Cambridge Redevelopment Authority

Board Packet of Supporting Materials

Meeting of June 24, 2015

i. Agenda

1. Draft minutes of the Regular Meeting of the CRA Board on May 20, 2015 *

2. Draft minutes of the Executive Session Meetings of the CRA Board for the purpose of discussing terms of the proposed lease of the Foundry Building at 101 Rogers St. from the City of Cambridge on December 17, 2014, January 14, 2015, and January 21, 2015


8. Foundry Building Draft Lease Agreement between the City of Cambridge and the CRA

10. Kendall Square Urban Renewal Plan

   a. Revisions for Draft Plan Amendment #10

   b. Initial Draft of Proposal Zoning Petition for Article 14 of the Cambridge Zoning Ordinance: Mixed Use District (MXD)

   (Document numbering altered to reflect agenda item numbers)
NOTICE OF MEETING

Pursuant to the Massachusetts Open Meeting Law, M.G.L. c. 30A, §§ 18-25, notice is hereby given of a meeting of the Cambridge Redevelopment Authority to take place as follows:

Regular Board Meeting
Wednesday June 24, 2015 at 5:30 pm
Cambridge Police Department
First Floor Community Room
125 Sixth Street
Cambridge, Massachusetts 02142

MEETING AGENDA

The following is a proposed agenda containing the items the Chair of the CRA reasonably anticipates will be discussed at the meeting:

Call

Public Comment

Minutes

1. Motion: To accept the minutes of the Regular Meeting of the CRA Board on May 20, 2015 *

2. Motion: To accept the minutes of the Executive Session Meetings of the CRA Board for the purpose of discussing terms of the proposed lease of the Foundry Building at 101 Rogers St. from the City of Cambridge on December 17, 2014 January 14, 2015 and January 21, 2015 *

Communications

3. Revised HR&A Report - Kendall Square Urban Renewal Affordable Housing Analysis – May 21, 2015 *


Reports, Motions and Discussion Items:

6. Report: Monthly Report to the Board of the Executive Director (Mr. Evans)

8. Foundry Demonstration Project Implementation (Ms. Madden)
   
a. Motion: Authorizing the Chair and Executive Director to enter into a 50-year Lease with the City of Cambridge for the Foundry Building located at 101 Rogers Street for the purposes of redeveloping the property consistent with the Foundry Building Demonstration Project Plan *

b. Motion: Authorizing the Executive Director to initiate a two-step development entity selection process through the issuance of a Request for Qualifications (RFQ) seeking qualified developers and operators to redevelop, maintain, and program the Foundry Building at 101 Rogers Street

c. Motion: Authorizing the Chair and Executive Director to enter into a new contract with HR&A Advisors for the purpose of reviewing the financial submissions throughout the two-step developer selection process for the Foundry for an amount not to exceed $30,000.

9. Motion: To adopt the Cambridge Redevelopment Authority Logo Proposal and authorize the Executive Director to develop a graphic styles manual for the CRA (Mr. Zogg)

10. Update: Kendall Square Urban Renewal Plan and MXD District
   
   • Text Revisions for Draft Plan Amendment #10 *
   • Initial Draft of Proposal Zoning Petition for Article 14 of the Cambridge Zoning Ordinance: Mixed Use District (MXD) *

Adjournment

(*) Supporting material to be posted at: www.cambridgeredevelopment.org/next-meeting/

Next Board Meetings:

   • Regular Meeting – July 15, 2015 - 5:30 PM

The Cambridge Redevelopment Authority is a “local public body” for the purpose of the Open Meeting Law pursuant to M. G. L. c. 30A, § 18. M. G. L. c. 30A, § 20, provides, in relevant part:

(b) Except in an emergency, in addition to any notice otherwise required by law, a public body shall post notice of every meeting at least 48 hours prior to such meeting, excluding Saturdays, Sundays and legal holidays. In an emergency, a public body shall post notice as soon as reasonably possible prior to such meeting. Notice shall be printed in a legible, easily understandable format and shall contain the date, time and place of such meeting and a listing of topics that the chair reasonably anticipates will be discussed at the meeting.

(c) For meetings of a local public body, notice shall be filed with the municipal clerk and posted in a manner conspicuously visible to the public at all hours in or on the municipal building in which the clerk’s office is located.
Call

The meeting was called to order at 5:42 p.m.

CRA Chair Ms. Kathleen Born introduced herself and other CRA Board members and CRA staff. CRA Assistant Treasurer Mr. Conrad Crawford was absent.

Public Comment

Mr. Stephen Kaiser – Mr. Kaiser commented on the numerous articles in the papers and was puzzled by the article on Kendall Square article, which focused on traffic without any mention of the transit potential in the area. He attended the MEPA scoping meeting last Thursday, along with representatives from organizations including the CRA, Boston Properties and MIT, which was pleasantly uncontentious and constructive. The MEPA process will be helpful to the CRA Board and with only a single EIR required, he believes the basic document only needs an added section on transit. He was pleased to learn of MIT’s involvement in a substantial and thorough peak-hour pedestrian count but feels that more transit capacity analysis is needed. He is hopeful for Volpe’s involvement. He is encouraged by the current collaboration in Cambridge. On another subject, Mr. Kaiser asked for an explanation of how Amendment #10 will affect the CRA income in the monthly financial. Mr. Evans said that he would address this question in Executive Director’s report.

There was a unanimous agreement to close Public Comment.

Minutes

1. Motion: To accept the minutes of the Regular Meeting of the CRA Board on April 15, 2015

   There were no comments and the minutes were unanimously approved and will be placed on file.

Communications

2. April 17, 2015 Letter To David Mohler of MassDOT regarding the Grand Junction Path
Mr. Evans stated that this letter to MassDOT emphasizes that although we are moving forward on a path concept on CRA property, the CRA is supportive of future transit capacity and a multiuse corridor.

The letter will be placed on file.

Reports, Motions, and Discussion Items

3. Report: Monthly Report to the Board of the Executive Director

As the semester ended, two interns have completed their work at the CRA. A new intern Aline Reynolds will be starting in June for the summer. We continue planning our office space revamping and furnishings with the goal of being able to host larger meetings in the office. We are getting a reliable internet line installed because the current bandwidth is insufficient for our workplace.

As we look forward in the calendar, there are potentially two meetings in June. One will be for the Foundry and the other will be heavy focused on Kendall Square work. We also plan to bring to the Board some finalized design work for the Ames Street project and the award of a contract on the Grand Junction project.

On May 14, we had our public scoping meeting with VHB and Boston. There continues to be a lot of ‘back and forth’ with MEPA since their analyst is new to the project and it’s quite unusual to have an old EIR with continuous MEPA updates over time. We expect some comments from the City and, possibly, the Charles River Watershed Association. The discussions related to open space programming include infrastructure for the area especially storm water, and the possibility of having the CRA play a broader role in soft programming of the open space outside the MXD District. The Pork Chop area definitely needs to be activated which would also create a link to the nearby areas. There’s been an ongoing process with the property owners and the KSA regarding the wayfinding kiosks and their locations. We hope to bring a design concept and their outing to the Board soon. Some way-finding signs are already in place in Tech Square and along Binney.

The Grand Junction is focusing on coordination with the MBTA. We are hoping to go out to bid in next couple of months followed by construction in late summer or early fall. Depending on timing, plantings may need to wait until the following spring. DPW has taken an active role helping us get to a bid package. Continued construction management oversight by Halverson might be required depending on who is awarded the low bid. There’s a lot of coordination with DPW on the Ames Street Residences to deal with the major design challenge of moving the complex infrastructure while maintaining current service to the surrounding area. The Green Garage work is in process but this is a separate project. Main Street is also undergoing construction. The goal is to be done by September. On the multi-managed Sixth Street Walkway (Boston Properties does snow removal, the City does Trash removal, and the CRA does repairs), we want to repair the current benches. The City is piloting ten or so solar-charging, industry-sponsored benches and we are also working with Biogen to install some of them on that Walkway. Installing WiFi on Sixth Street is being investigated.

The report will be placed on file.

   Looking at the charts in the financial report of the first four months of the year, Mr. Evans stated that our expense budget is on track. About one third of most budgeted expenses were spent in the first third of the year. As mentioned in the past, the CRA income this year depends on when the permit is pulled for the Ames Street’s retail component. To answer Mr. Kaiser’s question that was asked during Public Comment, the income relative to the additional one million square feet is somewhat negotiated by development agreements but it would be an 8-digit number for the CRA, if approved. A majority of our personnel costs were due to the work involved with the KSURP, Foundry and Grand Junction. Some small shifts of a few items in our budget might be needed in our mid-year budget analysis. There seems to be a growing responsibility with the Eco-District. Our lawyer fees are growing but these costs are helping to increase our revenue. As Mr. Crawford had addressed in a past meeting, we should re-evaluate the budget item for outreach.

   The report will be placed on file.

5. **Report: Forward Fund Results Report:**

   To “unveil” the grantees, Mr. Zogg distributed the report at the meeting rather than including them in the packet. The CRA Board was not involved in the decision process of awarding the grants. There was an impartial jury making the selection. The first few pages of the report are not new to the Board and have been on the CRA website. Page 4 lists the selection committee members which shows the wide cross-section of various departments in the City that could be involved in the projects selected – Public Works, the Cambridge Arts Council, Inspectional Services, the Housing Authority, the Kids Council, Recreation Department, Economic Development, CDD, and Mr. Zogg. There were 18 proposals and the committee selected 7 projects, granting almost $40K in Capital Grants and/or Planning & Design Grants. The map in the report shows the location of the projects. Mr. Zogg has met with each grantee – Community Arts Center, Margaret Fuller Neighborhood House, Area 4 Neighborhood Group, EMW Bookstore, Green Cambridge Inc., Friends of the Grand Junction Path/Livable Streets Alliance/Working with Toole Design, and Just-A-Start Corporation. The document explains the projects in more detail, including their implementation schedules. This document will be placed on the website. The wording on the contract is being finalized with our lawyer and we will then get signatures of the project’s representatives. The contract specifies a mid-course review with outcome reporting to be included in the CRA annual report. We asked them to incorporate the CRA logo into their project to acknowledge us. The Board was very pleased. Mr. Bator suggested a press release or some kind of ceremony. Mr. Evans noted that the committee provided good feedback regarding the evolution of this pilot project which will be used for future rounds.

   The report will be placed on file.

6. **Update: Foundry Demonstration Project**

   Ms. Madden provided an update on the Foundry. At a public hearing on May 4, the City Council voted to dispose of the Foundry as a long-term leasehold to the CRA, including a diminution of some
of the requirements for the disposition. The City Council also voted to approve the Demonstration Project Plan and to allocate $6 million for capital improvements to the building. The CRA staff and City staff are now in the process of negotiating a lease. The lease terms, which were attached to the Disposition Report, are already in place, so much of the work has been done. We are putting legal language around those lease terms while concurrently writing the draft of the developer Request for Qualifications (RFQ). When the City Manager approves the lease, it will come before the CRA Board. Depending on the timing, the CRA vote could occur at the June 24th Board Meeting. The City DPW is in the process of hiring a contractor to remove the interior partitions, many of which have been damaged by water; we are waiting to hear the specific schedule for this but anticipate that it will be done this summer. The CRA had input into the demolition scope with the intent of opening up the building floor plan to show its possibilities. The contractor will test for any incidental materials that need to be remediated, such as window caulking or asbestos, and will also prepare a set of as-built plans. We plan to hold a pre-bid event for interested real estate developers, operators, and potential tenants. Ms. Madden distributed an announcement, which is seeking members for the seven-member Advisory Committee, which the City just posted. The governing documents for the Advisory Committee are the Demonstration Plan. Mr. Evans added that we are seeking members now but the actually legal document that forms a committee is the lease. We hope to have the RFQ out by the end of June or early July, submittals by mid-August, and then select the short list during September. The Request for Proposal (RFP) process would occur in the fall with the intention of selecting a Development Entity by early 2016.

7. Discussion: CRA Re-Branding and Logo Proposal

Mr. Paul Hornschemeier from Ambit presented the logo, which he modified using comments he received at last month’s Board meeting. As requested, he made the logo look more like a C, thinned the C and worked with the hash-lines. Mr. Hornschemeier handed out the booklet that explains the story of the logo. The Board felt that it required more tweaking. There was much discussion and suggestions offered. Mr. Evans noted that the logo would be nice to have for the Foundry RFQ. Mr. Zogg added that a new letterhead, business cards, etc. are waiting for the logo to be approved. In the interest of time, two Board members will work with CRA staff and Mr. Hornschemeier to refine the logo to make the “C “stronger”. Mr. Hornschemeier will send some revisions to Mr. Zogg for distribution beforehand.

8. Update: Ames Street Residences

Mr. Ben Lavery stated that the Planning Board approved the project just less than two months ago. The Planning Board design requires that you take things through a Schematic Design (SD) level although Mr. Lavery feels that the exterior building envelope and ground floor are beyond the SD level. Boston Properties is working on the Design Development (DD) drawings. A local architect company, Ad Inc., who was taken over by Stantec, has been added as an architect of record. FX Fowle is still involved. The design development process usually takes four months and Mr. Lavery expects the development design to be ready for CRA Board review in September. The civil engineer VHB has been working on the utility design portion of the project which includes coordinating the relocation of gas and electrical lines, a transformer, 3 gas mains as well as a significant sewer. The intent is to start the utility work in September and proceed until the weather gets bad. We should be able to start the building in earnest in the first quarter of 2016 but the demolition would start in
February. The loading dock needs to be temporarily placed on Pioneer Way while the utility work is being done so Pioneer Way will be the last part of the project to come on-line. Boston Properties has had conversations with retailers for a pharmacy and a grocery store but retailers don’t want to commit until the project is more advanced in time. Mr. Lavery stated that there might be the need for flexibility on the second floor but it wouldn’t change the design of the building. Ms. Born emphasized that the CRA Board likes the renderings they were shown and wouldn’t want the additional architect to jeopardize them. Mr. Lavery stated that the bike facility design would be part of the DD package. Mr. Lavery agreed to investigate pedestrian circulation through the garage that might be stressed as a result of the Ames Street project. Mr. Evans added that the pedestrian traffic would change when the Coop reopens.

9. Update: Kendall Square Urban Renewal Plan
   b. Implementation Plan Framework

Mr. Evans stated that the MEPA document is currently out and public comments are allowed until Friday. A week later we should get some scope direction from MEPA. The MEPA document has helped inform some of the implementation plan framework. Since the March workshop where the last version of the KSURP Amendment was distributed, we received comments from Foley Hoag, Whitehead, several CRA Board members, Boston Properties, and the City. Looking at the table of contents, areas of potential changes are highlighted. The first line that was changed is in the introduction which reemphasizing the historic language has been modified or removed. The first policy change is in the fifth objective on page 2 where we added multi-family housing rather than just mixed-use. Mr. Zevin noted a duplication of the word housing, which Mr. Evans will remove. The next change relates to the definition of GFA and what counts against commercial GFA. On page 9, language was added to allow an exemption for GFA of space that is being credited as open space. This relates to public space and the winter garden concept. The Google lobby, for example, is not counted against the GFA but is treated as public space, not as commercial space. We want to make sure that all these types of spaces function as public space. Mr. Zevin requested that the wording on page 9 with regards to roofed/unroofed and enclosed/unenclosed balconies be made consistent in the two paragraphs in Section 305(a). Mr. Zevin questioned the document’s notion of open space just as a place where people can sit with greenery. He feels it should be an area that can be seen from the inside and from the outside. The winter garden is an active public space but it doesn’t meet the second objective. Mr. Zogg added that feedback from the Connect Kendall Square competition meetings stressed quality of open space over quantity of square footage. Mr. Zevin would like the space between buildings to be taken into account. Ms. Born explained that the city is getting denser and that we need an equivalence to Central Park as well as areas that can substitute for open space.

Ms. Born noted that the word “is” on Page 18, Section 2, should be removed to read “The CRA may set conditions on the level of enhancement necessary....”. Mr. Zevin noted on Page 14, the last line of Section 1, the word “than” should be replace with “that.” Ms. Drury noted on Page 18, number 2, the second sentence needs to be corrected so that “Table One” is not duplicated. Ms. Born asked
that the language in this document be kept in-sync with that of the City’s zoning ordinance when mentioning roofed/unroofed/enclosed.

Mr. Evans explained the changes on Page 14 which attempt to clear up the confusion about the numbers of square footage. Boston Properties agreed to adding language that states that variances are not counted as the GFA so the numbers can be synchronized with the zoning code. This provides one set of commercial numbers consistently across this document. This wasn’t problematic for Cambridge Center 7 which has that variance. However, it will now be different than the historic numbers. There’s still a question of whether to delete the footnote but we do need to clarify why the number changed. It’s at 29,100 square feet.

The other highlights in this section added headings to make it clear that there are three different regulations on development – the cumulative GFA, aggregate GFA and the Floor Area Ratio. Boston Properties and Whitehead legal teams have looked at the numbers and there have been discussions about the meaning of the wording. We will need to convert this into zoning language.

On Page 17, there’s a highlighted change that clarifies the middle-income housing unit exemption from GFA. In regards to the section on building heights, Mr. Zevin encouraged that a shadow study be done to confirm that increasing the height limit along Binney would not cast shadows onto the East Cambridge residential blocks. Mr. Evans stated that engaging greater urban design capacity into the project is being discussed with Boston Properties. Mr. Evans said that the section on building heights states that a certain distance from Broadway will be allowed to go above 350 feet in height but that the question still remains of whether going up in height on Broadway should be counteracted with going down in height on Binney. Mr. Zevin reinforced his concern about testing the shadows created by the total 24,000 square feet stated in the document. Mr. Evans explained that the shadow issue involves the floor plate square footage as well as the maximum plan length. He agreed to investigate further.

Mr. Zevin is very concerned that the height calculations of a building exclude mechanical floors and areas of the building not occupied by humans. There will be discussions with the City regarding this issue. Ms. Born would rather this be part of a building’s design review. Mr. Evans agreed to do more investigation on the high tower issue, which is only applicable to residential buildings.

The next section is retitled from Space Use Allocation and Development Intensity to Open Space Requirements. This is a continued conversation stating that if you can’t create open space on your site, you must contribute to open space elsewhere within ½ mile. This concept will help with the Grand Junction Path. On Page 18, Section 2, in addition to deleting the word “is,” Ms. Born suggested that the CRA should have full discretion on the conditions regarding the level of enhancement. Changing the word “may” to “will” could accomplish that. Mr. Bator suggested also removing the phrase “in order for.” Mr. Evans said that the Open Space Requirement is trying to provide exceptions to a very confusing formula process. This section could be rewritten with a simpler solution that sets an overall district requirement of open space over 100,000 square feet with everything being qualitative with a design review. We need to check the impacts before making the change.
With respect to the affordable housing section on page 22, Mr. Evans stated that we don’t want to emphasize the inclusionary housing ordinance. We want this to be a GFA-based rather than unit-based metric to encourage larger units. The City supports this. Ms. Born questioned the need to specify the exclusion of Ames Street in this section. Mr. Evans explained that this requirement is for new residential buildings but since Ames Street hasn’t officially begun construction, its status is not clear. In order to give Ames Street a certificate of completion, it would need to conform to the standards as stated. Mr. Bator suggested stating the exclusion in a footnote. Mr. Evans suggested moving this to the Ames Street exemption section. Ms. Born urged that the language be made very clear regarding the percentage of affordable housing. The intent is that it can’t go below 15%. A suggestion was made to define the term “final net.”

On Page 23, Section 2 of Middle Income Housing, our lawyers suggested the addition of “exceed 80%” which clarifies the 80%-100% range. In Section 412, Innovation Space, we are trying to solve the situation where decisions have been made before this document is finished, namely the Whitehead situation. It’s challenging to impose a new regulation on this parcel, since it has already gotten an entitled through zoning exemption. The added language on the bottom of the page, ensures that the developer could bring in a single overall operator of the space rather than have a multitude of little one-month leases. The language in the K2 plan regarding innovation space will hold. The concept of innovation retail/office and possibly innovative commercial space is being removed from the amendment. This issue might be addressed in a programmatic sense. The design review would make the decision of what is innovation space.

On Page 26, Section 416 is an insertion to cover the Whitehead. Mr. Zevin wants this section removed because it allows Whitehead to remove its open-space. Mr. Evans responded that the Whitehead’s zoning petition is now the law and we are required to include it. Ms. Born reads this section as special interest language. Mr. Drury agreed with Mr. Zevin and objects to the phrase “remedy a gap in the urban street edge.” As instructed by the Board, Mr. Evans agreed he will edit the page.

Page 29, Section 504, MXD Concept Plan, was well received by the Board. The word “approve” was changed to “prepare” requiring CRA resources to write the concept plan for regulating developers in this area. The plan would need to be approved by the City’s Planning Board. Ms. Born suggested changing the word “plan” to avoid confusion with the Urban Renewal Plan. Ms. Born would like to revisit the word “facilitate” and the phrase “pale in comparison” found in the first paragraph of the Introduction at the beginning of the document. Ms. Drury added that the intent of the sentence should be made clearer. The CRA has been responsible for many changes but there’s many more changes have occurred that were not due to the CRA.

Mr. Evans presented a prototype of an implementation plan. With the financial benefit that the CRA would get from an approved amendment, we want to show how we can address community needs in the area. The ideas in the chart came from conversations with many groups, public meetings, as well as feedback from the K2 plan, and the MEPA/EIR process. It also includes the human resources required and cost range. Any action or commitments would require the CRA Board’s approval.
10. Update: Parcel Six Temporary Use Alternatives

   The City has had a change of heart about food trucks. Food trucks are self-contained and require no electrical services. The procurement process would need to be investigated. Two trucks would fit in the space. The Board was interested in this possibility. The current contractor would be instructed to leave the site as agreed in the contract. The timing needs to be evaluated since the contractor is working on the Main Street project.

At 8:47 p.m., a role call vote of the Board was taken to convene in executive session for the purpose of discussing correspondence from Special Counsel regarding a past personnel matter. The Board will not convene after the executive session.
   Mr. Zevin - yes
   Ms. Born - yes
   Ms. Drury - yes
   Mr. Bator – yes
   Mr. Conrad - absent
Executive Session Meeting
Cambridge Redevelopment Authority

Wednesday, December 17, 2014, 8:30pm
Cambridge Police Station
125 Sixth Street
Community Room

EXECUTIVE SESSION MEETING MINUTES

Board Members In Attendance: Mr. Chris Bator, Ms. Kathleen Born, Mr. Conrad Crawford, Ms. Margaret Drury, Mr. Barry Zevin

Executive Session began at 8:58 PM after the close of the Regular Board Meeting.
(Approved regular meeting minutes available)

Executive Director Tom Evans and Legal Council Jeffrey Mullan introduce the form and initial concepts of a proposed Term Sheet for use in negotiating a proposed lease of the Foundry Building at 101 Rogers St. from the City of Cambridge. Katherine Madden further emphasizes the strong collaborative work of the City / CRA Working group in preparing the Foundry Demonstration Project Plan.

Staff and Board members discuss items on the draft term sheet presented by Jeff Mullan.

Meeting adjourned at 10:00 PM.
SPECIAL MEETING and EXECUTIVE SESSION MINUTES

Board Chair Kathy Born opened the meeting in open session at 4:14 PM

Board Members In Attendance: Ms. Kathleen Born, Mr. Conrad Crawford, Ms. Margaret Drury, Mr. Barry Zevin

Chris Bator is participating remotely due to geographic distance.

Kathy Born asked Chris Bator if anyone is in the room with him. Chris Bator responses that he is alone with the door closed.

First order of business is to vote to enter into executive session. Roll call vote:

Bator - yes
Born - yes
Drury - yes
Zevin - yes
Crawford - yes

Chair Kathy Born states that the Board is now meeting in Executive Session and does not intend to reconvene in open session. She declares that the Board is now in executive session at 4:16 PM.

Tom Evans introduces the progress in meeting with the City on the Foundry Term Sheet stating that we are mostly in agreement. The document underwent some reorganization.

CRA Legal Counsel Jeffrey Mullan reviews the details of proposed revisions to and reorganization of the draft Term Sheet based on responses from the City to the original proposal.

Staff and Board members discuss items of the revised draft term sheet.

Meeting is adjourned at 6:06 PM.
Executive Session Meeting
Cambridge Redevelopment Authority

Wednesday, January 21, 2014, 8:30 pm
Cambridge Police Station
125 Sixth Street
Community Room

EXECUTIVE SESSION MEETING MINUTES

Executive Session began at 9:17 PM after the close of the Regular Board Meeting.
(Approved regular meeting minutes available)

Board Members In Attendance: Mr. Chris Bator, Ms. Kathleen Born, Mr. Conrad Crawford, Ms. Margaret Drury, Mr. Barry Zevin

CRA Legal Counsel Jeffrey Mullan reviews the final draft Term Sheet as proposed by the City. Staff and Board members continue the discussion regarding the lease of the Foundry building and review the revisions to the draft term sheet proposed by the City.

Motion: Authorizing the Executive Director to transmit the attached Term Sheet to the City Manager to accompany the disposition report on the Foundry Building.

Roll call votes:

Bator - yes
Born - yes
Drury - yes
Zevin - yes
Crawford - yes

5-0 vote in the affirmative.

Meeting called to a close at 9:50 PM
Term Sheet for Lease in Cambridge, Massachusetts

Dated as of: January XX, 2015

PREAMBLE: Landlord and Tenant (each as defined below) hereby enter this Term Sheet (this “Term Sheet”) regarding a lease (the “Lease”) of the city-owned Foundry Building at 101 Rogers Street (the “Property”). The goal of the Lease will be to implement the vision, objectives and conditions developed through extensive community and City Council input, and formally set forth in Demonstration Plan for the Property adopted by the CRA and to be approved by the City Council. The CRA would serve as the steward of the Property and in particular the community uses and programming within the Foundry. Unless the context indicates otherwise, actions called for in this Term Sheet to be taken by the City shall be taken by the City Manager.

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<th>Summary of Material Terms and Conditions</th>
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<tr>
<td><strong>Parties and Definitions</strong></td>
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<td><strong>Landlord:</strong></td>
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<td>Pre-Lease Term:</td>
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**Administrative Matters**

| Remedies: | The Lease will provide remedies for the City if the Property is not redeveloped in accordance with the Governing Documents. |
| Costs and Expenses: | Each party shall bear its own costs and expenses in connection with the negotiation and execution of the Governing Documents and the Sublease. |
| Drafting of Lease: | The CRA shall be responsible for preparing the first draft of the Lease. |
| Programmatic Objectives: | The Lease will include minimum and maximum programmatic requirements of the Property’s occupants and programs (the “Program”). |

**Selection of Development Entity**

| Schedule: | The Parties agree to pursue the development of the Property consistent with the schedule set forth in Exhibit B, and acknowledge that it is expected that the Property will be substantially occupied not later than three years after the commencement of the Term. |
| Selection Process: | The Development Entity shall be selected by the CRA, with the approval of the City Manager, following a multi-stage selection process consisting of a Request for Qualifications ("RFQ") to short list qualified entities ("Proponents") and a Request for Proposals ("RFP") to fully develop proposals for evaluation. Prior to the release of the RFQ, the CRA will organize at least one public pre-bidding event to invite developers, program providers, and potential tenants to form connections and potential partnerships capable of delivering an innovative mix of uses in the Property. |
The RFQ will provide prospective Proponents with an opportunity to propose an overall building reuse concept. If the CRA receives sufficient responses in alignment with the Governing Documents, the second stage of the solicitation will proceed through a limited-solicitation RFP to be distributed to the Proponents.

This proposal (RFP) round will center on selecting a feasible concept for the Property that includes the selection of an implementation team with appropriate development and management capacity to rebuild and populate the Property. The CRA will solicit proposals for the Property’s reuse as specified in and consistent with the Governing Documents.

The CRA will host at least one televised public presentation of the final proposals from the Proponents at least two (2) weeks before the selection of the Development Entity.

| Selection Criteria | The proposals will be evaluated according to the objectives for the Property set forth in the Governing Documents. Proposals that demonstrate delivery of a Program with community-oriented uses significantly greater than the 10,000 square feet minimum required by the Cambridge Zoning Ordinance and that include the productive use of as much of the Property as possible will be considered highly advantageous in the selection process.

Proposals will also be evaluated on the strength of financing, the quality and experience of the Development Entity, the mix of proposed uses as they relate to the objectives laid out in the Governing Documents, the conceptual building design, approach to environmental issues, proposed schedule, and the capacity of the Proponent to undertake both the development and operations of the Property over the long term. |

| Financial Matters | The City’s Capital Improvements will include improvements to the building and the Property, as determined by the City to be necessary and appropriate to facilitate the use of the Property for the Program and in compliance with all applicable federal, state, laws, rules and regulations. The City Council shall appropriate $6 million for the City’s Capital Improvements to a capital fund and the City shall expend substantially all of such amount during the Pre-Lease Term and the first ten (10) years of the Term.

The CRA shall create 1) an operating fund reserve which shall be dedicated to investment during the Term in the Property’s ongoing building operations, and programming goals as specified in and consistent with the Governing Documents; and 2) a capital fund reserve which shall be dedicated to investment during the Term in the

| City’s Capital Improvements: | |
| Expense of Funds; Reserve Accounts: | |
Property’s capital maintenance as specified in and consistent with the Governing Documents, with the CRA’s Funds (collectively, the “Reserve Accounts”). At each ten-year anniversary of the Term, the amounts of the Reserve Accounts shall be reviewed by the Parties and may be adjusted based on the then prevailing best professional practice and all excess funds in the Reserve Accounts at such time may be returned to the City and to the CRA to recoup the initial investments of each party as agreed by the Parties.

CRA’s Funds:
The CRA shall provide $2 million to establish the Reserve Accounts prior to the start of the Term, and shall allocate such portion of the $2 million to the operating fund reserve and the capital fund reserve in amounts agreed to be the Parties, the entirety of which shall be spent during the Term.

Rent:
No Rent shall be paid to the City except as otherwise provided herein. The CRA shall be authorized to set rental rates (“Rent”) with the Development Entity according to the Program and the Governing Documents. Rent owed under the Sublease shall not be lower than that established by an independent appraisal commissioned by the CRA, but portions of the Rent may be offset by certain capital improvements or programmatic measures by the Development Entity. Any revenue received by the CRA from the Property shall be: (a) used to provide support for the Program; (b) used for additional improvements to the Property to support the Program, building administration, or for the recovery of pre-development expenses of the Parties as approved by the City; or (c) deposited in the Reserve Accounts. Such revenues shall be accounted for by the CRA and shall be subject to review by the City in its annual audit of the Property.

Additional Financing:
The CRA will endeavor, with the City’s support, to bring additional financial resources into the Project. These may include tax credits, state financing, tax agreements, grants, charitable donations, development fees, and other capital sources.

Real Estate Taxes:
No real estate taxes shall be owed on the Property during the Pre-Lease Term. During the Term, the Development Entity and any entity claiming through the Development Entity shall be responsible to pay such taxes on the Property as are due and payable pursuant to Chapter 59 of the Massachusetts General Laws.

Utilities:
The CRA shall be responsible for the cost and expense of all utilities during the Term and shall be authorized to enter into an agreement with the Development Entity for the payment of utility charges.

Insurance:
The CRA shall require the Development Entity and all designers, contractors, developers, operators and tenants of the Property to carry
suitable levels of insurance as required and approved by the City.

| Audit: | The operations and finances of the Property, including use of the Reserve Accounts, shall be subject to annual audit by the CRA and, upon request, the City and/or its designees. |
| Ten-Year Rent Evaluation: | The Sublease shall provide that, at each ten-year anniversary of the Term, the amount of Rent owed under the Sublease shall be subject to renegotiation based on the then prevailing market rents for the uses making up the Program. In the event the CRA and the Development Entity are not able to agree on the adjustments to the Rent, such adjustments shall be submitted to an independent appraisal process to be set forth in the Sublease. |

### Development Matters

| Improvements and Modifications; City Review: | The CRA shall ensure that improvements and modifications to the Property are designed in compliance with all applicable federal, state and local laws, rules and regulations. The City Manager (with recommendations from the CRA Board) shall approve all structural and all permanent capital improvements and modifications to the Property. |
| Construction Management: | The CRA shall hire or otherwise retain, subject to the City Manager’s approval, an owner’s representative to oversee each stage of the Property’s redevelopment. |
| Permits: | The Development Entity shall be required to obtain any and all permits and/or licenses required by federal, state and local laws, rules and regulations for the redevelopment and operation of the Property. |

### Operational Matters

| Performance Measures: | The Sublease shall maximize the community benefits from the redevelopment and use of the Property while maintaining the financial sustainability of the Property. The Sublease will include performance measures and reporting requirements that comply with the Governing Documents. |
| Repairs and Maintenance: | Throughout the Term, the CRA shall maintain the Property in good condition and repair, reasonable wear and tear excepted, and shall be authorized to transfer this obligation to the Development Entity in the Sublease. Expenses for maintenance during the Term may be paid out of that portion of the Reserve Funds set aside for capital maintenance. The CRA shall not be responsible for the maintenance of the Property during the Pre-lease Term. The CRA may request that the City undertake specific capital improvements as a part of the City’s Capital |
Improvements during the Pre-Lease Term or the Term.

| Continuous Operation: | The Sublease shall require the Development Entity to use its best efforts to keep the Property continuously occupied during the Term. The CRA will play an active management role in overseeing operations at the Property consistent with the Governing Documents, with a specific emphasis on the community uses and public programming of shared spaces, and the CRA shall report to the City Manager on regular basis. |
| Environmental Issues: | The CRA, on its own account or through the Development Entity, shall secure environmental liability insurance for additional remediation and hazardous material disposal costs related to environmental conditions at the Property not previously identified by the City but discovered during development process or building operation. |
| Advisory Committee: | The City Manager shall create a seven (7) person Advisory Committee (the “Committee”) in consultation with the CRA’s Executive Director. The Committee shall conduct its affairs and carry out its mission in accordance with the Governing Documents. |
| End of Lease Term: | If the City so elects, at the expiration or sooner termination of the Lease, all improvements shall be surrendered to the City in a condition to be agreed upon by the City. |

The Parties acknowledge that a transaction of the type contemplated in this Term Sheet involves terms and conditions which have not yet been agreed upon. The Term Sheet is in no way intended to be a complete or definitive statement of all the terms and conditions of the proposed transaction, which shall be subject to the negotiation and execution of a satisfactory Lease by the Parties.

Attachments

Exhibit A - Description of the Property

Exhibit B – Schedule for The Foundry Property
Attachment A: Description of the Property

ARE-MA REGION NO. 32, LLC, a Delaware limited liability company, and
ARE-MA REGION NO. 35, LLC, a Delaware limited liability company,
(each, a “Grantor”, and together, the “Grantors”),

for consideration paid of Ten Dollars ($10.00), and in satisfaction of that certain condition set
forth in Section 1(a) on Page 17 of 29 of that certain Notice of Decision of the Planning Board of
the City of Cambridge, dated June 7, 2010, recorded with Middlesex South District Registry of
Deeds in Book 54930, Page 202, with respect to the conveyance of the property referenced
herein,

grant with quitclaim covenants to

CITY OF CAMBRIDGE, a municipal corporation organized under the laws of the
Commonwealth of Massachusetts, having an address of 795 Massachusetts Avenue, Cambridge,
Massachusetts 02139 (“Grantee”),

those two (2) certain parcels of land in Cambridge, Middlesex County, Massachusetts, more
particularly described in Exhibit A attached hereto and made a part hereof (together, the
“Premises”).

The Premises are conveyed subject to, and with the benefit thereof, as the case may be, the
easements, restrictions, reservations, rights, agreements, encumbrances and other matters of
record insofar as they are now in force and applicable.

Neither Grantor is classified as a corporation for federal tax purposes for the current taxable year.

Massachusetts deed excise tax stamps are not required, Grantee being a political subdivision of
the Commonwealth of Massachusetts.

(Remainder of Page Intentionally Left Blank; Signature Page to Follow)
Executed as an instrument under seal as of January 2012.

ARE-MA REGION NO. 32, LLC,
a Delaware limited liability company

By: Alexandria Real Estate Equities, Limited Partnership, a Delaware limited partnership, managing member

By: ARE-QRS Corp., a Maryland corporation, its general partner

By: Dean A. Shigenaga,
Senior Vice President and Treasurer

ARE-MA REGION NO. 35, LLC,
a Delaware limited liability company

By: Alexandria Real Estate Equities, Limited Partnership, a Delaware limited partnership, managing member

By: ARE-QRS Corp., a Maryland corporation, its general partner

By: Dean A. Shigenaga,
Senior Vice President and Treasurer
STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

On December 22, 2011, before me, Teryll E. Sacks, Notary Public, personally appeared Dean A. Shigenaga, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person 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]

(Seal)
ACCEPTANCE OF QUITCLAIM DEED BY CITY OF CAMBRIDGE

The City of Cambridge accepts this Quitclaim Deed from ARE-MA Region No. 32, LLC and ARE-MA Region No. 35, LLC, for the premises described herein located in Cambridge, Middlesex County, Massachusetts.

CITY OF CAMBRIDGE

By: [Signature]
Robert W. Healy, City Manager

Date: January 9, 2012

APPROVED AS TO FORM:

[Signature]
Donald A. Drisdell, City Solicitor
Exhibit A to Quitclaim Deed

Parcel 1

That certain parcel of land in Cambridge, Massachusetts, shown as Lot 2 on a plan entitled “Amended & Restated Subdivision & Consolidation Plan of Land #239, #245-#247 Third Street, Cambridge, Massachusetts,” dated September 15, 2009, prepared by Feldman Profession Land Surveyors, recorded with said Deeds as Plan No. 624 of 2009, said Lot 2 containing 5,254 square feet according to said plan.

Being a portion of “Parcel 5 239-257 Third Street” as set forth in, and for Grantor ARE-MA Region No. 32, LLC’s title see, deed from Bruce A. Beal and Robert L. Beal, as Trustees of The Cambridge East Trust, dated November 1, 2006, recorded with said Deeds in Book 48428, Page 408.

Parcel 2

A certain parcel of land with all buildings, structures and improvements now or hereafter thereon and all fixtures now or hereafter therein, situated in Cambridge, Massachusetts, now known and numbered as 101 Rogers Street and 180 Bent Street, being shown as Lot A on a plan entitled “Plan of Land Cambridge, Mass.,” dated March 15, 1968, by Robert H. Dunning, surveyor, duly filed with Middlesex South Registry of Deeds with deed of Nathaniel E. Slavin, Trustee of Slavin Real Estate Trust, dated June 28, 1968 and recorded with said Deeds in Book 11532, Page 482, being bounded and described as follows:

NORTHERLY by Bent Street, ninety-three and 4/10 (93.4) feet;

EASTERNLY by land of owners unknown, two hundred seventeen and 65/100(217.65);

NORTHERLY again by land of owners unknown, one hundred twenty-two and 63/100 (122.63) feet;

EASTERNLY again by Third Street, fourteen and 77/100 (14.77) feet;

SOUTHERLY by Rogers Street, two hundred sixty-six and 13/100 (266.13) feet;

WESTERNLY by Lot B on said plan, by a line running in part through the middle of a partition wall, one hundred fifty-one and 65/100 (151.65) feet;

NORTHERLY again by said Lot B, eleven and 3/10 (11.3) feet;
WESTERLY again by Lot B, by a line running through the middle of a partition wall, nineteen and 5/10 (19.5) feet;

NORTHERLY again by said Lot B, by a line running through the middle of a partition wall, forty-two (42) feet;

WESTERLY again by said Lot B, by a line running through the middle of a partition wall, sixty and 5/10 (60.5) feet.

The above parcel is also shown on a plan entitled “Plan of Land, Cambridge, Massachusetts” by Harry R. Feldman, Inc. Land Surveyor, dated December 19, 1983 recorded with said Deeds in Book 15381, Page 78, said parcel containing 32,237 square feet according to said plan.

For Grantor ARE-MA Region No. 35, LLC’s title see deed from LNR Rogers Street, Inc. dated February 16, 2007, recorded with said Deeds in Book 49008, Page 320.
### Transaction
- Demonstration Plan
- Disposition
- Lease

### Pre-Lease Term
- RFQ
- RFP
- Developer Selection
- Sublease

### Term
- Permits
- Design
- Construction
- Occupancy

### Calendar Years

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<th>2018</th>
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<tr>
<td>2018</td>
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Projected dates are estimated.
The Cambridge Redevelopment Authority (CRA) engaged HR&A Advisors, Inc. (HR&A) to perform market and financial feasibility analysis for real estate development in and around the Kendall Square Urban Renewal Plan (KSURP) area, particularly as it relates to the production of low- and middle-income affordable housing. This memorandum summarizes our findings and methodology for determining the baseline feasibility and associated supportable values of mixed-income residential and office/lab uses. These results aim to guide CRA's understanding of the economics of mixed-income housing and commercial uses in Kendall Square.

HR&A quantified the supportable land value (i.e., the value a private developer would pay for arms-length market transactions) for office, lab, and mixed-income residential development in Kendall Square by constructing multi-year development models that are calibrated to reflect current market conditions. We then adjusted the financial models to determine the impact of increased low-income requirements and incentives and the creation of a middle-income height bonus. HR&A also calculated the extent to which commercial uses could potentially cross-subsidize residential uses within a large-scale, mixed-use development project.

I. Executive Summary

The cash flow models project the development economics of mixed-income residential rental buildings as well as office and lab buildings. The Inclusionary Housing Ordinance in Cambridge requires developers to set aside 15% of their units for low-income housing, but generally provides a density bonus equivalent to 30% of floor area. After the bonus, approximately 11.5% of total units are therefore affordable to low-income households. Areas within Kendall Square where development is guided by aggregate gross floor area rather than floor area ratio requirements are not necessarily subject to an equivalent density bonus provision. Our methodology included the following steps:

- **Baseline development**: The model determines supportable land value for each use at a leveraged return on equity (internal rate of return) of 15%. We calibrated our baseline development feasibility models under two parking scenarios: underground and above-ground. Underground parking construction is assumed to cost $100,000 per space while structured, above-ground parking construction costs $25,000 per space.

- **Low-income units**: To understand the impact of varying the share of units for low-income households, we adjusted our model to reflect developments that would net 15.0% low-income units and 20.0%
low-income units (a) without additional subsidy and (b) with tax-exempt bond financing and low-income housing tax credits.¹

- **Rent and operating costs.** Based on market comparables and discussions with real estate developers and operators, we assumed average residential market rents of $4.50 per square foot per month. Based on current and proposed affordable unit regulations, we assumed rents that are affordable to low-income households earning 65% of area median income and middle-income households earning 102.5% of area median income.² We assumed operating costs for a typical residential development of approximately 26% of income each year. We assumed office rents of approximately $5.00 per square foot per month and office operating costs of 22% of gross income. We assumed lab rents of $5.42 per square foot per month, with all operating costs paid by lab tenants.

The table on the following page (Figure 1) compares the projected supportable land value per square foot for potential uses, assuming either underground or above-ground parking.

- **Commercial.** Our office and lab models projected baseline supportable land values between $95 and $235 per gross square foot, depending on type of parking construction and use.

- **Residential**
  - **Baseline residential.** Our residential model projected supportable land values of $75-$110 per gross square foot under inclusionary regulations with 11.5% of the units reserved for low-income households, depending on type of parking construction selected.
  - **Additional low-income units.** Supportable land value decreases as the share of affordable units increases. HR&A also tested the impact of subsidizing affordable units using tax-exempt bond financing and low-income housing tax credits. These resources are only available for projects containing at least 20% affordable units set aside for households earning 50% of area median income. The additional subsidies generate supportable land value of $50-$90 per gross square foot, which are still less than the baseline residential values.

¹ HR&A modeled net low-income units with a low-income FAR bonus of 30% of floor area, which is the policy under the Inclusionary Housing Ordinance in most areas of Cambridge. In order to net 15% and 20% affordable units after the current 30% bonus, Cambridge would need to mandate base inclusionary ratios of 19.6% and 26.1%, respectively (19.6% ÷ 130% = 15%; 26.1% ÷ 130% = 20%).

² A current project in development will reserve half of the middle-income units for households earning 95% of area median income; the other half will be affordable to households earning 110% of area income. The model uses an average of 102.5% to set middle-income rents.
### Figure 1. Supportable Land Value Comparison After Parking Costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Underground Parking</th>
<th>Above-ground Parking</th>
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<tr>
<td><strong>Commercial Development</strong></td>
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<tr>
<td>Office</td>
<td>$95</td>
<td>$160</td>
</tr>
<tr>
<td>Lab</td>
<td>$175</td>
<td>$235</td>
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<tr>
<td><strong>Residential Development - Baseline</strong></td>
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<td></td>
</tr>
<tr>
<td>11.5% Low-Income</td>
<td>$75</td>
<td>$110</td>
</tr>
<tr>
<td><strong>Additional Low-Income Scenarios</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15% Low-Income</td>
<td>$60</td>
<td>$100</td>
</tr>
<tr>
<td>20% Low-Income</td>
<td>$45</td>
<td>$85</td>
</tr>
<tr>
<td>20% Low-Income (with Bonds and 4% Tax Credits)</td>
<td>$50</td>
<td>$90</td>
</tr>
</tbody>
</table>

- **Comparative Supportable Land Value.** Assuming all uses provided underground parking, office has a supportable land value that is 27% greater than the supportable value of baseline residential development with 11.5% low-income units (or 1.27 times as valuable). Lab has a supportable land value that is over 130% greater that the land value for baseline residential (or 2.3 times as valuable).

- **Impact of Additional Low-Income Units.** Every 1% increase in the required percentage of inclusionary units affordable for low-income households reduces supportable land value by approximately $3.20. As shown in the graph (Figure 2), the model indicates that a development with 35% of units reserved for low-income households and underground parking can support no land value.

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3 A detailed assessment of parking cost impacts is located in Appendix B.

4 Assumes 15% leveraged return on invested capital with underground parking, assumed to cost $100,000 per space for construction, required at a ratio of 0.5 spaces per unit residential, 0.9 spaces per 1,000 square feet of office, and 0.8 spaces per 1,000 square feet of lab.

5 Assumes 15% leveraged return on invested capital with above-ground parking, assumed to cost $25,000 per space for construction, required at a ratio of 0.5 spaces per unit residential, 0.9 spaces per 1,000 square feet of office, and 0.8 spaces per 1,000 square feet of lab.
HR&A also modeled a middle-income height bonus. The proposed bonus would give developers 50 feet of additional height if they agreed to reserve 25% of the units generated through the height bonus for middle-income families. The density bonus awarded through the Inclusionary Ordinance would also require a 15% unit set aside for low-income families.

- **Middle-income bonus units.** Holding the 15% low-income requirement fixed, each 1% increase in middle-income bonus units reduces supportable land value for the middle-income bonus portion of a project by approximately $1.50. If a middle-income bonus is granted at no additional cost to the developer, we estimate that including 42% middle-income units and 15% low-income units in the middle-income bonus portion of a project would generate a neutral impact. In other words, a bonus composed of 43% market-rate units, 42% middle-income units and 15% low-income units would earn a developer its required rate of return with no supportable land value.
II. Context

Kendall Square has historically been dominated by commercial and university uses but has recently been evolving into a more mixed-use district. The 2013 Kendall Square Plan (K2 Plan), a result of a community-based planning and design process, identifies housing for a range of income levels as a major need and challenge for the area. Despite scarcity of land, the K2 Plan notes that the Volpe site and the property reserved for the Constellation performance center in PUD-KS3 have unrealized development potential that could absorb additional housing.

In recent years, the CRA has encouraged the development of new housing stock in Kendall Square through rezonings. The 2013 MIT rezoning includes a requirement for a minimum of 240,000 square feet of housing in exchange for a maximum of 980,000 square feet of additional commercial development, and the 2009 Alexandria rezoning includes a requirement for a minimum of 220,000 square feet of residential space in exchange for a maximum of 1,500,000 square feet of commercial space. Alexandria is constructing approximately 90 residential units at 270 Third Street, including low- and middle-income units. Additionally, Boston Properties, the master developer of developer of the KSURP area, received approval for a zoning modification that will allow them to build a 240-unit residential tower along Ames Street with 31 affordable units. In light of recent projects and possible future transactions, three major considerations impact the residential market in Kendall Square:

- **High land value.** Commercial developers frequently outbid residential buyers when competing for privately-held development parcels. Recent transactions in the area demonstrate that lab and
commercial developers are able to offer higher land payments for these uses compared to residential uses.

- **Distribution of uses.** Developers in Kendall Square have favored the construction of higher-value commercial uses over lower-value residential uses. Recent rezonings have required commercial developers to include residential uses in future projects.

- **Proposed zoning changes.** The CRA is considering an amendment to the KSURP in order to provide an additional entitlement of up to 600,000 square feet of commercial and 400,000 square feet of residential in exchange for including some increased percentage of low- and middle-income units in future residential projects.

### III. Methodology

HR&A created multi-year real estate financial models, calibrated to reflect current market conditions, for lab, office, mixed-income apartment and structured parking uses.

- **Cost and revenue assumptions.** HR&A reached out to local developers and government officials to develop a thorough understanding of the principal assumptions driving the feasibility of commercial and residential development, including vertical development costs, financing assumptions, revenue projections, and the impact of parking in order to identify differences in land values. A summary of development and operating assumptions is located in Appendix A.

- **Parking.** HR&A examines the cost of parking for residential and commercial development. Developers in Kendall Square traditionally maximize scarce land supply by building required parking underground, which significantly increases the construction cost. Underground parking allows a developer to dedicate a larger portion above-ground area to residential or commercial uses, which are significantly more financially accretive than above-ground parking. We integrate parking costs and revenues into our analyses of each use.

Each real estate cash flow projects a supportable payment per square foot of development rights, assuming certain upfront construction costs, ongoing revenues and operating expenses and a required rate of return on equity invested by the developer.

### IV. Residential Development in Kendall Square

The Cambridge Inclusionary Ordinance currently requires affordable units to be included in new multi-family residential development. The CRA is also evaluating a middle-income height bonus and is seeking to understand the bonus’s financial implications for developers.

#### A. Sensitivities

- **Low-Income Sensitivities.** Cambridge’s Inclusionary Housing Ordinance requires that 15% of the base units in the building be affordable to households earning below 80% of the area median income. Typically, the Ordinance also provides a 30% floor area bonus for developments in exchange for the affordable units, so projects net approximately 11.5% affordable units; this density bonus does not necessarily apply in areas of Cambridge where development is regulated by aggregate gross floor area requirements rather than floor area ratios, such as the MXD District. The CRA Board has stated a policy goal that future residential development in the MXD District net at least 15% affordable units.
HR&A tests the requirement of a net share of 11.5% affordable units at rents affordable to households earning 65% of the area median income, the standard underwriting level for affordable units regulated by the Cambridge Community Development Department. We also test the impact of increasing the affordability requirement to an effective 15% and 20% share of low-income units, with and without applying Low Income Housing Tax Credits and tax-exempt bond financing. Applying the additional subsidy sources requires that we test a net share of 20% low-income units at rents affordable to households earning only 50% of the area median income to comply with statutory requirements of the Low Income Housing Tax Credit program.

- **Middle-Income Sensitivities.** Units created from a middle-income bonus are also subject to the inclusionary zoning requirements, meaning that 15% of the bonus units must be affordable to low-income households in addition to the 25% of units affordable to middle-income households. The model assumes that middle-income units are affordable to households earning 102.5% of area median income, based on comparable middle-income requirements for a pilot project. HR&A tests middle-income levels at the proposed 25% and calculated the share of middle-income units associated with a land value of zero, after factoring in parking costs. The break-even scenario assumes that the CRA would offer the bonus floor area at no additional cost to developers.

### B. Assumptions

- **Development Costs.**

  **Construction Costs.** Hard costs for residential product are estimated to total approximately $350 per gross square foot, based on conversations with local developers. Soft costs other than financing costs are assumed to equal 10% of hard costs. Adding in financing costs (interest plus fees) increases soft costs to approximately 25% of hard costs. The cost of parking varies depending on whether parking is built above ground or underground; underground parking is approximately four times as costly to build. HR&A’s modeling tests parking ratios of 0.5 spaces and 0.25 spaces of parking for every residential unit.

  Our cost calculations assume steel or concrete frame construction on a clean site. Extraordinary site preparation costs and delayed permitting could result in higher construction costs.

  **Financing.** The analysis assumes that a developer could obtain a construction loan sized at 60% loan to cost, with a 6% interest rate. After stabilization at month 30, the developer would refinance construction debt into a permanent loan sized at 65% loan to value. Base financing assumptions were vetted with market knowledgeable active in the Kendall Square area.

  **Exit Assumptions.** For the purpose of our conceptual analysis, we assume that a developer would exit the deal at month 60 with the expectation of a 5.5% capitalization rate.

- **Revenues and Operating Costs.**

  **Rent.** Rents for affordable units are assumed to vary based on the level of affordability. Tenants in affordable units pay only 33% of income on rent and parking, provided that the development offers parking spaces, resulting in rents that are approximately 50% below market for low-income units and 20% below market for middle-income units. Rents for market units are assumed

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6 A current project in development will reserve half of the middle-income units for households earning 95% of area median income; the other half will be affordable to households earning 110% of area income. The model uses an average of 102.5% to set middle-income rents.
to be similar to rents in comparable new buildings. Parking also generates revenue through fees for spaces. For the purpose of this analysis, we assume that the maximum allowable 33% of income for low- and middle-income units goes toward rent and does not support parking, rather than separating income percentage by use. The resulting land value is equivalent to separating payments by residential rent and parking.

**Real Estate Taxes.** Conversations with area developers indicated that total residential operating costs averaged $12,000 per market-rate unit, with 35% of the cost going towards real estate taxes. Because taxes are based on net operating income (NOI) and change with rent levels, HR&A assumes that taxes associated with affordable units would vary according to differences in NOI for these units.

**Other Operating Costs.** Other building operating costs do not vary with affordability and remain at approximately 15% of market income per year. Because the NOI of affordable units is less than the NOI of market-rate units, the share of other operating costs as a percentage of revenues is higher for affordable units. Likewise, NOI for parking decreases as the share of affordable units increases, since revenues decrease while operating costs remain unchanged. The lack of additional revenues to support parking mandated for affordable units increases the financial burden associated with affordable housing substantially.

C. Results

- **Affordability and Residential Land Value.** The inclusionary requirement of 11.5% low-income can support the land values of $75-110 per square foot value of development rights, depending on parking requirements. Increasing the affordable requirement to 15% results reduces the supportable land value to $60-100 per square foot of development rights. Increasing low-income units beyond 15% without offering additional bonus area generates supportable land values of $45-85 per square foot of development rights. The addition of tax credits and bond financing results in a supportable land value of $50-$90 per square foot of development rights, which is still below the current inclusionary zoning values. A middle-income bonus offered with no additional land cost has a neutral impact on development economics when the middle-income bonus area includes 43% market-rate, 42% middle-income and 15% low-income units.

- **Parking.** Requiring underground parking reduces supportable land value by $30-$35 per square foot of development; a less onerous parking ratio or the ability to build above-ground parking without reducing development rights would decrease the negative impact of parking.

IV. Office and Lab Development in Kendall Square

A. Assumptions

- **Development Costs.** Based on local developer input, hard costs for office space are currently estimated to total $290 per square foot. Construction costs of lab space are approximately 20% higher than those of office space because of the higher structural costs associated with lab space. The landlord’s tenant improvement contribution for lab space is assumed to be substantially (three times) higher than the contribution for office space. Soft costs other than financing costs are estimated to total 10% of hard costs. Adding in financing costs (interest plus fees) increases soft costs to approximately 35% of hard costs. Underground parking is assumed to cost approximately $100,000 per space, including both hard and soft costs. The model
assumes that a developer would build parking at a ratio of 0.9 spaces for office and 0.8 spaces for lab for every 1,000 square feet of development, in line with assumptions for other pending Kendall Square projects.

**Financing.** The analysis assumes that a developer could obtain a construction loan sized at 60% loan to cost, with a 6% interest rate. After stabilization at month 45, the developer would refinance construction debt into a permanent loan sized at 65% loan to value. Stabilization is assumed to occur later for commercial projects than for residential projects, meaning that construction loans would last longer for commercial projects, resulting in higher overall construction loan interest payments.

**Exit Assumptions.** For the purpose of our conceptual analysis, we assume that a developer would exit the deal at month 84, selling a stabilized asset based on a 6.5% capitalization rate.

- **Revenues and Operating Costs.**
  - **Rent.** For new Class A space, rents are assumed to be similar to high-end rents for new construction, at $60 (gross) per square foot for office and $65 (net) per square foot for lab. Parking is estimated to generate revenues of $250 per space.
  - **Real Estate Taxes.** Real estate taxes are assumed to total approximately 10% of gross revenues. Because lab space is assumed to be leased triple net, the model does not consider real estate or other operating costs for lab uses.
  - **Other Operating Costs.** Other operating costs for office are assumed to consume an additional 12% of revenues. Parking operating costs are estimated to total 10% of income per year, largely consisting of real estate taxes since the garages are assumed to be unmanned.

**B. Results**

- **Comparison to Residential Land Value.** The supportable land values calculated for office and lab uses are significantly higher than the supportable land values calculated for mixed-income housing. Office can support land values of $95-$160 per square foot of development rights, and lab can support land values of $175-$235 per square foot. For developments with underground parking, the financial models indicate that one square foot of office development is worth 27% more than one square foot of residential development under the current inclusionary requirements (or 1.27 times as valuable). One square foot of lab development is worth over 130% more than residential product (or 2.3 times as valuable). Developers seeking to build office and lab spaces are therefore better positioned to bid successfully for development parcels.

**Parking Burden.** Building parking for commercial uses is also financially burdensome, though likely necessary to attract tenants. Each square foot of commercial development generates $45-$50 less supportable land value due to the inclusion of underground structured parking.

**VI. Conclusions and Further Considerations**

Building mixed-income housing in Kendall Square is challenging due to a variety of factors. Residential developers are at a disadvantage in the acquisition of privately-held parcels when competing against commercial developers because of differentials in development economics; increased affordability
mandates would increase the differential between supportable commercial and residential land values. It may therefore be simpler to encourage the development of mixed-income housing on parcels on which the City has control over the price of development rights.

The following options could support the creation of additional mixed-income housing on both publicly and privately held parcels:

- **Further regulate pacing of residential v. commercial.** The CRA could require more valuable commercial uses to cross-subsidize residential by amending zoning statutes and developer agreements so that residential must be phased appropriately with commercial. In recent years, the CRA has required developers to commit to residential development in large-scale projects. The Authority could require more residential upfront in rezoning agreements for private land as well as disposition agreements of public land to ensure development in a timely matter.

- **Allow greater density for residential uses.** As a way to encourage residential on private parcels, the zoning code could be adjusted to allow significantly greater density for residential vs. commercial uses. The adjustment may allow residential developers to outbid commercial developers as land becomes available through increasing the potential value of residential uses.

- **Apply differential pricing when offering of public parcels for commercial and residential development.** HR&A’s analysis has shown that commercial development may be over twice as valuable as mixed-income residential development under current inclusionary requirements with underground parking.
  - The CRA could adjust the cost of development rights for commercial vs. residential uses to reflect market conditions on publicly-owned parcels.
  - If the CRA chooses to apply higher affordability requirements for projects to be built on formerly public parcels, it could offer additional reductions in the cost of development rights.
  - Higher payments from the sale of commercial rights could fund subsidies to support increased levels of affordability in inclusionary or stand-alone affordable projects.

- **Reduce parking burden.** Parking in Kendall Square can make up a significant share of development costs. Particularly in residential projects, where affordable units are not contributing market rent levels for their spaces, the current parking requirement is onerous. In a transit-rich area like Kendall Square, the CRA and the City could consider several policy options:
  - Reduce the overall parking ratio required by zoning,
  - Allow developers to build lower-cost, above-ground structured parking further from the Kendall Square core, or
  - Allow developers to rent unused spaces at market rates to non-tenants.

---

7 The remaining soft sites in the Kendall Square area are likely to require longer site preparation and construction periods because of contamination and presence of existing buildings, which would increase upfront costs and further decreases feasibility of residential development.
• **Provide middle income bonus area at no cost to developer.** In public dispositions, the Cambridge Redevelopment Authority currently charges for development rights on a per square foot basis and includes the area generated through the 30% inclusionary housing FAR basis in the price calculation. Excluding middle-income height bonus area from the disposition price calculation would stimulate the supply of affordable units.
Appendix A: Detailed Review of Financial Assumptions

### Development Cost Assumption Summary - per Gross SF

<table>
<thead>
<tr>
<th>Category</th>
<th>Residential</th>
<th>Office</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Costs</td>
<td>$350</td>
<td>$290</td>
<td>$350</td>
</tr>
<tr>
<td>Soft Costs</td>
<td>$35</td>
<td>$39</td>
<td>$45</td>
</tr>
<tr>
<td>Total Construction Costs</td>
<td>$385</td>
<td>$329</td>
<td>$395</td>
</tr>
</tbody>
</table>

### Construction Loan Assumptions

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan-to-Cost</td>
<td>60.00%</td>
</tr>
<tr>
<td>Lender’s Points</td>
<td>1.00%</td>
</tr>
<tr>
<td>Loan Closing Costs</td>
<td>1.10%</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>6.00%</td>
</tr>
</tbody>
</table>

### Permanent Financing Assumptions

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan-to-Value</td>
<td>65.00%</td>
</tr>
<tr>
<td>Lender’s Points</td>
<td>1.00%</td>
</tr>
<tr>
<td>Loan Closing Costs</td>
<td>1.10%</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>6.00%</td>
</tr>
<tr>
<td>Amortization Period</td>
<td>25 Yrs.</td>
</tr>
</tbody>
</table>

### Development Selections

<table>
<thead>
<tr>
<th>Category</th>
<th>Residential</th>
<th>Office</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Constr. Duration</td>
<td>21 Mo.</td>
<td>21 Mo.</td>
<td>21 Mo.</td>
</tr>
<tr>
<td>Lease-Up or Sale Period</td>
<td>9 Mo.</td>
<td>24 Mo.</td>
<td>24 Mo.</td>
</tr>
<tr>
<td>Stabilization</td>
<td>30 Mo.</td>
<td>45 Mo.</td>
<td>45 Mo.</td>
</tr>
<tr>
<td>Avg. Unit Size (Gross)</td>
<td>845 SF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Revenues

<table>
<thead>
<tr>
<th>Category</th>
<th>Residential</th>
<th>Office</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Market Rent PSF/Mo.</td>
<td>$4.50</td>
<td>$5.00</td>
<td>$5.42</td>
</tr>
<tr>
<td>Avg. Low-income Rent PSF/Mo.</td>
<td>$2.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg. Middle-Income Rent PSF/Mo.</td>
<td>$3.52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Operating Costs (for Gross Rev. Uses)

<table>
<thead>
<tr>
<th>Category</th>
<th>Residential</th>
<th>Office</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacancy Contingency</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

### Exit Assumptions

<table>
<thead>
<tr>
<th>Category</th>
<th>Residential</th>
<th>Office</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit Month</td>
<td>Mo. 60</td>
<td>Mo. 84</td>
<td>Mo. 84</td>
</tr>
<tr>
<td>Exit Cap Rate</td>
<td>5.5%</td>
<td>6.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Exit Sale Costs</td>
<td>2.5%</td>
<td>2.5%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

*Assumption represents operating costs for market rate units. Operating costs for affordable units are weighted to reflect changes in project rent levels and resulting real estate taxes.
Appendix B: Affordable Rent

Affordable Income Level. The analysis uses U.S. Department of Housing and Urban Development (HUD) Boston-Cambridge-Quincy, MA-NH HUD Metro Area Median Incomes (AMI) to calculate rents for low-income units. We assume that low-income rents are affordable to households earning 65% of AMI based on the standard underwriting guidelines for affordable units regulated by the Cambridge Community Development Department. A current project in development will reserve half of the middle-income units for households earning 95% of area median income and half for households earning 110% of area income. We use an average of 102.5% to set middle-income rents.

HUD calculates AMIs based on household size. The income levels for 100% AMI, 65% AMI, and 102.5% AMI are listed in the table below.

Metro Boston AMI (FY 2014)

<table>
<thead>
<tr>
<th>AMI Level</th>
<th>1-Person</th>
<th>2-Person</th>
<th>3-Person</th>
<th>4-Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.0% AMI</td>
<td>$65,900</td>
<td>$75,300</td>
<td>$84,700</td>
<td>$94,100</td>
</tr>
<tr>
<td>65.0% AMI</td>
<td>$42,835</td>
<td>$48,945</td>
<td>$55,055</td>
<td>$61,165</td>
</tr>
<tr>
<td>102.5% AMI</td>
<td>$67,548</td>
<td>$77,183</td>
<td>$86,818</td>
<td>$96,453</td>
</tr>
</tbody>
</table>

Affordable Rent Level. To calculate monthly rent on a net square footage basis, we must make assumptions about family occupancy assumptions by unit type. Based on sample underwriting guidance provided by the Cambridge Community Development Department, HR&A assumed that all 1-person households occupy studio units, all 2-person household occupy 1-bedroom units, all 3-person households occupy 2-bedroom units, and all 4-person households occupy 3-bedroom units. Larger unit types are atypical for multi-family rental development in Cambridge and were not considered in the analysis.

Each household can spend up to 33% of income on rent, and dividing that allowable rent by 12 months produces a gross monthly rent. HR&A subtracts the Cambridge Housing Authority’s utility allowance for elevator high rise units to determine monthly net rent. Based on market comparables and discussions with real estate developers and operators, we created assumptions for unit type breakouts in a multi-family rental building and typical unit sizes. We calculated a monthly weighted unit average rent of $2.20 per net square foot and $3.52 per net square foot for low-income units and middle-income units, respectively.
### Residential Affordable Rent Calculations for Households Earning 65% of Area Median Income (AMI)

<table>
<thead>
<tr>
<th>Category</th>
<th>65% AMI by Bedroom Count</th>
<th>Allowable 33% of Income for Rent</th>
<th>65% AMI Monthly Gross Rent</th>
<th>Utility Allowance</th>
<th>65% AMI Monthly Net Rent</th>
<th>Share of Units in Building</th>
<th>Residential Rental Unit Size</th>
<th>Monthly Rent (Net, Per Net SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rent by Bedroom Count</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio</td>
<td>$42,835</td>
<td>$14,136</td>
<td>$1,178</td>
<td>$54</td>
<td>$1,124</td>
<td>32%</td>
<td>500 NSF</td>
<td>$2.25</td>
</tr>
<tr>
<td>1-Bedroom</td>
<td>$48,945</td>
<td>$16,152</td>
<td>$1,346</td>
<td>$54</td>
<td>$1,292</td>
<td>33%</td>
<td>650 NSF</td>
<td>$1.99</td>
</tr>
<tr>
<td>2-Bedroom</td>
<td>$55,055</td>
<td>$18,168</td>
<td>$1,514</td>
<td>$63</td>
<td>$1,451</td>
<td>34%</td>
<td>850 NSF</td>
<td>$1.71</td>
</tr>
<tr>
<td>3-Bedroom</td>
<td>$61,165</td>
<td>$20,184</td>
<td>$1,682</td>
<td>$64</td>
<td>$1,618</td>
<td>17%</td>
<td>1,100 NSF</td>
<td>$1.47</td>
</tr>
<tr>
<td><strong>Weighted</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>845 NSF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2.20</td>
</tr>
</tbody>
</table>

### Residential Affordable Rent Calculations for Households Earning 102.5% of Area Median Income (AMI)

<table>
<thead>
<tr>
<th>Category</th>
<th>102.5% AMI by Bedroom Count</th>
<th>Allowable 33% of Income for Rent</th>
<th>102.5% AMI Monthly Gross Rent</th>
<th>Utility Allowance</th>
<th>102.5% AMI Monthly Net Rent</th>
<th>Share of Units in Building</th>
<th>Residential Rental Unit Size</th>
<th>Monthly Rent (Net, Per Net SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rent by Bedroom Count</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio</td>
<td>$67,548</td>
<td>$22,291</td>
<td>$1,858</td>
<td>$54</td>
<td>$1,804</td>
<td>32%</td>
<td>500 NSF</td>
<td>$3.61</td>
</tr>
<tr>
<td>1-Bedroom</td>
<td>$77,183</td>
<td>$25,470</td>
<td>$2,123</td>
<td>$54</td>
<td>$2,069</td>
<td>33%</td>
<td>650 NSF</td>
<td>$3.18</td>
</tr>
<tr>
<td>2-Bedroom</td>
<td>$86,818</td>
<td>$28,650</td>
<td>$2,387</td>
<td>$63</td>
<td>$2,324</td>
<td>34%</td>
<td>850 NSF</td>
<td>$2.73</td>
</tr>
<tr>
<td>3-Bedroom</td>
<td>$96,453</td>
<td>$31,829</td>
<td>$2,652</td>
<td>$64</td>
<td>$2,588</td>
<td>17%</td>
<td>1,100 NSF</td>
<td>$2.35</td>
</tr>
<tr>
<td><strong>Weighted</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>845 NSF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$3.52</td>
</tr>
</tbody>
</table>
Appendix C: Impact of Parking

Parking Calculation. The analysis assumes that a developer would build parking for every 1,000 square feet of development at a ratio of 0.9 spaces for office and 0.8 spaces for lab. Residential was analyzed assuming either 0.5 spaces or 0.25 spaces of parking for every residential unit. Underground parking in Kendall Square costs about $100,000 per space to construct because of the high water table. Above-ground parking costs approximately $25,000 per space to build. Even with rent of $250/space, underground parking has a net negative impact on a project. This analysis assumes that low-income tenants contribute the maximum allowable portion of their income towards rent and do not pay for parking, so the burden of parking for mixed-income projects increases with greater levels of affordability.

Baseline Supportable Value Comparison for Commercial and Residential - 15% Leveraged Return

<table>
<thead>
<tr>
<th>Type of Development</th>
<th>Value Before Parking*</th>
<th>Impact of Parking</th>
<th>Supportable Land Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Underground 50% Resi. Ratio</td>
<td>Underground 25% Resi. Ratio</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>$145</td>
<td>($50)</td>
<td>($50)</td>
</tr>
<tr>
<td>Lab</td>
<td>$220</td>
<td>($45)</td>
<td>($45)</td>
</tr>
<tr>
<td>Status Quo Inclusionary</td>
<td>$105</td>
<td>($30)</td>
<td>($15)</td>
</tr>
<tr>
<td>Alternative Low-Income Scenarios</td>
<td>$95</td>
<td>($30)</td>
<td>($15)</td>
</tr>
<tr>
<td>15.0% Low-Income</td>
<td>$80</td>
<td>($35)</td>
<td>($15)</td>
</tr>
<tr>
<td>20.0% Low-Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.0% Low-Income with Subsidy**</td>
<td>$85</td>
<td>($35)</td>
<td>($15)</td>
</tr>
</tbody>
</table>

*The parking revenues from affordable units have been allocated to the “value before parking” under the assumption that the maximum allowable portion of income would support rent. This methodology simplifies the analysis by calculating rents at 33% of household income rather than separating the rent and parking in 30% of income and 3% of income, respectively. Therefore, the “value before parking” is somewhat artificially high and the “impact of parking” is somewhat artificially low, but the resulting “supportable land value” is accurate.

**Subsidy includes tax-exempt bond financing and 4% Low Income Housing Tax Credits provided by the State of Massachusetts to finance affordable portion of the development. Low-income units are reserved for households earning 50% of Area Median Income to comply with tax credit requirements.
<table>
<thead>
<tr>
<th>Type of Development</th>
<th>Value Before Parking</th>
<th>Impact of Parking</th>
<th>Supportable Land Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Underground 50% Resi. Ratio</td>
<td>Underground 25% Resi. Ratio</td>
<td>Above-ground 50% Resi. Ratio</td>
</tr>
<tr>
<td></td>
<td>Underground Parking</td>
<td>Above-ground Parking</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>$110</td>
<td>($55)</td>
<td>$15</td>
</tr>
<tr>
<td>Lab</td>
<td>$170</td>
<td>($50)</td>
<td>($50)</td>
</tr>
<tr>
<td>Status Quo Inclusionary</td>
<td>$85</td>
<td>($30)</td>
<td>($15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative Low-Income Scenarios</td>
<td>$75</td>
<td>($35)</td>
<td>($15)</td>
</tr>
<tr>
<td>15.0% Low-Income</td>
<td>$60</td>
<td>($35)</td>
<td>($15)</td>
</tr>
<tr>
<td>20.0% Low-Income</td>
<td>$70</td>
<td>($35)</td>
<td>($15)</td>
</tr>
<tr>
<td>20.0% Low-Income with Subsidy*</td>
<td>$70</td>
<td>($35)</td>
<td>($15)</td>
</tr>
</tbody>
</table>

*The parking revenues from affordable units have been allocated to the “value before parking” under the assumption that the maximum allowable portion of income would support rent. This methodology simplifies the analysis by calculating rents at 33% of household income rather than separating the rent and parking in 30% of income and 3% of income, respectively. Therefore, the “value before parking” is somewhat artificially high and the “impact of parking” is somewhat artificially low, but the resulting “supportable land value” is accurate.

**Subsidy includes tax-exempt bond financing and 4% Low Income Housing Tax Credits provided by the State of Massachusetts to finance affordable portion of the development. Low-income units are reserved for households earning 50% of Area Median Income to comply with tax credit requirements.

---

8 A market slowdown could result in developers underwriting potential deals with higher return requirements, which would depress supportable land values.
Parking and Middle-Income Bonus Area. HR&A applied the same ratios and costs to parking to units generated through a middle-income height bonus. As in the low-income units, the model assumes that middle-income tenant pay the maximum rent based on their incomes and do not contribute to parking costs.

**Baseline Middle-Income Height Bonus Supportable Value - 15% Leveraged Return**

<table>
<thead>
<tr>
<th>Type of Development</th>
<th>Affordability</th>
<th>Impact of Parking</th>
<th>Supportable Land Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle-Income Bonus Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40% Affordable</td>
<td>15.0%</td>
<td>25.0%</td>
<td>$65</td>
</tr>
<tr>
<td>Break Even: 57% Affordable</td>
<td>15.0%</td>
<td>42.0%</td>
<td>$40</td>
</tr>
</tbody>
</table>

**Conservative Middle-Income Height Bonus Supportable Value - 18% Leveraged Return**

<table>
<thead>
<tr>
<th>Type of Development</th>
<th>Affordability</th>
<th>Impact of Parking</th>
<th>Supportable Land Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle-Income Bonus Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40.0% Affordable</td>
<td>15.0%</td>
<td>25.0%</td>
<td>$45</td>
</tr>
<tr>
<td>Break Even: 45.0% Affordable</td>
<td>15.0%</td>
<td>30.0%</td>
<td>$40</td>
</tr>
</tbody>
</table>

---

9 A market slowdown could result in developers underwriting potential deals with higher return requirements, which would depress supportable land values.
Appendix D: Glossary of Terms

1. **Area Median Income (AMI).** The U.S. Department of Housing and Urban Development (HUD) uses Census data to estimate the area median income (AMI) in the current year. HUD adjusts AMI calculations for different family sizes. The 2014 area median income for a family of four in the Boston-Cambridge-Quincy, MA-NH HUD Metro Area is $94,100.\(^{10}\) Percentages of AMI are used to calculate income limits for eligibility in a variety of Federal housing programs.

2. **Baseline.** Calculates supportable land value based on existing market conditions and regulations as a comparison for financial modeling.

3. **Capitalization Rate.** Equal to annual net operating income divided by total property value; used to determine market value in relation to net operating income.

4. **Discounted Cash Flow Model.** Financial model that uses discounted future cash flow projections to determine the payment a developer could make to acquire land or development rights while earning a minimum return.

5. **Hard Costs.** Direct costs of construction, including labor, materials (interior and exterior), and site preparation costs. The analysis in this memorandum includes fit out costs as part of residential construction, but these are accounted for separately in office or lab costs (see Tenant Improvements).

6. **Inclusionary Housing Ordinance.** Requires that residential developers set aside 15% of their units for low-income housing for households earning less than 80% of area median income (AMI). In most areas of Cambridge, it provides a density bonus equivalent to 30% of floor area. After the bonus, approximately 11.5% of total units are affordable to low-income households.

7. **Interest Rate.** Amount charged by a lender to a borrower for a mortgage. Interest rate is expressed as a percentage of outstanding principal on a mortgage.

8. **Internal Rate of Return (IRR).** Discount rate that makes the net present value of all cash flows from a particular project equal to zero. An NPV of zero using a required rate of return means that a developer has earned its minimum required return and no more; supportable land value is therefore the maximum a developer can pay while earning its minimum required return.

9. **Leasing Commissions (L/Cs).** Amount paid to a broker in exchange for bringing a tenant and landlord together to form a lease agreement.

10. **Loan-to-Cost Ratio.** Ratio used to compare the amount of the loan used to finance a project to the cost to build the project. Lenders will often make construction loans based on a set loan to cost ratio.

11. **Loan-to-Value Ratio.** Ratio used to compare the amount of the loan to appraised value of a project. Lenders will often make permanent loans based on a set loan to value ratio.

12. **Low Income Housing Tax Credits.** Common Federal affordable housing subsidy that provides a dollar-for-dollar tax credit for low-income housing investments. State housing finance agencies receive an allocation and award Low-Income Housing Tax Credits through competitive application or in conjunction with tax-exempt bonds.

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13. **Middle-Income Height Bonus.** A proposed bonus that would give developers in Kendall Square 50 feet of additional height if they agreed to reserve 25% of the units generated through the height bonus for middle-income families earning between 80% and 120% of AMI. Units created from a middle-income bonus would also be subject to the inclusionary zoning requirements. Thus, 15% of the bonus units would be affordable to low-income households earning less than 80% of AMI in addition to the 25% of units affordable to middle-income households. Our analysis suggests that the middle-income bonus portion of a building could contain up to 27% middle-income units while still earning a developer its required rate of return if the bonus area is granted at no additional cost to the developer.

14. **Net Operating Income.** Income stream from a revenue-generating property that is equal to property revenues minus regularly recurring operating expenses.

15. **Principal.** Amount initially borrowed on a mortgage, or amount still owed on a mortgage excluding interest.

16. **Soft Costs.** Soft costs are upfront costs associated with but not directly related to the physical construction of the building. They include architectural and engineering costs, legal expenses, marketing expenses, insurance, and general administration costs. For this analysis, HR&A has calculated construction financing costs separately although they are also considered a soft cost.

17. **Stabilization.** The point in time at which a newly built or renovated rental building has achieved long-term projected occupancy.

18. **Supportable Land Value.** The land value or payment associated with a proposed development program that would be financially feasible for a developer after earning a minimum return.

19. **Tax-Exempt Bond Financing.** States and local governments are authorized to issue tax-exempt bond, up to a capped amount set by the Federal government, to finance private development activities. Tax-exempt bonds are frequently used to finance affordable housing development by funding mortgages to finance a portion of new project with preferential interest rates and other terms.

20. **Tenant Improvements (T/Is).** Changes made to the interior of a commercial space to accommodate the needs of a specific tenant. The division of cost for tenant improvements is negotiated between the landlord or owner of the commercial space and the tenant.

21. **Tenant Improvement Allowance.** The amount of money that a developer gives to a tenant to improve a newly leased space, equal to a portion of tenant improvement costs.

22. **Triple Net Lease.** A lease agreement in which the tenant is responsible for real estate taxes, building insurance, and common area maintenance.
May 29, 2015

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE NOTICE OF PROJECT CHANGE

PROJECT NAME: Kendall Square Urban Renewal Project (KSURP) - Amendment #10
PROJECT MUNICIPALITY: Cambridge (Kendall Square)
PROJECT WATERSHED: Boston Harbor (Charles River)
EEA NUMBER: 1891
PROJECT PROponent: Cambridge Redevelopment Authority
DATE NOTICED IN MONITOR: April 22, 2015

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62I) and Section 11.10 of the MEPA regulations (301 CMR 11.00), I have reviewed the Notice of Project Change (NPC) and hereby determine that this project requires a Mandatory Environmental Impact Report (EIR). The project proposes significant redevelopment, consisting of a mix of residential, office and retail uses, in a dense urban area in proximity to transit. The Cambridge Redevelopment Authority (CRA, “the Proponent”) submitted an extensive and detailed Notice of Project Change (NPC) that included a comprehensive transportation analysis, a Greenhouse Gas (GHG) emissions analysis, mesoscale air quality analysis and identification of baseline environmental conditions in support of the request for a SEIR. Comment letters from the Massachusetts Department of Transportation (MassDOT) and the City of Cambridge note the constructive consultation that has occurred to date on traffic and transportation issues. Based on a review of the EENF, consultation with State Agencies and review of the EENF, I hereby determine that the Proponent may file a Single EIR.
I anticipate that the Proponent will continue to work closely with MassDOT, the Massachusetts Bay Transportation Authority (MBTA), the City of Cambridge, and other stakeholders to provide a comprehensive SEIR that addresses the Scope included in this Certificate. In addition, the SEIR should clearly identify the subsequent process for addressing outstanding issues, including identification of specific mitigation to address impacts on transit service and capacity, that may not be fully developed during the MEPA review process. If the SEIR does not adequately address the Scope and substantive issues remain to be addressed, I may require the Proponent to file a Final EIR (301 CMR 11.08 (8)(d)(2)).

Original Project Description and Procedural History

The Kendall Square Urban Renewal Project (KSURP) was created by the Proponent in 1965. The KSURP regulates the level of development through a cap on aggregate Gross Floor Area (GFA) of all land uses in the KSURP area. The level of development is further restricted through land use controls, including identification of Floor Area Ratios (FAR). The KSURP initially consisted of construction of up to 14 buildings totaling approximately 2.77 million gross square feet, three parking garages, open space, and other public improvements. The project was the subject of previous review under MEPA beginning with an Environmental Notification Form (ENF) in 1975, and followed by Draft and Final EIRs in 1977 and 1978 respectively, both of which were found to be adequate. Five NPCs were filed since 1978. The NPCs adjusted the permitted mix of uses within the area, increased the maximum allowed GFA within the area, and extended the term of the KSURP. None of the NPCs required further MEPA review.

Project Site

The NPC identifies redevelopment within 24 acres of the 43-acre KSURP area. The 24-acre project site is coincident with the boundaries of the Cambridge Center Mixed-Use Development (MXD) Zoning District. The project site is generally bounded by Galileo Galilei Way to the west, Binney Street to the north, Loughrey Walkway and Broadway to the east, and Main Street to the south. The commercial and residential development is primarily proposed at the following three parcels within the existing Cambridge Center complex:

- Cambridge Center North Garage
- Eleven Cambridge Center
- Three Cambridge Center

The Cambridge Center North Garage is a six-story 92,000 square foot (sf) parking facility located at 121 Broadway and 280 Binney Street. Access to the garage is provided via roadways on either side that connect to Binney Street to the north and Broadway to the south. The Eleven Cambridge Center site consists of approximately 37,682 sf of land with an approximately 76,600 sf commercial office building located at the corner of Broadway and Galileo Galilei Way. Three Cambridge Center consists of approximately 28,822 sf of land with an approximately 105,100 sf office building located at 247 Main Street. An entrance to the Massachusetts Bay Transit Authority (MBTA) Red Line Kendall Square/MIT station is located south of the site and a full access headhouse is located in the adjacent courtyard area.
The NPC also describes minor redevelopment and expansion at the Whitehead Institute and Broad Institute sites. The Whitehead Institute is an existing approximately 20,000 sf commercial building with research and development uses located at Nine Cambridge Center at the corner of Main Street and Galileo Galilei Way. The Broad Institute Building is approximately 246,000 sf and is located at 75 Ames Street.

**Project Change Description and Impacts**

As described in the NPC, the primary change to the project is the addition of 1,034,000 sf of net new commercial and residential development to the KSURP area. The proposed amendment to the KSURP includes exemptions to the GFA cap intended to incentivize ground floor retail, require innovation space, and balance commercial and residential uses. According to the NPC, the analysis of environmental impacts is based on a total of 4,341,600 sf of development and includes increases in development beyond the GFA cap\(^1\) that would be allowed based on proposed exemptions. As such, the analysis of environmental impacts is presented based on the maximum amount of development that could be permitted in the KSURP area under the GFA cap. The NPC also extends the completion date for the full build-out of the KSURP from 2020 to 2030.

Specifically, the project change consists of the following project components:

- **Cambridge Center North Garage:** Proposed commercial office (546,000 sf), innovation space (39,000 sf) and retail space (5,000 sf) over the existing Cambridge Center North Garage.

- **Eleven Cambridge Center:** Demolition of existing structure. Proposed 22-story residential building (up to 294 units) and ground floor retail space (25,000 sf).

- **Three Cambridge Center:** Demolition of existing structure. Proposed mixed-use building consisting of a 19-story building with commercial office space (106,200 sf) on the lower floors, up to 266 residential units on the upper floors, and approximately 20,000 sf of ground-floor retail.

The project change also includes a 60,000sf commercial office addition at the existing Whitehead Institute building at Nine Cambridge Center and the conversion of 15,100 sf of mechanical space into commercial office space at the Broad Institute at 75 Ames Street.

As described in the NPC, the project will be constructed in two key phases. Phase 1 will be split into two sub-phases (Phase 1A and 1B). Phase 1A will consist of the redevelopment of the Cambridge Center North Garage and Phase 1B will include demolition of the existing Eleven Cambridge Center building and construction of the new residential building with ground-floor retail space and below-grade parking. Phase 2 will include demolition of the existing Three Cambridge Center commercial office building and construction of a new mixed-use building with commercial office space, ground-floor retail space, and residential units.

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\(^1\) The proposed GFA cap associated with this NPC is 4,302,100 square feet of development. This excludes the exempted 19,500 sf of Innovation Space and 20,000 sf of ground floor retail space; though this development is included in the analysis of environmental impact presented in the NPC.
According to the NPC, the project includes the following components and associated potential environmental impacts:

<table>
<thead>
<tr>
<th></th>
<th>Previously Reviewed</th>
<th>Net Change</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Units</td>
<td>Up to 185 units</td>
<td>±560 units</td>
<td>745 units</td>
</tr>
<tr>
<td>Vehicle Trips Per Day (unadjusted)</td>
<td>26,845</td>
<td>10,512</td>
<td>37,357</td>
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<tr>
<td>Vehicle Trip Per Day (adjusted)</td>
<td>13,714</td>
<td>3,638</td>
<td>17,352</td>
</tr>
<tr>
<td>Parking Spaces</td>
<td>±3,545 spaces²</td>
<td>No Change³</td>
<td>No Change³</td>
</tr>
<tr>
<td>Water Use</td>
<td>±1.24 million gallons per day (mgd)</td>
<td>±118,740 gallons per day (gpd)</td>
<td>±1.35 mgd</td>
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<tr>
<td>Wastewater Generation</td>
<td>±0.93 mgd</td>
<td>±107,945 gpd</td>
<td>±1.04 mgd</td>
</tr>
</tbody>
</table>

**Permitting and Jurisdiction**

The project as previously reviewed was subject to a mandatory EIR pursuant to Sections 11.03(l)(a)(2) and 11.03(6)(a)(6) of the MEPA regulations because it required State Agency Action(s), and it was expected to create more than 10 acres of new impervious surface, and generate more than 3,000 new average daily vehicle trips.

The project, as currently proposed and described in the NPC, is subject to a mandatory EIR as a stand-alone project pursuant to Section 11.03(6)(a)(6) of the MEPA regulations because it requires a State Agency Action and, on its own, will generate greater than 3,000 new average daily trips (adt) on roadways providing access to a single location. Traffic generation will exceed the EIR threshold even when adjusted to account for mode share. The project requires an approval of an Urban Renewal Plan Amendment from the Massachusetts Department of Housing and Community Development. The project may also require an Air Quality Permit from the Massachusetts Department of Environmental Protection (MassDEP). The Urban Renewal Plan Amendment also requires approval by the CRA and Cambridge City Council. Components of the project will also require review and Special Permit Project Review Approval by the Cambridge Planning Board. The project is subject to review under the May 2010 MEPA GHG Emissions Policy and Protocol ("the Policy").

Because the project is not seeking Financial Assistance from the Commonwealth, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of required, or potentially required, State Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations. However, the subject matter of the Urban Renewal Plan

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² KSURP Amendment No.3 reduced the maximum off-street parking supply from 4,300 spaces to 3,545 spaces.
³ The project does not propose to increase the maximum number of parking spaces as approved via KSURP Amendment No. 3. The approximately 740 spaces proposed as part of this project to support the additional development would be in addition to the 2,667 existing as-built spaces for a potential future total of 3,407 spaces, which is under the previously approved maximum off-street parking.
implementing regulations (760 CMR 12.00) is sufficiently broad to confer the equivalent of broad scope jurisdiction over the potential environmental impacts of the project. Therefore, MEPA jurisdiction is broad in scope and extends to all aspects of a project that are likely, directly or indirectly, to cause Damage to the Environment, as defined in the MEPA regulations.

Review of the NPC

The NPC includes descriptions of the original project and the currently proposed project and project plans, describes potential environmental impacts, and provides a discussion of proposed mitigation measures. The NPC provided a greenhouse gas analysis, mesoscale analysis, and a Traffic Impact Assessment. It describes the planning process and proposed revisions to zoning that provides context for the proposed amendments to the KSURP. The planning process has included analysis of alternative development scenarios.

The projects identified in the NPC consist of redevelopment within a dense urban area with excellent access to transit. As a transit-oriented redevelopment, associated impacts, including traffic generation, land alteration, creation of impervious areas, are minimized compared to greenfield development or alternatives with reduced density. Impacts associated with the NPC are within the envelope of impacts identified in the most recent MEPA filing. The project is consistent with the Commonwealth’s Sustainable Development Principles. In addition, I note that neither State Agencies nor the City of Cambridge have requested additional analysis of alternatives.

Traffic and Transportation

The NPC includes a Transportation Scoping Letter to MassDOT that confirmed the basic analytical approach, technical assumptions, and key transportation issues to be addressed in the Transportation Impact Assessment (TIA), as well as the TIA itself, prepared in accordance with the EEA/MassDOT Guidelines. The TIA evaluated the transportation impacts of the project based on trip generation estimates and future transportation demand. The Proponent has committed to implement a Transportation Demand Management (TDM) program to minimize single occupant vehicle use and to expand the existing monitoring program (described below) to the current program.

The Preferred Plan, as originally evaluated in the 1977 FEIR, projected traffic generation at full build-out to be 19,300 average daily trips (adt). The Secretary’s Certificate for KSURP Amendment No. 3 (issued September 15, 1993) required that the Proponent provide an annual update of KSURP traffic counts, collect and analyze parking data, and review KSURP tenant surveys to compare traffic estimates with results of actual observations and to adjust the impact and mitigation analysis if significant discrepancies occur. The NPC provided a summary of this data and demonstrated that actual trip generation in Kendall Square is consistently lower than projections based on trip generation rates in the Institute of Transportation Engineers (ITE) Trip Generational Manual due to area-specific mode splits and vehicle occupancy rates.

According to the NPC, the proposed project change will generate approximately 10,512 unadjusted adt or 3,638 adjusted adt. The adjusted trip generation calculations reflect credits
allowed for pass-by trips and mode share based on rates derived from the Proponent’s existing traffic monitoring program. When the adjusted trips are added to the expected future traffic as projected in 2010 when the project was last reviewed under MEPA (Amendment No. 8), traffic generation is estimated at 17,352 adt, which is less than the originally projected 19,300 vehicle trips.

The TIA provided a comprehensive safety analysis and crash rates for all intersections within the study area and compared the average rates to the appropriate district and statewide average. According to the NPC, the following signalized intersections exceed the MassDOT Average Crash Rate:

- Cambridge Street/First Street
- Main Street at Galileo Galilei Way/Vasser Street
- Massachusetts Avenue/Vassar Street
- Massachusetts Avenue/Memorial Drive On-/Off-Ramps

Additionally, the intersection of Massachusetts Avenue at Vassar Street and the intersections of Massachusetts Avenue/Memorial Drive Westbound on/Off-Ramps and Massachusetts Avenue/memorial Drive Eastbound On/Off-Ramps have a calculated crash rate above the MassDOT District 6 average.

The TIA presents a capacity analysis and a summary of average and 95th percentile vehicle queues for each intersection within the study area. Based on this data, there are approximately five of intersections within the study area that are expected to operate at or close to Level-of-Service (LOS) F during the weekday morning and afternoon peak hours. The majority of the impacted intersections are within the jurisdiction of the City of Cambridge, with the exception of those along the Route 28 (Monsignor O’Brien Highway) Corridor. The NPC identified potential improvements to mitigate traffic impacts at these intersections, including traffic signal timing and phasing improvements. I refer the Proponent to MassDOT’s comments and expect the Proponent will coordinate with MassDOT and the City of Cambridge to ensure that improvements associated with relocation of the MBTA’s Lechmere Station are in place as the project evolves.

The NPC proposes a comprehensive TDM Program to minimize new trip generation. In addition to its existing TDM Program, the Proponent has committed to a host of TDM measures that could include: a car sharing program, MBTA transit pass subsidy, free rides on some existing shuttle routes, parking pricing, Hubway pass subsidy, transportation coordinator, and provision of “real-time” transportation information in all new and renovated lobbies and at select public plazas on the project site. In addition, the Proponent will continue to participate in the Charles River Transportation Management Association.

The Proponent has also committed to developing an Expanded Transportation Mitigation Program (ETMP) in consultation with the MBTA, MassDOT, and the City that is intended to preserve the favorable mode share balance in Kendall Square and provide additional measures to minimize trip generation from the project. The ETMP is intended to supplement the proposed transportation mitigation measures outlined in the NPC. The NPC identifies a range of issues and potential improvements considered for inclusion in the ETMP. It indicates that the ETMP
will focus on transit and transit-related improvements, including both capital and operational investments that would result in service level improvements and capacity expansion in Kendall Square. The NPC indicates that the ETMP would be supported by immediate and long-term funding commitments facilitated by the Proponent in connection with the approvals for the Project but does not provide additional information regarding how to determine the amount of funding or a pathway to identify projects that could be funded.

The TIA provided detailed parking calculations based on the proposed development program and described the methodology and assumptions used to estimate parking demand. Based on this information, the project will add 740 parking spaces to the area. When added to the existing 2,667 parking spaces that have been built-out, this results in a total of 3,407 parking spaces. This is below the total maximum off-street parking (3,545 parking spaces) reviewed during KSURP Amendment No. 3. The project does not propose to increase the maximum number of parking spaces. All new parking will be located in parking structures and will be shared parking for all project components.

The TIA included a comprehensive analysis of existing service provided by the MBTA Red Line and the various MBTA bus routes within the KSURP area. Based on the project’s mode split, the project change will increase activity at the MBTA Kendall Square Station by 15 percent inbound and six percent outbound during the morning peak hour and eight percent inbound and 15 percent outbound during the evening peak hour. The project is not anticipated to adversely impact the inbound and outbound volume-to-capacity (V/C) ratio. MassDOT comments indicate that the overall increase in ridership will be negligible. According to the TIA, the bus routes within the study are experiencing high V/C ratios and are currently operating at or near full capacity; the additional ridership generated by the project will impact several routes and cause them to operate over capacity. The NPC did not provide a specific plan to mitigate the impact of these additional trips on the MBTA bus system nor did it estimate impacts to bus travel times. Comments from MassDOT request additional analysis and identification of potential mitigation in the SEIR.

The KSURP is located within an area that is well served by pedestrian accommodations, including sidewalks and crosswalks at all study area intersections. The TIA provided a comprehensive inventory of all existing, planned, and proposed services, facilities, and routes for accessing the site on foot. The TIA also included a detailed inventory of the bicycle network, including on-street bike lanes, cycle tracks, and multi-use pathways. The Proponent has committed to continue working with the City to identify additional pedestrian and bicycle improvements. The NPC identified potential measures to improve bicycle and pedestrian safety and access.

Water Supply and Wastewater

According to the NPC, the project will require approximately 118,740 gpd of net new potable water demand. Domestic water and fire protection services will be supplied by local water mains to each of the project components. Based on information provided in the NPC, the City has indicated that capacity exists to serve the proposed project, though booster pumps may be required to provide sufficient pressure to the proposed buildings.
The NPC includes a discussion of the existing and projected wastewater flows for the project. The NPC indicates the Proponent will continue to evaluate the use of low-flow plumbing fixtures, efficient air conditioning systems, landscape irrigation practices, and possible use of grey water or rainwater harvesting systems, though it is unclear if the Proponent has committed to implement these measures. According to the NPC, there is sufficient capacity in the existing collection system to accommodate the estimated increase of 107,945 gpd of sanitary sewage to be generated by the project. With this additional flow, the total wastewater flow from the KSURP area will be approximately 1.04 million gallons per day (mgd). Wastewater flows from the project will travel northeasterly by gravity flow to the Massachusetts Water Resources Authority (MWRA) system located in Cardinal Medeiros Avenue (Cambridge Branch Sewer). The NPC indicates that individual service connections to the wastewater infrastructure will be designed in conjunction with the City as each project component moves forward.

The project will not require a Sewer Connection Permit from MassDEP. However, under the terms of the new Sewer System Extension and Connection Regulations (314 CMR 12.00), MassDEP requires that sewer authorities with permitted combined sewer overflows (CSOs), including Cambridge, require the removal of four gallons of infiltration and inflow (I/I) for each gallon of new wastewater flows generated by any new connection that would generate greater than 15,000 gpd. According to the NPC, the project will be required to remove approximately 431,780 gpd of (I/I) from the sewer system. The NPC indicates that this requirement will be addressed by coordinating with the City to either correct I/I issues within the KSURP area or by funding other I/I reduction projects. The City also requires that the project provide on-site sanitary holding capacity equivalent to 24 hours of sanitary flows (approximately 107,945 gallons of storage) to address significant combined sewer capacity issues that occur during large storms. The NPC indicates that this will be addressed by coordinating with the City and may include improvements to the sanitary sewer system in lieu of providing on-site storage capacity for sanitary flows.

**Stormwater**

According to the NPC, approximately 20 acres of the 24-acre project site are impervious and the project change will create an additional 0.27 acres of new impervious area. The NPC notes that the project will comply with the City's Low Impact Design (LID) standards but does not provide an explanation of the requirements nor identify specific LID measures that will be implemented.

The existing drainage system for the project site ultimately discharges to the City's drainage system and the Charles River through a 54-inch outfall at Broad Canal Way. Comments from MassDEP and the Charles River Watershed Association (CRWA) indicate that this portion of the Charles River is subject to water quality standards established in the applicable Total Maximum Daily Loads (TMDL). The NPC did not provide information on how the project will comply with these reduction targets within the Charles River. According to the NPC, stormwater management infrastructure for each project component will be designed in accordance with City and MassDEP stormwater standards as design for each project component progresses. The City's stormwater regulations require that the project mitigate stormwater effluent from the post-development 25-year design storm to the rates of the pre-development two-year design storm, as
well as reduce Total Suspended Solids (TSS) by 80 percent from the pre-development condition. The NPC did not provide a comprehensive discussion of drainage or runoff calculations for the project area.

Air Quality

In accordance with the State Implementation Plan (SIP) for ozone attainment, the NPC includes a mesoscale analysis for 2014 existing conditions, 2024 No-Build, and 2024 Build conditions. The analysis indicates that emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx) for the 2024 Build scenario would be greater than the 2024 No-Build scenario. Because the project will increase emissions of VOCs, transportation mitigation is required, including a TDM program. Under the 2024 No-Build condition, VOC emissions are approximately 7,507.71 kilograms per day (kg/day) and NOx emissions are approximately 9,257.12 kg/day. Under the 2024 Build condition, VOC emissions are 7,507.82 kg/day and the NOx emissions are approximately 9,257.75 kg/day. The project is estimated to generate 0.11 kg of VOC and 0.63 kg of NOx per day. The proposed mitigation, as previously described, will reduce VOCs by 0.04 kilograms per day (kg/day) and NOx emissions by 0.08 kg/day under the 2024 Build scenario.

Greenhouse Gas Emissions

Because the project change requires an EIR, it is subject to review under the May 2010 MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol ("the Policy"). The original project completed MEPA review prior to promulgation of the MEPA GHG Policy and thus did not require a GHG assessment. The NPC included an analysis of GHG emissions and mitigation measures in accordance with the standard requirements of the MEPA GHG Policy. The Policy requires projects to quantify carbon dioxide (CO2) emissions and identify measures to avoid, minimize or mitigate such emissions. The analysis quantifies the direct and indirect CO2 emissions associated with the project’s energy use (stationary sources) and transportation-related emissions (mobile sources). The GHG analysis evaluated CO2 emissions for two alternatives as required by the Policy including 1) a Base Case and 2) a Preferred Alternative. The analysis used the eQUEST, version 3.64, modeling software to perform the GHG analysis and included modeling assumptions and emissions rates (Appendix D).

At the time of the filing of this NPC, the building code is the Massachusetts Building Code 8th Edition; however, I note that the City of Cambridge is a designated Green Community. As such, the City has adopted the Commonwealth of Massachusetts’ Stretch Energy Code ("Stretch Code"). The current Stretch Code requires energy efficiencies of 20 percent better than American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2007 and requires modeling of base and proposed cases based on the methodology as is defined in ASHRAE 90.1-2007 (Appendix G). Based on this, ASHRAE 90.1-2007 was applied to define the Base Case. The Preferred Alternative consists of a project that is expected to meet the current Stretch Energy Code.

I note that revisions to the Stretch Energy Code are being contemplated and would likely require energy use in new large buildings to be 12 to 15 percent below the baseline of IECC
2012 (ASHRAE 90.1-2010). The NPC voluntarily presented building improvement measures to demonstrate how the project would comply with ASHRAE 90.1-2010 and the future revised Stretch Energy Code.

Mobile GHG emissions were estimated using the standard methodology in the EEA/MassDOT Guidelines for EIR/EIS Traffic Impact Assessments and EPA’s MOVES2014 emission factors. Potential project-related mobile GHG emissions were compared between the 2014 Existing Condition, the 2024 No-Build Condition, and the 2024 Build Condition (with physical and operational upgrades). Stationary GHG emissions were determined via modeling the energy usage for the project based on proposed building geometry, HVAC system type, usage, occupancy schedule, and ventilation rates for each of the following project components: Cambridge Center North Garage, Eleven Cambridge Center, Three Cambridge Center, and Whitehead Office Addition. The NPC noted exceptions to the modeling for certain building elements whose design has yet to advance sufficiently for inclusion in the model. The analysis quantifies the direct and indirect GHG emissions associated with the project’s energy use and transportation-related emissions. The analysis indicates that the Base Case for the entire project will generate approximately 9,368 tons per year (tpy) of GHG emissions, consisting of 8,322 tpy of stationary source emissions and 1,046 tpy of mobile source emissions. The Preferred Alternative will reduce stationary source emissions by 1,432 tpy, an approximate 17 percent reduction, and will reduce mobile source emissions by 102 tpd, a 10 percent reduction. Overall emissions will be reduced by 1,537 tpy for an approximate 16 percent reduction.

Measures to avoid, minimize, and mitigate GHG impacts are identified for the overall project and for specific uses (commercial office, residential, laboratory, and retail). The NPC identifies the following measures for the project as a whole:

- Creation of the ETMP in conjunction with MassDOT’s Kendall Square Mobility Task Force, MBTA, and MassDOT;
- Provision of 800 long-term and 142 short-term bicycle spaces and implementation of a TDM program to minimize single occupancy vehicle trips;
- Creation of Tenant Design and Construction Guidelines to assist office and retail tenants in evaluating and incorporating energy efficiency and other sustainability measures;
- Constructing all new buildings to be “solar ready”; and
- Consideration of building orientation in designing exterior envelope and facades of buildings.

The following measures were proposed for evaluation in the GHG analysis to establish a reasonable Preferred Alternative: improved glazing properties, improved roof and exterior wall insulation, low-flow water fixtures, high-efficiency domestic water heater, variable volume condensing and chilled and hot water pumping, high-efficiency centrifugal chillers, variable frequency drive (VFD) on cooling tower fans, high-efficiency condensing hot water boilers,

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4 The proposed conversion of 15,100 sf of mechanical space into office space at the Broad Institute was not modeled given the de minimus energy usage and stationary source GHG emissions that would result from the change in use.
high-efficiency water source heat pumps, high-efficiency energy recovery ventilator (ERV), differential CO₂ based demand control ventilation for offices, and CO control and VFD for underground garage fans.

The NPC includes analysis of the viability of a roof-mounted solar PV system for the buildings. The Proponent has committed to constructing all new buildings to be “solar ready”. The NPC also evaluated the purchase of energy from the Veolia (f/k/a Dalkia) Cambridge Combined Heat and Power (CHP) district steam network in compliance with the draft *Guidance for the Application of the MEPA GHG Policy and Protocol to the Use of the Dalkia Cambridge CHP District Steam* document. The NPC indicates that additional analysis of this option is needed.

Other sustainable design measures that will reduce the project’s GHG emissions, but which are not modeled, are identified including commitments to replace inefficient lighting fixtures at the Cambridge Center North Garage, use of Energy Star appliances, water conservation measures to reduce water use and wastewater generation, consideration of independent building commissioning, consideration of LED lighting and/or efficient utility systems, and incorporation of green roofs/gardens. It is unclear as to whether the Proponent has committed to implement these measures or whether they will be evaluated as project design progresses.

Finally, the NPC includes a commitment that the Proponent will provide a self-certification to the MEPA Office at the completion of each building signed by an appropriate professional (e.g. engineer, architect, transportation planner, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project.

*Climate Change Adaptation and Resiliency*

The NPC noted the importance of planning for climate change impacts and resiliency associated with sea level rise, increased storm frequency and duration, and extreme temperature events. The NPC indicated that the City is working with MassDOT to extend the scope of MassDOT’s Advanced Circulation Model (“ADCIRC Model”) for the Central Artery to the project area. The results of this model, in conjunction with the Cambridge Climate Change Vulnerability Assessment, will be used to assess risks to the KSURP area from flooding from precipitation, storm surges, and sea level rise. The City of Cambridge comments indicate that the Interim Report on the Cambridge Climate Change Vulnerability Assessment is scheduled to be released within the next several weeks.

The NPC contained the results of an initial assessment based on FEMA Flood Insurance Study for the KSURP area and CZM sea level rise estimates. The Charles River Basin elevation is set by sluice gate operations at the Charles River Dam located at the Museum of Science and pumping from the New Charles River Dam located adjacent to the Zakim Bridge. The NPC indicated that the KSURP area as a whole is not susceptible to the 100- or 500-year storm from the Charles River Basin; however the Charles River Dam is susceptible to sluice gate flooding from the 100-year coastal event combined with sea level rise. The NPC also notes that the
project is potentially susceptible to flooding from the Mystic River and overland flow downstream of the Amelia Earhart Dam. The NPC also identifies the Kendall Square MBTA station as vulnerable to flooding. The NPC indicates that the following design measure will be explored to mitigate the effects of sea level rise as project design advances:

- Locating critical infrastructure above the first floor level (i.e. transformers, switchgear rooms, and mechanical rooms);
- Limiting basement areas;
- Infiltrating stormwater on-site where possible;
- Sanitary sewer and stormwater infrastructure improvements to address I/I and capacity issues in the CSO system;
- Incorporation of green roof/roof gardens and roofing membrane with High Solar Reflectance Index to reduce the heat island effect;
- Utilizing native species to minimize irrigation requirements and efficient irrigation systems; and
- Evaluating raised finish floor elevations.

Hazardous Materials & Solid Waste

The NPC identifies 14 Release Tracking Numbers (RTN) in the project area and identifies the status of each RTN in accordance with the Massachusetts Contingency Plan (MCP). The properties subject to this NPC have achieved regulatory closure under the MCP or were developed prior to the adoption of the MCP. The project will require characterization of the soil and groundwater conditions for management of contaminated soil during construction and to evaluate the residential use exposure scenario. The NPC includes a summary of the anticipated assessment and remedial activities for each project component.

Landlocked Tidelands

The EENF did not identify that the site includes areas of landlocked tidelands; information provided on May 27, 2015 identified work within landlocked tidelands as defined by the Waterways Regulations (310 CMR 9.00) and indicated that it is subject to the Public Benefit Determination regulations (301 CMR 13.00). Additional information is required regarding impacts on the public’s right to access, use, and enjoy tidelands and measures to avoid, minimize, and mitigate impacts. The timing of the disclosure limited input on this issue.

Construction Period Impacts

The NPC identifies the construction period impacts of the project, including truck traffic, air quality (dust), noise, stormwater runoff, and construction waste. Mitigation measures identified in the NPC include development of Construction Management Plans (CMP) for each project component to address numerous temporary construction-related impacts, including mitigation measures, road closures, detours, and staging. Mitigation measures to be included in the CMP include: erosion and sedimentation control, identification of designated truck routes,
maintenance and protection of pedestrian and bicycle accommodations, dust suppression, covering trucks used for transportation of construction debris, daily cleaning of streets and sidewalks, construction noise mitigation measures. The NPC indicates that ultra-low-sulfur fuel will be used for construction vehicles to mitigate construction-related air pollution and commits to meeting the requirements of the MassDEP State Revolving Fund (SRF) for diesel construction equipment.

Conclusion

Based on a review of the NPC, consultation with State Agencies, and a review of comment letters, I have determined that the EENF meets the criteria for a SEIR (301 CMR 11.06 (8)). I note that one area that was not addressed in the EENF was the identification of landlocked tidelands and the provision of associated public benefits. The adequacy of the SEIR will be evaluated, in part, on the Proponent’s ability to address the Scope for landlocked tidelands in a comprehensive manner and provide public benefits to support the public’s right to access, use, and enjoy tidelands.

SCOPE

General

The SEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. I strongly urge the Proponent to work with the City, MassDOT, MBTA, and other stakeholder groups prior to the preparation of the SEIR to review and discuss both the content of their comments and potential mitigation measures. These collaborative efforts will assist the Proponent in identifying mitigation measures and presenting a project that meets applicable environmental performance standards. I note I have received numerous comments in support of the project and the Proponent’s commitment to work with state agencies and stakeholders to maintain and improve transit service in Kendall Square.

Project Description and Permitting

The SEIR should provide a comprehensive description of project components, including potential off-site mitigation measures. The SEIR should identify, describe, and assess the environmental impacts of any changes in the project that have occurred between the reviews of the NPC and the SEIR provide an update on what development has occurred to date within the KSURP. The SEIR should include a table compares the the maximum permitted development within the KSURP to the existing development and adds the development proposed in this NPC. The table should address GFA, number of housing units, vehicle trips, parking spaces, and water and wastewater use. The SEIR should include updated conceptual plans for existing and post-development conditions. The SEIR should provide a brief description and analysis of applicable statutory and regulatory standard and requirements, and describe how the project will meet those standards. The SEIR should include a list of required State Agency Permits, Financial Assistance, and other State approvals, if applicable, and provide an updated status on each of these pending actions.
MassDOT has requested that the Proponent develop a MOU to address transportation and transit mitigation. The SEIR should include a draft MOU for review and comment.

Traffic and Transportation

The SEIR should explicitly note which transportation mitigation measures the Proponent has committed to implementing and those which have been accounted for in the traffic impact analysis. If the traffic impact analysis includes mitigation measures that the Proponent has not committed to, the SEIR should identify alternative methods to demonstrate a similar LOS improvement. The SEIR should provide tables that indicate the v/c, delay, LOS, and queues for all study area intersections under the Existing, 2024 No-Build, and 2024 Build Conditions. The SEIR should include a commitment for a long-term parking monitoring plan to evaluate strategies to increase efficient use of parking to minimize trip generation. I refer the Proponent to comments from the City and note the SEIR should identify access points for the structured parking and incorporate this into the trip generation figures. The SEIR should address the City’s comments regarding the provision of the minimum amount of parking, the proposed number of spaces per dwelling unit, and shared parking. Based on comments from MassDOT, the SEIR should include a roadway segment analysis for the Binney Street and Broadway corridors based on the latest methodology of the Highway Capacity manual or appropriate traffic software. This analysis should be performed on corridors currently utilized by some transit services in order to evaluate the impact of the project on transit travel times and help to identify mitigation measures to lessen the impacts of the project.

The SEIR should clarify whether any of the locations with crash rates above district average are considered Highway Safety Improvement Program (HSIP) clusters, and if so, a Road Safety Audit (RSA) should be prepared to help identify appropriate safety improvements that would be completed by the Proponent or by others. The NPC indicated the Proponent has committed to working with the City to identify areas for pedestrian access improvements and listed a number of measures that could be implemented. The SEIR should provide a more detailed level of commitment and explain how these measures would improve the pedestrian experience and encourage walking. The SEIR should address the City’s comment regarding the proposed pedestrian crossing at Broadway. I encourage the Proponent to work with the City to gain a better understanding of bicycle parking demand and availability and to provide an update on this issue in the SEIR. The SEIR should include a more detailed analysis of the project’s impacts on bicycle travel within the KSURP and provide additional detail on the existing and proposed bicycle facilities. The analysis should provide measures of effectiveness for the No-Build and Future Build conditions and should clearly identify potential improvements where conditions may be negatively impacted based on vehicular travel or additional bicycle travel.

I applaud the Proponent’s commitment to work with stakeholders to maintain and improve the transit system. Additionally, comments received from the City, MassDOT, and others acknowledge the systemic benefit that improving the transit system and mode shift provides to the region and the importance of a comprehensive capacity analysis of the transit system. I refer the Proponent to comments from MassDOT, the City, and others, and note the SEIR should provide an analysis more consistent with the methodology of the MBTA Service Planning Department based on the most recent and most relevant ridership and operational
statistics for the Red Line. The Proponent should consult with the MBTA regarding the scope and protocol for the analysis. I encourage the Proponent to coordinate this analysis with the City in addition to MassDOT and the MBTA. The SEIR should also explain how the project will mitigate its impacts on the MBTA bus network as the additional ridership from the KSURP will likely result in several routes operating over capacity. The SEIR should also evaluate the project’s likely impacts on MBTA bus travel times and the impacts of the proposed highway, pedestrian, and bicycle improvements to the bus system and routes. Specifically, as noted in MassDOT’s comment letter, the SEIR should provide, in a tabular format, an assessment of which intersections are utilized by MBTA buses and how their timing or turning movements may be affected by the increased traffic and/or proposed roadway and pedestrian changes to be generated by the project.

The Proponent should work with the MBTA, MassDOT, and the City to develop the potential transit improvements to be included in the ETMP and to identify the appropriate mechanism for ensuring enforceable commitments for these improvements and incorporating the program elements into the transportation planning processes at the City and State levels. The SEIR should provide an update on these discussions and include an implementation schedule or MOU to guide the implementation of mitigation that is not specifically identified in the SEIR. Comments from MassDOT indicate that they will continue to coordinate with the Proponent to ensure that a clear commitment and implementation schedule are in place prior to the project site occupancy.

Water Supply and Wastewater

The NPC notes that the Proponent will explore the viability of alternate water sources such as water reuse systems, rainwater harvesting, and xeriscaping. The SEIR should provide an update on this evaluation and contain a discussion of water conservation measures that the Proponent will commit to implementing in project design. The SEIR should provide an update on discussions with the City, MWRA, and/or MassDEP with respect to I/I mitigation and how the City’s requirement to store 24 hours of wastewater flow on-site will be addressed. I encourage the Proponent to provide a detailed update (including a breakdown for each component) regarding how the project will provide requisite I/I mitigation to offset project flows at the 4:1 removal ratio as required by the City of Cambridge. I refer the Proponent to comments from the MWRA which indicate that the project’s wastewater flows should be fully offset via I/I removal or sewer separation to ensure that the additional wastewater flows from the project do not result in discharges of untreated CSO to the Charles River Basin at Cambridge Outfall CAM017 during large storms. The SEIR should also address MWRA comments regarding compliance with MWRA’s Toxic Reduction and Control (TRAC) Discharge permitting.

Stormwater

The SEIR should include a stormwater analysis that evaluates and compares proposed storm-event peak flow rates and volumes to existing conditions based upon conceptual designs for the project. The SEIR should include a description of and implementation schedule for LID measures the Proponent will commit to in order to encourage groundwater recharge and reduce the local heat island effect.
The NPC indicates that minor flooding occurs during severe, but unspecified, storm events at the stormwater outfall on Broad Canal Way. The SEIR should describe the extent of past flooding and consider the potential for increased flooding due to more frequent extreme storms resulting from climate change. The NPC indicates that the Proponent may upgrade the stormwater system to address flooding, in lieu of complying with the City’s stormwater management standards. The SEIR should provide more information on the potential advantages and disadvantages of this option, discuss whether it can permitted, and evaluate the potential impacts on water quality if only flooding is controlled.

I refer the Proponent to comments from CRWA and MassDEP regarding the established water quality standards in the applicable Charles River TMDLs. The SEIR should provide a detailed discussion of stormwater conveyance from the KSURP to the Charles River and other sufficient information to demonstrate that the stormwater management system will be designed to address the water quality impairments covered by these TMDLs, as well as flooding conditions.

Greenhouse Gas Emissions

I commend the Proponent’s commitment to creating a sustainable Transit Oriented Development (TOD) and its efforts to address climate change impacts in coordination with the City and other stakeholder groups. The GHG analysis should be updated based on the evolution of the master plan and specific mitigation measure commitments. The SEIR should address MassDEP and DOER comments. The SEIR should clearly state modeling assumptions, explicitly note which GHG reduction measures have been modeled and which have been accounted for in the mobile GHG evaluation, and identify whether certain building design or operational GHG reduction measures will be mandated by the Proponent to future occupants or merely encouraged for adoption and implementation. For those components that will be encouraged by the Proponent, the SEIR should include a draft tenant manual that identifies specific strategies to encourage their adoption (e.g. design assistance, financial incentives, providing a list of approved fit-out material performance standards, etc.). The draft tenant manual should build upon the outline presented in the NPC and provide information to advance energy efficient practices and optimization of energy efficient systems. The SEIR should also identify components of the ETMP and the corresponding emission reductions expected. If the stationary and/or mobile source GHG evaluation includes mitigation measures that the Proponent has not committed to, the SEIR should identify alternative methods to ensure a similar GHG reduction. The SEIR should evaluate and revise the Phase 1B energy model or explain Eleven Cambridge Center’s low Energy Use Intensity (EUI) when compared to benchmark buildings.

The purpose of the GHG analysis is to identify feasible mitigation measures and assess the relative impacts of the Preferred Alternative. The MassDEP and DOER comment letter provide additional guidance regarding mitigation measures that should be explored as part of the GHG analysis, as well as resources to assist in preparing the analysis. Comments from MassDEP and DOER indicate that utilizing CHP, including the Dalkia plant to address the project’s heating and cooling loads may yield additional GHG reduction benefits that should be evaluated by the Proponent. The SEIR should include an updated analysis that evaluates this issue and explains, in reasonable detail, why the Dalkia Plant and other CHP alternative were not
selected—either because it is not applicable to the project or is considered technically or financially infeasible. I refer the Proponent to comments from DOER and encourage the Proponent to evaluate reducing the overall building envelope U-value by decreasing the window to wall area and/or by increasing the glazing performance and further reducing the lighting power density.

The NPC provided a preliminary evaluation of installing solar PV systems and noted that the capacity of PV arrays is lower than the average power draw of the proposed buildings. Based on this analysis, a rooftop solar PV array has the potential to offset an additional 605 tpy of GHG emissions. The NPC does not include a commitment to install the solar PV array. The SEIR should provide a feasibility analysis, including identification of payback periods, for installation of on-site PV systems. The analysis should consider Solar Carve-Out II / SREC II and rebate mechanisms. The EIR should also expand on the discussion of wind harvesting.

Comment letters from MassDEP and the City indicate that additional GHG reductions can be achieved through recycling and source reduction efforts and water conservation measures. I encourage the Proponent to participate in the EPA WaterSense certification program and EnergyStar ratings in the selection of plumbing fixtures and appliances. Additional information on the WaterSense certification program is available on the following website: http://www.epa.gov/watersense/docs/home_finalspec508.pdf. Additional GHG reductions can be achieved through effective materials management during the design, construction, and operations phases of the project. The SEIR should describe how the Proponent will incorporate recycling initiatives into proposed construction and demolition activities and comply with the goals of the Massachusetts Solid Waste Master Plan. I strongly encourage the Proponent to set solid waste recycling/reuse target percentage goals. These measures will be considered when evaluating whether the project can mitigate its GHG emission to the greatest extent practicable.

Adaptation and Resiliency

I refer the Proponent to comments from the City which indicates the Interim Report on the Cambridge Climate Change Vulnerability Assessment will be issued imminently. The Interim Report will address the impacts of heat vulnerability and precipitation driven flooding for 2030 and 2070, the risks of sea level rise, and storm surge flooding through 2030. The SEIR should include an updated evaluation of the area’s susceptibility to these risks based on the results of the Interim Cambridge Climate Change Vulnerability Assessment and the City’s and MassDOT’s ADCIRC model (as available). This updated analysis should consider the ADCIRC model in conjunction with inland flooding and inundation to further refine probabilistic flooding scenarios.

The SEIR should include a specific focus on how the project has been designed to respond to projected sea level rise scenarios. Using the Office of Coastal Zone Management’s (CZM) December 2013 report entitled, Sea Level Rise: Understanding and Applying Trends and Future Scenarios for Analysis and Planning in conjunction with the information identified above, and with consideration for the level of acceptable risk and the projected lifespan of the project, the Proponent should select a predicted sea level rise scenario and evaluate in the DEIR how the project may be directly or indirectly impacted. The SEIR should discuss why a specific
scenario (or scenarios) was selected for evaluation, describe resulting sea level rise and storm surge elevations, identify the extent of inundation areas on-site, and indicate how the project will be designed to mitigate this impact or to facilitate adaptation responses. I encourage the Proponent to consult with the MEPA Office for additional clarification prior to undertaking this task.

The SEIR should demonstrate that the project includes ecosystem-based adaptation measures and proactive site design with regard to impacts related to predicted sea level rise, particularly given that the Kendall Square MBTA station may be vulnerable to flooding, which would affect the accessibility of the project via transit. I encourage the Proponent to work with the MBTA to review existing station vulnerabilities and identify improvements that could be undertaken in conjunction with the project. The SEIR should report on the results of this analysis and meetings with the MBTA and discuss what types of design improvements can or will be made to prevent or reduce impacts from extreme storms.

The Proponent should also consider impacts on the proposed structures, building entry and exit points, public roadways that traverse the site (e.g., Broadway, Main Street, Galileo Galilei Way), public and private on-site utilities, and first floor uses. The SEIR should identify site elements that have been incorporated into project design to reduce the impact of extreme heat waves and limit the potential impact of more frequent and intense storm precipitation. The Proponent should consider how on-site renewable energy, a district energy network, or CHP systems may provide added resiliency during periods of power loss during storms. Storm response actions and resiliency measures should be incorporated into leasing agreements or Tenant Manuals and be considered part of guidance related to tenant fit-out of commercial space, particularly those located on the lower floors.

Air Quality

The SEIR should identify certification and/or permits that likely will be required for proposed on-site energy sources such as a cogeneration system, boilers, stationary turbines, emergency generators, etc. I remind the Proponent that, as advised by MassDEP, pre-installation approval from the MassDEP Division of Air Quality Control is required if the project will include the installation of any Fuel Utilization Facility that emits air contaminants (e.g., furnaces, fuel burning equipment, or certain boilers). Additional review by MassDEP may also be required if the building is to be equipped with emergency generators.

Hazardous Materials

Comments from MassDEP identify measures necessary to comply with the MCP. The SEIR should include the results of any subsequent subsurface investigations, soil and/or groundwater sampling and testing, or Environmental Site Assessments specific to the project site to assist in the characterization of hazardous materials on-site, potential remediation requirements, and construction period or operational mitigation measures or include a commitment to engage an environmental consulting firm to assist during project design and construction to ensure that the project conforms to MCP regulatory requirements for construction.
of buildings in contaminated areas and that all required submittals will be provided to MassDEP. The SEIR should discuss the need for a vapor intrusion system and identify how it will be incorporated into design and whether it would result in design changes.

Landlocked Tidelands

The SEIR should describe nature and total area of work that is proposed to occur within the tidelands. The SEIR should provide a narrative that explains the project’s impact on the public’s right to access, use, and enjoy the landlocked tidelands and describes the avoidance, minimization, and mitigation measures proposed to address said impacts. The narrative should describe the public benefits of the project as required in the Public Benefit Determination regulations (301 CMR 13.00). Additionally, the SEIR should identify whether the project is located in an area of low groundwater and if so, should identify and commit to taking measures to avoid, minimize, or mitigate any adverse impacts on groundwater levels in accordance with 301 CMR 11.05(4)(b).

Construction Period

The project must comply with MassDEP’s Solid Waste and Air Quality Control regulations, pursuant to M.G.L. Chapter 40, Section 54, during demolition and construction. Construction Management Plans (CMP) will be developed for each component of the project and will be reviewed and approved by the City. The NPC indicates that the Proponent has committed to complying with MassDEP requirements for diesel construction equipment including the use of construction equipment that meet Tier 3 or Tier 4 emissions standards for non-road construction equipment (rated 50 horsepower or greater) to reduce emissions of VOCs, carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment.

Mitigation/Draft Section 61 Findings

The SEIR should include a separate chapter summarizing proposed mitigation measures. This chapter should also include draft Section 61 Findings for each State Agency that will issue permits for the project. The SEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation (either funding design and construction or performing actual construction), and a schedule for implementation.

Given the integration of transit system improvements into the project, the SEIR must provide a concise description and commitment to construct transportation or transit system improvements necessary to adequately mitigate project-related transportation demand. These mitigation commitments may be tied to overall project square footage or traffic generation rates, and/or addressed through a MOU with MassDOT, the MBTA, and/or the City of Cambridge.

In order to ensure that all GHG emissions reduction measures adopted by the Proponent in the Preferred Alternative are actually constructed or performed by the Proponent, I require Proponents to provide a self-certification to the MEPA Office indicating that all of the required mitigation measures, or their equivalent, have been completed. I hereby request that the
Proponent affirm in the SEIR that, following completion of construction, the Proponent will provide a certification to the MEPA Office signed by an appropriate professional (e.g., engineer, architect, transportation planner, general contractor) indicating that all of the mitigation measures adopted by the Proponent as part of the Preferred Alternative have been implemented. Alternatively, this self-certification may confirm that equivalent emissions reduction measures that collectively are designed to reduce GHG emissions by the same percentage as the measures outlined in the Preferred Alternative, based on the same modeling assumptions, have been adopted. The certification should be supported by plans that clearly illustrate what type of GHG mitigation measures have been incorporated into the project. For those measures that are operational in nature (i.e., TDM, recycling, parking management) the Proponent should provide an updated plan identifying the measures, the schedule for implementation and how progress towards achieving the measures will be obtained. The commitment to provide this self-certification in the manner outlined above should be incorporated into the updated draft Section 61 Findings included in the SEIR.

Responses to Comments

The SEIR should contain a copy of this Certificate and a copy of each comment letter received on the NPC. In order to ensure that the issues raised by commenters are addressed, the SEIR should include direct responses to these comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the SEIR beyond what has been expressly identified in this certificate. I recommend that the Proponent employ an indexed response to comments format, supplemented as appropriate with direct narrative response.

Circulation

In accordance with Section 11.16 of the MEPA Regulations and as modified by this Certificate, the Proponent should circulate a hard copy of the SEIR to each State and City Agency from which the Proponent will seek permits. The Proponent must circulate a copy of the SEIR to all other parties that submitted individual written comments. Per 301 CMR 11.16(5), the Proponent may circulate copies of the SEIR to these other parties in CD-ROM format or by directing commenters to a project website address. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the CD-ROM or website address indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. A CD-ROM copy of the filing should also be provided to the MEPA Office. A copy of the SEIR should be made available for review at the Cambridge Public Library.

May 29, 2015
Date

Matthew A. Beaton
Comments received:

05/15/2015 Massachusetts Water Resources Authority
05/20/2015 Stephen H. Kaiser
05/22/2015 Charles River Watershed Association (CRWA)
05/22/2015 Massachusetts Department of Environmental Protection – Northeast Regional Office
05/22/2015 Massachusetts Department of Energy Resources (DOER)
05/26/2015 Massachusetts Department of Transportation
05/27/2015 City of Cambridge

MAB/PC/pc
Introduction to MBTA Red Line Capacity

June 2015 Edition

Prepared by Stephen H. Kaiser, PhD
Mechanical Engineer

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DEFINITIONS OF MBTA SERVICE AND CAPACITY

When an agency provides mass transit service, capacity means the ability to move many people from many entry points to many destinations in shared vehicles. Usually we talk about maximum capacity, not minimum. Capacity is a measure of how many people a transit system can serve. But how many people?

A train can be full, at “crush capacity,” but be stalled in a tunnel. It will have capacity to provide temporary storage for many people, but if the train is not moving its service capacity is zero. The challenge for rapid transit is to move as many people as possible. When the Red Line is moving, it is providing service.

The MBTA has adopted a Service Delivery Policy to “ensure that the MBTA provides quality transit services that meet the needs of the riding public...” [2010 Update, page 1] This policy is designed to fulfill the mission of the MBTA:

“The MBTA is a dedicated world-class transit system built upon consumer service excellence, accessibility, reliability, state-of-the-art technology, and a diverse workforce that reflects our commitment to the communities we serve.”

The service objectives (p. 3-4) are:

Accessibility … Service offers good geographical distribution and convenience

Reliability … Service should run as scheduled – to be on-time and dependable

Safety … Service should offer both the reality and the feeling of safety among patrons

Comfort … Transit travel should “provide a pleasant and comfortable riding environment”

Cost-Effectiveness … “Services should be tailored to target markets in a financially sound and cost-effective manner”

The Service Policy takes these objectives and translates them into Service Standards or guidelines (p. 4):

Accessibility … Area coverage, daily times of service and frequency of service
Reliability … Schedule adherence – being on-time
Safety and Comfort… Train loadings
Cost effectiveness …. Net cost per customer.
These standards say nothing about how rapid the rapid transit service should be. Trains could be moving at 5 miles an hour … or 50. The policy itself mentions the word “capacity” only four times, all on page 14 in relation to seating and standing loading capacities of buses or trains. No mention is made of capacity as movement. The word “capacity” is not defined in the Glossary on page 22.

**DISCOVERING CAPACITY IN THE SERVICE DELIVERY POLICY**

However, two Service Standards can be combined – frequency of service and train load. The result is the discovery of *moving capacity*. In theory, the more people are loaded into each train and the more frequently the trains arrive, the higher the capacity of the service. This concept of capacity does not say anything about speed, but it can indicate how many people the Red Line could be capable of serving.

The MBTA sets the loading capacity of a six-car Red Line train at about 1000 people. If trains arrive every four minutes, that is equivalent to fifteen trains an hour. The moving capacity is fifteen times 1,000 or 15,000 people each hour. The MBTA Service Delivery Policy for the Red Line means that scheduled headways (separations between trains) of four minutes will mean the capacity of one track is 15,000 riders an hour.

Simply stated, if we know the headway and the loading capacity of each train, we know the moving capacity. In 1926, the Boston Elevated Company ran trains into Harvard Station on two-minute headways … or 30 trains an hour. If the company could have run six-car trains with 1,000-person loading, that would mean a track capacity of 30,000 riders an hour. Shorter headways mean the transit agency can move more people.

**WAYS TO INCREASE CAPACITY**

Other ways to increase capacity are to have longer trains and longer cars, … or to take all the seats out of a car. The MBTA tried this last idea with their unsuccessful Big Red cars on the Red Line.

Another way to increase capacity is to squeeze more people into each car. The Japanese are famous for using “pushers.” These are athletic young men who physically push people into the trains, “compressing them like sardines.” Many western nations see such a policy as demeaning, and the MBTA can cite its policy on safety and comfort, with passengers complaining about riding at “crush capacity.” The Policy cites limits on how fully the trains should be loaded.

**TRAIN BUNCHING HAS CAPACITY IMPLICATIONS**

Finally, another way to increase capacity is to plan for and achieve even spacing of trains on the Red Line. This strategy avoids bunching of trains. Measurements I have made at Park Street show wide variations in headways -- from less than 2 minutes, to as long as 17 minutes. When trains have short headways they often travel half-empty or less. Last December I was on a rush hour train entering Alewife Station, and my train was one of four waiting to be released from the Alewife terminal. With only two storage tracks at the station, two of the trains had to wait on the approach tracks until the station tracks were cleared out.

More distressing to many riders are those occasions of delayed trains with very long headways. Most commonly one late train is leading a bunching of other trains following closely behind. A Cambridge business leader and a City Councillor both report anguish at waiting for four trains at Kendall Station before being able to get on a train. Such reports suggest a system seemingly over-capacity, without room for any new riders.

The combination of transit service with a mix of short and long headways is very common world-wide. Buses and trains can get bunched together creating long waiting delays for passengers, crowded conditions on some trains, and other trains that are half-empty or less. I have seen Red Line trains at rush hour that were virtually empty at Park Street. Empty seats and unused space for standees all represent lost capacity in the
service. Thus we can identify bunching as the primary cause for loss of capacity in existing Red Line service. A significant amount of system capacity is not accessible because of uneven train spacing. The solution is to run the trains on time, evenly spaced, so that available capacity is increased, using existing trains and personnel.

The details of increasing capacity in the Red Line (including bunching) will be discussed in a later paper. Calculations of capacity in this paper will assume an even spacing of trains.

**JAPANESE TRANSIT EXPERIENCE**

The Japanese have realized they made a mistake in using pushers to increase train loading. Over the past decade, the Japanese rail system has removed pushers from train platforms. One issue involved safety – a woman was reportedly crushed to death on a train. Another is the technical realization that people were taking so much time to get on and off trains that the whole system became seriously delayed. Japanese transit was losing capacity, not gaining it. Their solution is to remove the pushers and replace them with gentlemanly attendants who urge passengers to step back and not overload trains. Loudspeakers deliver the same message and stress the need for the train to leave soon. Today the Japanese run almost fully loaded trains with two-minute headways and evenly-spaced trains. The Japanese are moving more than three and a half times as many rail-cars down a single track as the MBTA achieves.

**HOW THE MBTA ESTIMATES TRAIN LOADINGS AND CAPACITY**

The MBTA estimates the practical loading capacity of Red Line cars as 167 passengers in each car. A six-car train will carry a total load of 1,002 passengers. The scheduled headway in the peak hour is 4.5 minutes for the mainline tracks between Alewife and JFK. These headways are the same as having 13.33 trains in the peak hour. The scheduled capacity becomes 13,367 passengers per hour.

An improved method would be to count trains that are not scheduled but are run as directed. MBTA management can insert extra trains into long gaps that may open up in service. In reality, it is better to operate those extra trains as part of regular service. In my Red Line counts of two years ago, the average measured headways were in the range of 4 minutes plus 15 to 20 seconds. Measured capacity becomes 13,850 passengers per hour.

**ABSOLUTE MAXIMUM TRAIN LOADING : CRUSH CAPACITY**

The car storage capacity of 167 riders per car is slightly arbitrary and is based on the ratio of standing to seated passengers. Two standing riders for every seat represents a loading capacity of 167 riders per car. Four standing riders per seat is called the “crush capacity” of the car and is 277 passengers per car. This 277 figure represents the physical limit of the car – it is impossible to get another person on.

The Japanese experiments were based first on trying to push the bounds of crush capacity into super-crush conditions, and then realizing that they had gone beyond the ideal and were actually reducing moving capacity. The MBTA figure of 167 riders per car represents an awareness of the hazards of overloading trains, and the need to recognize the comfort and safety interests of the passengers.

**HOW DO RIDERSHIP COUNTS COMPARE WITH RED LINE CAPACITIES?**

Red Line Riders often complain of a lack of adequate capacity. They express concerns about delays, crowding, and transit congestion. The common perception is of a Red Line “at capacity” or “over capacity.” One MBTA official claimed publicly that the Red Line is today at crush capacity.
The claims of insufficient capacity are not supported by a comparison of ridership counts and capacity. Passenger counts of inbound arrivals at Kendall Square in the morning peak hour is 9,524. [Notice of Project Change, Kendall Square Amendment 10, by Cambridge Redevelopment Authority, April 2015. p. 2-45]. With a Red Line capacity calculated above of 13,850 passenger per hour, the capacity exceeds the ridership by 4,326.

The Red Line is neither over-capacity nor at-capacity. It is clearly operating under-capacity.

**THE VOLUME-TO-CAPACITY RATIO**

The Volume-to-Capacity or V/C ratio is in common usage among traffic engineers to represent traffic counts or demand compared to highway volume. If the amount of traffic is only half the capacity, we would say the V/C is 0.50. It is like the glass of water that is either half full or half empty. Similarly a V/C ratio of 0.75 means the intersection is ¾ full or 25% empty. We could also say that there is 25% of the capacity that is not being utilized.

On the Red Line, the *morning peak* ridership of 9,524 compares to a capacity of 13,850. The V/C ratio is 0.69. Only 69% of the capacity is being utilized and 31% is *not* being used. During the *afternoon* peak hour, the ridership leaving outbound Kendall Square is 8,821, and the corresponding V/C ratio in the PM is 0.64.

**CONCLUSIONS ON UNUSED RED LINE CAPACITY**

I conclude that the Red Line is using about 2/3 of its capacity. It is *not* using 1/3 of its capacity. Stated somewhat differently, if it were possible to fully utilize all unused capacity, the ridership on the Red Line could increase by half. This 50% increase in possible ridership could be achieved using existing trains and employees. The most effective strategy to retrieve this lost capacity is to run the trains on time.

**NEXT STEPS.**

The next introductory paper on Red Line service issues will consider the effects of *bunching* on the Red Line. The focus will be on the wide range in headways – with some trains loaded to crush capacity, while other trains can run almost empty. Proposals will be offered to run the trains on time and significantly reduce the wide spread in headways from today's average variations of 100 seconds … and seek to limit such variations to an average of ten seconds. Such a new policy would compare with 7.6 second average variation on subway trains in Japan. Formulas to relate capacity to bunching will be developed. The implications for passenger daily, including unexpected large delays will also be considered. Cost-benefit implications will be assessed.

Subsequent topics to be discussed will be:

…… An assessment of national and international experience with reducing headways to no more than two minutes, including 1926 Boston experience with two-minute headways and 90 second headways during World War II.

…… The capacity benefits of adding new cars, operators and power capacity to permit reduced headways, with cost implications.

…… Possible reuse of many series 1500 to 1700 cars to give extended service for at least another decade and to expand the Red Line fleet to achieve shorter headways and more capacity after new Red Line cars arrive.

…… Proposals to make the Boston public transit service into the best transit system in North America.

* * * * * * *
### Income

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Thursday, Jun 18, 2015 03:45:40 PM PDT GMT-4 - Accrual Basis
Cambridge Redevelopment Authority
EXPENSES
Budget vs. Actuals
January - May, 2015

Total Expenses by Project

- Personnel: $179,035
- Office: $58,351
- Property Management: $26,839
- Professional Services: $136,975
- Redevelopment Investments: $0

- Ames Street EcoDistrict Forward Fund
- Foundry
- Grand Junction
- KSURP/K2 Zoning
- MXD Design Review
- Strategic Planning
- Volpe
- Other
- Ames Street
- EcoDistrict
- Forward Fund

$540,000
LEASE AGREEMENT
by and between
THE CITY OF CAMBRIDGE
as Landlord
and
CAMBRIDGE REDEVELOPMENT AUTHORITY
as Tenant
with respect to the property known as
the Foundry Building
at 101 Rogers Street, Cambridge, MA
Dated as of

____, 2015
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LEASE AGREEMENT

THIS LEASE AGREEMENT (the “Lease”) is made and entered into as of this ____ day of ___________________ 2015, by and between the City of Cambridge, a municipal corporation duly organized and existing under the laws of the Commonwealth of Massachusetts with a usual place of business at City Hall, 795 Massachusetts Avenue, Cambridge, MA 02139 (the “Landlord” or “City”), and the Cambridge Redevelopment Authority, a public body politic and corporate in the City of Cambridge, constituted under M.G.L. c. 121B, § 4 (the “Tenant” or “CRA”). Landlord and Tenant may hereinafter be collectively referred to as the “Parties.”

Intending to be legally bound, Landlord and Tenant agree as set forth below:

Landlord and Tenant hereby agree to this Lease of the City-owned Foundry Building at 101 Rogers Street. The goal of this Lease will be to implement the vision, objectives and conditions developed through extensive community and Cambridge City Council input, as formally set forth in the Demonstration Project Plan for the Property adopted by the CRA on December 17, 2014 and approved by the City Council on May 4, 2015. A copy of the approved Demonstration Project Plan is attached as Exhibit A. Subject to the oversight of the City as set forth in this Lease, the CRA will serve as the steward of the Property and in particular the community uses and programming within the Foundry.

1. PROPERTY

Landlord hereby leases to Tenant and Tenant hereby leases from Landlord, for the term and subject to and with the benefit of the terms, covenants, conditions, agreements and provisions hereof, two certain parcels of land, together with all improvements thereon, more particularly described in a deed from ARE-MA Region No. 32, LLC and ARE-MA Region No. 35, LLC to the City of Cambridge dated January 9, 2012 and recorded with the Middlesex South District Registry of Deeds in Book 58257, Page 379, a copy of which is incorporated as Exhibit B attached hereto and made part hereof, located at 101 Rogers Street and 180 Bent Street in Cambridge, Middlesex County, Massachusetts, together with rights of ingress and egress thereto (the “Property”).

2. USE OF TERMS

The following terms shall have the following definitions:

2.1 Advisory Committee - A seven (7) person Committee created by the City Manager in consultation with the CRA’s Executive Director.

2.2 City Manager - The City Manager of the City of Cambridge.

2.3 Governing Documents - The Lease, the Demonstration Project Plan, the Disposition Report and such other documents related to the use of the Property, all as agreed upon by Landlord and Tenant.
2.4 Selection Process - The multi-stage process by which Tenant will, subject to the approval of the City Manager, select the Development Entity.

2.5 Development Entity - A private developer, non-profit organization, or a joint venture of multiple parties capable of fulfilling the redevelopment goals for the Property.

2.6 Sublease - An agreement between Tenant and a Development Entity to implement the redevelopment and management of the Property into a productive, innovative mixed-use center.

3. LEASE TERM AND PRE-SUBLEASE TERM

3.1 Pre-Sublease Term. The period after the execution of this Lease but prior to the execution of the Sublease shall be the “Pre-Sublease Term.” The Tenant shall conduct the Selection Process, as defined in Section 4.3 below, leading to the selection of the Development Entity, subject to the review and approval of the City Manager during the Pre-Sublease Term. The Pre-Sublease Term is estimated to continue for not longer than twelve (12) months and may be extended by mutual agreement of Landlord and Tenant.

3.2 Lease Term. The term of this Lease (the “Lease Term”) shall commence upon execution of this Lease and end fifty (50) years after execution of the Sublease.

3.3 Contingency. The Parties hereby expressly acknowledge and agree that Landlord’s obligations and Tenant’s rights hereunder are contingent upon Tenant entering into a Sublease with a Development Entity consistent with the terms of this Lease in every respect. In the event the Sublease is not executed within three (3) years of the execution of this Lease but may be extended by mutual agreement of Landlord and Tenant, this Lease shall be void and of no further force or effect.

3.4 End of Lease Term. If Landlord so elects, at the expiration or sooner termination of the Lease, all improvements shall be surrendered to Landlord in a reasonable condition to be determined by the Landlord.

4. SELECTION OF DEVELOPMENT ENTITY

4.1 Proposals. The Tenant shall seek proposals for the redevelopment of the Property from prospective development entities.

4.2 Schedule. Landlord and Tenant agree to pursue the Selection Process consistent with the schedule set forth in Exhibit C and acknowledge that it is expected that the Property will be substantially occupied not later than three years after commencement of the Lease Term.

4.3 Selection Process. Tenant’s selection of the Development Entity shall follow a multi-stage process consisting of a Request for Qualifications (“RFQ”) process to determine a short list of qualified entities (“Proponents and a Request for Proposals
(‘‘RFP’’) to fully develop proposals for evaluation and selection of the Development Entity. The determination of Proponents and the selection of a Development Entity are both subject to the approval of the City Manager.

(a) RFQ. The RFQ will provide a broad array of prospective Proponents with an opportunity to propose an overall reuse concept for the Property. If Tenant receives sufficient responses in alignment with the Governing Documents and elects to proceed with the proposal process, the second stage of the solicitation will proceed through a limited-solicitation RFP to be distributed to the Proponents. In coordination with the release of the RFQ, Tenant will organize at least one public pre-bidding event to invite developers, program providers, and potential tenants to form connections and potential partnerships capable of delivering an innovative mix of uses in the Property.

(b) RFP. The RFP will be distributed to the Proponents and will center on selecting a feasible concept for the Property that includes the selection of an implementation team with appropriate development and management capacity to rebuild and populate the Property. Tenant will solicit proposals for the Property’s reuse as specified in and consistent with the Governing Documents (the “Proposals”). Tenant shall host at least one televised public presentation (on Cambridge Public Access TV) of the final Proposals from the Proponents at least two (2) weeks before the selection of the Development Entity by the Tenant.

4.4 Program. Proposals shall be required to comply with minimum and maximum programmatic requirements as determined by the Parties after evaluation of the RFQ responses.

4.5 Selection Criteria. Tenant will evaluate the Proposals according to the objectives for the Property set forth in the Governing Documents. Such objectives shall be specifically referenced in the RFP; provided, however, that Proposals that demonstrate delivery of a Program with community-oriented uses significantly greater than the 10,000 square feet minimum required by the Cambridge Zoning Ordinance and that include the productive use of as much of the Property as possible shall be considered highly advantageous in the Selection Process.

Other factors in the Selection Process shall include, without limitation, the strength of financing, the quality and experience of the proposed Proponent, the mix of proposed uses as they relate to the objectives laid out in the Governing Documents, the conceptual building design, approach to environmental issues, proposed schedule, and the capacity of the proposed Proponent to undertake both the development and operations of the Property over the long term.

5. SUBLEASE

5.1 Sublease Authorization. Tenant shall be authorized to execute the Sublease with the Development Entity; provided, however, that Tenant reserves the right not to select a Development Entity if no acceptable Proposals are received. The terms of any Sublease entered into with the Development Entity shall be subject to the prior review and written approval of the City Manager.
5.2 **Sublease Term.** The term of the Sublease shall be up to the duration of the Lease Term and shall be subject to the terms of the Governing Documents, the requirements of the RFP, and the Proposal. The Tenant may, with the City Manager’s written approval, negotiate modifications of the elements of the Proposal; provided, however that any such revision shall not be inconsistent with the requirements and goals of the Governing Documents.

5.3 **Tenant Office Space.** Tenant shall have the right to occupy up to 2,000 net square feet within the Property for its own corporate purposes and for which it shall pay rent in accordance with Section 6.5 below in an amount consistent with the calculation of rent to be paid for a similarly situated tenant of the Development Entity.

5.4 **Performance Measures.** The Sublease shall maximize the benefits to the community from the redevelopment and use of the Property while maintaining the financial sustainability of the Property. The Sublease will include performance measures and reporting requirements that comply with the Governing Documents.

5.5 **Continuous Operation.** The Sublease shall require the Development Entity to use its best efforts to keep the Property continuously occupied during the Lease Term.

5.6 **Permits.** The Sublease shall require the Development Entity to obtain at its expense any and all permits and/or licenses required by federal, state, and local laws, rules and regulations for the redevelopment and operation of the Property.

5.7 **Insurance.** Tenant shall require the Development Entity and all designers, contractors, operators and tenants of the Property to carry reasonable levels of insurance naming the Tenant and the Landlord as additional insureds in amounts and coverages to be approved by both the Tenant and the Landlord.

5.8 **Ten-Year Sublease Rent Evaluation.** The Sublease shall provide that, at each ten-year anniversary of the Sublease Term, the amount of Rent (discussed below in Section 6.5) owed under the Sublease shall be subject to renegotiation based on the then prevailing rents in the Greater Boston area for the uses comprising the Program. In the event that Tenant and the Development Entity are unable to agree on the adjustments to the Rent, such adjustments shall be submitted to an independent appraisal process to be set forth in the Sublease.

5.9 **Remedies.** The Sublease shall provide remedies for Landlord and/or Tenant if the Property is not redeveloped in accordance with the Governing Documents, including termination or modification of the Sublease, injunction, and reimbursement for expenses and attorneys’ fees associated with remedies under the Sublease.

6. **FINANCIAL RESPONSIBILITIES**

6.1 **Landlord’s Capital Improvements.** The Cambridge City Council has appropriated six million dollars ($6,000,000.00) for Landlord’s Capital Improvements to a dedicated Landlord’s Capital Improvements Fund (separate from the “Capital Reserve Fund” described in Section 6.2 below), and Landlord shall expend substantially all of such
Landlord’s Capital Improvements will include those determined by the Landlord, in consultation with the Tenant, to be necessary and appropriate for the use of the Property for the Program and in compliance with all applicable federal, state, and local laws, rules, and regulations. The Landlord and Tenant may confer with the Development Entity, as appropriate, regarding these improvements.

6.2 Reserve Funds. Tenant shall, in the Sublease, create the following Reserve Accounts: (1) a fund dedicated by the Tenant to investment during the Lease Term in the Property’s ongoing building operations and programming goals as specified in and consistent with the Governing Documents (the “Operating Reserve Fund”); and (2) a fund by the Tenant dedicated to investment during the Lease Term in the Property’s capital maintenance as specified in and consistent with the Governing Documents (the “Capital Reserve Fund”). At each ten-year anniversary of the Term, the amount in the Reserve Accounts shall be reviewed by the Parties, and may be adjusted based on the then prevailing best professional practice. Excess funds not anticipated to be needed by such review at such time may be returned to the City and to the CRA to recoup the initial investments and pre-development costs of each party as agreed by the Parties. Any such recoupment of the initial funds shall be paid to the Parties in proportions based upon each Party’s initial investment. Any money that remains in the Reserve Accounts at the end of the Lease Term shall be paid in its entirety to the City.

6.3 Tenant’s Funds. Prior to the commencement of the Sublease Term, Tenant shall pay two million dollars ($2,000,000.00) to establish the Reserve Funds and shall allocate such portion of the two million dollars to the Operating Reserve Fund and Capital Reserve Fund in amounts to be agreed upon by Landlord and Tenant, the entirety of which shall be spent during the Lease Term.

6.4 Additional Financing. Tenant shall endeavor, with support from Landlord, to secure additional financial resources for the redevelopment of the Property and the Program, such as tax credits, state financing, tax agreements, grants, charitable donations, development fees of other properties, and other sources of capital.

6.5 Rent. Tenant shall not pay rent to Landlord. Tenant shall be authorized to set rental rates (“Rent”) with the Development Entity according to the Program and the Governing Documents. Rent charged during the initial 10-year term owed to the Tenant under the Sublease shall not be lower than that established by an independent appraisal commissioned by Tenant, but portions of the Rent may be offset by certain capital improvements or programmatic measures by the Development Entity with approval from the City Manager. Any revenue received by Tenant from the Property shall be: (a) used to provide support for the Program; (b) used for additional improvements to the Property to support the Program; or (c) deposited in the Reserve Funds.

6.6 Real Estate Taxes. No real estate taxes shall be owed on the Property during the Pre-Sublease Term. During the Sublease Term, the Development Entity and any entity claiming through the Development Entity shall be responsible to pay such taxes on the Property as are due and payable pursuant to law.
6.7 **Utilities.** Landlord shall be responsible for the payment of all utilities charges during the Pre-Sublease Term. Tenant shall be responsible for the cost and expense of all utilities during the Sublease Term and shall be authorized to enter an agreement with the Development Entity for the payment of utility charges.

6.8 **Audit.** The operations and finances of the Property, including but not limited to the use of Rent and the Reserve Funds, shall be subject to annual audit by Tenant and, upon request, by Landlord and/or its designees.

6.9 **Costs and Expenses.** Tenant and Landlord shall each bear its own costs in connection with the negotiation of the Governing Documents and the Sublease.

7. **MANAGEMENT RESPONSIBILITIES**

7.1 **Construction Management.** Tenant shall hire or otherwise retain, subject to the approval of the City Manager, an owner’s representative to oversee each stage of the Property’s redevelopment.

7.2 **Improvements and Modifications, Review.** Tenant shall ensure that improvements and modifications to the Property are designed in compliance with all applicable federal, state, and local laws, rules and regulations. The City Manager, with recommendations from the Cambridge Redevelopment Authority Board, shall approve all structural and all permanent capital improvements and modifications to the Property, including the installation of solar panels. Landlord and Tenant shall coordinate major improvement activity with the Cambridge Department of Public Works.

7.3 **Repairs and Maintenance.** Tenant shall maintain the Property in good condition and repair, reasonable wear and tear excepted, from the beginning of the Sublease Term through the end of the Lease Term, and shall be authorized to transfer this obligation to the Development Entity in the Sublease. Expenses for maintenance during the Lease Term may be paid out of the Capital Reserve Fund. Landlord shall be responsible for maintenance of the Property during the Pre-Sublease Term. Tenant may request that Landlord undertake specific capital improvements as part of Landlord’s Capital Improvements during the Pre-Sublease Term or Lease Term.

7.4 **Oversight.** Tenant shall play an active management role in overseeing operations at the Property consistent with the Governing Documents, with an emphasis on community uses and public programming of shared spaces.

7.5 **Advisory Committee.** The City Manager shall create an Advisory Committee in consultation with Tenant’s Executive Director in accordance with the Governing Documents. The Advisory Committee shall conduct its affairs and carry out its mission in accordance with the Governing Documents.

8. **INSURANCE, WAIVER OF SUBROGATION**

8.1 **Insurance.**
(a) **Pre-Sublease Term Liability.** During the Pre-Sublease Term, as between the Parties, liability for the Property shall be with the Landlord. Tenant shall be under no obligation to insure the Property during the Pre-Sublease Term.

(b) **Personal Property.** Tenant agrees that all risks, during the Lease Term (including that of fire or other casualty, theft or other harm, damage or loss) to Tenant’s Personal Property, including the loss of use of the same, shall be borne solely by Tenant. As used herein, Personal Property includes, but is not limited to, all of Tenant’s tangible and intangible goods and accounts, inventory, merchandise, furniture, fixtures, equipment (including computer equipment and any data stored thereon) and systems.

(c) **Insurance.** During the Sublease Term, Tenant shall require the Development Entity to maintain in full force and effect during the Sublease Term the following types of insurance:

1. **General Liability Insurance** (including contractual and personal injury liability insurance) in an amount not less than $1,000,000 combined single limit bodily injury and property damage per occurrence and $2,000,000 annual aggregate limit per location (or such higher limits as may be reasonably agreed upon by Landlord and Tenant from time to time).

2. **Automobile Liability.** For any vehicles used by the Development Entity in Foundry-related business, automobile liability insurance in an amount not less than $1,000,000 combined single limit bodily injury and property damage per accident.

3. **Workers’ Compensation and Employers’ Liability.** The statutory limits of workers’ compensation and employers’ liability insurance in amounts adequate to satisfy the umbrella underlying requirements.

4. **Excess/Umbrella Liability.** Umbrella liability coverage in an amount not less than $10,000,000 per occurrence. Umbrella liability coverage is to be in excess of the general liability, automobile liability and employers’ liability requirements outlined above and such requirement shall be subject to reasonable modification based on market changes and insurance coverage standards generally applicable to commercial real estate similar in type, use and location as the Property.

5. **Environmental Liability Insurance.** Tenant shall, whether by itself or through the Development Entity, purchase a pollution legal liability insurance policy in an amount, of a type and subject to conditions approved by the Landlord for additional remediation and hazardous material disposal costs related to environmental conditions at the Property not previously identified by Landlord but discovered during the redevelopment process or operation of the Property and subject to approval by the Landlord for liability for bodily injury and property damage and clean-up and disposal costs arising from pollution conditions at or from the Property with a minimum limit of $1,000,000 per claim and $3,000,000 in the aggregate with a maximum deductible or self-insured retention of $25,000.
6. **Property Insurance.** Tenant shall, whether by itself or through the Development Entity, purchase Property Insurance against loss or damage resulting to the Property include fire, theft or other damage in an amount not less than the replacement value of the Property. The replacement value of the Property shall not be less than $11,564,700 plus the value of any improvements made by the Tenant and Development Entity.

7. **Additional Provisions.** The liability coverage in the insurance policies required in Section 8.1(c) above shall name Tenant and Landlord Parties as additional insureds except the workers compensation policy. All insurance policies required in Section 8.1(c) above shall be issued by companies authorized to do business in Massachusetts with an A.M. Best’s financial rating of A- or better and a size class rating of X (10) or larger or otherwise acceptable to Landlord and all such policies shall include a provision waiting the insurer’s rights to subrogation against the Landlord. Tenant shall deposit with Landlord a certified copy of the insurance binder (countersigned by the insurer) or evidence of insurance (in ACORD Form 28) or other proof satisfactory to Landlord for each of the insurance policies that the Development Entity is required to carry in compliance with its obligations under the Sublease. Such insurance policies shall contain a provision that the insurer will not cancel or refuse to renew the policy, without first giving at least thirty (30) days prior written notice to Landlord. The Sublease shall provide that failure to obtain and maintain the required insurance and shall fail to remedy such within ten (10) Business Days after written notice by Landlord or Tenant shall constitute an Event of Default under the Sublease.

8.2 **Insurance During Construction.** In addition, during the performance of any construction by Tenant or the Development Entity on the Property, in addition to the above coverage required to be maintained by Tenant, Tenant shall require that the Development Entity shall cause the general contractor performing the work to carry: (a) commercial general liability insurance in an amount not less than $1,000,000 combined single limit bodily injury and property damage per occurrence and $2,000,000 annual aggregate limit per location (or such higher limits as may be determined by Landlord from time to time); and (b) automobile liability insurance in an amount not less than $1,000,000 combined single limit bodily injury and property damage per accident; (c) a pollution legal liability insurance policy in an amount, of a type and subject to conditions approved by the Landlord for additional remediation and hazardous material disposal costs related to environmental conditions at the Property not previously identified by Landlord but discovered during the redevelopment process or operation of the Property and subject to approval by the Landlord for liability for bodily injury and property damage and clean-up and disposal costs arising from pollution conditions at or from the Property with a minimum limit of $1,000,000 per claim and $3,000,000 in the aggregate with a maximum deductible or self-insured retention of $25,000.; (d) the statutory limits of workers’ compensation and employers’ liability insurance in amounts adequate to satisfy the umbrella underlying requirements to protect Landlord’s interest and that of Tenant, contractors and subcontractors during the course of the construction; and (e) builder risk coverage against loss or damage on all work caused to be performed by the Development Entity in an amount equal to the value of the total replacement costs of the completed
improvements to be made to the Property, plus the value of subsequent contract modifications and the cost of materials supplied or installed by others, comprising the total value for the entire project on site on a replacement cost basis without optional deductibles. Such coverage shall be written on an all risks basis or equivalent form and shall include, without limitation, insurance against perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, terrorism, collapse, earthquake, flood, windstorm, false work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and expenses and Tenant’s loss of use in a mutually agreed upon amount, required as a result of an insured loss. This policy and/or installation floater shall include transportation and stored materials coverage in an amount equal to the value of the stored materials at the project site only as required below. Such contractor insurance policies shall name the Landlord as an additional insured on a primary non-contributing basis.

8.3 Waiver of Subrogation. Landlord and Tenant hereby release each other from any and all liability or responsibility to the other or anyone claiming through or under them by way of subrogation or otherwise for any loss or damage to property caused by fire or other casualty, even if such fire or other casualty shall have been caused by the fault or negligence of the other party, or anyone for whom such party may be responsible, provided, however, that this release shall be applicable and in full force and effect only to the extent permitted by law and only to the extent that the cost of repairing such damage is covered by insurance or would have been covered by insurance proceeds payable under any policy (including the deductible and/or uninsured portion thereof) required to be maintained under this Lease, but not so maintained. Each policy of such insurance shall contain a waiver of subrogation by insurer against Landlord or Tenant, as the case may be.

9. USE OF PROPERTY Tenant covenants and agrees to use and occupy the Property, as permitted by law, for the redevelopment and management of the Property into a productive, innovative mixed-use center (the “Permitted Use”). Tenant shall not use or permit any use of the Property which creates any safety or environmental hazard, or which would be dangerous to the Property or the users of the Property or any third-party.

10. INDEMNIFICATION Except to the extent caused by the gross negligence or willful misconduct of Landlord and/or its agents, representative, contractors or employees, Tenant covenants and agrees to exonerate, indemnify, defend and save Landlord harmless from and against any and all claims, demands, expenses, losses, suits and damages as may be occasioned by reason of (i) any accident, injury or damage occurring in or about the Property causing injury to persons or damage to property; and (ii) the failure of Tenant to fully and faithfully perform the obligations and observe the conditions of this Lease. The obligations of the Parties pursuant to this Section 10 shall survive the expiration or earlier termination of the Lease.

11. FIRE OR OTHER CASUALTY

11.1 Event of Casualty. For the purposes of this section, “Event of Casualty” shall be defined as damage to or destruction of the Property caused by fire or other casualty, or any such damage to or destruction of the Property necessary to provide normal
services and access to the Property. If an Event of Casualty occurs, Landlord, after receipt of written notice thereof from Tenant, shall undertake to make repairs and restorations with reasonable diligence, unless this Lease has been terminated by Landlord or Tenant as hereinafter. If (i) in Landlord’s sole judgment, the damage is of such nature or extent that more than one hundred eighty (180) days following the occurrence of the casualty would be required to repair and restore the Property as the case may be; or (ii) in Landlord’s sole judgment, the damage is of such nature or extent that it is uneconomical to repair and restore the Property, as the case may be; or (iii) less than one (1) year remains on the then current Lease Term, Landlord shall so advise Tenant within thirty (30) days after the Event of Casualty (the “Landlord’s Notice of Casualty”), and either party shall have thirty (30) days after receipt of Landlord’s Notice of Casualty to terminate this Lease by written notice to the other. If either party elects to terminate this Lease in the case described in clauses (i), (ii) or (iii) above, then the Lease Term shall expire as of the date of the Event of Casualty, and Tenant shall vacate the Property and surrender the same to Landlord in accordance with the terms of this Lease.

11.2 Repair and Restoration. If an Event of Casualty occurs, provided this Lease is not terminated pursuant to the terms of Section 13.1, and sufficient casualty insurance proceeds are available for application to such repair and restoration, Landlord shall proceed diligently to repair and restore the Property to substantially the same condition prior to the Event of Casualty, and Rent shall equitably abate until the Property and the portions of the Building providing necessary service and access to the Property are restored.

11.3 Validity and Effect. The validity and effect of this Lease shall not be impaired in any way by the failure of Landlord to complete the repair and restoration of the Property or the Building within one hundred eighty (180) days after the occurrence of the casualty, even if Landlord had in good faith notified Tenant that the repair and restoration would be completed within such period, provided that Landlord proceeds diligently with such repair and restoration; provided, however, if the Property or the Building are not restored within two hundred and ten (210) days after the occurrence of the casualty, Tenant shall have the right to terminate this Lease by written notice to Landlord.

12. INSPECTION; ACCESS; CHANGES IN BUILDING FACILITIES

12.1 Inspection. Landlord, its agents, employees and contractors may enter the Property at any time in response to an emergency and at other reasonable times (i) to examine, inspect and protect the Property

12.2 Access. Landlord shall have access to all areas in the Property (including exterior walls, core corridor walls and doors and any core corridor entrances), including used for shafts, stacks, pipes, conduits, fan rooms, ducts, electric or other utilities, sinks or other facilities.

13. DEFAULT Tenant’s Default. It shall be a Tenant event of default (an “Event of Default”) under this Lease if: (i) Tenant fails to perform or observe any material term, or
obligation of this Lease and such failure continues after written notice given by or on behalf of Landlord to Tenant for more than ninety (90) days; provided, however, if such failure is of such a nature that Tenant cannot reasonably remedy the same within the said ninety (90) day period, then such period shall be extended so long as Tenant commences promptly same and diligently prosecutes such remedy to completion; (ii) Tenant abandons the Property for a period of more than thirty (30) days; or (iii) there is committed by Tenant any other act or omission which is stated in this Lease to be an Event of Default.

13.2 Landlord’s Default. It shall be a default and breach of this Lease by Landlord if Landlord shall fail to perform or observe any material term, condition, covenant or obligation required to be performed or observed by it under this Lease for a period of ninety (90) days after notice thereof from Tenant specifying in detail Landlord’s non-compliance (“Landlord Event of Default”); provided, however, that if the material term, condition, covenant or obligation to be performed by Landlord is of such nature that the same cannot reasonably be performed within such thirty-day period, such default shall be deemed to have been cured if Landlord commences such performance within said ninety (90) day period and thereafter diligently undertakes to complete the same. If: (a) any Landlord Event of Default is not cured within the applicable cure period, Tenant’s exclusive remedy shall be an action for specific performance; and (b) if the default is a failure of Landlord to perform a repair obligation which is in Landlord’s control and the failure to perform such repair obligation has rendered the Property untenable, Tenant shall have the right, but not the obligation, to perform such repair so as to make the Property tenable and Landlord shall reimburse Tenant for the reasonable costs incurred in making such repair within ninety (90) days after Landlord’s receipt of Tenant’s invoice thereof, which shall include reasonable documentation of all costs incurred. Notwithstanding the foregoing, Tenant hereby waives the benefit of laws granting it: (i) the right to perform Landlord’s obligations except as expressly provided in the immediately preceding sentence; or (ii) the right to terminate this Lease or withhold Rent on account of any Landlord Event of Default.

14. NOTICES All notices or other communications hereunder shall be in writing and shall be deemed to have been given (i) if delivered by hand, by messenger or by an express delivery service (FedEx, UPS, DHL, etc.), then if and when delivered (or if delivery is refused, when refused) to the respective parties at the below addresses (or at such other address as a party may hereafter designate for itself by notice to the other party as required hereby), or (ii) if mailed, then on the third Business Day following the date on which such communication is deposited in the United States mails, by first class registered or certified mail, return receipt requested, postage prepaid, and addressed to the respective parties at the below addresses (or at such other address as a party may hereafter designate for itself by notice to the other party as required hereby).
If to Landlord: Cambridge City Manager
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

With a copy to:

City Solicitor
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

If to Tenant: Executive Director
Cambridge Redevelopment Authority
255 Main Street, Fourth Floor
Cambridge, MA 02142

With a copy to:

Foley Hoag LLP
155 Seaport Boulevard
Boston, MA 02210
Attn: Jeffrey B. Mullan, Esq.

15. MISCELLANEOUS

15.1 Authority. Tenant and Landlord each represent and warrant that it is has full corporate or partnership power and authority, as the case may be, to enter into this Lease and has taken all action necessary to carry out the transaction contemplated herein, so that when executed, this Lease constitutes a valid and binding obligation enforceable in accordance with its terms.

15.2 Waivers. No delay or forbearance by Landlord or by Tenant in exercising any right or remedy hereunder or in undertaking or performing any act or matter which is not expressly required to be undertaken by such party shall be construed, respectively, to be a waiver of Landlord’s or Tenant’s rights or to represent any agreement by Landlord or by Tenant to undertake or perform such act or matter thereafter.

15.3 Waiver of Trial by Jury. Tenant hereby consents to the exclusive jurisdiction of the courts of Massachusetts in any and all actions or proceedings arising under this Lease. Landlord and Tenant agree to waive trial by jury in any action, proceeding or counterclaim brought by either of the parties hereto against the other on any matter whatsoever arising out of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant’s use of or occupancy of the Property and/or any claim of injury or damage and any emergency or any other statutory remedy.
15.4 Time of the Essence. All times, wherever specified herein for the performance by Landlord or Tenant of their respective obligations hereunder, are of the essence of this Lease.

15.5 Severability. Each covenant and agreement in this Lease shall for all purposes be construed to be a separate and independent covenant or agreement. If any provision in this Lease or the application thereof shall to any extent be invalid, illegal or otherwise unenforceable, the remainder of this Lease, and the application of such provision other than as invalid, illegal or unenforceable, shall not be affected thereby; and such provisions of this Lease shall be valid and enforceable to the fullest extent permitted by law.

15.6 Headings. The title and headings of this Lease are for convenience of reference only and shall not in any way be utilized to construe or interpret the agreement of the parties as otherwise set forth herein.

15.7 Representatives. The term “Landlord” and term “Tenant” as used herein shall mean, where appropriate, all persons acting by or on behalf of the respective parties, except as to any required approval, consents or amendments, modifications or supplements hereunder when such terms shall only mean the parties originally named on the first page of this Lease as Landlord and Tenant, respectively, and their agents so authorized in writing.

15.8 Lease Not Binding Until Executed and Delivered. This Lease shall not bind Landlord unless and until it has been signed and delivered by Tenant, received and accepted by Landlord, and then countersigned and redelivered by Landlord to Tenant.

15.9 Counterparts. This Lease may be executed in four (4) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same lease agreement.

15.10 Amendment and Modification. This Lease, including all Exhibits and Addenda attached hereto, each of which is incorporated in this Lease, as well as the referenced Governing Documents, contains the entire agreement between the parties hereto, and shall not be amended, modified or supplemented unless by agreement in writing signed by both Landlord and Tenant.

15.11 Governing Law. This Lease shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

15.12 Tenant’s Right of Access. Subject to the terms and conditions of this Lease and any other rules and regulations imposed by Landlord, Tenant shall have access to the Property twenty-four (24) hours a day, seven (7) days a week, three hundred sixty-five (365) days per year during the Lease Term (as same may be extended).

16. EXHIBITS AND ADDENDA
Additional terms to this Lease, if any, are set forth in the Exhibits and Addenda attached hereto, which are incorporated herein by reference, and made a part hereof, as follows:

A. Demonstration Project Plan  
B. Deed  
C. Schedule

[END OF TEXT; SIGNATURES FOLLOW ON NEXT PAGE.]
IN WITNESS WHEREOF, the Parties hereto have caused this Lease to be executed as of the date first written above.

LANDLORD:

The City of Cambridge

By: __________________________________
Name: Richard C. Rossi
Title: City Manager

As to form only:

By: __________________________________
Name: Nancy E. Glowa
Title: City Solicitor

TENANT:

Cambridge Redevelopment Authority

By: __________________________________
Name: Kathleen Born
Title: Board Chair
EXHIBIT B
KENDALL SQUARE URBAN RENEWAL AREA
CAMBRIDGE REDEVELOPMENT AUTHORITY
URBAN RENEWAL PLAN
JUNE 19, 2015
(DRAFT AMENDMENT 10)
Urban Renewal Plan / Project No. Mass. R - 107

Kendall Square Urban Renewal Area
Cambridge Redevelopment Authority
Cambridge, MA

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INTRODUCTION TO AMENDMENT 10 AND THE RE-STATED KENDALL SQUARE URBAN RENEWAL PLAN

In the nearly forty years since the adoption of Amendment 1 to the Kendall Square Urban Renewal Plan (Plan), the CRA has adopted many changes to the Plan document in response to the dynamic development environmental in Cambridge. The execution of the Plan within the Project Area has been a key catalyst to the overall transformation of the Kendall Square neighborhood. The emergence of Kendall Square as a center of innovation, creativity and technology has certainly exceeded the expectation of the planners, designers, and developers in 1977.

Amendment 10 will aim to reflect these changes and to chart a way forward in furtherance of the recommendations from the 2013 K2 Planning Study. The proposed update of the Plan’s objectives reflects not only the important work of bringing jobs and opportunity to Kendall Square, but also the larger goal of creating a sustainable, inviting, and inclusive neighborhood. As in prior adopted amendments, the proposed amendment would increase many of the development limits to reflect the continued demand for the built environment, with an emphasis on bringing additional housing and retail to the Project Area. New provisions would assist the CRA in linking transit investment to development, aiming to ensure that the Project Area’s transit assets grow along with it. Provisions for innovation space and affordable housing are proposed so that Kendall Square remains not only a destination for the great thinkers of today, but also a laboratory for the great ideas of tomorrow and a great urban neighborhood for Cambridge.

The Plan under Amendment 10 is being re-stated, not remade anew. Consequently, some sections - such as those discussing land clearance - address matters already undertaken and have been modified accordingly to reflect things that happened in the past. This is by design; the document is meant not only to guide Kendall Square’s development in the future, but also tell the story of its past. For this reason, bracketed numbers appearing at the end of paragraphs throughout the plan indicate where language has been changed, and sometimes changed again and again. The bracketed number identifies which plan amendment facilitated the revisions. The proposed language changes of Amendment 10 are further designated with underlined and strikethrough text. Formatting updates and clarifications of defined terms are not highlighted or numbered.
CHAPTER 1: DESCRIPTION OF PROJECT

This document, prepared by the Cambridge Redevelopment Authority (CRA), sets forth a plan for urban renewal action in the so-called Kendall Square Area of Cambridge, in accordance with the terms of Section 26ZZ and other applicable provisions of Chapter 121 of the Massachusetts General Laws, and with the provisions of the U.S. Housing Act of 1949 as amended.

Section 101: Boundaries of the Project Area

The project is situated in an area bounded generally by Main Street, the land or right of way now or formerly of the Boston and Albany (Grand Junction) Branch Railroad, Binney Street, and Third Street.

A description of the perimeter boundary of the project area is attached hereto as Exhibit A of the Urban Renewal Plan and is made a part hereof as if fully set forth herein.

The perimeter boundary of the project area is shown on Map 1: Proposed Land Use Plan, which is attached hereto as Exhibit B of the Urban Renewal Plan and made a part hereof as if fully set forth herein.

As shown on Map 1 Proposed Land Use Plan, that portion of the project area which has not been conveyed to the United States of America (and which is bounded generally by Binney Street on the North, the Boston and Albany (Grand Junction) Branch Railroad on the west, Main Street on the South and discontinued Sixth Street and Broadway on the East) is hereinafter described as the “MXD District” or “MXD District portion” and the remaining portion of the Project Area is hereinafter described as the “remainder of the project area”.

Section 102: Urban Renewal Plan Objectives

The Urban Renewal Plan objectives of the project are as follows:

(a) To secure the elimination and prevent the recurrence of blighted, deteriorated, deteriorating, or decadent conditions in the project area;

(b) To insure the replacement of such conditions by well-planned, well-designed improvements which provide for the most appropriate reuse of the land in conformity with the general plan for the City of Cambridge (the “City”) as a whole and with definite local objectives, which objectives are:

1. The provision of land uses which maximize job opportunities at a variety of skill levels within Kendall Square’s knowledge and innovation based economy, including blue-collar and non-professional white-collar employment, for present and future Cambridge residents, upgrade Cambridge workers' skills and wages in a manner commensurate with the cost of living in Cambridge, and help stabilize the City's economic base and maximize the provision of local jobs.
2. The improvement of land development and design to facilitate multi-modal circulation, emphasizing transit, pedestrian, and bicycle travel; [10]

3. The improvement of public transportation facilities, infrastructure and utilities, open space and other public realm improvements; [10]

4. The improvement of material handling and freight access to and within the project area; and [10]

5. The provision of a decent, pleasant, and humane environment involving a mixture of land uses, including multi-family housing, needed to produce balanced development;

   (c) To capitalize on the location of rapid transit facilities to maximize the full socio-economic potential of the project area with transit-oriented land uses and densities, and consistent with the other objectives stated herein; [10]

   (d) To promote economic development which strengthens the City's tax base without unacceptably impacting upon the physical, social, and cultural environment;

   (e) To establish the minimum necessary land use controls which promote development, yet protect the public interest and the common good; with a flexible set of controls which are adaptable to both current and future market conditions;

   (f) To create an urban environment that encourages innovation, entrepreneurship, and creative interaction; [10]

   (g) To secure development in the shortest possible time period to be responsive to economic conditions and housing demand; [10]

   (h) To relate to development controls in the surrounding area;

   (i) To provide economic development opportunities for residents of the existing surrounding neighborhoods, including East Cambridge, Area Four, and Wellington Harrington; [10]

   (j) To help alleviate problems of mobility throughout the surrounding neighborhoods for all modes of travel and goods movement; [10]

   (k) To achieve harmonious visual and functional relationships with adjacent areas;

   (l) To establish a sense of identity and place for Kendall Square and integrate it into the built environment including public open space; [10]

   (m) To encourage the development of Kendall Square as an activity center in which to live, work, play, and learn; [10]

   (n) To promote neighborhood safety, public health, and wellness through universal access and active environmental design; and

   (o) To promote both environmental sustainability and climate change resiliency through resource efficient development and district level infrastructure planning. [10]
Section 103: Execution of the Urban Renewal Plan

The CRA will undertake and carry out an urban renewal project within the perimeter boundary of the project area in accordance with the Urban Renewal Plan:

(a) After approval of the Urban Renewal Plan, and a Cooperation Agreement by and between the City of Cambridge and the CRA, by the Cambridge City Council and the City Manager;

(b) After approval of the Urban Renewal Plan by the Massachusetts Department of Housing and Community Development; and

(c) After execution of a Loan and Grant Contract by and between the CRA and the United States of America.¹

Section 104: Proposed Urban Renewal Actions

Proposed urban renewal actions will be essentially land assembly, and clearance and redevelopment, and may include as essential, appropriate or necessary for the carrying out of urban renewal objectives, but not by way of limitation:

(a) The acquisition, in whole or in part, of land, buildings, structures and other improvements, appurtenances, rights-of-way, easements, and other rights and interests in real property within the project area;

(b) The management of acquired property;

(c) The relocation of facilities, individuals, and business concerns displaced by the project;

(d) The demolition and removal of existing structures and improvements, and the undertaking of site clearance;

(e) The making of project or site improvements;

(f) The making of right-of-way, street, and utility adjustments;

(g) The provision of public improvements and public facilities;

(h) The planning and monitoring of development, construction and building usage;

(i) The making of zoning adjustments; and

¹ On April 10, 1985, the CRA, the City, and the U.S. Department of Housing and Urban Development executed a Closeout Agreement with regards to local loans and grants provided for the implementation of the Kendall Square Urban Renewal Plan.
(j) The disposition of land for reuse and development in accordance with the land use provisions and building requirements set forth in the Urban Renewal Plan.

Section 105: Land Acquisition

The CRA may acquire by donation, purchase, eminent domain, or otherwise, in whole or in part, land, buildings, structures and other improvements, appurtenances, rights-of-way, easements, and other rights and interests in real property within the Project Area.

Section 106: Relocation

The CRA assisted families, individuals, and business concerns who occupied property in the urban renewal area and who were displaced as a result of the CRA’s action in finding standard dwelling or business accommodations to meet their rehousing and business relocation needs, within their financial means, in reasonably convenient locations. The objectives and methods of the original relocation plan are described in Exhibit D.[10]

Section 107: Land Clearance

The CRA previously implemented the following land clearance activities:

1) Demolish or cause to be demolished buildings, structures, or other improvements located on land acquired by it;
2) Fill or cause to be filled the so-called Broad Canal;
3) Back-fill or cause to be back-filled cellar holes; and
4) Rough-grade or cause to be rough-graded cleared or filled land.

Section 108: Public Improvements and Public Facilities

The CRA will provide for or cause to be provided the abandonment, improvement, extension, reconstruction, construction, and installation of:

(a) Public buildings and facilities;
(b) Public open spaces, plazas, parks, and landscaping;
(c) Public rights-of-way and other easements;

The CRA anticipates no such relocations as a result of Amendment 10.

Extensive land clearance activities were performed by the CRA under the original urban renewal plan and the first amendment to the urban renewal plan. Subsequent plan amendments have revised the dimensional requirements for the lands both acquired and cleared by the CRA, but have nor expanded those land clearance activities.
(d) Public streets, sidewalks, and other vehicular and pedestrian and bicycle facilities, public transit infrastructure, and off-street parking facilities, appurtenances, and related improvements; [10]

(e) Waterways; and

(f) Public utilities such as water, sewer, drainage, police and fire protection and communications, traffic and parking signs and signals, street lighting systems, and related improvements; and all lines for such utilities shall be maintained, relocated, or otherwise placed underground.

The CRA shall be authorized to establish a transit implementation fund to provide support for the operation of existing rail service and the development of new transit and rail facilities to meet future transit needs of the Project Area and the surrounding neighborhoods. The CRA shall be authorized to obligate developers to contribute to this fund in such amounts as may be mutually agreed (taking into account the total mitigation required in connection with any specific project). The CRA shall work with the City and the Massachusetts Department of Transportation to administer and disburse these funds to further the redevelopment objectives described in Section 102. Further, the CRA may also consider the use of programs established by the Commonwealth available for the creation and financing of public infrastructure. [10]

The CRA shall further be authorized to establish an open space management fund for the purpose of maintenance and programming of public open space within and around the Project Area. [10]

The CRA shall create a Project Area Implementation Plan that outlines the projected public improvements, private development, and other redevelopment programs to be undertaken by the CRA either directly or in partnership with the City and/or designated redevelopers. This Implementation Plan will provide a projection of future public benefits resulting from the execution of the urban renewal plan. [10]

Section 109: Right-of-Way Adjustments

The City, upon request of the CRA, may discontinue and abandon certain existing streets and vacate certain existing rights-of-way located within the project area, and may convey any and all rights, title and interest therein to the CRA or a redeveloper. [10]

Section 110: Zoning Adjustments

The City, upon request of the CRA:

(a) Will amend the existing zoning district within which the project area is located;

(b) Will conduct joint conceptual site planning and development project design review; [10]

(c) Will grant certain special permits; and

(d) May authorize, except with respect to permitted uses, certain variances;

under the provisions of City of Cambridge, Massachusetts, Zoning Ordinance, ordained May 28, 1962, as amended to and including the date of approval by the Cambridge City Council of
Revised Amendment No. 1 to the Urban Renewal Plan (the “Zoning Ordinance”) and subsequent plan amendments and zoning petitions.

Section 111: Land Disposition

The CRA will:

(a) Dedicate certain land or rights, title, or interests therein, in whole or in part, for public use including rights-of-way and easements; and

(b) Sell or lease at its fair market value remaining land or rights, title, or interests therein, in whole or in part, for public or private reuse and development;

in accordance with the land use plan and the land use provisions and building requirements set forth in the Urban Renewal Plan.
CHAPTER 2: REAL PROPERTY ACQUIRED OR TO BE ACQUIRED

Section 201: Real Property Designated to be Acquired

Real property, including land, buildings, structures and other improvements, appurtenances, right-of-way, easements, and other rights and interests, acquired or to be acquired, in whole or in part, by the CRA shall be as shown on Map 2: Property Map, which is attached hereto as Exhibit C of the Urban Renewal Plan and made a part hereof as if fully set forth herein; provided, however, that real property, now or formerly of:

(a) The Boston and Albany (Grand Junction) Branch Railroad;  
(b) The Massachusetts Bay Transportation Authority; or  
(c) Any utility distribution system which is under private ownership or control;

will be acquired subject to such requisite approvals of the Interstate Commerce Commission, the Massachusetts Department of Public Utilities, or other public regulatory agencies, as may be required by law or regulation.5

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4 The original urban renewal plan also referenced the Cambridge Industrial Track Management Corporation

5 The original urban renewal plan provided for the acquisition of the real property formerly owned by the Cambridge Gas Company upon mutual consent and agreement of the CRA and the Cambridge Gas Company. This property has since been sold and redeveloped as multi-family residential housing.
CHAPTER 3: LAND USE PLAN

Section 301: Right-of-Way Adjustments

The location of proposed rights-of-way and other easements, and right-of-way adjustments, shall be, at least tentatively, as shown on Map 1: Proposed Land Use Plan, attached hereto as Exhibit B of the Urban Renewal Plan.

Section 302: Street and Utility Adjustments

The location and nature of proposed streets and utilities, and street and utility adjustments, shall be such as to conform to the proposed rights-of-way and other easements shown, at least tentatively, on Map 1: Proposed Land Use Plan. All public and private utility lines within the project area shall be maintained, re-located, tended, reconstructed, constructed, installed, or otherwise placed underground.

Section 303: Zoning Adjustments

The zoning district within which the MXD District of the project area is located was changed from “Industry B District” to the "Cambridge Center Mixed Use Development District" (or "Cambridge Center MXD District") zoning classification for the project area, as shown on Map 1: Proposed Land Use Plan.

These zoning changes were made by amendment upon the "Zoning Map”, under the provisions of "Article I : Administration and Enforcement”, set forth in the Zoning Ordinance, prior to the time land was disposed of by the CRA for reuse and development. Future amendments to the urban renewal plan may require additional changes to the MXD District per the provisions of "Article I : Administration and Enforcement”.

Section 304: Public or Special Purpose Uses

The location and nature of proposed public or special purpose uses, shall be as shown on Map 1: Proposed Land Use Plan, to be developed by:

(a) The Department of Transportation (DOT) for a Transportation Systems Center (TSC) within a portion of the Project Area, bounded, generally, by or abutting Broadway, Sixth Street, (a portion of which was discontinued as a public way on December 15, 1969), Binney Street, and Third Street, except for land now or formerly of Cambridge Gas Company;

(b) The Massachusetts Bay Transportation Authority (MBTA) for improved subway, rapid transit, bus transportation and terminal, passenger station and interchange, electric power, and appurtenant facilities and incidental or accessory services, tentatively, in that portion of the project area adjoining or related to the present subway station and tunnel located under Main Street.

The City, the CRA, or other public or quasi-public agencies may develop or cause to be developed, at any location or locations, such other public or special purpose uses, including but not limited to public parking facilities, pedestrian circulation systems, and open space for parks.
and plazas, as approved by the CRA and as may be required to carry out the Urban Renewal
Plan.

Section 305: Land Use and Open Space Definitions

(a) Gross Floor Area or "GFA" is hereby defined as follows:

The sum, in square feet, of the gross horizontal areas of all of the floors of a building, as
measured from the exterior face of the exterior walls or center lines of walls separating two
buildings, including: (i) enclosed porches and balconies, (ii) elevator shafts and stairwells on
each floor (iii) attic space, whether finished or unfinished, except as herein after excluded, (iv)
interior balconies, mezzanines and penthouses, and (v) basement and cellar areas not devoted
exclusively to uses accessory to the operation of the building;

but excluding: (i) areas used for parking garages, accessory parking, off-street loading purposes,
(ii) basement and cellar areas devoted exclusively to uses accessory to the operation of the
building, (iii) non-enclosed porches and balconies, (iv) courtyards, atriums, and enclosed gardens
that are determined to qualify as public open space and/or pedestrians ways and (v) attic space
and other areas for elevator machinery or mechanical equipment accessory to the building.

Interior courtyards whether or not covered by a roof, which have a minimum dimension of less
than forty feet in any direction shall be included in GFA calculations, unless twenty-five percent
or more of the perimeter of such courtyard at each floor level measured consecutively is not
enclosed and the courtyard is open to the sky.

(b) Floor area ratio or "FAR" is defined as ratio of gross floor area of a structure to the total area
of the lot.

(c) Open space shall mean a portion of a lot or other area of land associated with and adjacent to
a building or group of buildings in relation to which it serves to provide light and air, or scenic,
recreational, or similar purposes. Such space may either be:

(i) Public open space or private open space accessible to the general public.

(ii) Available exclusively for entry and use by the occupants of the building(s) with which it
is associated or

(iii) A limited proportion of space so located and treated as to enhance the amenity of
development by providing landscaping features, for the occupants or neighbors or a
general appearance of openness.

Open space shall include parks, plazas, lawns, landscaped areas, decorative plantings, roof decks
or gardens, non-enclosed balconies, pedestrian ways, active and passive recreational areas,
including playgrounds and swimming pools.

Courtyards, atriums, and enclosed gardens may be determined by the CRA to qualify as open
space if designed, managed, and programmed in a manner that functions similarly as public
parks. Streets, parking lots, driveways, service roads, loading areas, and areas normally
inaccessible to pedestrian circulation beneath pedestrian bridges, decks, or shopping bridges
shall not be counted in determining required open space. [10]
Section 306: Other Land Uses

The portion of the Project Area located within the MXD District shall be developed for such other uses as are permitted under the provisions of Section 401 of the Plan Renewal Plan, and Article 14 of the Zoning Ordinance. [10]

The portion of the Project Area located within the Kendall PUD District of the Project Area shall be developed in accordance with Article 12 and Article 13 of the Zoning Ordinance. [10]
CHAPTER 4: LAND USE PROVISIONS AND BUILDING REQUIREMENTS

Section 401: Permitted Uses on Acquired Land

Terms used in this Urban Renewal Plan and not otherwise defined shall have the meanings ascribed to them in the Zoning Ordinance, as the same may be amended from time to time. The uses permitted in the MXD District of the project area on land previously acquired by the Cambridge Redevelopment Authority shall be:

1) Light Industry

   (a) Manufacturing: fabrication, assembly, finishing work (including packaging and bottling, but only as an accessory use) without limit as to category or product.

   (b) Wholesale business, only if affiliated with and accessory to another use or located on the same lot as other non-wholesale uses. Development on any lot in the MXD District shall not be devoted exclusively to wholesale uses.

   (c) Printing, binding, or related establishment.

   (d) Storage warehouse, cold storage plant, storage building, as an accessory use only and not exceeding 20,000 square feet, but not including storage or bailing of junk, scrap metal, rags, paper or other waste materials and not including outside storage of products or materials.

2) Office Uses and Biotechnology Manufacturing Uses [3]

   1) Business or professional offices.

      1) Bank, trust company or other financial institution.

      2) Research and development office.

      3) Research, experimental and testing laboratory.

      4) Radio or television studio.

      5) Manufacturing of biotechnology and pharmaceutical products, including:

         (i) Fabrication, assembly, finishing work (including packaging and bottling, but only as an accessory use).

         (ii) Wholesale business, only if affiliated with and accessory to another use or located on the same lot as other non-wholesale uses.

         (iii) Storage warehouse, cold storage building, as an accessory use only.[3]

3) Retail and Consumer Service Establishments
1) Store for retail sale of merchandise, but not a sales place for automobiles or trucks.

2) Eating and/or drinking establishment, whether or not liquor is sold or consumed, including restaurant, bar, lunchroom, cafeteria and food commissary.

3) Fast order food establishment only if it (i) is not located in a separate structure, (ii) it does not exceed 3,000 square feet gross floor area, and (iii) there will be no more than fifteen (15) such establishments within the MXD District (a maximum of (8) of which shall be located in the Ames Street District and a maximum of seven (7) of which shall be located in the portions of the District outside the Ames Street District), and (iv) it is approved through the granting of a Special Permit, as provided in the Zoning Ordinance. [9]

4) Consumer service establishment, including but not limited to hairdresser, barber shop, laundry or dry-cleaning pick-up establishment, self-service laundry, shoe repair or tailoring shop, or photography studio.

5) Rental agency for autos or other products, but not including taxi companies. Such agencies shall be operated entirely within a building and no major automobile repairs shall be made on the premises.

6) Automobile service station, provided that it is located within or attached to a parking garage or other structure as an accessory use, that no major repairs are made on the premises, and that all lubrication and repairs are carried out within the building.

(4) Residential Uses

1) Multi-family dwelling.

2) Hotel or motel.

(5) Entertainment and Recreational Uses

1) Indoor commercial entertainment establishments including but not limited to cinema, theater, concert hall, cabaret and night club.

2) Recreation facilities including bowling alley, indoor or outdoor tennis courts, public recreation building, health club, or skating rink. Such recreation facilities shall be allowed only if they are located in or attached to structures containing other principal uses.

3) Halls, auditoriums and similar spaces used for public gatherings.

4) Parks or playgrounds.

(6) Institutional Uses

1) Religious purposes.
2) Educational purposes exempt by statute.

3) Library or museum.

4) Governmental offices and facilities, including post office, fire station and police station.

5) Clinic licensed under Sec G.L. c. 111, § 51 but not a hospital licensed under said Chapter.

(7) Transportation, Communication and Utility Uses

1) Bus, subway or railroad passenger station.

2) Automobile parking lot or parking garage.

3) Distribution center, parcel delivery center or delivery warehouse as accessory uses only.

4) Telephone exchange, as an accessory use.

5) Radio or television transmission station.

6) Transformer station, substation, gas regulator station, or pumping station and related utility uses designed primarily to serve development within the District.

The location of these uses will be in accordance with the Zoning Ordinance changed as specified in Section 303 and with the objectives of the Urban Renewal Plan as specified in Section 102.

The uses permitted in the remainder of the project area, and the location of such uses, shall be as set forth in Section 304 hereof.

No activity shall be permitted in the MXD District unless it shall be in conformity with the following standards for environmental protection:

1) All dust, fumes, odors, smoke or vapor shall be effectively confined to the premises or so disposed of as to avoid air pollution.

2) Any noise, vibration or flashing shall not be normally perceptible without instruments at a distance of one hundred (100) feet from the premises.

3) All development proposals shall comply with Federal and State air pollution and water pollution control regulations, the City of Cambridge Ordinances, and other applicable environmental laws.

4) Except during construction activity on the lot all refuse and other waste materials shall be stored within buildings prior to collection and disposal.
Section 402: Dimensional Requirements

Dimensional requirements pertaining to floor area ratios, dwelling unit densities, and height limitations in the MXD District of the project area shall be as follows:

1) Aggregate GFA: The Aggregate Gross Floor Area ("GFA") of development in the MXD District shall not exceed three million, six hundred and seventy-three thousand, (3,673,000) square feet plus six hundred thousand (600,000) square feet that shall be limited to multi-family residential, for a total GFA not to exceed four million, two hundred seventy-three thousand (4,273,000) square feet. Aggregate GFA of development in the MXD District is at any time the sum of the GFA of all buildings (i) which are then located in the MXD District, (ii) which are being constructed or may be constructed in the MXD District pursuant to the effective building permits, and (iii) which, pursuant to then outstanding contracts (including options) with CRA and so stated in certificates from the CRA to the Superintendent of Buildings, may be constructed in the MXD District in the future. 6

At least two hundred thousand (200,000) square feet of the multi-family residential GFA shall occur within the area designated on the Zoning Map as the “Ames Street District”, the construction of which shall precede the occupancy of any commercial GFA in excess of three million and seventy three thousand (3,073,000) square feet, other than the 60,000 square feet of commercial space that may be permitted by special permit pursuant to Section 416.1

2) Cumulative GFA: In addition to the Aggregate GFA limitation, the Cumulative GFA for each of the use groups shall not exceed the respective amounts stated below, except as provided hereinafter. The sum of the Cumulative GFA limitations below exceeds the Aggregate GFA limitation to provide flexibility between uses in the Project Area. Cumulative GFA for a use group is at any time the sum of the GFA of all portions, occupied or to be occupied by uses within such use group, of all buildings (i) which are then located in the MXD District, (ii) which are being constructed or may be constructed in the MXD District pursuant to then effective building permits, and (iii) which, pursuant to then outstanding contracts (including options) with the CRA to the Superintendent of Buildings, may be constructed in the MXD District in the future.

1. Industrial uses permitted by Section 401(1):

   Cumulative GFA = 770,000 square feet.

2. Office and Biotechnology Manufacturing Uses permitted by Section 401(2):

   Cumulative GFA = 2,265,000 square feet. [3] [8] [10]

   Previous versions of the Plan included an additional 29,100 GFA provided to Seven Cambridge Center via Amendment 6 and a subsequent variance from the MXD Zoning. The GFA limitations have revised to match the zoning ordinance and additional language allowing GFA exemptions for variances is added in Section 402 (4).

   Provision allows the GFA provided by the Whitehead Institute zoning petition to be added independent of the residential obligation.
3. Retail and consumer service uses permitted by Section 401(3):

Cumulative GFA = **200,000** square feet. [10]

4. Residential uses permitted by Section 401(4):

   (i) Multi-family housing:

   Cumulative GFA = **800,000** square feet. [5] [10]

   (ii) Hotel/Motel:

   Cumulative GFA = **440,000** square feet. [4]

5. Entertainment, recreational, institutional, transportation, communication and utility uses permitted by Sections 401(5), 401(6) and 401(7) and additional development of industrial, office, retail, consumer service and hotel/motel uses exceeding the foregoing cumulative GFA limitations:

   Cumulative GFA = **973,000** square feet for buildings which are located or are being constructed or may be constructed at any location within the MXD District. [2] [6] [10]

Any construction or change of use within the MXD District, which would cause the foregoing aggregate or cumulative GFA limitations to be exceeded shall not be allowed.

The Cambridge Redevelopment Authority (CRA) and Cambridge Inspectional Services Department (ISD) shall maintain a record of the Aggregate GFA within the MXD District and a record of cumulative GFA for each use group specified in Section 401. The Superintendent of Buildings shall maintain a separate record of any development within the area of the MXD district designated in Exhibit F as the “Ames Street District.” These records shall be adjusted, as appropriate, from time to time, including upon issuance revocation or expiration of a building permit or certificate of occupancy and upon receipt of a certificate from CRA as to an outstanding contract (including an option) for the construction of a building. Additional building area within the MXD District authorized by variance issued by the Board of Zoning Appeal, shall not be counted by the CRA or the ISD against the GFA Limitations of this Section 402. [9]

In determining cumulative GFA for a building containing uses in more than one use group, spaces to be utilized by users in more than one of the use groups, such as lobbies, interior courts, elevator shafts and basement storage areas shall be apportioned to each use group in proportion to the share of space that use group will occupy within the building.

3) **Floor Area Ratio:** In addition to both the aggregate and cumulative GFA limitations established herein, there shall also be a density limitation for each lot within the MXD District. The following Floor Area Ratios (hereinafter referred to as "FAR") for each lot shall not be exceeded, except as provided hereinafter. The area of the lot to be counted in determining FAR shall include land dedicated by the owner or former owner of the lot as public open space under Section 403, as well as developed land.
Industrial and Wholesale Uses: FAR 4.0

Office Uses and Biotechnology Manufacturing Uses: FAR 8.0 [3]

Retail and Consumer Services Uses: FAR 5.0

Residential uses:

- Multi-family housing: FAR 6.0 [10]
- Hotel/Motel: FAR 6.0

Other uses: FAR 4.0

If development on a lot is to include activities in more than one of the uses above, the maximum FAR for the lot shall be the FAR for the use group containing the largest proportion of space on the lot.

(4) GFA Exemptions:

(A) Variances: Aggregate GFA within the District authorized by a variance issued by the Board of Zoning Appeal shall not be counted by the Superintendent of Buildings for any purpose in determining the Aggregate GFA within the District.

(B) Residential Outdoor Area Exemptions: Private outdoor decks or balconies for multi-family residential development shall be excluded from the Aggregate GFA and Cumulative GFA calculations for residential, up to five percent (5%) of the building floor area.

(C) Innovation Space: Fifty percent (50%) of the Innovation Space GFA required in Section 412 below shall not count against the GFA cap for the District, the Cumulative GFA for the office and Biotechnology use group, or the maximum FAR for the development lot.

(D) Retail: The GFA occupied by new retail and consumer service uses listed in Article 14.21.3 of the Zoning Ordinance shall be excluded from the limitations on Aggregate GFA and Cumulative GFA in the District set forth above, if the following conditions are met:

i) The excluded GFA is located on the ground or second story levels of a building or not more than one story below grade.

ii) The excluded GFA has frontage and direct pedestrian entrances onto Main Street, Binney Street, Broadway, Third Street, Ames Street, Galileo Way, Pioneer Way, internal service drives or onto open space that is directly accessible and not more than one hundred (100) feet distant from at least one of the aforementioned streets or services drives.

iii) The excluded GFA is occupied by separate retail establishments each occupying no more than ten thousand (10,000) square feet of floor area. This space limitation for GFA exclusion may be waived for a grocery, food market, or pharmacy retail use. [10]
(E) Middle Income Residential Housing Units: The GFA committed to the provision of middle income housing units per the provisions of Section 411 below shall be excluded from the calculations of aggregate and cumulative GFA.

(5) Building Height Limits

The maximum building height for commercial buildings in the MXD District shall be 250 feet, except for the area of the district 450 feet north of Broadway where the maximum building height shall be 200 feet. Residential buildings within 450 feet of Broadway may be permitted to be built up to 350 feet provided they meet the provisions for Middle Income Housing described within Section 411 below. No more than two buildings within the MXD District may utilize the middle income height bonus. Additionally the floorplate of those portions of buildings above 250 feet shall not reach a total of 24,000 square feet. [10]

These requirements shall not apply to chimneys, water towers, air conditioning equipment, elevator bulkheads, skylights, ventilators, solar or wind turbine energy systems, and other necessary features appurtenant to buildings, which are usually carried above roofs and are not used for human occupancy. These requirements shall also not apply to domes, towers or spires above buildings if such features are not used for human occupancy and occupy less than ten percent (10%) of the lot area, nor to wireless or broadcasting towers and other like un-enclosed structures which occupy less than ten percent of the lot area. [10]

Section 403: Open Space Requirements

To the maximum feasible degree, the CRA will dispose of project land in such a manner as to achieve the mixture and density of those land uses needed to produce balanced development in accordance with the objectives set forth in Section 102.

1) Public Open Space Requirement: The CRA will reserve at least 100,000 square feet of land in the MXD District for the development of public open space for parks, gardens and plazas. Public open space shall be open space reserved for public use and enjoyment as guaranteed through one or more of the following:

   (1) Retention by the CRA;

   (2) Dedication to and acceptance by the City or other public entity;

   (3) Easements or deed restrictions over such land sufficient to ensure its perpetual reservation for public open space purposes;

   (4) Dedication, by covenant or comparable legal instrument, to the community use of the residents, lessees and visitors to the MXD District for reasonable amounts of time on a regular basis; or

   (5) Lease agreements of 99 years or longer from the private developer or owner to the City or other public entity.
2) Project Open Space Requirement: Each development project shall be required to contribute to the open space network of the Project Area. Table One lists the minimum amount of open space (public, private or combined) to be provided by each development within the MXD District, subject to the reduction provided hereinafter. When development on a lot includes uses in more than one of the use categories in Table One, the requirement for each use category shall be calculated and totaled to determine a total requirement for the project. This open space requirement may be met by:

(a) Creating open space on the development lot. Some or all of this required open space may be designated and also serve as public open space, if reserved by one of the methods specified above.

(b) Creating new public open space within the MXD District, not otherwise reserved by another project to meet its lot open space requirement, or enhancing existing public open space (e.g., by physical improvements, programming, etc.). The CRA shall set conditions on the level of enhancement necessary for the space to qualify. Additionally a project may provide funding toward sustaining, continuous public programming and maintenance of special features of open space enhancements.

(c) Providing land or adequate acquisition and development funds for the creation of new public open space, or the enhancement of existing public open space, within a half mile of the MXD District. This outside of the MXD option may be used to provide up to fifty percent (50%) of the Project Open Space Requirement. The CRA will set a funding level necessary for this financial contribution to meet a portion of the open space requirement, based on the anticipated acquisition and improvement cost for an equivalent amount of space within an identified open space project.

The CRA shall maintain a record of cumulative GFA by land use for the purpose of determining and tracking open space requirements for existing and future development. [10]
Table One: **Project Open Space Requirements**

<table>
<thead>
<tr>
<th>Use Group</th>
<th>Required Open Space (SF of open space required for each 100 SF of GFA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industrial and Wholesale Uses allowed by Section 401(1)</td>
<td>5</td>
</tr>
<tr>
<td>Office and Biotechnology Manufacturing Uses allowed by Section 401(2)</td>
<td>8</td>
</tr>
<tr>
<td>Retail and Consumer Service Uses allowed by Section 401(4)</td>
<td>10</td>
</tr>
<tr>
<td>Residential Uses allowed by Section 401(4)</td>
<td></td>
</tr>
<tr>
<td>Multifamily housing</td>
<td>8.45</td>
</tr>
<tr>
<td>Hotel or Motel</td>
<td>10</td>
</tr>
<tr>
<td>Other Uses allowed by Sections 401(5), 401(6) and 401(7)</td>
<td>8</td>
</tr>
</tbody>
</table>

3) Pedestrian ways listed and defined in Exhibit E may be counted toward the project open space requirement. For each linear foot of pedestrian way provided by a development project 20 square feet may be deducted from the Project Open Space Requirement.
Section 404: Vehicular Access, Parking and Loading Regulations

1) Buildings erected in the MXD District need not be located on lots that have frontage on a street. However, provisions for access to all buildings by emergency and service vehicles in lieu of public street access shall be made possible by the layout and design of driveways, interior service roads, or pedestrian and bicycle circulation corridors not normally open to vehicular traffic to the reasonable satisfaction of the City Fire Department, and the City Traffic Department.

2) With the exception of multi-family residential development, there are no minimum parking requirements in the MXD District. Multi-family residential development shall provide a minimum of .25 parking spaces per dwelling unit. Otherwise off-street parking allowance for motor vehicles within the MXD District shall be restricted according to building use, with additional standards as follows in Table One: [10]

Table One: Off Street Parking Maximum Allowance

<table>
<thead>
<tr>
<th>Use Group</th>
<th>Maximum Parking Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industrial and Wholesale Uses</td>
<td>.8/1000 sq ft allowed by Section 401(1)</td>
</tr>
<tr>
<td>Office and Biotechnology Manufacturing Uses</td>
<td>.9/1000 sq ft allowed by Section 401(2)</td>
</tr>
<tr>
<td>Retail and Consumer Service Uses</td>
<td>.5/1000 sq ft allowed by Section 401(4)</td>
</tr>
<tr>
<td>Residential Uses allowed by Section 401(4)</td>
<td></td>
</tr>
<tr>
<td>Multifamily housing</td>
<td>.75/unit</td>
</tr>
<tr>
<td>Hotel or Motel</td>
<td>1 / 4 sleeping rooms</td>
</tr>
<tr>
<td>Other Uses</td>
<td>.9/1000 sq ft</td>
</tr>
</tbody>
</table>

No permanent surface (i.e. not structured), off-street parking areas shall be allowed in the MXD District. [10]

The parking for requirements specified above may be allocated in total or in part by a lease agreement between the developer and the City, other public entity, or private consortium for use of parking spaces in a public or pooled private parking facility located within the MXD District. [10]

Parking spaces permanently dedicated to accessible parking, car sharing programs, vanpools, or electronic vehicle charging stations are not included in the maximum parking space calculations so long as the aggregate number spaces of the special designated spaced does not exceed 10% of the maximum allowance per use. [10]
Parking requirements for bicycles within the MXD District shall be provided as called for in Article 6 of the Zoning Ordinance. [10]

3) It is the intent of this Section that sufficient off-street loading facilities be constructed within the MXD District to meet the needs of users located there. Each building of 25,000 square feet or greater shall provide one loading bay plus an additional bay in accordance with Table Two, up to a maximum requirement of four loading bays. All buildings in the MXD District shall provide the number of bays required unless they qualify for one or more of the exemptions below: [10]

   (a) In buildings with uses in more than one use group under Section 301, the loading bay requirements for that use consuming the most gross floor area shall be first computed and required. Only 50% of the floor area of the other uses shall be counted in determining the additional loading requirements.

   (b) Where there are contractual arrangements for sharing loading and service facilities with other users in the MXD District for a period of ten years or more, a 60% reduction in the loading bay requirement shall be allowed. Such contractual agreement shall be guaranteed to the satisfaction of the Superintendent of Buildings by covenant, deed restriction, or comparable legal instrument. [10]

In addition, open parking and loading areas must be laid out, constructed, paved, equipped, landscaped, and effectively screened to provide an attractive visual appearance. The number, location, and character of parking and loading spaces provided or to be provided must be approved and consented to in writing by the CRA.

4) The parking and loading of vehicles within the remainder of the project area on land designated to be acquired shall be provided in accordance with the provisions of "Article 6 Off-Street Parking and Loading Requirements", as set forth in the Zoning Ordinance, as it may be amended from time to time.

Section 405: Vehicular Access and Discharge Areas

All buildings within the Project Area on land designated to be acquired, shall be suitably provided with automobile, bicycle and truck service and delivery areas in such a way as not to impede general vehicular and pedestrian traffic flow in public streets and rights-of-way. [10]

Table Two: Loading Requirements (Exhibit F)

Section 406: Building Construction

All buildings within the project area shall be constructed as Type I or Type II, in full conformity with the provisions of and as defined in the Massachusetts Building Code, as amended from time to time.
Section 407: Signs and Advertising Devices

Signs within the project area, except for official, uniform traffic and parking signals and devices, shall be provided in accordance with development guidelines established pursuant to Section 502 of the Plan.

Section 408: Storage

The open air storage of materials, equipment, or merchandise, other than the temporary parking of automobiles, shall not be permitted within the project area on any land designated to be acquired.

Section 409: Exterior Lighting

Exterior lighting within the project area shall be provided in accordance with development guidelines established pursuant to Section 502 of the Plan.

Section 410: Landscaping

All open areas within the project area on land disposed of by the CRA must be suitably landscaped so as to provide a visually attractive environment in accordance with development guidelines established pursuant to Section 502 of the Plan.

Section 411: Housing

1) Affordable Housing Requirements

Multi-family housing development shall provide that at least a final net fifteen percent (15%) of the GFA of new housing development is made permanently available to households qualifying for affordable housing under the Inclusionary Housing Ordinance, or the minimum required by the Zoning Ordinance, whichever is greater. The CRA will utilize this square footage measurement rather than unit counts for meeting this requirement to provide opportunities for larger affordable units with two and three bedrooms to be constructed. [10]

2) Middle Income Housing

New residential development may utilize the middle-income housing bonus as described below to construct buildings up to 350 feet in height, under the following conditions:

(a) the use of any occupiable space situated above 250 feet in height shall be limited to residential units, and associated amenity and mechanical space, and

(b) Middle Income Units (as defined below) shall occupy an aggregate GFA equal to at least twenty five percent (25%) of the total residential GFA of the portions of the building that exceed 250 feet in height. Such Middle Income Units shall be distributed throughout the residential building and be comparable in size, configuration and quality to the market rate units. The floor area of Middle Income Units provided per this section shall not be counted against the Aggregate GFA limitation in the District.
For the purposes of this Section, Middle Income Units shall be defined as residential dwelling units meeting the requirements specified in Article 14.35(c) of the Zoning Ordinance:

**Section 412: Innovation Space**

Any new commercial development proposal containing more than 100,000 square feet for Office and Biotechnology Manufacturing Uses beyond the initial three million seventy-three thousand (3,073,000) square feet of GFA in the MXD District shall include a plan for Innovation Space meeting the requirements below. Innovation Space within the MXD District must occupy GFA equal to, or in excess of, five percent (5%) of newly constructed non-residential GFA. Existing GFA within the MXD District may be converted to meet this requirement. The Innovation Commercial Space requirement shall be met through the provision of office spaces of at least 10,000 square feet within a single building, and may be satisfied by means of a lease to a single user who will operate and manage a facility meeting the requirements hereof.

(a) **Required Space.** For a development proposal containing new Office Uses, Innovation Commercial Space within the MXD District must occupy Gross Floor Area equal to, or in excess of, the amount of Gross Floor Area that is five percent (5%) of newly constructed Gross Floor Area for Office Uses. Existing Gross Floor Area within the District may be used to meet this requirement.

(b) **Combined Spaces.** Developers of properties within the MXD District may collaborate with other developers in adjacent zoning districts in the Kendall Square area to create a joint Innovation Space Plan. In such a case, the total square footage of joint Innovation Space must be large enough to satisfy the sum of the requirements, if any, for such participating developers and zoning districts.

(c) **Characteristics.** For the purposes of this Section 412, Innovation Space shall have the characteristics specified in Article 14.32.5(b) of the Zoning Ordinance.

(d) **Variations.** In reviewing development proposals, variations in the specific characteristics set forth above, may be allowed if the proposed Innovation Commercial Space is found to be consistent with the purposes of these characteristics.

**Section 413: Interim Uses**

The CRA may devote real property designated to be acquired, or acquired under special conditions, prior to the time such properties are needed for disposition for reuse and development in accordance with the provisions of the Urban Renewal Plan to temporary, interim uses for signs for project identification, relocation, parking, traffic circulation and public transportation, project or site improvements or building construction, storage, recreation, or landscaping in accordance with such provisions, requirements, standards, controls, and regulations as the CRA may deem essential, necessary, or appropriate to the carrying out of the objectives of the Urban Renewal Plan.

**Section 414: Permitted Uses on Land Designated to be Acquired Under Special Conditions**
In the event that the real property described in Section 202 above is acquired by the CRA the land use provisions and building requirements, which shall pertain thereto shall be those set forth in Chapter 4 of the Urban Renewal Plan.

Section 415: Special Provisions Applicable Within the Ames Street District

1) Applicability. The provisions set forth in this Section 415 shall apply solely within the Ames Street District. Where this Section 415 specifies some standard or makes some other requirement contrary to the standards or requirements set forth elsewhere in Chapter Four of this Plan, the provisions of this Section 415 shall control. [9]

2) FAR. Notwithstanding the Lot Density Limitations in Section 402, there shall be no maximum FAR for Multi-family dwelling uses. However, the District Development Limitations in Section 402 shall continue to apply. [9]

3) Lot Minimum Open Space Requirement. So long as the District Public Open Space Requirement in Section 403 is met and there exists within the Ames Street District a minimum of fifty-three thousand (53,000) square feet of public open space (as defined in Section 403), the Lot Minimum Open Space Requirements in Section 403 shall be inapplicable within the Ames Street District. [9]

4) Parking. The minimum number of spaces for multifamily residential use shall be 0.50 per dwelling unit. [9]

5) Loading Requirements. Where there are contractual arrangements for sharing loading and service facilities with other users in the Ames Street District for a period of ten (10) years or more, a sixty percent (60%) reduction in the loading bay requirements computed in Subsection 14.53.1 or 14.53.1(1) shall be allowed. Such contractual agreement shall be guaranteed to the satisfaction of the Superintendent of Buildings by covenant, deed restriction, easement or comparable legal instrument. [9]

6) Affordable Housing: So long as the requirements of the Cambridge Inclusionary Housing Ordinance are met, the Affordable Housing Requirements of Section 411 shall not apply to the initial 200,000 square feet of GFA of multi-family residential development within the Ames Street District. [10]
Section 416: Special Provisions Applicable Outside the Ames Street District

1) Applicability. The provisions set forth in this Section 416 shall apply solely within the portion of the MXD District consisting of lots fronting on Main Street that are not within the Ames Street District as such District is constituted as of October 1, 2014. Where this Section 416 specifies some standards or makes some other requirement contrary to the standards or requirements set forth elsewhere in Chapter Four of this Plan, the provisions of this Section 416 shall control.

2) Special Permit. Where improvements are proposed to be constructed on any lot within the portion of the MXD District fronting on Main Street that is not within the Ames Street District as such District is constituted as of October 1, 2014, and release of an open space covenant by the City will be necessary to accommodate such improvements, improvements containing incremental square footage of not more than 60,000 square feet of GFA within the limits of Section 402 in excess of the square footage of improvements located on such lot as of October 1, 2014 shall be allowed, subject to the issuance of a special permit by the Cambridge Planning Board under Article 14.72 of the Zoning Ordinance.

3) Parking and Loading. The improvements authorized subject to special permit under this Section 416 shall not require vehicle parking or loading facilities by reason of the incremental development authorized, and no additional parking spaces shall be provided by reason of improvements located on such lot beyond the number of parking spaces provided as of October 1, 2014.

4) Project Review. Incremental development authorized subject to special permit under this Section 416 shall be subject to project review by the Planning Board under the provisions of Article 19.20 of the Zoning Ordinance.
CHAPTER 5: DESIGN PRINCIPLES, DEVELOPMENT GUIDELINES AND DESIGN REVIEW, AND REDEVELOPMENT PROPOSALS

Section 501: General Design Principles

Proposals by redevelopers shall be designed to:

(1) Create an environment which will be lively and attractive and provide daily amenities and services for the use and enjoyment of the working population and City residents.

(2) Establish an active urban character for the area by the intensive utilization of land and by the mixing of compatible land uses, especially near the Kendall rapid transit station.

(3) Achieve a proper integration of buildings and spaces within and outside the project area by carefully relating the scale and materials in new development both among project components and with respect to the scale and materials of surrounding development.

(4) Establish a focus through building form and open space which will serve to create development identity of sufficient positive impact.

(5) Preserve and enhance long and short range views, visual privacy, and sun orientation by the careful positioning of buildings and open space.

(6) Obtain a relationship between buildings, open space and public ways, which provides increased protection to the pedestrian during unfavorable weather conditions.

(7) Link all project components with continuous and safe pedestrian and bicycle circulation systems. [10]

(8) Establish an orderly sequence and hierarchy of open spaces and pedestrian routes throughout the site.

(9) Provide maximum opportunity for safe and convenient pedestrian and bicycle access to surrounding areas. [10]

Section 502: Development Guidelines

The CRA shall from time to time establish land disposition policies and procedures, design standards, and other development guidelines and evaluate the quality and appropriateness of development proposals with reference to the Plan objectives, land use provisions, building requirements, design principles and other controls as set forth in this Plan, in the disposition documents, and development guidelines. The CRA shall also utilize urban design guidelines established by the City, including the “K2 Design Guidelines.” [10]
The design review process will be conducted by the CRA in coordination with the City and the Planning Board, as described in Section 506. [10]

Section 503: Compliance with Plan and Development Guidelines

Redevelopment in the project area shall conform to the Plan objectives, land use provisions, building requirements, design principles, and other controls as set forth in the Urban Renewal Plan and to development guidelines established by the CRA.

All development proposals and architectural plans will be subject to design review, comment, and approval by the CRA prior to land disposition (if applicable) and prior to the commencement of construction. All construction work will be subject to review by the CRA in order to assure compliance of development proposals and architectural plans, with previously approved plans. [10]

Section 504: Infill Development Plan

The CRA will cause the prepare of an Infill Development Plan for new development within the MXD District that exceeds 3,340,000 square feet (Additional GFA) to supplement the original Redevelopment Concept Plan. All new development shall be consistent with the Concept Plan to be reviewed and approved by the Planning Board and the CRA Board as described in Section 506. This Infill Development Plan shall conform to the required elements described in Article 14.32.2 of the Zoning Ordinance. [10]

Section 505: Proposed Building and Architectural Plans

A schematic development proposal shall consist of text, maps and drawings that describe to the CRA how the parcels will be developed. The form, content and time schedule for each development proposal will be specified in development guidelines established by the CRA pursuant to Section 502 of the Plan, and the Infill Development Plan pursuant to Section 504. [10]

Proposed building and architectural plans and related materials including diagrams, scale models, perspective sketches, and photographs illustrating building design and arrangement, to a suitable scale, and based upon the land development specifications set forth above, shall show, among other things:

1) Detailed elevations and floor plans for all buildings, and dwelling unit types;

2) The specific use of all non-residential floor space;

3) The location and layout of all signs; and

4) Outline specifications for building types, including construction and finish, together with actual samples of proposed exterior and interior building materials.

Section 506: Inter-Agency Design Review
The CRA shall conduct its design review in close coordination with the City and the Planning Board. In connection therewith, the CRA may make such modifications to the Concept Plan as may be necessary to reflect development proposals.

Review and approval of the Infill Development Master Plan, detailed in Article 14.32.2 of the Zoning Ordinance, as well as subsequent building design review, shall be performed jointly by the CRA and the Planning Board.

For this purpose, the CRA and the Planning Board shall establish an Inter-Agency Working Group, consisting of two members of the CRA Board and two members of the Planning Board. The Working Group may utilize additional staff from either agency as needed. Three members is to be considered a quorum.

The Working Group will meet regularly to review development proposals and to issue joint recommendations to both the CRA and the Planning Board. The Working Group’s review will be guided by the Objectives outlined in Section 102, the Design Principles and Development Guidelines outlined in Sections 501 and 502, as well as by applicable design guidelines in the Zoning Ordinance. The CRA Board and the Planning Board shall hold regular joint meetings to consider and act upon Working Group joint recommendations. [10]
CHAPTER 6: REDEVELOPER’S OBLIGATIONS

Notwithstanding lesser requirements in the provisions of any zoning or building ordinance or regulation or hereafter in effect, the CRA by use of the following controls in the form of restrictive covenants or conditions running with the land, or by other appropriate means, shall obligate and bind all developers, purchasers, and lessees of project land, and their successors in interest, lessees, sub-lessees, or assigns. Such obligations, together with suitable provisions for reasonable action in the event of default or non-compliance, shall be inserted in and made an effective part of all agreements, conveyances, and other instruments for the disposition of any rights, title, or interests, in whole or in part, in any land acquired or to be acquired within the project area by the CRA.

Section 601: Use and Improvement of Project Land

The use, development, and maintenance of any part or parcel of land within the project area together with improvements thereon shall be undertaken and carried out only for the purposes and in the manner set forth in the general conditions, land use provisions, and building requirements of the Urban Renewal Plan and in full conformity with the provisions of any applicable development proposal and the terms and conditions under which such a development proposal may have been approved and consented to in writing by the CRA.

Section 602: Commencement and Completion of Improvements

The construction of improvements on any part or parcel of land within the project area shall be commenced, carried out, and completed within such periods of time as the CRA may establish as reasonable and which it may have approved and consented to in writing as a part of any applicable development proposal.

Section 603: Disposition of Project Land by Redeveloper

No disposition of any rights, title, or interests in any part of land within the project area by the developer thereof shall be made prior to the full completion of each and all of the improvements thereon as required by and in full conformity with the terms and conditions of the Urban Renewal Plan, the approved development proposal, and the land disposition agreement which are applicable thereto, unless and until the CRA shall have consented in writing to such disposition.

Section 604: Non-Discrimination

At no time shall the acquisition, development, construction, installation, reconstruction, disposal or conveyance by sale or lease, management, or maintenance of any part or parcel of land within the project area or of improvements thereon, to or by any person, be denied, restricted, or abridged, nor his employment thereon, or his use, occupancy, or possession thereof preferred, discriminated against, segregated, or refused because of race, color, sex, age, religious creed, religious creed, disability, national origin or ancestry, sexual orientation, gender, marital status, family status, military status or source of income.

All transactions affecting or respecting such activities shall be subject to the applicable provisions of Chapter 151-B of the Massachusetts General Laws as amended, and to all other
applicable Federal, State and local laws, ordinances, and regulations guaranteeing civil rights, providing for equal opportunities in housing, employment, and education, and prohibiting discrimination or segregation because of race, color, sex, age, religious creed, disability, national origin or ancestry, sexual orientation, gender, marital status, family status, military status or source of income.

No covenant, agreement, contract, lease, conveyance, or other instrument shall be effected or executed by the CRA, or its contractors, or by developers, purchasers, or lessees of any part or parcel of land within the project area, or their successors in interest, contractors, lessees, sub-lessees, or assigns, whereby the disposition of any rights, title, or interests, in whole or in part in such land shall be restricted because of race, color, sex, age, religious creed, disability, national origin or ancestry, sexual orientation, gender, marital status, family status, military status or source of income.

Every covenant, agreement, contract, lease, conveyance, or other instrument by which any part or parcel of land within the project area is disposed of or by which its improvement is provided for shall include an affirmative covenant which shall obligate and bind each developer, contractor, purchaser, lessee, grantee, or other party to such instrument, or any successors in interest, so that there shall be no discrimination because of race, color, sex, age, religious creed, disability, national origin or ancestry, sexual orientation, gender, marital status, family status, military status or source of income in the sale, lease, or rental, or in the employment on, or in the use, occupancy, or possession of such land or of any improvements constructed or to be constructed thereon.

For the purposes of Section 604 of the Plan, the definition of the word “age” shall be in accordance with the provisions of Chapter 151-B of the Massachusetts General Laws as amended.

The CRA shall take all steps necessary and appropriate to enforce such provisions and covenants, and shall not itself so discriminate.
CHAPTER 7: RELATION OF PLAN TO DEFINITE LOCAL OBJECTIVES

Section 701: Conformity to General Plan

The Urban Renewal Plan is based upon a local survey, and is in conformity with a comprehensive plan for the City as a whole. Proposed urban renewal actions and the renewal and redevelopment of the project area for predominantly nonresidential uses are necessary for the proper development of the community.

Section 702: Relation to Definite Local Objectives

The Urban Renewal Plan for the project area, proposed urban renewal actions, and the renewal and redevelopment of the project area for predominantly nonresidential uses are related to definite local objectives as set forth in Section 102 by:

1) Providing for such mixture and density of land uses as will produce a balanced development consistent with the Plan objectives, land use provisions, building requirements, design principles, and other controls, as set forth in the Urban Renewal Plan;

Providing for the development of those light industrial uses which are consistent with the socio-economic and other objectives of the Plan;

Providing for the discontinuance of local, short and narrow streets and private ways, and for the establishment of a rational and efficient street network which reduces congestion, improves traffic flow, including truck access to and through the project area, and otherwise conforms to the objectives, design principles, and other controls of the Plan;

Providing for the redevelopment of Massachusetts Bay Transportation Authority (MBTA) facilities in such a way as to make them more convenient, attractive and efficient;

Providing for the adjustment of utility service lines, making them more efficient and capable of providing better and more uninterrupted service; and

Requiring new building development to contain appropriate allowances for open space, landscaping and vehicular parking and loading arrangements.
CHAPTER 8 : PROVISION FOR MODIFICATION AND TERMINATION

Section 801 : Interpretation

Interpretation of the objectives, general conditions, land use and building requirements, and other provisions of the Urban Renewal Plan by the CRA shall be final and binding.

Section 802 : Modification

The Urban Renewal Plan may be modified at any time by the CRA; provided, however, that if the general conditions, land use provisions, and building requirements, applicable to any part or parcel of land within the project area are modified after the disposition of any land within the project area affected thereby, the modification shall be consented to in writing by the purchaser or lessee, or by his successors or assigns, of the land affected by the proposed modification.

Whenever proposed modifications of the Urban Renewal Plan will substantially or materially alter or change the Urban Renewal Plan, the proposed modifications shall be approved by the Cambridge City Council and the City Manager, and by the Massachusetts Department of Community Affairs.

Section 803 : Duration and Termination

The Urban Renewal Plan shall be maintained and in effect for a period of fifty-five (55) years from the date of the original approval of the Urban Renewal Plan by the Cambridge City Council and the City Manager, and by the Massachusetts Department of Community Affairs; provided, however, that the provisions of Section 604 shall remain in effect for a period of one hundred (100) years from the date of the original approval of the Urban Renewal Plan. [3] [8]
Exhibit A: Project Area Description

The project area is described as follows:
That certain tract of land, referred to as the Kendall Square Urban Renewal Area, situated in the City of Cambridge, County of Middlesex, Commonwealth of Massachusetts, and bounded generally as follows:

Beginning at a point, near the southwesterly corner of the tract herein described which point is the intersection of the northerly sideline of Main Street with the westerly sideline of land or right-of-way now or formerly of the Boston and Albany (Grand Junction) Branch Railroad;

Thence, running northerly by various courses and distances along the westerly sideline of land or right-of-way now or formerly of the Boston and Albany (Grand Junction) Branch Railroad to a point which is the intersection of said line with the northerly sideline of Binney Street;

Thence, turning an angle and running easterly by various courses and distances along the northerly sideline of Binney Street to a point which is the intersection of said line with the easterly sideline of Third Street;

Thence, turning an angle and running southerly by various courses and distances along the easterly sideline of Third Street to a point which is the intersection of said line with the northerly sideline of the so-called Broad Canal;

Thence, continuing southerly across the alignment of the former Broad Canal to a point which is the intersection of the southerly sideline of the former Broad Canal with the easterly sideline of Third Street Thence, continuing southerly by various courses and distances along the easterly sideline of Third Street to a point of curvature at Broadway:

Thence, running southeasterly on a curved line twenty-three (23) feet more or less along the northeasterly sideline of roadway to a point of tangency located on the northeasterly sideline of Broadway fifteen (15) feet more or less from a point which is the intersection of the prolongation of the northeasterly sideline of Broadway with the prolongation of the easterly line of Third Street;

Thence, running southeasterly by various courses and distances along the northeasterly sideline of Broadway to a point which is the intersection of said line with the northerly sideline of Main Street;

Thence, turning an angle and running easterly by various courses and distances along the northerly sideline of Main Street to a point which is the intersection of said line with the westerly property line of land now or formerly of Cambridge Gas Company;

Thence, turning an angle and running southerly across Main Street along a line which is the prolongation of the westerly property line of land now or formerly of Cambridge Gas Company to a point which is the intersection of said line with the southerly sideline of Main Street;

Thence, turning an angle and running westerly by various courses and distances along the southerly sideline of Main Street to a point which is the intersection of said line with the westerly...
sideline of land or right-of-way now or formerly of the Boston and Albany (Grand Junction) Branch Railroad;

Thence, turning an angle and running northerly across Main Street to a point which is the intersection of the northerly sideline of Main Street with the westerly sideline of land now or formerly of the Boston and Albany (Grand Junction) Branch Railroad, which point is the place of beginning.
Exhibit B: Map 1 Proposed Land Uses

Exhibit C: Map 2 Property Map
Exhibit D: Historic Relocation Assistance Program

A relocation assistance program was established by the CRA for this purpose of finding standard dwelling or business accommodations to meet the rehousing and business relocation needs of displaced residents and business, within their financial means, in reasonably convenient locations at the earliest practicable time. The basic objectives of the relocation assistance program were:

1) To provide such measures, facilities, and services as are necessary to determine the needs of displaced site occupants for relocation assistance; and

2) To make information and assistance available to them in such a way as to minimize the hardships of displacement.

Assistance included the making of such relocation payments as were provided for under the provisions of Federal, State, or local laws and regulations.

The CRA administered the relocation assistance program. It was the only agency responsible for the relocation of site occupants displaced from the Project Area as a result of its land acquisition.

There were some 10 families and individuals who occupied property, all of whom were relocated when the Project Area was originally cleared. [10]

The method for the relocation of persons previously living in the Project Area, and the availability of and the means by which there will be provided dwelling units for such persons substantially equal in number to the number of dwelling units to be cleared from the Project Area was as follows:

1) Method for Relocation:

Each dwelling unit vacancy found by or referred to the CRA will be inspected for the CRA by a trained housing inspector in order to determine (1) that it is decent, safe, and sanitary; (2) that it complies with the provisions of the Cambridge Housing Code; (3) that it contains adequate heating, lighting, cooking, and sanitary facilities; and (4) that it is structurally sound.

Only standard dwelling units reasonably accessible to the places of employment of displaced site occupants, and in areas not less desirable in regard to public utilities and commercial facilities than the project area, will be referred to families and individuals to be displaced from the Project Area.

The cost of any dwelling unit referred to a family or individual for rehousing purposes will, generally, not exceed (1) one-quarter of monthly income, in the case of dwelling units for rent, or (2) twice annual income, in the case of dwelling units for sale.

In order to make such referrals, the CRA will secure and maintain listings of all standard dwelling units for sale or rent in Cambridge and the Cambridge housing market area.

Preference will be accorded by the Cambridge Housing Authority to persons who appear to be eligible for (1) state-aided veterans’ housing and housing for the elderly; and (2) federally-aided low-rent housing and housing for the elderly. Persons eligible to be
accorded preference will be admitted to public housing projects under “continued occupancy” income limits by the Cambridge Housing Authority.

(b) Availability of Dwelling Units:

Availability of private rental housing: As of the date of the original adoption of the Plan, records maintained by the CRA indicated that 1131, 1083, 1105 and 1126 private dwelling units were available for rent in the City alone for each year during a recent four-year period. [10]

Availability of private sales housing: As of the date of the original adoption of the Plan, records maintained by the CRA indicated that 107, and 122 private dwelling units were available for sale in the City alone for each year during a recent two-year period. [10]

Availability of public housing: As of the date of the original adoption of the Plan, records maintained by the Cambridge Housing Authority, as reported in December of 1964, indicated that 220 dwelling units in public housing developments become available on the average for occupancy each year. [10]

Clearly, dwelling units for the relocation of persons living in the Project Area at that time substantially equal in number to the number of units to be cleared are available, as are the means by which they can be provided through suitable methods, for the relocation of persons now living in the project area. [10]
Exhibit E: Definition of Pedestrian Ways:

Pedestrian ways shall be designed to provide for public access and shall have the following meanings:

(i) An **open pedestrian bridge** is a continuous open bridge having a minimum width of 6 feet and spanning a street, pedestrian way, access or service road or open space within a lot or between two adjacent lots.

(ii) A **raised pedestrian deck** is a continuous, open platform at least 20 feet in width which is at least 9 feet above the mean elevation of the lot and which extends over a street, pedestrian way, access or service road or open space within a lot or between two adjacent lots. It shall have direct pedestrian access from abutting buildings, shall provide seating facilities and shall be landscaped including one tree, of at least 3-112 inch caliper, per 500 square feet of pedestrian deck.

(iii) An **enclosed pedestrian bridge** is a continuous, enclosed space having a minimum width of 8 feet which spans a street, pedestrian way, access or service road or open space, making connections within a lot or between two adjacent lots. At least 50% of the surface area along its facades shall consist of transparent materials.

(iv) An **elevated shopping bridge** is a continuous, enclosed space which spans a street, pedestrian way, access or service road or open space, making connection within a lot or between two adjacent lots. Such a shopping bridge shall have a minimum width of 36 feet and a maximum width of 48 feet, with retail uses as allowed in Section 401(3) along one or both sides of a pedestrian circulation route with a minimum width of 12 feet. Such shopping bridge shall connect, at a minimum, at both ends to other internal or external pedestrian ways.

(v) A **shopping arcade** is a continuous, covered, but not necessarily enclosed, space which extends along the front facade of a building facing a street or a pedestrian way within the MXD District and having retail uses as permitted in Section 401(3) accessible from it. It shall have a minimum continuous width, unobstructed, except for building columns, of at least 12 feet, and also have a minimum continuous height of 12 feet. Such shopping arcade shall have access from the abutting street or pedestrian way, having its floor at the same level and continuous with the sidewalk or other abutting pedestrian way. It shall be open to the public at all hours.

(vi) An **elevated shopping way** is a continuous, enclosed space which extends along the front facade of a building facing a street or a pedestrian way and which has a minimum width of 12 feet. It shall be located on the second level of the building and have a minimum continuous height of 12 feet. It shall be open to the public for a minimum of 12 hours daily, on weekdays, and shall have fronting retail uses as permitted in Section 401(3).

(vii) A **through-block arcade** is a covered space which provides a connection through a building and connects streets, open spaces, pedestrian ways, or any combination of the above, and is directly accessible to the public. A through-block arcade shall
have a minimum area of at least 2,000 square feet and a minimum width at any point of 20 feet. A through-block arcade shall have openings at the face of the building for entrances at least 12 feet in width and 10 feet high. At least 50% of its aggregate interior frontage shall be retail use. Vertical circulation elements, columns, pedestrian bridges and balconies are permitted obstructions provided they do not cover in the aggregate more than 15% of the floor area of the arcade.

The minimum height of any pedestrian way above the surface of a public way over which it is constructed shall be 14’-0".
Exhibit F: Map of Ames Street District
<table>
<thead>
<tr>
<th>Use Group</th>
<th>Incremental Area for Additional Bay Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industrial and Wholesale Uses allowed by Section 401(1)</td>
<td>100,000</td>
</tr>
<tr>
<td>Office and Biotechnology Manufacturing Uses allowed by Section 401(2)</td>
<td>200,000</td>
</tr>
<tr>
<td>Retail and Consumer Service Uses allowed by Section 401(4)</td>
<td>50,000</td>
</tr>
<tr>
<td>Residential Uses allowed by Section 401(4)</td>
<td></td>
</tr>
<tr>
<td>Multifamily housing</td>
<td>200,000</td>
</tr>
<tr>
<td>Hotel or Motel</td>
<td>100,000</td>
</tr>
<tr>
<td>Other Uses allowed by Sections 401(5), 401(6) and 401(7)</td>
<td>100,000</td>
</tr>
</tbody>
</table>
To facilitate the evolution and growth of Kendall Square as a hub of innovation, and to improve upon the livability and vitality of Kendall Square as a mixed-use neighborhood, the Cambridge Redevelopment Authority is submitting this zoning petition to amend Article 14 – Mixed Use Development District Cambridge Center of the Cambridge Zoning Ordinance. In parallel with the zoning petition, the CRA is submitting to the Cambridge City Council an amendment to the Kendall Square Urban Renewal Plan (KSURP) for its review and consideration. Together these efforts will further the goals of the Kendall Square Planning Study completed by the Community Development Department in collaboration with the K2 Task Force and the Cambridge community. The CRA has engaged in a series of outreach efforts since then specific to the KSURP and this zoning petition. The KSURP amendment establishes new programs for the CRA to delivery numerous public benefits to the project area including funding for transit and park improvements and operations. Additionally the CRA is producing an Environmental Impact Report in accordance with MEPA as described below.

Background

The eastern portion of Cambridge has been a focus for commerce, industry, and technological innovation for centuries. From the establishment of the cities modern zoning ordinance in 1943 until 1978, the entire area was zoned Industry B (IB). As one of the most permissive zoning districts in the city, IB allowed development of various commercial uses, including light and heavy industry, at a maximum Floor Area Ratio (FAR) of 4.0 with few dimensional limitations.

In the 1960s, the City formulated the Kendall Square Urban Renewal Plan (KSURP), which employed Federal, local and other private and institutional resources to assemble and clear industrial-use land in order to facilitate its redevelopment to more economically advantageous uses. The Cambridge Redevelopment Authority (CRA) in cooperation with the City of Cambridge has overseen the implementation of the KSURP.

A substantial portion of the KSURP was originally developed as a NASA Electronics Research Center. However, NASA relocated its operations from Cambridge in 1969, stalling the redevelopment of the entire KSURP area. After nearly a decade of planning efforts, the KSURP was overhauled in 1977 to facilitate the creation of a mixed-use commercial district to attract modern office and industrial investment to this area of Cambridge. The current Cambridge Center Mixed Use District (“MXD”) in the Cambridge zoning ordinance was created shortly there after in 1978 to conform to the land use and dimensional regulations written into the KSURP as amended.
Much like a Planned Unit Development, the original MXD zoning language provides an overall development limit measured by Gross Floor Area (GFA) to be allocated throughout the KSURP. The MXD District was written to provide flexibility to promote development to respond to market and site specific conditions. The MXD contains limitations on each land use types in with the goal of developing a diversity range of land uses. The MXD also utilizes the more traditional lot density controls of Floor Area Ratio (FAR) however in the MXD District the FAR limitations vary based on land use. As the street designs, park parcels, and development lots were still being laid out through the redevelopment process, these FAR regulations were not as influential as the Aggregate GFA limitation.

Over the past 35 years, the MXD District has been modified in close coordination with amendments to the KSURP. The most significant of these changes provided for the inclusion of biotechnology uses, increases to the Aggregate GFA allowance, and corresponding revisions to the GFA caps for office and biotechnology, hotel and residential use limits. The most recent amendments to the MXD District required that large scale projects within the District receive a Special Permit per Article 19 of the Zoning Ordinance, where previously development review and approval was conducted by the Cambridge Redevelopment Authority.

**K2 Planning Study**

In 2012, the City conducted the Kendall Square Central Square ("K2C2") Planning Study and released separate reports in 2013 (referred to as the "K2 Plan" and "C2 Plan"). The K2 Plan focused on the core of Kendall Square, including the MXD District. The following goals and objectives for all of Kendall Square were articulated in the K2 Plan:

1. **Nurture Kendall’s Innovation Culture**: Expand opportunities for Kendall Square knowledge economy to continue to grow and support a vibrant environment for creative interaction.

2. **Create great places**: Support open space and recreation needs of a growing neighborhood. Create lively, walkable streets. Expand opportunities for Kendall’s diverse community to interact.

3. **Promote environmental sustainability**: Expand convenient, affordable transportation and access choices; enhance streets as public places; create a healthier natural environment; reduce resource consumption, waste and emissions; leverage the environmental and economic benefits of compact development.

4. **Mix living, working, learning and playing**: Leverage community and innovation benefits of mixed-use environment; Focus intensity around transit; Minimize development pressures on traditional neighborhoods; Continue to support city and state economic development.

**East Cambridge Planning Team / CBT Study**: Concurrent with the K2 Plan, the East Cambridge Planning Team (ECPT) consulted with CBT Planners and Architects to
create an alternative vision for the K2 study area. Although CBT took a different design approach, the recommendations for future development were similar in terms of increasing development capacity and height in exchange for meeting community objectives for housing, retail, urban design, open space and sustainability. One key difference was that the ECPT plan recommended devoting a greater proportion of new development to housing.

**Kendall Square Urban Renewal Plan Amendment:** The CRA has recently taken a full look at the KSURP to evaluate whether the objectives and policy tools incorporated in the urban renewal plan remained compatible with the community’s vision for Kendall Square today and in the future. The CRA is considering a major plan amendment that will incorporate the expanded office and housing development opportunities proposed within the K2 Plan along with revisions of the land use controls that coincide with this MXD zoning petition. A major urban renewal plan amendment requires approval of the city council, with a public hearing before the Planning Board. It is anticipated that the plan amendment and the zoning be under consideration at the same time.

Urban renewal plan amendments must be approved by the Department of Housing and Community Development and therefore require review under the Massachusetts Environmental Protection Act (MEPA). A Notice of Project Change has been filed with MEPA containing an analysis of traffic, greenhouse gas, utility and hazardous material impacts of the plan amendment. Comments have been received from various city departments and state agencies and a Single EIR responding to those comments will be available in the fall.

The KSURP amendment includes new provisions design to provide additional public benefits to Cambridge through the implementation of new development within the Project Area. A few key benefits areas added to the plan amendment include a funding mechanism to assist the MBTA or others with the provision of transit service enhancements to the Project Area, a. The CRA receives development revenues from sale of GFA within the MXD district and will contribute these funds to numerous projects and programs in and around the Project Area in accordance with a project Implementation Plan.

**Petition Summary**

This zoning petition is put forth as an implementation step of the K2 Plan completed in 2013. This planning effort sought to provide new development opportunities within four distinct district of the Kendall Square neighborhood, to allow the area to continue to grow as a center of technological innovation, while creating stronger provisions for transit-oriented, mixed-use development with aggressive sustainability measures. The more recent changes to the MXD District have been made to accommodate specific projects in the KSURP, including the Broad Institute expansion, and the proposed the Ames Street Residences and expansion for the Whitehead Institute. This petition seeks to provide additional square footage across the district to allow new growth and facilitate the further evolution of Kendall Square per the K2 Plan goals, placing a strong emphasis on new housing development, ground floor activation, and the creation innovation spaces to host the growing start-up culture in the technology and biotechnology fields.
This zoning petition follows nearly all the zoning recommendations of the K2 Plan with one structural exception. Rather than create a new PUD district as was done for the MIT east campus area, this petition proposes to build the provisions of the zoning recommendations of the K2 Plan into the MXD District itself, which in many ways provides similar urban design flexibility of the PUD District. The zoning petition along with the corresponding amendment to the KSURP, outlines a development review process that merges the master planning procedures of the CRA through urban renewal plan and development agreements, with the Special Permit process of the Planning Board.

The chart below summarizes the development limitations that would result in the MXD District from the proposed zoning changes:

<table>
<thead>
<tr>
<th>Table 1: MXD District Development Limitations</th>
<th>Current Zoning</th>
<th>Proposed Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>610,000 SF</td>
<td>610,000 SF</td>
</tr>
<tr>
<td>Maximum Aggregate GFA</td>
<td>3,273,000 SF</td>
<td>4,273,000 SF</td>
</tr>
<tr>
<td>Minimum Residential GFA</td>
<td>200,000 SF</td>
<td>600,000 SF</td>
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<tr>
<td>(assuming Maximum Commercial)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Retail GFA</td>
<td>150,000 SF</td>
<td>200,000 (up to 50,000 exempt)</td>
</tr>
<tr>
<td>Innovation GFA (exempt)</td>
<td>N/A</td>
<td>5% of office, anticipated 30,000 SF (up to 15,000 exempt)</td>
</tr>
</tbody>
</table>

This MXD Zoning petition follows many of the area-wide zoning provisions recommended in the K2 study. The significant modifications of the MXD zoning beyond the increased Aggregate GFA allowance are summarized briefly below:

**Middle Income Housing:** As part of a residential project approval, building heights are allowed to exceed 250 feet up to a maximum of 350 feet for residential uses only. In exchange, middle-income housing units (affordable to 80%-120% of area median income) must be provided occupying a minimum GFA equivalent to 25% of the residential GFA located above 250 feet.

**Startup Innovation Space:** At least 5% of office or biotechnology space must be designated as “Innovation Office Space,” available for small companies or individuals on short-term leases. An Innovation Space Plan is required as part of a Conceptual Development Plan. Up to half of the Innovation Office Space would be exempt from the aggregate limitations, up to 5% of the total office GFA.

**Open Space:** The petition does not change the 100,000 square foot public open space
requirement within the MXD District. Rather than maintain the lot-by-lot open space the petition will provide flexibility for projects to meet open space requirements through provision or improvement of open space elsewhere in the district or the Kendall Square area, per approval of an open space plan included as an element of the Infill Development Plan described below. The KSURP provides further detail about how the CRA will execute the delivery of open space improvements. Further the KSURP provides a mechanism for ongoing funding for park maintenance and programming.

Active Ground Floors: In the redevelopment of each block within the MXD District, 75% of all ground floor frontage facing Main, Ames and Broadway will be required to include retail spaces. In exchange, any ground-floor space dedicated to retail establishments not exceeding 10,000 square feet per establishment would be exempt from GFA limitations, up to 5% of the total new GFA permitted.

Parking and Transportation: The parking requirements have been updated to removing minimum parking requirements and to establish maximum parking limitation for all uses. The MXD District has been built to date with shared parking structures serving multiple buildings on each block and a shared parking analysis will be required as part of project proposals. Bicycle parking is required per citywide requirements in Article 6.000.

Sustainability: New development shall be designed to a minimum LEED Gold standard with enhanced energy efficiency requirements and cool roofs; feasibility of connecting to district steam must be evaluated in a development proposal; Co-generation and on-site alternative energy systems are permitted uses in the MXD District and their expansion is encouraged.

Design Review: As described above much of the development within the MXD had been reviewed and approved by the CRA Board under the authority of the KSURP and the Development Agreements with its selected master developer, Boston Properties. This petition sets out the requirement for an Infill Development Plan, as further required in the redevelopment documents, that is approved by the Planning Board and the CRA Board. The petition further outlines a joint project design review process between the CRA Board and the Planning Board for Schematic Design approval.
ARTICLE 14.000 MIXED USE DEVELOPMENT DISTRICT: CAMBRIDGE CENTER

WORKING DRAFT Petition Proposal 7.1.15

KEY:
Language additions are UNDERLINED
Language deletions are show with STRIKETHROUGH text
Footnotes are explanatory and are not proposed to be included in the zoning text.

14.10 SCOPE AND INTENT
14.20 USE REGULATIONS
14.30 INTENSITY OF DEVELOPMENT REQUIREMENTS
14.40 OPEN SPACE REQUIREMENTS
14.50 VEHICULAR ACCESS, PARKING AND LOADING
14.60 SIGNS
14.70 SPECIAL PROVISIONS APPLICABLE WITHIN THE AMES STREET DISTRICT
14.80 INAPPLICABILITY OF CERTAIN OTHER REGULATIONS

14.10 SCOPE AND INTENT

14.11 Scope. This Article regulates development within the Cambridge Center Mixed Use Development (MXD) District, located within the Kendall Square Urban Renewal Project Area, as shown on the Zoning Map, as amended.

14.12 Intent. The purpose of the District is to allow a diversity of land uses in close proximity, within a limited area; to promote a balance of land uses; to facilitate development proposals responsive to current and future market conditions; to facilitate integrated physical design; and to encourage interaction among activities located within the District.

14.13 Approach. This Article is designed to fulfill the above purposes of the Cambridge Center MXD District by establishing controls which will facilitate development while protecting the public interest; by setting regulations which limit the aggregate amount of development within the District and set other district wide requirements while permitting flexible development scale and configuration on individual lots within the District; by allowing a broad set of land uses within the District; and by encouraging development of appropriate density for each class of land use.
14.20 USE REGULATIONS

14.21 Permitted Uses. The following uses, except as explicitly prohibited are permitted in the Cambridge Center MXD District. All uses not listed within one of the use groups in this section shall be prohibited. All uses within the District shall comply with the environmental protection standards of Section 14.23.

14.21.1 Light Industry

(1) Manufacturing: fabrication, assembly, finishing work (including packaging and bottling, but only as an accessory use) without limit as to category or product.

(2) Wholesale business, only if affiliated with and accessory to another use or located on the same lot as other non-wholesale uses. Development on any lot in the district shall not be devoted exclusively to wholesale uses.

(3) Printing, binding, or related establishment.

(4) Storage warehouse, cold storage building, as an accessory use only and not exceeding twenty thousand (20,000) square feet, but not including storage or bailing of junk scrap metal, rags, paper or other waste materials and not including outside storage of products or materials.

14.21.2 Office Uses and Biotechnology Manufacturing Uses

(1) Business or professional offices.

(2) Bank, trust company, or other financial institution

(3) Research and development office.

(4) Research, experimental and testing laboratory.

(5) Radio or television studio.

(6) Manufacturing of biotechnology and pharmaceutical products, including

(a) Fabrication, assembly, finishing work (including packaging and bottling, but only as an accessory use).

(b) Wholesale business, only if affiliated with and accessory to another use or located on the same lot as other nonwholesale uses.

(c) Storage warehouse, cold storage building, as an accessory use only.

14.21.3 Retail and Consumer Service Establishments

(1) Store for retail sale of merchandise, but not a sales place for automobiles or trucks.

(2) Eating and/or drinking establishment, whether or not liquor is sold or consumed, including restaurant, bar, lunchroom, cafeteria and food commissary.

(3) Fast order food establishment only if (i) it is not located in a separate structure, (ii) it does not exceed three thousand (3,000) square feet of gross floor area, (iii) there will be no more than fifteen (15) such establishments within the District (a maximum of eight (8) of which shall be located in the Ames Street District and a maximum of seven (7) of which shall be located in the portions of the District outside of the Ames Street District) and (iv) it is granted a Special Permit, as provided in Section 10.40 and 11.30.
(4) Consumer service establishment, including but not limited to hairdresser, barber shop, laundry or dry cleaning pick up establishment, self-service laundry, shoe repair or tailoring shop, or photography studio.

(5) Rental agency for autos or other products, but not including taxi companies. Such agencies shall be operated entirely within a building and no major automobile repairs shall be made on the premises.

(6) Automobile service station, provided that it is located within or attached to a parking garage or other structure as an accessory use, that no major repairs are made on the premises, and that all lubrication and repairs are carried out within the building.

14.21.4 Residential Uses
(1) Multifamily dwelling
(2) Hotel or Motel

14.21.5 Entertainment and Recreational Uses
(1) Indoor commercial entertainment establishments including but not limited to cinema, theater, concert hall, cabaret and night club.

(2) Recreation facilities including bowling alley, indoor or outdoor tennis courts, public recreation building, health club, or skating rink. Such recreation facilities shall be allowed only if they are located in or attached to structures containing other principal uses.

(3) Hall, auditoriums and similar spaces used for public gatherings.

(4) Park or playground

14.21.6 Institutional Uses
(1) Religious purposes
(2) Educational purposes exempt by statute
(3) Library or museum as an accessory use only.
(4) Governmental offices and facilities, including post office, fire station and police station.

(5) Clinic licensed under Section 51, Ch. 111, General Laws but not a hospital licensed under said Chapter.

14.21.7 Transportation, Communication and Utility Uses
(1) Bus, subway or railroad passenger station.
(2) Automobile parking lot or parking garage.
(3) Distribution center, parcel delivery center or delivery warehouse as accessory uses only.

(4) Telephone exchange, as an accessory use.
(5) Radio or television transmission station.
(6) Transformer station, substation, gas regulator station, or pumping station and related utility uses designed primarily to serve development within the District.
14.22 *Multiple Uses in the Same Structure.* Within the District there shall be no restriction on combining different categories of use within the same building other than those imposed by the State Building Code or other federal, state or local regulations other than the Zoning Ordinance.

14.23 *Environmental Protection Standards.* No activity shall be permitted in the District unless it shall be in conformity with the following standards for environmental protection.

14.23.1 All dust, fumes, odors, smoke or vapor shall be effectively confined to the premises or so disposed of as to avoid air pollution.

14.23.2 Any noise, vibration or flashing shall not be normally perceptible without instruments at a distance of one hundred (100) feet from the premises.

14.23.3 All development proposals shall comply with Federal and State air pollution and water pollution control regulations, the City of Cambridge Ordinances, and other applicable environmental laws.

14.23.4 Except during construction activity on the lot all refuse and other waste materials shall be stored within buildings prior to collection and disposal.
14.30 INTENSITY OF DEVELOPMENT REQUIREMENTS

14.31 Applicability. The amount and density of development within the Cambridge Center MXD District shall be governed by the provisions of this Section 14.30.

14.32 District Development Limitations. There shall be limitations on the overall amount of development within the District as specified below.

14.32.1 The Aggregate gross floor area (GFA) of development in the District shall not exceed three million, one six hundred thirty seven three thousand (3,673,000 3,133,000) square feet, providing that any development in excess of two million eight hundred and thirty three thousand (2,833,000) shall occur only within the area designated on the Zoning Map as the “Ames Street District”, and plus six two hundred thousand (6200,000) square feet that shall be limited to multi-family residential uses as permitted in Section 14.21.4(1), for a total Aggregate GFA not to exceed 4,273,000 square feet. Sixty thousand (60,000) square feet of such aggregate GFA of 3,633,000 shall be allowable only by special permit pursuant to Section 14.72.1 2

At least the two hundred thousand (200,000) square feet of the GFA restricted to housing uses shall occur only within the area designated on the Zoning Map as the “Ames Street District”, the construction of which shall precede the occupancy of any commercial GFA in excess of three million, seventy three thousand (3,073,000) square feet. 3

- however, may only be used in that portion of the MXD district located between Main Street and Broadway.

Aggregate GFA of development in the District is at any time the sum of the GFA (as defined in Article 2.00 of this Ordinance) of all buildings (i) which are then located in the District, (ii) which are being constructed or may be constructed in the District pursuant to then effective building permits, and (iii) which, pursuant to then outstanding contracts (including options) with Cambridge Redevelopment Authority (CRA) and so stated in certificates from the Authority to the Superintendent of Buildings, may be constructed in the District in the future. Notwithstanding the definition in Article 2.00 for Gross Floor Area and the provisions of Section 5.25, parking garages and accessory parking facilities shall be exempt from the

1 The GFA increase matches that anticipated in the K2 Plan: 1,000,000 square feet of development with commercial limited to 600,000 square feet. This includes the 60,000 square feet for the Whitehead Institute site.

2 The 600,000 SF of residential provision equals the 200,000 SF previously reserved for Ames Street Residences and an additional 400,000 SF from the K2 Plan. The 200,000 SF on Ames Street must precede the use of any additional GFA.

3 The K2 Plan emphasized the requirement that the Ames Street Residences (Special Permit approve March 24, 2015).
requirements as to Floor Area Ratio and shall not be included in the calculation for Gross Floor Area GFA on a lot.

14.32.2 Any additional GFA above and beyond 3,340,000 square feet (Additional GFA) shall require a Infill Development Plan approved as a Special Permit by the Planning Board providing the distribution of uses within the Additional GFA in accordance with the provisions herein. More specifically the Infill Development Plan shall include:

a) A current development program illustrating the size, location, and uses of existing buildings at the time of submission,

b) A site plan for all proposed new development within the MXD District including locations of Innovation Office Space as described in Section 14.32.5 and Active Ground Floor Uses described in Section 14.46.

c) A table summarizing the current and proposed future uses on building sites in the MXD District and indicating the potential size and use (or alternate uses) of future development.

d) A Phasing Plan describing the anticipated timing of commercial and housing development, and a Conceptual Design of the preliminary phase of development.

e) A Transportation Impact Study, which includes a parking demand analysis.

f) A housing program describing the distribution of new housing units, including affordable housing units, middle income housing units, and larger family units containing 2 or more bedrooms.

g) An open space plan depicting the size layout and configuration of all Public Open Space within the District. This conceptual plan shall illustrate the open space existing in the MXD District and open space to be developed or modified within the District and or outside of the District.

h) A plan describing street and public infrastructure improvements to be undertaken in coordination with the development program.

i) A sustainability plan describing concepts for how additional development will meet the requirements set forth in this Section 14.74 including and district-wide approaches to energy, water and wastewater management, climate resiliency and waste management.4

Individual building proposals utilizing the Additional GFA must be consistent with the Master Infill Development Plan and will undergo an Inter-Agency design review process as described in Section 14.73

4 New section replacing previous cumulative use restrictions, and replacing it with a section requiring an infill “master” plan subject to review by the planning board. The additional GFA level is set to allow anticipated smaller projects by the Whitehead and Broad Institutes to proceed independent of the larger infill development phases.
14.32.2 In addition to the Aggregate GFA limitation establishment in Section 14.32.1, the Cumulative GFA for each of the use groups shall not exceed the respective amounts stated below, except as provided in Subsection 14.32.2(5). Cumulative GFA for a use group is at any time the sum of GFA (as defined in Article 2.000 of this Ordinance) of all portions, occupied or to be occupied by uses within such use group, of all building (i) which are then located in the District, (ii) which are being constructed or may be constructed in the District pursuant to then effective building permits, and (iii) which pursuant to then outstanding contracts (including options) with Cambridge Redevelopment Authority and so stated in certificates from the Authority and so stated in certificates from the Authority to the Superintendent of Buildings, may be constructed in the District in the future.

(1) Industrial uses permitted by Section 14.21.1 of this Article: Cumulative GFA=770,000 square feet.

(2) Office Uses and Biotechnology Manufacturing Uses permitted by Section 14.21.2 of this Article: Cumulative GFA=1,665,000-2,205,000 square feet.

Aggregate GFA within the District authorized by a variance issued by the Board of Zoning Appeal to exceed the District Development Limitation of Section 14.32 shall not be counted by the Superintendent of Buildings for any purpose in determining the aggregate GFA within the District or compliance with the intensity of development requirements of Article 14.00.

The Superintendent of Buildings shall maintain a separate record of any development within the area of the MXD district designated on the Zoning Map as the “Ames Street District.”

Development after September 30, 2010, within the area of the MXD District designated on the Zoning Map as the “Ames Street District” shall be allocated first to the increment of allowable GFA in the MXD District between two million eight-hundred and thirty-three thousand (2,833,000) and three million one hundred thirty-three thousand (3,133,000) square feet, and then to any remaining GFA under two million eight-hundred and thirty-three thousand (2,833,000) as authorized by the District Development Limitations of Section 14.32. Development allowed by special permit under Section 14.72 shall be allocated to the increment of allowable GFA in the MXD District under two million, eight hundred and thirty-three thousand (2,833,000) as authorized by the District Development Limitations of Section 14.32, and not to the increment between two million, eight hundred and

5 The office and biotechnology cumulative GFA is increased by 540,000, taking into account the 60,000 for Whitehead.

6 The sentence regarding variances is moved to a new section (14.32.6) on GFA Exemptions.
Issue of any base building permit or certificate of occupancy for any building in the Ames Street District utilizing any part of the 2010 Additional GFA shall be conditioned upon certification of all relevant departments of the City to the Superintendent of Buildings that the project is proceeding in accordance and compliance with all provisions of that certain “Letter of Commitment” dated August 2, 2010 given by the property owner of the Ames Street District to the City of Cambridge pertaining to the utilization of the 2010 Additional GFA.

(3) Retail and consumer service uses permitted by Section 14.21.3 of this Article: Cumulative GFA=150,200,000 square feet.

(4) Residential uses permitted by Section 14.21.4 of this Article:
   (a) Multifamily housing: Cumulative GFA=800,000-300,000 square feet
   (b) Hotel/Motel: Cumulative GFA=440,000 square feet

(5) Entertainment, recreation, institutional, transportation, communication and utility uses permitted by Sections 14.21.5, 14.21.6 and 14.21.7 and additional development of industrial, office and biotechnology manufacturing uses, retail, consumer service and hotel/motel uses exceeding the cumulative GFA limitations of paragraphs (1), (2), (3), and (4b) above: Cumulative GFA=973,000 square feet.

14.32.3 Any construction or change of use within the District which would cause aggregate or cumulative GFA limitations of subsections 14.32.1 and 14.32.2 to be exceeded shall not be allowed.

(1) Compliance with this Section 14.32.3 shall be determined by the Superintendent of Buildings at all times including at the time of issuance of a building permit and at the time of issuance of a Certificate of Occupancy under Section 9.20 of this Ordinance.

(2) The Superintendent of Buildings shall maintain a record of the aggregate GFA within the District and a record of cumulative GFA for each use group specified in Section 14.31. The Superintendent of Buildings shall maintain a separate record

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7 The language regarding commercial GFA in Ames Street is now unnecessary as the Broad Institute expansion has been completed.

8 Retail allowance had been expanded to promote Active Uses on the Ground Floor. Currently the District contains approximately 138,000 SF of retail. The most recent draft replaces the land use allocation with the infill development plan requirement.

9 Although 600,000 SF must be built Multi-family residential, the 800,000 Cumulative GFA allows the potential for more housing to be built instead of commercial GFA.
of any development within the area of the MXD district designated on the Zoning Map as the “Ames Street District.” These records shall be adjusted as appropriate, from time to time, including upon issuance, revocation or expiration of a building permit or certificate of occupancy and upon receipt of a certificate from the CRA as to an outstanding contract (including option) for the construction of a building. The CRA shall also maintain a record of cumulative GFA by land use for the purpose of determining and tracking open space requirements for existing and future development.\(^\text{10}\)

(3) In determining cumulative GFA for a building containing uses in more than one use group, spaces to be utilized by users in more than one of the use groups, such as lobbies, interior courts, elevator shafts and basement storage areas shall be apportioned to each use group in proportion to the share of space that use groups will occupy within the building.

(4) Each applicant for a building permit or a certificate of occupancy shall submit to the Superintendent of Buildings information, including the following, as appropriate to the application, in order to determine compliance with this Section 14.32 and to demonstrate that the proposed construction and/or occupancy will not violate or be inconsistent with any outstanding contract or deed:

(a) measurement of total gross floor area of the building or building additions;

(b) in a building containing uses in more than one use group, the measurement of gross floor area(s) by use group, for spaces to be devoted exclusively to uses in such group and the measurement of gross floor area of spaces to be shared by users in more than one use group;

(c) measurement of gross floor areas of renovations or use changes within existing buildings;

(d) measurement of future development commitments or limitations on the lot specified in deed restrictions, covenants or comparable legal instruments.

\[14.32.4\] **Applicability of Section 19.20. for Residential Uses.** Notwithstanding the provisions of Section 19.22 (1), a structure, any portion of which contains residential uses as set forth in Section 14.21.4 (1) above, shall be subject to the provisions of Section 19.20 – Project Review Special Permit. In addition, notwithstanding the provisions of Section 19.22(1), any development within the area designated on the Zoning Map as the “Ames Street District” utilizing the 2010 Additional GFA under Section 14.32.3(2) above shall be subject to the provisions of Section 19.20-Project Review Special Permit, with the exception of Section 19.21.1.

\[14.32.5\] **Innovation Space:** Any new commercial development proposal containing more than 100,000 square feet for Office and Biotechnology Manufacturing Uses shall include a plan for Innovation Space meeting the requirements below. Innovation Space within

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\(^{10}\) This provision is added in order to track the revised lot open space requirement discussed below.
the MXD District must occupy GFA equal to, or in excess of, five percent (5%) of newly constructed non-residential GFA beyond three million and seventy one thousand (3,073,000) square feet. Existing GFA within the MXD District may be converted to meet this requirement. The Innovation Space requirement shall be met through the provision of office spaces of at least 20,000 square feet within a single building and may be satisfied by means of a lease to a single user who will operate and manage a facility meeting the requirements hereof.  

(a) Required Space. For a development proposal containing new Office and Biotechnology Manufacturing Uses, Innovation Space within the MXD District must occupy Gross Floor Area equal to, or in excess of, the amount of GFA that is five percent (5%) of newly constructed GFA for Office Uses and Biotechnology Manufacturing. Existing Gross Floor Area within the District may be used to meet this requirement. Up to 25% of the required Innovation Space may be met through the provision of non-traditional retail space designed and leased in a manner to promote entrepreneurial activity.

(b) Combined Spaces. Developers of properties within the MXD District may collaborate with other developers in adjacent zoning districts in the Kendall Square area to develop a Joint Innovation Office Space Plan. In such a case, the total square footage of joint Innovation Space must be large enough to satisfy the sum of the requirements, if any, for such participating developers and zoning districts.

(c) Characteristics. For the purposes of this Section 14.32.5, Innovation Space shall have the following characteristics:

(i) Durations of lease agreements (or other similar occupancy agreements) with individual office tenants shall be for periods of approximately one (1) month.

(ii) No single business entity may occupy more than 2,000 square feet or 10% of the entire Innovation Space provided in the District, whichever is greater.

(iii) The average size of separately contracted private office suites may not exceed 200 square feet of GFA.

(iv) Innovation Space shall include shared resources (i.e., co-working areas, conference space, classroom space, office equipment, showroom, shop or lab equipment, storage, circulation, supplies and kitchens) available to all tenants and must occupy at least 50% of the Innovation Office Space.

(v) Individual entities occupying Innovation Space may include small business incubators, small research laboratories, office space for investors and entrepreneurs, facilities for teaching and for theoretical.

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11 This provision originates from policy recommendations of the K2 and is similar to the language put forth for the MIT PUD and Volpe PUD zoning proposal.
basic and applied research, product development and testing and prototype fabrication or production of experimental products.

(d) Variations. In reviewing development proposals, variations in the specific characteristics set forth above, may be allowed if the proposed Innovation Space is found to be consistent with the purposes of these characteristics.

14.32.6 GFA Exemptions

(1) Variances: Aggregate GFA within the District authorized by a variance issued by the Board of Zoning Appeal to exceed the District Development Limitation of Section 14.32 shall not be counted by the Superintendent of Buildings for any purpose in determining the Aggregate GFA within the District or compliance with the intensity of development requirements of Article 14.00.¹²

(2) Residential Outdoor Area Exemptions: Private outdoor decks or balconies for multi-family residential development shall be excluded from the Aggregate GFA calculations or FAR restrictions for residential, up to eight percent (8%) of the building floor area.¹³

(3) Innovation Space: Fifty percent (50%) of the Innovation Space GFA required in Section 14.32.5 shall not count against the Aggregate GFA cap or FAR restriction for the District, the Cumulative GFA for the office and Biotechnology use group, or the maximum FAR for the development lot.¹⁴

(4) Ground Floor Retail: The GFA occupied by new retail and consumer service uses listed in Section 14.21.3 shall be excluded from the limitations on Aggregate GFA and FAR restriction in the District set forth above, if the following conditions are met:

a) The excluded GFA is located at the ground level of a building or not more than one story below grade.

b) The excluded GFA has frontage and direct pedestrian entrances onto Main Street, Binney, Broadway, Third Street or Ames Street, or onto open space that is directly accessible and not more than one hundred (100) feet distant from at least one of the aforementioned streets.

c) The excluded GFA is occupied by separate retail establishments, each occupying no more than ten thousand (10,000) square feet of floor area at the ground-level floor. The Planning Board may waive this limitation in

¹² Language moved from earlier section 14.32.1

¹³ Allowance that encourages the provision of balconies on residential projects to add human dimension to the façade and create occupied outdoor space

¹⁴ Exemptions for Innovation Space are the same as K2 recommendation and MIT Kendall PUD.
specific instances where it finds that the proposed use would be uniquely beneficial to area residents, such as a grocery store or pharmacy. ¹⁵

(5) Middle Income Housing Units: The square footage of any middle income housing units developed in conformance with section 14.35 shall be exempt from the Aggregate GFA maximum or FAR restrictions. ¹⁶

14.33 Lot Density Limitation. In addition to the aggregate and cumulative GFA limitation established in Section 14.32, there shall also be a density limitation for each lot within the District. The following floor area ratios (as defined in Article 2.000) for each lot shall not be exceeded, except as provided in Section 14.32.6 and 14.33.6. The area of the lot to be counted in determining FAR shall include land dedicated by the owner or former owner of the lot as public open space under Section 14.42.

14.33.1 Industrial and Wholesale uses: FAR 4.0
14.33.2 Office Uses and Biotechnology Manufacturing Uses: FAR 8.0
14.33.3 Retail and Consumer Services uses: FAR 5.0
14.33.4 Residential uses:
   (1) Multifamily housing: FAR 4.0  6.0 ¹⁷
   (2) Hotel/Motel: FAR 6.0
14.33.5 Other uses: FAR 4.0
14.33.6 If development on a lot is to include activities in more than one of the use groups above, the maximum FAR for the lot shall be the FAR for the use group containing the largest proportion of space on the lot.

14.34 Building Height Limitation. The maximum building height in the District shall be two hundred and fifty (250) feet, except for the area of the district 450 feet north of Broadway where the maximum building height shall be 200 feet. Residential buildings within 450 feet of Broadway may be permitted to be built up to 350 feet provided they meet the provisions for Middle Income Housing described within Section 14.35 below. No more than two buildings within the MXD District may utilize the middle-income height bonus. Additionally the floorplate of those portions of buildings above 250 feet shall not reach a total of 24,000 square feet.

¹⁵ Exemptions for Ground Floor retail are the same as K2 recommendation and MIT Kendall PUD, except the small scale retail figure is increased to 10,000 square feet.

¹⁶ To incentivize the construction of middle-income units, the middle-income units are exempted from the GFA calculations, to not take away from the GFA allocation for standard and inclusionary units.

¹⁷ Multi-family FAR allowance adjusted to match Hotel FAR allowance.
This requirement shall not apply to chimneys, water towers, air conditioning
equipment, elevator bulkheads, skylights, ventilators and other necessary features
appurtenant to buildings, which are usually carried above roofs and are not used for
human occupancy. Nor do these requirements apply to domes, towers or spires above
buildings if such features are not used for human occupancy and occupy less than ten
percent (10%) of the lot area, nor to wireless or broadcasting towers and other like
unenclosed structures which occupy less than ten percent (10%) to the lot area.

14.35 Middle Income Housing Height Bonus. The Planning Board may permit a buildings
height limit to be increased to three hundred (350) feet for residential buildings,
provided that the following requirements are met:

(a) the use of any occupiable space situated above 250 feet in height shall be
limited to residential units, and associated amenity and mechanical space, and

(b) Middle Income Units (as defined below) shall occupy an aggregate GFA equal
to at least twenty five percent (25%) of the total residential GFA of the portions
of the building that exceed 250 feet in height. Such Middle Income Units shall
be distributed throughout the residential building in a manner approved by the
Planning Board, in consultation with City and CRA staff, in order to ensure that
the Middle Income Units are of an appropriate location, size, configuration and
quality for households intended to occupy such units. The floor area of Middle
Income Units provided per this section shall not be counted against the
Aggregate GFA limitation in the District.

(c) For the purposes of this Section, Middle Income Units shall be defined as
residential dwelling units for which:

a. the occupancy is restricted to households whose total income does not
exceed 120% of the median income of households in the Boston Standard
Metropolitan Statistical Area adjusted for family size, or such other
equivalent income standard as may be determined by the Board of Trustees
of the Affordable Housing Trust Fund; and

b. the rent (including utilities) does not exceed thirty percent (30%) of the
income of the renting household or, in the instance of home ownership units,
the monthly mortgage payment (including insurance, utilities and real estate
taxes) does not exceed thirty percent (30%) of the income of the purchasing
household, or such other equivalent standard as may be determined by the
Board of Trustees of the Affordable Housing Trust Fund; and

c. the Middle-Income Units are not also designated as Affordable Units for the
purpose of meeting the Inclusionary Housing requirements in Section
11.200.  

18 Middle Income Bonus language is similar to that of the MIT zoning. The three differences are
the exemption of the middle-income units from the MXD Aggregate GFA limitation to further
incentive the development of these units, the removal of dormitory references, and the allowance

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14.36 **Active Ground Floors**: The approval of Additional GFA shall enhance the public pedestrian usage of the sidewalks and create a sense of neighborhood continuity by providing an interesting, lively and active presence at street level.

The ground floor of newly constructed buildings within the MXD District, with frontage along Main Street, Broadway, Ames Street, and Third Street must be occupied by Retail and Consumer Service uses, as listed in Section 14.21.3, for a minimum length of seventy-five percent (75%) of the building façade. Alternatively, a development proposal may provide for the redevelopment of existing buildings with Retail and Consumer Services along the ground floor of same street frontage for up to fifty percent (50%) of the Ground Floor requirement herein. Dimensional variations and alternate uses may be approved by the Planning Board upon determining that the specific uses and designs proposed are consistent with the purpose and intent of this Section.

14.40 **OPEN SPACE REQUIREMENTS**

14.41 **Definition of Open Space.** For purposes of this Section 14.40, open space shall mean a portion of a lot or other area of land associated with and adjacent to a building or group of buildings in relation to which it serves to provide light and air, or scenic, recreational or similar purposes. Such space shall, in general, be available for entry and use by the occupants of the building(s) with which it is associated, and at times to the general public, but may include a limited proportion of space so located and treated as to enhance the amenity of development by providing landscaping features, screening or buffering for the occupants or neighbors or a general appearance of openness. Open space shall include parks, plazas, lawns, landscaped areas, decorative plantings, roof decks, balconies, pedestrian ways listed in Section 14.45, active and passive recreational areas, including playgrounds and swimming pools. Streets, parking lots, driveways, service roads, loading areas, and areas normally inaccessible to pedestrian circulation beneath pedestrian bridges, decks or shopping bridges shall not be counted in determining required open space.

14.42 **District Public Open Space Requirement.** A minimum of one hundred thousand (100,000) square feet within the District shall be reserved or designated as public open space. No development shall be allowed which would reduce public open space in the District below one hundred thousand (100,000) square feet. Public open space shall be open space reserved for public use and enjoyment as guaranteed through one or more of the following:

14.42.1 Retention by the Cambridge Redevelopment Authority;

of heights up to 350 ft. Note that square footage is used rather than units to encourage the development of larger units.

19 Open space definition broadened to include roof decks and balconies to encourage their development within the MXD District.
14.42.2 Dedication to and acceptance by the City of Cambridge or other public entity;

14.42.3 Easements or deed restrictions over such land sufficient to ensure its perpetual reservation for public open space purposes.

14.42.4 Dedication, by covenant or comparable legal instrument, to the community use of the residents, lessees and visitors to the District for reasonable amounts of time on a regular basis;

14.42.5 Lease agreements of ninety-nine (99) years or longer from the private developer or owner to the City or other public entity.

14.43 Project Based Lot Minimum Open Space Requirement. Each development project shall be required to contribute to the open space network of the MXD District and its surrounding neighborhood, consistent with an open space plan as described in Article 14.32.2. The minimum amount of open space to be provided on each lot within the MXD District as shown on Table 1, subject to the reduction provided in Article 14.44. When development on a lot includes uses in more than one of the use categories in Table 1, the requirement for each use category shall be calculated and totaled to determine a total requirement for the lot. Some or all of this required open space may be designated and also serve as public open space, if reserved by one of the methods specified in Section 14.42.

Table 1: MXD Minimum Open Space Requirements  

<table>
<thead>
<tr>
<th>User Group</th>
<th>Required Open Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industrial and Wholesale Uses allowed by Section 14.21.1</td>
<td>5</td>
</tr>
<tr>
<td>Office Uses and Biotechnology Manufacturing Uses allowed by Section 14.21.2</td>
<td>8</td>
</tr>
<tr>
<td>Retail and Consumer Service Establishment Uses allowed by Section 14.21.3</td>
<td>10</td>
</tr>
<tr>
<td>Residential Uses allowed by Section 14.21.4</td>
<td></td>
</tr>
<tr>
<td>Multifamily housing</td>
<td>15.9(^{20})</td>
</tr>
<tr>
<td>Hotel or Motel</td>
<td>10</td>
</tr>
<tr>
<td>Other uses allowed by Section 14.21.5, 14.21.6, &amp; 14.21.7</td>
<td>8</td>
</tr>
</tbody>
</table>

14.44 Reduction of Required Lot Open Space 14.44.1 Eligibility for Reduction. The minimum amount of open space required for a lot by Section 14.43 may be reduced if at least twenty (20\%) percent of the total perimeter boundary of the lot abuts public open space reserved under Section 14.42, and if at least one major pedestrian

\(^{20}\) Adjusted the open space requirement for residential to match that for commercial.
entrance to the principal building will abut and provide direct access to said open space.

14.44.2 Amount of reduction. The allowed percentage reduction of required open space shall be determined by dividing the length of the lot’s common boundary on the public open space by length of the total boundary of the public open space.

14.44.3 Public Open Space in Common Ownership Located Directly Across a Private Way. Public Open Space held in common ownership with the lot for which open space is required, located within the District and directly across a private way from said lot, shall be counted toward satisfaction of the lot minimum open space requirements of Section 14.43. The perimeter of such public open space, less the boundary that abuts the private way, shall count toward the “total perimeter boundary of the lot” under Section 14.44.1 and “the length of the lots’ common boundary on the public open space” under Section 14.44.2. The perimeter of such public open space, including the boundary that abuts the private way, shall count toward the “total boundary of the public open space” under Section 14.44.2.

14.45 Pedestrian Ways.

14.45.1 Pedestrian ways listed and defined below may be counted toward the open space requirement determined in Section 14.43 and 14.44. For each lineal foot of pedestrian way provided by a Development Project, 20 square feet may be deducted from the Project’s Open Space requirement described in Section 14.43, in the proportions specified in Table 2. In calculating the open space reduction in said table, all of the area of the pedestrian way located within the lot boundary and one half (1/2) the area of such ways over streets of service drives adjoining but outside the lot shall be counted 21.

<table>
<thead>
<tr>
<th>Pedestrian Way</th>
<th>Open Space Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Pedestrian Bridge</td>
<td>30 sq. ft.</td>
</tr>
<tr>
<td>Raised Pedestrian Deck</td>
<td>50 sq. ft.</td>
</tr>
<tr>
<td>Enclosed Pedestrian Bridge</td>
<td>40 sq. ft.</td>
</tr>
<tr>
<td>Elevated Pedestrian Bridge</td>
<td>120 sq. ft.</td>
</tr>
<tr>
<td>Shopping Arcade</td>
<td>20 sq. ft.</td>
</tr>
</tbody>
</table>

21 This section is simplified, and Table 2 eliminated to establish the same credit toward open space requirements for all types of pedestrian ways, and to specifically not encourage elevated or raised pathways over facilities at grade.
14.45.2 The Pedestrian ways listed in Table 2 shall be designed to provide for public access and shall have the following meanings:

(1) An open pedestrian bridge is a continuous open bridge having a minimum width of 6 (six) feet and spanning a street, pedestrian way, access or service road or open space within a lot or between two adjacent lots.

(2) A raised pedestrian deck is a continuous, open platform at least twenty (20) feet in width which is at least eight (8) feet above the mean elevation of the lot and which extends over a street, pedestrian way, access or service road or open space within a lot or between two adjacent lots. It shall have direct pedestrian access from abutting buildings, shall provide seating facilities and shall be landscaped including one tree, of at least three and a half (31/2) inch calliper, per five hundred (500) square feet of pedestrian deck.

(3) An enclosed pedestrian bridge is a continuous, enclosed space having a minimum width of eight (8) feet which spans a street, pedestrian way, access or service road or open space, making connections within a lot or between two adjacent lots. At least fifty (50%) percent of the surface area along its facades shall consist of transparent materials.

(4) An elevated shopping bridge is a continuous, enclosed space which spans a street, pedestrian way, access or service road or open space, making connection within a lot or between two adjacent lots. Such a shopping bridge shall have a minimum width of thirty-six (36) feet and a maximum width of forty-eight (48) feet, with retail uses as allowed in Section 14.21.3 along one or both sides of a pedestrian circulation route with a minimum width of twelve (12) feet. Such shopping bridge shall connect, at a minimum, at both ends to other internal or external pedestrian ways.

(5) A shopping arcade is a continuous, covered, but not necessarily enclosed, space which extends along the front facade of a building facing a street or pedestrian way within the District, and having retail uses as permitted in Section 14.21.3 accessible from it. It shall have a minimum continuous width, unobstructed, except for building columns, of at least twelve (12) feet, and also have a minimum continuous height of twelve (12) feet. Such shopping arcades shall have access from the abutting street or pedestrian way, having its floor at the same level and continuous with the sidewalk or other abutting pedestrian way. It shall be open to the public at all hours.

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22 These definitions are not edited as they are referenced by other sections of the Zoning Ordinance.
(6) An elevated shopping way is a continuous, enclosed space which extends along the front facade of a building facing a street or a pedestrian way and which has a minimum width of twelve (12) feet. It shall be located on the second level of the building and have a minimum continuous height of twelve (12) feet. It shall be open to the public for a minimum of twelve (12) hours daily, on weekdays, and shall have fronting retail uses as permitted in Section 14.21.3.

(7) A through block arcade is a covered space which provides a connection through a building and connects streets, open spaces, pedestrian ways, or any combination of the above, and is directly accessible to the public. A through block arcade shall have a minimum area of at least two thousand (2,000) square feet and a minimum width at any point of twenty (20) feet. A through block arcade shall have openings at the face of the building for entrance at least twelve (12) feet in width and ten (10) feet high. At least fifty (50%) percent of its aggregate interior frontage shall be retail use as permitted in Section 14.21.3. Vertical circulation elements, columns, pedestrian bridges and balconies are permitted obstructions provided they do not cover in the aggregate more than fifteen (15%) percent of the floor area of the arcade.

14.45.3 The minimum height of any pedestrian way above the surface of a public way over which it is constructed shall be fourteen feet (14'-0").

14.50 VEHICULAR ACCESS, PARKING AND LOADING

14.51 Access. Buildings erected in the Cambridge Center MXD District need not be located on lots which have frontage on a street. However, provisions for access to all buildings by emergency and service vehicles in lieu of public street access shall be made possible by the layout and design of driveways, interior service roads, or pedestrian and bicycle circulation corridors not normally open to vehicular traffic to the reasonable satisfaction of the City of Cambridge Fire Department, and the Cambridge Traffic Department.

14.52 Parking Requirements. Off-street parking requirements for the Cambridge Center MXD District shall be as follows:

14.52.1 No on-grade, open parking areas shall be allowed in the District except as provided for in Section 14.524.

14.52.2 Each With the exception of multi-family residential development, there are no minimum parking requirements for new development in the MXD. Residential development shall provide at a minimum .25 automobile parking spaces per dwelling unit. All proposed development shall be restricted from constructing parking spaces, either on or off the lot within the District, beyond to satisfy the maximum allowances requirements of Table 1-23. If a development includes more than one category of use, then the number of spaces required allowed for the development shall be the sum of the allowance for each category of use. Where the computation of required spaces results in a fractional number, only a fraction of one half or more shall be counted as one.
Table 3 MXD District Parking Restrictions 23

<table>
<thead>
<tr>
<th>Use</th>
<th>Minimum</th>
<th>Maximum number of spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industrial uses allowed by Section 14.21.1</td>
<td>64/100</td>
<td>2,500 sq. ft.</td>
</tr>
<tr>
<td>Office uses and Biotechnology Manufacturing Uses allowed by Section 14.21.2</td>
<td>.9/2000 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Retail and consumer establishment allowed by Section 14.21.3</td>
<td>1/1000 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Residential uses allowed by Section 14.21.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multifamily residences</td>
<td>.75 per dwelling unit</td>
<td></td>
</tr>
<tr>
<td>Hotels or Motels</td>
<td>1/1.75 sleeping rooms</td>
<td></td>
</tr>
<tr>
<td>Public assembly uses allowed by Sections 14.21.3(2), 14.21.3(3),</td>
<td>1/15 seats or</td>
<td></td>
</tr>
<tr>
<td>and Section 14.21.5 (restaurants, entertainment and recreation facilities)</td>
<td>1/300 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Other uses allowed by Section 14.21.6 and 14.21.7</td>
<td>8/1000 sq. ft. 2</td>
<td></td>
</tr>
</tbody>
</table>

1. All space measurements are in terms of square feet of gross floor area.
2. For assembly spaces having no fixed seating.

14.52.3 The parking allowances specified in Table 2 may be provided assigned by a lease agreement between the developer and the City, other public entity, or private consortium for use of parking spaces in a public or pooled private parking facility located within the District. The total number of parking spaces leased and constructed within the district for development on a lot shall not exceed the maximums allowances provided for in Table 2.

14.52.4 Off-street, on-grade parking lots, not enclosed in a structure, may be constructed in the MXD District only under the following conditions.

On an interim basis in anticipation of later construction of structured parking provided that there is compliance with each of the following:

(a) the future parking structure will be constructed within the District but it may be located either on or off the lot;
(b) construction of the future parking structure will commence within three years of the date of permit application for development on the lot;
(c) such future parking structure may be constructed and/or operated by the applicant or by an public or private entity;
(d) the future parking structure will contain sufficient spaces reserved for users of the lot to meet the parking requirements of the lot specified in Table 3; and
(e) binding commitments shall exist to guarantee, to the reasonable satisfaction of the Superintendent of Buildings, that requirements (a) through (d) above shall be satisfied. Such commitments shall be made by negotiated lease

23 Table revised to reflect reduced parking requirements recommended in the K2 Plan to take advantage of transit access at Kendall.
agreement, deed restriction, covenant, performance bond, or comparable legal instrument.

(2) On a permanent basis on the lot for visitors parking or for such other limited uses as the user of the lot deems appropriate, provided that no more than ten (10%) percent of the spaces required by Table 3 or twenty-five (25) spaces, whichever is lesser, shall be allowed on grade under Section 14.52.4(2). 24

14.52.5 Regulations governing the layout and design of parking facilities in Article 6.000 of this Ordinance shall not be applicable in the MXD District. This Article 14.000 sets no such regulations for the MXD District.

14.52.6 Bicycle parking shall be provided as prescribed in Article 6.100 of this Ordinance. 25

14.53 Loading Requirements. It is the intent of this Section that sufficient off street loading facilities be constructed within the District to meet the needs of users located there. The requirements of Article 6.000 shall not apply in the MXD District.

14.53.1 All buildings in the MXD District shall provide the number of bays required in Table 3 unless they qualify for one or one or more of the exemptions below:

(1) In buildings with uses in more than one use group under Section 14.21, the loading bay requirements for that use consuming the most gross floor area shall be first computed and required. Only fifty (50%) percent of the floor area of the other uses shall be counted in determining the additional loading requirements.

(2) Where there are contractual arrangements for sharing loading and service facilities with other users in the District for a period of ten (10) years of more, a fifty (50%) percent reduction in the loading bay requirements computed in Subsection 14.53.1 or 14.53.1(1) shall be allowed. Such contractual agreement shall be guaranteed to the satisfaction of the Superintendent of Buildings by covenant, deed restriction, or comparable legal instrument.

24 Eliminates provision for permanent off street surface parking lots.

25 Insures the application of bicycle parking requirements.
Table 2 MXD Off-Street Loading Requirements
(Number of bays required by gross floor area or use)

GROSS FLOOR AREA BY USE

<table>
<thead>
<tr>
<th>(1) Use</th>
<th>Up to 25,000 sq. ft.</th>
<th>25,001 - 40,000 sq. ft.</th>
<th>40,001 - 100,000 sq. ft.</th>
<th>100,001 - 200,000 sq. ft.</th>
<th>Over 200,000 sq. ft. for each additional 150,000 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Industrial Uses allowed by Section 14.21.1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Office Uses and Biotechnology Manufacturing Uses allowed by Section 14.21.2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Retail and consumer service establishments allowed by Section 14.21.3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Residential uses allowed by Section 14.21.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multifamily residences</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Hotels and motels</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Public assembly uses allowed by Sections 14.21.3(2), 14.21.3(3) and 14.21.5 (restaurants, entertainment and recreational facilities)</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other uses allowed by Section 14.21.6 and 14.21.7</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

14.53.2 Regulations governing the location, layout and design of loading facilities, specified in Section 6.90 of this Ordinance shall not be applicable in the MXD District. This Article 14.00 establishes no such regulations for the MXD District.

14.60 SIGNS
During the life of the Kendall Square Urban Renewal Plan as amended, the sign regulations of Section 7.10 shall not be applicable in the MXD District.

14.70 SPECIAL PROVISIONS

14.71 Special Provisions Applicable within the Ames Street District

14.71.1 Applicability. The provisions set forth in this Section 14.71 shall apply solely within the Ames Street District. Where this Section 14.71 specifies some standards or makes some other requirement contrary to the standards or requirements set forth elsewhere in this Article 14.00 or in the Ordinance, the provisions of this Section 14.71 shall control.

14.71.2 Lot Density Limitation. Notwithstanding the Lot Density Limitations in Section 14.33, there shall be no maximum floor area ratio for Multifamily dwelling uses. However, the District Development Limitations in Section 14.32 shall continue to apply.
14.71.3 *Lot Minimum Open Space Requirement.* So long as the District Public Open space Requirement in Section 14.42 is met, and there exists within the Ames Street District a minimum of fifty-three thousand (53,000) square feet of public open space (as defined in Section 14.42), the Lot Minimum Open Space Requirements in Section 14.43 shall be inapplicable within the Ames Street District.

14.71.4 *Parking.* The minimum number of spaces for multifamily residential uses shall be 0.50 per dwelling unit.

14.71.5 *Loading Requirements.* Where there are contractual arrangements for sharing loading and service facilities with other users in the Ames Street District for a period of ten (10) years or more, a sixty percent (60%) reduction in the loading bay requirements computed in Subsection 14.53.1 or 14.53.1(1) shall be allowed. Such contractual agreement shall be guaranteed to the satisfaction of the Superintendent of Buildings by covenant, deed restriction, easement or comparable legal instrument.

14.72 Special Provisions Applicable Outside the Ames Street District

14.72.1 *Applicability.* The provisions set forth in this Section 14.71 shall apply solely within the portion of the MXD District consisting of lots fronting on Main Street that are not within the Ames Street District as such District is constituted as of October 1, 2014. Where this Section 14.72 specifies some standards or makes some other requirement contrary to the standards or requirements set forth elsewhere in this Article 14.00 or in the Ordinance, the provisions of this Section 14.72 shall control.

14.72.2 *Purpose and Intent.* In furtherance of the intent provided in Section 14.12, and in response to the Kendall Square planning process, the purpose and intent of this Section 14.72 is to provide an incentive for improvements that will remedy a gap in the urban street edge, propose retail and other ground floor activity to increase public engagement, reduce parking utilization levels and enhance sustainability, and upgrade design to current standards, in keeping with Kendall Square’s identity as a world-renowned research center and a vibrant neighborhood.

14.72.3 *Special Permit.* Where improvements are proposed to be constructed on any lot within the portion of the MXD District fronting on Main Street that is not within the Ames Street District as such District is constituted as of October 1, 2014, and release of an open space covenant by the City will be necessary to accommodate such improvements, the Planning Board may grant a special permit allowing improvements containing incremental square footage of not more than 60,000 square feet of GFA within the limits of Section 14.32 in excess of the square footage of improvements located on such lot as of October 1, 2014. In granting such special permit, the Planning Board shall find the following:

1. The lot upon which such improvements are proposed contained, as of October 1, 2014, no portion of a building located so as to create a street edge along any part of the Main Street frontage of such lot; and the proposed improvements will remedy that condition by including the establishment of a street edge in keeping with the urban nature of the area, on at least a portion of the Main Street building façade.
(2) The ground level of the proposed improvements fronting on Main Street will be
designed to enhance public access and interaction.

14.72.4 Retail and Consumer Service Uses. If retail or consumer services uses are a part
of any improvements authorized by special permit under this Section 14.72, the Gross
Floor Area of any first floor or areas situated no more than one (1) floor below grade of
such improvements devoted to such retail or consumer service uses shall be excluded
from calculations of Gross Floor Area and FAR for all purposes of this Article 14.00
and the Ordinance, provided that the portion of any individual retail or consumer
service use exceeding 5,000 square feet (or 10,000 square feet for a grocery, market
or pharmacy retail use) shall be counted as Gross Floor Area for the purposes of
calculating allowable FAR.

14.72.5 Parking and Loading. The improvements authorized by special permit under this
Section 14.72 shall not require vehicle parking or loading facilities by reason of the
incremental development authorized, and no additional parking spaces shall be
provided by reason of improvements located on such lot beyond the number of parking
spaces provided as of October 1, 2014.

14.72.6 Bicycle Parking. Additional bicycle parking shall be provided as required in Section
6.100 to the extent of the incremental development authorized by special permit under
this Section 14.72, provided that any such spaces may be located anywhere on the lot
or in such other location as the Planning Board may in its discretion approve.

14.72.7 Open Space. The Lot Open Space Requirements in Section 14.43 shall be
inapplicable on any lot on which improvements are authorized by special permit under
this Section 14.72, and the Planning Board may in its discretion waive any other open
space requirement applicable to such lot under this Ordinance. Any ground floor
publicly accessible feature, if so determined by the Planning Board, shall be excluded
from calculations of Gross Floor Area and FAR for the purposes of this Article 14.00
and the Ordinance. The Planning Board may grant a special permit for improvements
to be located within the area of the open space covenant that would need to be
released by the City notwithstanding that such open space covenant may not have
been released prior to issuance of such special permit.

14.72.8 Sustainable Design and Development. The incremental development authorized by
special permit under this Section 14.72 shall comply with the green building
requirements of Section 22.20, provided that the Planning Board may in its discretion
vary or waive any such requirements.

14.72.9 Project Review. Incremental development authorized by special permit under this
Section 14.72 shall be subject to project review by the Planning Board under the
provisions of Section 19.20.

14.72.10 Incentive for Housing Development. The incremental development authorized by
special permit under this Section 14.72 shall be considered an Incentive Project
pursuant to Section 11.200.

14.72.11 Contribution to Community Fund. Upon issuance of a Final Certificate of Occupancy
for the incremental development authorized by special permit under this Section 14.72,
the permittee shall contribute to a Community Fund, established by the City Manager,
an amount equal to $10.00 multiplied by the number of square feet of new gross floor area for office and biotechnology manufacturing uses identified in Section 14.21.2 contained in such incremental development.

14.72.12 Public Benefits. The public benefits to be provided by a development for which a special permit may be granted under this Section 14.72, including those provided in Sections 14.72.10 and 14.72.11, shall be deemed to satisfy any future requirements for public benefits that may be adopted with respect to the MXD District or any portion thereof that may include any lot eligible for such special permit, including without limitation any other funding requirement or exaction, any requirements to provide innovation or other space or services, or any limitations relating to the progress or sequence of development of residential or other space, none of which shall apply thereto.

14.72.13 Letter of Commitment. The Letter dated March 26, 2015, by Richard McKinnon on behalf of the Whitehead Institute and received by the City Council as Communication #5 of March 30, 2015, and attached “Design Narrative/Zoning Guidelines” Memorandum prepared by Andy Pecora of Tsoi / Kobus & Associates, shall be binding upon the Whitehead Institute and its successors and assigns. The issuance of any building permit or certificate of occupancy authorized by a special permit issued pursuant to this Section 14.72 shall be conditioned upon certification by the Community Development Department and all other relevant City departments to the Inspectional Services Department that all portions of the aforementioned Letter are continuing to be met.

14.73 INTER-AGENCY DESIGN REVIEW

Review and approval of the Infill Development Master Plan, as described in section 14.32.2 and subsequent building design review shall be conducted jointly by the Planning Board and [the] CRA, as described in Section 506 of the Kendall Square Urban Renewal Plan, “Inter-Agency Design Review.” The Inter-Agency Working Group, as therein described, shall hold at least one public design review session to review subsequent building proposals.

14.73.1 Schematic Design. Each new development proposal shall be consistent with the Infill Development Plan and will require joint Design Review approval of the CRA and Planning Boards. A Schematic Design submission shall include:

a) A site plan illustrating the new building proposal in context with existing and proposed new development within the MXD District.

26 New section added to insure consistency with KSURP redevelopment plan requirements for a Concept Plan outlining the build out of the MXD District. The details of this provision previously lived within the Land Disposition Agreements and the areas north and south of Broadway were initially planned and designed separately rather than as an entire District.
b) A proposed development program illustrating the size and location of uses within the building.

c) Building plans, sections, elevations, and rendering sufficient to describe the urban design setting and architectural character of the proposed building(s). A materials board shall be provided along with annotated building elevations.

d) A digital or physical model of the building within the context of neighboring buildings.

e) A project specific open space plan depicting the conceptual design of open space provided on site by the project and any Public Open Space contributions to the area to be executed by the Project. Additionally streetscape designs for building frontages.

f) A sustainability narrative describing how the development proposal will meet the requirements set forth in Section 14.74 below.

14.74 **Sustainability.** New buildings constructed within the MXD District shall comply with the provisions of Section 22.20 of the Zoning Ordinance. For those construction projects subject to Section 22.23, LEED certification at the Gold level or better is required. In connection with the submission requirements of Section 22.24.2.a., the Developer of such buildings shall submit a Statement of Energy Design Intent produced through the EnergyStar Target Finder tool, or comparable method. New buildings in the MXD District must incorporate an integrated design approach and incorporate best practices for meeting sustainability in the following five (5) areas:

a) Energy and Emissions. Each new building must conserve building energy and, to the extent applicable, reduce greenhouse gas emissions. The project proponent must evaluate the potential for on-site energy generation or the construction or expansion of co-generation or district energy facilities within the MXD District. All new construction shall be developed to be Solar-Ready, allowing for the immediate installation of solar voltaic units or provisions of building systems to allow future solar installation.

b) Water Management. The Developer, for each new building, must explore opportunities for:

(i) potable water use reductions,

(ii) storm water management using open spaces,

(iii) the incorporation of indigenous vegetation and,

(iv) storm water for irrigation purposes.

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27 New sustainability section added consistent with K2 recommendations and MIT PUD with additional solar-ready provisions reflecting recommendation emerging from the Net Zero Task Force.
c) Cool Roofs. All new buildings approved in the MXD District must employ Functional Green Roofs (as such term is defined in Article 22.000 of this Zoning Ordinance), high-albedo “white” roofs or a functionally equivalent roofing system.

d) Monitoring. All new buildings approved in the MXD District shall be required to conform to the requirements of the Cambridge Building Energy Use Disclosure Ordinance, Chapter 8.67 of the Municipal Code.

e) Rooftop Mechanical Equipment Noise Mitigation. Sound emanating from rooftop mechanical equipment on all new or substantially altered structures shall be minimized by the adoption of best available and feasible practices regarding the location and sizing of equipment, the selection of equipment and sound attenuation measures.

14.80 INAPPLICABILITY OF CERTAIN OTHER REGULATIONS

Where this Article 14.000 specifies some standard or makes some other requirement contrary to a requirements elsewhere in this Ordinance, the provisions of this Article 14.000 shall control.