioned upon payment of all title premium(s) due in connection with said policy(ies) at the present applicable rates as well as all examination and counsel fees and recording costs and charges incurred by the Company relative to this transaction.

(Continued)

**Schedule B – Section 1
Page 1**

**Schedule B – Section 1
Requirements Continued**

Case No: C21292

9. If the title to be vested in, or documents are to be executed by a **LIMITED PARTNERSHIP**, a current Certificate of limited partnership naming the General Partners ("Long Legal with General Partners") from the Secretary of State's of the Commonwealth of Massachusetts must be recorded/filed.
10. If title to be vested in or documents to be executed by a **LIMITED LIABILITY COMPANY**, provide a current Certificate of Good Standing for the LLC from the Massachusetts Secretary of State identifying:
- (a) the managers of the limited liability company, if any;
 - (b) those persons who are authorized to act with respect to real estate instruments; and
 - (c) In the event that nobody is so authorized to execute real estate documents, obtain and record/file a certificate executed by the manager of the limited liability company stating that the persons executing the deed/mortgage in the name of the limited liability company are the incumbent members or managers and that such persons are empowered by the Operating Agreement to convey/mortgage the insured premises.
 - (d) There may be circumstances in which an LLC does not have managers and the identity of persons authorized to execute real estate documents is not disclosed in the Secretary of State filing. In those circumstances, the statute provides that a good faith third party purchaser may rely upon a certificate executed by a person identified at the Secretary of State's Office as a manager or as a person authorized to execute documents to be filed with the Secretary of State certifying as to (i) the incumbency of any manager or member and (ii) the authority of any persons to act on behalf of the LLC whether or not such person is identified in the Secretary of State filing. M.G.L. c. 156C, s. 67. Such a certificate shall be binding upon the LLC in favor of a person relying in good faith thereon notwithstanding inconsistent provisions in the operating agreement. M.G.L. c. 156C, s. 67. The protection afforded by the statute applies equally to domestic LLC's and foreign LLC's, which have registered with the Secretary of State.
11. With respect to **CJUF III Northpoint LLC (Seller)**, provide a current original Certificate of Good Standing for the LLC from the Massachusetts Secretary of State identifying:
- (a) the managers of the limited liability company, if any;
 - (b) those persons who are authorized to act with respect to real estate instruments; and
 - (c) In the event that nobody is so authorized to execute real estate documents, obtain and record/file a certificate executed by the manager of the limited liability company stating that the persons executing the deed/mortgage in the name of the limited liability company are the incumbent members or managers and that such persons are empowered by the Operating Agreement to convey/mortgage the insured premises.
 - (d) There may be circumstances in which an LLC does not have managers and the identity of persons authorized to execute real estate documents is not disclosed in the Secretary of State filing. In those circumstances, the statute provides that a good faith third party purchaser may rely upon a certificate executed by a person identified at the Secretary of State's Office as a manager or as a person authorized to execute documents to be filed with the Secretary of State certifying as to (i) the incumbency of any manager or member and (ii) the authority of any persons to act on behalf of the LLC whether or not such person is identified in the Secretary of State filing. M.G.L. c. 156C, s. 67. Such a certificate shall be binding upon the LLC in favor of a person relying in good faith thereon notwithstanding inconsistent provisions in the operating agreement. M.G.L. c. 156C, s. 67. The protection afforded by the statute applies equally to domestic LLC's and foreign LLC's, which have registered with the Secretary of State.

Note: In the event the Seller is classified for the taxable year as a corporation for federal income tax purposes, the Company must be in receipt of a Commonwealth of Massachusetts, Department of Revenue, Waivers of Excise Tax Lien if the parcel described in Schedule A constitutes all or substantially all of the assets of the seller. If

the seller will NOT be conveying all or substantially all of their assets in Massachusetts, the Deed should contain statement to that effect. If the seller is not classified for the taxable year as a corporation for federal income tax purposes, then the Deed should contain a statement to that effect. (Mass. St. 2008, c. 173, s. 27, amending M.G.L. c. 62C, s. 51).

12. Upon full disclosure to the Company of the nature and scope of this transaction and our review and approval of the closing documents, including updated certifications of title, the Company reserves the right to raise such other and further exceptions and requirements as it deems appropriate.
13. Duly authorized and executed Discharge/Termination of the following items: **NONE**



**COMMITMENT FOR TITLE INSURANCE
SCHEDULE B - SECTION 2**

EXCEPTIONS FROM COVERAGE

Case Number: C21292

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

1. Rights of the following parties as tenants or licensees only, with no right or option to purchase any portion of the land (schedule of tenants to be provided to Company).
2. Intentionally omitted.
3. Intentionally omitted.
4. Intentionally omitted.
5. Liens for taxes and municipal charges which become due and payable subsequent to the date of said policy.
6. Right of others legally entitled thereto to use the "private" portion of Water Street as shown on the Plan referred to in Exhibit A above (affects the portion of PARCEL ONE within Water Street as shown on the ALTA Survey (defined below).
7. Electric Utility Easement from Ogden Realty Limited Partnership to Cambridge Electric Light Company dated June 22, 1989 and recorded with Middlesex in [Book 19905, Page 539](#). (Affects PARCEL ONE and Parcel 1 of PARCEL TWO only)

This Policy insures that this Easement is located as shown on the ALTA Survey and affects only East Street and a portion of the property adjacent thereto, as shown on the Exhibit A sketch attached to the easement set forth above.

8. Report and Findings of the Superior Court Commission on the Abolition of Grade Crossing recorded August 4, 1900 with Suffolk in [Book 2700, Page 243](#), affecting the location of Austin Street and the draw bridge over the Millers River at the Prison Point Bridge and Report and Findings of the Special Commission on the Alterations of the Grade Crossing of Prison Point Street in Cambridge dated March 29, 1899 and recorded May 2, 1900 with Middlesex in [Book 2815, Page 145](#), establishing the layout of Prison Point Street in Cambridge to Austin Street in Boston over a viaduct 50 feet wide.

This Policy insures that the documents referred to in this Item affect only the land located under the "Prison Point Bridge" a/k/a Gilmore Bridge as shown on the ALTA Survey.

9. Prison Point Bridge Taking dated September 25, 1972 by the Commonwealth of Massachusetts, Metropolitan District Commission, and recorded with Suffolk in Book 8540, Page 651 and recorded with Middlesex in [Book 12222, Page 250](#).

This Policy insures that this Taking affects only the land located under the "Prison Point Bridge" a/k/a Gilmore Bridge and a strip of land adjacent thereto, as shown on the ALTA Survey.

10. Agreement regarding drainage set forth in Paragraph 6 of the Release Deed and Grant of Easement between the Boston and Maine Corporation and the Massachusetts Bay Transportation Authority dated July 1, 1992 and recorded with Suffolk in [Book 17577, Page 179](#) and with Middlesex in [Book 22186, Page 479](#), as affected by Confirmatory Release Deed and Grant of Easement dated July 20, 1993 and recorded with Suffolk in [Book 19013, Page 1](#) and with Middlesex in [Book 24467, Page 562](#)
11. Easements for access set forth in Deed from the Boston and Maine Railroad to Keith Fulton & Sons, Inc. dated September 14, 1961 and recorded with Middlesex in [Book 9891, Page 128](#), as affected by the City of Cambridge Taking for public parking and transportation dated November 10, 1980 and recorded with Middlesex in [Book 14151, Page 141](#).

This Policy insures that the rights and easements referred to in this Item affect East Street and the 40' wide Access Drive as shown on the ALTA Survey. This policy further insures that the rights to use East Street do not extend into any portion of the Central Park Parcel.

12. Easement set forth in Deed from the Boston and Maine Railroad to Leo Pistorino dated December 24, 1964 and recorded with Middlesex in [Book 10721, Page 201](#), conveying the area shown on the plan recorded with Middlesex in [Book 10699, Page End](#), as is affected by rights granted by Leo M. Pistorino, et al, Trustees to P.W. Rounsevell, Inc. by deed dated August 22, 1966 and recorded with Middlesex in [Book 11193, Page 436](#), as further affected by rights granted by Leo M. Pistorino et al, Trustees to Pappas industrial Properties, Inc. by deed dated October 13, 1977 and recorded with Middlesex in [Book 13309, Page 047](#), as further affected by rights granted by Leo M. Pistorino, et al, Trustees to Bornstein & Fisher, Inc. by deed dated January 16, 1978 and recorded with Middlesex in [Book 13375, Page 339](#).

This Policy insures that the rights and easements in No. 12 above affect only that portion of East Street shown on the ALTA Survey.

13. Taking of Utility Easement by the Commonwealth of Massachusetts by its Division of Capital Planning and Operations dated March 27, 1987 and recorded with Middlesex in [Book 17987, Page 054](#), as affected by Assignment dated March 27, 1987 to Cambridge Electric Light Company recorded with Middlesex in [Book 17987, Page 057](#), which utility easements are located as shown on the ALTA Survey.
14. Terms and provisions of M.G.L. Chapter 40, Section 54A.
15. Ownership of Prison Point (Gilmore) Bridge by the Commonwealth of Massachusetts, which is located as shown on the ALTA Survey.
16. Easement for utility purposes from Boston and Maine Corporation et al to Verizon New England Inc. dated December 29, 2006 and recorded with Middlesex in [Book 49883, Page 423](#), as affected by Consent and Joinder recorded with Middlesex in [Book 49883, Page 433](#), and as further affected by First Amendment to Easement, dated July 17, 2015, and recorded in Suffolk in Book 54808, Page 257, and in Middlesex in Book 65780, Page 442, located as shown on the ALTA Survey.
17. Easement for utility purposes from Boston and Maine Corporation et al to NStar Gas Company dated December 29, 2006 and recorded with Middlesex in [Book 49883, Page 437](#), as affected by Consent and Joinder recorded in [Book 49883, Page 445](#), located as shown on the ALTA Survey and affects only the private ways shown on the ALTA Survey.
18. Easement for utility purposes from Boston and Maine Corporation et al to Comcast of Massachusetts I, LLC dated December 29, 2006 and recorded with Middlesex in [Book 49883, Page 447](#), as affected by Consent and Joinder recorded with Middlesex in [Book 49883, Page 454](#), located as shown on the ALTA Survey and affects only the private ways as shown on the ALTA Survey.
19. Easement for utility purposes from Boston and Maine Corporation et al to Cambridge Electric Light Company dated December 29, 2006 and recorded with Middlesex in [Book 49883, Page 474](#), as affected by Consent and Joinder recorded in [Book 49883, Page 485](#), located as shown on the ALTA Survey and affects only the private ways as shown on the ALTA Survey.as shown on the Survey.

This Commitment is invalid unless the Insuring Provisions and Schedules A and B are attached.

20. Intentionally omitted.
21. Rights of Clear Channel Outdoor Inc., pursuant to a license dated May 1, 2012 relative to the Billboard located on PARCEL ONE, as shown on the ALTA Survey, and any and all claims arising thereunder.
22. Intentionally omitted.
23. Intentionally omitted.
24. Intentionally omitted.
25. Easements, covenants, conditions and restrictions, including but not limited to common area assessments and charges set forth in Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC, Sierra Plus Tango LLC, as Trustee of Sierra + Tango Condominium Trust, and Boston and Maine Corporation, dated April 1, 2011 and recorded in [Book 56683, Page 375](#) (Middlesex) and Book 47761, Page 232 (Suffolk), as affected by First Amendment dated December 12, 2012 and recorded with Middlesex in [Book 60764, Page 220](#).
26. Easements, covenants, conditions and restrictions, including but not limited to common area assessments and charges set forth in Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC, NP Parcel N Owner LLC and the Boston and Maine Corporation, dated April 12, 2013 and recorded with Middlesex in [Book 61625, Page 397](#) and recorded with Suffolk in [Book 51306, Page 54](#), as affected by Northpoint Parcel N Deed Covenants by and between CJUF III Northpoint LLC and NP Parcel N Owner LLC dated April 11, 2013 and recorded with Middlesex in [Book 61625, Page 496](#), affected by First Amendment To Northpoint Agreement of Covenants, Easements and Restrictions recorded In Suffolk Book 53465 Page 37 and in Middlesex in Book 64210 Page 280, as affected by Second Amendment to Northpoint Agreement of Covenants, Easements and Restrictions, recorded with Suffolk in Book 54628, Page 334, and recorded in Middlesex in Book 65567, Page 343.
27. Notice of Activity and Use Limitation by Boston and Maine Corporation dated June 13, 2013 and recorded in [Book 62072, Page 281](#) (affects Parcel 2 of PARCEL TWO), as shown on the ALTA Survey.
28. Notice of Activity and Use Limitation by Boston and Maine Corporation dated June 13, 2013 and recorded with Middlesex in [Book 62072, Page 314](#) (affects Parcel 1 of PARCEL TWO), as shown on the ALTA Survey.
29. Rights of others to use a private way delineated as the "50' Wide Access Drive (formerly East Street) on the Subdivision Plan of Land recorded as [Plan 597 of 2010](#)) for all purposes for which streets or ways are used in the City of Cambridge, however, said rights of others do not extend to any portion of the land located within the bounds of Central Park Parcel, as shown on the ALTA Survey.
30. Easement for Electric Service by and between NP Parcel Owner LLC, CJUF III Northpoint LLC and Boston and Maine Corporation to NStar Electric Company, dated December 11, 2013 and recorded in [Book 63310, Page 347](#) (affects Parcel One), which easement is located as shown on the ALTA Survey, as affected by First Amended to Easement for Electric Service, dated June 16, 2015, and recorded in Middlesex in Book 65660, Page 84.
31. Sewer and Drainage Taking for sewer and drainage easements dated July 10, 1975 by the Commonwealth of Massachusetts, Metropolitan District Commission, and recorded with Suffolk in [Book 8801, Page 515](#) and recorded with Middlesex in Book 12828, Page 392, which easements are located as shown on the ALTA Survey (Affects Parcel Three only).
32. Intentionally omitted.

33. Development Regulatory Agreement between Boston Redevelopment Authority and CJUF III Northpoint LLC dated July 29, 2014 and recorded with Suffolk in [Book 53319, Page 90 \(Affects Parcel One and Parcel Three only\)](#).
34. Terms and provisions of a Lease by and CJUF III Northpoint LLC (Landlord) and Sierra Plus Tango LLC (Tenant) dated April 1, 2012, a Notice of which is recorded with Middlesex in [Book 60222, Page 132](#).
35. Intentionally omitted.
36. Planning Board Decision issued by the City of Somerville October 16, 2014, and recorded in Middlesex in Book 64661, Page 25.
37. Notice of Activity and Use Limitation recorded with Middlesex in [Book 62072, Page 351](#). (Affects a portion of PARCEL ONE as shown on the ALTA Survey)
38. Intentionally omitted.

NOTE: Although specifically excluded from the coverage of this policy, the following matters a and b, which are recorded with the Middlesex South District Registry of Deeds, are provided for informational purposes only:

- a. Order of Conditions dated June 29, 1992 issued by the Somerville Conservation Commission in favor of Massachusetts Bay Transportation Authority and Boston and Maine Railroad and recorded November 4, 1992 in Book 22580, Page 215.
- b. MA DEP Permit for Sewer System Extension recorded with Middlesex in [Book 58497, Page 1](#).
39. Intentionally omitted.
40. Intentionally omitted.
41. Intentionally omitted.
42. Intentionally omitted.
43. Intentionally omitted.
44. Intentionally omitted.
45. Intentionally omitted.
46. Zoning Decision, City of Cambridge Planning Board Case No. 179, Notice of which is recorded with Middlesex in [Book 44824, Page 370](#), as affected by Minor Amendment No. 1, recorded in [Book 62918, Page 289](#), as further affected by Minor Amendment No. 2, recorded in [Book 62918, Page 306](#), as further affected by Amendment No. 3 (Major), recorded in [Book 62918, Page 308](#), as affected by City of Cambridge Planning Board Notice of Decision, dated February 13, 2015 and recorded in the Suffolk County Registry of Deeds in Book 54166, Page 121, and in the Middlesex South County Registry of Deeds in Book 65040, Page 490, as affected by Decision by the City of Cambridge Planning Board, dated recorded in [Book 65040, Page 490](#).
47. Intentionally omitted.
48. Intentionally omitted.
49. Survey entitled "ALTA/ACSM Land Title Survey, Northpoint in Cambridge and Somerville, MA (Middlesex County), and Boston, MA (Suffolk County), dated April 10, 2015, last revised August --, 2015, prepared by Beals and Thomas, Inc, (the "ALTA Survey") discloses the following matters:

- a. There is an underground oil pipe crossing the property line;

This Commitment is invalid unless the Insuring Provisions and Schedules A and B are attached.

- b. There are various drain lines crossing the property line;
- c. There are overhead wires crossing the property line;
- d. There is a guardrail crossing the property line;
- e. There is a fence encroaching onto land now or formerly of MBTA;
- f. There are concrete blocks encroaching onto land now or formerly of MBTA;
- g. There are various water lines crossing the property line;
- h. Intentionally omitted;
- i. There is a fence and gate crossing the property line;
- j. Intentionally omitted;
- k. There are gravel roadways crossing the property line;
- l. The BIT. Conc. Drive is located outside of the access easement;
- m. There are three (3) 48" steel pipes that enter the premises;
- n. Intentionally omitted;
- o. There is a concrete footing below grade that extends over the property line approximately 0.7 feet;
- p. Intentionally omitted;
- q. There is a jersey barrier wall encroaching onto land now or formerly of AVB Maple Leaf Apartments L.P. by approx. 0.2';
- r. There is a utility pole located on land now or formerly of MBTA and overhead wires crossing the property line;
- s. There is an edge of pavement and parking stripes encroaching onto the premises from land now or formerly of MBTA;
- t. There is a sewer line crossing onto land now or formerly of MBTA;
- u. There is an electric line crossing onto land now or formerly of MBTA;
- v. There is access and parking stripes crossing the property line between land now or formerly of MBTA and CJUF III Northpoint LLC;
- w. Intentionally omitted;
- x. Intentionally omitted;
- y. There is a wood and metal pile straddling the property line between land now or formerly CJUF III Northpoint LLC and MBTA;
- z. There is debris located on the premises and crossing the property line between land now or formerly of CJUF III Northpoint LLC and MBTA;
- aa. Intentionally omitted;

- bb. The concrete wall with cap extends over the property line by 0.02’;
 - cc. The concrete wall with cap extends over the property line by 0.10’; and
 - dd. The building façade extends over the property line by 0.07’.
- 50. Intentionally omitted.
 - 51. Northpoint Parking Easement Agreement, dated February 23, 2015, by and between CJUF III Northpoint LLC and the Massachusetts Bay Transportation Authority, recorded with the Middlesex South County Registry of Deeds in Book 65048, Page 251.
 - 52. Easement Agreement (Drainage Infrastructure) by and between CJUF III Northpoint LLC and the Massachusetts Bay Transportation Authority, dated May 12, 2015, and recorded in Middlesex in Book 65383 Page 1 and recorded in Suffolk in Book 54469, Page 275
 - 53. [Notice](#) of Activity and Use Limitation, dated July 20, 2015, and recorded in Middlesex in Book 65752, Page 408.
 - 54. Easement Agreement by and between North Point Apartments Limited Partnership, Archstone North Point II LLC, AVB Maple Leaf Apartments Limited Partnership and CJUF III Northpoint LLC, dated July 31, 2015 and recorded in Suffolk in Book 54872, Page 23, and in Middlesex in Book 65856, Page 233.

NOTE: If policy is to be issued in support of a mortgage loan, attention is directed to the fact that the Company can assume no liability under its policy, the closing instructions, or Insured Closing Service for compliance with the requirements of any consumer credit protection or truth in lending law in connection with said mortgage loan.

NOTE: This commitment omits any covenant, condition or restriction referred to above which is based on race, color, religion, sex, handicap, familial status or national origin, unless and only to the extent that the restriction is not in violation of state or federal law, or relates to a handicap, but does not discriminate against handicapped people.

Fidelity National Financial, Inc.
Privacy Statement

Fidelity National Financial, Inc. and its subsidiaries ("FNF") respect the privacy and security of your non-public personal information ("Personal Information") and protecting your Personal Information is one of our top priorities. This Privacy Statement explains FNF's privacy practices, including how we use the Personal Information we receive from you and from other specified sources, and to whom it may be disclosed. FNF follows the privacy practices described in this Privacy Statement and, depending on the business performed, FNF companies may share information as described herein.

Personal Information Collected

We may collect Personal Information about you from the following sources:

- Information we receive from you on applications or other forms, such as your name, address, social security number, tax identification number, asset information, and income information;
- Information we receive from you through our Internet websites, such as your name, address, email address, Internet Protocol address, the website links you used to get to our websites, and your activity while using or reviewing our websites;
- Information about your transactions with or services performed by us, our affiliates, or others, such as information concerning your policy, premiums, payment history, information about your home or other real property, information from lenders and other third parties involved in such transaction, account balances, and credit card information; and
- Information we receive from consumer or other reporting agencies and publicly recorded documents.

Disclosure of Personal Information

We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Disclosures may include, without limitation, the following:

- To insurance agents, brokers, representatives, support organizations, or others to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure in connection with an insurance transaction;
- To third-party contractors or service providers for the purpose of determining your eligibility for an insurance benefit or payment and/or providing you with services you have requested;
- To an insurance regulatory authority, or a law enforcement or other governmental authority, in a civil action, in connection with a subpoena or a governmental investigation;
- To companies that perform marketing services on our behalf or to other financial institutions with which we have joint marketing agreements and/or
- To lenders, lien holders, judgment creditors, or other parties claiming an encumbrance or an interest in title whose claim or interest must be determined, settled, paid or released prior to a title or escrow closing.

We may also disclose your Personal Information to others when we believe, in good faith, that such disclosure is reasonably necessary to comply with the law or to protect the safety of our customers, employees, or property and/or to comply with a judicial proceeding, court order or legal process.

Effective Date: 5/1/2008

Disclosure to Affiliated Companies – We are permitted by law to share your name, address and facts about your transaction with other FNF companies, such as insurance companies, agents, and other real estate service providers to provide you with services you have requested, for marketing or product development research, or to market products or services to you. We do not, however, disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent, in conformity with applicable law, unless such disclosure is otherwise permitted by law.

Disclosure to Nonaffiliated Third Parties – We do not disclose Personal Information about our customers or former customers to nonaffiliated third parties, except as outlined herein or as otherwise permitted by law.

Confidentiality and Security of Personal Information

We restrict access to Personal Information about you to those employees who need to know that information to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard Personal Information.

Access to Personal Information/

Requests for Correction, Amendment, or Deletion of Personal Information

As required by applicable law, we will afford you the right to access your Personal Information, under certain circumstances to find out to whom your Personal Information has been disclosed, and request correction or deletion of your Personal Information. However, FNF's current policy is to maintain customers' Personal Information for no less than your state's required record retention requirements for the purpose of handling future coverage claims.

For your protection, all requests made under this section must be in writing and must include your notarized signature to establish your identity. Where permitted by law, we may charge a reasonable fee to cover the costs incurred in responding to such requests. Please send requests to:

Chief Privacy Officer
Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, FL 32204

Changes to this Privacy Statement

This Privacy Statement may be amended from time to time consistent with applicable privacy laws. When we amend this Privacy Statement, we will post a notice of such changes on our website. The effective date of this Privacy Statement, as stated above, indicates the last time this Privacy Statement was revised or materially changed.

COMMITMENT FOR TITLE INSURANCE

Issued by **Commonwealth Land Title Insurance Company**



COMMONWEALTH LAND TITLE INSURANCE COMPANY, a Nebraska corporation ("Company"), for a valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedules A and B and to the Conditions of this Commitment.


This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

All liability and obligation under this Commitment shall cease and terminate Six (6) months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

IN WITNESS WHEREOF, the Company has caused this Commitment to be signed with the facsimile signatures of its President and Secretary and sealed as required by its By-Laws.

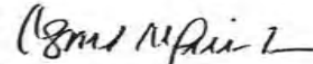
Attest:


Secretary



COMMONWEALTH LAND TITLE INSURANCE COMPANY

By:


President

CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions.
3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.

COMMITMENT FOR TITLE INSURANCE

American Land Title Association (2006)

Issued By

**Commonwealth Land Title
Insurance Company**

Commonwealth Land Title Insurance Company



P.O. Box 45023
Jacksonville, Florida 32232-5023

Form B 1004-319



Bk: 65949 Pg: 156 Doc: DEED
Page: 1 of 9 08/21/2015 10:59 AM

DEED

CJUF III NORTHPOINT LLC, Delaware limited liability company, with an address of 2000 Avenue of the Stars, 11th Floor, Los Angeles, California 90067 ("Grantor"), for consideration paid and full consideration of Two Hundred Ninety One Million Forty Thousand Two Hundred Sixty Eight and 46/100 Dollars (\$291,040,268.46), and other good and adequate consideration, the receipt and adequacy of which are acknowledged, hereby grants **DW NP PROPERTY, LLC**, a Delaware limited liability company, with an address c/o DivcoWest Real Estate Services, LLC, 575 Market Street, 35th Floor, San Francisco, CA 94105 ("Grantee"), with **QUITCLAIM COVENANTS**, the land, together with any improvements thereon, located in the Cities of Cambridge and Somerville, Middlesex County, Massachusetts, and the City of Boston, Suffolk County, Massachusetts, as more particularly described in EXHIBIT A attached hereto and made a part hereof (the "Real Property").

The conveyance is made together with and subject to all recorded easements, conditions, restrictions and agreements and all other matters of record that lawfully apply to the property hereby conveyed.

The Real Property is subject to Notices of Activity and Use Limitation dated June 13, 2013 and recorded with the Middlesex County, Southern District Registry of Deeds (the "Middlesex Registry") in Book 62072, Page 351, in Book 62072, Page 281, and in Book 62072, Page 314, and the Notice of Activity and Use Limitation dated July 20, 2015 and recorded with the Middlesex Registry in Book 65752, Page 408.

Grantor has not elected to be treated as a corporation for Federal Income Tax purposes.

For Grantor's title, see (i) Deed of Boston and Maine Corporation dated as of August 19, 2010, recorded in the Suffolk County Registry of Deeds (the "Suffolk Registry") at Book 46807, Page 256 and in the Middlesex Registry in Book 55212, Page 330, (ii) Deed of Boston and Maine Corporation, dated June 11, 2014 and recorded in the Middlesex Registry in Book 63899, Page 200, and (iii) Deed of Boston and Maine Corporation dated October 31, 2014, recorded in the Suffolk Registry in Book 53735, Page 196, and recorded in the Middlesex Registry in Book 64544, Page 596.

Property: Land in Cambridge, Somerville and Boston, Massachusetts located on Charlestown Avenue, North Point Boulevard, East Street and Water Street, and Dawes St

This Deed is for the conveyance of the Real Property, which is located in both Middlesex County and Suffolk County, Massachusetts. Deed Excise Stamps based upon the total consideration in the amount of ~~\$291,000,000~~ have been affixed to the duplicate original of this deed recorded this day in Suffolk County. 291,040,268.46

[Balance of page intentionally left blank]

Witness our hand and seal as of the 14th day of August, 2015.

CJUF III NORTHPOINT LLC,
a Delaware limited liability company

By: _____

Name:

Jonathan M. Kaplan

Title:

Authorized Signatory

Legal	Acq/AM
<u>12</u>	<u>WKS</u>

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGEMENT

STATE OF CALIFORNIA
COUNTY OF Los Angeles

ss:

On 8/14/2015 before me, Rachel E Benitez, a Notary Public,

(insert name and title of the officer)

personally appeared Jonathan Kaplan

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is are subscribed to the within instrument and acknowledged to me that he she/they executed the same in his her/their authorized capacity(ies), and that by his her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Rachel E. Benitez

(Seal)



EXHIBIT A

PARCEL ONE:

Parcel 1 on a plan entitled "North Point – 'Central Park' Parcel Subdivision Plan of Land in Boston, Cambridge and Somerville, Massachusetts, Suffolk and Middlesex Counties", dated August 16, 2010, prepared by Gunther Engineering, a division of Digital Geographic Technologies, Inc., and recorded as Plan 597 of 2010 (Middlesex) and Plan Book 2010 Pages 270 and 271 (Suffolk).

Together with all right, title and interest in and to the private street known as Water Street as more particularly shown on the Plan, to the midline thereof and adjoining Parcel 1 described above, excepting therefrom so much of Water Street as may be owned in fee by the MBTA by virtue of the documents recorded in Middlesex South District Registry of Deeds at Book 13117, Page 113 and at Book 13156, Page 34.

Together with the right to use the "private" portion of Water Street as shown on the Plan.

Less and except the following described premises:

- (1) Parcel N set forth in a deed from CJUF III Northpoint LLC to NP Parcel N Owner LLC, dated December 12, 2012 and recorded with Middlesex South District Registry of Deeds in Book 60764, Page 223 and shown on Plan 937 of 2012; and
- (2) That certain parcel of land described in a deed from CJUF III Northpoint LLC to Massachusetts Bay Transportation Authority, dated as of November 20, 2013 and recorded with Middlesex South District Registry of Deeds in Book 62977, Page 343.

PARCEL TWO (Central Park Parcel and Lot FP):**Parcel 1:**

A certain parcel of land situated in the Commonwealth of Massachusetts, County of Middlesex, City of Cambridge, located on the northerly side of North Point Boulevard and being shown as "CENTRAL PARK PARCEL" on a plan entitled "North Point – 'Central Park Parcel', Subdivision Plan of Land in Boston, Cambridge and Somerville, Massachusetts, Suffolk and Middlesex Counties" dated August 16, 2010, prepared by Gunther Engineering, recorded in Middlesex County Registry of Deeds as Plan 597 of 2010. Being more particularly bounded and described as follows:

Beginning at a point at the most southeasterly corner of the parcel, said point being on the northerly line of North Point Boulevard, thence running;

N 75° 22' 38" W 134.49 feet to a point, thence turning and running;

NORTHWESTERLY by a curve to the right having a radius of 1979.00 feet a length of

	48.78 feet to a point, thence turning and running;
N 73° 57' 53" W	632.12 feet to a point, thence turning and running;
NORTHWESTERLY	by a curve to the right having a radius of 224.00 feet and a length of 22.75 feet to a point, thence turning and running;
N 68° 08' 47" W	37.98 feet to a point, thence turning and running;
NORTHWESTERLY	by a curve to the right having a radius of 425.00 feet and a length of 94.54 feet to a point, said last six courses being by the northerly line of North Point Boulevard, thence turning and running;
N 57° 16' 47" W	256.98 feet to a point, thence turning and running;
N 11° 15' 41" E	91.06 feet to a point, thence turning and running;
S 81° 14' 36" E	200.13 feet to a point, thence turning and running;
S 73° 25' 09" E	14.60 feet to a point, thence turning and running;
S 81° 06' 44" E	67.29 feet to a point, thence turning and running;
S 74° 39' 04" E	33.61 feet to a point, thence turning and running;
S 81° 14' 36" E	178.52 feet to a point, thence turning and running;
S 85° 07' 47" E	40.27 feet to a point, thence turning and running;
NORTHEASTERLY	by a curve to the right having a radius of 319.00 feet and a length of 105.10 feet to a point, thence turning and running;
S 58° 22' 52" E	128.90 feet to a point, thence turning and running;
S 51° 45' 29" E	30.35 feet to a point, thence turning and running;
S 58° 22' 52" E	137.29 feet to a point, thence turning and running;
S 64° 25' 22" E	33.25 feet to a point, thence turning and running;
S 58° 22' 52" E	273.25 feet to a point, thence turning and running;
SOUTHEASTERLY	by a curve to the right having a radius of 30.08 feet and a length of 47.17 feet to a point, thence turning and running;
S 31° 28' 09" W	35.15 feet to a point, thence turning and running;

SOUTHWESTERLY by a curve to the right having a radius of 4.00 feet and a length of 5.11 feet to the point of beginning. All of said courses being by Parcel 1.

Parcel 2:

A certain parcel of land situated in the City of Cambridge, County of Middlesex, Commonwealth of Massachusetts, being more particularly shown as "Lot FP" on a plan entitled "Condominium Site Plan of Sierra & Tango Condominium in Cambridge, Massachusetts, Middlesex County, Scale 1" = 30', 10 January 2008, Gunther Engineering", recorded with the Middlesex S. D. Registry of Deeds as Plan No. 449 of 2008.

PARCEL THREE:

A certain parcel of land situated partly in the City of Cambridge and partly in the City of Boston Commonwealth of Massachusetts, Counties of Middlesex and Suffolk, located on Charlestown Avenue and being shown as Parcel 2 on a plan entitled "North Point – 'Central Park' Parcel, Subdivision Plan of Land in Boston, Cambridge and Somerville, Massachusetts, Suffolk and Middlesex Counties" dated August 16, 2010, prepared by Gunther Engineering, recorded in Middlesex County Registry of Deeds as Plan 597 of 2010 and recorded in Suffolk County Registry of Deeds in Plan Book 2010 Pages 270 and 271.

The foregoing parcels are conveyed together with the benefit (subject to the terms and provisions of the documents referenced below) of the following:

- A. Easement rights that are appurtenant to the above-described PARCEL THREE and that were reserved by Boston and Maine Corporation in paragraph 2 of that certain Release Deed and Grant of Easement from Boston and Maine Corporation to Massachusetts Bay Transportation Authority, dated July 1, 1992, and recorded with the Suffolk County Registry of Deeds in Book 17577, Page 179 and with Middlesex South District Registry of Deeds in Book 22186, Page 479, as affected by Confirmatory Release Deed and Grant of Easement dated July 20, 1993 and recorded with Suffolk Registry of Deeds in Book 19013, Page 1 and with Middlesex South District Registry of Deeds in Book 24467, Page 562, which easement rights are in the property shown as "B&M Access Easement" on a plan recorded with the Suffolk County Registry of Deeds as Plan 17577, Page 179 and Middlesex County Southern District Registry of Deeds as Plan 546 of 1992.
- B. Easements to use and access the "Developer Crossover Easement Area", granted in and subject to the terms and provisions of that certain Northpoint Parking Easement Agreement by and between CJUF III Northpoint LLC and the Massachusetts Bay Transportation Authority, dated as of February 23, 2015, and recorded in Middlesex South District Registry of Deeds in Book 65048, Page 251.

- C. Easements set forth in that certain Easement Agreement by and between North Point Apartments Limited Partnership, Archstone North Point II LLC, AVB Maple Leaf Apartments Limited Partnership, and CJUF III Northpoint LLC, dated as of July 31, 2015, and recorded in Suffolk in Book 54872, Page 23, and in Middlesex South District Registry of Deeds in Book 65856, Page 233.
- D. Easements covenants, conditions and restrictions set forth in that certain Northpoint Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC, NP Parcel N Owner LLC, and the Boston and Maine Corporation, dated April 12, 2013 and recorded with Middlesex South District Registry of Deeds in Book 61625, Page 397 and recorded with Suffolk County Registry of Deeds in Book 51306, Page 54, as affected by that certain Northpoint Parcel N Deed Covenants by and between CJUF III Northpoint LLC and NP Parcel N Owner LLC dated as of April 12, 2013 and recorded with Middlesex South District Registry of Deeds in Book 61625, Page 496, as affected by that certain First Amendment to Northpoint Agreement of Covenants, Easements and Restrictions dated as of August 21, 2014, recorded in Suffolk County Registry of Deeds in Book 53465 Page 37 and in Middlesex South District Registry of Deeds in Book 64210 Page 280, as affected by that certain Second Amendment to Northpoint Agreement of Covenants, Easements and Restrictions dated as of June 12, 2015, recorded with Suffolk County Registry of Deeds in Book 54628, Page 334, and recorded in Middlesex South District Registry of Deeds in Book 65567, Page 343.
- E. Easements covenants, conditions and restrictions set forth in that certain Agreement of Covenants, Easements and Restrictions by and between CJUF III Northpoint LLC, Sierra Plus Tango LLC, as Trustee of Sierra + Tango Condominium Trust, and Boston and Maine Corporation, dated as of April 1, 2011 and recorded with Middlesex South District Registry of Deeds in Book 56683, Page 375 and with Suffolk County Registry of Deeds in Book 47761, Page 232, as amended by First Amendment dated as of December 12, 2012 and recorded with Middlesex South District Registry of Deeds in Book 60764, Page 220.

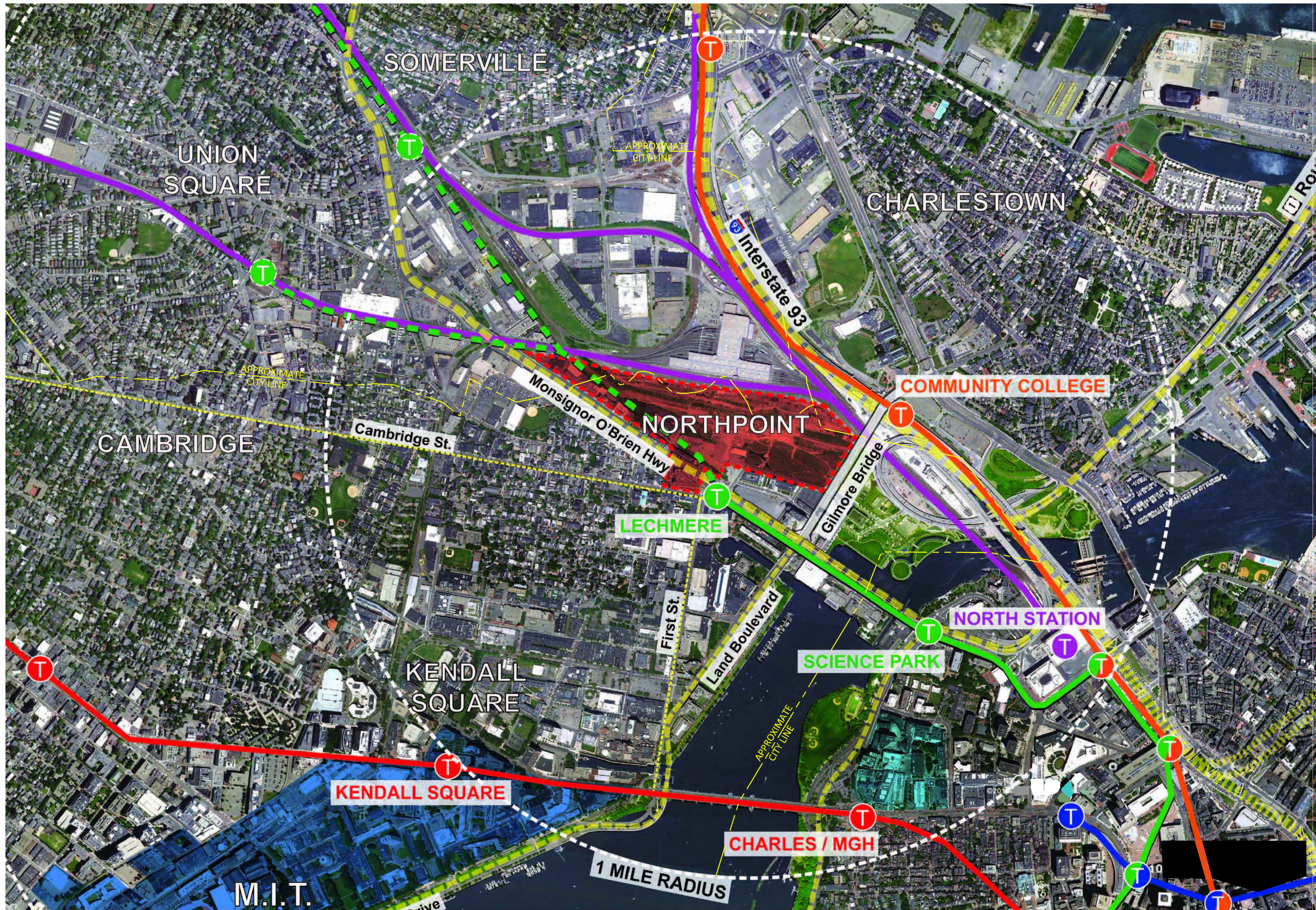


Exhibit B
Locus Map

Somerville Neighborhood Development Plan

Scale: 1" = 600'± Date: 08/25/2016

B+T Drawing No. 208402P142B-001

NorthPoint

Cambridge, Somerville and Boston,
Massachusetts

DW NP PROPERTY, LLC

One Kendall Square, Suite B3201
Cambridge, Massachusetts 02139

North Arrow



COPYRIGHT (C) BY BEALS AND THOMAS, INC.
ALL RIGHTS RESERVED

EXISTING	PROPOSED	EXISTING	PROPOSED

C1.0	NOTES, REFERENCES AND LEGEND
TP-1	TOPOGRAPHIC PLAN
C2.0	SITE PREPARATION, SITE DEMOLITION, AND EROSION CONTROL PLAN
C3.0	LAYOUT AND MATERIALS PLAN
C4.0	GRADING, DRAINAGE AND UTILITY PLAN
C5.0	SITE DETAILS

RELATED HISTORY OF SITE:

CLEAN AND MAINTAIN EROSION CONTROL BARRIER AS REQUIRED DURING CONSTRUCTION OPERATIONS TO ENSURE ITS CONTINUED FUNCTIONALITY.

PROTECT EXISTING PROPERTY MONUMENTS AND ADJUTING PROPERTIES DURING CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT

NOVEMBER 3, 2016

Key Plan:

Drawing Sheet Title:

Drawing Sheet Number:

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS ELECTRONIC MECHANICAL PHOTOCOPYING RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE NATIONAL ARCHIVES AT COLLEGE PARK, MARYLAND 20740

PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.



Project Client:
DIVCO WEST

NOVEMBER 3, 2016

Key Plan:

DUE TO ON-GOING EARTH MOVING AND CONSTRUCTION RELATED TO SURCHARGING ROADWAYS AND DEVELOPMENT AREAS; EXISTING TOPOGRAPHIC AND UTILITY INFORMATION MAY NOT BE ACCURATE. ACTUAL CONDITIONS ON-SITE SHOULD BE REVIEWED.

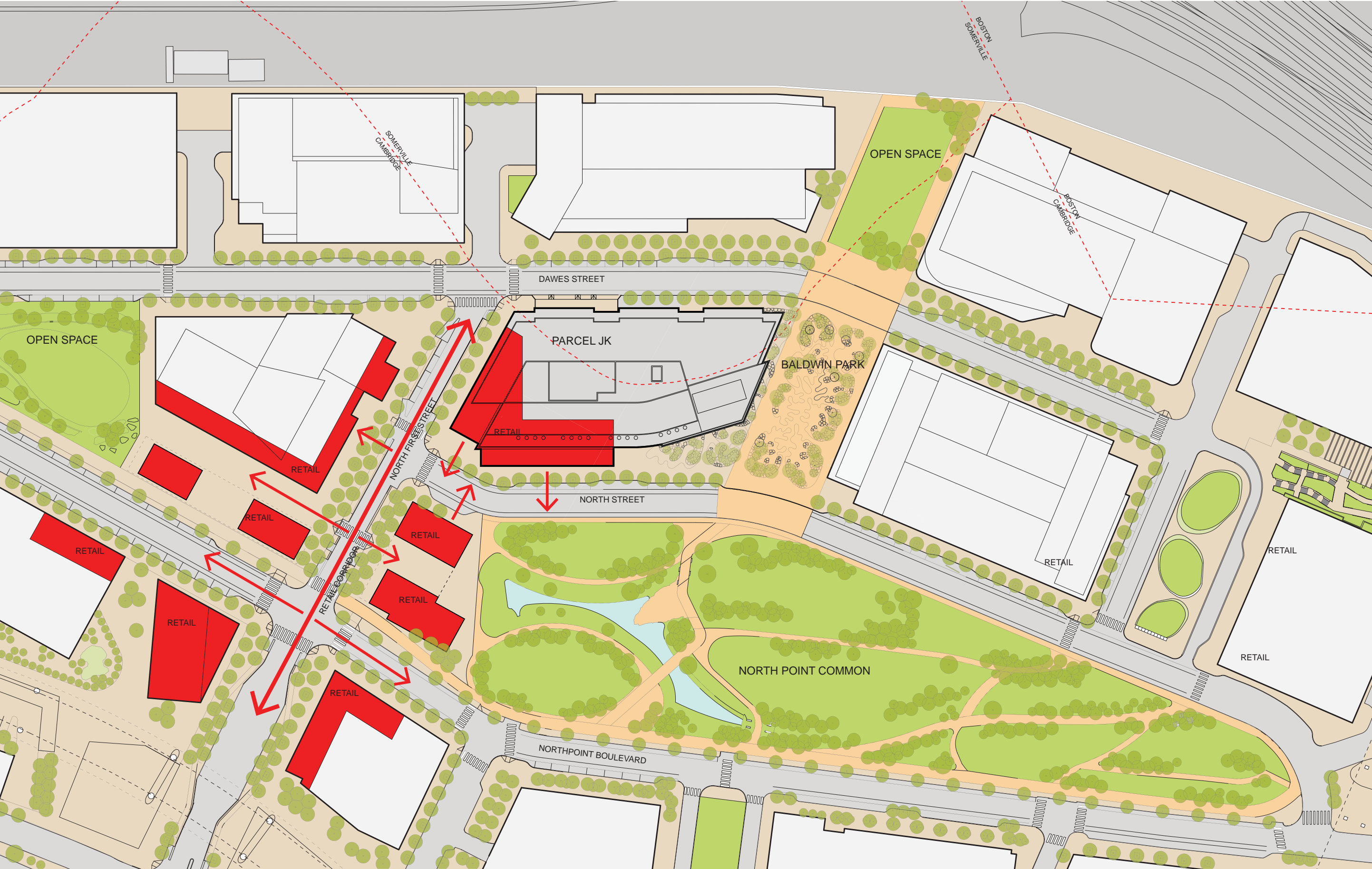
DESIGN SHOWN WITHIN THE RIGHTS OF WAY IS TAKEN FROM PLANS ENTITLED, "NORTHPOINT ROADWAY AND INFRASTRUCTURE".

SEE SHEET C1.0 FOR NOTES, REFERENCES AND LEGEND.

BEALS AND THOMAS, INC. SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF BEALS AND THOMAS, INC. EXCEPT THAT ANY REGULATORY AUTHORITY MAY REPRODUCE AND TRANSMIT COPIES AS REQUIRED IN CONJUNCTION WITH PERFORMANCE OF OFFICIAL BUSINESS UNDER ITS JURISDICTION. ANY MODIFICATIONS TO THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BEALS AND THOMAS, INC. SHALL RENDER IT INVALID AND UNUSABLE.

Drawing Sheet Number



Context Urban Design Analysis - Retail Concentration



Context Urban Design Analysis - Open Space / response to context





Pedestrian and Vehicular Circulation

— — — — — Bicycle

— — — — — Vehicular

— — — — — Pedestrian

0 25' 50' 100' 150'





--- Northpoint Property line ● Site

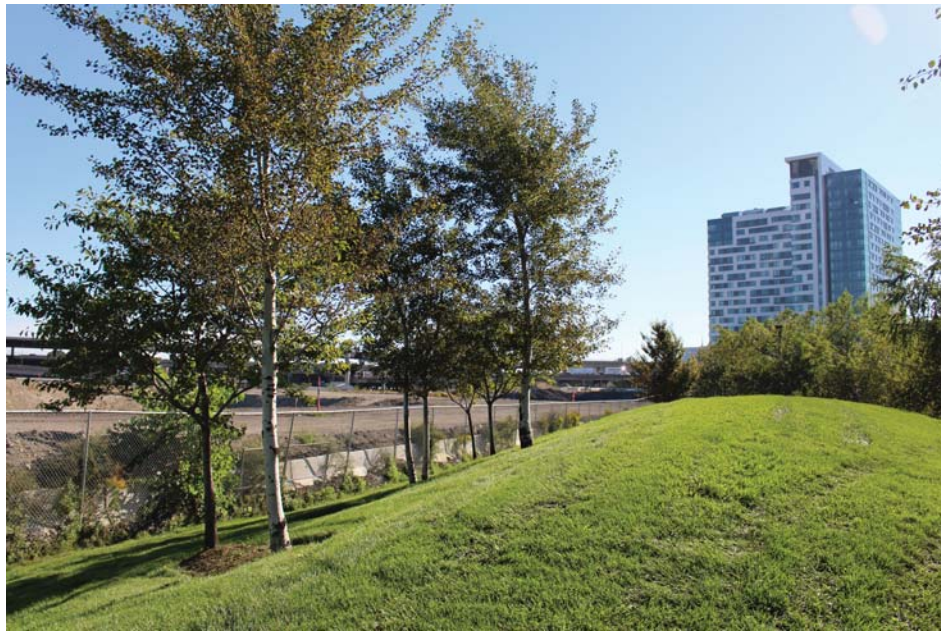
Existing conditions



1- VIEW FROM NORTHPOINT COMMON LOOKING EAST



2- VIEW LOOKING EAST DOWN NORTHPOINT BOULEVARD



3- VIEW FROM NORTHPOINT COMMON LOOKING EAST



4- VIEW LOOKING WEST DOWN NORTHPOINT BOULEVARD

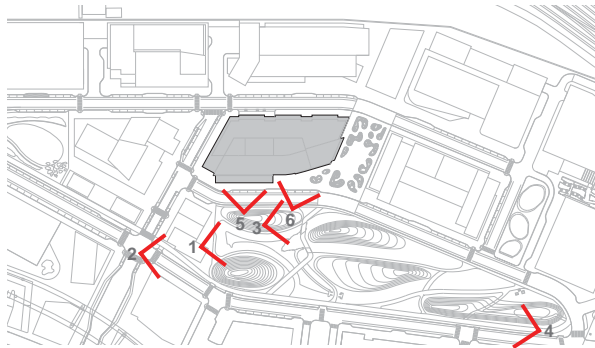


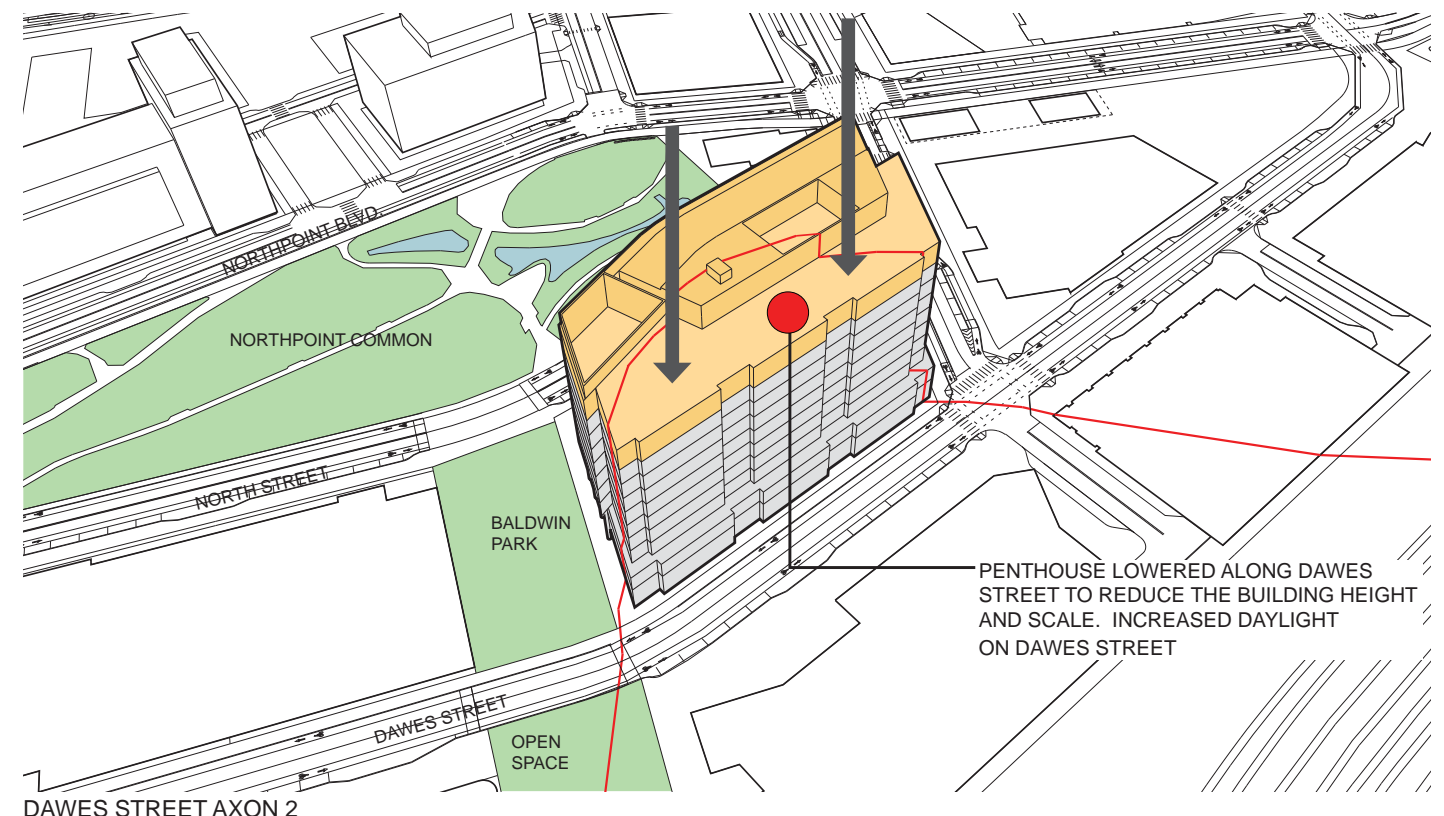
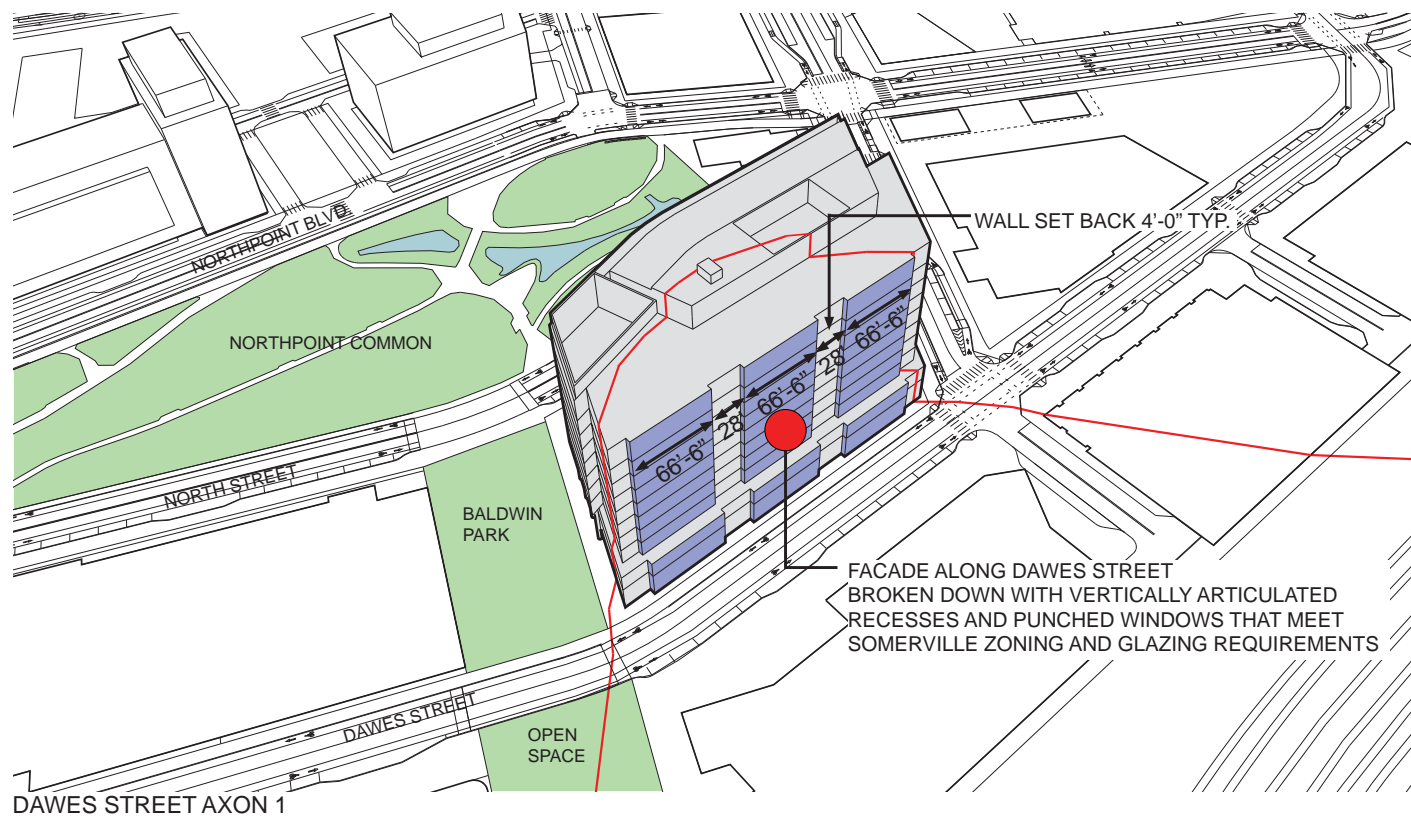
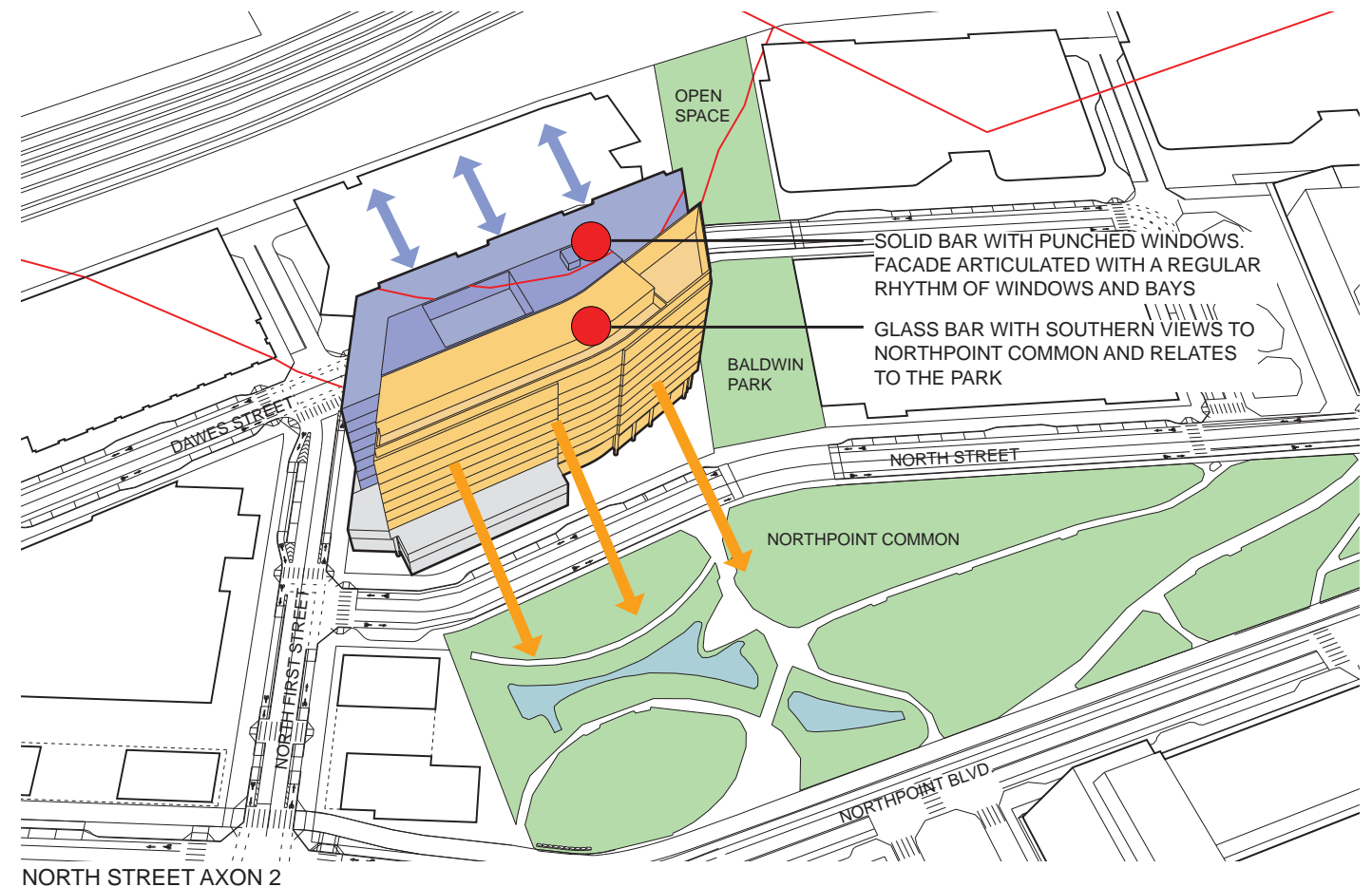
5- VIEW FROM NORTHPOINT COMMON LOOKING AT PARCEL JK



6- VIEW FROM NORTHPOINT COMMON LOOKING AT EAST SIDE OF PARCEL JK

Site photos of neighboring context






Design Concept Diagrams



Landscape Siteplan

 LOCATIONS OF SHORT TERM BICYCLE RACKS

Scale: 1" = 20' 0 25' 50' 100'



View from Northpoint Common



View from North First Street



View from North Street



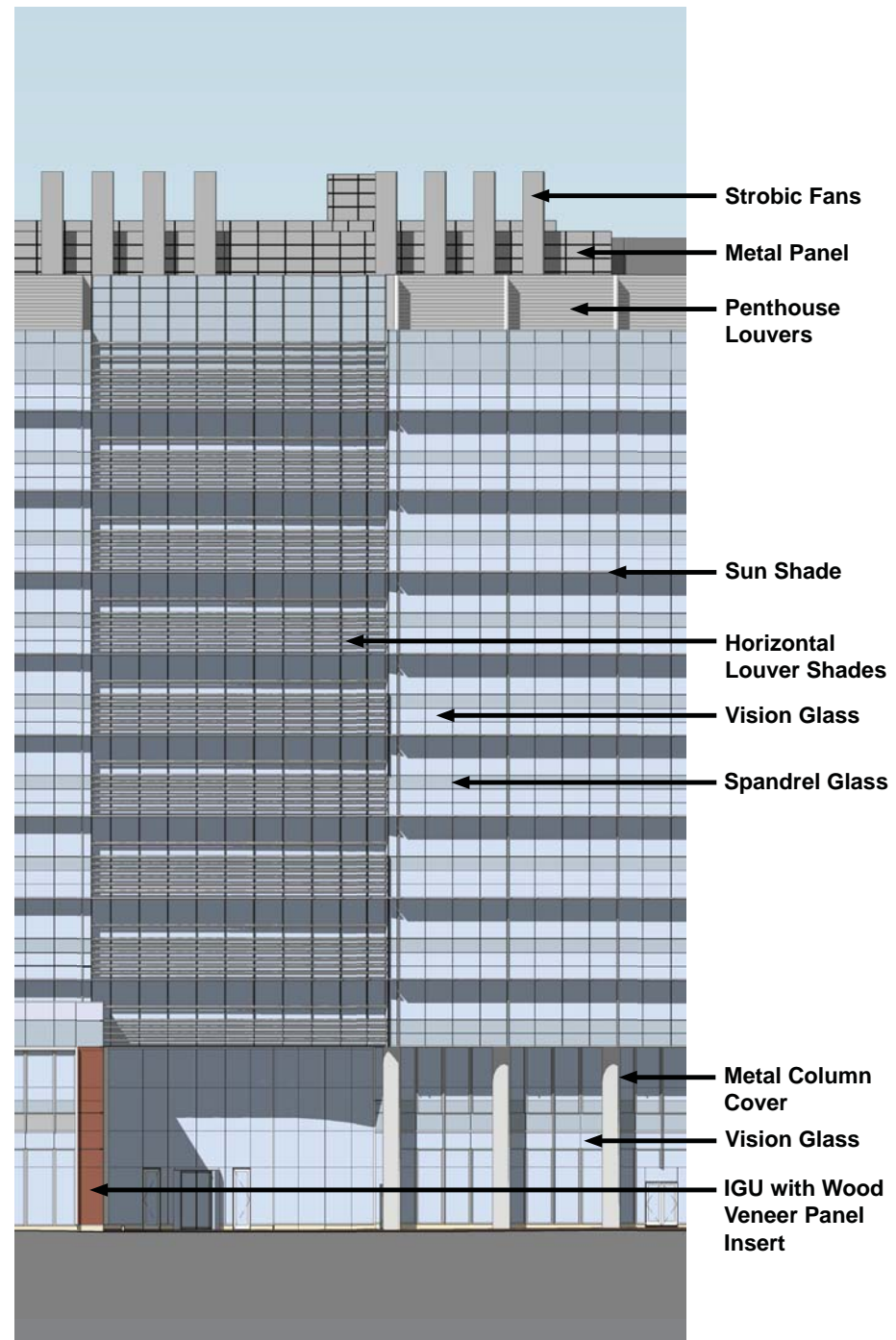
View from Dawes Street - Somerville Facade



View from Dawes Street - Somerville Facade



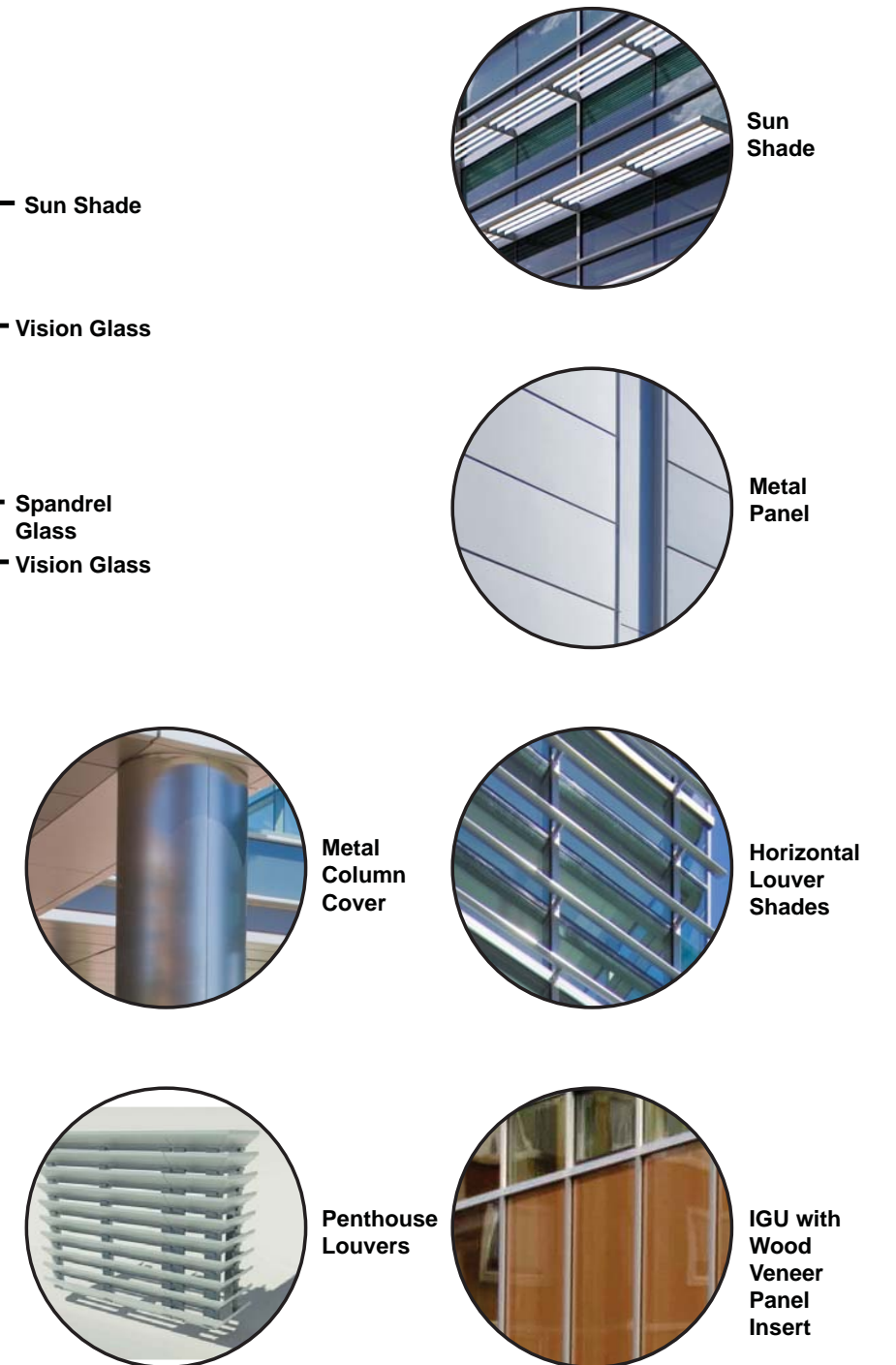
View from North Street looking into Baldwin Park



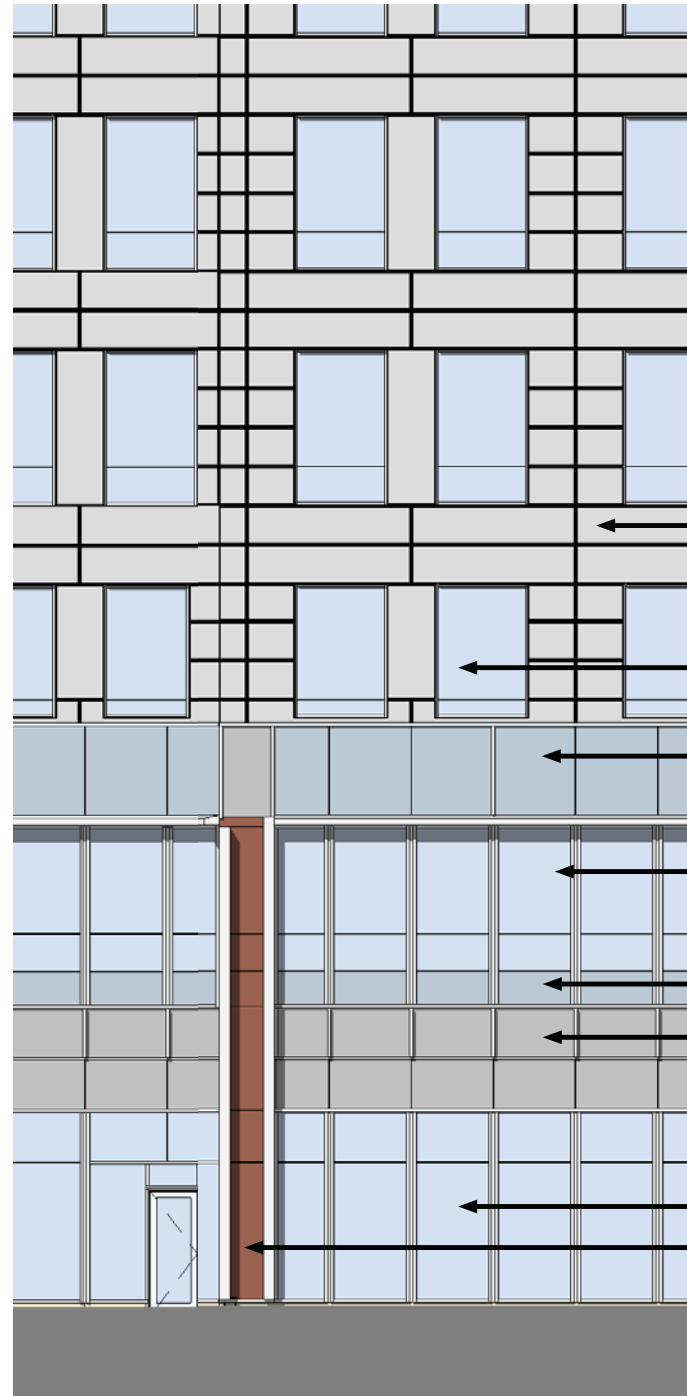
Partial South Facade Elevation



South Facade Detailed Perspective



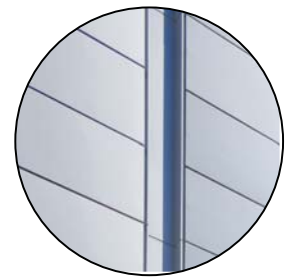
Building Materials and Facade Types



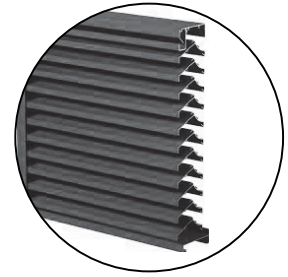
Partial North Facade Elevation



North Facade Detailed Perspective



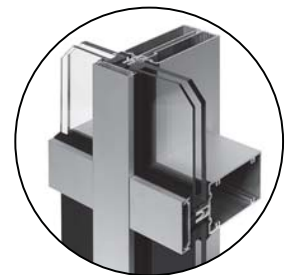
Metal Panel



Metal Louvers at Podium

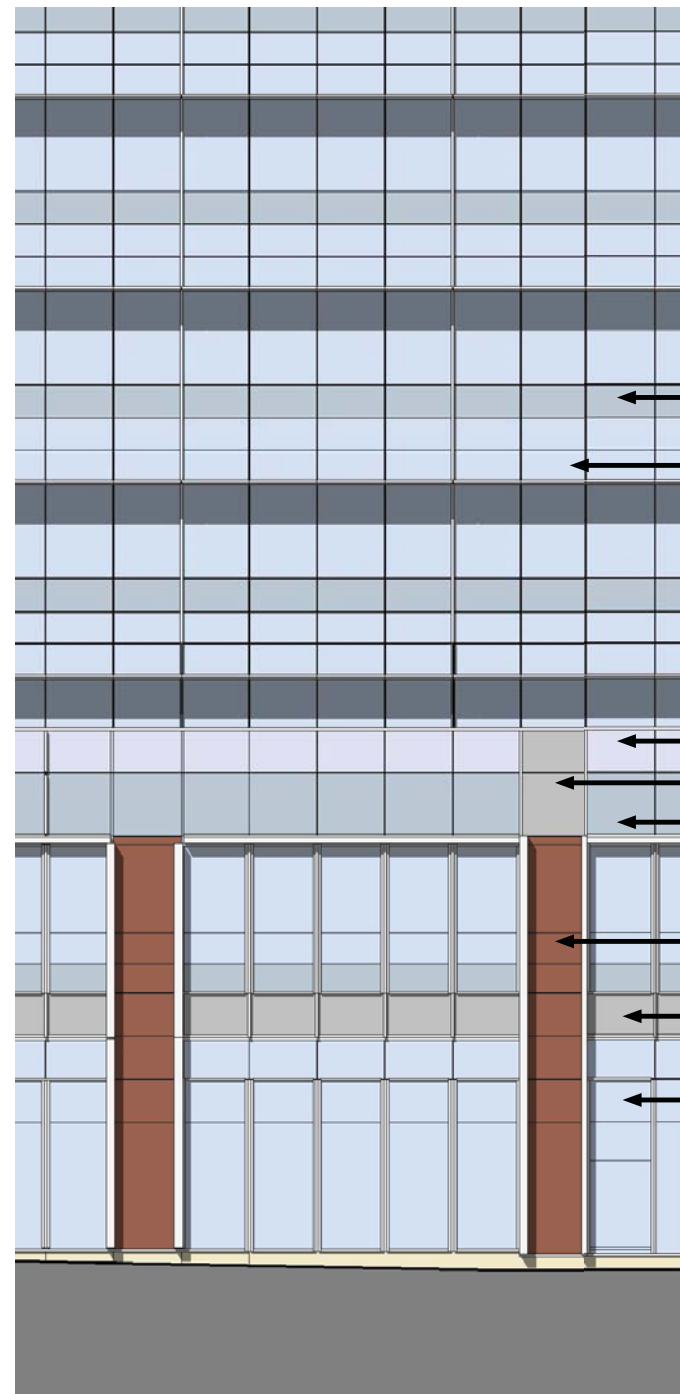


Vision and Spandrel Glass



Window System

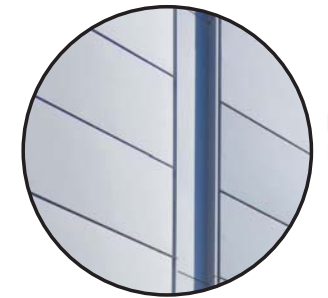
Building Materials and Facade Types



Partial South Podium Facade



Partial South Podium Facade Perspective



Metal Panel



Vision and Spandrel Glass



Window System



IGU with Wood Veneer Panel Insert

Building Materials and Facade Types



LEED v4 for BD+C: Core & Shell
Project Checklist

Y N

1	0
---	---

Credit Integrative Process

1

19	1	Location and Transportation		20
0	0	Credit 1	LEED for Neighborhood Development Location	16
2	0	Credit 2	Sensitive Land Protection	1
3	0	Credit 3	High Priority Site	2
6	0	Credit 4	Surrounding Density and Diverse Uses	5
6	0	Credit 5	Access to Quality Transit	5
1	0	Credit 6	Bicycle Facilities	1
0	1	Credit 7	Reduced Parking Footprint	1
1	0	Credit 8	Green Vehicles	1

6	5	Sustainable Sites		11
Y		Prereq 1	Construction Activity Pollution Prevention	Required
1	0	Credit 1	Site Assessment	1
0	2	Credit 2	Site Development - Protect or Restore Habitat	2
1	0	Credit 3	Open Space	1
0	3	Credit 4	Rainwater Management	3
2	0	Credit 5	Heat Island Reduction	2
1	0	Credit 6	Light Pollution Reduction	1
1	0	Credit 7	Tenant Design and Construction Guidelines	1

7	4	Water Efficiency		11
Y		Prereq 1	Outdoor Water Use Reduction	Required
Y		Prereq 2	Indoor Water Use Reduction	Required
Y		Prereq 3	Building-Level Water Metering	Required
2	0	Credit 1	Outdoor Water Use Reduction	2
3	3	Credit 2	Indoor Water Use Reduction	6
1	1	Credit 3	Cooling Tower Water Use	2
1	0	Credit 4	Water Metering	1

11	22	Energy and Atmosphere		33
Y		Prereq 1	Fundamental Commissioning and Verification	Required
Y		Prereq 2	Minimum Energy Performance	Required
Y		Prereq 3	Building-Level Energy Metering	Required
Y		Prereq 4	Fundamental Refrigerant Management	Required
5	1	Credit 1	Enhanced Commissioning	6
4	14	Credit 2	Optimize Energy Performance	18
0	1	Credit 3	Advanced Energy Metering	1
0	2	Credit 4	Demand Response	2
0	3	Credit 5	Renewable Energy Production	3
0	1	Credit 6	Enhanced Refrigerant Management	1
2	0	Credit 7	Green Power and Carbon Offsets	2

2	12	Materials and Resources		14
Y		Prereq 1	Storage and Collection of Recyclables	Required
Y		Prereq 2	Construction and Demolition Waste Management Planning	Required
0	6	Credit 1	Building Life-Cycle Impact Reduction	6
0	2	Credit 2	Building Product Disclosure and Optimization - Environmental Product Declarations	2
0	2	Credit 3	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
0	2	Credit 4	Building Product Disclosure and Optimization - Material Ingredients	2
2	0	Credit 5	Construction and Demolition Waste Management	2

2	8	Indoor Environmental Quality		10
Y		Prereq 1	Minimum Indoor Air Quality Performance	Required
Y		Prereq 2	Environmental Tobacco Smoke Control	Required
1	1	Credit 1	Enhanced Indoor Air Quality Strategies	2
0	3	Credit 2	Low-Emitting Materials	3
1	0	Credit 3	Construction Indoor Air Quality Management Plan	1
0	3	Credit 7	Daylight	3
	1	Credit 8	Quality Views	1

5	1	Innovation		6
1	0	Credit 1	Innovation: Green Education	1
1	0	Credit 1	Innovation: Occupant Comfort Survey	1
1	0	Credit 1	Pilot Credit: Walkable Project Site	1
1	0	Credit 1	Pilot Credit: Enhanced Acoustic Performance - Exterior Noise	1
0	1	Credit 1	Exemplary Performance: LTc5	1
1	0	Credit 2	LEED Accredited Professional	1

1	3	Regional Priority		4
1	0	Credit 1	Regional Priority: LTc3 High Priority Site	1
0	1	Credit 2	Regional Priority: Specific Credit	1
0	1	Credit 3	Regional Priority: Specific Credit	1
0	1	Credit 4	Regional Priority: Specific Credit	1

54	56	TOTALS		Possible Points:	110
Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110					

This project is targeting Silver level certification under LEED V4 for Core & Shell Development. The adjacent scorecard and accompanying narrative shows how the design teams intends to meet this goal.

LEED

Introduction

LEED Certification Overview - Northpoint Parcel JK is currently registered in the in the U.S. Green Building Council’s LEED 2009 Core & Shell (LEED-CS) program and is targeting LEED Gold Certification. The project team anticipates filing for a Preliminary Design Review with the U.S. Green Building Council in the summer of 2016 and Final Design and Construction Review after completion of construction in late 2019.

The team is reviewing the building’s performance under the new LEED V4 rating system. The below narrative documents a preliminary analysis of the LEED V4 prerequisites and credits and identifies which the building would pursue to reach a target of LEED Silver Certification under the new rating system.

Integrative Design

IDc1
Integrative Process - Throughout the design phases the team has studied site conditions, basic envelope attributes, energy-related systems, and water-related systems to identify potential synergies across disciplines and building systems. These studies have been used to inform the Owner’s project requirements and the design documents.

Location and Transportation

LTc2
Sensitive Land Protection - The Northpoint Parcel JK site is not Prime Farmland, not parkland, not on previously undeveloped land, not designated as habitat for endangered species, and not in proximity to wetlands or water bodies.

LTc3
High Priority Site - The site is in active remediation with subsurface impacts identified within the parcel boundary. Documentation of impacts and remediation is provided in reports as required under the Massachusetts Department of Environmental Protection (MassDEP) Bureau of Waste Site Cleanup (BWSC) Massachusetts Contingency Plan (310 CMR 40.0000). The release is being tracked under release tracking number 3-11533

LTc4
Surrounding Density and Diverse Uses - The Northpoint Parcel JK site is in a dense urban Cambridge neighborhood, was previously developed, is adjacent to residential areas, and is close to many basic services, all connected with pedestrian and bicycle access.

LTc5
Access to Quality Transit - Northpoint Parcel JK is 0.25 miles from the Lechmere MBTA station and 0.5 miles from the Community College MBTA station. In addition to the “T”, both of these stations are served by multiple bus routes

LTc6
Bicycle Facilities - The project is located adjacent to an existing bicycle network which connects many diverse uses as well as multiple public transportation routes. A secure bicycle storage room inside the building on the ground floor will provide 110 secure bicycle rack spaces for full-time building occupants. Locker/changing rooms, with a total of nine showers, are immediately adjacent to the bicycle storage room. Also provided within the LEED Project boundary is a total of 42 outdoor secure bicycle racks.

LTc8
Green Vehicles - Preferred parking for low-emitting and fuel-efficient vehicles will be provided for 5% of the total vehicle parking capacity for the site. 2% of all spaces will include charging stations and will be designated for use by plug-in electric vehicles only.

Sustainable Sites

SSp1
Construction Activity Pollution Prevention - A project-specific erosion and sedimentation control plan will be created and monitored with the objective of preventing loss of soil during construction, sedimentation of storm sewers, and pollution of the air with dust and particulate matter.

SSc1
Site Assessment - A site assessment including topography, hydrology, climate, vegetation, soils, human uses, and human health effects has been performed and will inform the design of the project.

SSc3
Open Space - The project will provide a minimum of 30% of open space within the site area. A minimum of 25% of that outdoor space will be vegetated. The outdoor space will be physically accessible and includes pedestrian-oriented paving with physical site elements that accommodate outdoor social activities.

SSc5
Heat Island Reduction - The solar reflectance index on the light-colored and reflective low low-sloped roofing, which cover more than 75% of the overall building roof surface, will exceed an initial SRI of 82 and a 3-year SRI of 64. The lower roofs at level 3 will be designed so that tenants can later install a vegetated roof area. In addition, all parking associated with the site will be located in a garage under the building to reduce the heat island effect created by surface parking lots.

SSc6
Light Pollution Reduction - Input power to all nonemergency interior light fixtures will be reduced by at least 50% between 11PM and 5AM (with the exception of an allowable 30 minute override). Exterior lighting power densities will be below the ASSI/ASHRAE/IESNA Standard 90.1-2007 for Lighting Zone 4 (high-activity commercial districts in major metropolitan areas) considering allowable light trespass on the three sides of the site abutting public ways.

SSc7
Tenant Design and Construction Guidelines - Tenant design and construction guidelines will be issued to all building tenants to educate tenants about implementing sustainable design and construction features in their tenant improvement fit-out. These guidelines will encourage building tenants to earn LEED-CI Certification for their interior fit-out.

Sustainabilty Narrative

Water Efficiency

WEp1
Outdoor Water Use Reduction - Plant selection and an efficient irrigation system will reduce the potable water used for irrigation by at least 30% from a calculated midsummer baseline case. For additional planned savings see WEc2 below.

WEp2
Indoor Water Use Reduction - Water-efficient plumbing fixtures will reduce domestic water use by at least 20% below the LEED water use baseline. For additional savings see WEc3 below.

WEp3
Building Level Water Metering - Permanent water meters will be installed which will measure the total potable water use for the building and its associated grounds.

WEc1
Outdoor Water Use Reduction - Plant selection and an efficient irrigation system will reduce the potable water used for irrigation by at least 50% from a calculated midsummer baseline case. Rainwater and condensation from mechanical systems will be captured to provide irrigation water.

WEc2
Indoor Water Use Redcution - Water-efficient plumbing fixtures will reduce domestic water use by at least 35% below the LEED water use baseline.

WEc3
Cooling Tower Water Use - A potable water analysis has been conducted to measure concentrations of undesirable elements which cause corrosion, scale, and microbes. The cooling tower cycles have been limited to avoid exceeding any filtration levels of these elements.

WEc4
Water Metering - Permanent water meters will be installed to monitor water subsystems in the building in addition to the whole building potable water use. Examples of these subsystems include irrigation, indoor plumbing fixtures, domestic hot water, and reclaimed water.

Energy and Atmosphere

EAp1
Fundamental Commissioning - A Third-party Commissioning Agent will review and comment on the project Owner’s Requirements, Basis of Design, draft Design Development & Construction Documents. Additionally he/she will develop and implement a Commissioning Plan for the building HVAC, plumbing, lighting systems and envelope, review construction submittals, and then issue a summary Commissioning Report. Finally, the Commissioning Agent will participate in training for the building operational staff. (See EAc1 for additional commissioning scope)

EAp2
Minimum Energy Performance - An energy model (calculated according to the building performance method described in Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2010) will describe how an energy-efficient building envelope and base building mechanical systems will reduce the building performance rating by at least 2% below the baseline building performance rating. (See EAc2 below for additional anticipated energy savings.)

Energy and Atmosphere (Cont’d)

EAp3
Building Level Energy Metering - Permanently installed meters will measure total building energy consumption.

EAp4
Fundamental Refrigerant Management - Building refrigerants will be selected to minimize the emission of compounds that contribute to ozone depletion and global climate change. Building refrigerants will not exceed maximum threshold allowances for contributions to ozone depletion and global warming potential. (See Eac4 below.)

EAc1
Enhanced Comissioning - In addition to the scope listed under EAp1 a third-party commissioning agent will verify the following for mechanical, electrical, plumbing, energy systems, and building envelope:

- Inclusion of systems manuals and operator training requirements in the construction documents
- Verify systems manual updates and delivery
- Verify operator and occupant training delivery and effectiveness
- Verify seasonal testing
- Review building operations 10 months after substantial completion.
- Develop an on-going commissioning plan

EAc2
Optimize Energy Performance - An energy model (calculated according to the building performance method described in Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2010) will describe how an energy-efficient building envelope and base building mechanical systems will reduce the building performance rating by at least 7% below the baseline building performance rating. DivcoWest is also considering including additional energy conservation measures in the tenant leases to ensure further energy reductions.

EAc7
Green Power - DivcoWest has committed to engage in a contract to provide at least 100% of the buildings electricity from renewable sources for at least two years.

Materials and Resources

MRp1
Storage and Collection of Recyclables - A 500 SF Recycling Staging Room at the building loading dock will support a building-wide recycling program for paper, corrugated cardboard, glass, plastic, and metal. A zone for the safe collection, storage, and disposal of batteries, mercury-containing lamps, and electronic waste will also be provided.

MRp2
Construction and Demolition Waste Management Planning - A construction and demolition waste management plan will be developed prior to the start of construction which will identify at least five materials targeted for diversion, whether these materials will be separated or comingled, and will approximate a percentage of the overall project waste that these will represent.

MRc5
Construction and Demolition Waste Management - At least 75% of the construction and demolition debris and a minimum of four material streams will be diverted from landfill and incineration facilities and redirected instead for recycling to the manufacturing process and reusable materials to appropriate sites.

Sustainabilty Narrative

Indoor Environmental Quality

IEQp1
Minimum Indoor Air Quality Performance - Building HVAC systems will meet the minimum requirements of Sections 4 through 7 of ASHRAE Standard 62.1-2010 - Ventilation for Acceptable Indoor Air Quality, based on anticipated future tenant requirements.

IEQp2
Environmental Tobbaco Smoke (ETS) Control - Smoking will be prohibited inside the building and within 25 feet of building entrances and outdoor air intakes.

IEQc1
Enhanced Indoor Air Quality Strategies - To promote a healthy indoor air quality, permanent entryway systems will be installed at all main building entrances, any room with hazardous gases or chemicals will be negatively pressured to contain such elements, and MERV 13 or higher filters will be provided in all ventilation systems providing outdoor air to occupied spaces.

IEQc3
Construction IAQ Management Plan - An indoor air quality plan during construction will require the builder to follow industry best-practices such as SMACNA IAQ Guidelines for Occupied Buildings Under Construction, protecting absorptive materials stored on site from moisture damage, and replacing air-handling equipment media prior to occupancy.

Innovation and Design Process

IDPc1.1, & 1.2
Innovation - The project will target two points for participating in Innovation Credits recognized by USGBC.

- Green Education – Public education focusing on green building strategies and solutions will be provided by incorporating a comprehensive signage program into the building’s spaces to bring attention to sustainable strategies as well as developing a case study of the building to inform the design of other buildings.
- Occupant Comfort Survey – DivcoWest will require their tenants to perform an occupant comfort survey as part of the lease.

IDPc1.3 & 1.4
Pilot Credits - The project will target two points for participating in Pilot Credits recognized by USGBC.

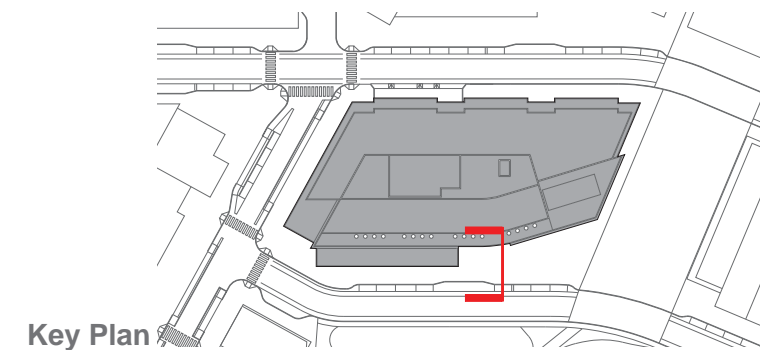
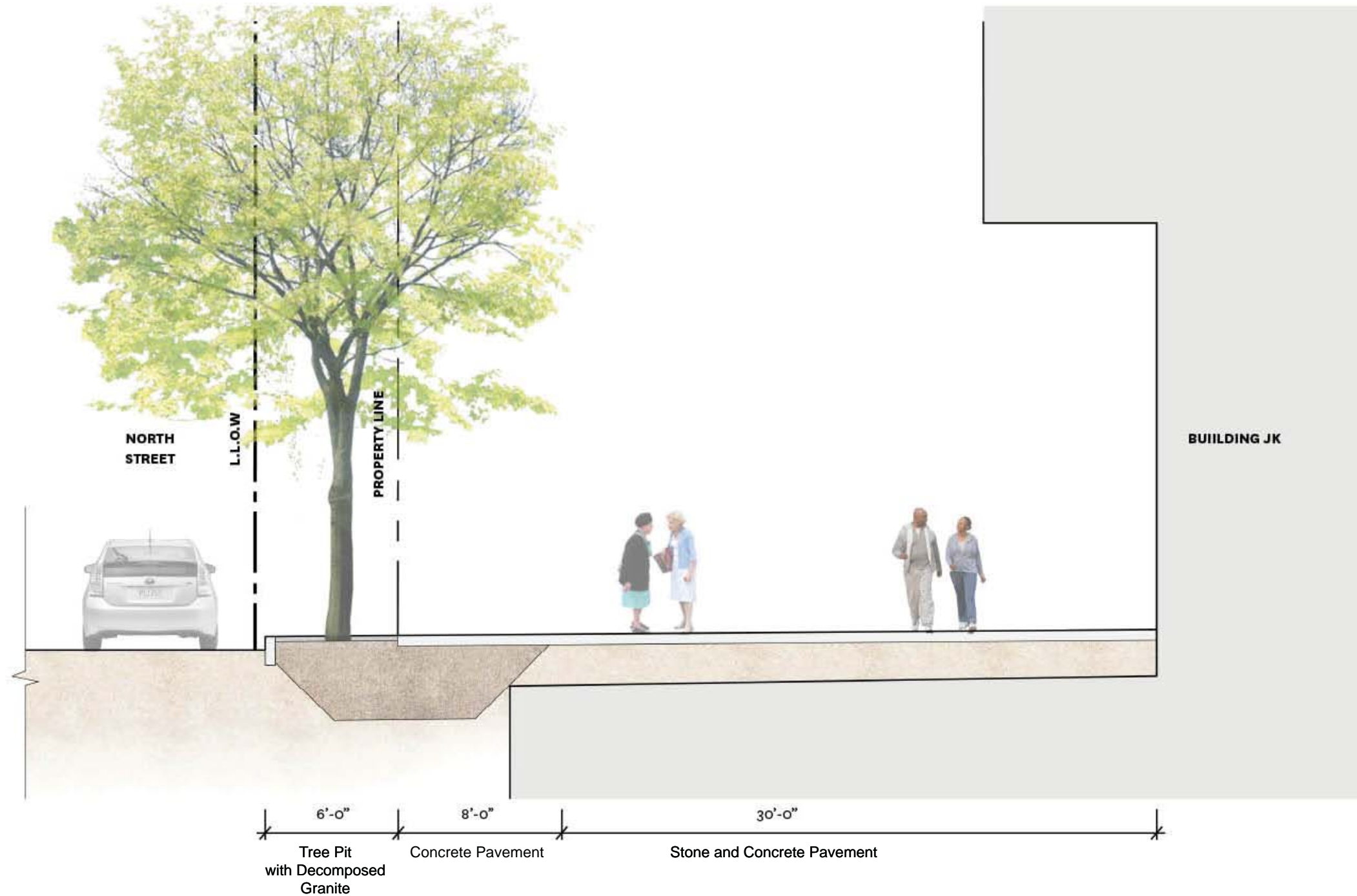
- Walkable Project Site – design elements that promote walking, biking, and other non-motorized transportation on the project site will be included such as continuous sidewalks that are a minimum of 10 feet in width and a main entrance on the primary façade that looks into a public space.
- Enhanced Acoustical Performance for Exterior Noise Control - environmental noise from buildigns and site will be reduced to meet the requirements outlined by USGBC for maximum exterior noise levels at the property line.

IDPc2
LEED Accredited Professionals - The project team includes several LEED Accredited Professionals.

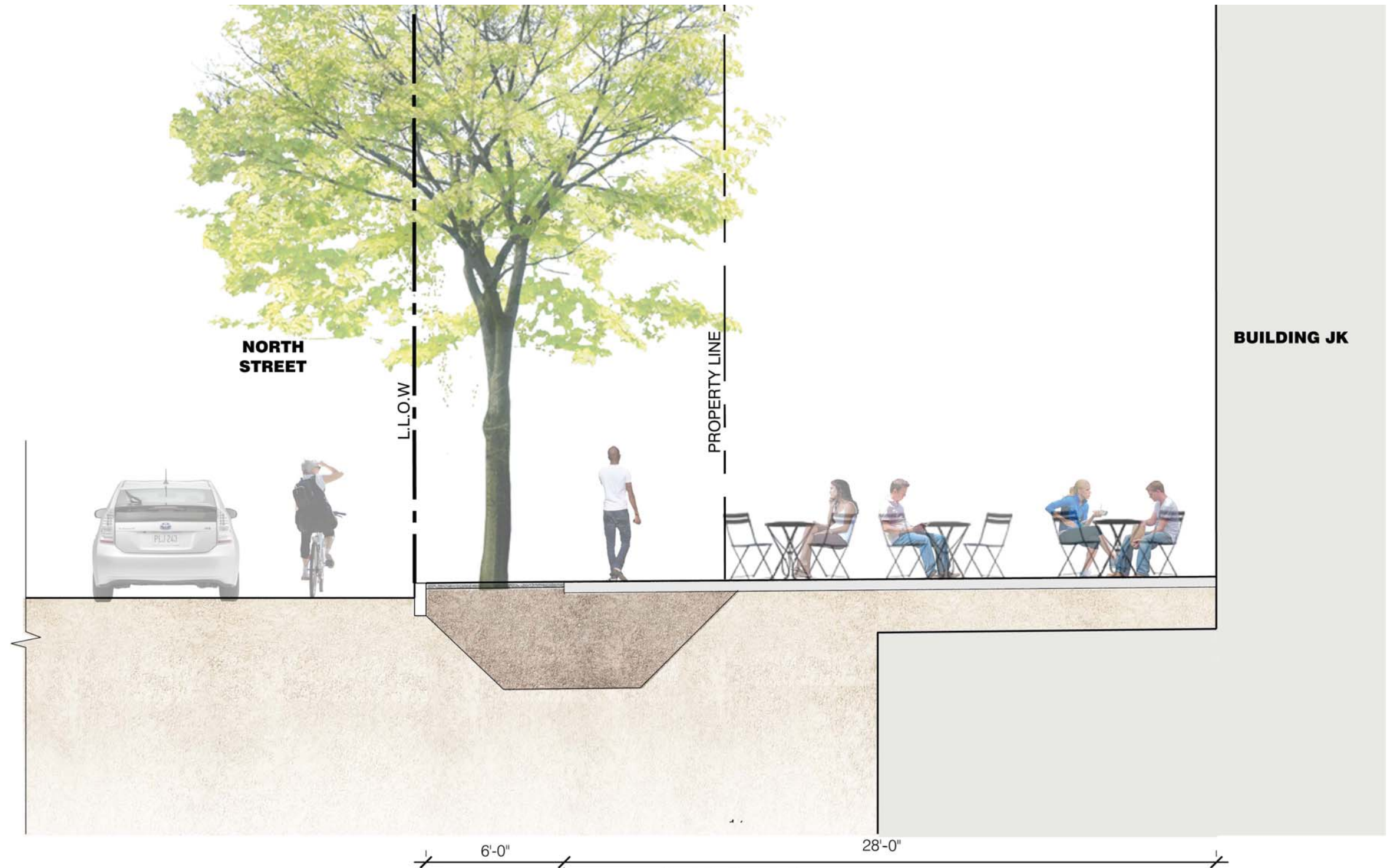
Sustainabilty Narrative

Regional Priority Credits

RPc1.1
Regional Priority Credit for LTc3 - High Priority Site



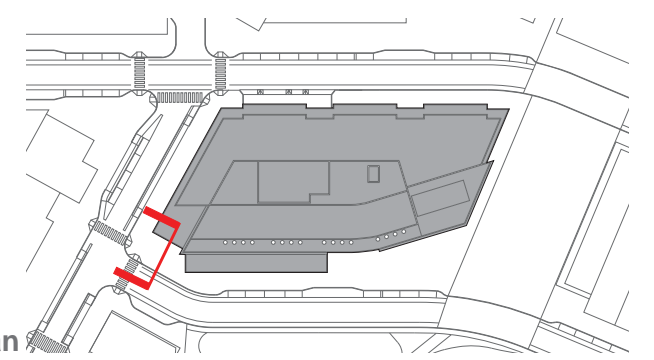
Section - Main Entry



6'-0"
Tree Pit
with Decomposed
Granite

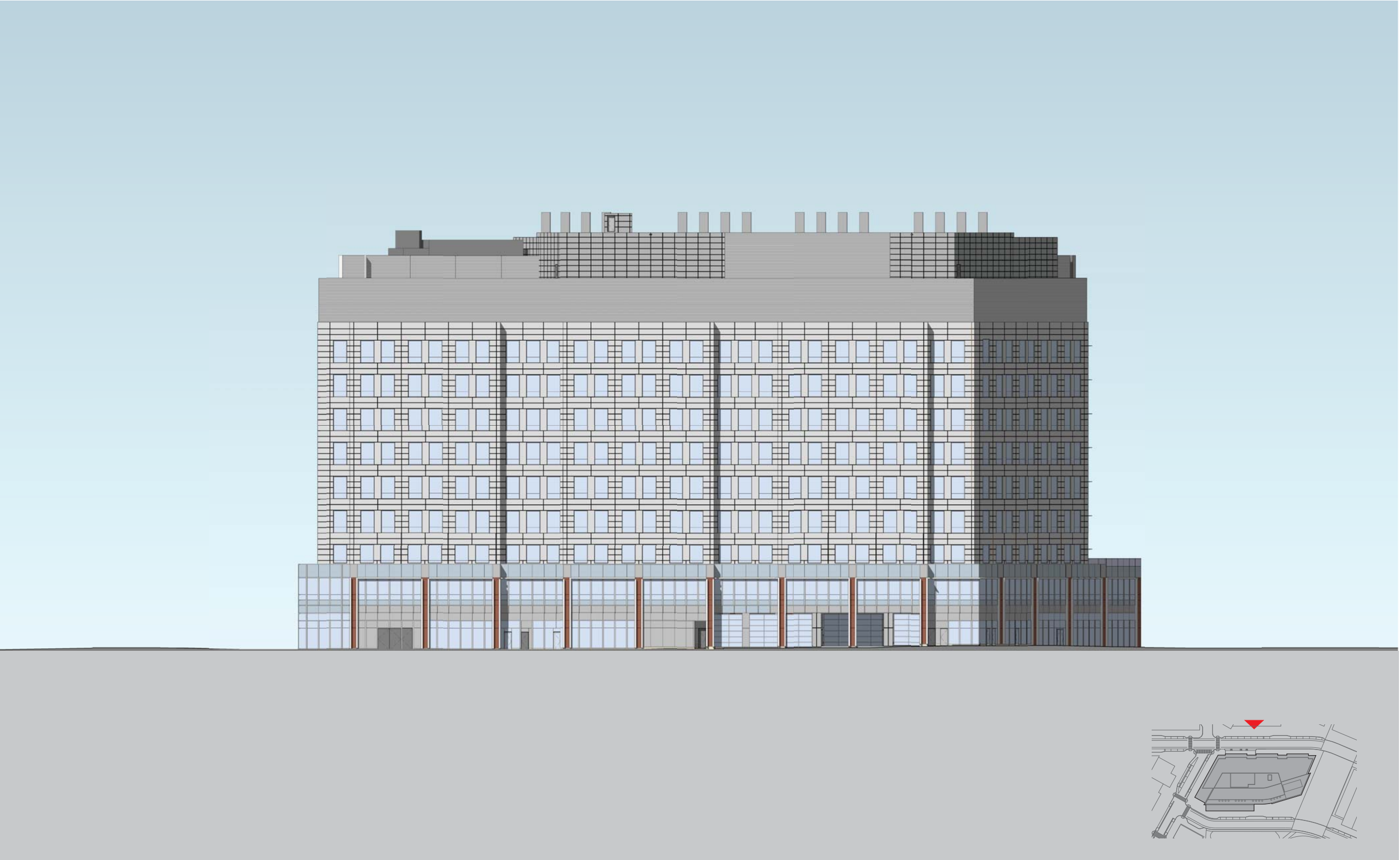
28'-0"
Exposed Aggregate and Concrete Pavement

2'
4'
8'



Section - Retail

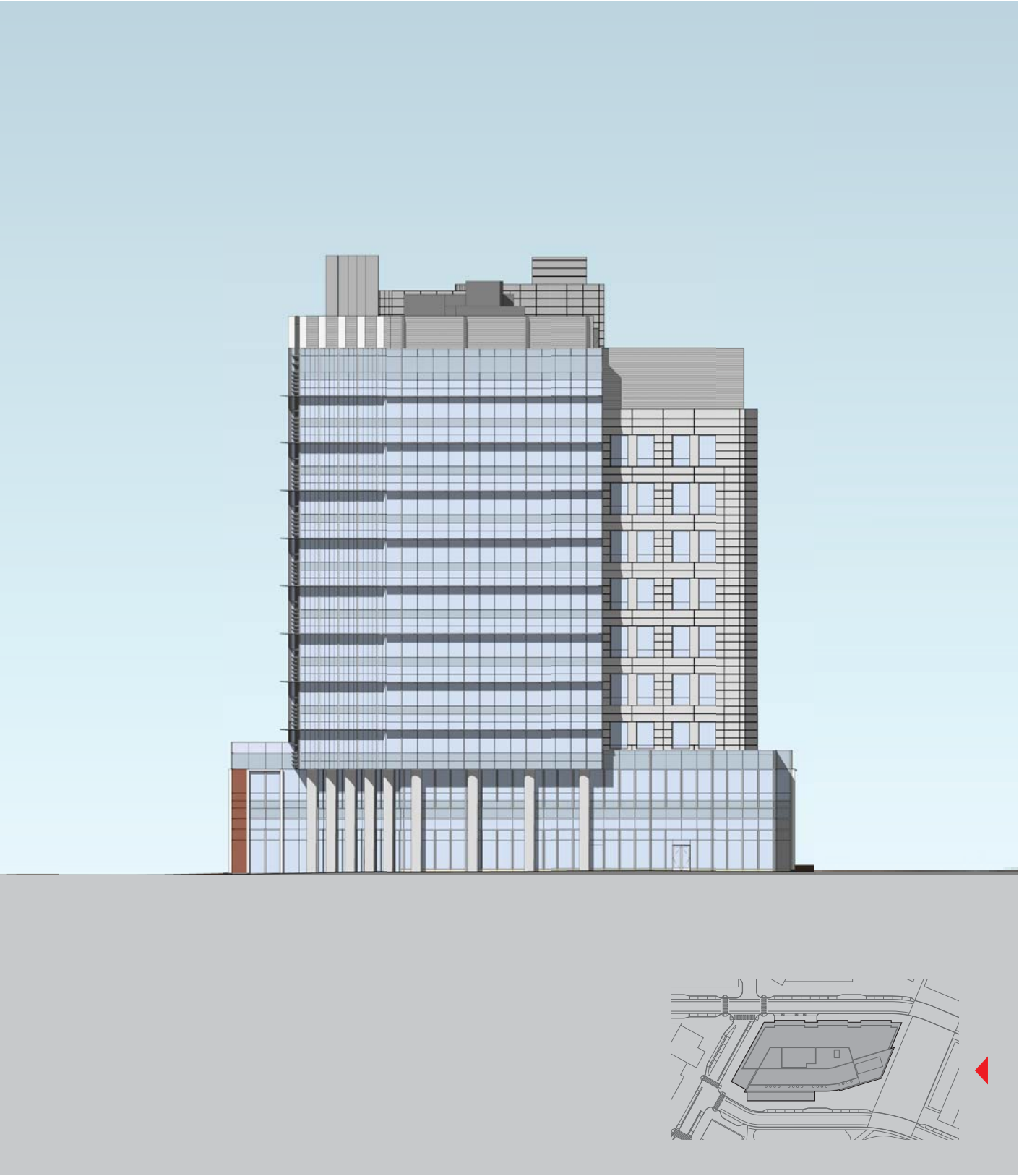
Key Plan



- CORE ROOF
186' - 0"
- PH 2 - ROOF
184' - 0"
- PH 2
164' - 0"
- PH 1
144' - 0"
- LEVEL 9
128' - 6"
- LEVEL 8
113' - 6"
- LEVEL 7
98' - 6"
- LEVEL 6
83' - 6"
- LEVEL 5
68' - 6"
- LEVEL 4
53' - 6"
- LEVEL 3
38' - 6"
- LEVEL 2
23' - 6"
- GROUND FLOOR
0"
- PARKING L1
-12' - 0"
- PARKING L2
-22' - 7 1/2"
- PARKING L3
-4' - 11"

North Elevation

Scale: 1/16"=1'-0" 0 25' 50' 100' 150'



- CORE ROOF
186' - 0"
- PH 2 ROOF
184' - 0"
- PH 2
164' - 0"
- PH 1
144' - 0"
- LEVEL 9
128' - 6"
- LEVEL 8
113' - 6"
- LEVEL 7
98' - 6"
- LEVEL 6
83' - 6"
- LEVEL 5
68' - 6"
- LEVEL 4
53' - 6"
- LEVEL 3
38' - 6"
- LEVEL 2
23' - 6"
- GROUND FLOOR
0"
- PARKING L1
-12' - 0"
- PARKING L2
-22' - 7 1/2"
- PARKING L3
-4' - 11"

East Elevation

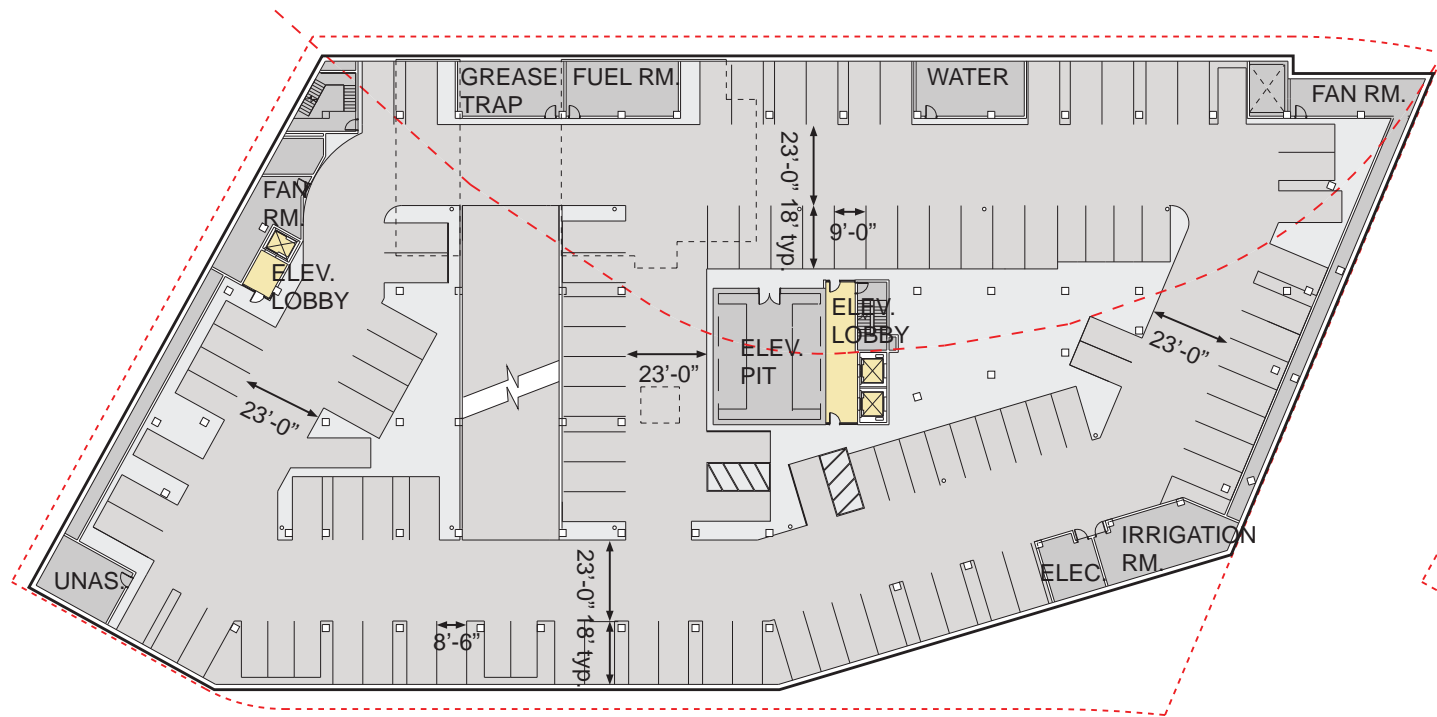
West Elevation

Scale: 1/16"=1'-0" 0 25' 50' 100' 150'

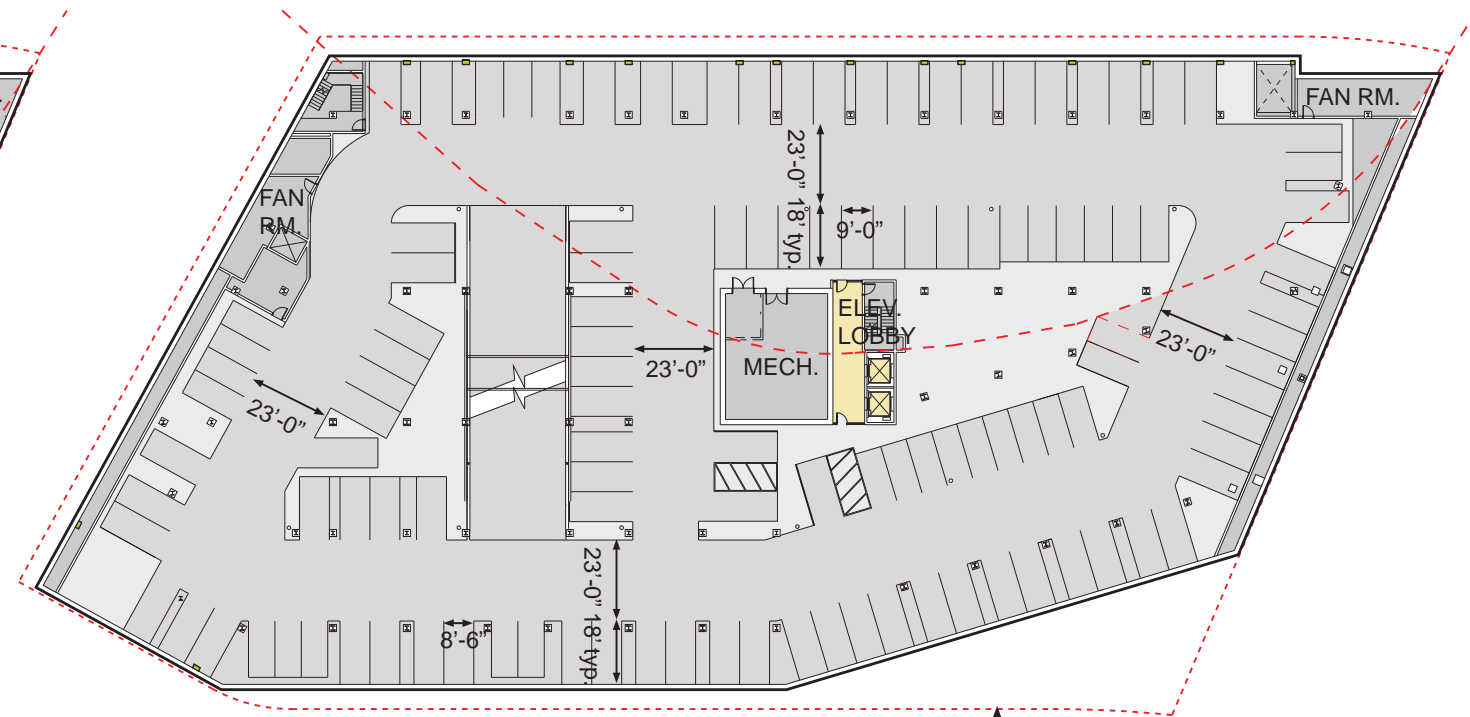


South Elevation

Scale: 1/16"=1'-0" 0 25' 50' 100' 150'

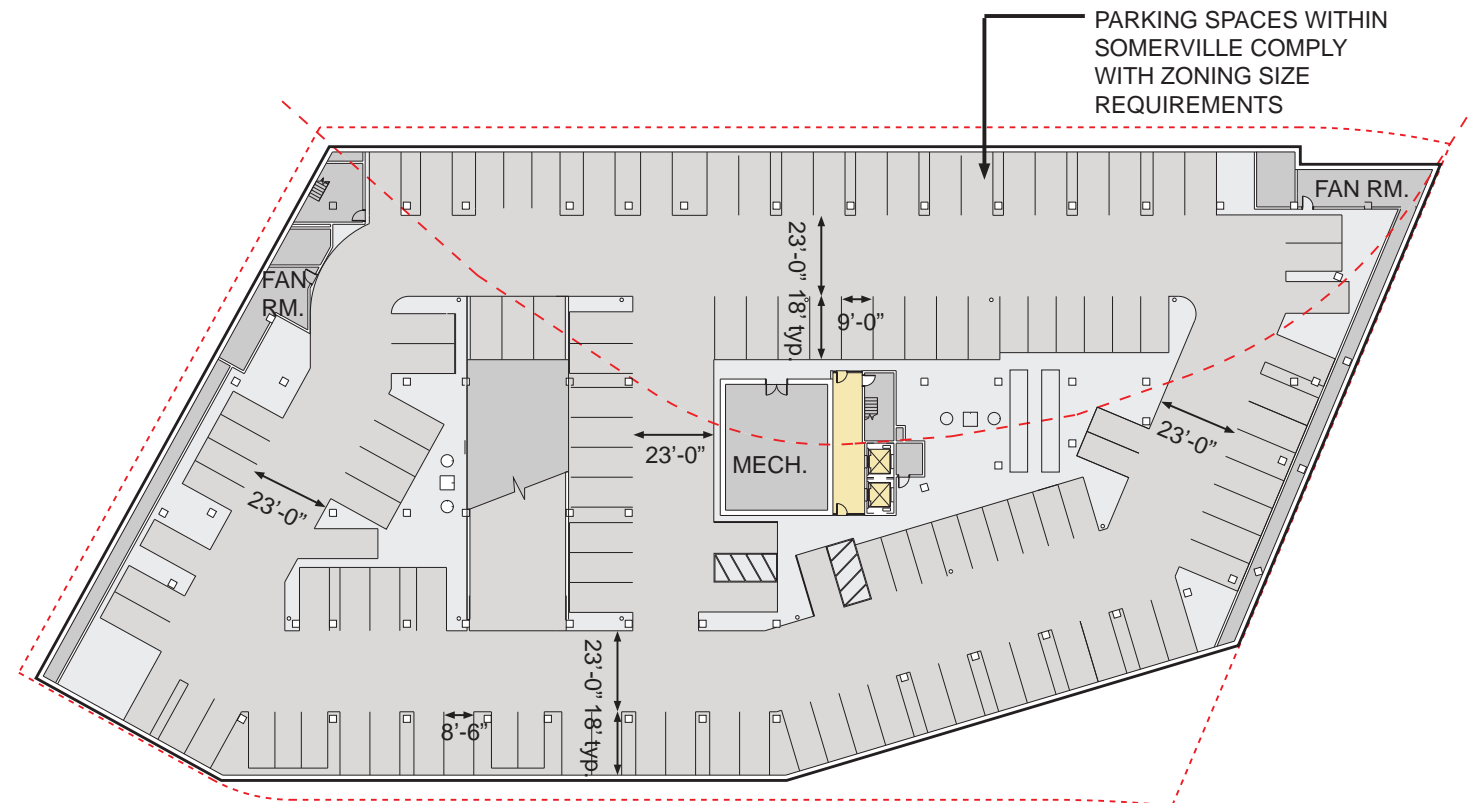


Parking Plan - Level 1



Parking Plan - Level 2

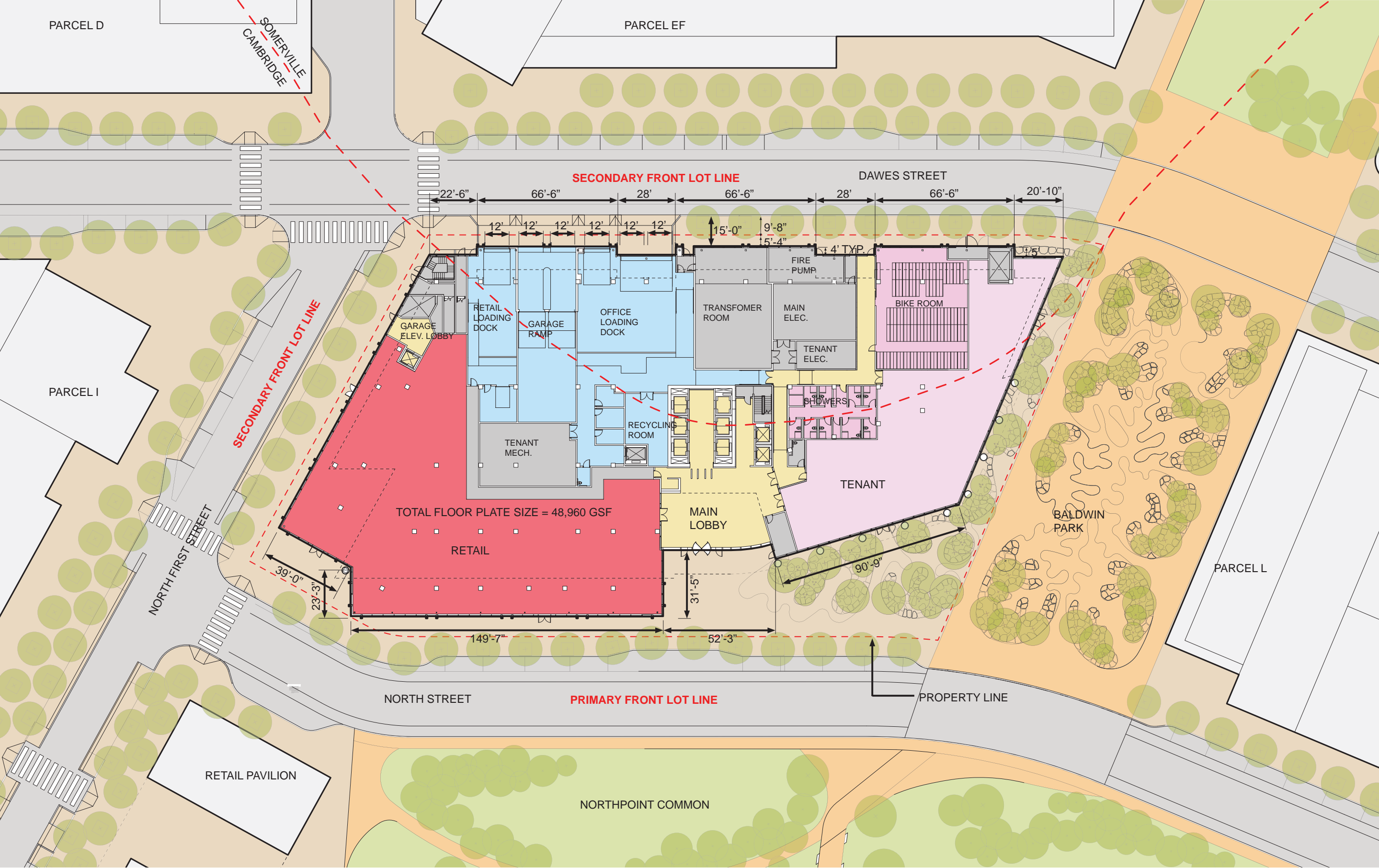
PROPERTY LINE



Parking Plan - Level 3

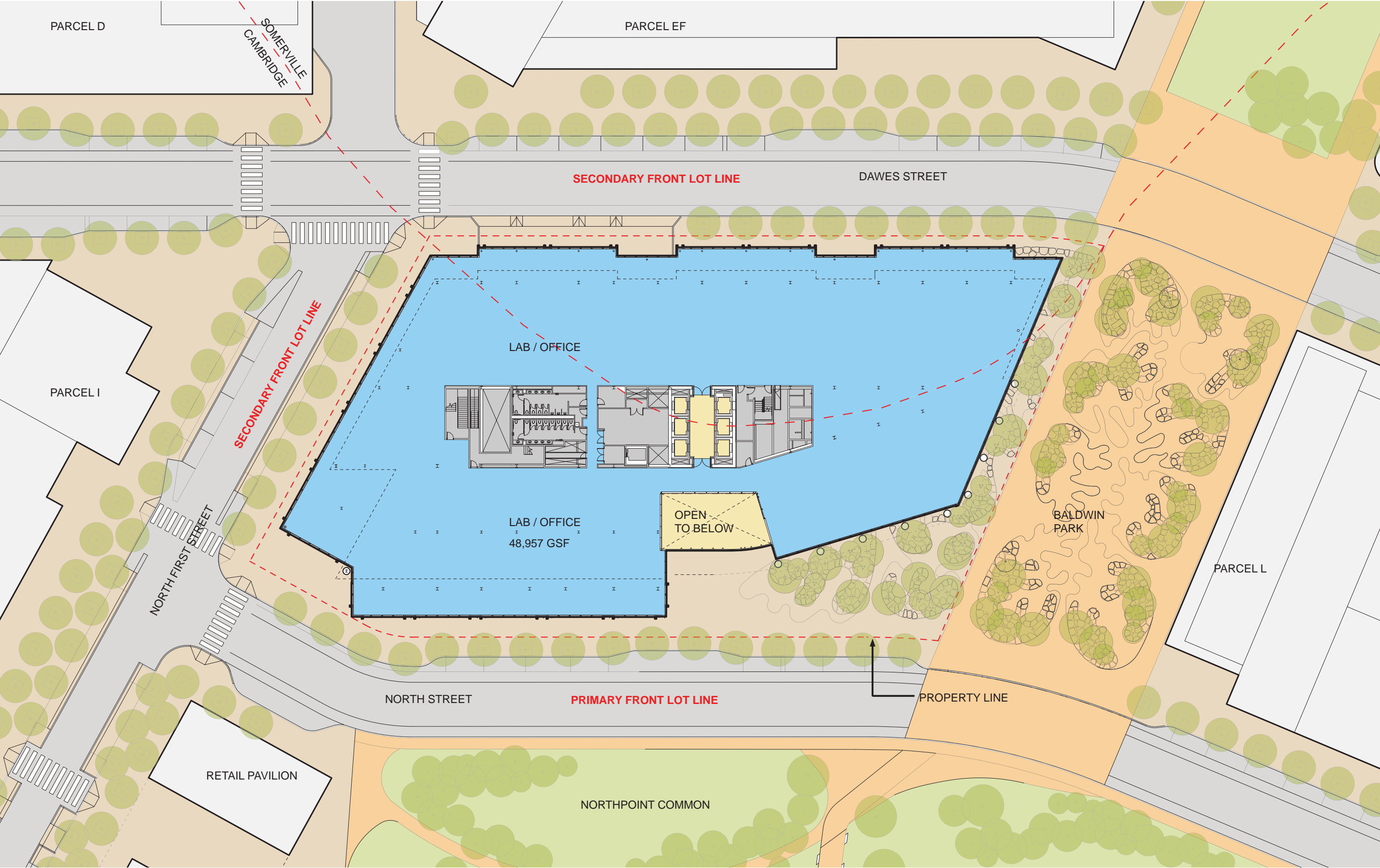
Scale: 1"=20' 0 25' 50' 100' 150'

Underground Parking Plans



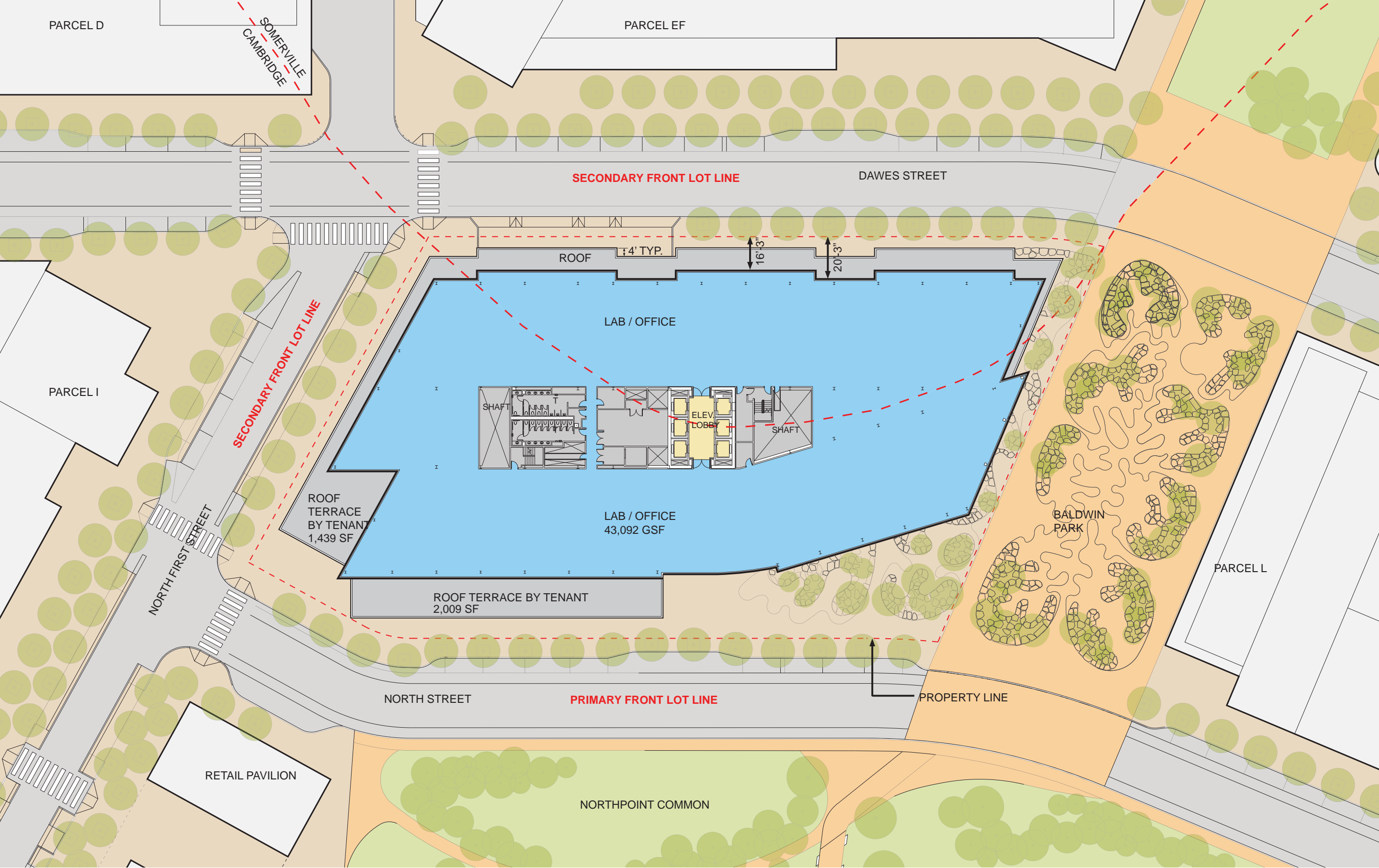
Ground Level Plan





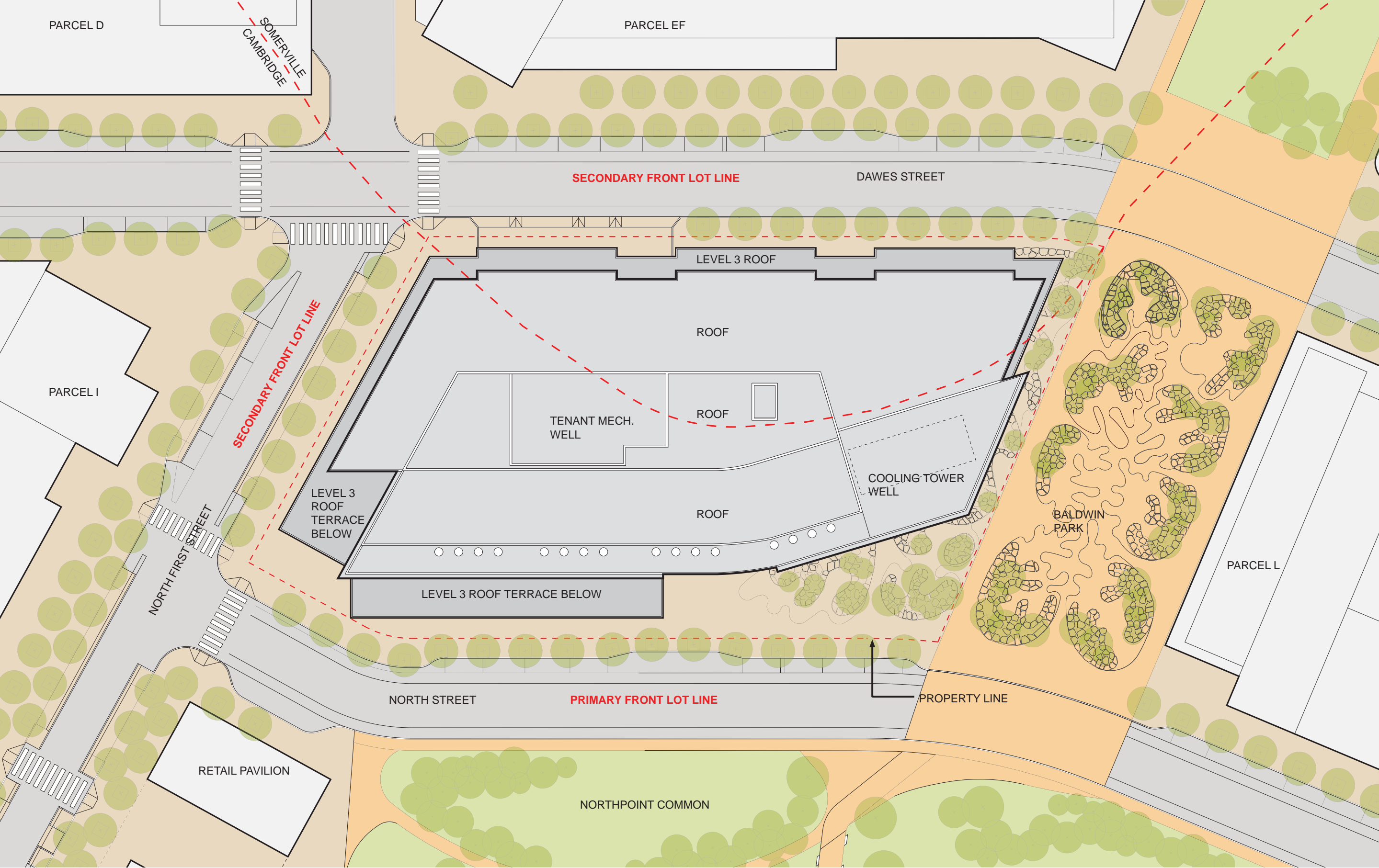
Level 2 Plan

Scale: 1/16"=1'-0" 0 25' 50' 100' 150'

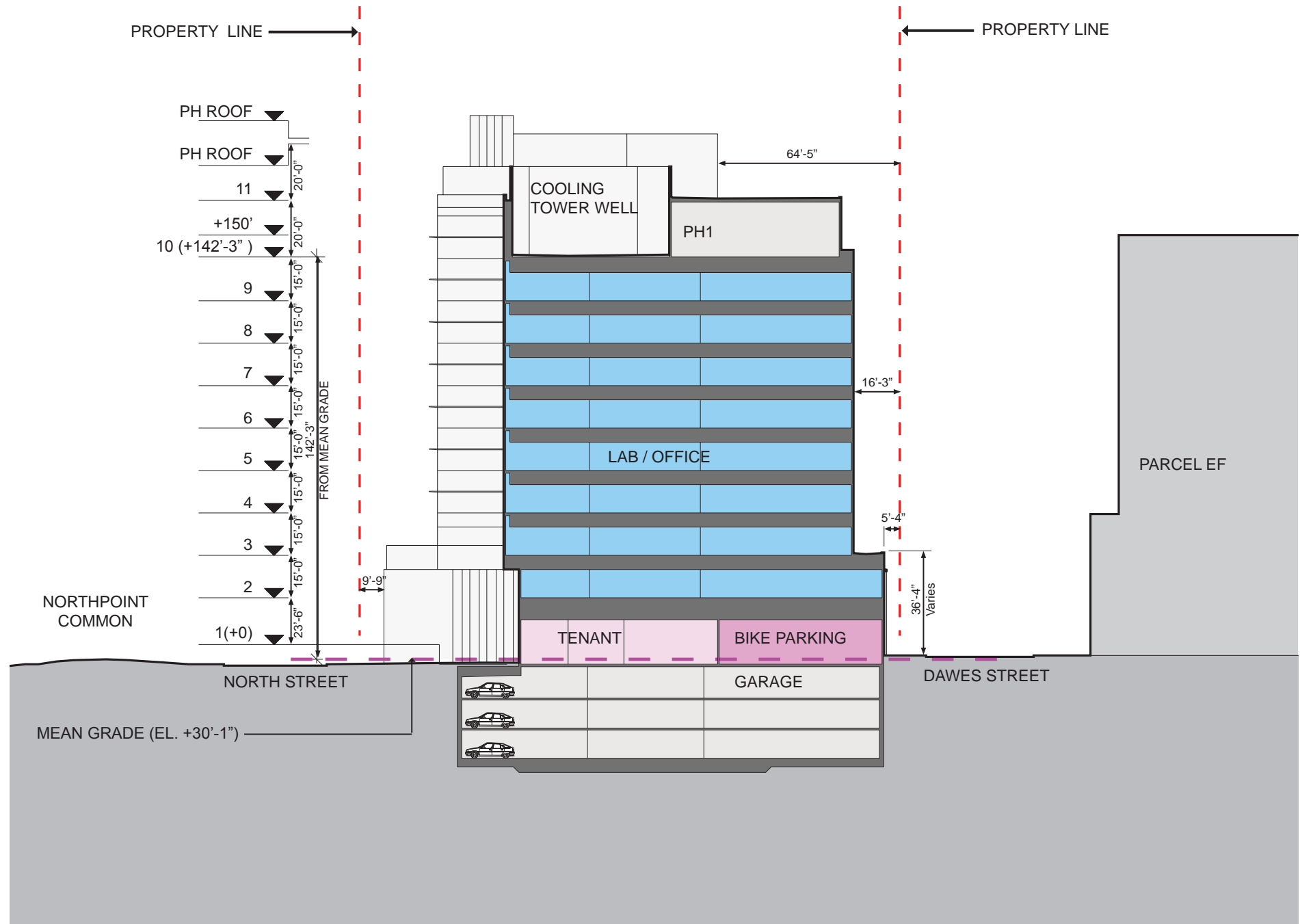


Typical Plan level 3-9

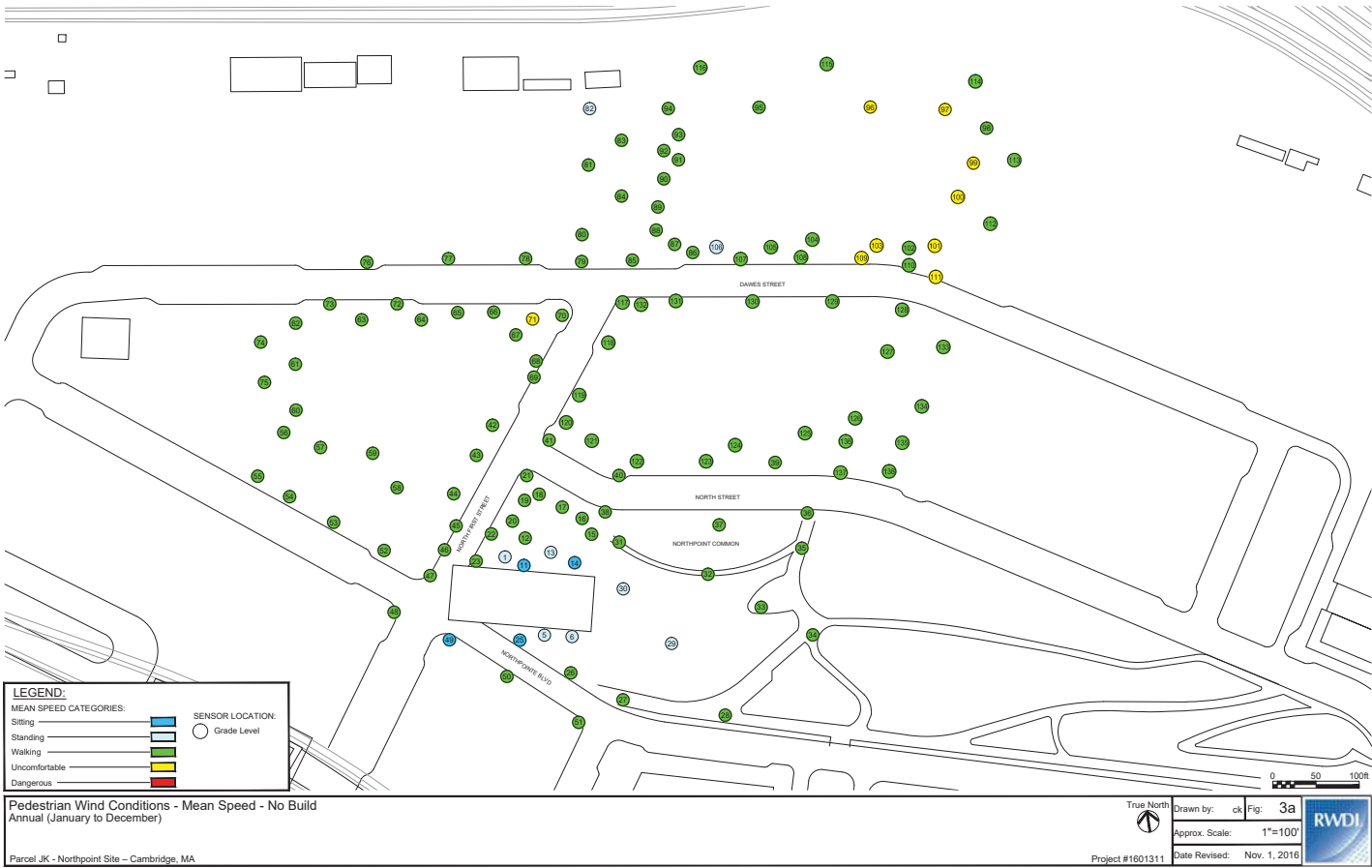
Scale: 1/16"=1'-0" 0 25' 50' 100' 150'



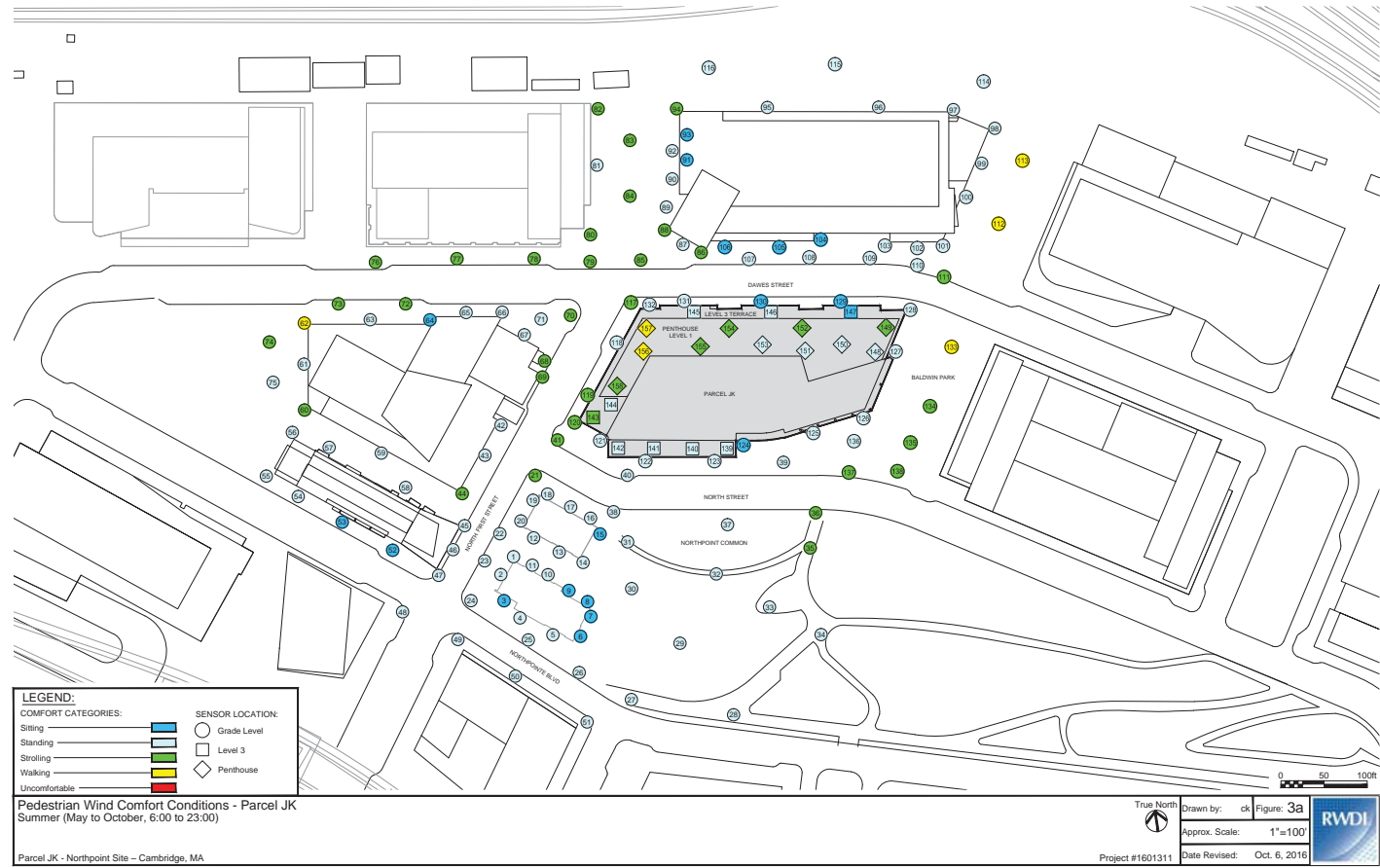
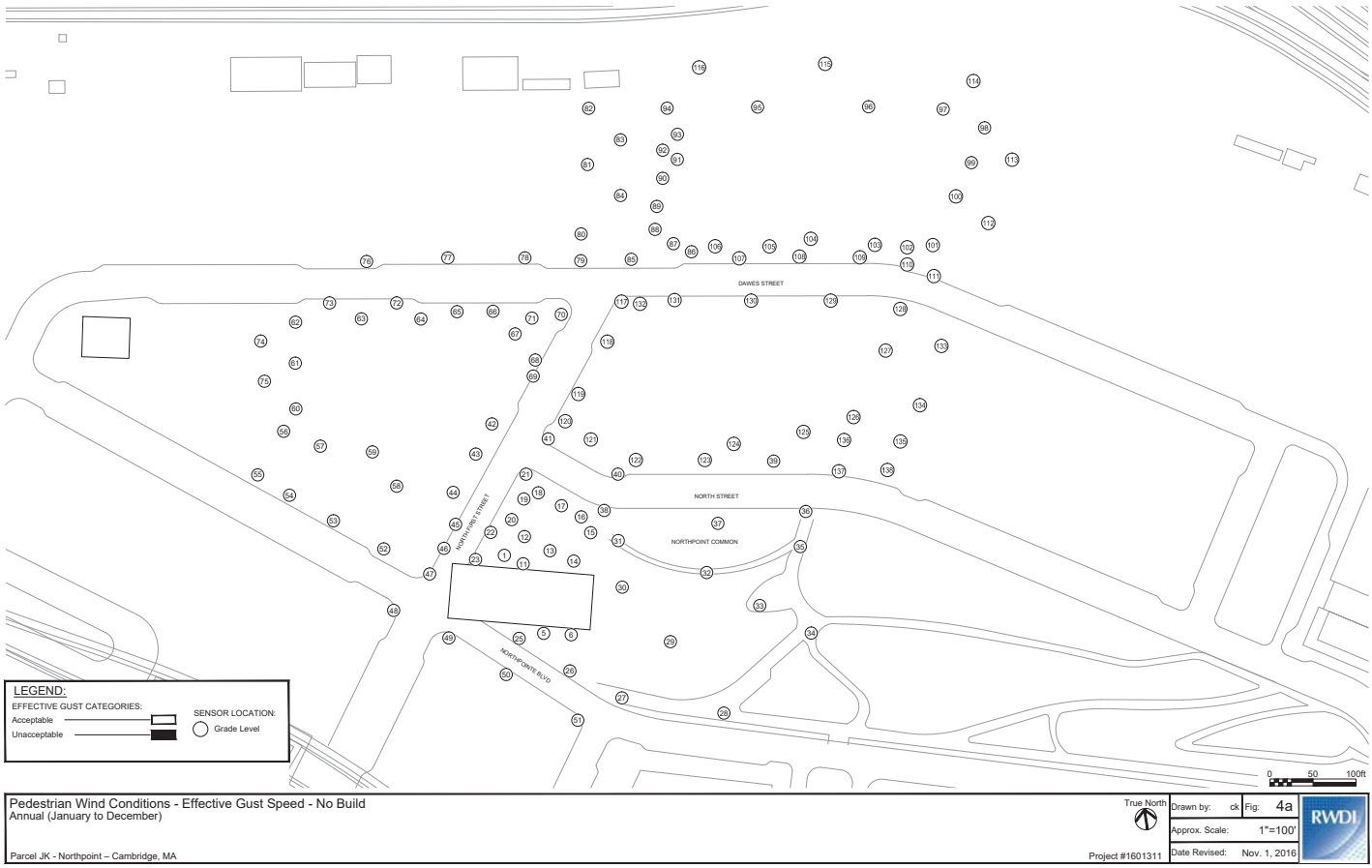
Roof Plan



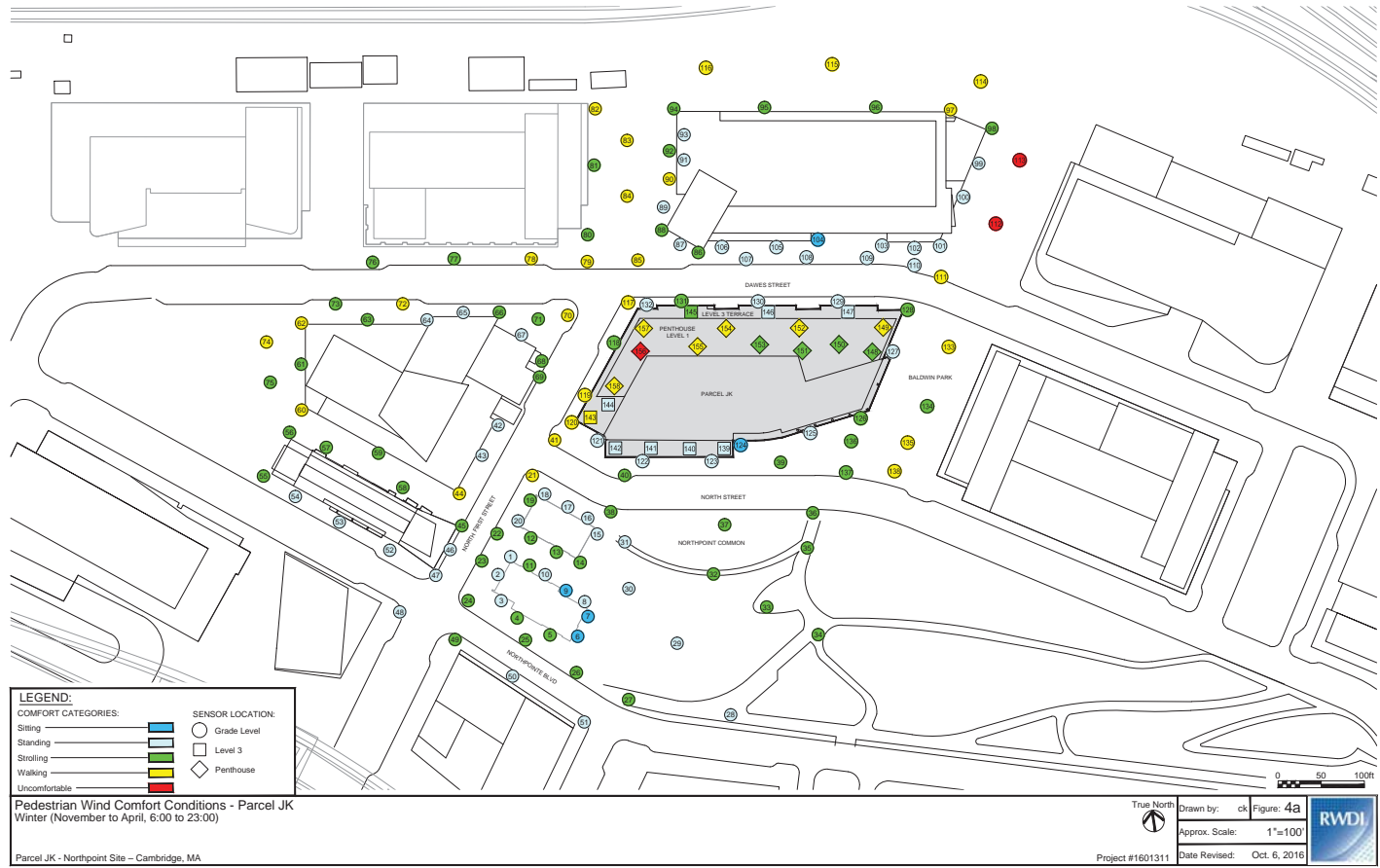
Building Section



Wind Study - No Build Condition



Wind Study - Built Condition



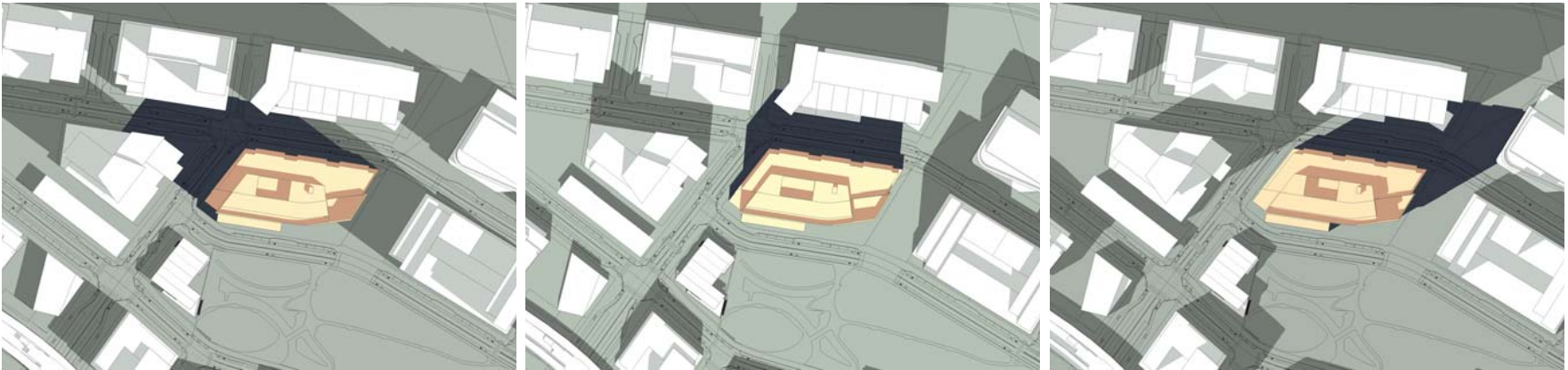
9 AM

12 PM

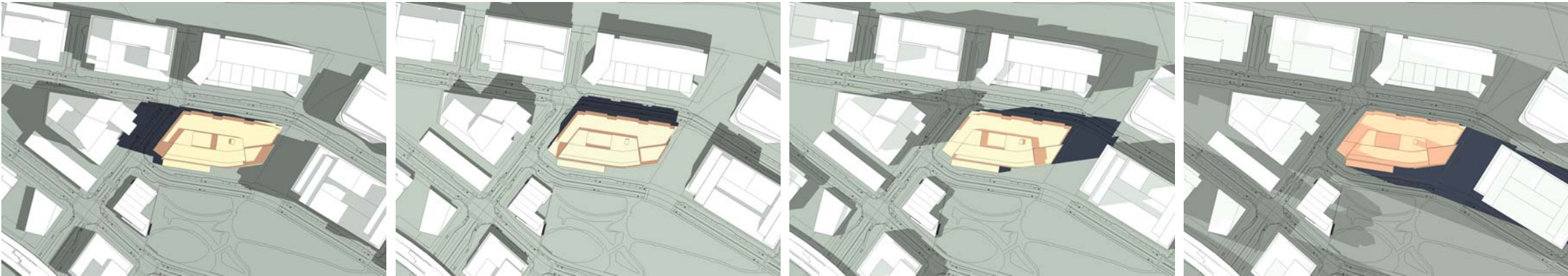
3 PM

6 PM

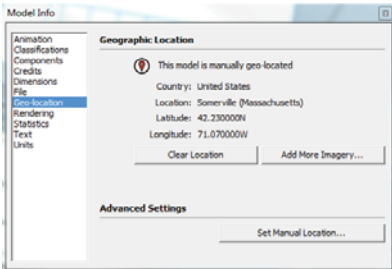
March 21



June 21

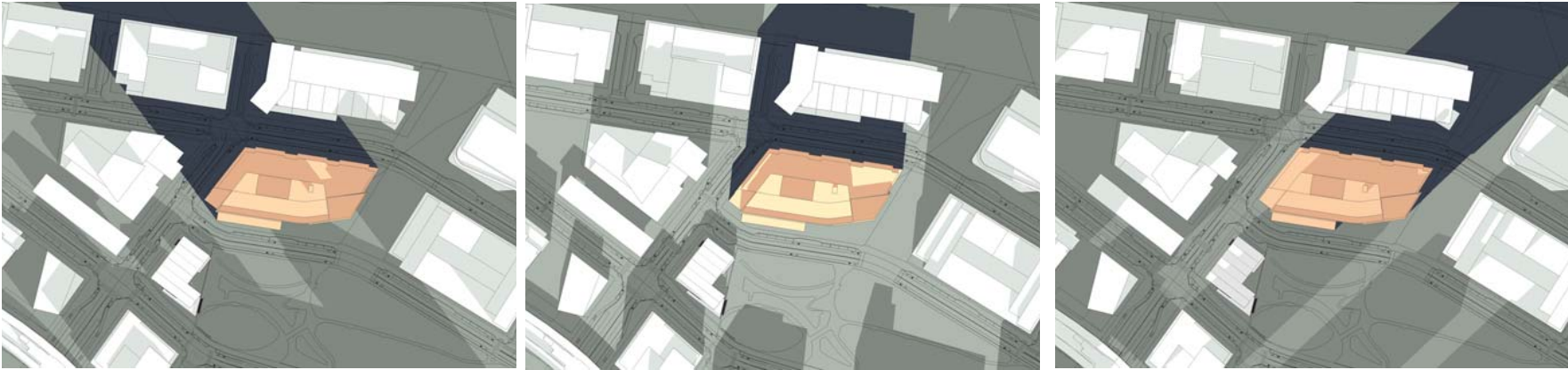


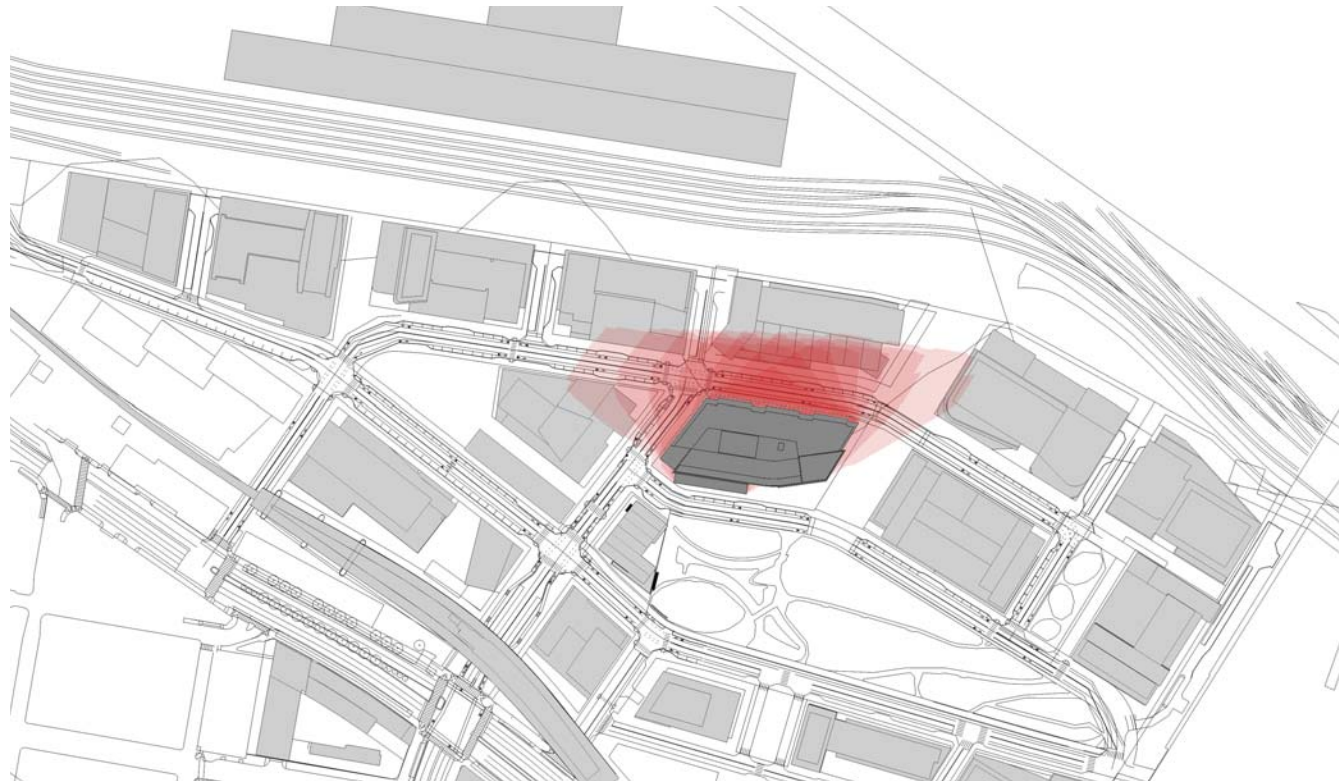
September 21



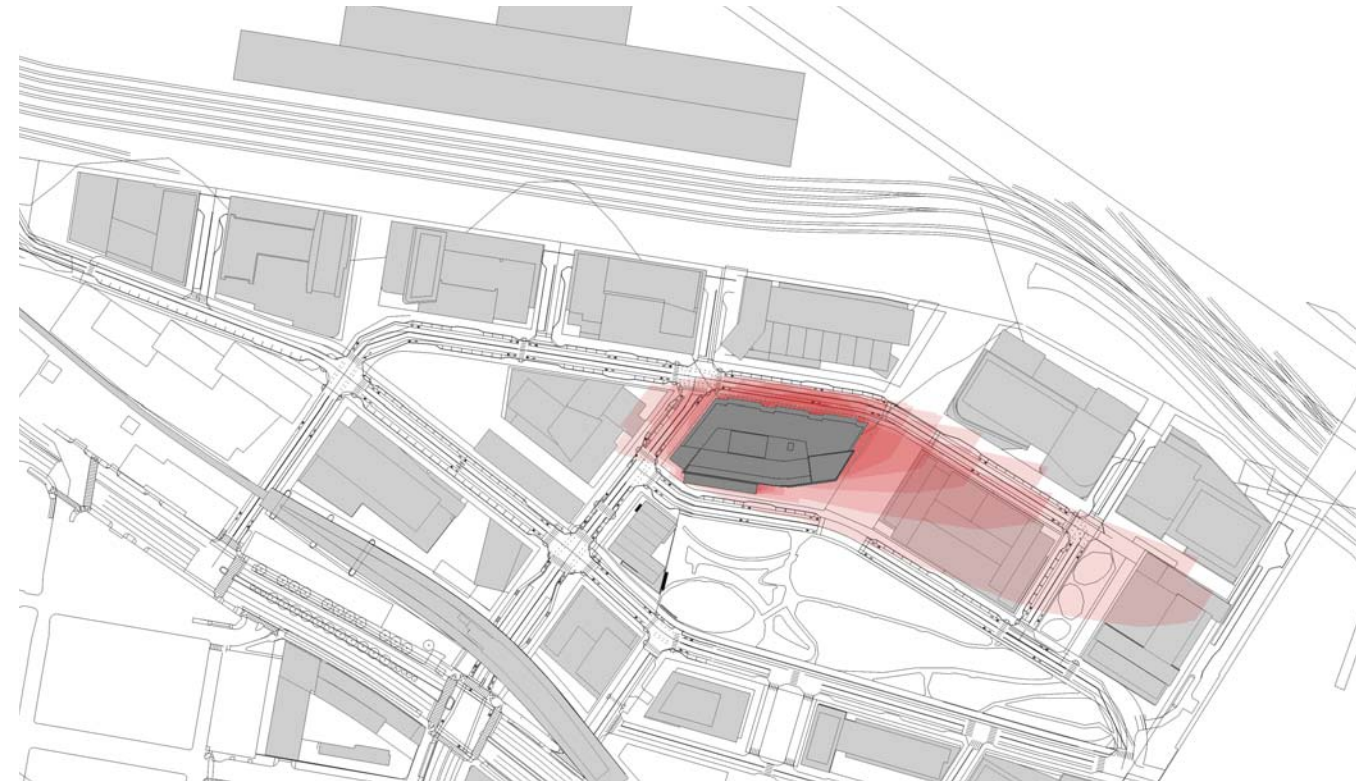
Net Shadow Study

December 21

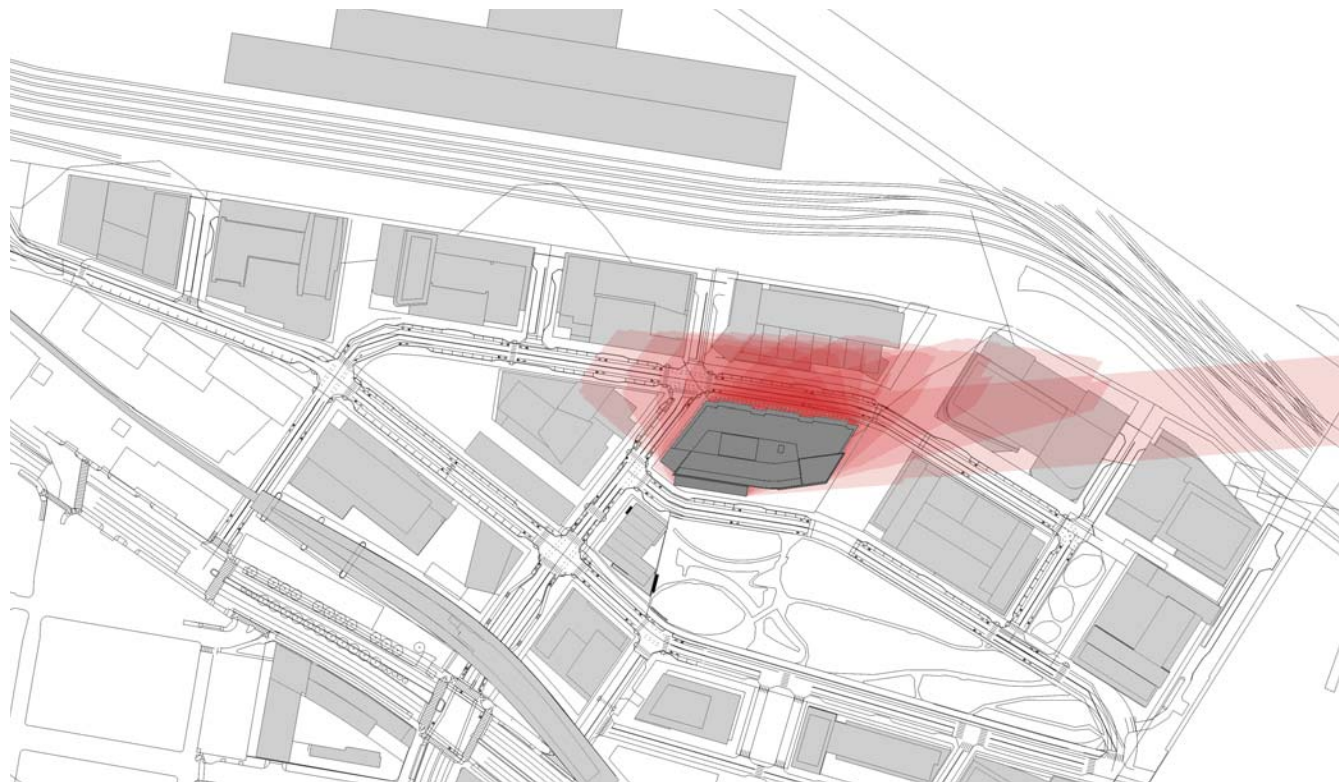




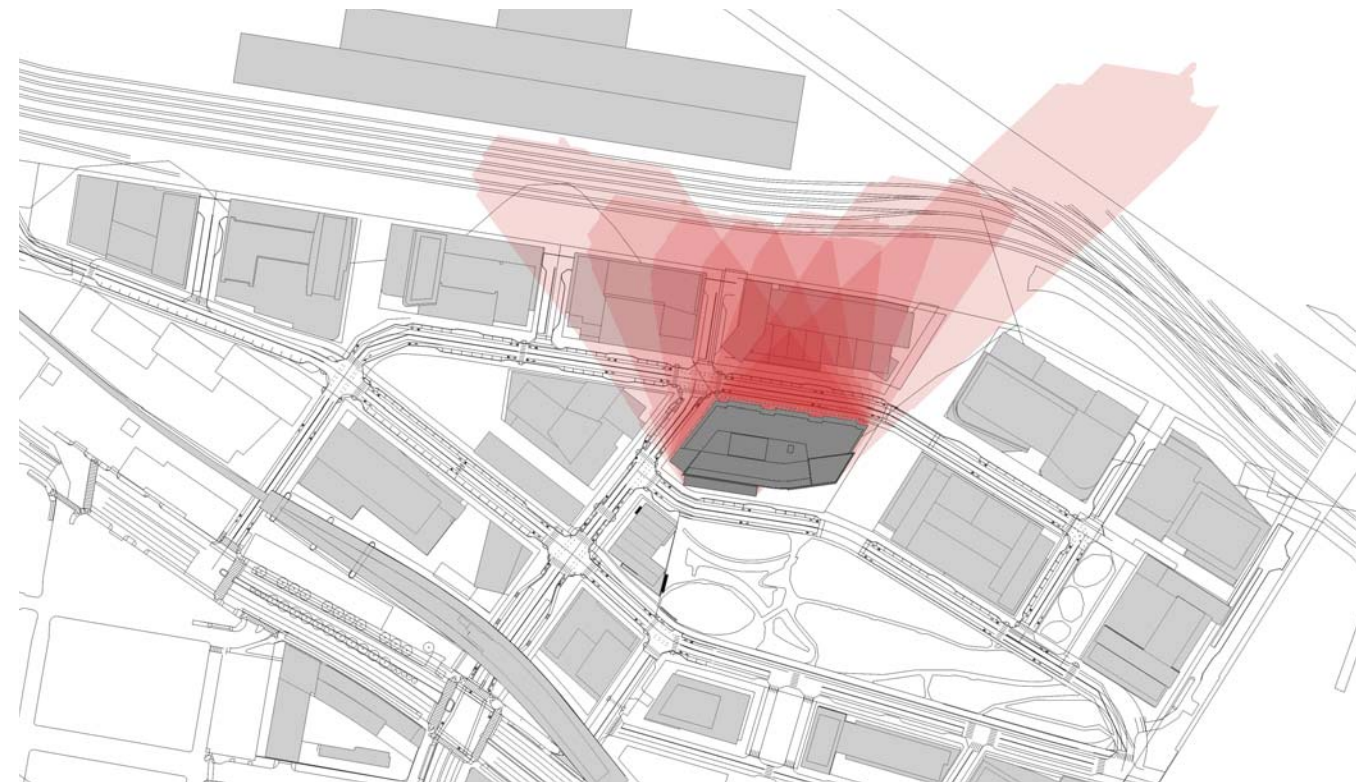
March 21



June 21



Setemember 21



December 21

Cumulative Shadow Study

November 1, 2016

Northpoint Parcel J K – Noise Design Criteria and Control

This report describes the noise design criteria for the new office and lab building at Northpoint Parcel J K. Recommended noise control strategies and for the major items of mechanical equipment are also presented.

General

The Parcel J K building straddles the border between Cambridge and Somerville. The project will be designed to meet the applicable noise regulations for both cities, as well as the MassDEP regulation. The Cambridge noise regulation is more stringent, so we used the Cambridge regulation as the design criterion.

MassDEP Noise Regulation

Our noise monitoring at the site found that the lowest overnight sound levels were 53 dBA. Based on this, the allowable limit under the MDEP noise regulation would be 63 dBA. A noise design that meets the Cambridge limits for residential zone will also meet the MassDEP regulations.

Cambridge Noise Control Ordinance

In accordance with Table 8.16.060E of the Ordinance (reproduced below), the project will abide by the noise standards, as measured at the property lines of affected properties.

Table of Zoning District Noise Standards (maximum octave band sound pressure levels).

Octave Band center Frequency Measurement (Hz)	Residential Area		Residential in Industrial		Commercial Area	Industry Area
	Daytime	Other	Daytime	Other	Anytime	Anytime
31.5	76	68	79	72	79	83
63	75	67	78	71	78	82
125	69	61	73	65	73	77
250	62	52	68	57	68	73
500	56	46	62	51	62	67
1,000	50	40	56	45	56	61
2,000	45	33	51	39	51	57
4,000	40	28	47	34	47	53
8,000	38	26	44	32	44	50
Single Number Equivalent (dB(A))	60 dBA	50 dBA	65 dBA	55 dBA	65 dBA	70 dBA

Two of the adjacent parcels in Northpoint are planned to be residential buildings, so noise emissions from outdoor mechanical equipment on the Parcel J K building needs to meet the *residential* limits of the Cambridge noise regulation. Noise emissions to the future Parcel E F building will need to meet the *commercial* area limits.

Noise Mitigation Measures

Sound emanating from the project’s rooftop mechanical equipment will be minimized by adopting best available and feasible practices regarding the location and sizing of equipment, selecting appropriate equipment, and implementing sound attenuation measures, as needed to meet local noise regulations including the requirements of the City of Cambridge, as presented above.

The following is a list of major mechanical equipment on the project and their noise control measures.

Northpoint Parcel J-K Building - Noise Control Measures For Large Mechanical Equipment

1. Evaporative cooling towers – the engineer has selected low noise cooling towers. The cooling towers are controlled by variable speed circuits so they will run at a lower (quieter) speed when the cooling load is reduced, including nights.
2. Makeup air units – these are located inside mechanical penthouse and they are equipped with inlet attenuators.
3. Lab exhaust fans – located at penthouse level under a roof, these will have sound attenuators at the discharge.
4. The emergency generators are located inside a noise enclosure, on the roof, surrounded on 3 sides by the upper mechanical penthouse.
5. Chillers are located inside mechanical penthouse.

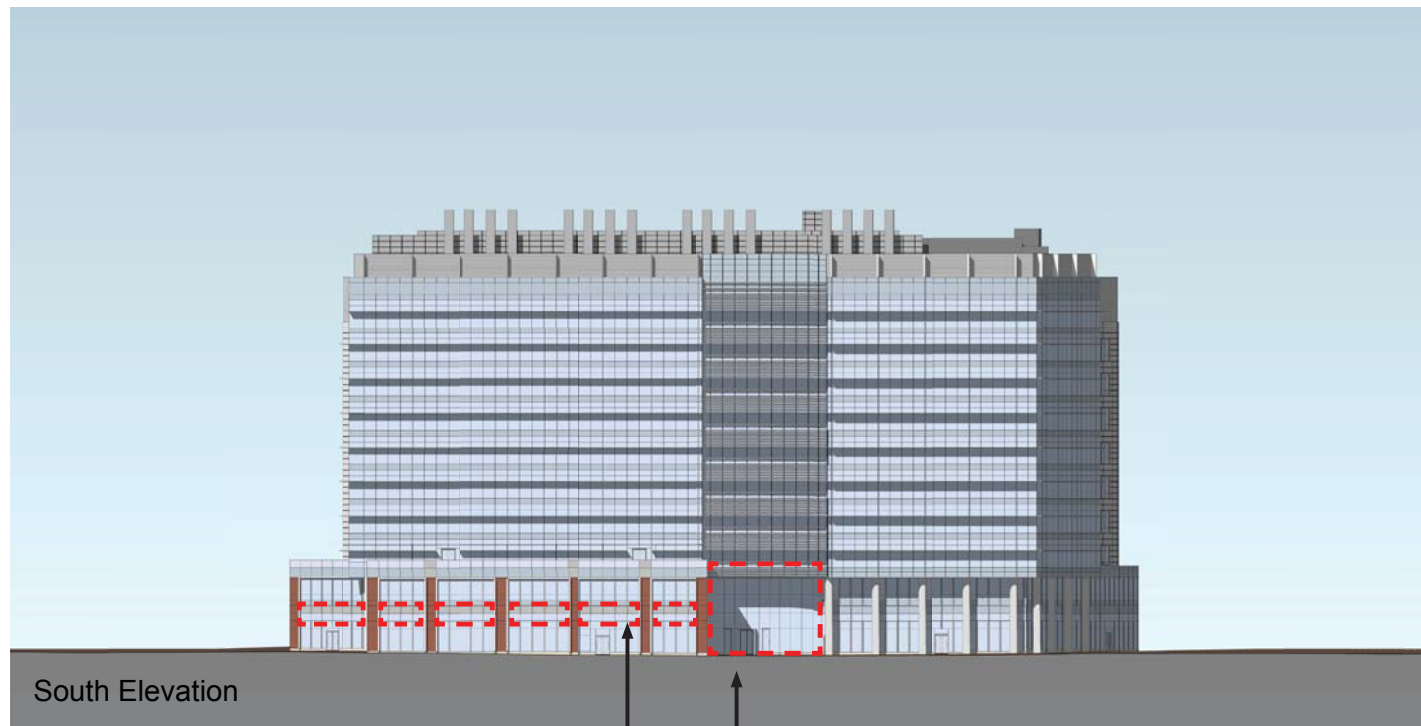
In Summary, we are working with the project team to design a building that meets the applicable noise requirements and does not create a noise nuisance for the surrounding area. Based on our calculations, the current design meets those criteria.

Please call if you need further information,

CAVANAUGH TOCCI ASSOCIATES


Timothy J. Foulkes

Noise Mitigation Narrative



South Elevation

Ground Floor Retail Tenant Signage – Individual retail and restaurant tenants will incorporate individual signage features into their façade and entrance design.

Building identity signage – Signage communicating the building address is anticipated at the main lobby entrance door. This signage may be in the form of letter and number graphics on the lobby facade glazing (i.e. above or next to the front door) or in the form of freestanding letters and numbers on the building entrance canopy. This signage may also identify the building tenants.



North Elevation

Ground Floor Utility Signage – Small signs will identify the purpose of multiple doors (i.e. Fire Command Center, Electrical Utility Vault, Indoor Bicycle Parking, Loading Dock Entrances) around the Ground Floor of the building

Parking Signage - Signage mounted above the parking vehicular entrance will direct motorists into the parking garage. Additional signage at the parking entrance will provide information about the parking facility. Additional parking signage will direct pedestrians to the parking vehicular entrance, mounted at the pedestrian entrance.



West Elevation

Ground Floor Pedestrian Signage - Small sign communicating the location of the elevator lobby for direct pedestrian access to the underground parking garage.

Ground Floor Retail Tenant Signage – Individual retail and restaurant tenants will incorporate individual signage features into their façade and entrance design.



East Elevation

General Note: Northpoint wayfinding graphics – Similar to other developments in Somerville and Cambridge, we anticipate a neighborhood-wide graphics identity and wayfinding program, in the form of freestanding signs or kiosks, on the sidewalks and in the park adjacent to the building.

Proposed locations for exterior signage

Building Mounted Exterior Lighting

- The wood pilasters on all facades of the building will have internal lighting that will make give the surfaces of the pilasters a soft glow at night. The light sources will be a low-power linear LED source that will be fully concealed within the pilaster structure and not visible to direct view. The intensity of this lighting effect will be able to be adjusted with a dimmer control.
- Recessed low-brightness LED downlights will be incorporated into the exterior soffit along the southeast corner of the building.
- Fully-shielded low-power LED fixtures will be wall mounted at any egress doors as required by code.
- There is no building mounted exterior lighting planned for the loading dock opening.
- There will be no “rooftop” lighting, or any other exterior lighting above level 2.



Site Lighting






- Site lighting will be limited to the Plaza at the Southeast corner.
- The site lighting will be the same as in the adjacent Baldwin Park
- A pedestrian-scale post-top fully-shielded LED fixture will be used as necessary to light walkways for security and comfort
- Low-brightness decorative lighting bollards will be integrated with the seating/ planters

All exterior lighting for Parcel JK is being designed to minimize light pollution and light trespass and in accordance with the requirements of the LEED v4 Light Pollution Reduction credit.”

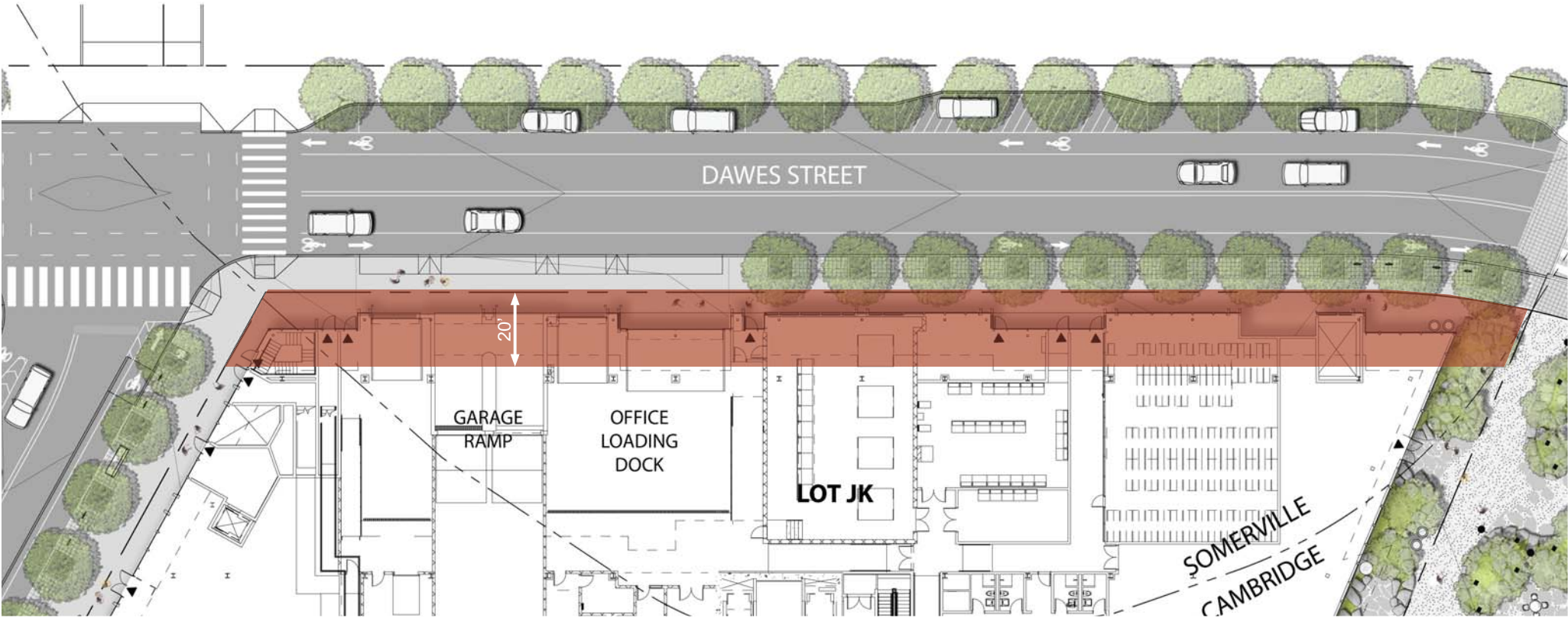


Exterior Lighting Plan




Section	Guideline Description	Compliance	Check																		
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.8-A	<p><i>The following building use categories and principal uses are established according to Table 6.2 Use Categories and Principal Uses.</i></p> <p>Table 6.6.8 Use Categories and Principal Uses</p> <table><thead><tr><th>CATEGORY</th><th>PRINCIPAL USES</th></tr></thead><tbody><tr><td>1. Retail and Consumer Service</td><td>a. Retail Sales b. Grocery Stores/Supermarkets c. Personal and/or Family Services d. Business Services e. Restaurant and/or Bar f. Theater g. Commercial Recreation</td></tr><tr><td>2. Commercial Office</td><td>a. Medical Practitioner b. Real Estate c. General Office d. Professional Services e. Studio Space f. Bank g. Mass Media Studio h. Educational/Institutional Services</td></tr><tr><td>3. Lodging</td><td>a. Hotel</td></tr><tr><td>4. R&D and/or Laboratory</td><td>a. Research & Development b. Laboratory</td></tr><tr><td>5. Institutional, Religious, and/or Educational Services</td><td>a. All uses qualifying under M.G.L. 40A, Section 3</td></tr><tr><td>6. Residential</td><td>a. Multi-Unit Residential</td></tr><tr><td>7. Accessory</td><td>a. Parking Garage b. Home Occupation c. Cellular, Radio, and Internet Transmission</td></tr><tr><td>8. Interim</td><td>a. Surface Parking Lot</td></tr></tbody></table>	CATEGORY	PRINCIPAL USES	1. Retail and Consumer Service	a. Retail Sales b. Grocery Stores/Supermarkets c. Personal and/or Family Services d. Business Services e. Restaurant and/or Bar f. Theater g. Commercial Recreation	2. Commercial Office	a. Medical Practitioner b. Real Estate c. General Office d. Professional Services e. Studio Space f. Bank g. Mass Media Studio h. Educational/Institutional Services	3. Lodging	a. Hotel	4. R&D and/or Laboratory	a. Research & Development b. Laboratory	5. Institutional, Religious, and/or Educational Services	a. All uses qualifying under M.G.L. 40A, Section 3	6. Residential	a. Multi-Unit Residential	7. Accessory	a. Parking Garage b. Home Occupation c. Cellular, Radio, and Internet Transmission	8. Interim	a. Surface Parking Lot	<p>This project includes the following approved uses:</p> <ul style="list-style-type: none">- Restaurant and/or Bar- General Office- Laboratory- Parking Garage	
CATEGORY	PRINCIPAL USES																				
1. Retail and Consumer Service	a. Retail Sales b. Grocery Stores/Supermarkets c. Personal and/or Family Services d. Business Services e. Restaurant and/or Bar f. Theater g. Commercial Recreation																				
2. Commercial Office	a. Medical Practitioner b. Real Estate c. General Office d. Professional Services e. Studio Space f. Bank g. Mass Media Studio h. Educational/Institutional Services																				
3. Lodging	a. Hotel																				
4. R&D and/or Laboratory	a. Research & Development b. Laboratory																				
5. Institutional, Religious, and/or Educational Services	a. All uses qualifying under M.G.L. 40A, Section 3																				
6. Residential	a. Multi-Unit Residential																				
7. Accessory	a. Parking Garage b. Home Occupation c. Cellular, Radio, and Internet Transmission																				
8. Interim	a. Surface Parking Lot																				
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.8-F-1	<p>a. Retail Sales - <i>"Total gross floor area shall be limited to ten thousand (10,000) square feet per ground floor establishment."</i></p> <p>d. Business Services - <i>"Total gross floor area shall be limited to five thousand (5,000) square feet per ground floor establishment"</i></p> <p>e. Bar and/or Restaurant - <i>No limitations listed</i></p>	<p>This project includes a total of 15,000 GFA of potential retail space on the west side of the ground floor. It is anticipated that this space will be occupied by (2) or more restaurant tenants and therefore will not have any area restrictions.</p> <p>If a retail or business service tenant is to occupy the spaces, the total area will be capped as outlined in Section 6.6.8-F-1</p>																			

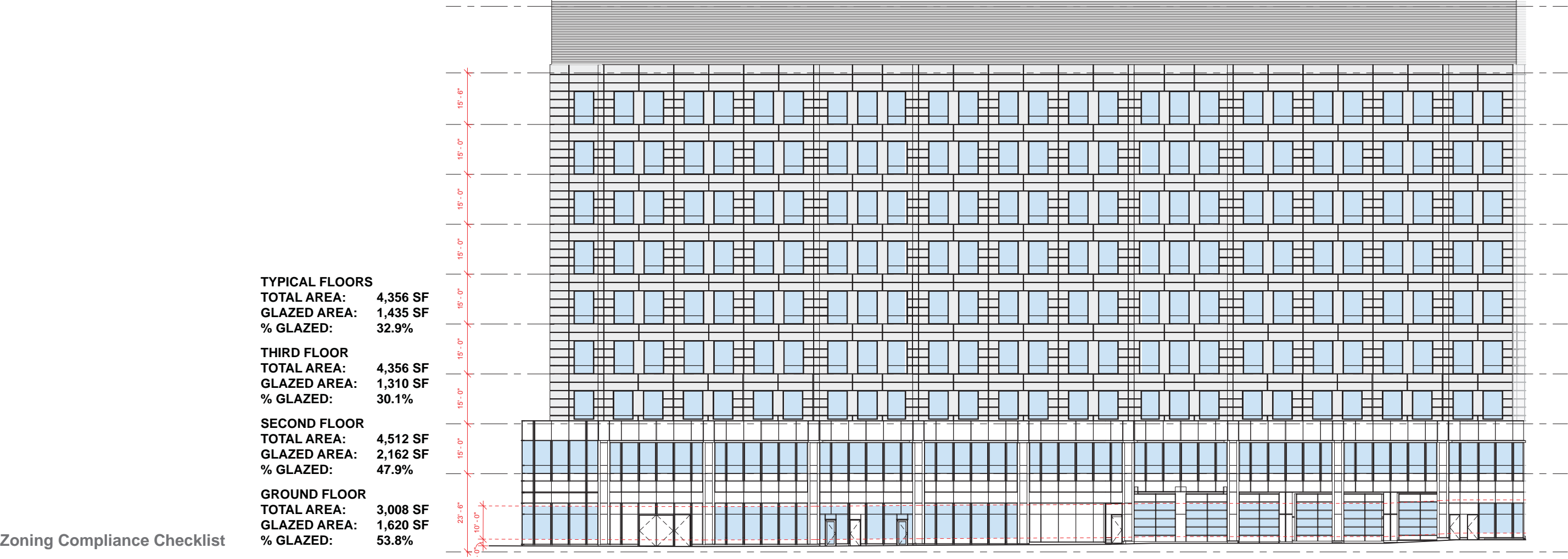
Section	Guideline Description	Compliance	Check
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-A-1	<i>Facades shall be built parallel to a front lot line or to the tangent of a curved front lot line.</i>	The Dawes street façade is built parallel to the front lot line.	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-A-3	<i>The floorplate of any story shall not be larger in area than the story below.</i>	No floor plate is larger than the story below it.	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-E-1-a	<i>Building facades shall be articulated vertically with a rhythm of bays between 25 feet and 50 feet in width to create an equal, central, and/or ends focused composition.</i>	The Dawes street façade has been designed with an equal composition. (Refer to the Design Concept Diagrams on page 8)	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-E-1-b	<i>Facades greater than 100 feet in horizontal width shall have a change in vertical plane of at least 4 feet for at least 1 bay in width that divides the building form into distinct massing elements that break up its apparent mass.</i>	The Dawes street façade has been design so that no façade is greater that 100 feet in horizontal width. (Refer to the Design Concept Diagrams on page 8)	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-E-1-c	<i>Building facades shall be articulated with three clearly defined horizontal elements: a base, middle, and top.</i>	The Dawes street façade has been designed with a base defined by the podium level, a middle defined by the tenant floors, and a top defined by the two story penthouse. (Refer to elevations on pages 25 - 27)	

Section	Guideline Description	Compliance	Check
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-D-a (form)	Minimum of 80% of the façade must be within the façade build out area.	100% of the Dawes Street façade is within the Façade Build-Out area. (Refer to the diagram below)	✓
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-D-b (form)	Floor plates may be a maximum of 50,000 SF.	The largest floor plate is Level 2 which is a total of 48,958 SF.	✓
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-D-c & d (form) ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-A-2	Minimum height = 4 stories Maximum height = 150 feet Height limits do not apply to mechanical penthouses; cellular, radio, and internet transmission equipment; or vents or exhausts	The building is 142'-3" to the penthouse measured from the mean grade. (Refer to sections on pages 33 & 34)	✓




Zoning Compliance Checklist

Section	Guideline Description	Compliance	Check
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-E-2-a	All openings, including but not limited to doors, balconies, and windows, shall be square or vertical in proportion, excluding windows for first floor Retail and Customer Service or Commercial office uses.	The Dawes street façade features vertically proportioned fenestration. (Refer to elevations on pages 25 - 27)	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-E-2-b	Each horizontal element of a building (base, middle, and top) shall have a fenestration pattern that is aligned vertically and horizontally to provide order and structure to the composition. The fenestration pattern may differ between the base, middle, and top.	The Dawes street façade features vertically & horizontally aligned fenestration. (Refer to elevations on pages 25 - 27)	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.9-D (fenstration)	Fenestration requirements are as follows: Ground Floor; Primary 65% min. Ground Floor; Secondary 50% min. Upper Floors 30% min. - 50% max. Blank Wall 20 feet max.	The Dawes street façade complies with the listed requirements and does not include any blank walls. (Refer to the diagram below)	





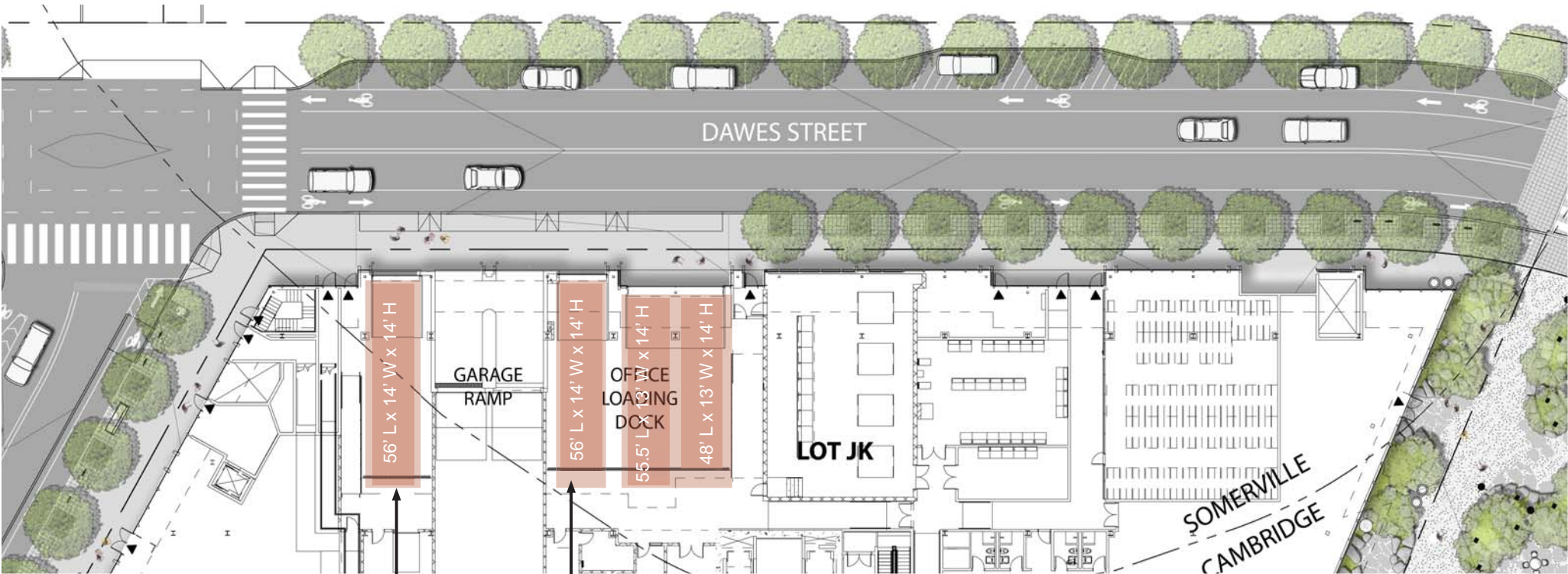
Section	Guideline Description	Compliance	Check																					
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.10-A-1	<p><i>"Development proposals will not be required to provide off-street motor vehicle parking, but may voluntarily elect to provide off-street motor vehicle parking according to Table 6.6.10: Parking Requirements"</i></p> <table><tr><td colspan="3">Table 6.6.10 Parking Requirements</td></tr><tr><td>USE CATEGORY</td><td>MOTOR VEHICLE (Maximum)</td><td>BICYCLE (Minimum)</td></tr><tr><td>Retail & Consumer Service</td><td>.5/1,000 sq. ft.</td><td>1/1,000 sq. ft.</td></tr><tr><td>Commercial Office & R&D and/or Laboratory</td><td>1.25/1,000 sq. ft.</td><td>1/5,000 sq. ft.</td></tr><tr><td>Lodging</td><td>.5/room</td><td>n/a</td></tr><tr><td>Institutional, Religious, and/or Educational</td><td>1/ 4 seats of assembly</td><td>1/5,000 sq. ft.</td></tr><tr><td>Residential</td><td>1/unit</td><td>1 per every 2 units</td></tr></table>	Table 6.6.10 Parking Requirements			USE CATEGORY	MOTOR VEHICLE (Maximum)	BICYCLE (Minimum)	Retail & Consumer Service	.5/1,000 sq. ft.	1/1,000 sq. ft.	Commercial Office & R&D and/or Laboratory	1.25/1,000 sq. ft.	1/5,000 sq. ft.	Lodging	.5/room	n/a	Institutional, Religious, and/or Educational	1/ 4 seats of assembly	1/5,000 sq. ft.	Residential	1/unit	1 per every 2 units	<p>This project includes a total of 15,000 GSF of retail space and 336,000 GSF of Office/Lab space.</p> <p><u>Parking requirements are as outlined below:</u> MIN: 0 (Retail) + 0 (Office/Lab) = 0 TOTAL MAX: 8 (Retail) + 420 (Office/Lab) = 475 TOTAL</p> <p>This project will provide a total of 348 SPACES</p>	
Table 6.6.10 Parking Requirements																								
USE CATEGORY	MOTOR VEHICLE (Maximum)	BICYCLE (Minimum)																						
Retail & Consumer Service	.5/1,000 sq. ft.	1/1,000 sq. ft.																						
Commercial Office & R&D and/or Laboratory	1.25/1,000 sq. ft.	1/5,000 sq. ft.																						
Lodging	.5/room	n/a																						
Institutional, Religious, and/or Educational	1/ 4 seats of assembly	1/5,000 sq. ft.																						
Residential	1/unit	1 per every 2 units																						
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.10-C-1	<p><i>All off-street parking shall be located in underground parking structures, except lots abutting rail-rights of way...</i></p>	All off-street parking spaces are located underground.																						
521 CMR - SECTION 23.2.1	<p><i>301 - 400 Spaces requires a minimum of 8 accessible spaces.</i></p>	This project will provide 9 ACCESSIBLE SPACES																						
521 CMR - SECTION 23.2.2	<p><i>One in every eight accessible spaces, but not less than one shall be van accessible.</i></p>	This project will dedicate 1 of the 9 ACCESSIBLE SPACES for accessible van parking.																						
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 9.2 521 CMR - SECTION 23.4.1 521 CMR - SECTION 23.4.2 ZONING ORDINANCES CITY OF SOMERVILLE SECTION 9.11	<p><i>Accessible Parking: 8'-0" Wide + 5'-0" Access aisle Length equal to local zoning req's</i></p> <p><i>Maneuvering Aisle Width: 20'-0"</i></p> <p><i>61 - 90 Degrees: 9'-0" x 18'-0"</i></p> <p><i>Compact Spaces: 8'-0" x 16'-0" (20% Maximum)</i></p>	<p>Parking spaces which lie wholly within or partially within Somerville comply with the size requirements as outlined in Section 9.11. This project will also provide compact spaces in compliance with Somerville zoning. Parking summary as follows:</p> <table><tr><td>Accessible:</td><td>9</td></tr><tr><td>Somerville Typical:</td><td>93</td></tr><tr><td>Somerville Compact:</td><td>23 (19.8%)</td></tr><tr><td>Cambridge Typical:</td><td>163</td></tr><tr><td>Cambridge Compact:</td><td>60 (27%)</td></tr></table> <p>TOTAL PARKING COUNT: 348</p>	Accessible:	9	Somerville Typical:	93	Somerville Compact:	23 (19.8%)	Cambridge Typical:	163	Cambridge Compact:	60 (27%)												
Accessible:	9																							
Somerville Typical:	93																							
Somerville Compact:	23 (19.8%)																							
Cambridge Typical:	163																							
Cambridge Compact:	60 (27%)																							

Section	Guideline Description	Compliance	Check																		
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.10-B	<p>1. Short term outdoor bicycle racks shall be provided near the main entrances of any retail & consumer service uses as specified on Table 6.6.10: Parking Requirements.</p> <p>2. Sheltered, long-term bicycle parking shall be provided internal to a building for all other use categories as specified on Table 6.6.10: Parking Requirements.</p> <div><p>Table 6.6.10 Parking Requirements</p><table><tr><th>USE CATEGORY</th><th>MOTOR VEHICLE (Maximum)</th><th>BICYCLE (Minimum)</th></tr><tr><td>Retail & Consumer Service</td><td>.5/1,000 sq. ft.</td><td>1/1,000 sq. ft.</td></tr><tr><td>Commercial Office & R&D and/or Laboratory</td><td>1.25/1,000 sq. ft.</td><td>1/5,000 sq. ft.</td></tr><tr><td>Lodging</td><td>.5/room</td><td>n/a</td></tr><tr><td>Institutional, Religious, and/or Educational</td><td>1/ 4 seats of assembly</td><td>1/5,000 sq. ft.</td></tr><tr><td>Residential</td><td>1/unit</td><td>1 per every 2 units</td></tr></table></div>	USE CATEGORY	MOTOR VEHICLE (Maximum)	BICYCLE (Minimum)	Retail & Consumer Service	.5/1,000 sq. ft.	1/1,000 sq. ft.	Commercial Office & R&D and/or Laboratory	1.25/1,000 sq. ft.	1/5,000 sq. ft.	Lodging	.5/room	n/a	Institutional, Religious, and/or Educational	1/ 4 seats of assembly	1/5,000 sq. ft.	Residential	1/unit	1 per every 2 units	<p>This project includes a total of 15,000 GSF of retail space and 336,00 GSF of Office/Lab space.</p> <p><u>Bike Parking requirements are as outlined below:</u></p> <p>RETAIL (Short term) = 15 SPACES</p> <p>OFFICE/LAB (Long Term) = 68 SPACES</p> <p>This project will provide 42 Short-Term Spaces</p> <p>This project will provide 110 Long-Term Spaces</p>	
USE CATEGORY	MOTOR VEHICLE (Maximum)	BICYCLE (Minimum)																			
Retail & Consumer Service	.5/1,000 sq. ft.	1/1,000 sq. ft.																			
Commercial Office & R&D and/or Laboratory	1.25/1,000 sq. ft.	1/5,000 sq. ft.																			
Lodging	.5/room	n/a																			
Institutional, Religious, and/or Educational	1/ 4 seats of assembly	1/5,000 sq. ft.																			
Residential	1/unit	1 per every 2 units																			



Zoning Compliance Checklist

Section	Guideline Description	Compliance	Check
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 9.7	<p><i>"The number of off-street loading bays indicated in the following Table for the corresponding types of uses shall be provide din all zoning districts"</i></p> <p><u>OFFICE / R&D</u></p> <p>(0) <10,000 NFA (1) 10,001 - 100,000 NFA (+1) Per additional 150,000 NFA</p> <p><u>RETAIL - RESTAURANT</u></p> <p>(0) <4,000 NFA (1) 4,001 6,000 NFA (2) 6,001 - 16,000 NFA</p>	<p>This project includes a total of 15,000 NSF of retail space and 336,000 NSF of Office/Lab space.</p> <p>Loading requirements are as outlined below: Retail = 2 TOTAL Lab / Office = 2 TOTAL</p> <p>This project will provide a total of 4 LOADING BAYS</p> <p>(Refer to Loading Dock Diagram below)</p>	
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 9.12	<p><i>All required loading bays shall have min. dimensions as follows:</i></p> <p><i>Length: 30 feet</i> <i>Width: 12 feet</i> <i>Height: 14 feet</i></p>	<p>The following sized loading docks are provided in this project:</p> <p>Loading Bay 1: 56' L x 14' W x 14' H Loading Bay 2: 56' L x 14' W x 14' H Loading Bay 3: 55.5' L x 13' W x 14' H Loading Bay 4: 48' L x 13' W x 14' H</p>	

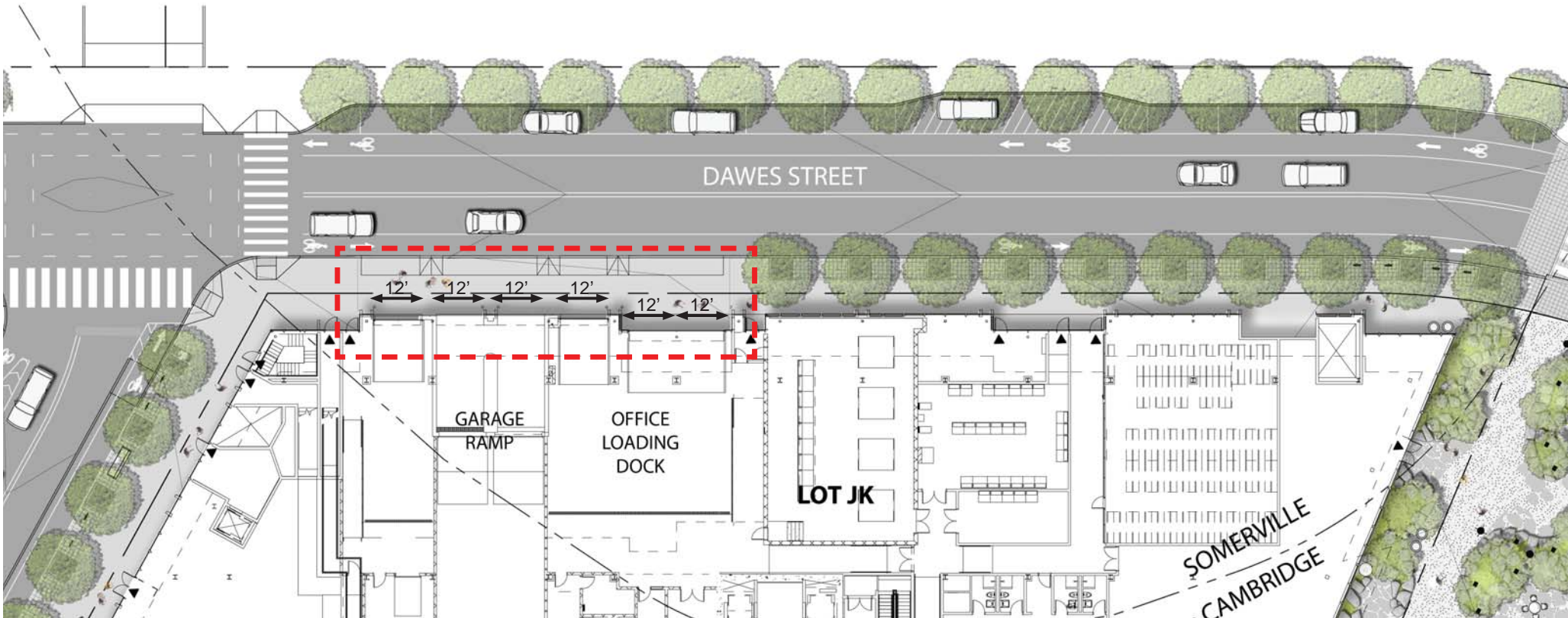


Zoning Compliance Checklist

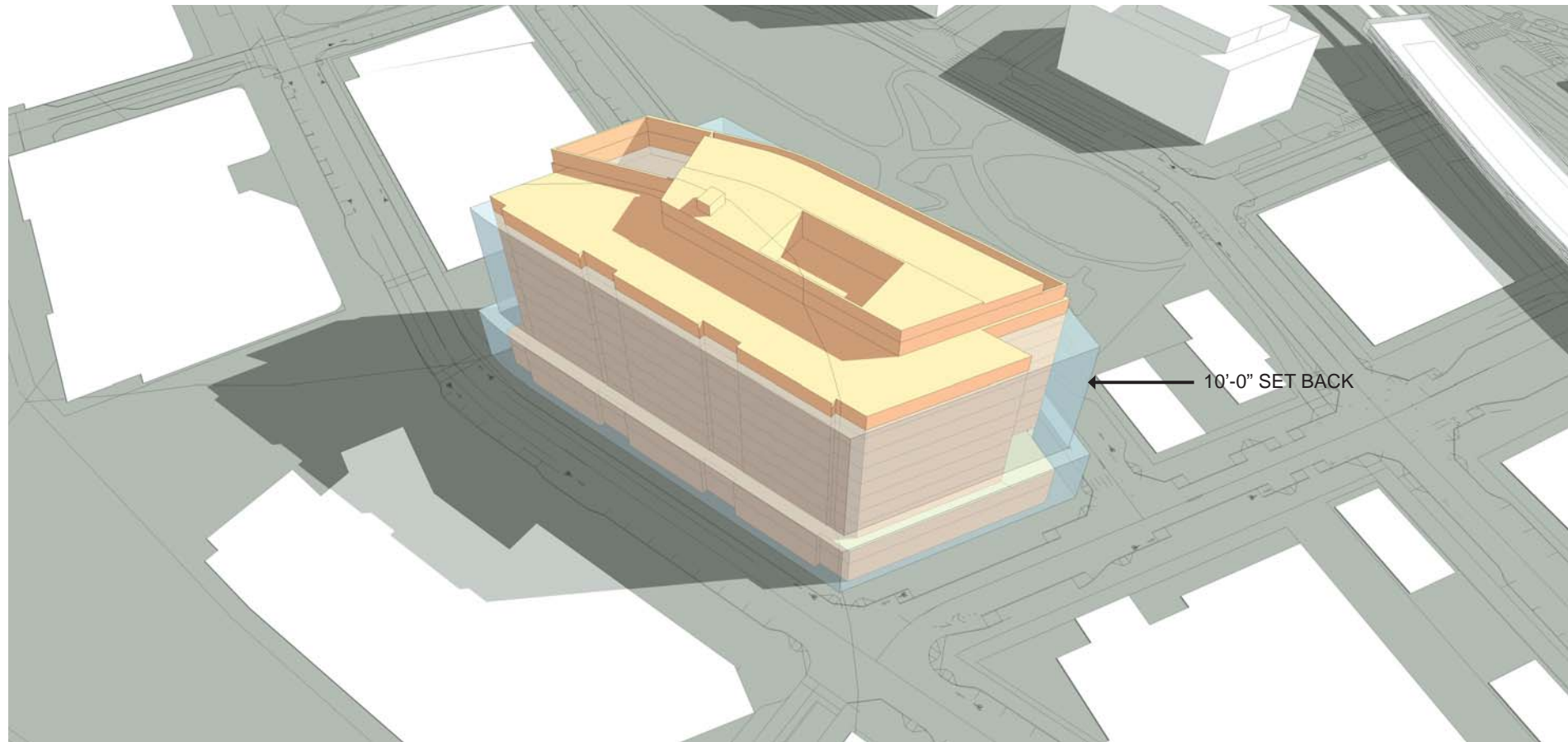
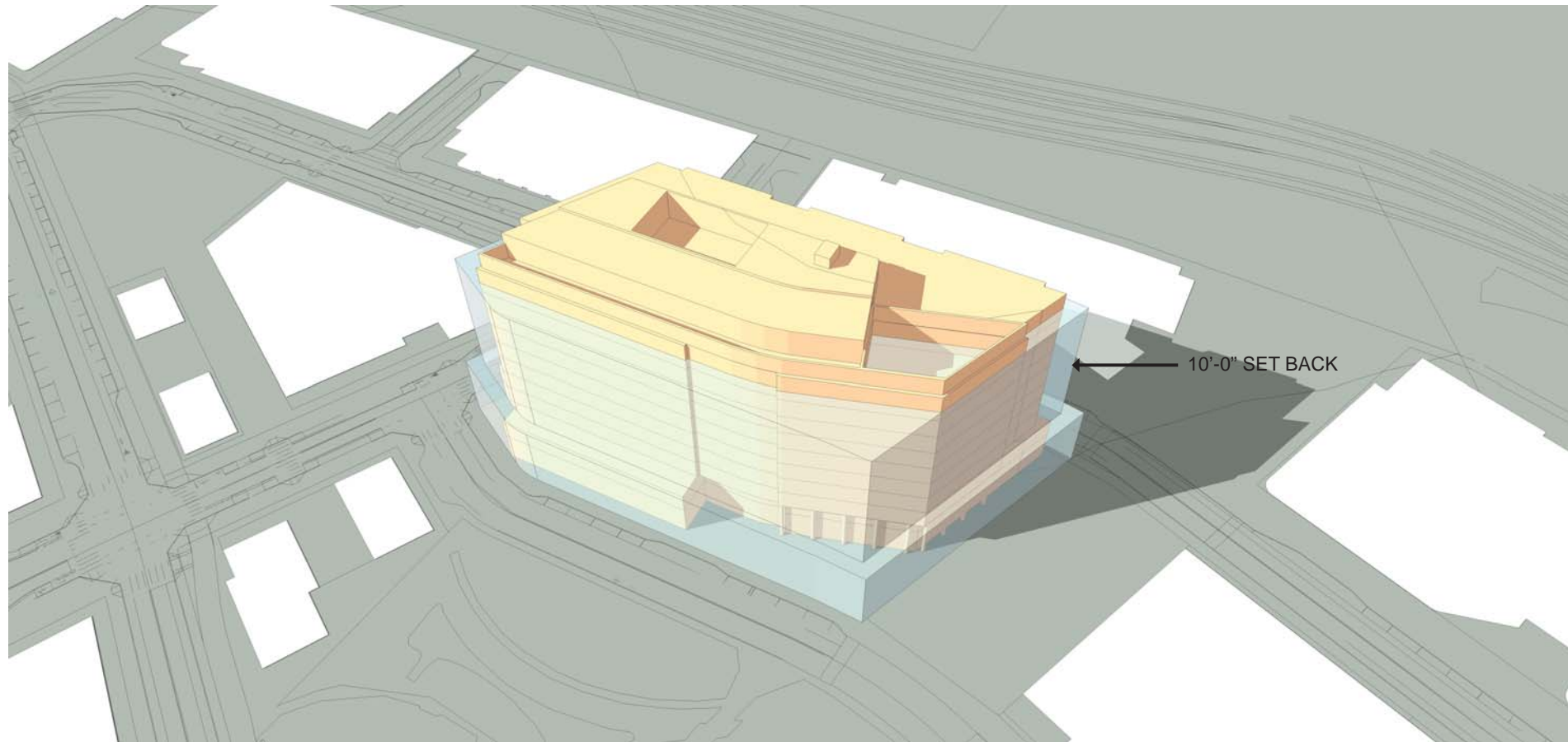
(1) LOADING DOCK DEDICATED TO FOOD DELIVERIES FOR RESTAURANT TENANTS

(3) LOADING DOCKS FOR OFFICE/ LAB TENANTS AND NON-FOOD CONTAINING RETAIL DELIVERIES

Section	Guideline Description	Compliance	Check
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.10-E-2	"Vehicular entrances to parking lots or parking structures shall not be permitted along any primary front lot line."	The entrance to the below grade parking has been located along Dawes street which is not the building's primary front lot line.	✓
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.10-E-3	"Vehicular entrances to parking lots, parking structures, loading docks, and service areas shall be no wider than 24 feet along any front lot line."	All entrances to loading docks and to the below grade parking are 12'-0" wide. (Refer to Loading Dock Diagram below)	✓
ZONING ORDINANCES CITY OF SOMERVILLE SECTION 6.6.10-G-1	Loading docks & service areas including trash removal shall not be permitted along front lot lines except by special permit.	Because all sides of the project's lot are considered either primary or secondary front lot lines, this project has submitted for a special permit to allow the loading docks located along Dawes Street.	✓



Zoning Compliance Checklist



Masterplan Building Envelop Setback Diagram



Memorandum

To: Mr. Kevin Prior, Chair
Somerville Planning Board
City Hall
93 Highland Avenue
Somerville, MA 02143

Date: November 3, 2016

Project #: 13369.00

From: Susan Sloan-Rossiter, Principal
Meghan Houdlette, P.E.
VHB

Re: NorthPoint Transportation Analysis for Parcel JK

Introduction

The NorthPoint Development, located in Somerville, Cambridge, and Boston Massachusetts along the northeast side of O'Brien Highway has a long history of transportation planning and engineering with permitting documents spanning back to 2002. A Transportation Impact Study (TIS) for the NorthPoint project was submitted to the City of Cambridge as part of the Special Permit process which was certified by the City in 2002. Additionally, a Neighborhood Development Plan Transportation Memo was submitted to the City of Somerville on September 23, 2016. The Parcel JK Design and Site Plan Review (DSR) Application is consistent with the program and transportation analysis presented in the updated and approved Somerville Neighborhood Development Plan as described below.

Parcel JK Program

The DSR application proposes a 370,000 sf lab building including 14,550 sf of ground floor retail on Parcel JK as shown in Table 1. The building will be supported by 347 parking spaces.

Table 1 - NorthPoint Program Parcel JK

Program	2016 Master Plan Program (GSF)
Lab	355,450
<u>Retail</u>	<u>14,550</u>
Total	370,000

Consistency with Approved Development Program for NorthPoint

Table 2 compares the original NorthPoint development program studied as part of the certified TIS to the 2016 approved NorthPoint Master Plan presented in the Somerville Neighborhood Development Plan. Three NorthPoint residential buildings have been constructed to date totaling 739,992 sf of residential and 8,600 sf of retail. The 2016 NorthPoint Master Plan includes a total of 5,245,854 sf of mixed use, therefore, the proposed Parcel JK at 370,000 sf falls within the remaining program of 4,497,262 sf.

Table 2 – Full Build Program Comparison

Full Build Program	2002 TIS (GSF)	2016 Master Plan Program (GSF)	Constructed to Date¹	Remaining to Build
Commercial Office, R&D, Lab ²	2,140,000	1,785,000	0	1,785,000
Retail and Consumer Service	75,000	300,000	8,600	291,400
Lodging	90,000 (90 keys)	100,062 (100 keys)	0	100,062 (100 keys)
<u>Residential</u>	<u>3,235,000</u> <u>(2,790 units)</u>	<u>3,060,792 (3,177 units)</u>	<u>739,992</u>	<u>2,320,800</u>
Total	5,540,000	5,245,854	748,592	4,497,262

¹ Residential Buildings on Parcels S, T, and N have been constructed as of October, 2016

² Commercial Office, R&D and/or Laboratory or a combination of these uses

Trip Generation Analysis

Table 3 presents the peak hour vehicle trips for the Full Build Program under the original TIS, the approved 2016 Master Plan and what has been constructed to date. Parcel JK is expected to generate approximately 162 and 205 vehicle trips during the morning and evening peak hour which is within the permitted remaining 1,324 and 1,624 vehicle trips during the morning and evening peak hours respectively. A more detailed description of the trip generation methodology is presented in the attached Somerville Neighborhood Development Plan Transportation Memo.

Table 3 - Comparison of Vehicle Trip Generation

<i>Full Build</i>	Daily	Total Vehicle-Trips					
		AM			PM		
		In	Out	Total	In	Out	Total
2002 TIS	16,013	944	751	1,695	736	1,105	1,841
2016 Master Plan	15,980	873	563	1,436	697	1,053	1,750
Constructed to Date ¹	1,375	25	87	112	80	46	126
Remaining Trips (Master Plan - Constructed to Date)	14,605	848	476	1,324	617	1,007	1,624
Parcel JK	1,692	134	28	162	57	148	205

¹ Residential Buildings on Parcels S, T, and N have been constructed as of October, 2016

Conclusion

As discussed, the results of the trip generation analysis demonstrate that the 2016 Master Plan development program does not exceed the trip generation threshold of 16,013 daily vehicle trips, 1,695 AM peak hour vehicle trips and 1,841 PM peak hour vehicle trips as presented in the NorthPoint TIS certified by the City of Cambridge Traffic and Parking Department dated November 14, 2002. The proposed Parcel JK is consistent with the approved 2016 Master Plan program. Parcel JK is expected to generate approximately 1,692 daily vehicle trips, 162 total morning peak hour vehicle trips and 205 total evening peak hour vehicle trips which is consistent with the permitted threshold for the entire development.



CITY OF SOMERVILLE

MASSACHUSETTS

Joseph A. Curtatone, Mayor

Office of Strategic Planning and Community Development (OSPCD)
City Hall 3rd Floor, 93 Highland Avenue, Somerville, MA 02143
(617) 625-6600 ext. 2500

MEASURING PEDESTRIAN LEVEL WIND IMPACTS

Wind analysis shall determine the suitability of particular locations for various activities (e.g., walking, sitting, standing, etc.) as indicated on Table 1. Mean wind speed and effective gust velocity should not be exceeded more than one percent of the time without mitigation.

1. Analysis shall be conducted for the annual and seasonal wind climates individually, based on long term meteorological data recorded at Boston's Logan International Airport.
2. Analysis shall be conducted for build and no build conditions at locations determined by the Planning Director.
3. Wind speeds shall be measured and labeled in miles per hour.
4. Estimated wind comfort of various locations shall be graphically depicted. Data results may be submitted in an appendix to any design and site plan submittal package but shall be provided.
5. Maps of the project site overlaid with a wind rose (an illustration of the directional distribution of winds) for the annual and seasonal wind climates shall be included. Maps shall be oriented with North at the top. Examples are shown in Figure 1.

Table 1 Wind Suitability Criteria

MEAN WIND SPEED FOR VARIOUS ACTIVITIES†

	Wind Speed
Sitting (outdoor cafes, benches, etc.)	12 mph
Standing (bus stops, building entrances, etc.)	15 mph
Walking Sidewalks and other pedestrian walkways	19 mph

EFFECTIVE GUST VELOCITY‡

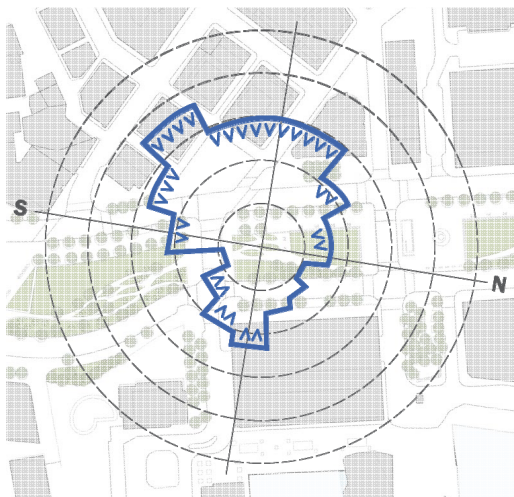
	Wind Speed
All activities	31 mph

† 1-hour mean wind speed exceeded 1% of the time (i.e., the 99-percentile mean wind speed)

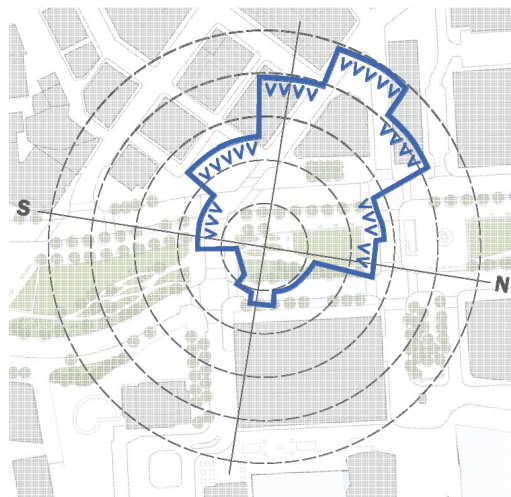
‡ hourly mean wind speed +1.5 times the root-mean-square wind speed

Figure 1 Wind Rose Locus Maps

Summer Directional Distribution Example



Winter Directional Distribution Example



FIGURES



Wind Tunnel Study Model No Build

Parcel JK - Northpoint – Cambridge, MA

Figure No. 1a

Project #1700383

Date: November 1, 2016





Wind Tunnel Study Model Full Build

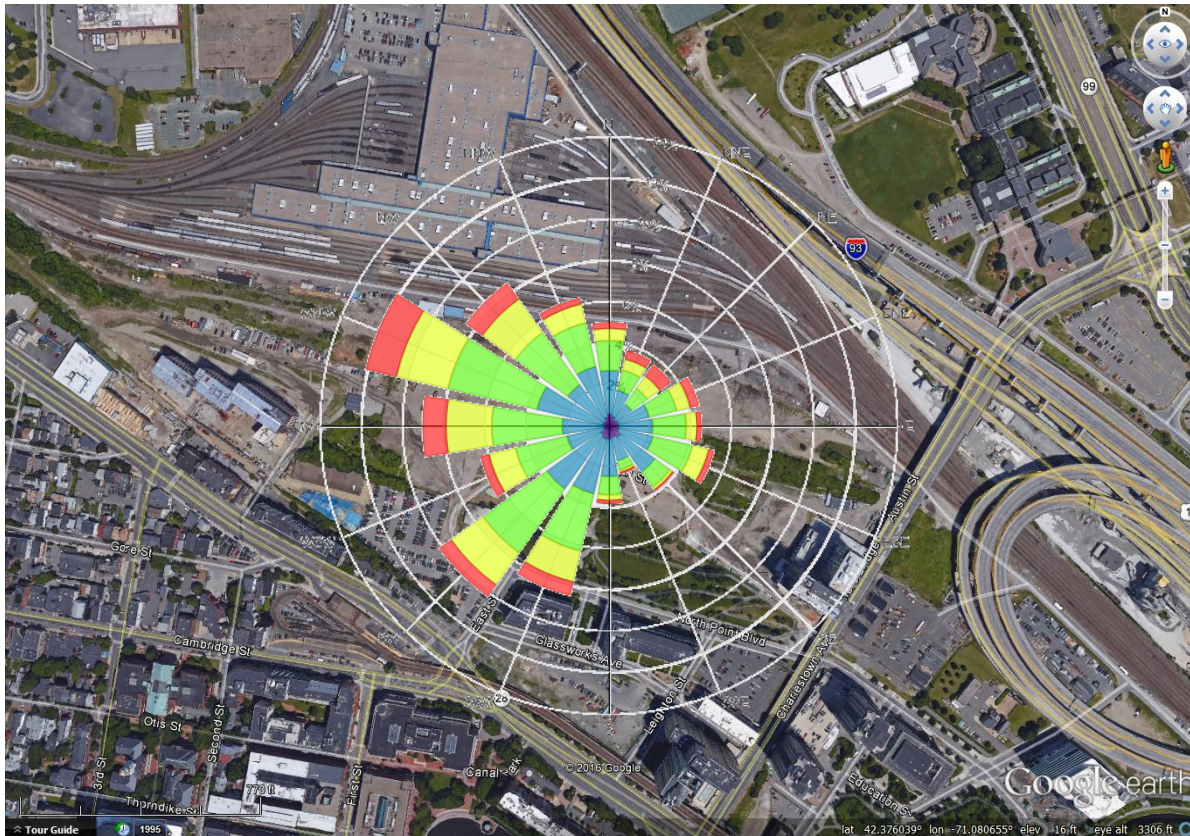
Parcel JK – Northpoint Site – Cambridge, MA

Figure No. 1b

Date: November 1, 2016

Project #1601311





Wind Speed (mph)	Probability (%)
Calm	2.5
1-5	7.4
6-10	32.1
11-15	33.0
16-20	16.9
>20	8.1

Annual Winds

**Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1991 - 2015)**

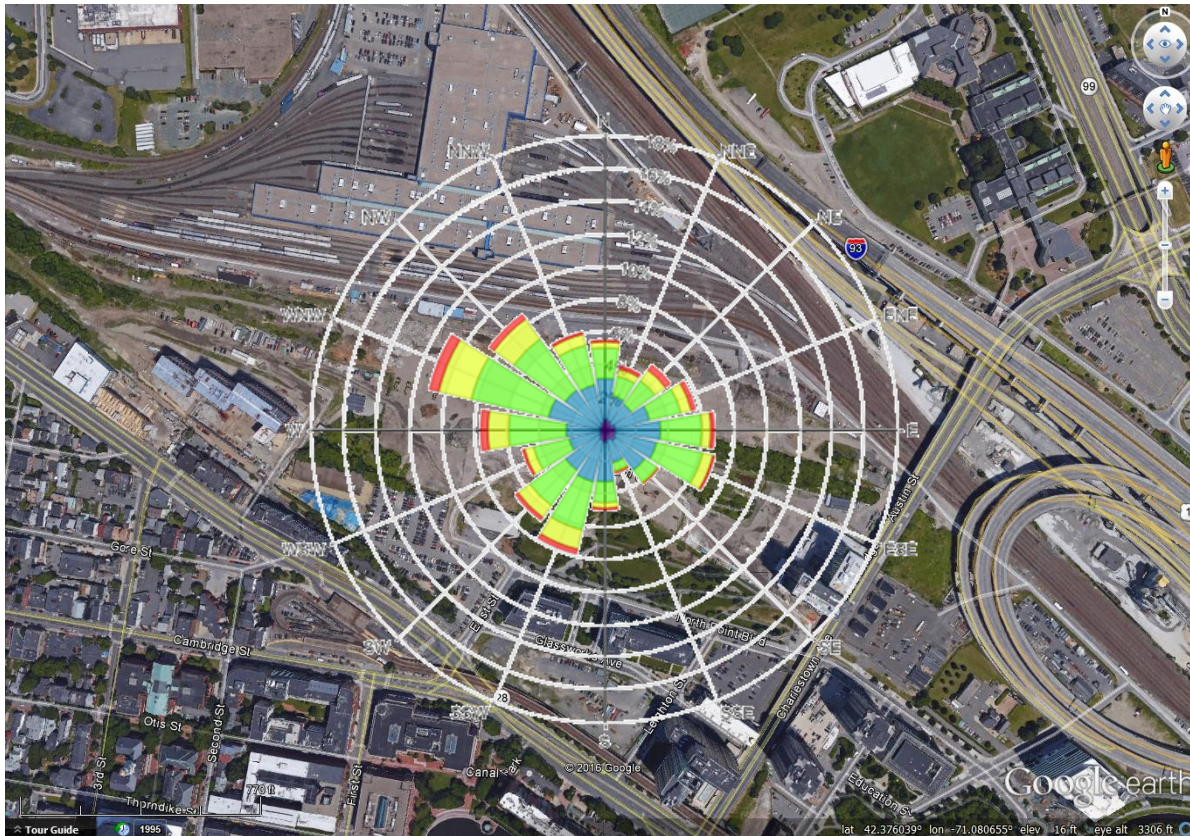
Parcel JK - Northpoint – Cambridge, MA

Figure No. 2

Project #1700383

Date: November 01, 2016





Wind Speed (km/h)		Probability (%) Spring
Calm		1.4
1-10		8.8
11-20		36.5
21-30		37.7
31-40		12.2
>40		3.4

Spring
(March – May)

**Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1991 - 2015)**

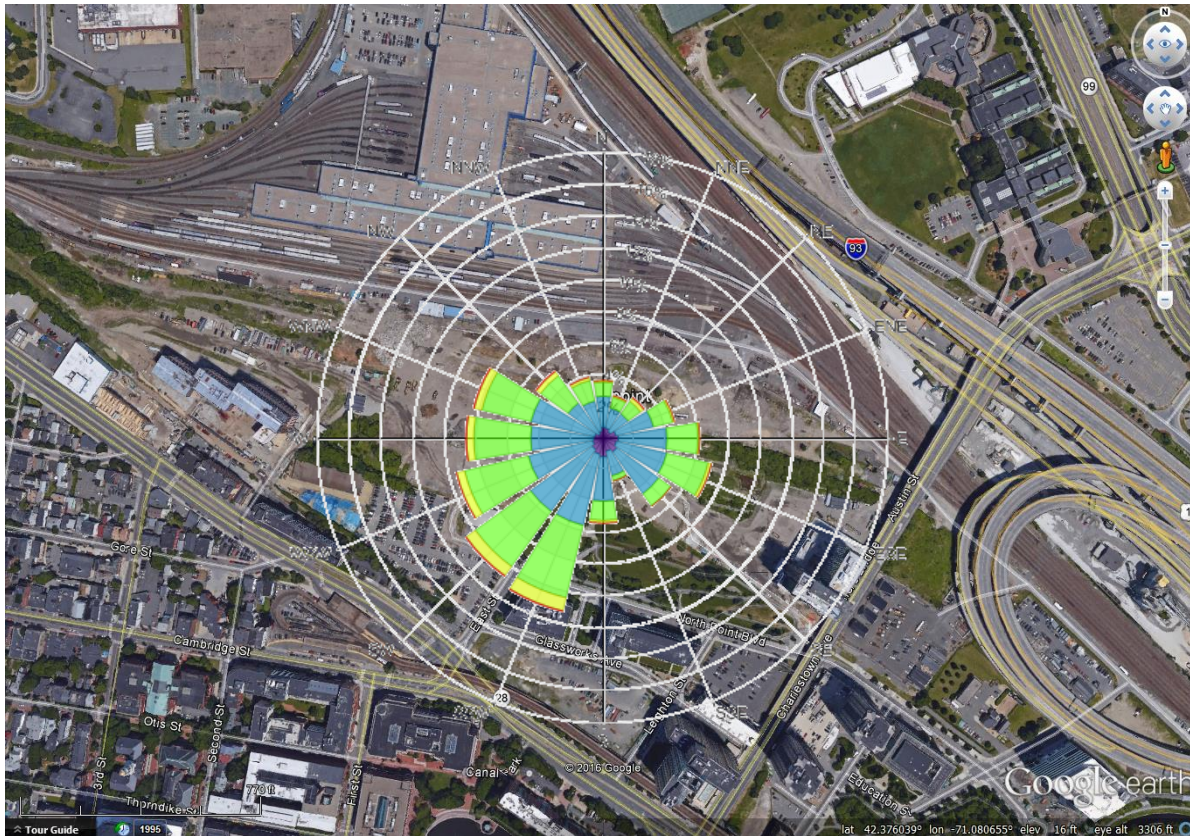
Parcel JK - Northpoint – Cambridge, MA

Figure No. 2

Project #1700383

Date: November 01, 2016





	Wind Speed (km/h)	Probability (%) Summer
	Calm	1.4
	1-10	12.1
	11-20	47.1
	21-30	34.3
	31-40	4.7
	>40	0.4

Summer
(June – August)

**Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1991 - 2015)**

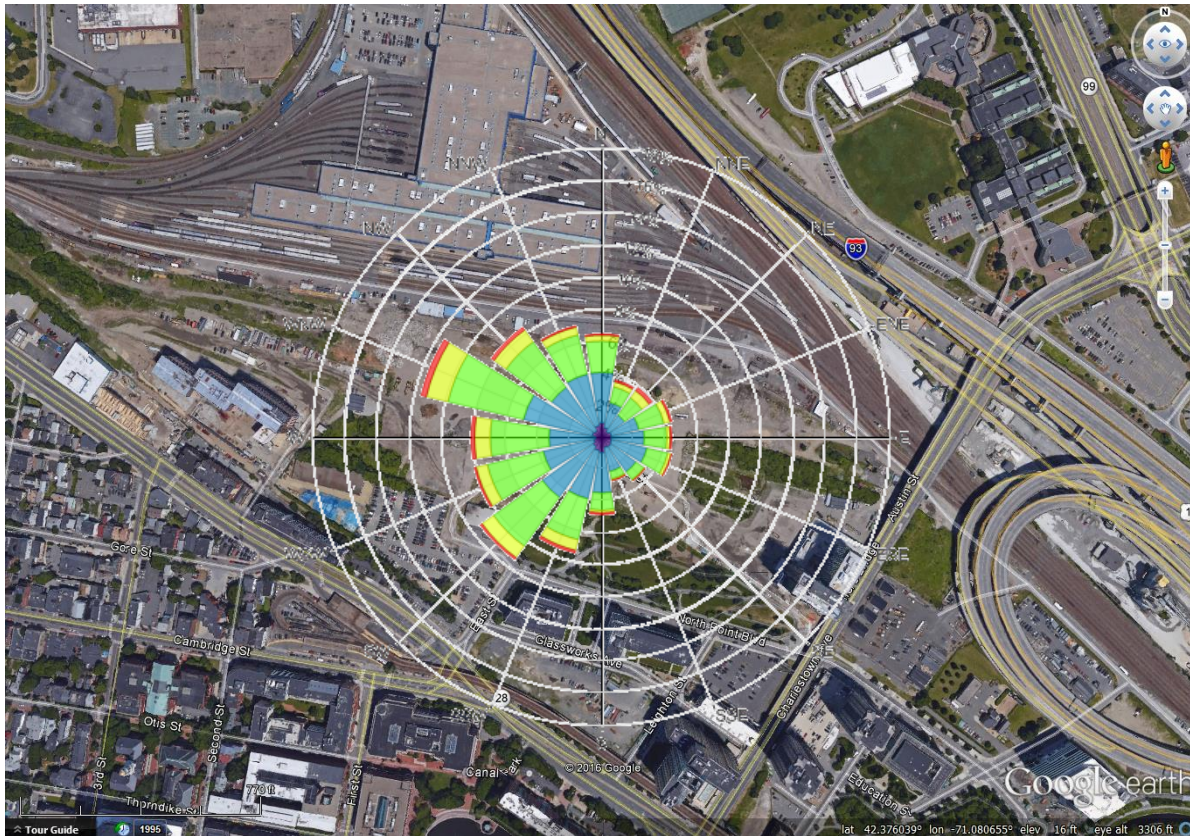
Parcel JK - Northpoint – Cambridge, MA

Figure No. 2

Project #1700383

Date: November 01, 2016





Wind Speed (km/h)		Probability (%)
Calm		1.5
1-10		10.4
11-20		42.2
21-30		35.4
31-40		8.4
>40		2.1

Fall
(September – November)

**Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1991 - 2015)**

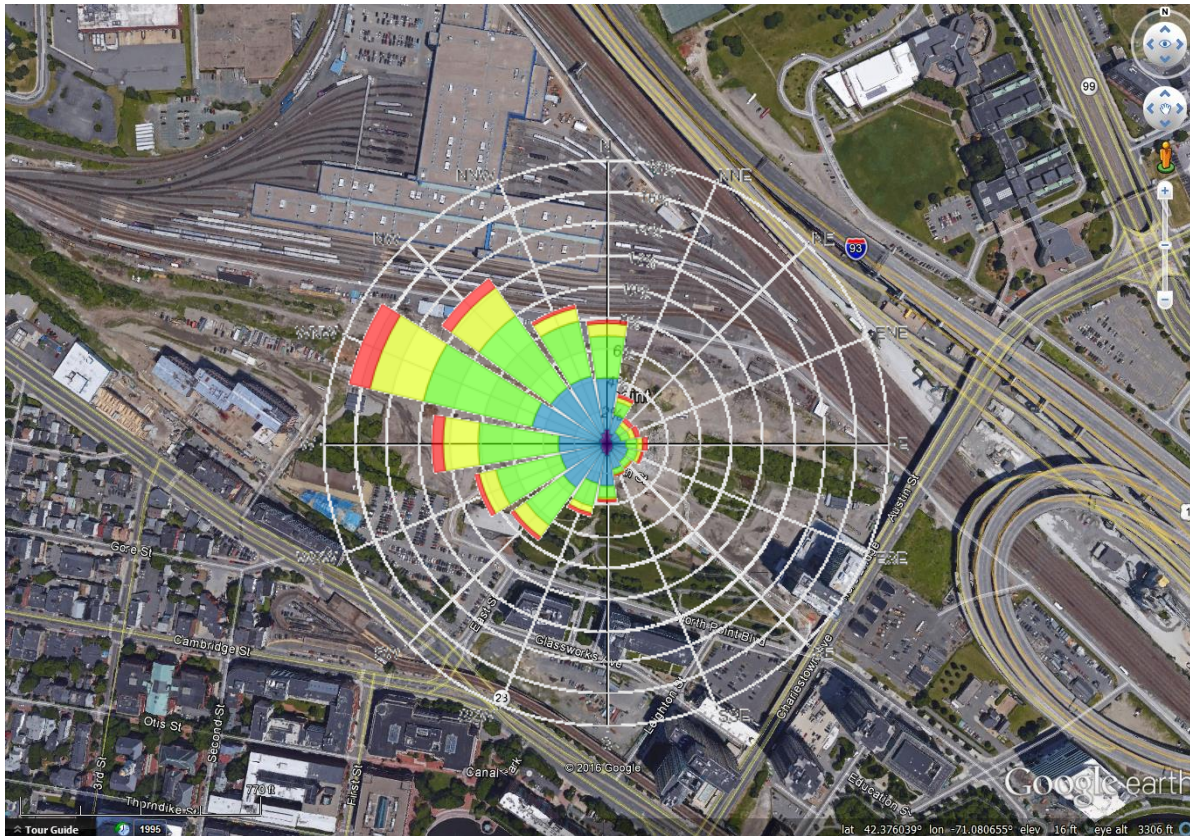
Parcel JK - Northpoint – Cambridge, MA

Figure No. 2

Project #1700383

Date: November 01, 2016





Wind Speed (km/h)	Probability (%) Winter
Calm	1.2
1-10	8.4
11-20	33.7
21-30	37.7
31-40	13.9
>40	5.1

Winter
(December – February)

**Directional Distribution (%) of Winds (Blowing From)
Boston Logan International Airport (1991 - 2015)**

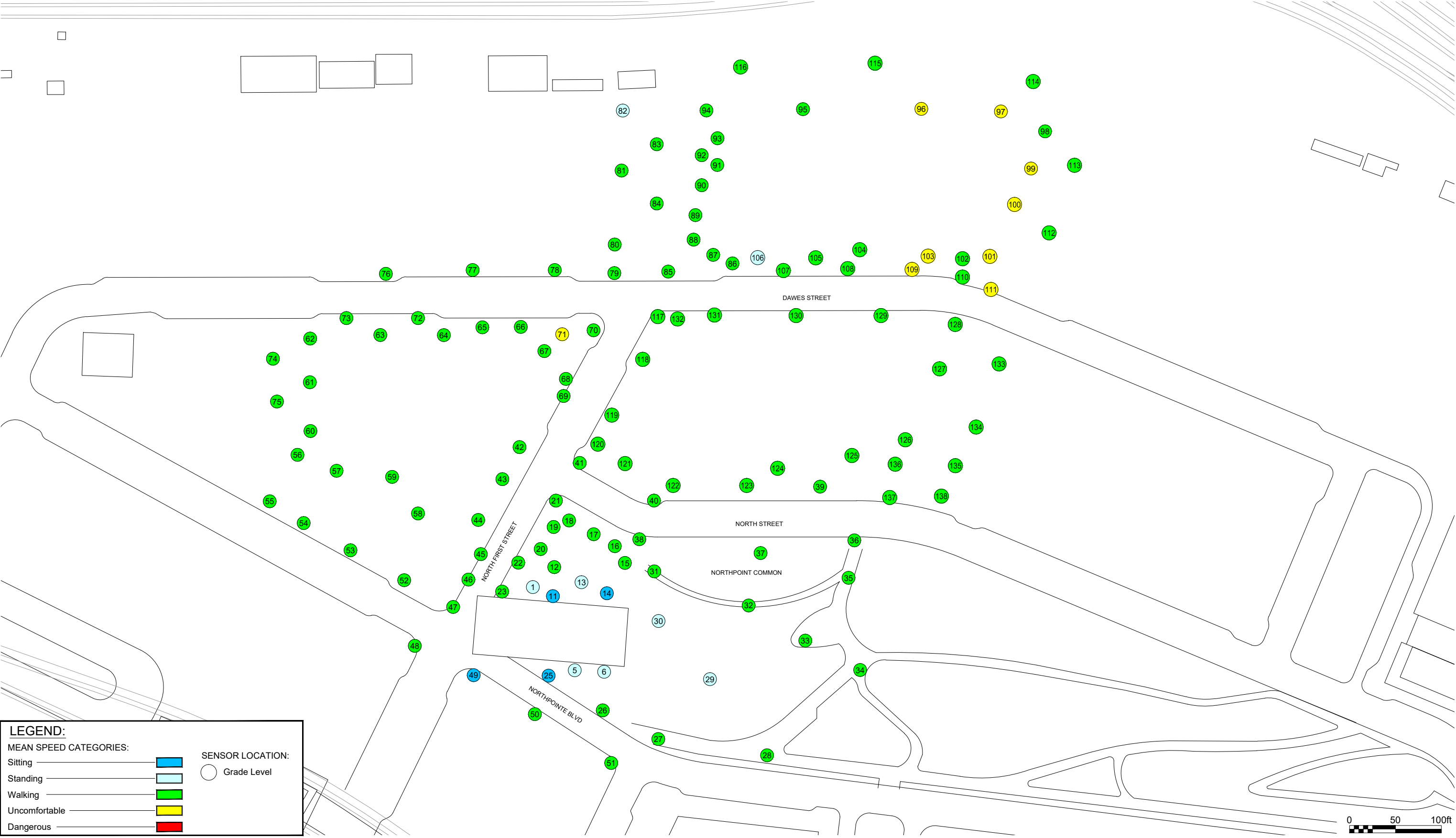
Parcel JK - Northpoint – Cambridge, MA

Project #1700383

Figure No. 2

Date: November 01, 2016



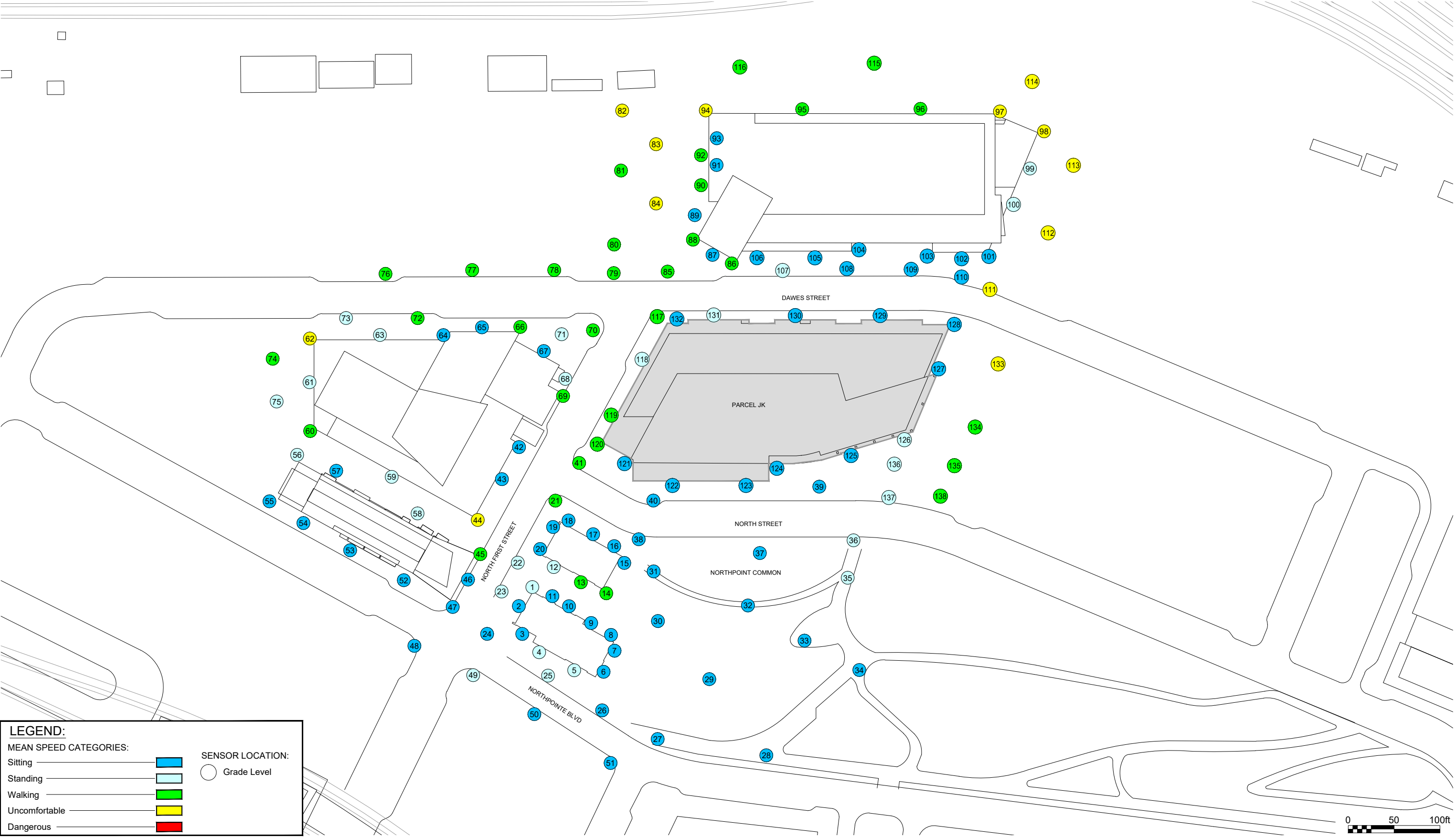


Pedestrian Wind Conditions - Mean Speed - No Build
Annual (January to December)

Parcel JK - Northpoint Site – Cambridge, MA

True North

Drawn by: ck	Fig: 3a
Approx. Scale: 1"=100'	
Date Revised: Nov. 1, 2016	



LEGEND:

MEAN SPEED CATEGORIES:

Sitting	Blue
Standing	Light Blue
Walking	Green
Uncomfortable	Yellow
Dangerous	Red

SENSOR LOCATION:

Grade Level	Circle
-------------	--------

Pedestrian Wind Conditions - Mean Speed - Full Build
Annual (January to December)

Parcel JK - Northpoint - Cambridge, MA

True North

Drawn by: ck	Fig: 3b
Approx. Scale: 1"=100'	
Date Revised: Nov. 1, 2016	

0 50 100ft



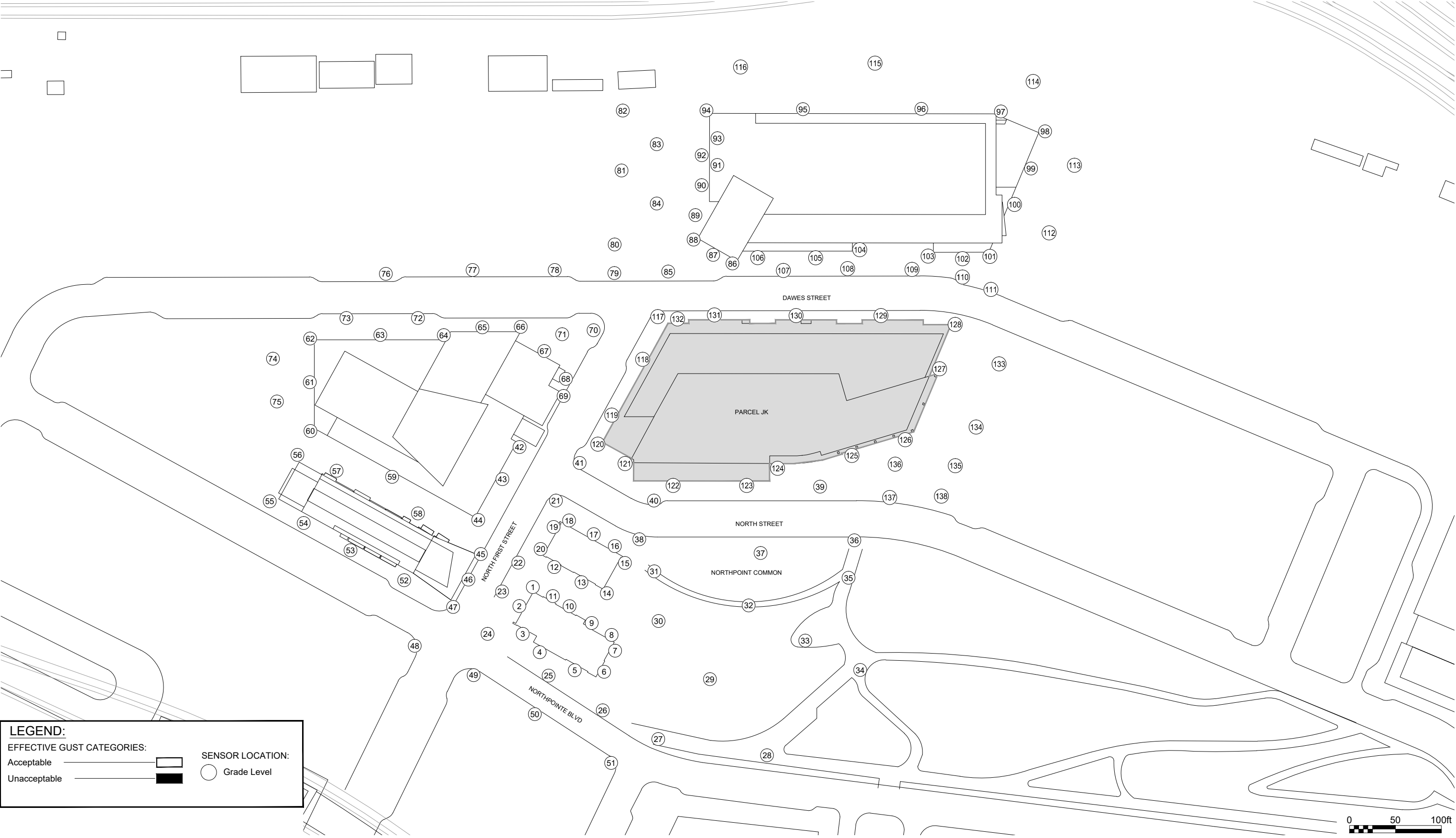
Pedestrian Wind Conditions - Effective Gust Speed - No Build
Annual (January to December)

Parcel JK - Northpoint – Cambridge, MA

True North


Drawn by: ck	Fig: 4a
Approx. Scale: 1"=100'	
Date Revised: Nov. 1, 2016	







LEGEND:

EFFECTIVE GUST CATEGORIES:

Acceptable 


Unacceptable 

SENSOR LOCATION:

 Grade Level


Pedestrian Wind Conditions - Effective Gust Speed -Full Build
Annual (January to December)

Parcel JK - Northpoint – Cambridge, MA

True North 

Project #1601311

Drawn by: ck	Fig: 4b
Approx. Scale: 1"=100'	
Date Revised: Nov. 1, 2016	





CONSULTING ENGINEERS
& SCIENTISTS

Tel: 519.823.1311
Fax: 519.823.1316

Rowan Williams Davies & Irwin Inc.
600 Southgate Drive
Guelph, Ontario, Canada
N1G 4P6



November 1, 2016

Eric Hollenberg
Jacobs
One Broadway- 10th Floor
Cambridge, MA 02142
eric.hollenberg@jacobs.com

Michael Haskovec
Jacobs
Michael.Haskovec@jacobs.com

Re: **Exhaust Re-Entrainment Assessment**
Parcel JK – Northpoint Site
RWDI Reference No. 1601311

Dear Michael and Eric,

We have completed our exhaust re-entrainment assessment and have prepared the following summary in advance of our final report.

Proposed Manifolded Laboratory Fume Hood Exhausts (Sources F1-F16)

- The exhausts were assessed at 10 ft stack height above the roof deck.
- The recommended 3,000:1 dilution criterion was met at all receptors assessed for operation at full load (~36,000 cfm) and turndown to 50% (~18,000 cfm).
- No design modifications are recommended.

Proposed 1,500 kW Emergency Diesel Generator (Source G1)

- Our assessment was conducted based on a single 1,500 kW emergency diesel generator. A second natural gas unit of the same capacity will be located next to the diesel. Due to the low emissions expected from the gas generator, its contribution will be relatively small and will not significantly change the overall conclusions presented below.
- Baseline testing was performed for a stack height of 10 ft above the roof deck.
- The health-based dilution criterion was met (both diesel and gas) with the proposed stack height.

This document is intended for the sole use of the party to whom it is addressed and may contain information that is privileged and/or confidential. If you have received this in error, please notify us immediately.

© RWDI name and logo are registered trademarks in Canada and the United States of America



CONSULTING ENGINEERS
& SCIENTISTS

- Odor impacts were predicted at most receptors assessed. Frequency of winds causing dilution levels below odor detection was predicted up to 2% of the time at on-site receptors (receptors R1-R3) and up to 26% of the time at off-site receptors (receptors R4-R12). Odor impacts are not a concern for the gas generator.
- Several mitigation options exist to reduce the odor impacts to surrounding buildings, including increasing the stack height, and/or implementing the odor control technology. We would like to discuss the level of risk for odors, its implications, and the mitigation options with you primarily since off-site receptors are merely representative.

Proposed Specialty Exhaust at Two Locations (Sources S1-S2)

- Proposed specialty exhausts were assessed at two locations (sources S1 and S2 in Figure 1).
- Baseline testing was conducted for a stack height of 10 ft above PH2 for the S1 location and 10 ft above the roof deck for the S2 location.
- A worst-case atmospheric dilution (e.g., not including internal dilution) of 335:1 was predicted for the S1 location and 500:1 for the S2 location.
- To provide some context:
 - If the sources are biosafety cabinets with internal dilution, a recommended criterion of 1,000:1 would be met on-site and off-site (both S1 and S2).
 - If the sources are kitchen exhausts, a recommended dilution criterion of 600:1 would be recommended. The target would not be met at Parcel I's representative receptors (R11-R12) for the S1 location, or at Parcel CD's representative receptors (R9-R10) for the S2 location. However, the probability of winds causing dilutions less than 600:1 occur only 1% or less for both locations. The target would be met on-site from either stack location.
 - If these stacks serve standard fume hood exhausts with internal dilution, the recommended 3000:1 criterion would be met on-site. The criterion would not be met at some off-site receptors but the frequency of winds resulting in this criterion not being met was found to be 1% of the time or less for both locations.
- Increasing the height of S1 (flush with the roof deck) improves the worst-case dilution from 335:1 to 460:1, approximately the same results as S2.



CONSULTING ENGINEERS
& SCIENTISTS

Exhaust Re-Entrainment Assessment
Parcel JK
RWDI#1601311
November 1, 2016

Page 2

Yours very truly,

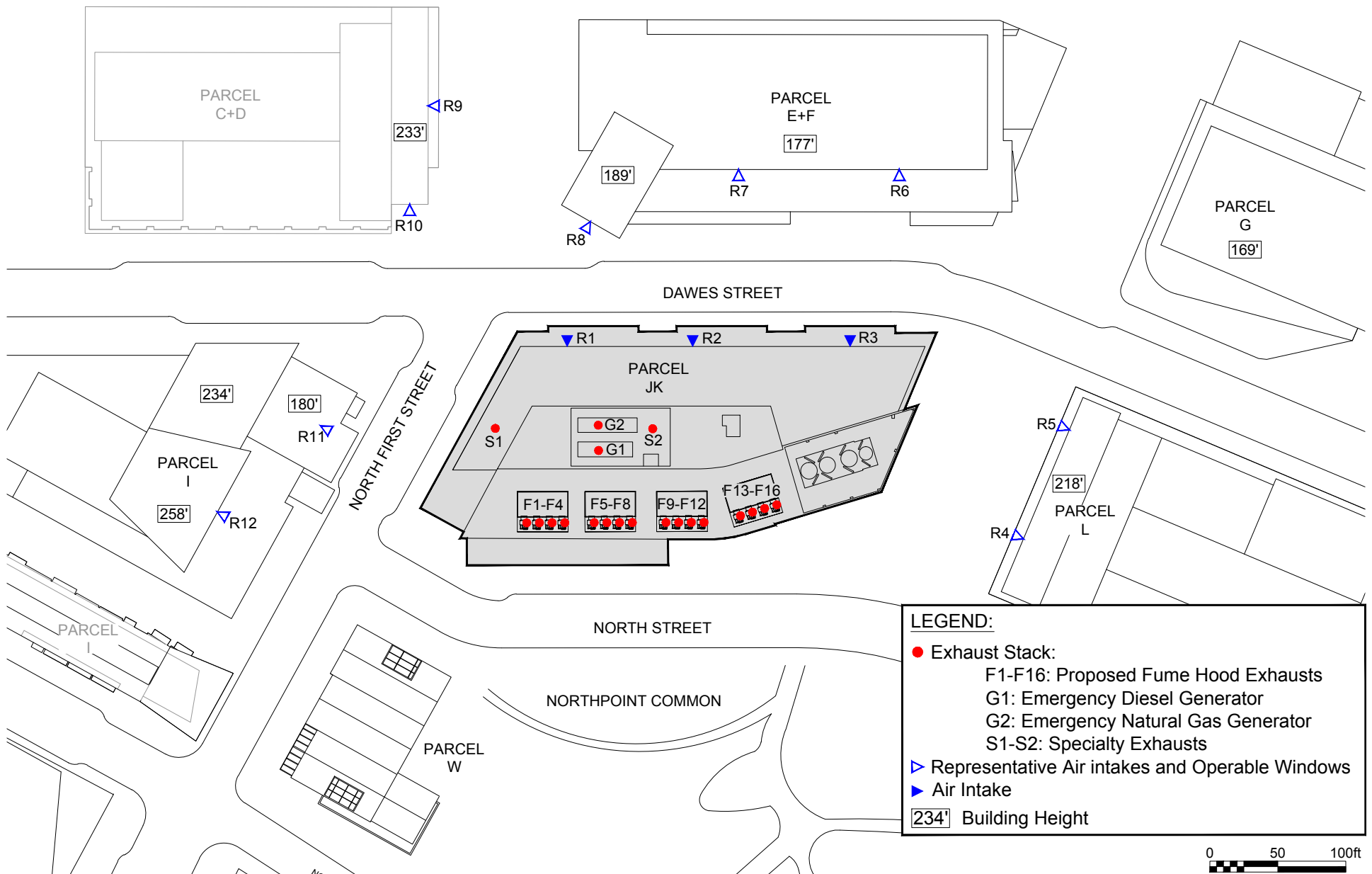
ROWAN WILLIAMS DAVIES & IRWIN Inc.

Javad Esmaeelpanah, M.A.Sc.
Project Coordinator

Martin Stangl, P.Eng.
Senior Engineer, Associate

Sonia Beaulieu, M.Sc., P.Eng., ing.
Senior Project Manager / Principal

FIGURES



LEGEND:

- Exhaust Stack:
 - F1-F16: Proposed Fume Hood Exhausts
 - G1: Emergency Diesel Generator
 - G2: Emergency Natural Gas Generator
 - S1-S2: Specialty Exhausts
- ▶ Representative Air intakes and Operable Windows
- ▶ Air Intake
- [234'] Building Height



<p>Location of Exhaust Sources and Receptors</p> <p>Parcels JK - Northpoint Site - Cambridge, MA</p>		<p>True North</p>	<p>Drawn by: ck</p>	<p>Figure: 1</p>	
			<p>Approx. Scale: 1"=100'</p>		
<p>Project #1601311</p>		<p>Date Revised: Sept. 28, 2016</p>			



CONSULTING ENGINEERS
& SCIENTISTS

Tel: 519.823.1311
Fax: 519.823.1316

Rowan Williams Davies & Irwin Inc.
650 Woodlawn Road West
Guelph, Ontario, Canada
N1K 1B8

Parcels J+K – Northpoint Site Cambridge, MA

Final Report

Exhaust Re-entrainment Study

RWDI # 1601311
June 29, 2016

SUBMITTED TO

**Eric Hollenberg
Jacobs**

Cambridge Global Buildings Design
One Broadway – 10th Floor
Cambridge, MA 02142
eric.hollenberg@jacobs.com

SUBMITTED BY

Javad Esmaeelpanah, M.A.Sc.
Project Coordinator
Javad.Esmaeelpanah@rwdi.com

Martin Stangl, P.Eng
Senior Engineer, Associate
Martin.Stangl@rwdi.com

Ray Sinclair, PhD
Technical Director / Principal
Ray.Sinclair@rwdi.com

Sonia Beaulieu, M.Sc., P.Eng., ing.
Senior Project Manager / Principal
Sonia.Beaulieu@rwdi.com

This document is intended for the sole use of the party to whom it is addressed and may contain information that is privileged and/or confidential. If you have received this in error, please notify us immediately.

© RWDI name and logo are registered trademarks in Canada and the United States of America



CONSULTING ENGINEERS
& SCIENTISTS

Parcels J+K – Northpoint Site
Exhaust Re-Entrainment Study
RWDI#1601311
June 29, 2016

TABLE OF CONTENTS

1. INTRODUCTION.....	1
2. SUMMARY OF FINDINGS	1
3. METHODOLOGY.....	2
4. DESIGN CRITERIA	4
5. RESULTS.....	4
5.1 Proposed 4-cell 10,000 GPM Cooling Tower (Sources C1-C4)	4
5.2 Proposed Manifolded Laboratory Fume Hood Exhausts (Sources F1-F12).....	5
5.3 Proposed 2,000 kW Emergency Generator (Locations G1; G2; and G3)	7
5.4 Representative Specialty Exhaust (Source S)	10

Tables

Table 1:	Summary of Modeling Results for Proposed 4-cell Cooling Tower (Sources C1-C4)
Table 2:	Summary of Modeling Results for Proposed Manifolded Laboratory Fume Hood Exhausts Under 50% load (Sources F1-F12)
Table 3:	Summary of Modeling Results for Representative Specialty Exhaust (Source S)

Figures

Figure 1:	Location of Exhaust Sources and Receptors
-----------	---

Appendices

Appendix A:	Wind Tunnel Methodology and Wind Climate
Appendix B:	List of the Drawings
Appendix C:	Summary of Exhaust Sources and Receptors
Appendix D:	Dilution Criteria
Appendix E:	Estimating Chemical Emissions from Fume Hoods
Appendix F:	Dilution Criteria and Chemical Handling Protocols for Laboratory Fume Hood Exhaust Stacks

1. INTRODUCTION

Rowan Williams Davies & Irwin Inc. (RWDI) was retained by Jacobs to conduct an exhaust re-entrainment assessment for the proposed Parcel J+K at the Northpoint site in Cambridge, MA. Parcel J+K consists of a 10-storey tower that extends 189 ft above grade and a two-storey podium.

This final report presents the methodology, criteria, results and recommendations from RWDI's assessment. A summary of the overall recommendations from the study are presented below.

The purpose of this study was to evaluate the potential for undesirable re-entrainment from proposed exhaust sources on the J+K building at both the building's own air intakes and representative receptors (e.g., air intakes, operable windows, terraces) of future surrounding buildings. This objective was achieved through wind tunnel testing of a 1:300 scale model of the proposed development with existing, approved and in-construction surroundings.

2. SUMMARY OF FINDINGS

The results of our assessment for the proposed Parcels J+K – Northpoint Site are discussed in detail in Section 5 of this report and may be summarized as follows:

- No design modifications are recommended for the cooling towers.
- No design modifications are recommended for the proposed fume hoods for the 105,000 cfm exhaust flow rate per stack at both 100% and 50% of capacity; however, the stacks should extend at least 10 ft above the roof. We do not recommend that the flow rates be reduced below 50% of capacity for any one stack.
- The proposed G2 and G3 locations for the emergency diesel generator stacks did not provide sufficient dilution to meet applicable health-based dilution targets at some offsite receptors. The design team should vet the three locations against other project priorities, either by selecting G1, or selecting G2 or G3 with increased risk or increased stack height. Odors can be managed onsite by restricting access to the 10th floor terrace. Odor management off-site would require odor control equipment on the diesel generator (not on the gas generators). A wait-and-see approach can be adopted given the early stages of site design and information, adding control equipment if odors become a concern in the future.
- The results of the representative specialty stack (470:1) should be reviewed once the nature of these exhausts has been established in order to determine whether sufficient dispersion is achieved with the proposed design.

3. METHODOLOGY

As shown in Figure 1, the wind tunnel model included the proposed development and all relevant surrounding buildings and topography within a 1200 ft radius of the study site. The test model was constructed using the design information and drawings listed in Appendix A.

A summary of the methodology used for evaluating exhaust dispersion within one of RWDI's boundary-layer wind tunnels, including a discussion of the local wind climate, can be found in Appendix A. Wind tunnel modeling is considered to be the most accurate method of replicating airflow patterns around buildings and of quantifying the effects these patterns have on levels of exhaust dispersion and re-entrainment.

A list of the drawings used for construction of the physical model is presented in Appendix B. Photographs of the scale model in RWDI's boundary layer wind tunnel are presented below.

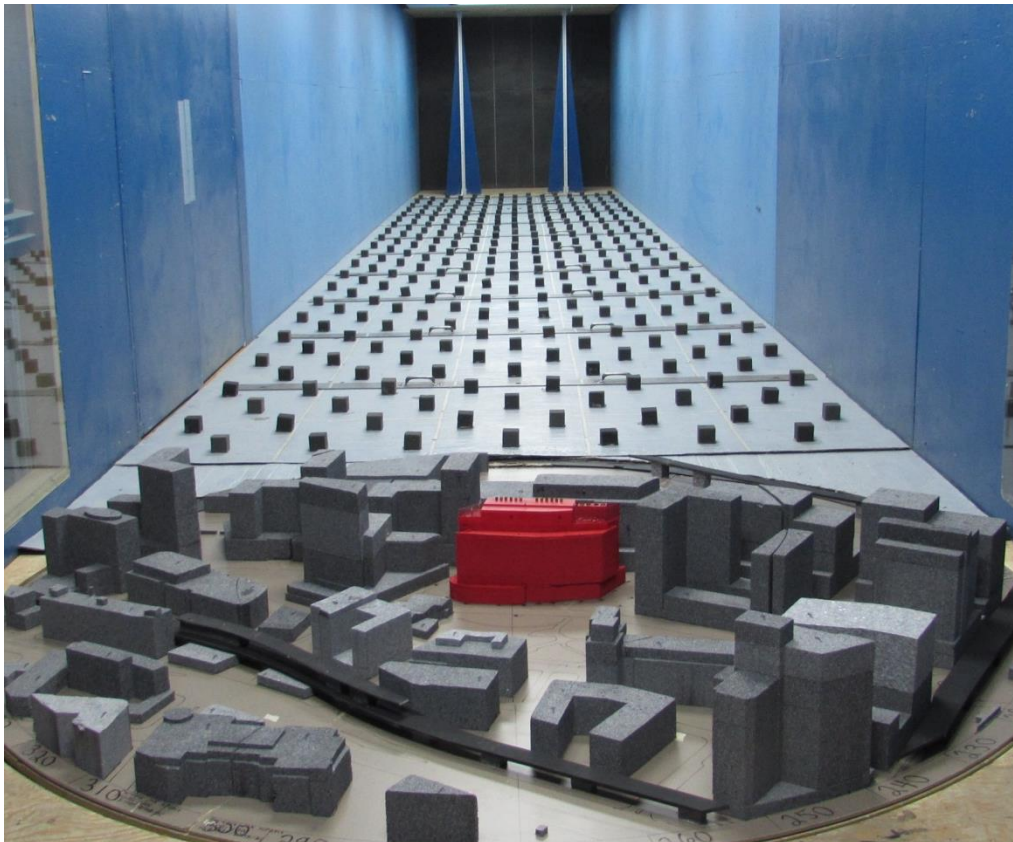


Image 1 - Photograph of Study Model in RWDI Boundary Layer Wind Tunnel

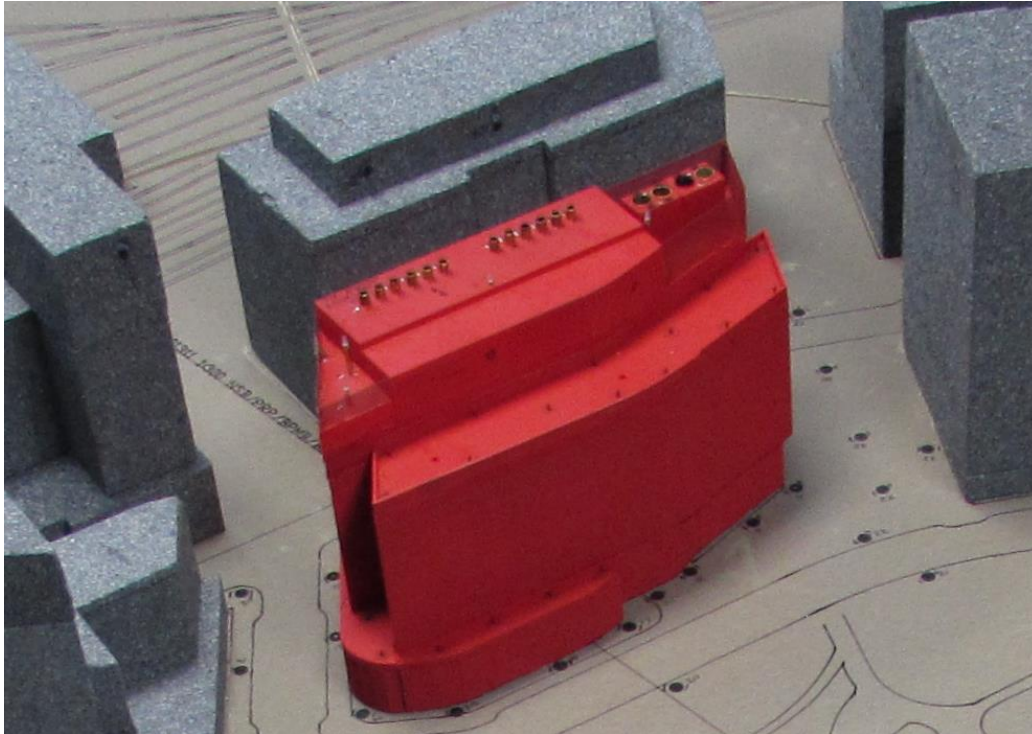


Image 2 - Close-Up Photograph of the of Study Model

Exhaust re-entrainment from the following sources was evaluated at 15 proposed and representative air-sensitive receptors at or near the project site as summarized in our test plan dated June 1, 2016:

- Proposed Cooling Towers;
- Proposed Manifolded Fume Hoods¹;
- Proposed Emergency Generator (at three locations); and,
- Proposed Specialty Exhaust.

Receptors include proposed and alternate air intakes on the J+K building, and representative points on surrounding buildings. The assessment was conducted in the context of the future representative site massing and therefore the receptors on surrounding buildings are intended to identify areas where re-entrainment issues may occur. Details regarding the exhaust source parameters and the receptors modeled are presented in Appendix C. The locations of the exhaust sources and receptors evaluated are illustrated in Figure 1.

¹ Following testing, RWDI was informed that the capacity was increased.

Frequency analysis was conducted for the generator, fume hoods and specialty exhaust to estimate of the percent of time that wind conditions resulting in dilution levels less than the indicated dilution criteria are expected to occur. Typically, this type of analysis is performed to assess odor impacts, but can also be used to assess health impacts where occasional excursions below the dilution criterion may be deemed acceptable. The frequency analysis was conducted using the measured wind tunnel data combined with hourly meteorological data from Boston Logan International Airport (1973-2011).

4. DESIGN CRITERIA

For design purposes, RWDI applies dilution criteria to assess re-entrainment levels from various types of exhaust sources. Exhaust dilution (D), is defined as the ratio of source concentration (C_o) to the concentration predicted at a receptor (C). In other words:

$$D = \frac{C_o}{C}$$

A dilution criterion specifies the factor by which the exhaust must be diluted to meet suggested air quality criteria, standards, and/or odor thresholds. If the predicted exhaust dilution is greater than or equal to the minimum suggested level of dilution, then recommended air quality limits and odor thresholds would be met. The dilution criteria applied for each of the exhaust sources are summarized in Section 3 - Modeling Results, and are discussed further in Appendix D.

5. RESULTS

Wind tunnel dispersion modeling results are presented and discussed on a source-by-source basis. Findings and recommendations for each exhaust source are discussed at the end of each section. **The outcomes and recommendations presented herein may change as the design of the surrounding buildings develops.**

5.1 Proposed 4-cell 10,000 GPM Cooling Tower (Sources C1-C4)

A proposed four-cell cooling tower was modeled at 100% load with all cells operating simultaneously, which represents the worst-case operating scenario. Table 1 shows the wind tunnel assessment results.

Table 1: Summary of Modeling Results for Proposed 4-cell Cooling Tower (Sources C1-C4)

Source Description and Parameters Modeled	Recommended Dilution Criterion	Design Configuration	Worst-Case Predicted Dilution (receptor)	Criterion Met?
Source C1-C4 Proposed 10,000 GPM Cooling Tower (4 Cells) <i>Flow Rate:</i> 245,700 (per cell) <i>Exit Velocity:</i> 2,000 fpm <i>Height:</i> flush with screen-wall (elev. 216'-0")	10:1 (Health & Odor)	On-Site Receptors (R1-R2, R14-R15)	35:1 (R14)	Yes
		Off-Site Receptors (R6-R13)	30:1 (R12)	Yes

The recommended 10:1 health and odor dilution criterion was met at all receptors assessed. No design modification is recommended.

5.2 Proposed Manifolded Laboratory Fume Hood Exhausts (Sources F1-F12)

Twelve proposed manifolded fume hood exhausts were assessed with all units operating simultaneously between 50% and 100% of capacity. The lower capacity was assessed to evaluate the potential for energy savings through turndown while maintaining safety. The wind tunnel assessment was conducted for an exhaust system with a capacity of 57,500 cfm per stack, based on the agreed-upon parameters from RWDI's test plan dated June 1, 2016. Following testing, RWDI was informed that the capacity was increased to approximately 105,000 cfm per stack. This represents a significant change and while the original data cannot be accurately re-scaled due to the extent of the change, useful conclusions can still be drawn.

Table 2 presents the wind tunnel dilution results and frequency analyses for the design that was evaluated in the wind tunnel. Discussion and recommendations regarding these results and the implications of the increased flow rate are provided following the table.

Table 2: Summary of Modeling Results for Proposed Manifolded Laboratory Fume Hood Exhausts Under 50% load (Sources F1-F12)

Source Information	Operating Scenario	Receptor	Worst-Case Dilution	Frequency of Wind Conditions Expected to Result in Dilution Levels Below Criteria ^[1]
				3,000:1
Source F1-F12 Proposed Manifolded Laboratory Fume Hood Exhausts (12) <i>Flow Rate:</i> 57,500 cfm (per stack) <i>Exit Velocity:</i> 3,000 fpm <i>Height:</i> 7 ft above the highest roof (elev. 228'-0") Dilution Criteria 3,000:1 (Health & Odor)	50% load <i>Flow Rate:</i> 28,750 cfm (per stack) <i>Exit Velocity:</i> 1,500 fpm	Parcel J+K Proposed Intakes (R1-R2)	> 5,000:1	--
		Parcel J+K 10 th Floor Terrace (R14-R15)	> 5,000:1	--
		Parcel E+F (R6-R7)	> 5,000:1	--
		Parcel C+D (R8-R9)	2,190:1	3%
		Parcel I (R10-R11)	> 5,000:1	--
		Parcel L (R12-R13)	> 5,000:1	--

Notes: [1] Frequency is defined as the annual percentage of wind conditions that may result in dilution levels less than the given criterion at a receptor. For example, a 3% frequency means that, whenever the fume hoods operate at 50% load, there is a 3% chance of winds that will result in the indicated dilution criterion not being met. These winds would occur approximately 263 hours per year (i.e. 8,760 x 3%).

For the assessed flow rate of 57,500 cfm per stack, the recommended 3,000:1 dilution criterion was met at all receptors assessed for 100% load operation. As shown in Table 2 for 50% load operation, the same target was met at all on-site receptors, but not at off-site representative receptors on Parcel C+D (receptors R8-R9). Problematic wind conditions that lead to these impacts would be expected to occur less than 3% of the time.

For the new 105,000 cfm (per stack) exhaust flow rate, we expect an overall increase in dilution of exhaust mainly due to the increased internal dilution and exhaust momentum. We expect that the 3,000:1 dilution criterion would be met at 100% load, and also when operating one or more of the individual exhausts at 50% of capacity. No design changes are recommended; however, the stacks should be made 10 ft in height above the high roof (elev. 231'-0") based on requirements outlined in ANSI/AIHA/ASSE Z9.5-2012 American National Standard for Laboratory Ventilation.

5.3 Proposed 2,000 kW Emergency Generator (Locations G1; G2; and G3)

A proposed 2,000 kW emergency diesel generator was assessed with the exhaust stack located at one of three potential locations on the J+K roof (elev. 228'-0"). Our assessment considered both a diesel unit and up to two additional natural gas units of the same capacity. Impacts from the diesel generator are dominant due to the diesel's much higher pollutant emissions and odor levels. We have therefore, for simplicity, only presented results for a single 2,000 kW diesel generator at each of the three locations. The conclusions and recommendations from our assessment of the diesel unit should be used to select the most desirable of the three locations, and overall design recommendations can be applied to all units.

RWDI's modeling results are summarized in Charts 1 and 2 below. Chart 1 compares the worst-case dilution results to health and odor criteria under all wind conditions while Chart 2 compares the frequency of winds causing dilution levels below the odor detection criterion (only applies to diesel unit). Results at the alternate air intake locations have not been presented since they performed more poorly than the proposed intake locations.

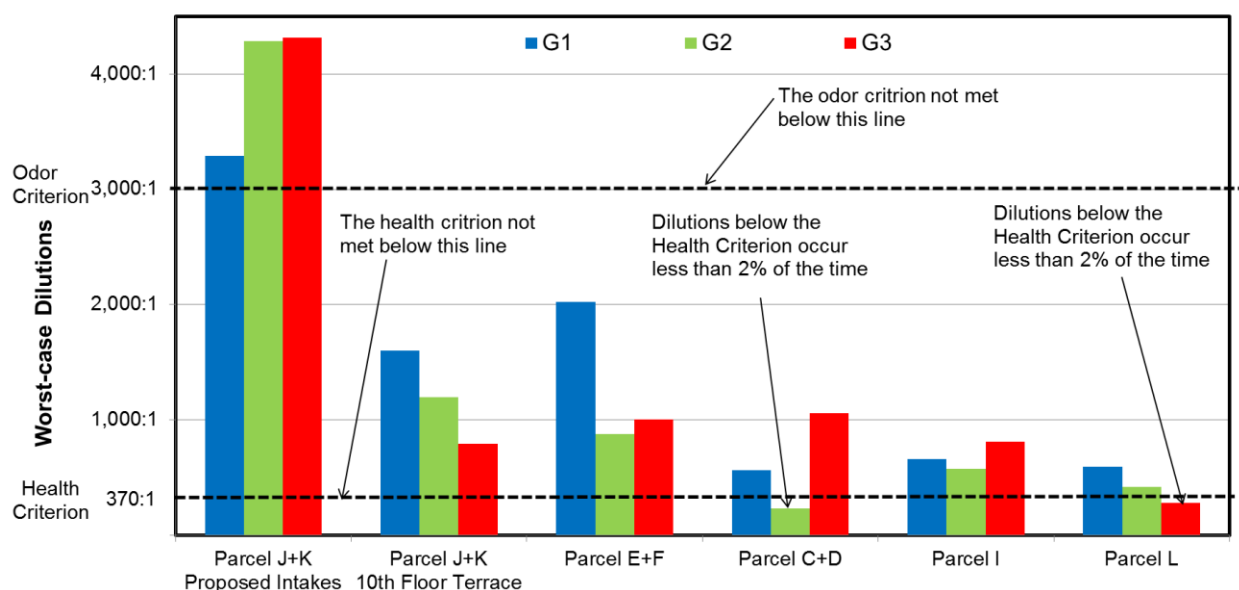


Chart 1: The Worst-Case Dilution Results²

² The health target would still be met with Natural Gas units at the receptors that already passed the health target with diesel unit only.

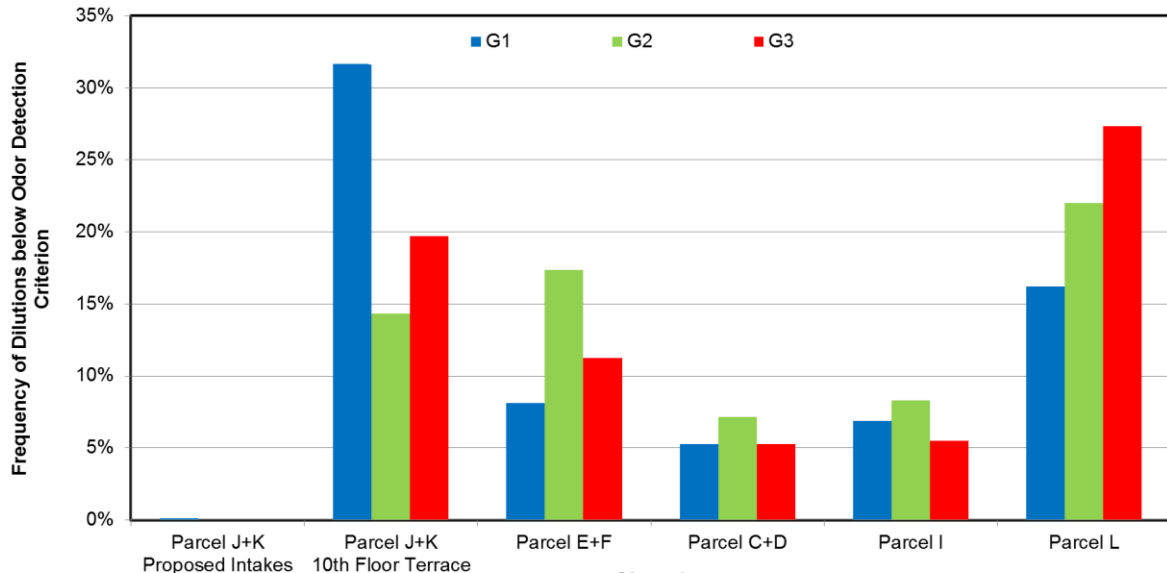


Chart 2: The Frequency of Winds Causing Dilution Levels below the 3,000:1 Odor Detection Criterion

Chart 1 represents the worst-case dilution results at the receptors assessed. The dash lines show the health and odor-based dilution criteria. Any bars (dilution estimates) below these lines do not meet the respective criteria since insufficient dilution is achieved.

On-site impact on Parcel J+K

As shown in Chart 1, the health target was met at all J+K receptors for all three proposed generator locations. The odor criterion was met at the proposed J+K air intakes from three generator locations, but not at the 10th floor terraces. Winds that may cause dilution levels below the 3,000:1 odor criterion at these receptors (R14-R15) are predicted to occur up to 30% of the time. As shown in Chart 2, odor impacts at the J+K terrace are higher from G1 than from G2 or G3. If the terrace is ignored (based on access restriction during generator operation for example), then locations G2 and G3 perform similarly.

Off-site Impact on Neighboring Buildings

The health target was met at all neighboring representative receptors with an exhaust stack at the G1 location. The target was not met at Parcel C+D (receptors R8-R9) with a stack at the G2 location, nor was it met at the Parcel L (receptors R12-R13) from the G3 location. In each case, winds that lead to problematic dilution levels are expected to occur less than 2% of the time. Given the intermittent nature of generator operation (which is not accounted for in the 2% figure), the owner and/or design team may find this risk acceptable.

Odor frequency was predicted at all offsite receptors for three generator locations with G1 being most favorable overall. The use of odor control technology, specifically Diesel Particulate Filter (DPF) and Diesel Oxidation Catalyst (DOC)³ would decrease odor frequency and strength. If the DPF/DOC option is adopted, additional stack height may be needed due to the potential increase in NO₂ emissions unless the unit can be specified with a NO₂/NO_x ratio of no higher than 10%.

Overall we find that:

- The proposed G1 location provide sufficient dilution to meet the health criterion on-site and off-site with a stack discharging at 7 ft above the roof (elev. 228'-0").
- Alternatively, if the risk of not meeting the health criterion off-site is not acceptable to the owner and/or design team, implementing a 17 ft stack above the high roof (elev. 238'-0") at the G2 location, or an 18 ft stack height above the high roof (elev. 239'-0") from the G3 location, would provide sufficient dilution to meet the health.
- To reduce the potential for odor complaints on-site, we recommend restricting access to the 10th floor terrace during generator operation, or alerting occupants to the possibility for odors.
- Managing odors off-site would require the use of odor control technology on the generators. Modest increases in stack height are not expected to solve odor impacts to neighbors. A wait-and-see approach can be adopted given the early stages of site design and information, adding control equipment if odors become a concern in the future.
- Overall, the G1 stack location is the most favorable from the perspective of re-entrainment. The design team should review the results for the three locations, balancing risk for health and odor impacts with other design considerations important to the project.

³ Diesel particulate filter (DPF) and diesel oxidation catalyst (DOC) technologies reduce the strength of odors emitted from diesel generators. RWDI applies a reduced odor criterion of 500:1 for diesel generators equipped with these technologies based on indicative test data for odor reduction. These technologies can increase the NO₂ emitted from the stack, which may result in additional stack height needed to meet the recommended health criterion, unless the DPF/DOC is specified with a maximum NO₂/NO_x ratio of 10% or less.

5.4 Representative Specialty Exhaust (Source S)

A representative 5,000 cfm specialty exhaust was evaluated at the west end of the J+K building. We understand that the nature and sizes of specialty exhausts have not yet been defined. The exhaust was therefore assessed against generic criteria representing different types of sources. Table 3 presents the worst-case atmospheric dilution results at the receptors assessed with discussion following the table.

Table 3: Summary of Modeling Results for Representative Specialty Exhaust (Source S)

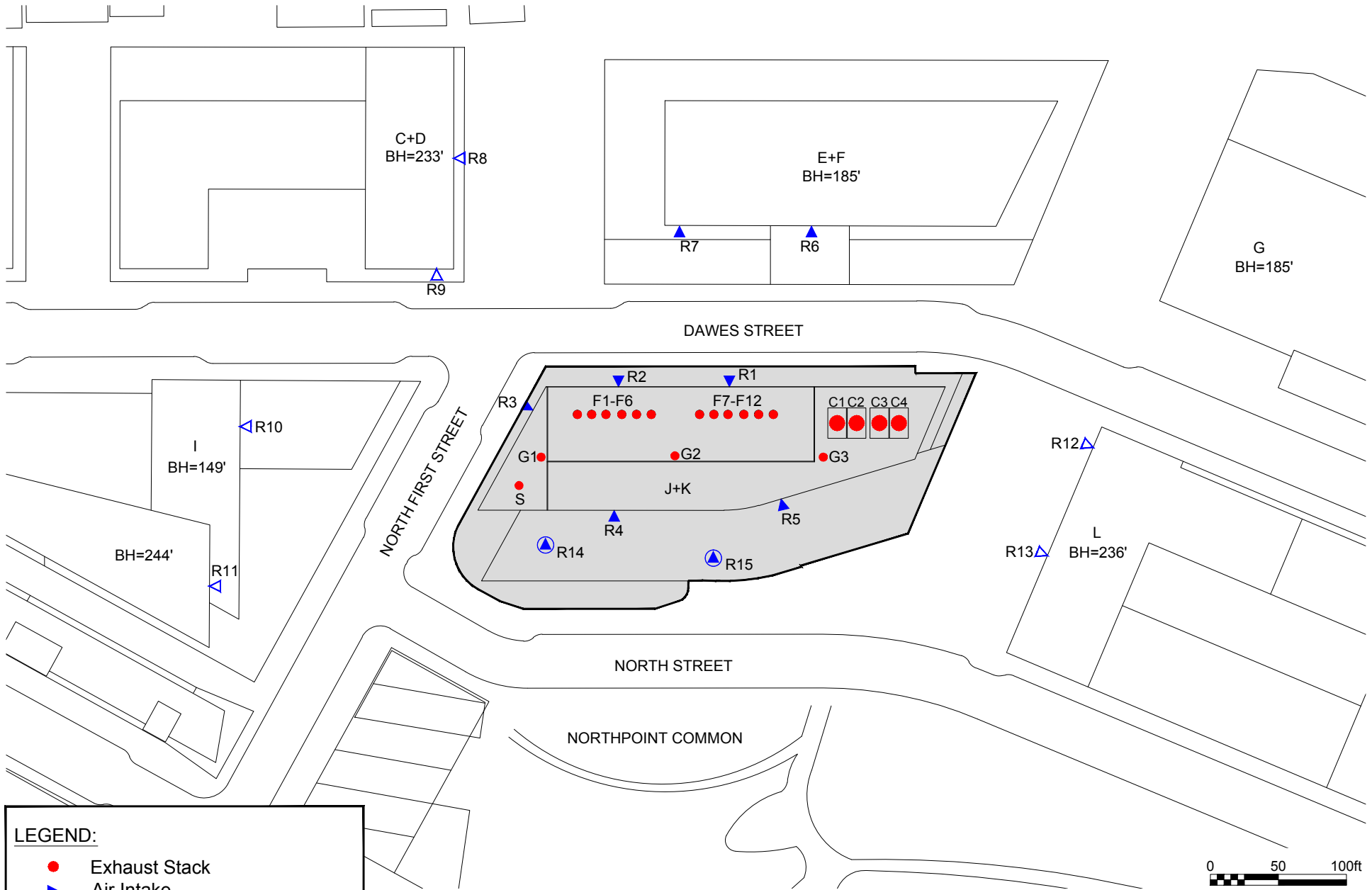
Source Information	Receptor	Worst-Case Dilution
Source S Proposed Specialty Exhaust <i>Flow Rate: 5,000 cfm</i> <i>Exit Velocity: 2,830 fpm</i> <i>Height: flush with screen-wall</i> <i>(elev. 216'-0")</i>	Parcel J+K Proposed Intakes (R1-R2)	3,290:1
	Parcel J+K 10th Floor Terrace (R14-R15)	875:1
	Parcel E+F (R6-R7)	2,500:1
	Parcel C+D (R8-R9)	710:1
	Parcel I (R10-R11)	470:1
	Parcel L (R12-R13)	840:1

A worst-case atmospheric dilution (e.g., not including internal dilution) of 470:1 was predicted at the Parcel I representative receptor (R11). The worst-case atmospheric dilution on-site was 875:1. To provide some context:

- If the source was a group of biosafety cabinets (which would benefit from added internal dilution), a recommended criterion of 1,000:1 would be met on-site and off-site.
- If this source was for standard fume hood exhausts with internal dilution, the recommended 3000:1 criterion would meet at all receptors with the exception of Parcel I representative receptors (R10-R11) for less than 1% of winds.
- If this source was a kitchen exhaust, a recommended dilution criterion of 600:1 would be met on-site. It may not be met off-site at Parcel I (R10-R11) for less than 1% of winds.

We recommend that once the nature of these exhausts has been established, they are reviewed to determine whether sufficient dispersion will be achieved to meet appropriate dilution criteria. The information above can be used by the design team to make that decision, or RWDI can be consulted.

FIGURES



LEGEND:

- Exhaust Stack
- ▶ Air Intake
- ▶ Representative Operable Windows and Terraces
- ⊙ Pedestrian Location
- BH Building Height

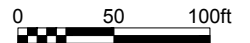
Location of Exhaust Sources and Receptors

Parcels J+K - Northpoint Site - Cambridge, MA



Project #1601311

Drawn by: ck	Figure: 1
Approx. Scale: 1"=100'	
Date Revised: June 8, 2016	



MEMORANDUM

Date: September 21, 2016

Prepared for: Beals & Thomas, Inc.
144 Turnpike Road
Southborough, MA 01772

Prepared by: Rebecca Snelling, Project Manager
Jesse Freeman, EIT, Senior Project Manager
The VERTEX Companies, Inc.

Subject: **21E Reports and Environmental Assessments**
Parcel J/K
Northpoint Development Site
Cambridge, Somerville, & Boston, Massachusetts
VERTEX Project No. 35663

The Vertex Companies, Inc. (VERTEX) has prepared this brief summary of the environmental status, environmental reports, and assessments pertaining to the portion of the Northpoint Development Site inclusive of Parcel J/K.

Currently the only active Release Tracking Number (RTN) tracked by the Massachusetts Department of Environmental Protection (MassDEP) pertaining to Parcel J/K is RTN 3-11533. The release listed under RTN 3-11533 is comprised of the linked RTNs 3-12277, 3-26810, 3-29887, and 3-32730, which were closed following linking to RTN 3-11533 and are henceforth managed under the master RTN 3-11533. The linked release listed under RTN 3-11533 is located on portions of the former Boston & Maine (B&M) Railroad Yard currently identified as the Northpoint Development Site located in portions of Cambridge, Somerville, and Boston, Massachusetts (the “Site”), a portion of which includes Parcel J/K.

The linked releases listed under RTN 3-11533 pertains to elevated concentrations of contaminants of concern (COCs) in soil associated with the historical industrial/commercial uses of the Site and the widespread presence of urban fill materials.

A Class C-1 Response Action Outcome (RAO) was submitted for RTN 3-11533/3-12277 on behalf of then owner B&M on July 1, 2005, and a Phase II Comprehensive Site Assessment (CSA), Phase III Remedial Action Plan (RAP), and Class C-2 RAO report (Phase II/Phase III/Class C-2 RAO) was submitted for RTN 3-26810 on behalf of CJUF on September 26, 2012.

RTN 3-26810 was linked to RTN 3-11533 on June 1, 2015 in a Post-Temporary Solution Status Report, 5-Year Periodic Review, & Request to Link Release Tracking Numbers report.



Following linking, Master Site RTN 3-11533 is managed by current Site owner DW NP Property, LLC (DW) under a single Temporary Solution. DW is an Eligible Person for RTN 3-11533 per Massachusetts General Laws (M.G.L) chapter (c.) 21E.

Details regarding the regulatory status and environmental investigations conducted to date on the portion of the Site currently referred to as Parcel J/K are included in various site-wide reports prepared from 1995 through the date of this letter, as listed below. Reports specific to Parcel J/K have not been prepared.

RTN 3-11533/3-12277

- October 6, 1995 – RTN 3-11533/3-12277 – Phase I Initial Site Investigation (ISI) Report
- February 26, 1999 – RTN 3-11533/3-12277 – Phase II Comprehensive Site Assessment (CSA)
- February 26, 1999 – RTN 3-11533/3-12277 – Phase III Remedial Action Plan (RAP)
- July 2005 – RTN 3-11533/3-12277 – Class C RAO¹ (now Temporary Solution)
- December 1, 2005 – RTN 3-11533/3-12277 – Additional Class C RAO Info Report
- April 14, 2011 – RTN 3-11533/3-12277 – Class C RAO 5-Year Periodic Review

RTN 3-26810 (and linked RTN 3-29887)

- May 5, 2008 – RTN 3-26810 – MCP Phase I ISI & Tier Classification – NP “Gateway” Parcels
- September 26, 2012 – RTN 3-26810 – Phase II CSA, Phase III RAP, and Class C RAO
- December 22, 2014 – RTN 3-26810 – Post-Temporary Solution Status Report No. 1

Site-wide Due Diligence – Not RTN Related

- November 3, 2009 – ASTM Phase I Environmental Site Assessment (ESA) – Site-wide
- March 13, 2015 – ASTM Phase I ESA – NP Parcel 1

RTN 3-11533 (et al. following linking, RTN 3-12277, 3-26810, 3-29887, 3-32370)

- June 1, 2015 – RTN 3-11533 (et al.) – Post-Temporary Solution Status Report No. 1, 5-Year Periodic Review, and Request to Link Release Tracking Numbers

¹ In accordance with the promulgation of the new MCP requirements in effect June 20, 2014, as contained in Section 310 CMR 40.1055 of the MCP, any Class C RAO submitted prior to June 20, 2014 shall now be a Temporary Solution as described in 310 CMR 40.1050(1)(e).

- November 16, 2015 – RTN 3-11533 (et al.) – Site Staging Release Abatement Measure (RAM) Plan
- December 7, 2015 – RTN 3-11533 (et al.) – Post-Temporary Solution Status Report No. 2
- March 22, 2016 – RTN 3-11533 (et al.) – Site Staging RAM Status Report No. 1
- April 28, 2016 – RTN 3-11533 (et al.) – Site-wide RAM Modification
- July 7, 2016 – RTN 3-11533 (et al.) – Post Temporary Solution Status Report No. 3
- September 21, 2016 – RTN 3-11533 (et al.) – Site-wide RAM Status Report No. 2

Currently, the regulatory management of the release at Parcel J/K is being conducted under the RTN 3-11533 Temporary Solution and under the RTN 3-11533 Site-wide RAM.

Copies of all relevant reports and the Disposal Site files for all above-referenced RTNs can be reviewed at Massachusetts Department of Environmental Protection (MassDEP), Northeast Regional Office, 205B Lowell Street, Wilmington, MA, (978) 694-3200 or online at the MassDEP Waste Site File Viewer at http://public.dep.state.ma.us/wsc_viewer/main.aspx by searching individual RTNs.

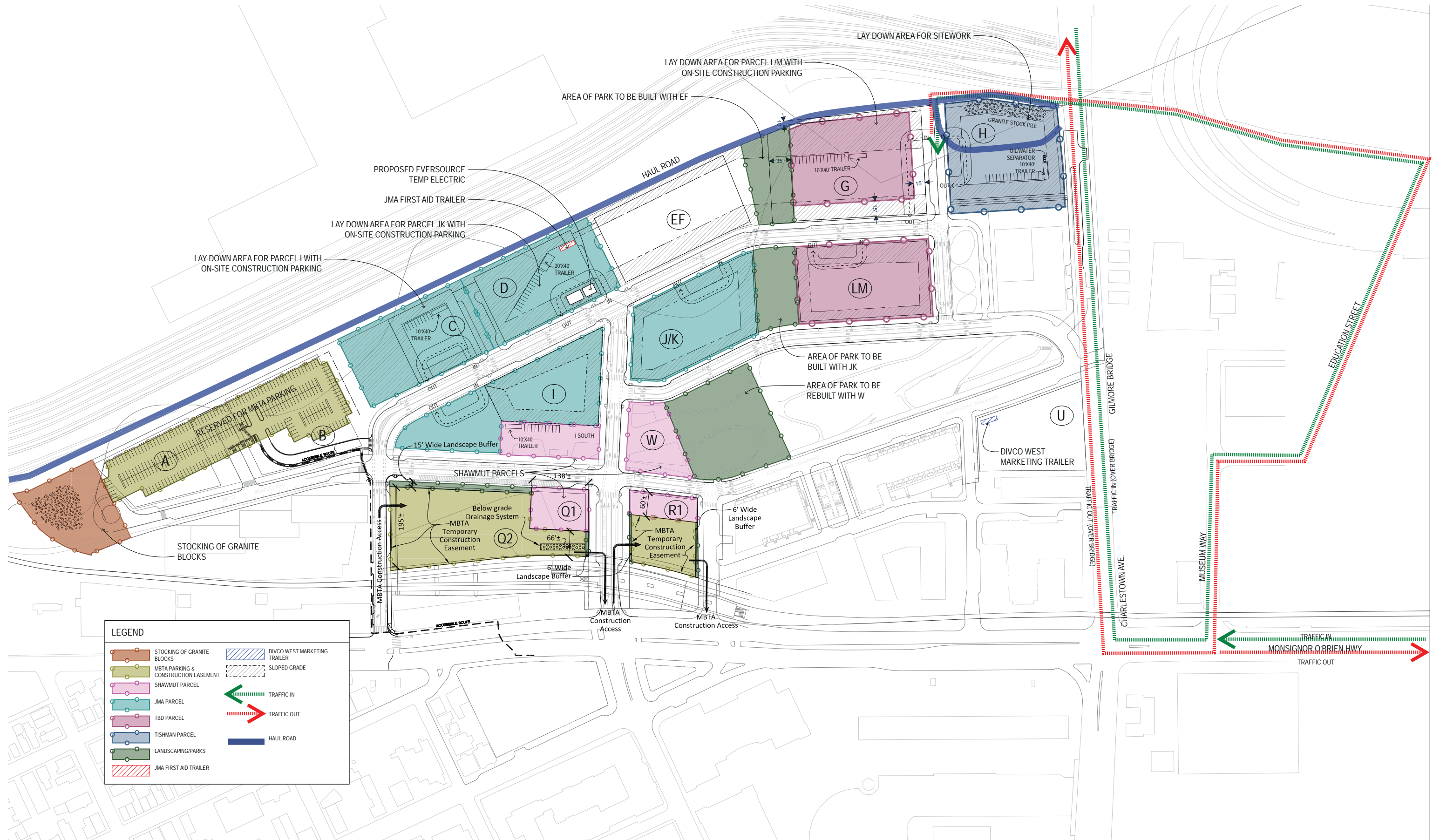
Additionally, there has been no evidence to date of underground storage tanks (USTs) being present at Parcel J/K.

The name and address of the party conducting response actions at the Disposal Site and the Licensed Site Professional (LSP) for the Disposal Site are as follow:

Party Conducting Response Actions: DW NP Property, LLC, an Eligible Person
 c/o Mark Johnson²
 Director of Development
 DivcoWest Real Estate Investments
 1 Kendall Square, Suite B3201
 Cambridge, MA 02139

Licensed Site Professional: James B. O'Brien, LSP # 9092
 The Vertex Companies, Inc.
 400 Libbey Parkway
 Weymouth, MA 02189
 781-952-6000

² Note that Mark Johnson is electronically signing eDEP Bureau of Waste Site Cleanup (BWSC) Transmittal Forms on behalf of DW NP Property, LLC and not individually.



Northpoint Parcel JK

Construction and Site Activities Summary

Submitted to:
City of Somerville Planning Board

Submitted by:
John Moriarty & Associates, Inc.
3 Church Street
Winchester, Mass 01890

November 3, 2016

Index

- A) Responsible Parties
- B) Project description
- C) Schedule
- D) Phases of construction
- E) Detailed Information
 - 1) Work hours
 - 2) Delivery and truck routes
 - 3) Worker access and parking
 - includes alternate transportation and initiatives for reduction in driving and parking
 - 4) Police details
 - 5) Truck unloading and staging
 - 6) Construction site signs
 - 7) On street parking occupancy
 - 8) Pedestrian access/sidewalk obstruction
 - 9) Dust control
 - 10) Odor control
 - 11) Rodent control
 - 12) Emergency vehicles
 - 13) Utilities
 - 14) Snow removal
 - 15) Site dewatering
 - 16) Construction waste
 - 17) Vibrations
 - 18) Summary

A) Responsible Parties:

Owner:

DWNP LLC
c/o DivcoWest Real Estate Investments
575 Market Street
San Francisco, California 94105
415-284-5700

Development Manager:

Mark Johnson, Director of Development
DivcoWest
One Kendall Square, Suite B3201
Cambridge, MA 02139
617-720-7400

Contractor:

Finn O'Sullivan, Project Executive
John Moriarty and Associates
3 Church Street
Winchester, Mass. 01890
781-729-3900

Architect:

Chris Leary, Principal
Jacobs
One Broadway, Cambridge, MA 02142
617-491-6450

Structural Engineer:

Adam McCarthy
McNamara/Salvia
Inc.
160 Federal Street, 5th floor
Boston, MA 02110
1-617-737-0040

Mechanical, Electrical, Plumbing, and Fire Protection Engineer:

Jonathan Chan
BR+A
10 Guest Street
Boston, Mass. 02135
1-617-254-0016

Civil Engineer:

Richard Kosian, Executive Vice President
Beals + Thomas
144 Turnpike Road
Southborough, MA 01772
508-366-0560

Geotechnical Engineer:

Steven Kraemer, PE Senior Vice President
Haley & Aldrich
465 Medford Street, Suite 2200
Boston, MA 02129
617-886-7350

B.) Project Description:

The Project is new construction 623,725 GSF, nine story building. The project includes three levels of below grade parking, ground floor retail, tenant space, bike storage and locker shower rooms and back of house areas including loading docks and mechanical and electrical rooms. Floors 2 through 9 are shell - core laboratory space. A mechanical penthouse on the roof includes air handling units, chillers, cooling tower, pumps, boilers and emergency generator.

C.) Schedule: Total Duration 26 Months

Assumed Construction Start: February, 2017

Assumed Completion and Occupancy: April, 2019

<u>Construction Activity</u>	<u>Approximate Schedule</u>	<u>Duration</u>
Foundation	Months 0-6	6 Months
Structure	Months 4-13	9 Months
Exterior Envelope	Months 10-20	10 Months
MEP Work	Months 9-24	15 Months
Elevators	Months 16-24	8 Months
Interiors	Months 15-26	11 Months
Site Utilities	Months 9-14	5 Months
Site Improvements	Months 23 – 26	3 Months

D.) Phases of Construction

Foundation work includes the installation of perimeter steel sheet pile acting as support of excavation (SOE) followed by soil excavation and installation of reinforced concrete foundation walls and concrete matt slab at the base of the excavation.

Structural work includes a cast in place elevator core that extends from the matt foundation to the penthouse. Steel erection will be coordinated with the cast in place concrete core work. The steel frame will extend from the garage to the penthouse. A tower crane will be used for steel erection including metal deck and rooftop HVAC equipment.

Exterior work includes installation of sheathing, insulation, curtainwall, glass and metal panels.

Elevator, MEP and finish work will complete the interior fit out of the building. Most of the finish materials will be loaded into the building via a temporary loading dock and a temporary

man and materials hoist installed on the north face of the building.

Site utilities work will include the installation of gas, electric, tel/data, sewer and storm water connections.

Site improvement work includes the installation of sidewalks, site lighting, site drainage and landscaping.

E.) Detailed information:

1. Work Hours: Construction work hours are 7:00 AM to 6:00 PM Monday thru Friday. 7:00 AM to 5:00 PM on Saturday. Utility and special operations (i.e. tower crane and special installations) will be on 2nd shift or weekends. All street occupancies will be scheduled and permitted with the proper city agency having jurisdiction. Extended work hours as necessary will be through the approved permit process.
2. Delivery and Trucking Routes. Construction traffic will vary depending on the various stages of construction activity. Truck access to and from the site shall be limited to the attached plan and per the City of Cambridge restricted trucking routes. Trucking in and out of the site will be directed toward Msgr O'Brien Highway and over the Gilmore Bridge towards Route 93. All subcontractors will be required to monitor and confirm that restricted truck routes are not being used. Sequencing of deliveries will be planned during weekly coordination meetings to minimize disruptions to traffic. Deliveries will be scheduled to avoid rush hour traffic to the greatest extent possible.
3. Worker Access and Parking. The number of workers required for the project varies for each phase. Approximately 20 to 25 workers will be on site during the foundation phase and the work force will increase to possibly 150 – 200 workers during the peak construction period. There will be no parking on any public roads abutting the site or adjacent neighborhoods. All workers will be encouraged to use public transportation and carpooling. Public transportation information will be posted on site. JMA will also utilize a fenced off adjacent vacant lot for construction trailers and limited worker and supervisory staff parking. In addition, jobsite tool storage boxes will be utilized to encourage workmen to commute by public transportation without transporting tools and equipment on a daily basis.
4. Police Details. Daily police details will be provided as needed at each active construction gate to maintain access to adjacent properties and to direct pedestrian and vehicular flow.
5. Truck unloading and staging. There will be no truck staging on local public roads at all. JMA will make every effort to stage trucks on site. Per the attached plan, the steel delivery trucks will be staged on site inside the fence off of Dawes Street. Offloading of trucks will not be permitted on city streets. The steel supplier will be responsible to

coordinate timely deliveries and staging area off site if necessary. Concrete trucks will be dispatched by radio using the construction site for staging. The exterior hoist and temporary loading dock will be completed as soon as possible so most materials for interior construction will be unloaded inside the site at the temporary loading dock. Deliveries will be coordinated at the regularly scheduled foreman's meeting.

6. Construction site signs. Signage will be provided at all gates and closed sidewalks directing the pedestrians around the site. Trucking enter, exit and turn signs will be posted at gates and strategic locations on Msgr O'Brien Highway and elsewhere around the project site directing trucks out of the City. Utility work will have the proper signage for lane restrictions or road closures as required by the permit.
7. On Street Parking. There will be no parking on the perimeter streets or neighborhoods. Parking at meters will be discouraged. All workers will be encouraged to use public transportation and carpooling or public garages.
8. Pedestrian Access. Public safety will be a primary consideration in all the planning and building processes. We do not anticipate closed sidewalks, but if needed proposed pedestrian paths will be clearly marked with signage. Bike lanes will remain open.
9. Dust control. A mechanical street sweeper shall clean the adjacent streets and proposed trucking routes full time during excavation and concrete operations. Wheel wash stations will be maintained for gates that are used for trucks exiting the site. Water spray will be used to control dust during precast pile, concrete and site operations. All trucks transporting construction debris and materials will be tarped and wheels cleaned before leaving site. No storage of construction debris will be allowed on site. Streets and sidewalks will be cleaned periodically to minimize dirt and dust accumulations.
10. Odor control. JMA will make every attempt to control nuisance odor emissions by controlling site drainage to minimize standing water, covering stockpiles, adding masking agents to address offensive smells and maintaining a site free of trash, garbage and debris. JMA will also control idling of trucks and construction equipment and try to keep combustion engines away from air intakes, air conditioners and windows.
11. Rodent control. JMA will institute a rodent / pest control program and will hire a rodent control subcontractor to service the site on a regular basis. Adjustments will be made to the program as necessary to maintain a rodent / pest free site.
12. Emergency vehicles. Access for emergency vehicles will be maintained at all times on Msgr O'Brien Highway, East Street and North Point Blvd. Existing fire hydrants located outside of site fence will be clearly labeled with signage readily visible for Fire Department personnel in the event of an emergency.
13. Utilities. Utility work, lane restrictions, impacts to the neighbors and traffic will be

coordinated with the utility providers, the City of Cambridge DPW, the City of Somerville DPW and other contractors working in the area.

14. Snow removal. Snow accumulation on abutting pedestrian walkways/sidewalks will be removed and deposited on site or disposed of properly.
15. Site dewatering. Dewatering will be from sumps into Frac tanks for filtration and then discharged on site. Required permits from the MWRA, DEP and DPW will be obtained for the offsite discharge of water.
16. Construction waste. This project is seeking a LEED Silver certification and a goal of 75% recycled waste. The disposal contract will include specific requirements that will ensure the segregation, reprocessing and recycling of the construction waste. City of Cambridge dumpster permits will be on site.
17. Vibrations. JMA will work with DivcoWest and soils Engineer to monitor and mitigate any potential impact the construction activities may have on abutting neighbors and nearby residences throughout the foundation installation. Vibration monitoring stations will be utilized.
18. Summary: John Moriarty and Associates, Inc. will work with the City of Somerville, DPW, ISD, Transportation Department and pertinent City groups to ensure a safe and effective program to protect and coordinate the interest of the neighborhood and the City of Somerville.

Solar Glare Analysis

The north Dawes Street façade of the Block JK building faces north. We anticipate that this north-facing façade will receive little to no direct sunlight, and therefore will reflect little to no glare on onto Dawes Street. For a majority of the year, the building will shade the Dawes Street façade from direct sunlight. We anticipate that adjacent buildings will block most occasional low early morning and late evening summer sun angles.