

CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

NOTICE OF DECISION

Case Number:	368
Location of Premises:	Volpe Exchange Parcel – 55 Broadway (33 Broadway, 2 Potter Street, 20 Potter Street, 156 Linskey Way, 220 Binney Street, 60 Sixth Street, 182 Binney Street)
Zoning:	Business A (BA); Residence C-2B (C-2B); Office 2 (O-2); PUD-KS; PUD-7
Applicant:	Massachusetts Institute of Technology (MIT) c/o MITIMCo, One Broadway, Suite 09-200, Cambridge, MA 02142
Owners:	United States of America 10 Causeway Street, Boston, MA 02030
Application Date:	February 10, 2021
Preliminary Hearing/Determination:	April 6, 2021
Second Public Hearing:	July 20, 2021
Date of Planning Board Decision:	July 20, 2021
Date of Filing Decision:	September 28, 2021
Summary of Proposal:	Planned Unit Development (PUD) Special Permit (Section 12.36.4) and Project Review Special Permit (Section 19.20) to redevelop the Volpe Exchange Parcel into a mixed-use center including residential, retail, office and laboratory buildings, as well a Community Center pursuant to PUD-7 district requirements.
Decision:	GRANTED, with conditions.

Appeals, if any, shall be made pursuant to Section 17 of Massachusetts General Laws, Chapter 40A, and shall be filed within twenty (20) days after filing of the above referenced decision with the City Clerk. Copies of the complete decision and final plans, if applicable, are on file with the Community Development Department and the City Clerk.

Authorized Representative of the Planning Board: Swaathi Joseph

For further information concerning this Decision, please contact Swaathi Joseph at 617-349-4668, or sjoseph@cambridgema.gov.

DOCUMENTS SUBMITTED

Application Documents and Supporting Material

1. Special Permit Application dated 2/3/2021 containing the following volumes:
 - Volume I containing supporting written materials for issuance of the requested special permit including special permit forms, a general site history and project description, a summary of requested special permits, community engagement summary, and detailed responses to applicable special permit approval criteria.
 - Volume II containing PUD-7 Development Proposal for the project including plans, studies and reports required by PUD-7 zoning.
 - Volume III containing appendices including Wind Study, Flood Elevation report, Green Building Report, Acoustical Study, Retail Report, and Tree Study.
 - Volume IV containing the Certified Transportation Impact Study.
2. Memo to the Planning Board from Michael Owu, dated 3/16/2021, summarizing updated supplemental materials clarification, with supporting graphic materials.
3. Memo to the Planning Board from Michael Owu, dated 3/26/2021, summarizing updated supplemental materials clarification, with supporting graphic materials.
4. Slides from Presentation to Planning Board on 4/6/2021.
5. Special Permit Application dated 6/4/2021 containing the following volumes: Volume 1 Narrative; Volume 2 Development Plan; Volume 3 & 4 Appendices; and Design Guidelines.
6. Slides from Presentation to Planning Board on 7/20/2021.

City of Cambridge Documents

7. Memo to the Planning Board from Katherine F. Watkins, City Engineer, dated 3/30/2021.
8. Memo to the Planning Board from Community Development Department Staff, dated 3/31/2021.
9. Memo to the Planning Board from Joseph E. Barr, Director of Traffic, Parking and Transportation, dated 4/1/2021.
10. Memo to the Planning Board from Community Development Department (CDD) staff, dated 7/15/2021.
11. Memorandum to the Planning Board from Joseph E. Barr, Director, Traffic, Parking & Transportation Department (TP+T), dated 7/15/2021.

Other Documents

12. Email communication to the Planning Board from Jack Dennis, dated 2/8/2021.
13. Email communication to the Planning Board from Al Oppenheim, dated 2/12/2021.
14. Email communication to the Planning Board from Bjorn Poonen, dated 2/12/2021.
15. Letter to the Planning Board from Larry and Jane Stabile, dated 2/21/2021.
16. Email communication to the Planning Board from Bjorn Poonen, dated 3/6/2021.
17. Letter to the Planning Board from Kendall Square Residents, dated 3/18/2021.

18. Email communication to the Planning Board from Karen A Biemann, dated 3/24/2021.
19. Email communication to the Planning Board from Dorothy Gonson, dated 3/25/2021.
20. Email communication to the Planning Board from Chantal Eide, dated 3/25/2021.
21. Email communication to the Planning Board from Katherine Olivier, dated 3/26/2021.
22. Email communication to the Planning Board from Shelagh Hadley, dated 3/30/2021.
23. Email communication to the Planning Board from Janet Plotkin, dated 3/30/2021.
24. Memo to the Planning Board from Cambridge Pedestrian Committee, dated 3/31/2021.
25. Email communication to the Planning Board from Lindsay Greimann, dated 4/3/2021.
26. Email communication to the Planning Board from Gerald OLeary, dated 4/3/2021.
27. Email communication to the Planning Board from Alan Oppenheim, dated 4/3/2021.
28. Email communication to the Planning Board from Heather Hoffman, dated 4/4/2021.
29. Letter to the Planning Board from Charles Hinds, ECPT, dated 4/4/2021.
30. Email communication to the Planning Board from Gerald OLeary, dated 4/5/2021.
31. Letter to the Planning Board from Candace Young, dated 4/5/2021.
32. Email communication to the Planning Board from Bjorn Poonen, dated 4/5/2021.
33. Email communication to the Planning Board from Alan Oppenheim, dated 4/5/2021.
34. Letter to the Planning Board from Cathie Zusy, dated 4/5/2021.
35. Email communication to the Planning Board from Peter Crawley, dated 4/6/2021.
36. Letter to the Planning Board from Susan Lapierre and Michael Delia, dated 4/6/2021.
37. Memo to the Planning Board from Cambridge Bicycle Committee, dated 7/16/2021.
38. Memo to the Planning Board from Cambridge Redevelopment Authority, dated 7/19/2021.
39. Letter to the Planning Board from John Pitkin, dated 7/19/2021.
40. Email communication to the Planning Board from Ovadia R Simha, dated 7/20/2021.
41. Memo to the Planning Board from East Cambridge Planning Team, dated 7/20/2021.
42. Email communication to the Planning Board from Catherine Zusy, dated 7/20/2021.
43. Letter to the Planning Board from Steve LaMaster, undated.
44. Notice of Extension of Time to July 30, 2021, dated 5/21/2021.
45. Notice of Extension of Time to October 1, 2021, dated 7/21/2021.

APPLICATION SUMMARY

The “Volpe Exchange Parcel” PUD application proposes redevelopment of the site presently occupied by the facilities of the U.S. Department of Transportation’s Volpe National Transportation Systems Center. The Volpe Center facilities will be consolidated into an approximately four-acre portion of the present site; the remaining approximately ten acres of the present site comprise the Volpe Exchange Parcel, two non-contiguous parcels of land (referred to as the “Northern Parcel” and “Southern Parcel”) which collectively comprise a single Development Parcel.

The Final Development Plan consists of eight (8) Building Sites. Four Building Sites are predominantly commercial buildings, programmed primarily for office or laboratory use, and four Building sites are predominantly multifamily residential buildings. The ground floors of each building immediately fronting on Third Street or Broadway will include Active Space, containing retail and other uses that provide programming and services to the general public. Additional ground-floor retail and other Active Uses (defined below) are located within the ground floors of buildings fronting on Potter Street, Binney Street and Broad Canal Way including a Community Space and an Entertainment Venue. Primary building entrances will be located on Broadway, Potter Street and Binney Street.

As shown on the Final Development Plan, the Project will include Publicly Beneficial Open Space, including at least two acres of Permanently Guaranteed Open Space as required by Section 13.94(d) of the Zoning Ordinance, which are arranged into four different Park Sites with varying sizes and functions.

The Final Development Plan also includes the development of private streets (or portions of private streets) within the proposed Development Parcel, including: (i) new segments of Fifth Street, between Broadway and Potter Street, and between Munroe Street and Binney Street; (ii) a new segment of Potter Street from its existing terminus at Fifth Street to a location near the newly proposed Sixth Street Park; (iii) Kendall Way, which will run north-south connecting Broadway to the proposed new extension of Potter Street; and (iv) an extension of the existing Broad Canal Way through a portion of the Southern Parcel from Third Street to Kendall Way. Munroe Street, which is immediately adjacent to the Northern Parcel, is anticipated to remain a public way.

Parking for all new development is proposed to be provided in a combination of below-grade garages – one located beneath each of the Northern Parcel and the Southern Parcel. In addition, there will be approximately twenty-seven (27) on-street parking spaces located along Fifth Street and Broad Canal Way. Loading facilities will be provided at grade level, in the locations depicted in the Final Development Plan.

FINDINGS

After review of the Application Documents and other documents submitted to the Planning Board, testimony given at the public hearing, and review and consideration of the applicable requirements and criteria set forth in the City of Cambridge Zoning Ordinance (“Zoning Ordinance” or “Ordinance”) with regard to the special permits being sought, the Planning Board makes the following Findings:

1. Planned Unit Development (PUD) Final Development Plan Approval (12.36)

The Applicant submitted a Development Proposal on February 10, 2021 in accordance with the requirements of Article 12.000. The Planning Board approved the Development Proposal following a public hearing on April 6, 2021, and issued a Preliminary Determination approving the Development Proposal with requests for additional material to be included in the Final Development Plan. The Preliminary Determination was filed with the City Clerk on April 21, 2021. The Applicant responded to the requests for additional material and submitted a Final Development Plan on June 3, 2021.

Pursuant to Section 12.36.4, the Board reaffirms the findings made in its Preliminary Determination and finds that the Final Development Plan remains in conformance with the evaluation criteria set forth in Section 12.35.3, as set forth below.

(1) The Development Proposal conforms with the General Development Controls set forth in Section 12.50, and the development controls set forth in the specific PUD district in which the project is located.

The Board finds that the Final Development Plan is in conformance with the General Development Controls set forth in Section 12.50 and the development controls of the PUD-7 zoning district contained in Section 13.90 of the Zoning Ordinance. The Final Development Plan demonstrates compliance with the specific requirements set forth in the PUD-7 zoning adopted in 2017.

(2) The Development Proposal conforms with adopted policy plans or development guidelines for the portion of the city in which the PUD district is located.

The zoning for the PUD-7 district was developed to be consistent with established plans and guidelines for Kendall Square and East Cambridge, including the Kendall Square (“K2”) Planning Study and Design Guidelines (2013); the Planning and Design Principles established by the City’s Volpe Working Group (2017) and Volpe Site Design Guidelines (2017), collectively, the “PUD-7 Guidelines and Principles”. The Board has reviewed the PUD-7 Guidelines and Principles along with comments provided by

Community Development Department (CDD) staff and finds the Final Development Plan to be consistent with such guidelines and principles.

(3) The Development Proposal provides benefits to the city that outweigh its adverse effects.

The Board finds that, on the whole, the proposed PUD will benefit the City by enabling the redevelopment of the parcel into a mixed-use innovation district with residential and commercial uses, community space, an entertainment venue, innovation space, and a network of streets and open spaces that improve connectivity to the existing street network and surrounding neighborhoods. The proposed PUD will provide additional benefits as outlined in the Letter of Commitment that is incorporated by reference into the PUD-7 zoning.

In making this determination the Planning Board shall consider the following:

(a) The quality of the site design, including integration of a variety of land uses, building types, and densities; preservation of natural features; compatibility with adjacent land uses; provision and type of open space; provision of other amenities designed to benefit the general public

The Final Development Plan thoughtfully arranges buildings and land uses around a planned network of streets and open spaces that makes logical connections to the existing urban fabric. Buildings are designed to provide ample active ground-floor uses throughout the development to encourage pedestrian activity and street level activity. Permanently guaranteed open space is provided in the form of four “Park Sites” which are distributed throughout the site and contain varied design approaches and planned programming. Slight adjustments to the arrangement of buildings and open spaces presented in the Development Proposal have resulted in an improved Final Development Plan.

(b) Traffic flow and safety

The Final Development Plan includes a new network of private streets, sidewalks and bicycle lanes which help to facilitate safe, orderly access and mobility throughout the Development Parcel. Off-street vehicle parking for the development is provided entirely in two underground garages. Off-street loading is internalized at-grade and service entries are prioritized for secondary streets within the Development Parcel. The Final Development Plan includes a Transportation Impact Study (TIS) which has been certified complete and reliable by TP+T staff and includes a program of transportation improvements and other

measures (attached hereto as Appendix C) which help to mitigate impacts created by the project.

(c) Adequacy of utilities and other public works

The Application Documents, testimony at the public hearing, and memorandum from the City Engineer indicate that there is adequate utility and public works capacity to satisfy the demand from the Final Development Plan. With the appropriate mitigation as identified in the Department of Public Works Memorandum dated 3/30/21, City requirements related to infrastructure are understood and will be met in the new development.

(d) Impact on existing public facilities within the city

The Final Development Plan is not expected to result in any negative impact on existing public facilities.

(e) Potential fiscal impacts

The Final Development Plan is generally expected to result in positive fiscal impacts for the City, including increased tax revenue and contributions to public improvements and mitigation as required in the PUD-7 zoning and Letter of Commitment.

Pursuant to Section 12.36.4, the Board finds that the Final Development Plan contains those revisions required by the Planning Board in its Preliminary Determination (appended hereto) as well as responses to requests for additional information as discussed below. These materials were summarized in a Comment Response Matrix provided as part of the Final Development Plan submission and provided direct responses to each of the requests in the attached Preliminary Determination as well as references to additional information provided within the Final Development Plan submission itself.

2. Project Review Special Permit (19.20)

The Board finds that the Final Development Plan conforms to the criteria for approval of a Project Review Special Permit contained in Section 19.20, as set forth below.

(19.25.1) Traffic Impact Findings. Where a Traffic Study is required as set forth in Section 19.24 (2) the Planning Board shall grant the special permit only if it finds that the project will have no substantial adverse impact on city traffic within the study area as analyzed in

the Traffic Study. Substantial adverse impact on city traffic shall be measured by reference to the traffic impact indicators set forth in Section 19.25.11 below.

(19.25.11) Traffic Impact Indicators. In determining whether a proposal has substantial adverse impacts on city traffic the Planning Board shall apply the following indicators. When one or more of the indicators is exceeded, it will be indicative of potentially substantial adverse impact on city traffic. In making its findings, however, the Planning Board shall consider the mitigation efforts proposed, their anticipated effectiveness, and other supplemental information that identifies circumstances or actions that will result in a reduction in adverse traffic impacts. Such efforts and actions may include, but are not limited to, transportation demand management plans; roadway, bicycle and pedestrian facilities improvements; measures to reduce traffic on residential streets; and measures undertaken to improve safety for pedestrians and vehicles, particularly at intersections identified in the Traffic Study as having a history of high crash rates.

The indicators are: (1) Project vehicle trip generation weekdays and weekends for a twenty-four hour period and A. M. and P.M. peak vehicle trips generated; (2) Change in level of service at identified signalized intersections; (3) Increased volume of trips on residential streets; (4) Increase of length of vehicle queues at identified signalized intersections; and (5) Lack of sufficient pedestrian and bicycle facilities. The precise numerical values that will be deemed to indicate potentially substantial adverse impact for each of these indicators shall be adopted from time to time by the Planning Board in consultation with the TPTD, published and made available to all applicants.

The Applicant completed a thorough and comprehensive Transportation Impact Study (TIS), with a functional scope determined by TP+T, which was certified as complete and reliable by TP+T on November 4, 2020. The Board received memoranda from TP+T dated March 29, 2021 and July 15, 2021 commenting on the findings of the TIS, other project considerations related to traffic and transportation, and recommended planning, design and mitigation strategies. The Board discussed such material with TP+T staff at its public hearings and makes reference to such material in making these Findings.

In addition to a comprehensive analysis of the traffic impact criteria required by Section 19.20, the TIS includes an analysis of demand for parking and bicycle parking as well as an analysis of transit demand and service in the area. The findings of these analyses have helped shape some characteristics of the Final Development Plan, such as further reducing the number of proposed off-street parking spaces, relocating planned service entries/exits, and determining the final proposed layout of new private street segments within the PUD. Due to the size of the PUD, the TIS indicated that the project will exceed project review thresholds in several areas, but these exceedances can be appropriately mitigated by completing a series of transportation improvement measures as detailed in Appendix C *Transportation*

Mitigation Program, which has been incorporated into this Decision and attached hereto. Further detailed design review will occur during the Design Review process described in the Conditions of this Special Permit Decision prior to the issuance of a Building Permit for each building. There will be continuing staff review of street and sidewalk cross-sections, pavement marking and signage plans, and construction management plans.

Based on the information provided, the Board finds that the extensive set of transportation mitigation and monitoring measures appropriately counterbalance the anticipated transportation impacts as presented in the TIS, and therefore finds that there will be no substantial adverse impact on city traffic within the study area.

(19.25.2) Urban Design Findings. The Planning Board shall grant the special permit only if it finds that the project is consistent with the urban design objectives of the city as set forth in Section 19.30. In making that determination the Board may be guided by or make reference to urban design guidelines or planning reports that may have been developed for specific areas of the city and shall apply the standards herein contained in a reasonable manner to nonprofit religious and educational organizations in light of the special circumstances applicable to nonprofit religious and educational activities.

The Board finds that the proposed project is consistent with the Urban Design Objectives set forth in Section 19.30, which also make reference to plans and guidelines established by the City for particular areas. The Board acknowledges that the Final Development Plan presents development in conceptual form, and therefore makes the below findings based on the overall master plan presented for the development. Detailed designs of individual buildings and development sites within the PUD will be reviewed further by the Board in accordance with the Conditions of this Decision.

(19.31) New projects should be responsive to the existing or anticipated pattern of development.

As described in the PUD findings set forth above, the Final Development Plan follows from the extensive discussion undertaken during the creation of the PUD-7 zoning regulations that have shaped this PUD proposal. The Final Development Plan creates a network of new streets and open spaces and connects them to the surrounding districts of Cambridge, along with buildings that help to frame and enliven those spaces. The inclusion of a mix of commercial and residential development, active ground floor uses, well-scaled street facades and interplay of variety and simplicity in the buildings' proposed massings will contribute to the quality and enjoyability of the streets and other open spaces adjoining the site.

The proposed building heights are varied, ranging from 170' up to 450', which will provide diversity in scale and help to combat the impression that the district is a singular entity. The block diagrams included in the Final Development Plan illustrate heightened ground floor articulation; using breaks in plane or material to reduce façade lengths and create visual interest.

(19.32) Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.

The Final Development Plan prioritizes pedestrian and bicycle travel by placing all off-street vehicle parking underground, incorporating separated bicycle facilities on all new private street segments, and adding two extra-large Bluebikes stations at key planned activity areas throughout the PUD. Further, Broad Canal Way, the primary east-west connector through the site, will be designed to prioritize bicycle and pedestrian activity and limit vehicle traffic. The overall site pattern was designed to connect to key existing and planned bicycle facilities, particularly the Kittie Knox Bike Path and future separated bicycle facilities on Binney Street, Broadway and Third Street.

(19.33) The building and site design should mitigate adverse environmental impacts of a development upon its neighbors.

The Final Development Plan proposes a sensible arrangement of potentially disruptive functions so that they minimally impact surrounding lots or the public realm. Most loading and service facilities are located on-grade, enclosed, and accessible from side streets. Conditions at the perimeters of the site are designed to be friendly to abutters and passersby. While the buildings are large in scale, as the zoning allows, the proposed massing schemes and block diagrams in the Final Development Plan illustrate a diverse range of potential massing schema designed to provide separation between buildings providing light, air and views. The tallest buildings are located along existing high-density commercial corridors such as Broadway, or to the interior of the site so as to minimize shadow impacts on neighboring properties. Conversely, buildings step down in height near the perimeter of the site (see Building R4 and C4). Wind impacts have been assessed and mitigating measures are proposed to minimize impacts on the public realm, which will be reviewed in more detail for each site through the design review process. Existing mature pin oaks along Third Street will be preserved so as to protect existing canopy at the perimeter of the site. The project will result in an increase in trees and landscape features through extensive proposed street tree planting, new open spaces throughout the site, and additional landscaping on private street segments.

(19.34) Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.

In accordance with the Conditions of this Special Permit Decision and other applicable regulations, the Final Development Plan will result in improvements to public infrastructure including roads, water and sewer systems. Transportation and other impacts will be mitigated and monitored. The project will also be subject to enhanced standards for sustainable design as required by zoning and will continue to be reviewed and assessed for opportunities for improved sustainability through the course of development. Specific sustainability strategies will be considered as part of the future design review of individual buildings, including enhanced commissioning, opportunities for ground source and air source heat pumps, heating load sharing (either as a district or phased pairs of buildings), solar photovoltaics, solar hot water, bio-fuel emergency power fuel, battery storage, the potential for initial or future electrification of building energy systems, airtightness and additional methods to reduce or eliminate fossil fuel usage, and opportunities for participation in a future community renewable energy purchase.

(19.35) New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.

The Final Development Plan includes a new network of private street segments and buildings that helps to improve the overall connectivity and pattern of development within the Kendall Square neighborhood, correcting prior patterns of development that created an impenetrable “superblock” at this critical location. The Final Development Plan will result in a development that will be more welcoming to residents, employees and visitors to Kendall Square. The project includes significant ground floor active uses and a variety of open spaces throughout the development that will be accessible to the public and incorporate a diverse range of programming to suit the needs and desires of the community and surrounding neighborhoods.

(19.36) Expansion of the inventory of housing in the city is encouraged.

The Final Development Plan includes the addition of at least 1.128 million square feet of residential uses, which creates approximately 1,400 dwelling units. At least 20% of the provided dwelling unit square footage will be devoted to permanently affordable housing in accordance with applicable requirements.

(19.37) Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.

The Final Development Plan includes approximately 3.5 acres of open space, of which 2 acres will be Permanently Guaranteed Open Space. Planned open space will provide a

variety of programming options, including open lawns, fields, courts, paths and trails, as well as opportunities for temporary and pop-up activities such as markets and festivals. Public realm improvements, including generous sidewalks and spill out zones, provide opportunities for outdoor dining, seating and public interaction.

3. General Criteria for Issuance of a Special Permit (10.43)

The Planning Board finds that the project meets the General Criteria for Issuance of a Special Permit, as set forth below.

10.43 Criteria. Special permits will normally be granted where specific provisions of this Ordinance are met, except when particulars of the location or use, not generally true of the district or of the uses permitted in it, would cause granting of such permit to be to the detriment of the public interest because:

(a) It appears that requirements of this Ordinance cannot or will not be met, or ...

Upon granting of the requested special permits, it appears that the requirements of the Ordinance will be met.

(b) traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character, or ...

Transportation impacts have been carefully assessed as described above in these Findings. No changes to patterns of access or egress are anticipated that would cause substantial adverse impact.

(c) the continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would be adversely affected by the nature of the proposed use, or ...

The proposed development is consistent with the zoning requirements for the area and will not adversely impact the operation or development of adjacent uses.

(d) nuisance or hazard would be created to the detriment of the health, safety and/or welfare of the occupant of the proposed use or the citizens of the City, or ...

The proposed development will not cause nuisance or hazard and will be conducted in accordance with all applicable health and safety requirements.

(e) for other reasons, the proposed use would impair the integrity of the district or adjoining district, or otherwise derogate from the intent and purpose of this Ordinance, and ...

The proposed uses are fully consistent with the anticipated character of the district as established through the City's planning and zoning.

(f) the new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30.

The proposed development is consistent with the Citywide Urban Design Objectives, as set forth further above in these Findings.

DECISION

Based on a review of the Application Documents, testimony given, and comments made at the public hearings, and the above Findings, the Planning Board hereby GRANTS the requested Planned Unit Development and Project Review special permits for the Final Development Plan, subject to the following conditions and limitations. Hereinafter, for purposes of this Decision, the Permittee shall mean the Applicant for the requested Special Permits and any successor or successors in interest.

Conditions fall into the following sections:

1. General Conditions
2. Approved Development Program
3. Open Space
4. Design Review
5. Timing and Phasing
6. Transportation and Infrastructure Improvements
7. Conveyance
8. Housing
9. Active Space
10. Innovation Space
11. Noise and Vibration
12. Construction Management
13. Sustainable Environmental Strategies
14. Contributions to Community Fund
15. Letter of Commitment
16. Other Requirements
17. Subdivision of the PB-368 Development Parcel
18. Procedures for Granting Minor and Major Amendments

Appended to the conditions of the special permit are sections of the Final Development Plan and other materials that are referenced for the sake of ongoing review, such as the following:

- A. Development Summary
- B. PUD-7 Guidelines and Principles
- C. Transportation Mitigation Program
- D. Open Space Diagram
- E. Phasing Plan
- F. Letter of Commitment dated October 23, 2017
- G. Graffito SP Retail Report dated November 16, 2020

1. General Conditions

All development authorized by this Special Permit shall conform to the applicable requirements of the Cambridge Zoning Ordinance (“CZO”) and all other City of Cambridge Ordinances, in addition to the Conditions of this Special Permit Decision (the “Decision”).

- a. All development authorized by this Special Permit shall be in substantial conformance with the Final Development Plan materials dated June 4, 2021 and all supplemental plan materials submitted to the Planning Board prior to issuance of this Special Permit, except as otherwise set forth in this Decision. The supplemental materials listed above, together with the application materials, comprise the “Application Documents”.
- b. The Community Development Department (“CDD”) shall certify to the Superintendent of Buildings that all Conditions of this Decision are met prior to the issuance of a Building Permit or Certificate of Occupancy for any development authorized by this Special Permit.

2. Approved Development Program

The following characteristics of the Planned Unit Development (PUD) are specifically permitted and are summarized in Appendix A, Development Summary:

- a. Development Parcel. The Development Parcel approved by this Decision (referred to as the “PB-368 Development Parcel”) is depicted in Appendix A. Future subdivisions of the PB-368 Development Parcel are permitted in accordance with Condition #17 of this Decision.
 - i. The size of the PB-368 Development Parcel may be increased by the Permittee by adding either one or both of (I) the abutting GSA Triangle Parcel, which is depicted on the Final Development Plan and contains approximately 1,618 square feet, and (II) the CRA parcel abutting the northeast corner of the PB-368 Development Parcel, measuring approximately 5,890 square feet. Any other changes to the Final Development Plan resulting from such an increase may be approved by the Planning Board as Minor Amendments or Major Amendments pursuant to Condition #18 of this Decision.
- b. Aggregate Development Program.
 - i. Total Development. The maximum Gross Floor Area (GFA) permitted for the PB-368 Development Parcel shall not exceed 2,820,000 square feet, not including approximately 189,913 square feet of development in the approved Final Development Plan that is exempt from GFA calculations by Section 13.93.1 of the CZO, as more specifically set forth in Appendix A attached to this Special Permit and incorporated herein. If the size of the PB-368 Development Parcel is increased as described in Condition #2-a-i. of this Decision, the maximum GFA shall be increased to 2,850,000 square feet in accordance with Section 13.93.1 of the CZO, provided that a revised Development Summary (Appendix A) is submitted to the Planning Board for approval as a Minor Amendment pursuant to Condition #18 of this Decision.

- ii. Office or Laboratory Uses. This Decision authorizes the construction of up to 1,589,587 square feet of GFA for office or laboratory uses (Section 4.34 of the CZO).
- iii. Innovation Space. This Decision authorizes the development of up to 167,326 square feet of Innovation Space to satisfy the requirement of Section 13.96.3 of the CZO. A portion of the Innovation Space provided shall be excluded from GFA calculations in accordance with Section 13.93.1(b)(3) of the CZO.
- iv. Residential Uses. This Decision authorizes the construction of at least 40% of the total approved GFA for multifamily residential uses (Section 4.31-g of the CZO), consisting of approximately 1,400 dwelling units and at least 1,128,000 square feet of GFA. Such residential uses shall fulfill the housing requirements set forth in Section 13.93.1(c) of the CZO.
- v. Active Space, as defined in Section 13.96.1.b of the CZO, is authorized as shown in the Final Development Plan and as further defined in this Decision. A portion of Active Space shall be exempted from GFA requirements in accordance with Sections 13.93.1(b)(2) and 13.96.1(a)(3) of the CZO. The Planning Board also hereby excludes the GFA of the Entertainment Venue, as depicted in the Final Development Plan, from GFA requirements in accordance with Section 13.96.1(a)(3) of the CZO.
- vi. Community Center, as defined in Section 13.96.5 of the CZO, shall be constructed as part of Building Site R1 as described in the Site Development Plan and is exempt from GFA calculations per 13.93.1(b)(5) of the CZO.
- vii. Modifications of Permitted Uses. Any change to this approved Aggregate Development Program that increases the GFA devoted to Residential Uses or Active Space, with a commensurate decrease in Office or Laboratory uses, may be approved by the Planning Board as a Minor Amendment pursuant to Condition #18 of this Decision.
- viii. Parking.
 - The Final Development Plan includes the construction of 1,759 off-street parking spaces located in two underground parking facilities on the site. The Planning Board waives any minimum off-street parking requirements applicable in the base Zoning Districts in accordance with Section 13.95.3 of the CZO. A reduction in the total number of off-street parking spaces may be approved administratively by CDD provided that such decrease does not exceed five percent (5%) of the total number of approved parking spaces, while any further reduction may be approved as a Minor Amendment pursuant to Condition #15 of this Decision. All parking facilities shall be regulated by the applicable provisions of Appendix C (Transportation Mitigation Program), as well as the provisions of 13.95.6 of the CZO. Parking spaces may be used for carsharing to the extent allowable by the CZO.
 - Electric Vehicle (EV) charging stations shall also be allowed within parking facilities and provided in accordance with the Transportation Mitigation Program;

however, at a minimum the Project shall provide ninety (90) dual-head Level 2 chargers (serving 180 vehicles) and install Conduit and/or the necessary infrastructure to support future installation of additional Level 2 chargers to serve the remainder of the parking spaces. The Applicant shall track use of the EV charging stations (including users requests).

- Any change to the number of available parking spaces accomplished by reallocating or active parking management may be approved as a Minor Amendment pursuant to Condition #18 of this Decision.
 - ix. The Permittee may enter into a lease, license or other occupancy agreement to use existing parking spaces in the below-grade parking garage situated below the residential condominium buildings at 285 and 303 Third Street (the “303 Third Parking Garage”), which is currently under separate ownership, to serve the approved residential or non-residential uses in the Final Development Plan, including the use of such spaces on an interim basis in connection with the construction of the Project. Such arrangement, if it is made, shall have an initial term length of at least thirty (30) years or the duration of the interim period for which the parking will be used, whichever is shorter, and the number of parking spaces provided on the PB-368 Development Parcel shall be reduced by a commensurate number of spaces without the need for further review or approval by the Planning Board; however, evidence of the lease, license or other occupancy agreement shall be provided to City staff. Such an arrangement may require an Amendment to Special Permit PB-189 (which governs the development at 303 Third Street) in accordance with Articles 12.37 and 13.10 of the CZO.
 - x. Bicycle Parking. The Final Development Plan includes the construction of a minimum of 1,876 long- term bicycle parking spaces and 338 short-term bicycle parking spaces for the project. However, as set forth in Appendix C (Transportation Mitigation Program), the final number of and locations for short-term bicycle parking shall be subject to approval by CDD and the Traffic, Parking, and Transportation Department (TP+T) during the design review process for individual buildings and open spaces.
 - xi. Public Bicycle Sharing Stations are authorized without limitation. At a minimum, the Permittee shall fund the purchase and related installation costs of at least 54 public bicycle sharing spaces (i.e., Bluebikes) in two extra-large Bluebikes docks (27 spaces each) on the PB-368 Development Parcel. The Bluebikes station locations shall be as generally shown in the Final Development Plan, with the final location subject to City review and approval prior to installation. Funding for the required Bluebikes stations shall be provided to the City prior to the issuance of a Building Permit for the first nonresidential building in the Final Development Plan.
- c. Site Development Program.
- i. Building Sites: This Decision authorizes development on eight (8) distinct Building Sites, as generally shown on the Final Development Plan and as described in further detail in the Site Development Table in Appendix A of this Decision, which are summarized below:

- R1 – An approximately 250’ tall building consisting of primarily Multifamily Dwelling uses and containing 197,700 square feet, with ground-story Active Space including a Community Space;
 - R2 – An approximately 300’ tall building consisting of primarily Multifamily Dwelling uses and containing 302,600 square feet, with ground-story Active Space;
 - R3 – An approximately 456’ tall building consisting of primarily Multifamily Dwelling Uses and containing 450,200 square feet, with ground-story Active Space including an Entertainment Venue;
 - R4 – An approximately 250’ tall building consisting of primarily Multifamily Dwelling Uses and containing 227,000 square feet, with ground-story Active Space;
 - C1 – An approximately 250’ tall building consisting of primarily Office and Laboratory uses and containing 437,700 square feet, with ground-story Active Space;
 - C2 – An approximately 280’ tall building consisting of primarily Office and Laboratory uses and containing 521,700 square feet, with ground-story Active Space;
 - C3 – An approximately 250’ tall building consisting of primarily Office and Laboratory uses and containing 474,113 square feet, with ground-story Active Space;
 - C4 – An approximately 170’ tall building consisting of primarily Office and Laboratory uses and containing 370,400 square feet, with ground-story Active Space.
- ii. Park Sites: In addition to these Building Sites, this Decision authorizes the development of at least two (2) acres of Permanently Guaranteed Open Space comprised of portions of the four (4) Park Sites described below, including at least two (2) retail pavilions totaling 3,500 square feet, as follows. In addition to these Park Sites, Publicly Beneficial Open Space is included in the Open Space Diagram as shown in Appendix D of this Decision and as attached hereto:
- Third Street Park – An approximately 1-acre park located at the corner of Third Street and Broadway.
 - Community Center Park – An approximately 0.5-acre park located adjacent to the Community Center at the northeastern corner of Fifth Street and Broad Canal Way
 - Sixth Street Park – An approximately 0.5-acre linear park located alongside the Loughrey Walkway/Kittie Knox Bike Path
 - Binney Street Pocket Park – An approximately 0.2-acre through-lot pocket park located between buildings C4 and R4 along Binney Street.
- iii. This development program also includes the construction of the following street segments:

- Broad Canal Way – Westward extension of Broad Canal Way from Third Street to Kendall Way
 - Potter Street – Westward extension of Potter Street from Fifth Street to a location proximate to the Loughrey Walkway/Kittie Knox Bike Path
 - Fifth Street – Southward extension of Fifth Street from Binney Street to Broadway
 - Kendall Way – New street segment extending southward from Potter Street to Broadway
- iv. Modifications to Site Development Table. As part of the Design Review process for any Building Site or Park Site, the Planning Board may approve a revised Site Development Table that alters the land area, Publicly Beneficial Open Space, Permanently Guaranteed Open Space, or height of any individual Building Site by no more than 10%. Other modifications to the Site Development Table may be approved by the Planning Board as Minor Amendments if the Board determines that they meet the applicable criteria set forth in Condition #18 of this Decision.
- d. Other Dimensional Requirements. Notwithstanding any dimensional requirements of the base Zoning Districts, the dimensional characteristics of Building Sites as depicted in the approved Final Development Plan, including lot sizes, building heights, GFA, Floor Area Ratio (FAR), yards, open space, and distance between buildings, as well as the general location of all parking and bicycle parking facilities, are hereby approved by the Planning Board in concept pursuant to the PUD-7 Development Controls and subject to modification through the Design Review procedures in Condition #4 below. Underground off-street parking garages may extend across multiple Building Sites, Park Sites, and street segments as depicted in the Final Development Plan.

3. Open Space

- a. As an element of the PUD, the Planning Board specifically approves the amount, location, and functional characteristics of the Permanently Guaranteed Open Space & Publicly Beneficial Open Space as required in the CZO and such other open space as the same is contextually depicted in the “Open Space Diagram” attached as Appendix D.
- b. As a condition of this Special Permit, and in addition to the approved Open Space Diagram attached as Appendix D, the PUD shall include a publicly accessible pedestrian and bicycle connection from Sixth Street Park to Broad Canal Way, in order to ensure a continuous publicly accessible connection from the public Sixth Street Connector to Third Street. Such connection shall be reviewed and approved by the Planning Board in connection with the design review of the earlier of Sixth Street Park, Building Site R3, or Building Site C3. Prior to or at the time of submitting plans for design review of an adjacent Building Site or Park Site (as described in Condition #4 below), Permittee shall submit to the City a draft legal mechanism to provide for permanent public access.
- c. Following Final Development Plan approval and prior to or at the time of submitting plans for design review of any Open Space denoted as Permanently Guaranteed in the Final Development Plan, the Applicant shall submit a draft deed restriction, covenant, or other

mutually agreed-upon legal mechanism in accordance with Paragraph (d) of Section 13.94 of the CZO for review by the City of Cambridge, with the expectation that such mechanism would be executed and recorded prior to completion of such Open Space; however, the City and Permittee may extend the timeframe for execution by mutual agreement. The Permanently Guaranteed Open Space may contain the two retail pavilions authorized in Condition #2(c)(i) above, and the footprint of such pavilions shall not be deducted from the calculating the Permanently Guaranteed Open Space required under Section 13.94(d) of the CZO. The Permanently Guaranteed Open Space may also contain short-term bicycle parking and Public Bicycle Sharing Stations as generally depicted in the Final Development Plan.

- d. In accordance with Section 13.94 of the CZO, upon the completion of all of the improvements in the PUD-7 District authorized by Special Permit PB #368, the Publicly Beneficial Open Space in the PUD-7 District shall total no less than twenty-five percent (25%) of the total land area of the PUD-7 District, excluding any land designated as a Government Owned Lot. Approximately 3.5 acres of Publicly Beneficial Open Space shall be provided on the PB-368 Development Parcel as set forth in the Final Development Plan. Such Publicly Beneficial Open Space shall be located at the ground plane and shall be generally accessible for use by the public for reasonable periods throughout the day for the purposes for which the open space is designed and approved by the Planning Board.
- e. The Permittee shall be responsible for completing improvements to Binney Street, Broadway and Third Street and to other public areas surrounding the PB-368 Development Parcel as set forth in the Final Development Plan and the Transportation Mitigation Program attached to this Decision. All improvements to public spaces controlled by the City of Cambridge shall be subject to final approval by the City.
- f. The Permittee shall be responsible for the continued maintenance of the Open Space, including at a minimum keeping sidewalks and other publicly accessible pedestrian and bicycle pathways clear of ice and snow during the times specified in Section 12.16.110 of the Municipal Code of Ordinances.

4. Design Review

In granting a Project Review Special Permit under Section 19.20 for the Final Development Plan, the Planning Board hereby approves buildings and open spaces as presented in conceptual form, subject to later design review by the Planning Board. The Planning Board shall review and approve the detailed design of each Building Site and Park Site identified in the approved Site Development Program (including both individual proposed Park Sites and any landscape elements associated with a specific Building Site) at a regular Board meeting at which the design review and approval has been placed on the agenda. The Permittee may also submit interim materials for review and comment by the Planning Board prior to seeking design approval and may submit revised materials for review and approval if substantive design changes are made after receiving design approval.

- a. Design review for approved Park Sites shall occur concurrently with design review of

the Building Sites associated with that particular phase of development as set forth in the Final Development Plan.

- b. For each Building Site identified in the Site Development Program, during the design development stage but prior to completion of final construction drawings, the Permittee is required to provide the following materials to the Planning Board for final review and approval, which materials shall also be made available to the public at least two weeks prior to the Planning Board meeting at which the design review will be conducted:
 - i. A dimensional form describing the Gross Floor Area, building height, setbacks, size of open space, and vehicular and bicycle parking spaces, as well as cumulative dimensional information for all development approved in this PUD that has been previously constructed or has received final design review approval from the Planning Board.
 - ii. A description of all uses intended to be located on the site.
 - iii. A Site Development Plan, revised as necessary, showing the proposed boundary lines for the subject site and other sites within the PUD.
 - iv. A conceptual site plan for all Building Sites and Park Sites within that Phase of the Final Development Plan, in the case that it is the first Building Site or Park Site that is submitted for review as part of a particular Phase.
 - v. A detailed site plan (or plans) of the entire Building Site illustrating:
 - Plans and three-dimensional drawings showing how the building's plan and massing relate to its context.
 - Landscape features including hardscape and vegetated surfaces, trees and other plantings, outdoor furniture, outdoor lighting, bicycle parking, activity spaces, public art, signage and wayfinding, and any other design elements.
 - Conceptual plans for all roadways or sidewalks adjacent to the site, including any planned changes approved or to be approved in the future by City departments.
 - Circulation routes to, from, and through the site for pedestrians, bicyclists, passenger vehicles and service or delivery vehicles.
 - The locations of all access and egress points for pedestrians, bicyclists, and passenger vehicles as well as maintenance, service and delivery vehicles.
 - Locations of any utility meters that will be accessed from the building's exterior.
 - vi. Scaled and dimensioned floor plans of each level of the proposed building.
 - vii. A scaled and dimensioned roof plan, illustrating all features proposed to be located on the roof including the arrangement of any rooftop mechanical systems and enclosures, Green Roof Area, Solar Energy Systems, and any proposed lighting that will be visible from outside the building.
 - viii. Scaled and dimensioned elevations of each side of the proposed building with labels and descriptions of proposed exterior façade materials, which shall include any visible rooftop mechanical equipment, screening devices, exterior vents, lighting fixtures and other appurtenances, as well as focused

- elevations of each of the ground floor façades.
- ix. A signage plan showing the general locations and areas of all signage visible from the public way, including the general design characteristics of any wayfinding signage intended to serve the PUD as a whole.
 - x. A plan showing the locations and describing the general characteristics of proposed art installations.
 - xi. Perspective views (including at least one view at night) of the site from significant vantage points, including public streets from which the building will be visible at a distance, as well as pedestrian views from all sides of the building to illustrate how it relates to the adjacent public realm.
 - xii. The Green Building Review materials required to certify compliance with Condition #11 of this Decision, as set forth in that Condition.
 - xiii. A Noise Mitigation narrative and acoustical report prepared by a professional acoustical engineer, addressing the requirements in Section 13.96.2 of the CZO and Condition #9 of this Decision.
 - xiv. A Light Mitigation narrative for any building containing laboratory or office use, addressing the requirements in Condition #9 of this Decision.
 - xv. A study, narrative and drawings describing any wind, shadow and glare impacts of the proposed building on adjacent streets, Building Sites, and Open Spaces; as well as any plans to help mitigate these effects.
 - xvi. In the case of a residential Building Site, a housing unit program describing the mix of unit types by size, number of bedrooms, and level of affordability.
- c. For each Park Site identified in the Site Development Program, during the design development stage but prior to completion of final construction drawings, the Permittee is required to provide the following materials to the Planning Board for final review and approval, which shall also be made available to the public at least two weeks prior to the Planning Board meeting at which the design review will be conducted:
- i. A site plan (or plans) of the entire Park Site illustrating, in detail:
 - Landscape features including hardscape and vegetated surfaces, trees and other plantings, outdoor furniture, outdoor lighting, bicycle parking, activity spaces, play features, public art, signage and wayfinding, water features, topography and drainage, paving materials, sitewalls, recreational equipment, and any other design elements.
 - Conceptual plans for all roadways or sidewalks adjacent to the Park Site, including locations of parking, dropoffs, loading zones, curb cuts, bicycle lanes, street trees, and any planned changes approved or to be approved in the future by City departments.
 - Conceptual plans for all Building Sites and Retail Pavilions adjacent to the Park Site, including renderings of the Park Site as it relates to adjacent building facades and ground floor spaces.

- Circulation routes to, from, and through the site for pedestrians, bicyclists, and other applicable modes of transportation.
 - The locations of all access and egress points for pedestrians, bicyclists, and other applicable modes of transportation.
 - Proposed planting details and selected species of plantings.
- ii. A signage plan showing the general locations and areas of all signage visible from the public way, including the general design characteristics of any wayfinding signage intended to serve the PUD as a whole.
- iii. Perspective views, (including at least one view at night) of the Park Site from significant vantage points, including public streets from which the Park Site will be visible at a distance, as well as pedestrian views from all sides of the Park Site to illustrate how the Park Site will relate to the adjacent public realm.
- iv. Prior to commencing Design Review for a specific Park Site, the Permittee shall submit to the City of Cambridge for review draft language of a proposed legal mechanism for ensuring that Publicly Guaranteed Open Space will remain available for public use, as set forth in Condition #3 of this Decision.
- d. In addition to presenting design drawings and illustrations, the Permittee shall present the following materials to the Planning Board at the design review meeting:
- i. A physical, contextual scale massing model of the PUD depicting the building that is being presented for review and the buildings and key features of Building Sites and Park Sites within and surrounding the PUD.
 - ii. Samples of materials to be employed in the Open Space design.
- e. During the design review process for a site, the Board shall consider:
- i. The architectural design of building facades, with special attention to the ground level.
 - ii. The definition and shaping of streets and other open spaces on and adjoining the Volpe site by the building's massing and the design of its facades.
 - iii. The extent to which the proposed building architecture utilizes design elements to help reduce the visual length of facades.
 - iv. The extent to which the architectural design helps to minimize the “canyon effect” that can occur between two tall buildings on opposite sides of a street.
 - v. The extent to which building roofscapes are utilized to vary the profile of streetwall and podium-height elements.
 - vi. Any potential impacts of the proposed design on the public realm or on properties outside of the PUD, including but not limited to visual impacts, wind impacts, shadow impacts, and effects on the safety and comfort of pedestrians and bicyclists in the area, and measures that are being taken to mitigate such impacts.
 - vii. The placement of rooftop mechanical equipment, along with the design of penthouses and other features meant to screen such equipment, and any other exterior features within or surrounding the building site.
 - viii. The design of the Open Space, with special attention to the various landscape features that support the planned programming and identity of the space, as well as the

- environmental comfort of its users.
- ix. How the proposed Open Space fits within the context of adjacent Building Sites, streets, sidewalks, and public and/or private ways.
 - x. The configuration and design of pedestrian, bicycle, and other applicable modes of access and egress.
 - xi. How the design of the open space will support pedestrian and bicycle circulation and comfort and the management of potential conflicts between pedestrian and bicycle paths of travel as referenced in this Decision.
 - xii. The measures being implemented to promote highly sustainable design and development reflecting the goals and objectives established by the City that are included in the Final Development Plan and referenced in this Decision.
- f. As described in Section 13.91.2, the Planning Board's review shall be guided by the design standards specified in the Final Development Plan, which reflect the policy objectives set forth in the Kendall Square ("K2") Planning Study and Design Guidelines (2013), the Planning and Design Principles established by the City's Volpe Working Group (2017) and Volpe Site Design Guidelines (2017), collectively, the "PUD-7 Guidelines and Principles", provided that in the event of any conflict between any guidelines and the provisions of Section 13.90, the provisions of Section 13.90 shall govern.
- g. City Department Review.
- i. Technical Standards. Design elements on a Building Site or Open Space requiring technical review for compliance with City requirements or standards, such as parking facilities, bicycle parking facilities, loading facilities, bicycle and vehicular access and egress, public bicycle sharing stations, stormwater management systems and Green Building materials (per Section 22.20), shall be reviewed by applicable City departments (which may include CDD, TP&T, DPW, Electrical or Water Departments, or others) at a conceptual design stage prior to submission of materials for review by the Planning Board. Final plans shall be reviewed by City departments for compliance with applicable standards and requirements prior to issuance of a Building Permit.
 - ii. Public Improvements. Any public improvements associated with development on a Building Site or Open Space, including but not limited to construction of public street segments or infrastructure within the Development Plan, shall be reviewed and approved by applicable City departments at a conceptual design stage prior to submission of materials for review by the Planning Board. Subsequent to Planning Board Design Review approval of a Building Site, the Permittee shall prepare and submit 75% design drawings of any public improvements for review and comment by applicable City departments prior to completing final construction drawings for approval. Prior to issuance of a Building Permit for construction on a Building Site, all applicable City departments shall either approve the design of any public improvements associated with a Building Site or shall certify to the Superintendent of Buildings that further review and approval of public improvements shall be considered at some later time subsequent to issuance of a Building Permit.

- h. Before the issuance of a Building Permit for any Building Site and prior to completion of 100% construction drawings for any Open Space in the PUD, CDD shall certify to the Superintendent of Buildings that the final plans submitted to secure the Building Permit are consistent with and meet all conditions of this Permit, including design approval, granted by the Planning Board as it relates to said Building.
- i. Materials. Prior to the final selection of colors and textures for façade materials, the Permittee shall erect a mock-up of an exterior wall section on or near the Building Site and/or Open Space (where applicable) to be reviewed by CDD for comment. Members of the Planning Board shall be notified when the mock-up is erected and given an opportunity to view the materials and transmit any comments to CDD.
- j. Exceptions. Design review and approval by the Planning Board shall not be required prior to the issuance of a Building Permit, whether partial or full, for any of the underground parking garages situated within the PB-368 Development Parcel, except to the extent that points of access to and egress from the parking garages to be situated therein are materially different from the locations for points of access and egress depicted in the Final Development Plan. However, all parking and bicycle parking facilities, including access and egress, shall be subject to technical review by CDD, DPW and TP+T prior to issuance of a Building Permit. Additionally, CDD shall review and approve the design of any interim surface conditions that may remain after completion of any underground parking facility but prior to the construction of buildings or open spaces as shown in the Final Development Plan.

5. Timing and Phasing

- a. Commencement. This Special Permit shall be governed by the provisions of Chapter 40A of the Massachusetts General Laws (M.G.L.) and Section 10.46 of the CZO, which establish the time within which construction authorized by the Special Permit must commence. With respect to the requirements of Section 12.40, the Planning Board grants to the Permittee the right to start construction within two (2) years of the date of filing of this Decision with the City Clerk (not including the time required to pursue or await the final adjudication of an appeal under Section 17 of M.G.L. c. 40A), hereby granting the extension permitted under Section 12.41 for good cause, such good cause having been demonstrated by the Permittee because of the unusually large size and scope of the PUD and the need to obtain third party permits and approvals (including, without limitation, those for infrastructure and mitigation) for the project. The Planning Board may approve subsequent extensions of the time for commencement as Minor Amendments pursuant to Condition #18 of this Decision, not to exceed two (2) years per extension, upon determination of good cause by the Permittee.
- b. Completion. In accordance with the Final Development Plan, construction of the PUD shall be completed within twenty (20) years of the date of the issuance of this Special Permit, provided that if construction on a particular phase has commenced within twenty (20) years, such phase shall be entitled to a Certificate of Occupancy so long as construction is diligently carried through to completion. Any extension of time beyond the twenty (20)

years shall be submitted in writing to the Planning Board and shall require a written determination from the Planning Board as to whether the requested extension constitutes a Major or Minor Amendment in accordance with the procedures set forth in Condition #18 of this Decision.

c. Phasing

- i. Development shall occur in phases as set forth in the Final Development Plan and attached as Appendix E, which may be modified as set forth below. Each Phase shall consist of the buildings, open spaces, streets, utilities, and other physical improvements set forth in the Final Development Plan (except as they may be modified by this Decision, as the same may be amended, and in the Design Review process) as being located on or immediately adjacent to and serving the Building Sites and Park Sites upon which the particular Phase is being constructed, in addition to the public improvements set forth in the Traffic Mitigation Program, included as Appendix C of this Decision, and public benefits as set forth in the Letter of Commitment dated October 23, 2017 and in the Final Development Plan.
- ii. This Decision authorizes the development of residential Building Sites and Park Sites earlier in the overall Phasing program set forth above. However, in no case shall the development of a residential Building Site or Park Site occur later in the Phasing program set forth above without first obtaining a Minor Amendment from the Planning Board as set forth in Condition #18 of this Decision.
- iii. In the event that construction of a Phase has commenced but subsequently ceases, causing a Building Permit to lapse prior to the delivery of required public benefits, improvements or mitigation associated with that Phase, then the Planning Board may withhold authorization of a Building Permit for a future Phase until construction has recommenced, or the required public benefits, improvements or mitigation has been delivered, or this Decision has been amended to authorize a change to the Final Development Plan.
- iv. While the construction of accessory parking facilities may precede the establishment of the uses that are served by such parking facilities, parking spaces that have been constructed in excess of the number of spaces authorized for the uses completed and occupied at that time shall be made physically inaccessible to users in a manner approved by TP+T; however, the Permittee shall be allowed to use such excess spaces for parking by construction workers that are actively working on the Development Parcel until the uses to be served by the parking facilities are completed and occupied.
- v. In accordance with Section 13.95.6 of the CZO, on an interim basis and subject to approval by a written determination of the Planning Board during the Design Review process or at another time upon application by the Permittee, in anticipation of later construction of structured parking sufficient to meet all parking requirements, on grade open parking shall be allowed in a Development Parcel subject to the following conditions:
 1. The future parking structure will be constructed within the

- Development Parcel or on an adjacent Development Parcel or outside of the PUD-7 District in a location that complies with the provisions of Section 13.95.1, but it may be located either on or off of the lot which it will serve;
2. Construction of the replacement parking structure will commence within five years of the date of certificate of occupancy for the building initially served by on grade parking;
 3. The future parking structure will contain sufficient spaces for users of the building initially served by on grade open parking so as to meet the parking requirements for such building; and
 4. Binding commitments exist to establish, to the reasonable satisfaction of the Planning Board, that requirements (1) through (3) above shall be satisfied. Such commitments shall be made by negotiated lease agreement, deed restriction, covenant, license, occupancy agreement or comparable legal instrument.
- d. Modifications. Modifications to the Phasing Plan or to this Condition #5 may be approved by the Planning Board as Minor Amendments pursuant to Condition #18 of this Decision, provided that all other Conditions of this Decision and requirements of the CZO continue to be met.

6. Transportation and Infrastructure

- a. The Permittee shall be required to implement the Transportation Mitigation Program contained in Appendix C, at such times as are identified in said Appendix C.
- b. The Permittee shall comply with the Parking and Transportation Demand Management (PTDM) Plan approved by the City on July 14, 2021, as such may be amended in the future with approval by the City.
- c. The Permittee shall be responsible for the design and installation of all necessary infrastructure and utility improvements both on and off the site needed to support the approved construction on any site within the PUD. Any and all necessary infrastructure improvements shall be designed to meet all requirements and standards of the City of Cambridge and its relevant departments (including the City Engineer, Department of Public Works (DPW), the Water Department and the Electrical Department), and all other legal requirements with regard to the design and installation details of the improvements, as if such facilities were to be installed in City streets.
- d. As depicted in the approved Final Development Plan, Potter Street, Fifth Street, Broad Canal Way, and Kendall Way shall each be private streets, and they shall be considered streets for purposes of frontage under the CZO. The Permittee shall work with the City to execute an easement, covenant or other agreement that would allow portions of the new roadway segments to be used by the public for pedestrian, bicycle and, in certain locations, vehicular traffic, all as shown on Volume 2, Figure D9 of the Final Development Plan. However, the Permittee may close portions of private streets to public travel for authorized

construction activity or for community festivals, street fairs, and other similar gatherings and events in accordance with the Final Development Plan and other applicable requirements.

- e. The Permittee shall undertake commercially reasonable efforts to obtain the rights to complete improvements to portions of Fifth Street that are partially controlled by a separate private owner. However, no Building Permit or Certificate of Occupancy shall be unreasonably withheld if such improvements cannot be completed within the required timeframe due to an inability to obtain the necessary rights from the separate private owner, provided that a modified plan or alternate timeframe to complete the same or comparable improvements has been reviewed and approved by TP+T and DPW. Such modification shall not require an Amendment to the Final Development Plan, but an update shall be provided to the Planning Board.

7. Conveyance

Where any utility is to be conveyed to the City of Cambridge, it shall be done in a manner acceptable to the City. The Permittee shall prepare all documents necessary to transfer these facilities to the City.

8. Housing

- a. Residential development authorized in this Decision is subject to the Inclusionary Housing provisions of Section 11.203 of the CZO, as they are modified by Section 13.93.1(c)(4) of the CZO, which states that in no case shall the Inclusionary Housing Requirement be less than twenty percent (20%) and that notwithstanding the provisions of Section 11.203.5, no further increase in Floor Area Ratio or Gross Floor Area beyond the limitations set forth in Section 13.93.1 shall be provided.
- b. The Final Development Plan shall include the development of no less than twenty (20) Middle Income Units as set forth in the Letter of Commitment dated October 23, 2017.
- c. The Final Development Plan shall devote a minimum of five percent (5%) of the Dwelling Unit Net Floor Area to Innovation Housing Units, measuring between three hundred fifty (350) and four hundred fifty (450) square feet in size, as set forth in the Letter of Commitment dated October 23, 2017.
- d. Before the issuance of a Building Permit for a residential building, the Housing Division of CDD shall certify to the Superintendent of Buildings that the applicable requirements of Section 11.203 of the CZO are met for that building, including the recording of a covenant in accordance with Paragraph (b) of Section 11.203.4 of the CZO.
- e. Authorized uses in the Final Development Plan that are included in the Definition of Incentive Project in Article 2.000 of the CZO shall be subject to the Incentive Zoning provisions of Section 11.202 of the CZO. The required Housing Contribution payment shall be calculated upon the issuance of a Building Permit for each individual building in the PUD and provided to the City prior to the issuance of the first Certificate of Occupancy for that building. The payment shall be at that rate established by the Ordinance at the time of

issuance of the Building Permit and applied to the area of subject uses in the building, which area shall be certified by a registered architect. In a mixed-use building containing common areas that are shared between subject and non-subject uses, the amount of common areas that are subject to Incentive Zoning contributions shall be allocated proportionately to the amount of subject and non-subject uses that share such common areas.

9. Active Space

- a. The Planning Board approves the proposed location of required Active Space as described and illustrated in the Final Development Plan. In addition, the Board authorizes any non-residential ground-floor space within the PUD to be occupied by Active Space without amending this Special Permit.
- b. Active Space shall be provided in conformance with the requirements of Section 13.96.1, Paragraphs (a) and (b) of the CZO, except as such requirements may be modified by the Planning Board by this Decision or subsequent Amendments to this Decision. Such modifications may be considered Minor Amendments in accordance with Condition #18 of this Decision provided they are not found to result in substantial deviations from the approved Final Development Plan.
- c. Active Space shall be occupied by any of the following uses:
 - i. Those uses enumerated in Section 13.96.1 of the CZO.
 - ii. Any Retail or Consumer Service Establishments or Outdoor Retail or Consumer Service Establishments listed in Sections 4.35 and 4.36 of the CZO, with the exception of Drive-In Food Service Establishments, Drive-In Consumer Service Establishments, Drive-In Theaters, Outdoor Auto Sales Facilities, Auto Service Stations, and Auto Washes unless approved in writing by the Planning Board.
 - iii. The Entertainment Venue, as identified and depicted in the Final Development Plan. Co-working spaces, temporary and pop-up retail establishments, and recreational spaces as described in the Final Development Plan.
 - iv. Any additional use that is generally open to the public, upon the written determination of the Planning Board (which may be sought by the Permittee during the Design Review process for a building site or at any other time upon application by the Permittee) that such additional use meets the goals of Section 13.96.1 of the CZO.
- d. The Permittee shall form an Open Space and Retail Advisory Committee in accordance with the Final Development Plan and the Letter of Commitment dated October 23, 2017. Prior to the issuance of a Certificate of Occupancy for any new commercial building, CDD's Economic Development Division (EDD) staff shall certify that an open space and retail programming plan has been presented to and discussed by the Open Space and Retail Advisory Committee in accordance with such Letter of Commitment.
- e. The retail consultant report by Jesse Baerkahn of Graffito SP dated November 16, 2020, provided in the Final Development Plan in accordance with Section 13.96.1(d).1 and attached hereto as Appendix G, shall serve as a guidance document for the Permittee, the advisory committee, and EDD staff in future activities related to retail planning,

development and ground floor activation.

- f. The Planning Board hereby approves the exemption of the proposed Entertainment Venue from GFA limitations as Active Space per 13.96.1.a.3 of the CZO.

10. Innovation Space

Up to 167,326 square feet of Innovation Space shall be provided as described in the Final Development Plan and in accordance with the requirements of Section 13.96.3 of the CZO. Innovation Space may be included within existing or new development and may be provided within the PUD-7 District or other Zoning and/or PUD Districts situated within one and one-half (1.50) miles from the PUD-7 District. Because the Final Development Plan does not identify the locations of Innovation Space, the proposed locations of Innovation Space shall be provided to the Planning Board prior to the issuance of a Building Permit for any nonresidential Building Site to demonstrate compliance with Section 13.96.3 of the CZO. Subsequent changes to the proposed locations of Innovation Space may be approved as Minor Amendments as set forth in Condition #18 of this Decision.

11. Noise and Vibration

- a. All buildings within the permitted PUD, and all construction activity pursuant to this Special Permit, shall conform to the requirements of the City of Cambridge Municipal Noise Ordinance.
- b. In accordance with Section 13.96.2, at a minimum, any noise or vibration emanating from buildings and uses within the permitted PUD shall not be normally perceptible at ground level without instruments at a distance of one hundred (100) feet from the source lot line.
- c. To certify compliance with the Cambridge Noise Ordinance and with Section 13.96.2 of the CZO, prior to and as a condition of the issuance of the first Certificate of Occupancy for a new or substantially altered commercial Building, the Permittee shall provide to CDD an acoustical report, including field measurements, demonstrating compliance of such building with all applicable noise requirements.
- d. In accordance with Section 13.96.2, prior to obtaining any Building Permit to add any equipment having a capacity greater than five (5) horsepower to the rooftop, the Permittee shall provide to CDD a narrative report demonstrating that there will be continued compliance with all applicable noise requirements after such addition, and upon completion of such addition and as a condition to operation thereof, an acoustical report, including field measurements, demonstrating such compliance.

12. Construction Management

- a. Before issuance of a building permit for any Phase of development within the PB-368 Development Parcel, the Permittee shall prepare a new or updated Construction Management Program consistent with the requirements of Section 18.20, which Program shall be reviewed and approved by the CDD, DPW, the Water Department, TP+T, the

- Inspectional Services Department, and other departments as deemed appropriate by the City.
- b. The Construction Management Program shall include those elements listed in Section 18.20, with particular attention to ensuring safe and convenient pedestrian access to major public facilities.
 - c. The Construction Management Program shall include, in addition to the specific items required by said Section 18.20:
 - i. A plan for site remediation in accordance with applicable local, state and federal requirements;
 - ii. Identification of all work to take place in the public right of way including but not limited to potential impacts to existing public shade trees to be coordinated early in the design process with the City Arborist; and
 - iii. A community outreach program including, at a minimum, the following elements:
 1. An identified point of e-mail and telephone contact to respond to community questions and feedback throughout the construction process;
 2. A system for communicating ongoing project updates, which may include a web page, e-mail list, social media presence, direct outreach, and/or other measures; and
 3. One or more signs posted on-site, legible from the public way, providing the information above along with a brief description of the project, the amount of commercial space, an expected completion date, and a rendering of the street-facing elevations.

13. Sustainable Environmental Strategies

- a. The requirements of Sections 22.20 and Section 13.96.4 of the CZO shall apply to all development in the PUD. If the requirements of Section 22.20 in effect at the time of issuance of this Special Permit are superseded by a duly enacted amendment to the CZO, then the amended provisions shall apply to any development that has yet to receive Design Review approval pursuant to Condition #4 of this Decision.
- b. Pursuant to Condition #4 of this decision, the design review submission for a Building Site shall include a Green Building Checklist and Narrative as required to be submitted with a Special Permit Application under Section 22.20, which shall address the sustainability provisions contained in Section 13.96.4, and also include more detailed reports and/or analyses on enhanced commissioning for newly constructed or renovated office and lab buildings, opportunities for ground source and air source heat pumps, heating load sharing (either as a district or phased pairs of buildings), solar photovoltaics, solar hot water, bio-fuel emergency power fuel, battery storage, the potential for initial or future electrification of building energy systems, airtightness and additional methods to reduce or eliminate fossil fuel usage, including in the context of relevant energy initiatives implemented through the City of Cambridge, and exploring participation, if available, in any program sponsored by the City of Cambridge for community renewable energy purchase. The submission shall also include a description of strategies for reducing or offsetting embodied greenhouse gas emissions from construction materials and a description of compliance with the Green Roofs

Requirement in Section 22.35 of the CZO.

- c. All development shall be subject to all other applicable environmental ordinances and regulations, including but not limited to the Tree Protection Ordinance, effective at the time of construction.

14. Contributions to Community Fund

In accordance with Section 13.96.6(a) of the CZO, the Permittee shall contribute to a Community Fund, established by the City Manager, an amount equal to ten dollars (\$10.00) multiplied by the number of square feet of new Gross Floor Area (GFA) for the commercial uses authorized by this Special Permit (“Fund Contribution Payment”), which Fund Contribution Payment shall be paid on a building-by-building basis at the time of the issuance of a Certificate of Occupancy for a specific building at such amount as is determined by multiplying the above-referenced rate by the GFA of the non-residential uses in the subject building that are not exempt from GFA pursuant to the provisions of Section 13.93.1 of the CZO.

15. Letter of Commitment

Prior to the issuance of any building permit or certificate of occupancy for development authorized by this Special Permit, CDD and all other relevant City departments shall verify to the Superintendent of Buildings that all portions of the Letter of Commitment dated October 23, 2017, by the Massachusetts Institute of Technology, attached as Appendix F to this Decision, are continuing to be met.

16. Other Requirements

All authorized development shall conform to all other requirements of Ordinances of the City of Cambridge, including but not limited to the Asbestos Protection Ordinance, Chapter 8.61 of the City Municipal Code.

17. Subdivision of the PB-368 Development Parcel

The Planning Board approves the subdivision of the PB-368 Development Parcel into the Building Sites and Open Spaces as illustrated in the Final Development Plan, or as their dimensions may be established after final design approval. In the event that the Permittee intends to subdivide any portion of the PB-368 Development Parcel into smaller lots, including but not limited to vertical air-rights subdivisions of Building Sites, the Permittee shall file a copy of the subdivision plan with CDD for inclusion in the record of this PUD. No further approval by the Planning Board or CDD shall be required to authorize a subdivision of the PB-368 Development Parcel or lots within the PB-368 Development Parcel provided that there is no other change to the approved Final Development Plan as a whole.

18. Procedures for Granting Minor and Major Amendments to the Decision

- a. Determination. Except where a change is explicitly authorized as a Minor Amendment in

this Decision, the Planning Board shall determine whether a proposed change is considered a Major Amendment or Minor Amendment pursuant to Section 12.37 of the CZO.

- b. Minor Amendments. A Minor Amendment to this Decision shall be approved by an affirmative vote of at least five (5) members of the Planning Board after consideration of the proposed change, enumerated on the Agenda, at an appropriately noticed meeting of the Planning Board. In approving a Minor Amendment, the Board shall issue a written determination that:
 - i. The change is consistent with the standards for a Minor Amendment set forth in Section 12.37 of the CZO; and
 - ii. The change does not violate applicable Sections of the CZO, or if the change requires relief pursuant to a special permit or variance, such relief has been granted; and
 - iii. The change will not substantially alter the Findings upon which this Decision is based.
- c. Major Amendments. Notwithstanding the provisions of Article 12.000, any Major Amendment shall only be granted after an affirmative vote of at least five (5) members of the Planning Board and only after the proposed change has been advertised as a new Special Permit subject to the procedural requirements of Section 10.40. The Planning Board shall consider the substance of the change as presented in the amendment application documents and shall not be reviewing this Decision in its entirety. Upon granting a Major Amendment, the Board shall issue written Findings that the amended portions of the Final Development Plan remain in conformance with all special permit criteria applicable to the PUD. However, if the Board finds that a requested Major Amendment to this Decision constitutes a substantial alteration to the intent, purpose and substance of this Decision, such Major Amendment shall be considered under the procedures established in Article 12.000 as if it were a new PUD Special Permit after the submission of all required application materials.
- d. Conditions. Upon issuing any Amendment, the Planning Board may impose additional conditions intended to ensure conformance with the intent, purpose and substance of this Decision as well as any applicable requirements, standards or criteria set forth in applicable Sections of the CZO.

Voting in the affirmative to GRANT the Special Permits were Planning Board Members Louis Bacci, H Theodore Cohen, Steven Cohen, Catherine Preston Connolly, Mary Flynn, Hugh Russell and Tom Sieniewicz, constituting at least two thirds of the members of the Board, necessary to grant a special permit.

For the Planning Board,

A handwritten signature in cursive script that reads "Catherine Preston Connolly".

Catherine Preston Connolly, Chair.

A copy of this decision PB #368 shall be filed with the Office of the City Clerk. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws, and shall be filed within twenty (20) days after the date of such filing in the Office of the City Clerk.

Pursuant to Section 12.36.4 of the City of Cambridge Zoning Ordinance, Massachusetts Institute of Technology agrees to the conditions attached to this Decision approving the granting of a PUD Special Permit for Case PB #368.

By: 

Name: Seth D. Alexander

Title: Authorized Signatory, President, MIT Investment Management Company and not individually Authorized Representative of Massachusetts Institute of Technology

A copy of this decision PB #368 shall be filed with the Office of the City Clerk. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws, and shall be filed within twenty (20) days after the date of such filing in the Office of the City Clerk.

ATTEST: A true and correct copy of the above decision has been filed on September 28, 2021 with the Office of the City Clerk, by Swaathi Joseph, duly authorized representative of the Planning Board. All plans referred to in the decision have been filed with the City Clerk on said date.

Twenty days have elapsed since the above decision was filed in the office of the City Clerk and:
_____ no appeal has been filed; or

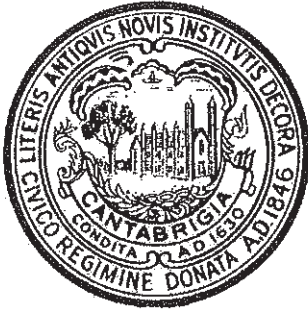
_____ an appeal has been filed within such twenty days.

The person exercising rights under a duly appealed special permit does so at risk that a court will reverse the permit and that any construction performed under the permit may be ordered undone. This certification shall in no event terminate or shorten the tolling, during the pendency of any appeals, of the periods provided under the second paragraph of G.L. c. 40A, §6.

Date: _____, City Clerk

Appeal has been dismissed or denied.

Date: _____, City Clerk



CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

NOTICE OF PRELIMINARY DETERMINATION PLANNED UNIT DEVELOPMENT PROPOSAL

Case Number:	368
Location of Premises:	Volpe Exchange Parcel – 55 Broadway (33 Broadway, 2 Potter Street, 20 Potter Street, 156 Linskey Way, 220 Binney Street, 60 Sixth Street, 182 Binney Street)
Zoning:	Business A (BA); Residence C-2B (C-2B); Office 2 (O-2); PUD-KS; PUD-7
Applicant:	Massachusetts Institute of Technology (MIT) c/o MITIMCo, One Broadway, Suite 09-200, Cambridge, MA 02142
Owners:	United States of America 10 Causeway Street, Boston, MA 02030
Application Date:	February 10, 2021
Date of Public Hearing:	April 6, 2021
Date of Determination:	April 6, 2021
Summary of Proposal:	Redevelop the Volpe Exchange Parcel into a mixed-use center including residential, retail, office and laboratory buildings, as well a Community Center pursuant to PUD-7 district requirements.
Determination:	APPROVED, with conditions and requests for modification.

2021 APR 21 PM 3:32
CITY OF CAMBRIDGE
CITY CLERK

Copies of this Preliminary Determination and plans, if applicable, are on file with the Community Development Department and the City Clerk.

Authorized Representative of the Planning Board: Swaathi Joseph.

For further information concerning this Preliminary Determination, please contact Swaathi Joseph at 617-349-4668, or sjoseph@cambridgema.gov.

DOCUMENTS SUBMITTED

Application Documents and Supporting Material

1. Special Permit Application dated 2/3/2021 containing the following volumes:
 - Volume I containing supporting written materials for issuance of the requested special permit including special permit forms, a general site history and project description, a summary of requested special permits, community engagement summary, and detailed responses to applicable special permit approval criteria.
 - Volume II containing PUD-7 Development proposal for the project including plans, studies and reports required by PUD-7 zoning.
 - Volume III containing appendices including Transportation Impact Study criteria, Wind Study, Flood Elevation report, Green Building Report, Acoustical Study, Retail Report, and Tree Study.
 - Volume IV containing Transportation Impact Study.
2. Memo to the Planning Board from Michael Owu, dated 3/16/2021, summarizing updated supplemental materials clarification, with supporting graphic materials.
3. Memo to the Planning Board from Michael Owu, dated 3/26/2021, summarizing updated supplemental materials clarification, with supporting graphic materials.
4. Slides from Presentation to Planning Board on 4/6/2021.

City of Cambridge Documents

5. Memo to the Planning Board from Katherine F. Watkins, City Engineer, dated 3/30/2021.
6. Memo to the Planning Board from Community Development Department Staff, dated 3/31/2021.
7. Memo to the Planning Board from Joseph E. Barr, Director of Traffic, Parking and Transportation, dated 4/1/2021.

Other Documents

8. Email communication to the Planning Board from Jack Dennis, dated 2/8/2021.
9. Email communication to the Planning Board from Al Oppenheim, dated 2/12/2021.
10. Email communication to the Planning Board from Bjorn Poonen, dated 2/12/2021.
11. Letter to the Planning Board from Larry and Jane Stabile, dated 2/21/2021.
12. Email communication to the Planning Board from Bjorn Poonen, dated 3/6/2021.

13. Letter to the Planning Board from Kendall Square Residents, dated 3/18/2021.
14. Email communication to the Planning Board from Karen A Biemann, dated 3/24/2021.
15. Email communication to the Planning Board from Dorothy Gonson, dated 3/25/2021.
16. Email communication to the Planning Board from Chantal Eide, dated 3/25/2021.
17. Email communication to the Planning Board from Katherine Olivier, dated 3/26/2021.
18. Email communication to the Planning Board from Shelagh Hadley, dated 3/30/2021.
19. Email communication to the Planning Board from Janet Plotkin, dated 3/30/2021.
20. Letter to the Planning Board from Cambridge Pedestrian Committee, dated 3/31/2021.
21. Email communication to the Planning Board from Lindsay Greimann, dated 4/3/2021.
22. Email communication to the Planning Board from Gerald OLeary, dated 4/3/2021.
23. Email communication to the Planning Board from Alan Oppenheim, dated 4/3/2021.
24. Email communication to the Planning Board from Heather Hoffman, dated 4/4/2021.
25. Letter to the Planning Board from Charles Hinds, ECPT, dated 4/4/2021.
26. Email communication to the Planning Board from Gerald OLeary, dated 4/5/2021.
27. Letter to the Planning Board from Candace Young, dated 4/5/2021.
28. Email communication to the Planning Board from Bjorn Poonen, dated 4/5/2021.
29. Email communication to the Planning Board from Alan Oppenheim, dated 4/5/2021.
30. Letter to the Planning Board from Cathie Zusy, dated 4/5/2021.
31. Email communication to the Planning Board from Peter Crawley, dated 4/6/2021.
32. Letter to the Planning Board from Susan Lapierre and Michael Delia, dated 4/6/2021.
33. Letter to the Planning Board from Steve LaMaster, undated.

APPLICATION SUMMARY

This PUD application proposes to redevelop the existing Volpe site into a major mixed-use development consisting of eleven (11) new buildings – four predominantly residential buildings, four predominantly commercial buildings, a community center and two standalone retail pavilions. The total land area of the proposed development parcel is approximately 455,750 square feet and is roughly bounded by Binney Street to the north, Third Street to the east, Broadway to the south, and the Loughrey Walkway/Kittie Knox Bike Path to the west.

The total proposed development consists of approximately three (3) million square feet of new gross floor area. 1,400 new residential units are planned for the site, along with approximately 1.6 million square feet of commercial office/lab space; 167,000 square feet of Innovation Space; 100,000 square feet of retail and active uses; and a 20,000 square foot Community Center.

The development proposal includes new street connections to the existing grid and throughout the site – including the extension of Fifth Street from Binney Street to Broadway; the extension of Potter Street westward along the southern edge of the new Volpe building; the westward extension of Broad Canal Way from Third Street to the site’s western boundary; and the creation of a new north-south private way called Kendall Way that extends from Potter Street southward toward Broadway.

New open spaces are distributed throughout the proposed site consisting of approximately 3.6 acres of new open space, of which 2 acres are permanently guaranteed. A new park called “Third Street Park” is proposed at the northwest corner of Broadway and Third Street. “Community Center Plaza” is a planned open space at the northeastern corner of Fifth Street & Broad Canal Way. “Sixth Street Park” is a linear open space provided adjacent to the Loughrey Walkway and Kittie Knox Bike Path to the west of the site. Between the two proposed buildings along Binney Street, a pocket park known as “Binney Street Court” is proposed.

Parking is proposed to be located in two underground garages – a North Garage consisting of 419 spaces, and a South Garage consisting of 1,457 spaces. On-street parking is proposed along many of the private ways within the development.

FINDINGS

Based on a review of submitted Application materials and testimony given at the public hearing, the Board makes the following findings with reference to the criteria for preliminary approval of a Planned Unit Development Proposal as set forth in Article 12.000 of the Zoning Ordinance.

- (1) *The Development Proposal conforms with the General Development Controls set forth in Section 12.50, and the development controls set forth in the specific PUD district in which the project is located.*

The Board finds that the Development Proposal is in conformance with the General Development Controls set forth in Section 12.50 and the development controls of the PUD-7 zoning district contained in Section 13.90 of the Zoning Ordinance. The Application Documents demonstrate compliance with the particular requirements set forth in the PUD-7 zoning adopted in 2017.

- (2) *The Development Proposal conforms with adopted policy plans or development guidelines for the portion of the city in which the PUD district is located.*

The zoning for the PUD-7 district was developed to be consistent with a variety of plans and guidelines for Kendall Square and East Cambridge, including the Kendall Square (“K2”) Planning Study and Design Guidelines (2013); the Planning and Design Principles established by the City’s Volpe Working Group (2017) and Volpe Site Design Guidelines (2017), collectively, the “PUD-7 Guidelines and Principles”. The Board has reviewed the PUD-7 Guidelines and Principles along with comments provided by Community Development Department (CDD) staff, and finds the Development Proposal, in concept, to be in conformance with such guidelines and principles.

- (3) *The Development Proposal provides benefits to the city that outweigh its adverse effects.*

The Board finds that, on the whole, the proposed PUD will benefit the City by enabling the redevelopment of the 14-acre Volpe parcel into a mixed-use innovation district with residential and commercial uses, community space, an entertainment venue, innovation space, and a network of streets and open spaces that improve connectivity to the existing street network and surrounding neighborhoods. The proposed PUD will provide additional benefits as outlined in the Letter of Commitment that is incorporated by reference into the PUD-7 zoning.

In making this determination the Planning Board shall consider the following:

- (a) *The quality of the site design, including integration of a variety of land uses, building types, and densities; preservation of natural features; compatibility with adjacent land uses; provision and type of open space; provision of other amenities designed to benefit the general public*

The Development Proposal thoughtfully arranges buildings and land uses around a planned network of streets and open spaces that makes logical connections to the existing urban fabric. Buildings are designed to provide ample active ground-floor uses throughout the development to encourage pedestrian activity and street level activity.

(b) Traffic flow and safety

The Development Proposal includes a traffic and transportation analysis that provides thorough study of all modes of transportation, including walking, bicycling, ride-share/ride-hail, personal vehicle, and anticipated commercial traffic. The Development Proposal will be subject to requirements that mitigate potential traffic and transportation impacts in accordance with the Project Review Special Permit requirements (Section 19.20 of the Zoning Ordinance, which will be reviewed at the Final Development Plan stage) and will be designed to provide safe access, egress and circulation meeting City standards.

(c) Adequacy of utilities and other public works

The Application Documents, testimony at the public hearing and memorandum from the City Engineer indicate that City requirements related to infrastructure are understood and will be met in the proposed new development.

(d) Impact on existing public facilities within the city

The Development Proposal is not expected to result in any negative impacts on existing public facilities.

(e) Potential fiscal impacts

The Development Proposal is generally expected to result in positive fiscal impacts for the City, including increased tax revenue and contributions to public improvements and mitigation as required in the PUD-7 zoning and Letter of Commitment.

DETERMINATION

Section 12.35.2 of the Zoning Ordinance requires that the Planning Board make a preliminary determination on a Development Proposal prior to holding a hearing to consider granting a special permit for a PUD Final Development Plan. The Planning Board may make a preliminary approval, potentially with conditions and subject to additional review and final approval of a special permit at a subsequent public hearing, or deny the application.

It is the Planning Board's Determination to **APPROVE** the Development Proposal and to authorize the Applicant to prepare a Final Development Plan to be submitted to the Board and reviewed at a future public hearing for possible granting of a special permit, subject to the additional requests for modification and additional information set forth below.

REQUESTS FOR MODIFICATION AND ADDITIONAL INFORMATION

The Final Development Plan must respond to the specific comments made by the Board at the preliminary public hearing and set forth in memoranda provided to the Planning Board by the Community Development Department, Traffic, Parking and Transportation Department, and Department of Public Works, attached to this Preliminary Determination. The following is a high-level summary of comments provided, with more detail in the attached materials.

General

- An overall plan and narrative which describes how the proposed buildings in the Development Plan will be varied in terms of massing, scale, height and design. Such a plan and narrative should include an axonometric perspective that illustrates how the site will be interwoven into the existing neighborhood.
- A massing plan of the commercial buildings along Broadway that incorporates some of the proposed design motifs from the Architectural Character Plan to demonstrate how it will not feel monotonous.
- A narrative explaining how the 167,326 square feet of Innovation Space will be distributed across the proposed site plan, and in which building(s) the proposed Innovation Space will be located.
- More information on the anticipated tree impacts and the feasibility of relocating existing, mature trees currently on the site. Such information should include renderings and/or diagrams that explain how the proposed trees will look on the site at Day 1 of development and after periodic moments in the future (e.g., end of Year 1, Year 5, Year 10, Year 20, Year 50).
- More information on how the landscaping, particularly around commercial buildings, will be human-scaled as to minimize the impact of the bulkiness of the building podiums.

- A detailed narrative describing the anticipated programming of the Entertainment Venue and how this facility will complement other planned venues in the area (e.g., at the Foundry Building at 101 Rogers Street and the performing arts center planned for 585 Third Street).
- A narrative describing how the design of the buildings can help prevent a “canyon” effect for pedestrians walking along the proposed streets and sidewalks.
- A narrative describing the rationale and decision-making behind the ultimate location of the proposed Community Center and whether alternative sites were explored.

Phasing

- Provide a complete phasing plan which provides, at a minimum, the following information:
 - The phasing of key elements of the development:
 - residential buildings
 - public open space
 - publicly-accessible streets and connections
 - innovation space
 - community center
- The timing and delivery of key public benefits in relation to other components of the development plan.
- How the stipulation limiting commercial construction build-out in relation to the residential build-out will be met in the context of the site’s overall development.

Traffic & Transportation

- Further explanation and analysis of the proposed “truck only” access at Broadway/Kendall Way for the right-turn in and out movements, and a discussion of whether this access should be available for all users.
- A narrative explaining a strategy for ongoing consultation with adjacent property owners and City staff on options for separated bicycle lanes on Fifth Street and Potter Street (e.g., what the cross section would look like with uni-directional Separated Bicycle Lanes (SBLs) on each side of the street vs. a two-way facility on either side of the street.)
- A revised site plan illustrating the property lines and ownership more clearly for all roadways.
- A narrative committing that the proposed streets will be open to public use (such terms, conditions and reservations as are acceptable to the Department of Public Works and MIT)

- A narrative explaining the difference between areas denoted as “on-street parking”, “short-term loading”, and “active curb” as shown in the application materials.
- A plan illustrating further design details and planned vehicle access limitations for Broad Canal Way.
- Further study of the total number of parking spaces proposed for the site and whether opportunities exist to further reduce the number of planned parking spaces.
- A plan illustrating proposed locations of the Development Plan’s short-term bicycle parking spaces.
- A plan illustrating the proposed location for two extra-large Bluebikes Stations, and a plan illustrating an area proposed for valet services to store Bluebikes.
- A plan and narrative describing the planned circulation of loading vehicles to/from the overall site as well as to/from the individual buildings, and an explanation of why loading is distributed across all buildings rather than consolidated below-grade as with parking.

Retail

- A plan and narrative describing where specific retail uses will be placed throughout the site versus other active uses.
- A description of what other active uses besides retail are being contemplated in the Development Plan.
- A narrative explaining the Applicant’s commitments to ensuring a long-term, sustainable recruitment strategy to support local, racially- and ethnically diverse retail owners within the Development Plan.
- Further study of the proposed retail pavilions along Broad Canal Way/Third Street Park and whether some of these may be removed/changed to promote more flexible programming of the open spaces.

Housing

- A narrative explaining the planned distribution of unit types, sizes and associated amenities for each residential building in the Proposed Development.
- A narrative explaining how the residential buildings will differ from one another in terms of design, character, and identity.

- A plan illustrating the distribution of Innovation units across the buildings within the Proposed Development.

Open Space and Connectivity

- Information on how Third Street Park will be designed and programmed as a center for civic engagement activity.
- A revised plan that shows the actual locations and exact sizes of the planned open spaces within the Development Plan, and further study of ways the parks could be made larger and feel more open.
- Further study of the landscaped areas around the proposed commercial buildings, with an analysis of how more human-scaled design motifs (such as additional paths and recreational areas) can help soften the overall massing of the buildings.
- A narrative describing any barriers or impediments to the broader pedestrian connections to the surrounding neighborhood, with particular focus on an opportunity to create a seamless pedestrian connection across Broadway to the Kendall T station.

Site-Level Sustainability

- Provide clarification or additional information for the district energy strategy of heating load sharing and connections between buildings. Specifically elaborate how district energy would support the overall development's electrification effort.
- Elaborate further on the type of building infrastructure and systems that would be designed to accommodate future electrification at the building pre-design/programming level. Strive to achieve electrification of commercial building base load at time of construction.
- Clarify if recycled blackwater will be used for landscaped open spaces and buildings' green roof irrigation.
- Provide information about how embedded carbon will be minimized for the overall development.

Urban Design

- Explore adjusting the alignment of Broad Canal Way to lead directly across the Loughrey Walkway to the space between the southeasternmost two buildings on the MXD site, and eliminate the overhanging portion of the building in the southwest corner of the site so that the full length of the street is open to the sky. Clarify the pedestrian/bicycle/vehicular character of Broad Canal Way

- Explore adjusting the alignment of the new portion of Fifth Street to lead more directly to the street's existing portion on the west side of 303 Third Street, instead of focusing at 303 Third Street's site-located electrical equipment.
- Explore moving the Community Center to the lower floors of one of the buildings facing the Third Street Park (making it more visible to the general public), and use its current site for a residential building.
- Consider ways to reduce the visual presence of 303 Third Street's site-located electrical equipment on Fifth Street.

Consider whether there would be a benefit to moving the Entertainment Venue into the ground floor of one of the buildings facing the park and/or Broadway.

- Explore providing more and different types of outdoor recreational space.
- Analyze moving Kendall Way to the west, creating two small blocks along the Loughrey Walkway, with sizes appropriate to the relatively small floorplates of the residential towers, and two large blocks between Kendall Way and Fifth Street with sizes appropriate for the large floorplates of the commercial buildings.
- Consider moving the R1 building's residential tower to the south edge of its parcel, farther away from 303 Third Street, and relocate some of its GSF to the Community Center site to reduce the building height shading 303 Third Street.

Building Sustainability

- Explore envelope commissioning for residential buildings.
- Explore achieving additional points for Optimize Energy Performance, Renewable Energy and Green Power & Carbon Offsets in Energy and Atmosphere category.
- Look at water use reduction strategies for lab buildings beyond LEED requirements.
- Use principles of WELL & Fitwel certification criteria to complement LEED.
- Analyze the feasibility of green roof and/or vegetative surfaces where feasible on buildings and on site.

- Analyze and pursue opportunities to pair on-site renewable energy with energy storage.
- Focus on social equity in pursuit of additional Innovation credits.
- Analyze how embodied carbon will be effectively addressed by the Proposed Development.
- Consider a lower u value for vertical glazing on proposed buildings.

Voting in the affirmative to approve the Development Proposal were Planning Board Members Louis Bacci, Jr., H Theodore Cohen, Steven Cohen, Catherine Preston Connolly, Mary Flynn, Hugh Russell, and Tom Sieniewicz, constituting at least two thirds of the members of the Board.

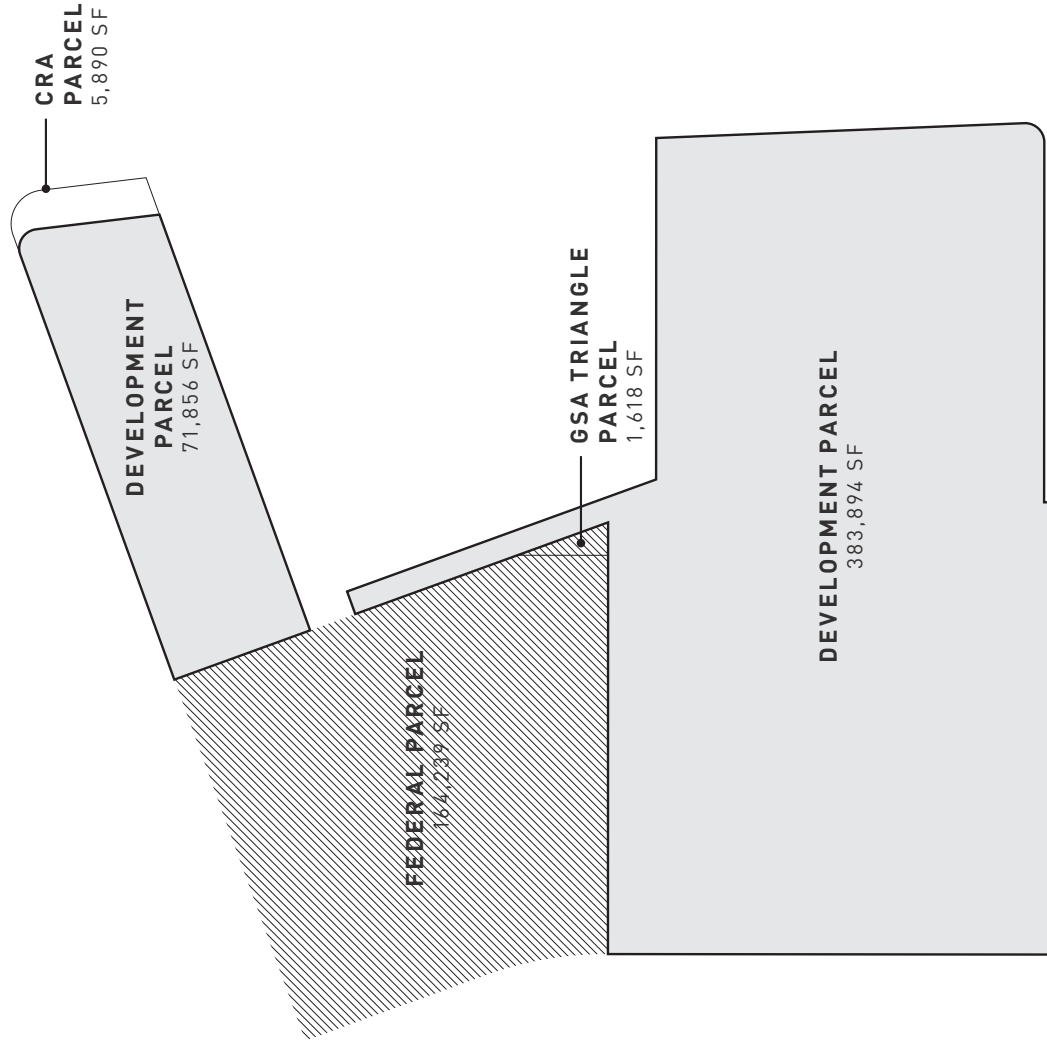
For the Planning Board,



Representative to the Planning Board, authorized by Catherine Preston Connolly, Chair.

A copy of this Preliminary Determination PB #368 shall be filed with the Office of the City Clerk.

Appendix A



*ALL SQUARE FOOTAGE FIGURES ARE APPROXIMATE

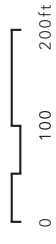


Figure A2: Development Parcel

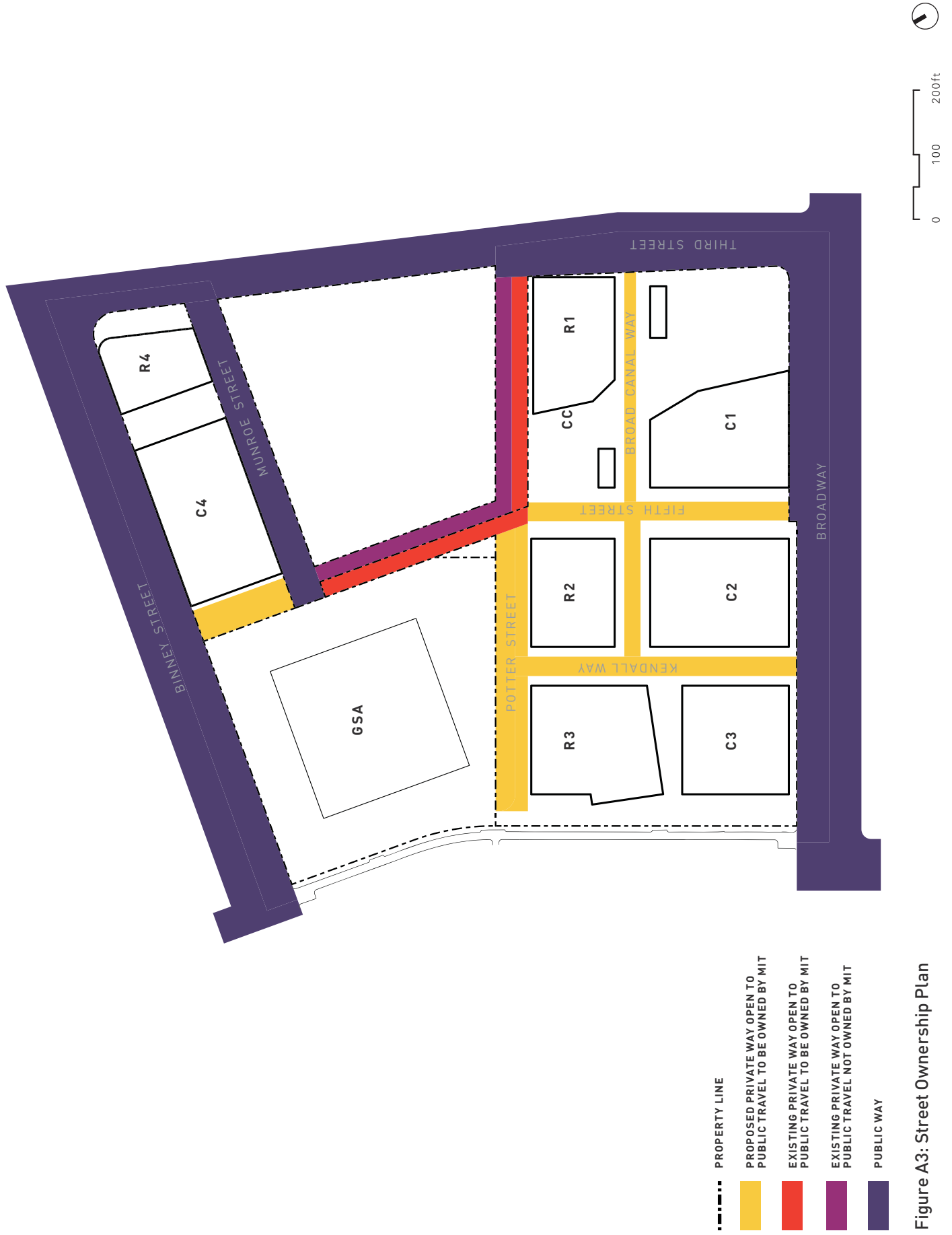


Figure A3: Street Ownership Plan

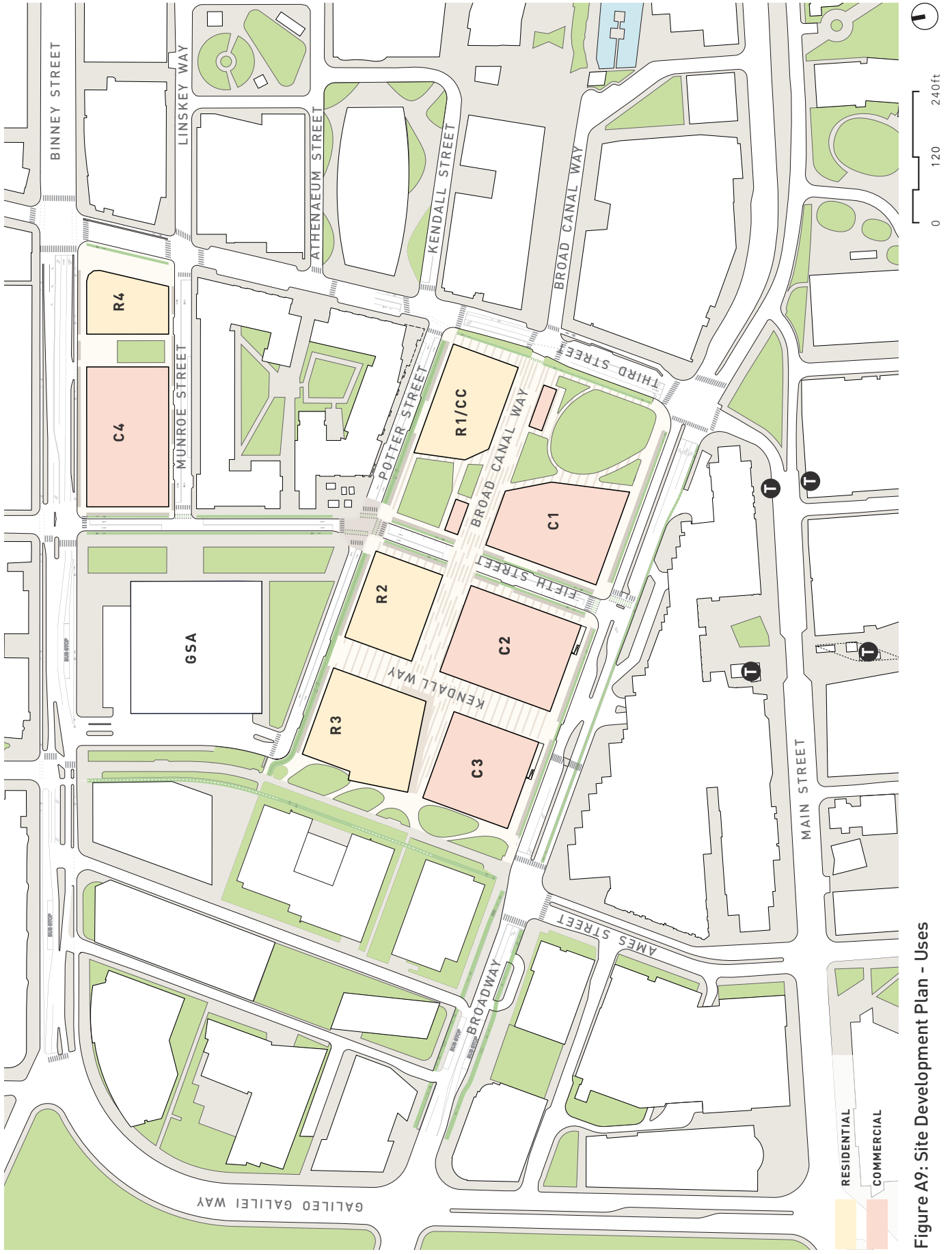


Figure A9: Site Development Plan - Uses

Figure A10: Use Distribution by Building Site				
	Residential SF	Commercial SF	Retail/Active Use SF	Total SF
R1	188,200		9,500	197,700
R2	292,600		10,000	302,600
R3	425,200		25,000 (Venue)	450,200
R4	222,000		5,000	227,000
C1		417,700	20,000	437,700
C2		506,700	15,000	521,700
C3		467,113	7,000	474,113
C4		365,400	5,000	370,400
CC			25,000	25,000
Pavilions			3,500	3,500
Total SF	1,128,000	1,756,913	125,000	3,009,913
Exempt Innovation		(83,663)		
Exempt Retail/ Active			(81,250)	
Exempt Community			(25,000)	
Total GFA	1,128,000	1,673,250	18,750	2,820,000

Appendix B



MIT VOLPE FINAL DEVELOPMENT PLAN

Design Guidelines

Planning Board Number - PB368

June 4, 2021

Submitted to:
City of Cambridge

Submitted by:
Massachusetts Institute of Technology (MIT)



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Preface

The overarching goal of the Volpe Development Plan is to create a welcoming, connected innovation environment, establishing a vibrant, diverse, inclusive, mixed-use district that provides opportunities for shared discovery, community and collaboration. It will be a social mixing bowl of people, events and activity.

The Volpe Development Plan is conceived as an interconnected whole, made up of streets, park space, urban plazas and passageways, which together constitute a civic framework and connect the site to the surrounding neighborhoods. Integral to weaving the proposed development into the fabric of Cambridge is a diverse, connected network of open spaces, strategically located to draw the public into and through what will be a new swatch of that fabric. It will be green, permeable and porous.

The Volpe Development Plan is an extraordinary opportunity within a mature city and neighborhood to develop significant new buildings and public realm infrastructure that will define inclusive pathways, open spaces and civic gathering spaces, all for diverse stakeholders. The buildings will relate to human scale by means of their massing, material selection, street level accessibility, fenestration patterns and construction details. They will be specific to context, climate and

orientation. The design objective is outstanding architecture – innovative, sustainable and tangibly part of Cambridge.

Purpose

The purpose of these Design Guidelines for the Volpe Development Plan is to establish and document both overarching planning and design intentions and specific dimensional guidelines that are to be followed in the future design and development of individual buildings and landscapes on the defined parcels, and development-wide public realm infrastructure. Dimensional guidelines apply primarily to the locations of use types and dimensional bulk limitations. These guidelines are not intended to impose a strict limitation on the building form and style. Other creative design solutions or measures may also be utilized if the Planning Board finds that they further the goals of these guidelines, especially in the interest of enhancing architectural richness in the area. Within those guidelines, individual design teams will find broad leeway to be creative, inventive and responsive to the enormous opportunity to craft a significant piece of the City of Cambridge.

Organization

The Design Guidelines document is organized in six sections:

A. Urban Framework

This section outlines the context of the Volpe Development Plan and the overall urban planning and design intentions. It emphasizes the overarching goal of connectivity and the importance of the public realm.

B. Built Form

Urban design guidelines regarding street and building alignments, building heights, setbacks, and massing are addressed, as are guidelines for the form and articulation of the various building typologies that will be developed within the Volpe Development Plan.

C. Transportation Network

This section documents the master plan intentions with regard to transportation access and connectivity around and through the Volpe Development Site. Public Transit, pedestrian, bicycle and vehicular circulation are diagrammed and described.

D. Public Realm

The open space network of the Volpe Development Plan, including streets, parks and pocket parks,

is critical to the overarching goal of connectivity. This section describes the vision, principles, design character and detail intentions for the public realm.

E. Block Guidelines

Diagrams and narrative text for each parcel within the master plan outline parcel-specific intentions for use and design and define dimensional guidelines.

F. Environmental Guidelines

Development-wide strategies regarding sustainability, resiliency and urban environmental considerations are described within this section for incorporation by future parcel-specific design teams.

Consistency with Planning Documents

City of Cambridge Ordinance Number 1398, in amendment to the Zoning Ordinance of the City of Cambridge, established Article 13.90 of the Zoning Ordinance and entitled Planned Unit Development 7 District, to define the zoning guidelines for the Volpe Site. Introductory paragraph 13.91, Purpose, states that: Development should be generally consistent with the policy objectives set forth in the then current Kendall Square (“K2”) Planning Study and Design Guidelines (2013), The Planning and Design Principles established by the City’s Volpe Working Group (2017) and Volpe Site Design Guidelines (2017), collectively, the “PUD-7 Guidelines and Principles.”

This Design Guidelines document is consistent with, reinforces and supplements the referenced PUD-7 Guidelines and Principles. It connects their recommendations to the Volpe Site Development Plan and codifies general guidelines for individual future parcel and infrastructure development, all with the goal of bringing the City of Cambridge planning aspirations to fully compliant fruition.

The following text and illustrations are guided by the planning and design principles articulated by the Volpe Working Group. Some of the images and drawings included are the work of Michael Dennis & Associates on behalf of the Volpe Working Group.

Planning Principles

A successful urban development plan equally celebrates buildings and open space. Buildings in which people live, work, and play should be graceful, elegant, and welcoming in themselves, and should contribute to the grace, elegance, and welcome of the streets, squares, plazas, and parks whose edges they define.

1. Civic Life

The varied size, scale, and type of open spaces planned throughout the Volpe Development Plan will provide a very intentional mix of civic experiences - from busy urban street, to wide tree-lined street, to the dense tree canopy of a linear urban passageway, to the perimeter landscape of the new Volpe Building, to four public parks - the variety of these urban space types will contribute to the permeability and urbanity of East Cambridge.

2. Connectivity & Permeability

By establishing a block size and street pattern that is responsive to the surrounding street grid, the future development of the Volpe site will weave seamlessly into the urban fabric of Cambridge. Street widths, open spaces, building scale and the mix of residential and commercial uses will all serve to connect future development to the communities of East Cambridge, Wellington-Harrington, The Port, and MIT to the Kendall

1. Kendall Square (K2) Final Report / Cambridge CDD and Goody Clancy, 2013
2. Connect Kendall Framework Plan / Richard Burck Associates, 2015
3. PUD-7 Zoning Ordinance and Volpe Site Design Guidelines / City of Cambridge and Cambridge Planning Board, 2017
4. Volpe Working Group Planning and Design Principles / Cambridge CDD and Michael Dennis Associates, 2017
5. Net Zero Action Plan / City of Cambridge, 2017
6. Climate Change Vulnerability Assessment / City of Cambridge, 2017
7. Kendall Square Mobility Task Force Final Report / City of Cambridge / MassDOT 2017
8. Envision Cambridge / Cambridge CDD, 2019
9. Climate Resilience Zoning Task Force Recommendations / Cambridge CDD, 2020
10. Cambridge Urban Forest Master Plan / Cambridge Department of Public Works and Reed Hilderbrand, 2020

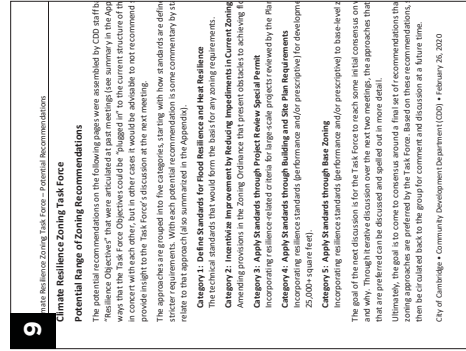
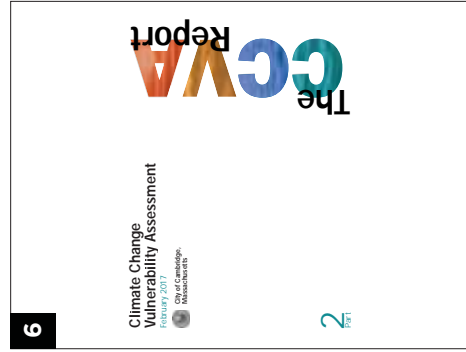
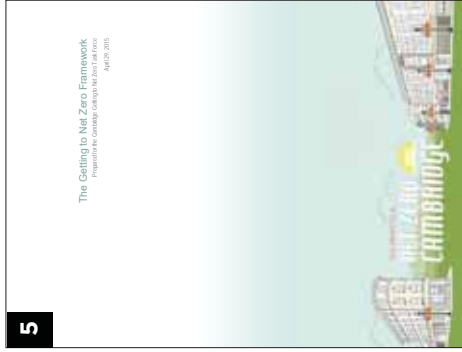


Figure 1: Precedent Urban Design Guidelines

Square T, neighborhood amenities, the Broad Canal, open space, and the waterfront.

3. Activation

The proposed extent and location of publicly beneficial open space, combined with significant retail area targeted toward small, local businesses and the combination of commercial and residential buildings will all serve to activate the entire district, providing enjoyment and recreation to residents, neighbors, and visitors across multiple timeframes. Various venues for gathering, the arts, entertainment, recreation, and innovation will create a place that fosters community and opens up social and economic opportunities.

4. Inclusiveness

Diverse housing options, consumer services, recreational amenities, multicultural programming, and engagement among different demographic groups will draw a broad range of community members and provide opportunities for companies and others in the innovation community to reach out and provide benefits to the broader public. MIT's intention to incorporate the Job Connector program as part of the Community Center will encourage local residents to participate in the local innovation economy.

1. Connectivity and Permeability
2. Civic Life
3. A Place for Opportunity
4. Sustainability
5. Activation
6. Inclusiveness
7. Comfort

5. Comfort

The mix of uses and variety of landscape spaces and street types proposed will all extend a sense of welcome to residents, neighbors, and visitors. Public pathways, recreational spaces, and gathering areas will range in scale from intimate to grand, offering niches for individuals, small groups, and large gatherings.

6. Sustainability

The Volpe Development Plan commits to the design of all buildings within the PUD-7 district to achieve LEED Gold certification. The development will have the largest number of all-electric residential units in the region with zero on-site emissions to support a net-zero carbon future. An integrative sustainable design process will be utilized to ensure that best practices will be employed in the design of exterior envelopes, building energy and water-use systems, site planting, and site storm water management systems.



Figure 2: Volpe Working Group - Planning Principles
*IMAGES AND SKETCHES FROM MICHAEL DENNIS & ASSOCIATES (MODIFIED)

Design Principles

The framework established by this Development Plan for the massing and articulation of its open spaces and buildings will reinforce the successful weaving of the master plan into the fabric of Kendall Square and East Cambridge.

1. Buildings that Frame the Public Realm

Buildings and urban open space jointly define the quality and character of the public realm of cities. They are the specific built manifestation of urban design principles. The public realm of a city becomes inviting and welcoming when its buildings and open spaces exist in equilibrium, each contributing equally to the definition and charm of the other.

2. Vegetative Cover to Reduce Heat Island Effect

Significant green spaces will lead people into and through the neighborhood, taking advantage of both sun and shade. Shade from the canopy of trees – more than 200 new trees will be planted – will further temper the pedestrian environment, particularly by preserving and supplementing existing mature trees along Loughrey Walkway/Sixth Street Park and in what will become the new Third Street Park.

3. Facades Engage the Context

Buildings relate to human scale by means of material selection, fenestration patterns and construction details and articulation. These buildings will be specific to the context, climate, and urban and solar orientations of their specific sites. This is Kendall Square, in East Cambridge, with a specific building history and tradition, material and color palette, and organizational composition.

4. Building Massing Responds to Open Space

A primary design goal of the Volpe Development Plan is to create human-scaled streets and open spaces and a district where the built form contributes to an overall sense of place by simple, shared urban design principles. The design objective is outstanding architecture – innovative, sustainable and tangibly part of Cambridge.

- **Pedestrian Zone:** The Volpe Development Plan relies on two fundamental tenets to enliven its streets and public places. First, buildings will be built to the urban build-to line, establishing a continuous streetwall that connects the development to the surrounding neighborhood. Second, the inclusion of largely transparent retail, dining and recreation uses at street level will serve to blur the boundary between inside and outside, energizing both.

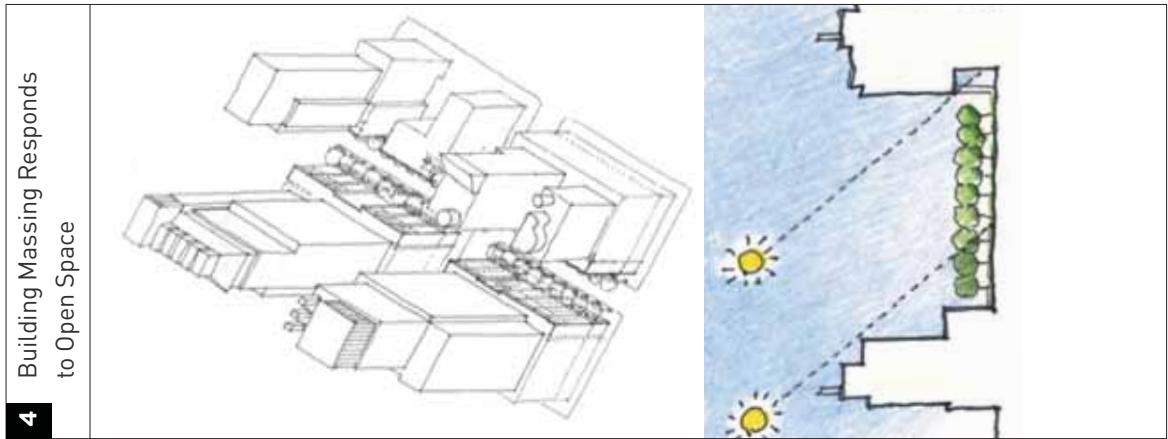
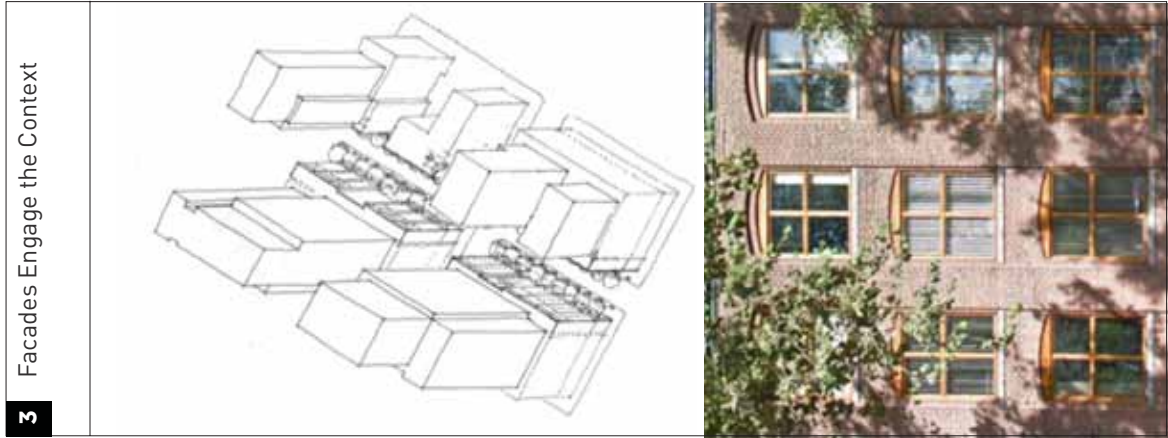
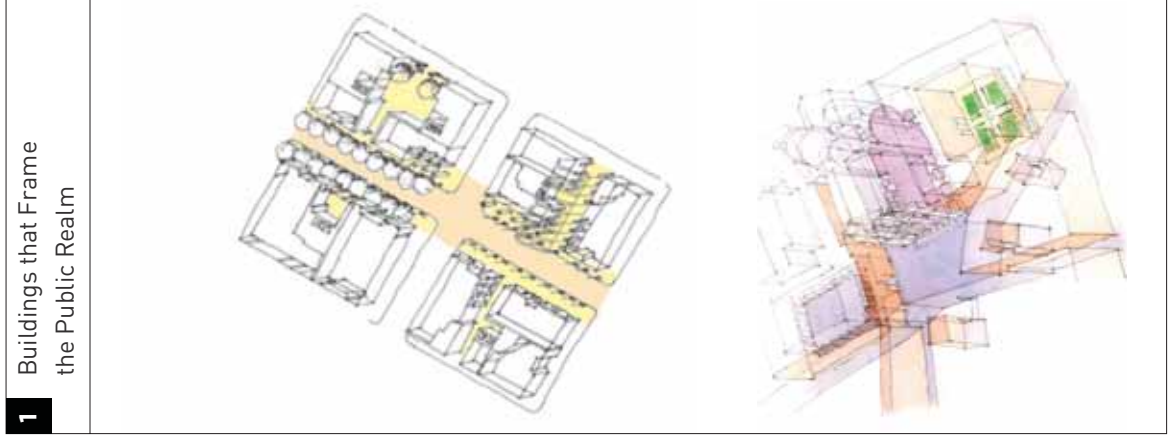


Figure 3: Volpe Working Group - Design Principles

*IMAGES AND SKETCHES FROM MICHAEL DENNIS & ASSOCIATES

Continuous retail, dining and entertainment will line Broad Canal Way, Broadway and Third Street.

- **Streetwall:** Within the new buildings that will comprise the Volpe Development Plan, each building will be built to the build-to line for approximately 80% of the length of its facades, defining the urban streetwall up to a height of approximately 85 feet above grade for commercial buildings and approximately 45 feet for residential buildings. Floors within this zone may utilize less overall transparency than the retail and entry elements of the pedestrian frontage zone, as they serve to reflect the specific functional use of the overall building and define the urban scale of streets and open spaces.

- **Tower:** Defining the majority of the building's presence above the streetwall zone, the building tower participates at the scale of the district and contributes to the sense of density and vitality of the city. The Development Plan

suggests that building towers are stepped back from the streetwall zone by a minimum of 10 feet over approximately 50% of the total horizontal dimension of the streetwall, and that they should be further broken down into vertically articulated elements by the use of additional plan offsets or reveals wherever the overall horizontal façade length exceeds 100 feet.

- **Building Top:** The building top operates on the scale of the city and lends identity to the building and its occupants and compositional character to the profile of the city skyline. The Development Plan suggests that building tops, typically mechanical penthouses, be stepped back from the plane of the building tower zone by at least 5 feet.

In addition, the diverse sculptural forms of these building tops afford an opportunity to establish an identity for Kendall Square from a distance.

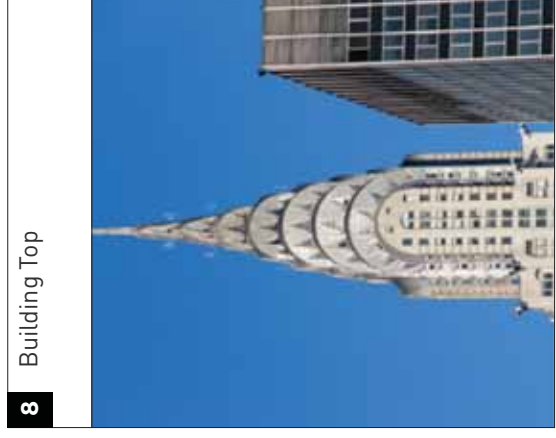
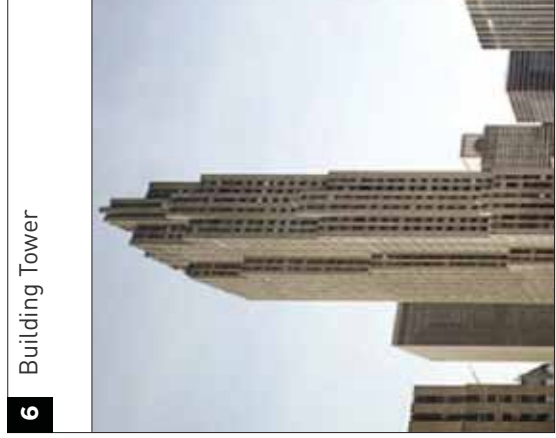
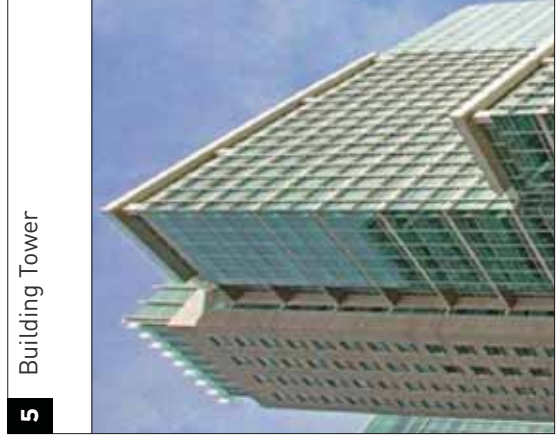


Figure 4: Volpe Working Group - Built Form
*IMAGES AND SKETCHES FROM MICHAEL DENNIS & ASSOCIATES

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A: Urban Structure

The Neighborhood

Key to establishing connectivity to both the existing network of streets and to the scale of the surrounding neighborhood is the idea of breaking up the superblock of the existing Volpe site. By extending Fifth Street to connect Broadway to Binney Street, the master plan re-establishes both a neighborhood scale and an urban pathway that has not existed for 50 years. By extending Broad Canal Way deeply into the site as a multi-modal, pedestrian-focused street, the plan gives emphasis to the Broad Canal and increases connectivity to the Charles.

Urban Design Goals

By planning for a diverse mix of uses, including residential, lab and office, retail and community, the Volpe Development Plan will become part of the neighborhood and a piece of the city. Where there is currently an isolated parcel, there will be an extension of the existing fabric, in which the edges between existing neighborhood and new development are intentionally blurred.

Green Connections

The master plan's highly interconnected and differentiated network of public realm spaces—its streets, squares, parks, and courts — constitute the plan's fundamental organizing principle. It maximizes permeability for pedestrians, cyclists,

workers, residents and neighbors. It emphasizes both solar exposure and the development of a long-term urban tree canopy throughout.

A series of significant open spaces establishes a network that permeates the Volpe site while being intentionally open along the site's perimeter – at Third Street Park, at Sixth Street Park, at Community Center Park and at Binney Street Pocket Park – creating urban green space that is openly shared with neighboring buildings and streets.

View Corridors and Landmarks

The public realm network of the master plan has been intentionally designed to explode the impermeable superblock of the existing Volpe site and create and enhance a series of view corridors into, through, and around the site. The most significant of these will be the one which draws the eye from the corner of Third and Broadway, through Third Street Park, and through Community Center Park, to the Volpe Art Lawn and the new Volpe National Transportation Center.

Similarly, the introduction of Fifth Street, connecting Binney Street to Broadway, will provide a tree-lined street visually connecting the neighborhood fabric of East Cambridge to Kendall Square.



Figure A1: Illustrative Connections Plan

The extension of Broad Canal Way as a pedestrian-focused street across Third Street and into the Volpe development site will serve to visually connect the development to a unique urban element of Cambridge and accentuate the connection to the Charles.

Along the western edge of the site, Loughrey Walkway will be enhanced by the adjacent Sixth Street Park, preserving, emphasizing, and embracing a beloved but somewhat hidden allée within the city.

Street Typologies

The streets are designed to enhance public life by constituting a continuous and welcoming circulation network that is shaded, comfortable, safe and lively. The streets, courts and squares will support a wide range of outdoor uses, and they will be enlivened by pedestrian-oriented functions located in the ground floors of the surrounding buildings. These spaces will create a varied yet continuous public realm that gives the district permeability, porosity, strong view corridors, and a palpable and unique place identity. All streets have been planned to support high-performance street tree installation to insure the presence of a long-term urban canopy, such that as the development is built out and matures, it will attain or exceed the city's goals for continuous tree canopy on its streets and open spaces. The site's

streets, squares, and parks will be public in use and character.

The components of streets provide opportunities to support local businesses through retail frontage and spillover, while creating spaces for relaxation and gathering and weaving the urban circulation network through the fabric of the city. In order to accommodate their varied functions, the streets are to be developed as several different typologies, as described below.

Commercial Street is typically characterized by a consistent urban streetwall. A dense line of street trees is intended to provide pedestrian scale and ample shade for the active retail frontage, and ground floor and streetscape design should convey a transparent, urban commercial edge. At Broadway, to develop resiliency against future potential flooding, the building ground floor will be raised in response to the City's flood risk guidelines. This is an opportunity for the Broadway buildings to have elevated porches that provide compelling retail premises, particularly for food and beverage uses, with heightened sight lines, robust outdoor seating and display areas. Examples: Broadway; Binney Street.

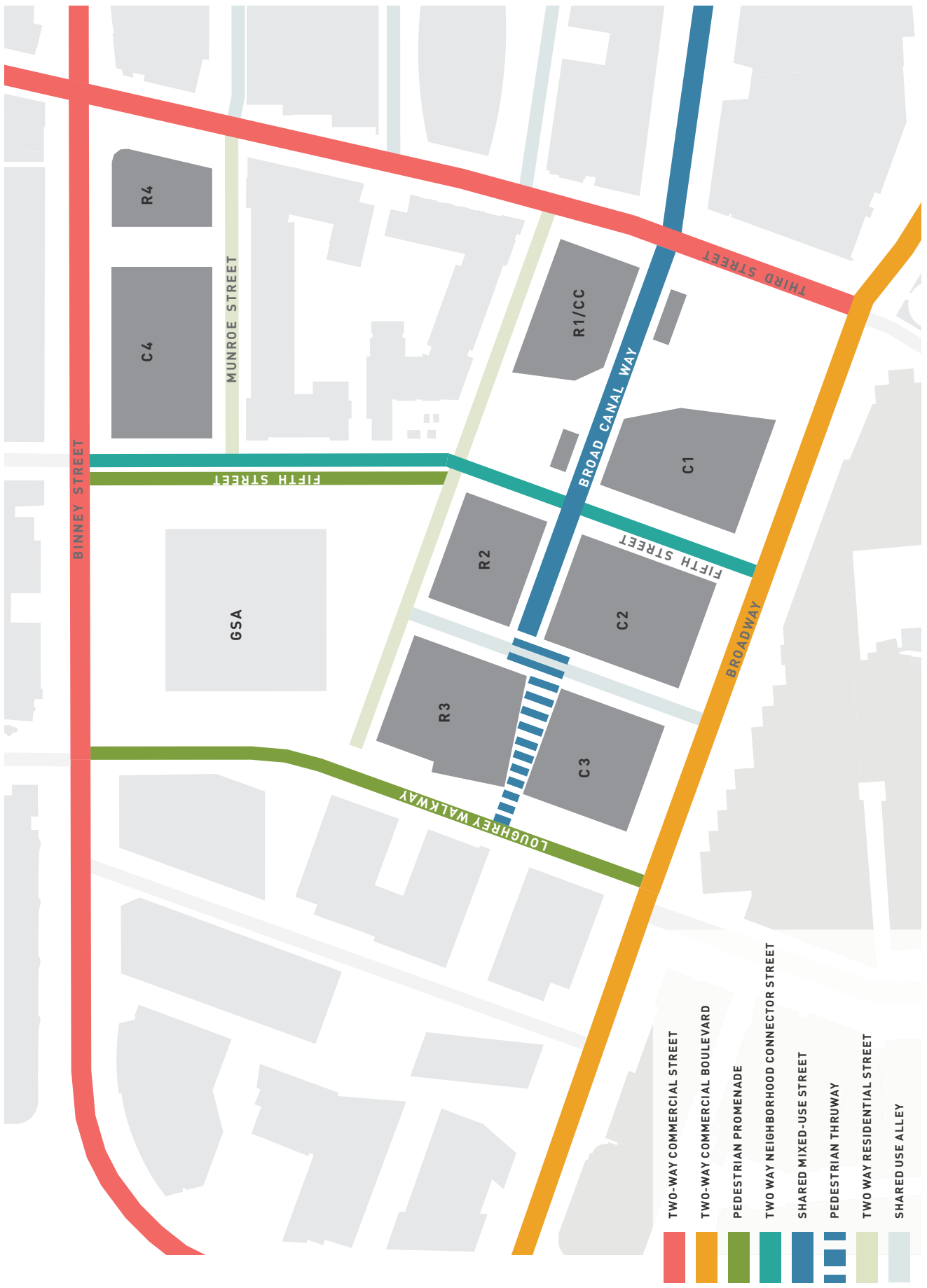
Neighborhood Connector is a two-way neighborhood street with active retail. Curb lines and materials are to define distinct areas of travel for pedestrians, bicycles and vehicles.

The vehicular street width is to be consistent, with asymmetrical planting, walkway and bicycle zones. Example: Fifth Street.

Shared Street is a paved, multi-modal, pedestrian-focused street that acts as both terrace and promenade, blurring the edge between inside and outside. Canopy trees are intended to provide a ceiling for the street, bringing the scale down to pedestrian life. It is intended to be a controlled access street with active retail. The roadway should be pedestrian-oriented, with flush curbs and uniform materials creating a continuous surface for free mobility along its entire length. Example: Broad Canal Way. Broad Canal Way will be one way west from Third Street to Fifth Street and one way east from Kendall Way to Fifth Street.

Residential Street will provide parking access and curbside front door addresses to residential buildings in the development. The street section is to provide a wide continuous pedestrian sidewalk with active curbs contributing to a quieter residential feel. Example: Potter Street.

Shared Use Way serves multiple functions, accommodating service traffic to adjacent buildings and pedestrian connections. The elimination of raised curbs and dedicated parking zones is intended to emphasize the pedestrian experience. Primary retail and active spaces at building corners will enliven the street with music/entertainment and inclusive public programming. Examples: Kendall Way.



- TWO-WAY COMMERCIAL STREET
- TWO-WAY COMMERCIAL BOULEVARD
- PEDESTRIAN PROMENADE
- TWO WAY NEIGHBORHOOD CONNECTOR STREET
- SHARED MIXED-USE STREET
- PEDESTRIAN THRUWAY
- TWO WAY RESIDENTIAL STREET
- SHARED USE ALLEY

Figure A2: Street Typologies



1

Visualization by Design Distill



2

Visualization by Design Distill

1. Third Street Park
2. Loughrey Walkway and Sixth Street Park

Figure A3: Conceptual Renderings



3. Community Center Park
4. Broad Canal Way
5. Fifth Street and Broad Canal Way
6. Entertainment Venue



Visualization by Interface Multimedia



Visualization by Interface Multimedia



- 7. Broadway
- 8. Potter Street
- 9. Binney at Third Street



Visualization by Interface Multimedia

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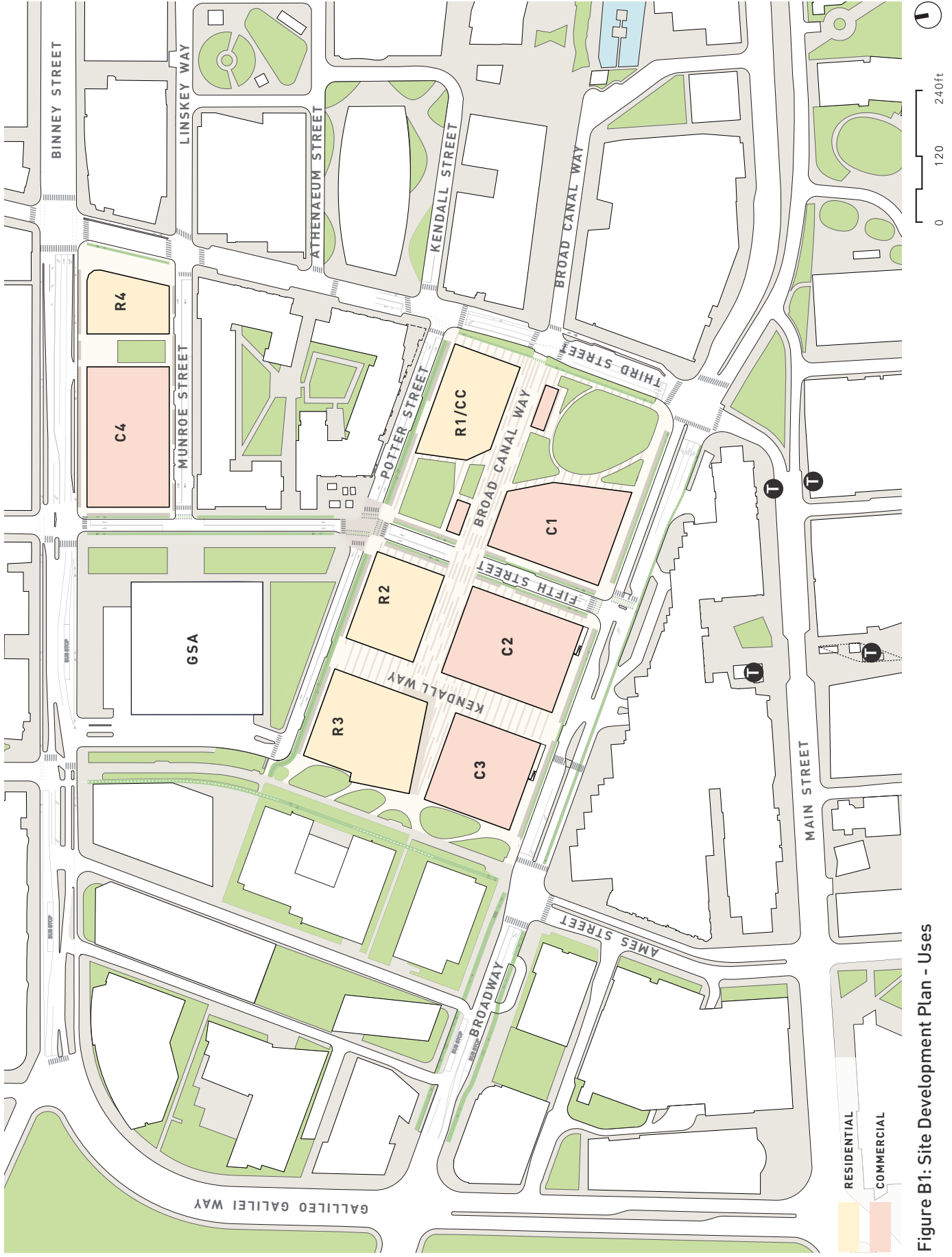
B: Built Form

Build-to-Line

The locations and dimensions of the streetwall envelopes of the buildings proposed in the Volpe Development Plan have been very carefully considered with regard to the open space network and specific street typologies of the master plan. The establishment of a continuous build-to line running from building to building is critical to successfully establishing the different street typologies and connecting the development to the surrounding neighborhood.

As indicated in **Figure E2: Site Development Plan - Build to Line**, each building is to be built

to the build-to line, defining the urban streetwall. The streetwall will align to the build-to line for approximately 80% of the length of a building's individual facades. Where the master plan building geometry varies from the orthogonal geometry of the adjacent existing and planned streets, whether as an angle or a curve, this should be considered more diagrammatic than prescriptive – it is the representation of an intention to introduce building form that responds directly and inventively to specific, significant pathways, view corridors, and urban nodes.



RESIDENTIAL
COMMERCIAL

Figure B1: Site Development Plan - Uses

Building Height

Building heights within the overall Volpe Development Plan are limited by the dimensional regulations of the PUD-7 zoning (Article 13.90 of the Cambridge Zoning Ordinance). Within the PUD-7 zoning, the overall site is zoned to allow heights of 170' to 250' in the northeast quadrant (between Binney and Munroe, from Third Street to Fifth Street), 250' in the northwest quadrant (the Volpe National Transportation Center site), and 250' to 500' on the southern half (between Potter and Broadway, from Third Street to Loughrey Walkway).

Overall building heights (exclusive of mechanical penthouses) as shown on the Development Plan documents are in full compliance with the dimensional regulations of the PUD-7 zoning. Future variations in building height (as well as in average floor plate areas) on one development parcel will have an impact on the square footage available to be developed on remaining parcels and on meeting the required ratio of residential development to total development. Variations from the defined building heights must comply with the PUD-7 zoning and will be subject to review and approval through the Article 19 design review process.

Building Form

The primary planning goal of the Volpe Development Plan is to create human-scaled streets and open spaces and a district where the built form contributes to an overall sense of place by employing simple, shared urban design principles. The design objective is outstanding architecture – innovative, sustainable and tangibly part of Cambridge. The massing envelopes of each of the eight high-rise buildings proposed are conceived with four horizontal zones: pedestrian frontage, streetwall, tower, and building top.

- **Pedestrian frontage:** This street level zone activates the public realm. This frontage should be carefully articulated with a high level of transparency, lightness, and detail at the ground floors allowing views inward and outward.
- **Streetwall:** The streetwall defines the scale of the street. Floors within this zone may utilize less overall transparency than the pedestrian frontage zone, as they reflect the specific functional use of the overall building and define the urban scale of streets and open spaces. Variation in streetwall height may be desirable to help differentiate between buildings.

Use of massing articulation, material variation and architectural detailing will humanize the



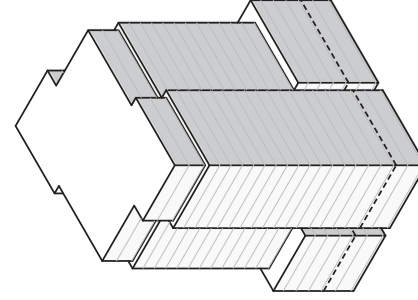
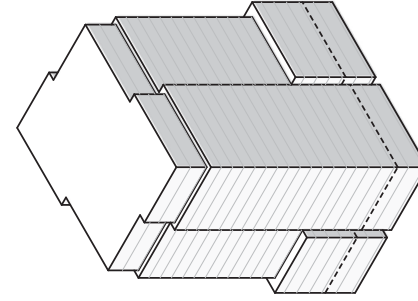
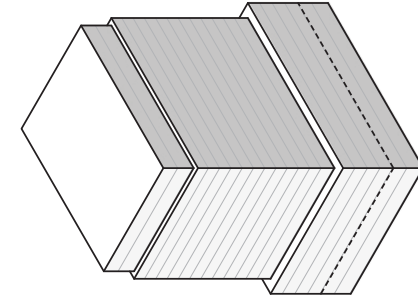
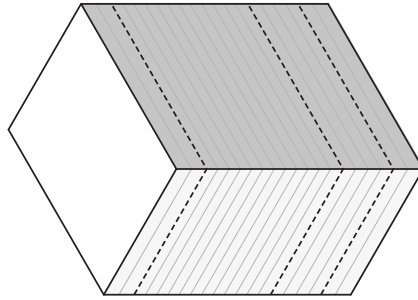
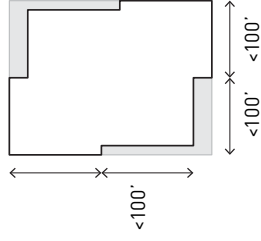
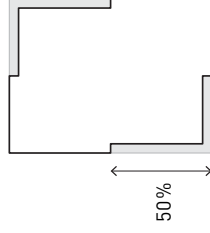
Figure B2: PUD-7 Zoning Heights

scale of the streetwall and create an intimate pedestrian experience.

- **Tower:** Defining the majority of the building's presence above the streetwall zone, the building tower participates at the scale of the district. Fenestration patterns in this zone will relate to the primary function of the building, and it is in the tower massing that the most opportunity exists to manipulate bulk and proportion.
- **Building top:** The building top operates on the scale of the city, and lends identity to the building and its occupants and compositional character to the profile of the city skyline. The goal is to realize the potential of the tower for landmark/distant views. Consider legibility of the building top both by day and night, while carefully avoiding light pollution.

The proposed building forms within the master plan document depict the suggested setbacks between streetwall and tower (at an approximate height of 85 feet for commercial buildings and approximately 45 feet for residential buildings) and between tower and building top. Typical setback dimensions are to be 8 to 10 feet, and to exist at approximately 50% of the building perimeter. Penthouses will stepback an additional 5 feet. Additional setback dimensions are to be provided adjacent to 303 Third Street, Loughrey Walkway, and Third Street Park. Vertical changes in plane are to be provided at all streetwalls that are more than 100 feet uninterrupted in plan.

Use variations in height and architectural elements such as parapets, cornices and other details to create interesting and varied roof lines and to clearly express the tops of buildings.



Buildings should consist of up to four different, but integrated zones - the pedestrian frontage zone, the streetwall, the tower, and the building top.

Tower frontage should be set back 8 - 10 ft from the streetwall. Building Tops should be stepped back a minimum of 5 ft from the plane of the tower façade.

50 - 80% of tower frontage should be set back 8 - 10 ft from the streetwall with greater setbacks provided at open spaces, Loughrey Walkway, and the 303 Third Street.

On towers greater than 100 ft in horizontal length, create vertical zones, differentiated by changes in plane of at least 8 ft.

Figure B3: Building Massing

Building Massing and Articulation

Buildings should reflect a rhythm and a variation appropriate to the urban context. For example, this can be achieved by expressing bay widths of 16 to 27 feet for residential buildings and 30 to 40 feet for mixed-use and retail buildings.

Residential Buildings

Residential building architecture should reflect the private nature of individual units and residential spaces, emphasizing a relatively high wall-to-window ratio and a diversity of fenestration, responding to unit organization and solar orientation. Residential floor plates are inherently thinner than commercial floor plates, and accentuating the slender proportions of the residential plates is to be encouraged. Balconies, whether projecting from the typical plane of the exterior facade or recessed into it, may be utilized to lend scale and variety to the massing.

Commercial Building

The proposed commercial buildings will differ from residential buildings by virtue of their larger floor plates, greater floor to floor heights, rigorous structural bay spacing, and more uniform pattern of fenestration. The four commercial buildings will have primary addresses on Broadway and Binney Street, two of the primary commercial streets in Kendall Square. Building massing and envelope

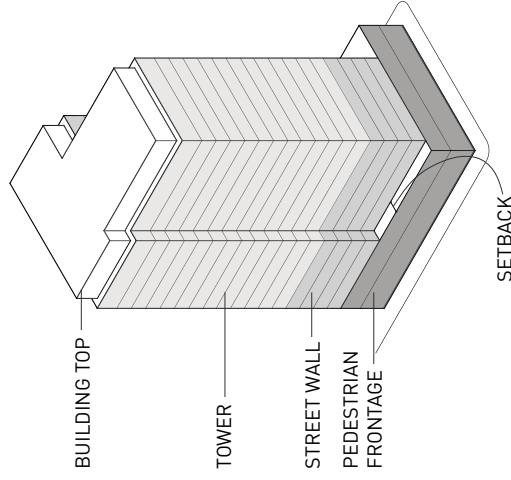
details should respond to distinctions between primary front facades and secondary facades and to differences in solar orientation.

Community Center

The community center is planned at the base of building R1, located at the heart of the district, adjoining public open space to invite and encourage use by the community. The architecture of this base in terms of configuration, formal expressiveness and transparency should reinforce this welcoming approach. Massing and architectural elements should take advantage of the building's location at the intersection of multiple significant view corridors, and details that blur the line between inside and outside are to be encouraged.

Retail Pavilions

The master plan envisions the placement of two retail pavilions along Broad Canal Way bordering the northern edge of Third Street Park, and the southern edge of Community Center Park. The pavilions are intended to be single-story in scale and highly transparent. A very light, tectonic aesthetic is to be encouraged. The retail pavilions are intended to provide both separation and connection between Broad Canal Way, Third Street Park, and Community Center Park, simultaneously allowing the street to be part of the park and the park to be part of the street.



Common Features

- Simple definition of pedestrian frontage, tower and top (3,4)
- strong expression of frame and legibility of scale (1, 2, 3, 4)
- architectural language of residential (2, 4)

1. Lantern House / New York, NY
2. Residential Complex on Zeeburger Island / Amsterdam, The Netherlands
3. 1 Flatbush Ave / Brooklyn, NY
4. Echelon Seaport / Boston, MA

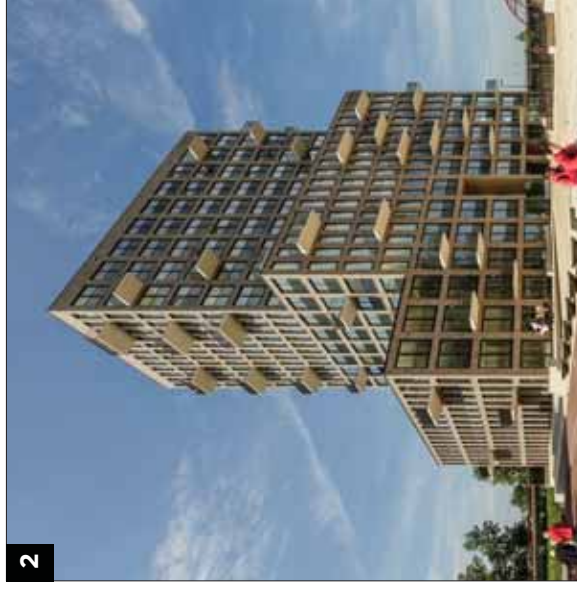
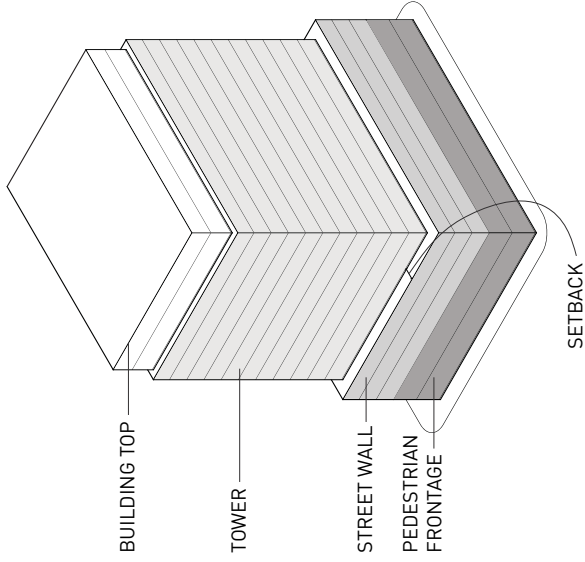


Figure B4: Massing and Articulation - Residential Buildings



Common Features

- Simple definition of pedestrian frontage, tower and top (1, 2, 3)
- strong expression of frame and legibility of scale (1, 2, 3)
- confident use of color (1, 2, 3)
- legibility of commercial use, universal and flexible space (1, 2, 3, 4)

1. Four Hudson Square / New York, NY
2. Broad Institute / Cambridge, MA
3. R7 Kings Cross / London, UK
4. Jerome Science Center / New York, NY

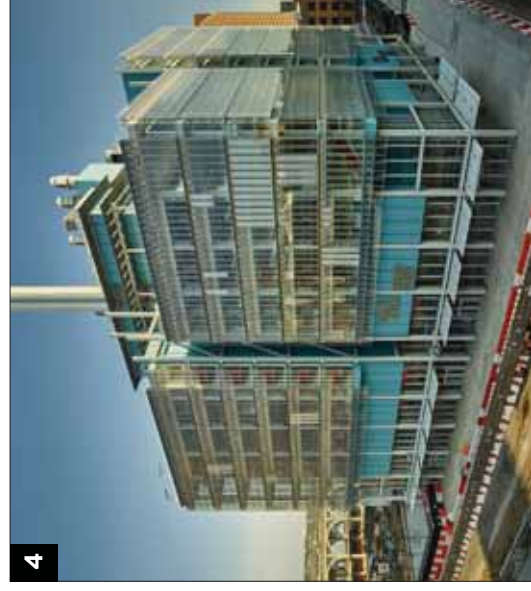
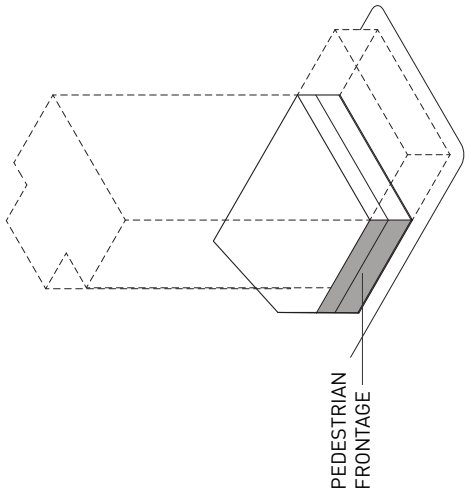
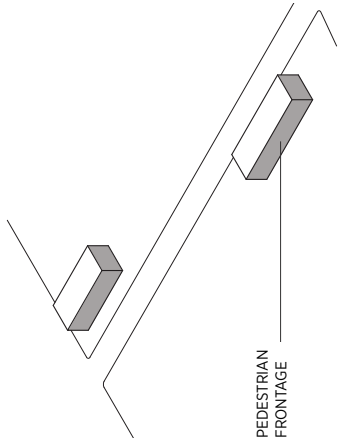


Figure B5: Massing and Articulation - Commercial Buildings



1. ICA Watershed / Boston, MA
2. 837 Washington Street / New York, NY
3. Berklee College of Music / Boston, MA
4. The Moor Market / United Kingdom

Figure B6: Massing and Articulation - Community Center



1. Coffee Kiosk / Lelystad, Netherlands
2. Trillium Fenway / Boston, MA
3. Southwest Porch / New York, NY

Figure B7: Massing and Articulation - Pavilions

Architectural Character

Architectural character and composition should emphasize a distinct identity for each building while also expressing a consistent level of quality, proportional elegance and detail throughout the Volpe Development Plan. Architectural character should weave into the history and tradition, material and color palette, and compositional organization evident in Kendall Square and East Cambridge. Attributes that create distinct architectural composition include the proportions of major massing elements and cohesive or contrasting use of materials and color. Individual building identity and character should be legible from adjacent streets and critical view corridors, while the collective Volpe redevelopment skyline should be recognizable when seen from a distance.

The architectural character should support these objectives:

- Provide diversity and variety within a community of buildings;
- Contribute to the definition and beauty of the public realm;
- Address scale at the pedestrian, building and district level;
- Respond to surrounding context of Kendall Square and East Cambridge;

The architecture character should consider the following:

- Buildings should reflect a rhythm and variation appropriate to the urban context. For example, this can be achieved by expressing bay widths of 16 to 25 feet for residential buildings and 25 to 50 feet for mixed-use and retail buildings;
- Identify facades within critical view corridors and consider design enhancement to support the project's architectural quality;
- Use variations in height and architectural elements such as parapets, cornices and other details to create interesting and varied roof lines and to clearly express the tops of buildings;
- Taller buildings should emphasize vertically-oriented proportions and should consider the variety of vantage points from which they may be seen.

Existing Landmarks and Context

Building design should consider the existing architecture of Kendall Square and East Cambridge as presenting a vocabulary of contextual precedent which may be drawn upon to heighten the perception that the new buildings that populate the Volpe Development Plan weave into the existing city fabric. That fabric is by no means uniform – multiple materials, colors, and proportions of massing elements and fenestration exist nearby and may be lessons in developing compositional strategies for new buildings. While strict imitation is discouraged, a strategy of reference and interpretation is encouraged, with individual design teams at liberty to study elements of the Cambridge vocabulary for inspiration. A city consists of both background buildings and foreground buildings. As an ensemble, the ultimate build-out of the Volpe site should be comprised of neither all foreground nor all background buildings.

1. Volpe National Transportation Systems Center / Cambridge, MA
2. MIT 238 Main Street / Cambridge, MA
3. 675 Kendall Street / Cambridge, MA
4. 181 Massachusetts Avenue / Cambridge, MA
5. 75 Amherst Street / Cambridge, MA



Figure B8: Architecture Character – Existing Context

Residential Buildings

Compositional strategies for residential buildings should include:

- Creating varied architecture and avoiding uniform box-like proportions by including setbacks, bays, balconies, porches, and other projecting or recessed elements.
- Maximizing the number of windows facing public streets to increase a sense of safety and security.
- Where buildings employ setbacks at upper floors, lower roofs may be used to create balconies, terraces, and gardens.
- Utilizing massing and articulation, such as varying the plane of the façade, modulating the proportions of fenestration, introducing more than one cladding material, and employing architectural detail – all to break down the overall scale of the buildings while maintaining a cohesive architectural expression.

1. 10 Bond / New York, NY
2. 500 W21st Street / New York, NY
3. Residential Building / Tehran, Iran
4. 360 East 89th Street / New York, NY
5. MIT 290-292 Main Street / Cambridge, MA

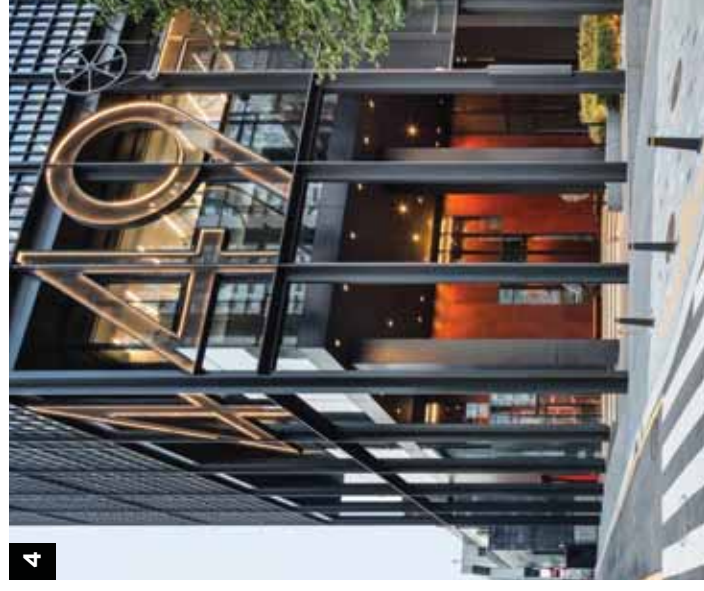
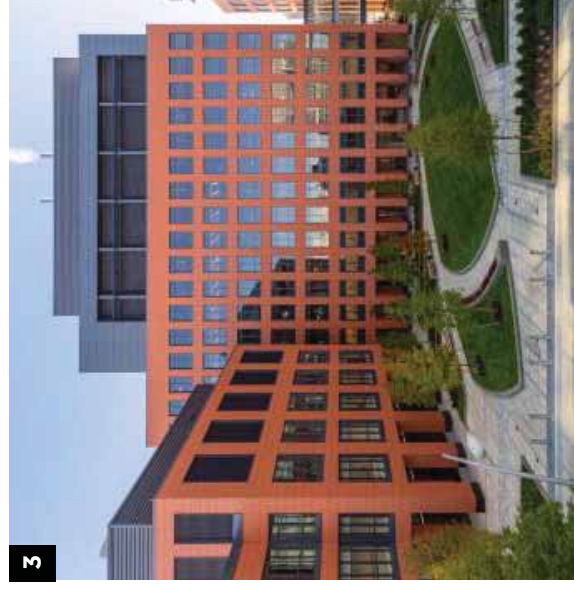
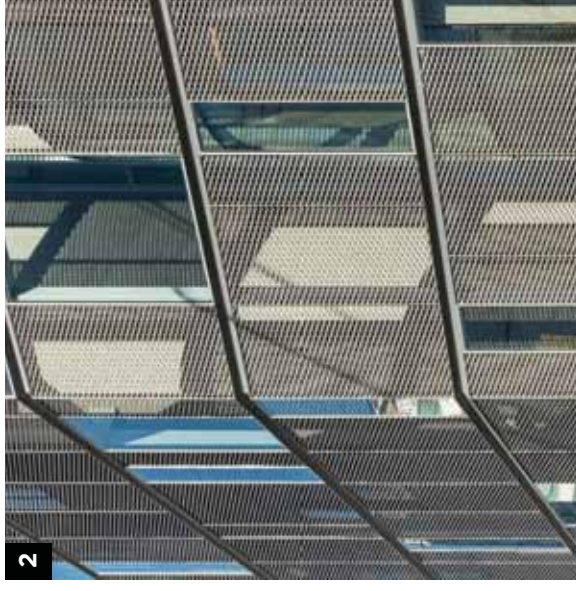


Figure B9: Architecture Character – Residential Buildings

Commercial Buildings

Careful articulation of large commercial buildings is critical to enable the buildings to relate to the scales of the city, the neighborhood, and the pedestrian. Compositional strategies for commercial buildings should include:

- Creating varied architecture and avoiding monolithic, bulky proportions by using setbacks (both in plan and section), recessed or projected bays and entryways, canopies, awnings and other detail elements, and articulating changes in use (ground floor retail, upper level mechanical floors, etc.).
- Varying the architectural massing and character of individual buildings to create diversity and identity.
- Where buildings employ setbacks at upper floors, lower roofs may be used to create useable balconies and terraces.



1. Bruce C Bolling Municipal Building / Boston, MA
2. Dogok Office / Seoul, South Korea
3. 610 Main / Cambridge, MA
4. Shinsegae International / Seoul, South Korea

Figure B10: Architecture Character - Commercial Buildings

- Utilizing massing and articulation, such as varying the plane of the façade, modulating the proportions of fenestration, and employing architectural detail - all to provide appropriate hierarchy of scale for the buildings while maintaining a cohesive architectural expression.

and service doors. Additional on-building lighting should be limited to areas of architectural significance. Uplighting of building tops is not appropriate. Fixture selection should conform to the following general criteria:

- Clean, simple, modern aesthetic;
- Highly durable;
- Across the overall Volpe site, a variety of on-building lighting fixture types is encouraged to reinforce individual building identity;
- Avoid any uplighting that will contribute to light pollution.

Lighting

On-building lighting throughout the development parcels should consistently be high quality, durable, simple and modern. On-building lighting should be generally located within the Pedestrian Zone, defining building primary entries, retail or dining venues and illuminating exterior egress

Street Level Uses and Design

The Project, as an interconnected mixed-use development, is intended to be an inclusive and equitable urban environment that nurtures, inspires and links arts and science, as well as people and events. To meet this intent, the Project is designed to include an array of workplaces, residences, retail, restaurants, arts and entertainment, recreation and active open space where people of all ages, abilities, incomes and backgrounds can live and feel welcome. The entire development is planned to be an integral part of Cambridge.

The extent and location of more than 3.5 acres of publicly beneficial open space, combined with significant retail areas targeted toward small,

local, independent businesses will activate the entire district, providing enjoyment and recreation to residents, neighbors, and visitors. The Various venues for gathering, the arts, entertainment, recreation, and innovation will create a place that fosters community and opens up social and economic opportunities. Largely transparent, active places of public accommodation, located at street level, are intended to blur the boundary between inside and outside, energizing both. The diverse mix of retail, dining, recreation and community uses will extend the activity, vibrancy and security of both the immediate site and the neighborhood across the day, week, and year.



INNOVATION SPACE



ARTS AND ENTERTAINMENT



RECREATION AND COMMUNITY SPACE



ACTIVE CIVIC SPACE



RETAIL AND ACTIVE USE

- POTENTIAL RETAIL / ACTIVE USE
- LOBBY
- RECREATION AND COMMUNITY SPACE
- MUSIC AND ENTERTAINMENT
- COMMERCIAL AND BACK OF HOUSE

Figure B11: Ground Floor Activation

Accessible, Inventive and Interesting Retail

Ground floor retail and active use space is an integral component of the Volpe Development Plan. It will contribute to the vibrancy and inclusiveness of the district, foster a sense of security across many hours of the day, and provide venues for both planned and serendipitous social and intellectual interaction to occur. By focusing on small, local, independent retail businesses, the sense of neighborhood and of connectivity to greater Cambridge will be amplified. The commitment to provide 100,000 square feet of active places of public accommodation at street level will infuse significant street activity throughout the site and attract a broad range of users to the district. As written in the PUD-7 Master Plan criteria [13.91.4.11], design should, "...harness the spirit of innovation and creativity in Kendall Square and [reinforce] a Cambridge sense of place."

1. La Fabrica / Cambridge, MA
2. University Stationery / Cambridge, MA
3. Veggie Galaxy / Cambridge, MA
4. Brothers Marketplace / Cambridge, MA
5. Cambridge Bicycle / Cambridge, MA
6. Shy Bird Restaurant / Cambridge, MA



1



2



3



4



5



6

Figure B12: Accessible, Inventive and Interesting Retail Precedents

Recreation, Community, Arts and Creative Enterprise

Located at the heart of the district, the Community Center adjoins public open space to invite and encourage use by the community. Scale, inventive form and transparency should all be utilized to convey a sense of welcome and a spirit of recreation, creativity and community. It has been intentionally proposed in tandem with Community Center Park, blurring inside and outside, relating to the public nature of the park while shielding the Center from the bustle of Broadway and Third Street and serving to draw the public into the new urban district. Championed by neighborhood residents, this will be a public Community Center. Its programmatic intent is to attract a diverse set of users through activities that encourage community and informal interactions between residents and workers.

Community, arts and creative enterprise spaces will be a key component of the Volpe Development Plan in places and spaces in addition to the Community Center. These uses will contribute to the vibrancy and inclusivity of the district, provide social anchors for the neighborhood, complement traditional retail uses, and be programmed to attract a range of diverse participants.

1. Bolt, Boston's Startup Accelerator / Boston, MA
2. Agora Gallery Fine Art Exhibitions / Denver, CO
3. Q Division Studios / Somerville, MA
4. Soundbox / San Fransico, CA
5. War Memorial Recreation Center / Cambridge, MA
6. MuckyKids Art Studio / Cambridge, MA



Figure B13: Recreation, Community, Arts and Creative Enterprise Precedents

Programmed and Activated Open Space

The site's highly interconnected and differentiated public realm spaces are to be designed to support a wide range of outdoor uses. Enlivened by the ground floor of the buildings, and enhanced by inclusive public programming, the open spaces are intended to be wholly welcoming and public in use and character.

The varied size, scale, and type of open spaces distributed throughout the Volpe Development Plan will provide an intentional mix of civic experiences - from busy commercial street, to wide tree-lined street, to the dense tree canopy of a linear urban promenade, to the shared landscape of the new Volpe National Transportation Center, to a public park - the variety of these urban space types will contribute to the permeability and urban spirit of Kendall Square and East Cambridge. They will encourage residents, neighbors, and visitors to linger, relax, recreate, and to simply enjoy walking through an urban neighborhood.



1



2



3



4



5



6



7



8

1. Assembly Row / Somerville, MA
2. Shade Structure / San Antonio, TX
3. Basketball Court / Venice Beach, CA
4. Raoul Wallenberg Square / Stockholm
5. Sunset Triangle Plaza / Los Angeles, CA
6. Community Wellness at MIT Medical / Cambridge, MA
7. Place des Festivals / Montreal, Canada
8. BoxPark / London, UK

Figure B14: Programmed and Activated Open Space Precedents

C: Transportation and Public Transit

Connections to Transit Routes

The Volpe Development Site is accessible by MBTA's Red Line, Green Line, as well as MBTA Bus lines #1, #64, #68, #85 and #CT2. In addition, several shuttle services such as the CRTMA's EZRide, CambridgeSide Shuttle and MIT shuttles are also available near the Site.

A graphic illustration of the study area transit lines is presented in the Connections to Transit Routes Figure.

the adjacent neighborhood, multiple connections across Third Street to the existing retail and commercial buildings, and connections on the south, crossing Broadway to Main Street and MIT's SoMa campus as well as the four Kendall/MIT Red Line head houses. The important pedestrian link through the Marriott hotel will remain. The diagram also highlights the west side of the Volpe site and its connection to the Loughrey Walkway and the Kittie Knox Bike Path, as well as MXD district and beyond.

Pedestrian Connectivity

The Volpe Development Plan prioritizes connectivity and permeability with the site connecting not only to the immediate area, but also further out to other Cambridge neighborhoods as well as Boston and Somerville. Key destinations and places of interest are called out in the Pedestrian Connectivity Figure, and include a combination of landmarks, recreational and open spaces.

Connections to Bicycle Routes

The 2015 Cambridge Bicycle Network Vision looks at broad urban connectivity of bicycle routes and illustrates how the site connects to the East Cambridge bike network, and how it will establish good connections to transit lines and connections to Boston and Somerville. Volpe's bicycle connectivity will be coordinated with the city's bicycle network vision and CRA's streetscape improvement plans.

Pedestrian Circulation

Pedestrian circulation is encouraged around the site as well as through the site. Circulation paths will follow sidewalks and crosswalks and lead to general entry locations for the proposed buildings. The figure also highlights pedestrian connections including to the north, crossing Binney Street to

Bicycle Circulation

The diagram illustrates the Volpe Development Plan's proposed buildings and street network with expected bike circulation overlaid. The placement of bike racks will meet zoning requirements, including distance from entries and offsets from other racks.

Vehicular Circulation

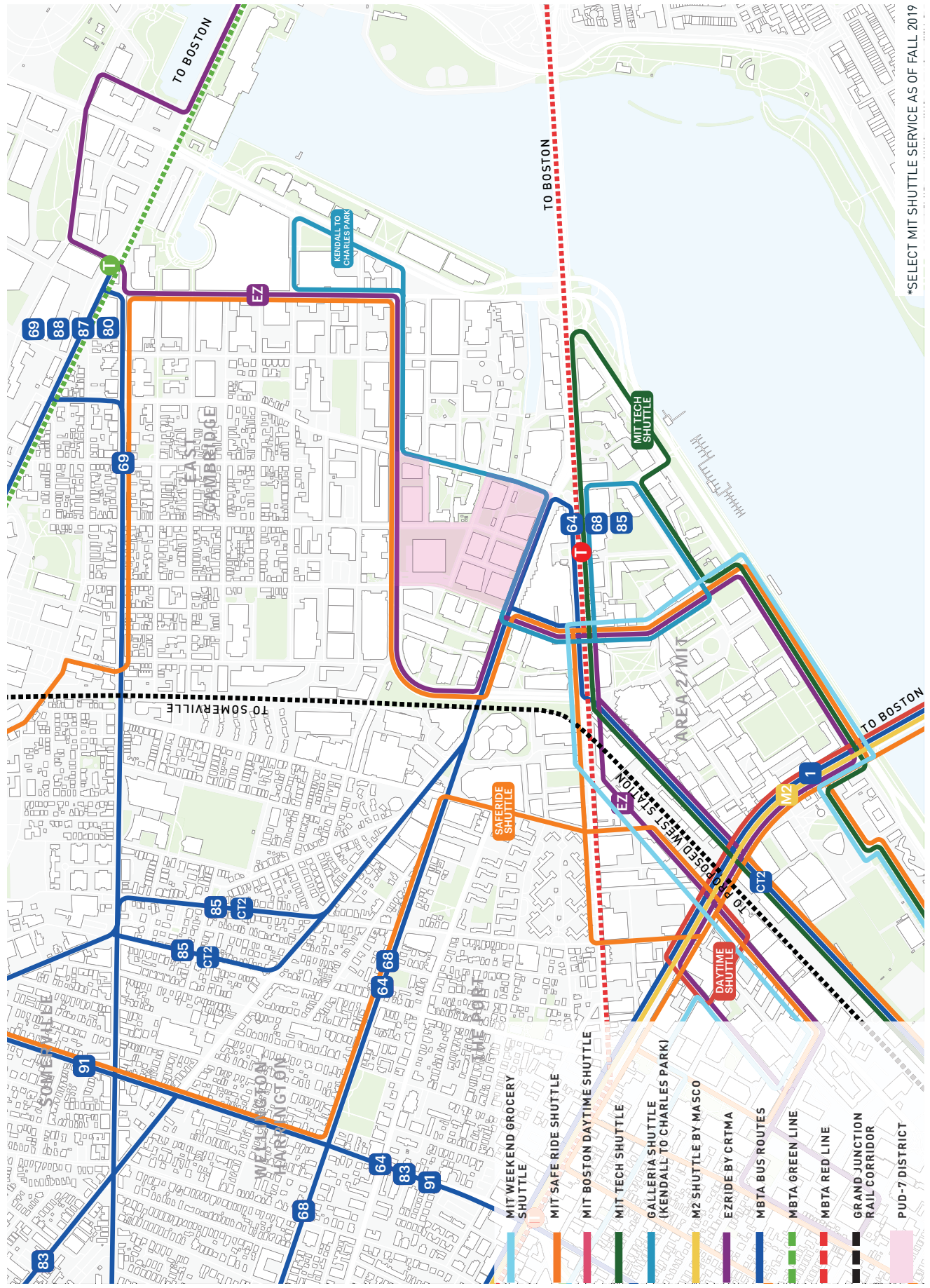
The Vehicular Circulation Plan illustrates how vehicular traffic accesses the Volpe Development Plan. The Truck Circulation Plan illustrates service vehicle access.

Passenger vehicles entering the development site to park (either in a garage or on-street): the site is planned to include two garages - a north garage between Binney and Munroe Streets and a south garage between Potter Street and Broadway. Preliminary design capacity of the two garages is based on a shared parking demand analysis. Garage entrances are indicated with blue triangles. One garage entrance on Munroe Street, two garage entrances on Potter Street, and one garage entrance on Fifth Street are proposed. The opportunity exists to introduce some on-street parking along the proposed new streets. On-street parking locations have not been finalized, but proposed locations are indicated in the Curb Utilization Plan. The gray solid lines indicate existing on-street parking that is either

public (Munroe Street) or private (west and south sides of 303 Third Residences).

Passenger vehicles entering the development site to pick up or drop off passengers (but not to park longer-term): flexible curb or active curb spaces for drop-off and pick-up activities are indicated - taxis, ride app vehicles, or future automated vehicles. Along Broadway, it is anticipated that some length of curb could be designated for this type of temporary activity. Internal to the redevelopment site, Broad Canal Way is also expected to include sections of active curb. Additional, building-specific curbside drop-off zones are anticipated on Fifth Street.

Service vehicles entering the redevelopment site to pick up or drop off goods (mail and packages, trash, supplies, etc.): Red triangles indicate general locations of proposed loading docks. Service vehicle routes to and from the loading docks are indicated.



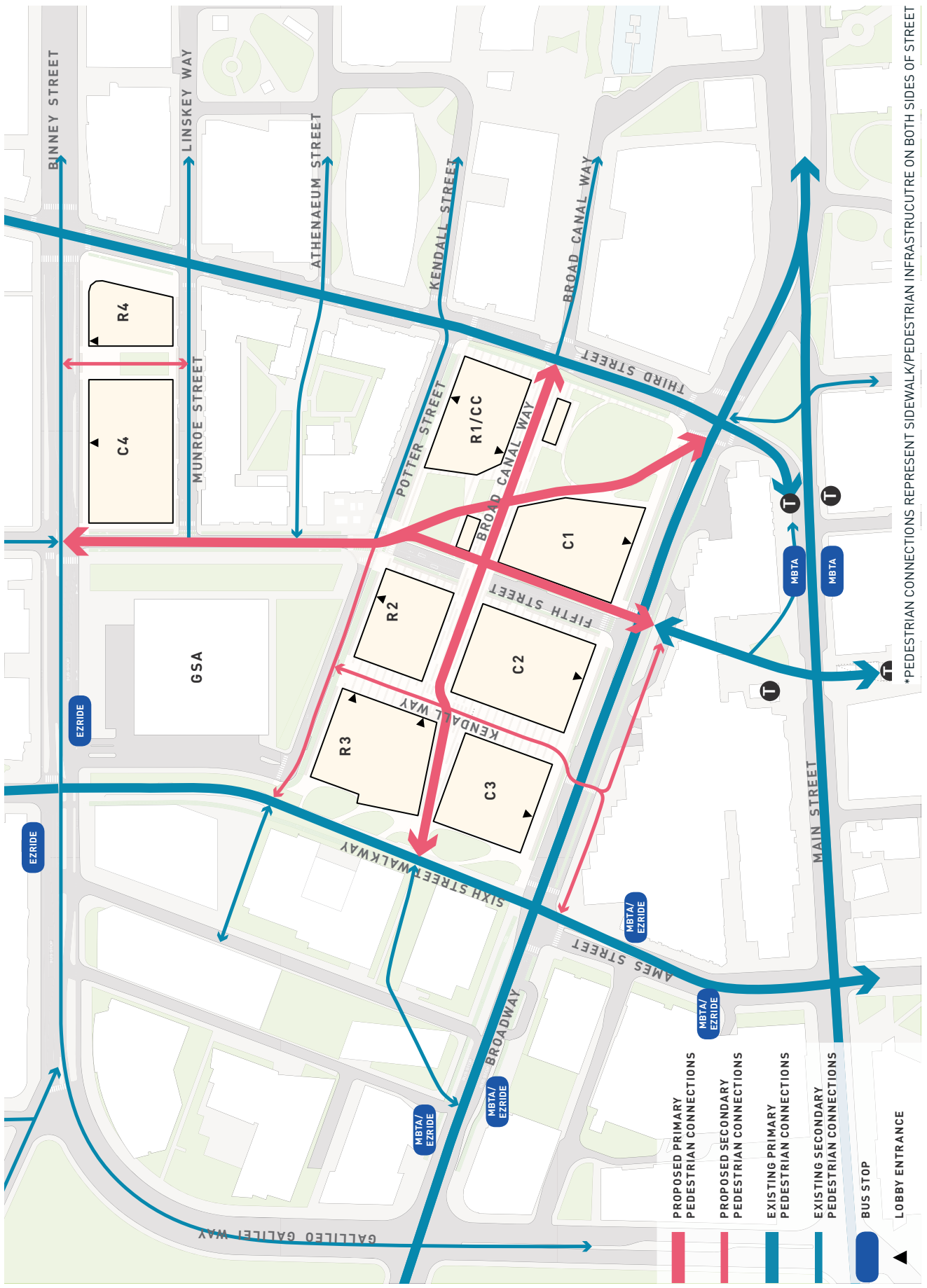
*SELECT MIT SHUTTLE SERVICE AS OF FALL 2019



Figure C1: Connections to Transit Routes



Figure C2: Connections to Surrounding Context



*PEDESTRIAN CONNECTIONS REPRESENT SIDEWALK/PEDESTRIAN INFRASTRUCTURE ON BOTH SIDES OF STREET

Figure C3: Pedestrian Connectivity Plan

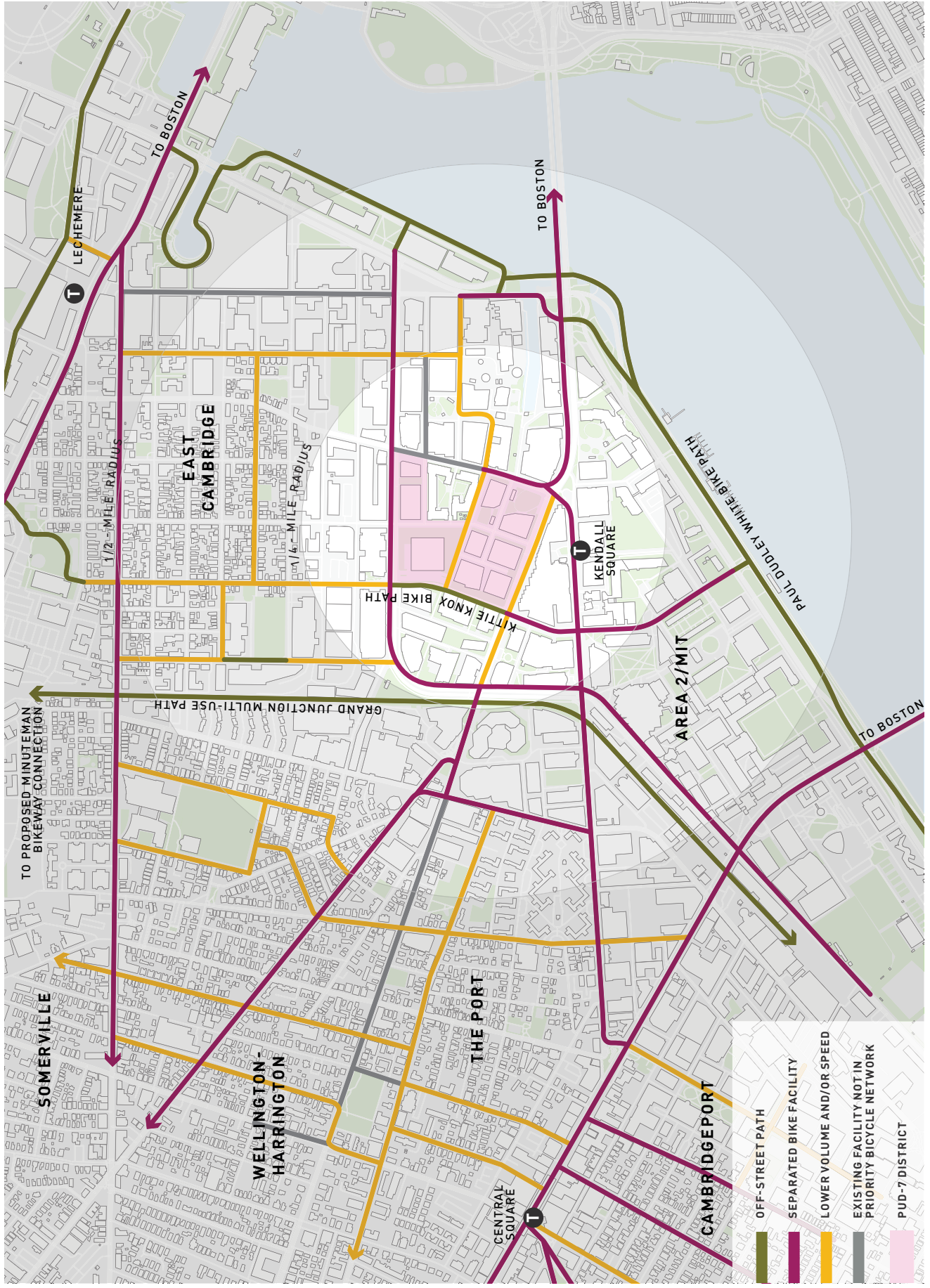
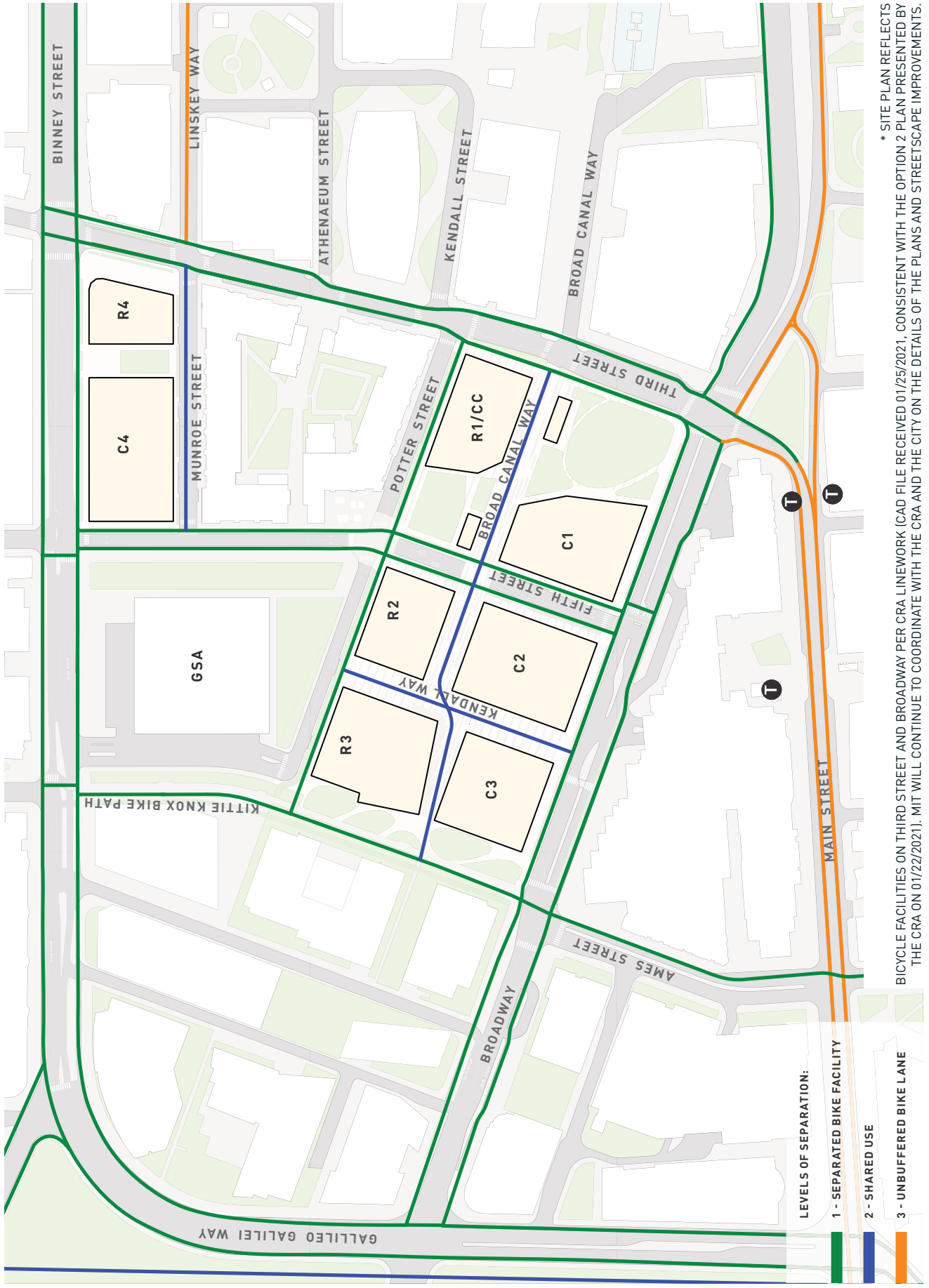


Figure C4: 2015 Cambridge Bicycle Network Vision



* SITE PLAN REFLECTS BICYCLE FACILITIES ON THIRD STREET AND BROADWAY PER CRA LINENWORK (CAD FILE RECEIVED 01/25/2021), CONSISTENT WITH THE OPTION 2 PLAN PRESENTED BY THE CRA ON 01/22/2021). MIT WILL CONTINUE TO COORDINATE WITH THE CRA AND THE CITY ON THE DETAILS OF THE PLANS AND STREETScape IMPROVEMENTS.

Figure C5: Bicycle Connectivity Plan

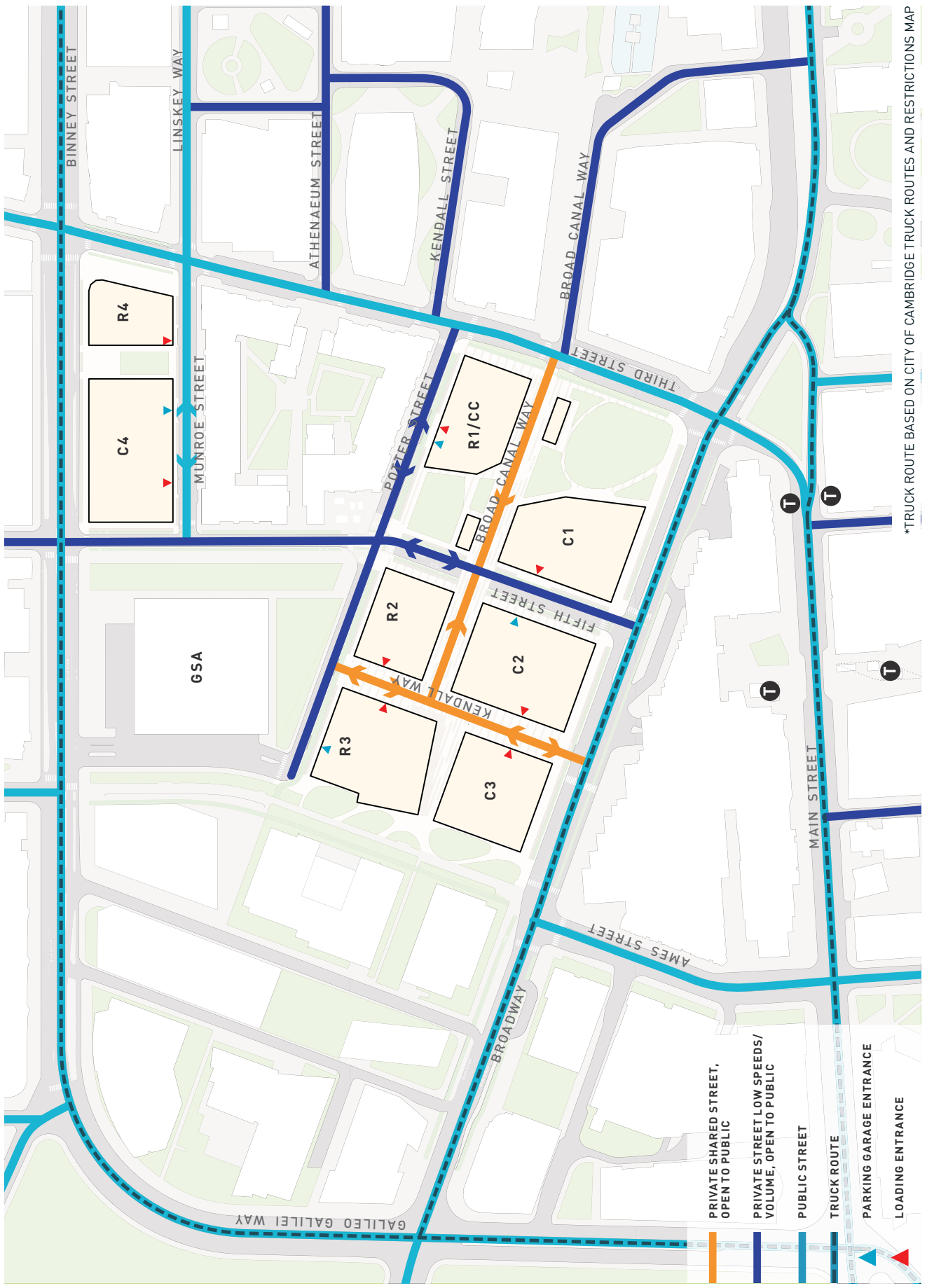


Figure C6: Vehicular Plan



Figure C7: Vehicular Plan - Curb Utilization

D: Public Realm

Vision

The public realm of the Volpe Parcel will be a vibrant, one-of-kind district that thrives on Kendall Square's natural resource of innovation and brings together researchers, residents, students, neighbors and visitors – daytime and nighttime.

The following guidelines describe a public realm that is at once inclusive, innovative, resilient and flexible. The exterior fabric of the district — its streetscapes, parks, plazas, passages, tree canopy, furnishings, and more — must reinforce and complement the identity, vibrancy, and connectivity of the Volpe site. The space of the public realm will extend beyond the walls of the proposed buildings, linking the interior with the exterior and creating continuity in use and program.

Principles

- Establish order and connectivity
- Promote pedestrian-oriented character
- Activate a vibrant district
- Enable identity and flexibility
- Be inclusive and accessible.

1. The Porch / Philadelphia, PA

Figure D1: Public Realm Precedent





- PEDESTRIAN - EXTERIOR
- PEDESTRIAN - INTERIOR
- VEHICULAR
- SHARED

Figure D2: Public Realm

Open Space Character and Programming

Varied in size and character, the Volpe Development Plan's parks, squares, pocket parks, passages and streets will provide opportunities for active and passive use for a diverse population. A large civic park at Third Street and Broadway will provide for the flexible use of large gatherings while its periphery is to be supported by active retail and food and beverage. Smaller pocket parks and passages will create more intimate gathering places for smaller groups and individuals. These varied open spaces have been planned to be distributed throughout the greater site, located to take advantage of adjacencies and designed to create a highly connected open space network drawing people into and through the site, weaving the new development into the fabric of Cambridge:

- Pocket parks should be intimate in scale, employing smaller-scale landscape elements and relating specifically to the buildings that define them, and offer opportunities for community recreation.
- Passages should be designed to be both transient spaces intended to connect the open space network and static spaces intended to provide a reservoir of pre-function and spillover space associated with adjacent public uses.
- Streets are the primary connective tissue of the public realm. They should be efficient in the circulation of pedestrians, bicyclists and vehicles, and safe in their accommodation of each, while offering a wonderful, tree-lined, urban path along which to stroll, shop, dine or rest.

- Parks are to be varied in character, yet evident as part of an interconnected whole. They should be designed as shared elements of the public realm, relating equally to streets and buildings both inside and outside of the Volpe site.
- Urban squares and plazas act as punctuation marks within the open space network. They should be understood as public places to pause, gather, people-watch and to feel part of a greater urban community.

1. Central Wharf Pavilion (RH) / Boston, MA
2. Marion Square / Chicago, IL
3. City Square / Washington DC



Figure D3: Open Space Character Precedents



Figure D4: Open Space Typologies

Third Street Park

A substantial new park at Third Street and Broadway will establish the identity of the Volpe Development Plan as a network of publicly beneficial open spaces. The tree-lined shaded park will promote communal gathering and individual respite from the activity of the surrounding city. The space is to be designed for flexibility and resiliency, adaptable to the changing needs of future generations while promoting environmental stewardship.

Characteristics:

- The park is to be civic in presence and scale, with high visibility from the surrounding district.
- Flexible in nature, the space should accommodate large gatherings while still feeling comfortable for smaller groups of users.
- The park is to be designed to provide shade and cooling through preserved existing and new canopy trees, while minimizing the heat island effect in the neighborhood.
- Entry points are to be clear and evident, and designed without barriers.
- Peripheral spaces should complement the active edges, while providing a slight buffer from the adjacent streets.

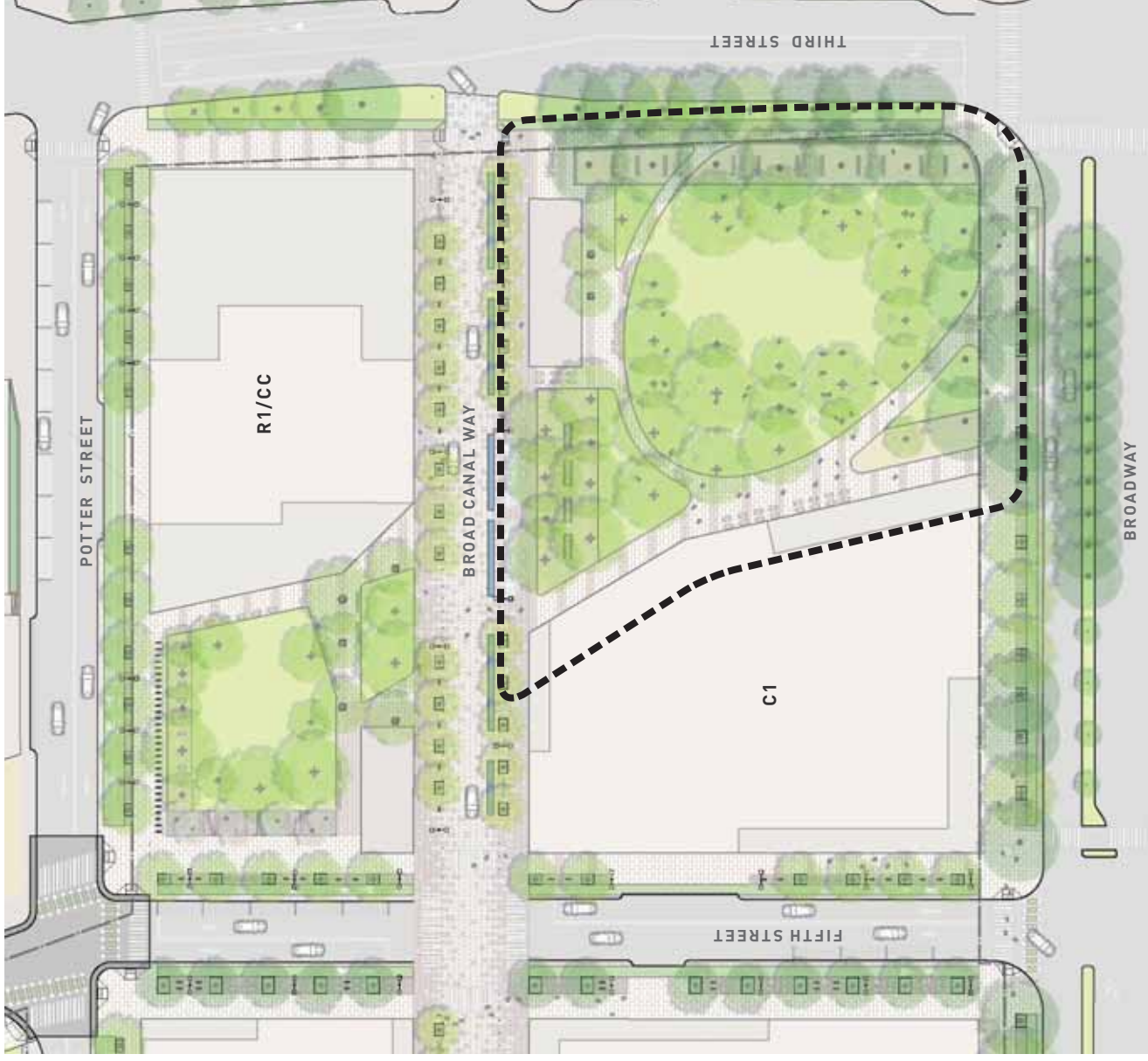


Figure D5: Third Street Park Plan



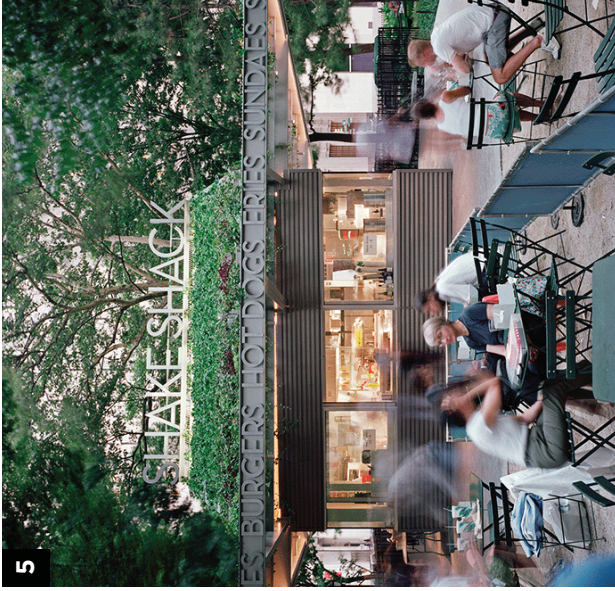
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1. Dallas Art District / Dallas, TX
2. Group Fitness
3. Bryant Park / New York, NY
4. Copley Square / Boston, MA
5. Madison Square Park / New York, NY
6. Zuccotti Park / New York, NY

Figure D6: Third Street Park Precedents

Sixth Street Park

The Sixth Street Park is to expand the tree-lined allée of the Loughrey Walkway to create an enhanced park that will host a varied set of recreation and casual leisure spaces that serve the neighborhood and community. The Sixth Street Park is to provide a wide buffer from the edge of the new buildings to the existing trees of Loughrey Walkway, helping to ensure their preservation.

Characteristics:

- To be designed for programmed and unprogrammed activities to serve the needs of the neighborhood, such as children's play spaces, a dog run, and passive respite.
- The park design is to have no impact on the edge of the existing allée of trees at Loughrey Walkway.
- The park is to provide shade and cooling with both preserved existing and new canopy trees, while minimizing the heat island effect in the neighborhood.

Passage to Loughrey Walkway

This sheltered passage between Buildings C3 and R3 is to provide a pedestrian open space connection from Broad Canal Way to the Sixth Street Park and Loughrey Walkway. The space is to operate as forecourt and pre-function space to the Entertainment Venue and as an active, lively corridor for community arts.

Characteristics:

- To be designed to encourage visual and physical connectivity between Loughrey Walkway and Broad Canal Way.
- Architectural elements should be both open and sheltering, encouraging both movement and pause.

1. Seating Under the Canopy
2. Hammocks
3. Public Board Games
4. Dog Park
5. Play Lawn
6. Light Installation
7. Play Features
8. Half Court Basketball
9. Court Games



Figure D7: Sixth Street Park Plan



Figure D8: Sixth Street Park Precedents

Community Center Park

The Community Center Park, at the corner of Broad Canal Way and Fifth Street, extends opportunities for local gatherings related to the Community Center itself. Envisioned as an active and programmable site at the heart of the project, it is a place for shade, play, group exercise, outdoor classes, and more. Beyond its role in complementing the programming of the Community Center, the Park can also be integrated into larger events and festivals on Broad Canal Way and the Third Street Park. In this way it provides the possibility of continuously occupied event space from Third and Broadway up to the Volpe Art Lawn at the DOT site.

Characteristics:

- Placed in the heart of the Volpe development, the Community Park is fully accessible by sidewalks on Potter Street, Fifth Street, and Broad Canal Way. It will be a hub of activity for locals.
- The park has fixed elements of seating and game tables, but also allows flexibility for both programmed and casual recreation.
- There is a component of retail activation space on the corner at Fifth and Broad Canal Way—imagined as a food and beverage amenity for shoppers and park users, with shaded sitting



Figure D9: Community Center Park Plan

- areas immediately proximate with a view onto the park lawn space.
- The park is anticipated to have a distinctly local focus and daily rhythm: Programmed activities for seniors in the mornings, casual uses around mid-day, and spill-out functions from the Community Center after-school programs.



1. Public Horticulture
2. Group Fitness
3. Science Festival
4. Outdoor Classroom

Figure D10: Community Center Park Precedents

Binney Street Pocket Park

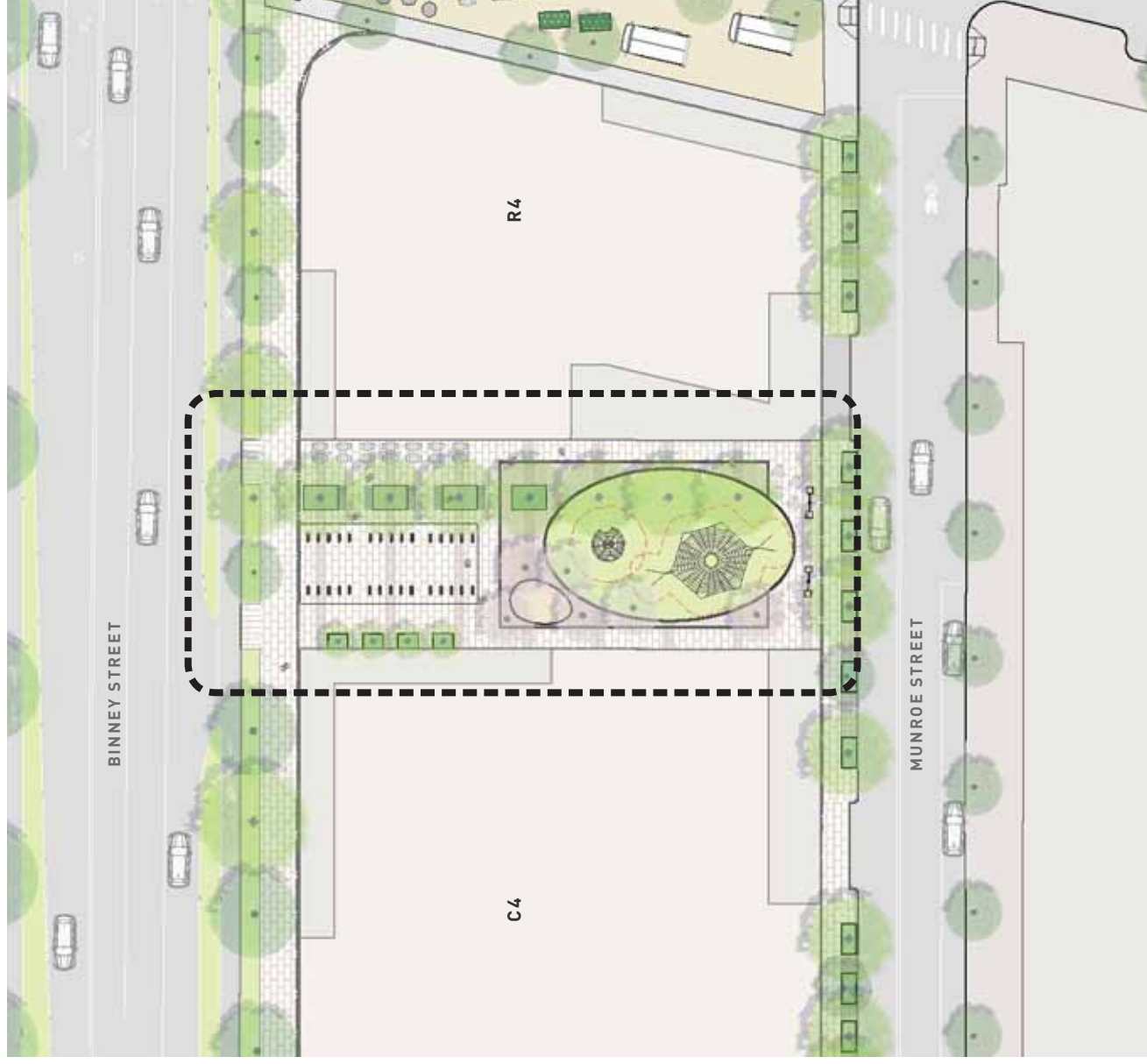
The proposed Binney Street Pocket Park provides a shaded play space between Binney and Munroe Streets for residents, visitors, and the surrounding neighborhood. Programmed with climbing structures and other play equipment, the space takes advantage of the solar exposure and limited traffic on Munroe Street to create a needed amenity for the neighborhood, promoting social life and interaction. Ample space allows for temporary bicycle storage, shaded gardens, and spillover from adjacent retail.

Characteristics:

- The space should be intimate, and appropriate scaled for its surrounds.
- Landscape elements should focus on children.

1. Section Perspective of Binney Street Pocket Park looking North
2. Playscape
3. Climbing Structure
4. Sandbox

Figure D11: Binney Street Pocket Park Plan





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Figure D12: Binney Street Pocket Park Precedents

Street Character and Circulation

The public realm of the street plays a number of vital roles within the life of a city. Beyond circulation, the components of streets provide opportunities to support local businesses through retail frontage and spillover, while also creating spaces for relaxation and gathering. In order to accommodate its many functions, the streets are to be divided into several components as described below.

- Travel lane – will convey vehicular traffic through the district and may either be dedicated to vehicles or shared with pedestrians and bicyclists.

Typical Street Components

- Pedestrian walkway – to include a clear travel walking area plus an area of retail frontage and spillover, both sized appropriately to the scale and use of the street.
- Furnishing zone – to include street lighting, trees and other plantings, a variety of street furniture, bike racks and signage, and storm water capture.
- Separated bike lane – to be designed per City of Cambridge standards, the bike lane is to be dedicated for cyclist travel.
- Buffer – to provide a safe space between the separated bike lane and the vehicular lane.
- Active curb zone / short-term parking – location and frequency to vary by street, intended to allow for vehicles to safely and briefly stop along the curb.



Figure D13: Typical Street Components

Fifth Street

Neighborhood Connector

Fifth Street will accommodate a broad pedestrian walk and furnishing zone on the west side of the street from Binney Street to Broadway, reinforcing the street's presence as a primary north-south connector. Materials, furnishings, lighting and planting should delineate places for gathering and movement.

Characteristics:

- Fifth Street is to be a two-way neighborhood street with active retail.
- Curb lines and materials are to define distinct areas of travel for pedestrians, bicycles and vehicles.
- The vehicular street width is to be consistent, with asymmetrical planting, walkway and bicycle zones.
- Short term parking and active curb drop-offs are to be located on both sides of the street.

1. The Avenue / Washington DC
2. Plaza at the Met / New York, NY
3. Street Furniture



Figure D14: Fifth Street Precedents

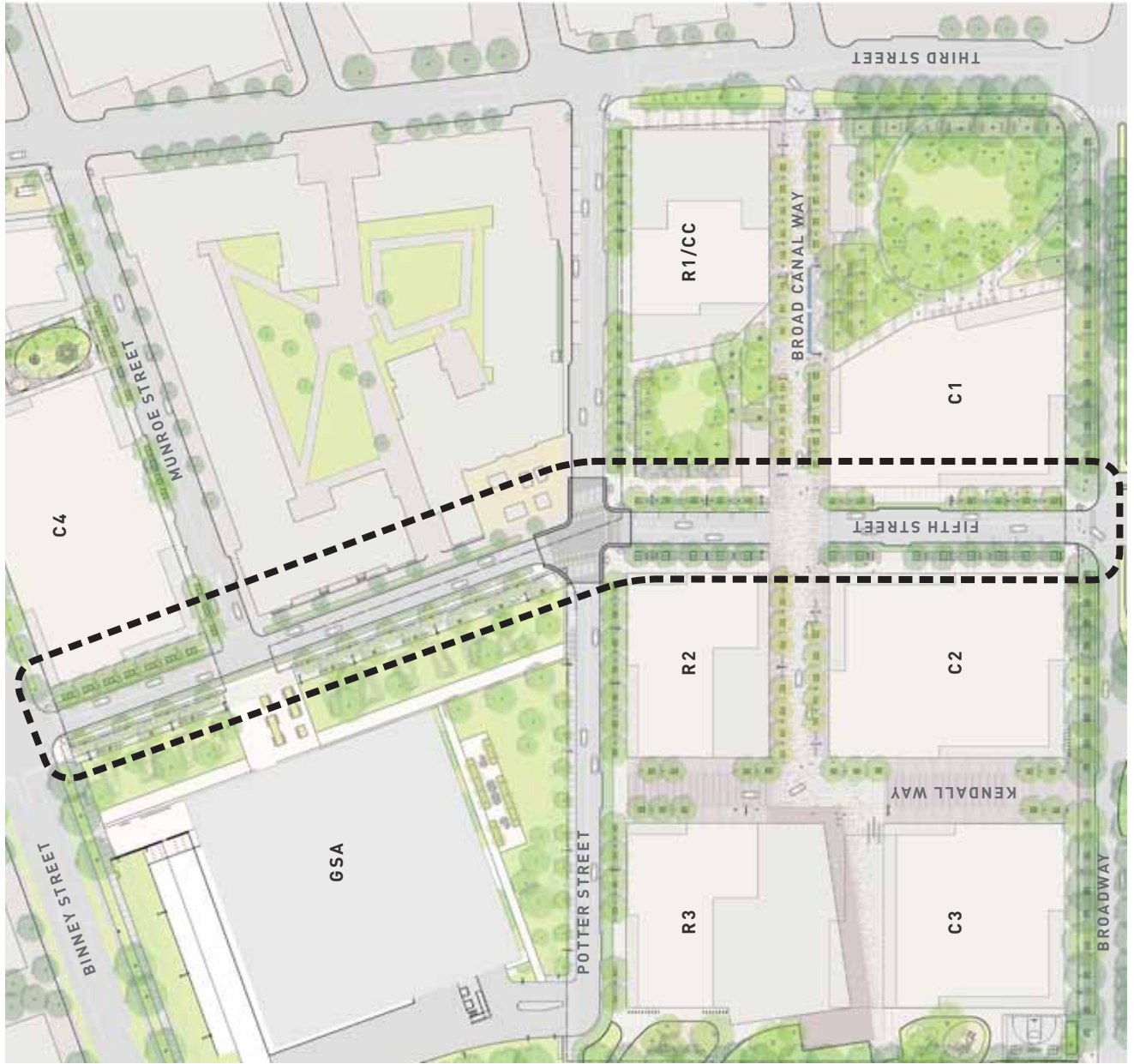


Figure D15: Fifth Street Plan

Fifth Street at Broadway

Fifth street between Broadway and Potter takes advantage of an asymmetric street section on its western edge to create an active commercial zone. Informed by the northern end of Fifth Street, the wider sidewalk and furnishing zone expresses a major north-south pedestrian connection that draws neighbors into and through the development.



Figure D16: Fifth Street Corridor



*DIMENSIONS ARE APPROXIMATE

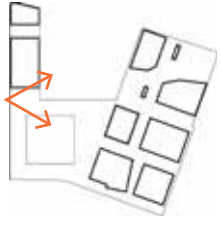
Figure D17: Street Section - Fifth Street South of Potter

**Fifth Street at Binney:
Promenade and Art Lawn**

At the northern end of Fifth Street, the western edge is designed to create a seamless expanse of promenade and art lawn - a feature developed separately as part of the new Volpe National Transportation Center site. The volume of space at the north end opens to welcome and drawn neighbors into the greater development.



Figure D18: Fifth Street at Binney Street



*DIMENSIONS ARE APPROXIMATE

Figure D19: Street Section – Fifth Street at Binney

Broadway

An Active Commercial Edge

With the Volpe Development Plan, Broadway will be transformed into a double-sided commercial street from Third Street to Ames Street with a consistent streetwall. The existing condition of the boulevard and existing street trees provides pedestrian scale and ample shade for the active retail frontage. For resiliency against future potential flooding, the floor elevations will be raised, creating an elevated porch along the southern edge of at least two of the commercial buildings.

Characteristics:

- Ground floor and streetscape design should convey a transparent, urban commercial edge.
- Existing, mature street trees should be protected and preserved.

1. Old Market / Omaha, NE
2. Boston Design Center / Boston, MA
3. Ink Block / Boston, MA



Figure D20: Broadway Precedents

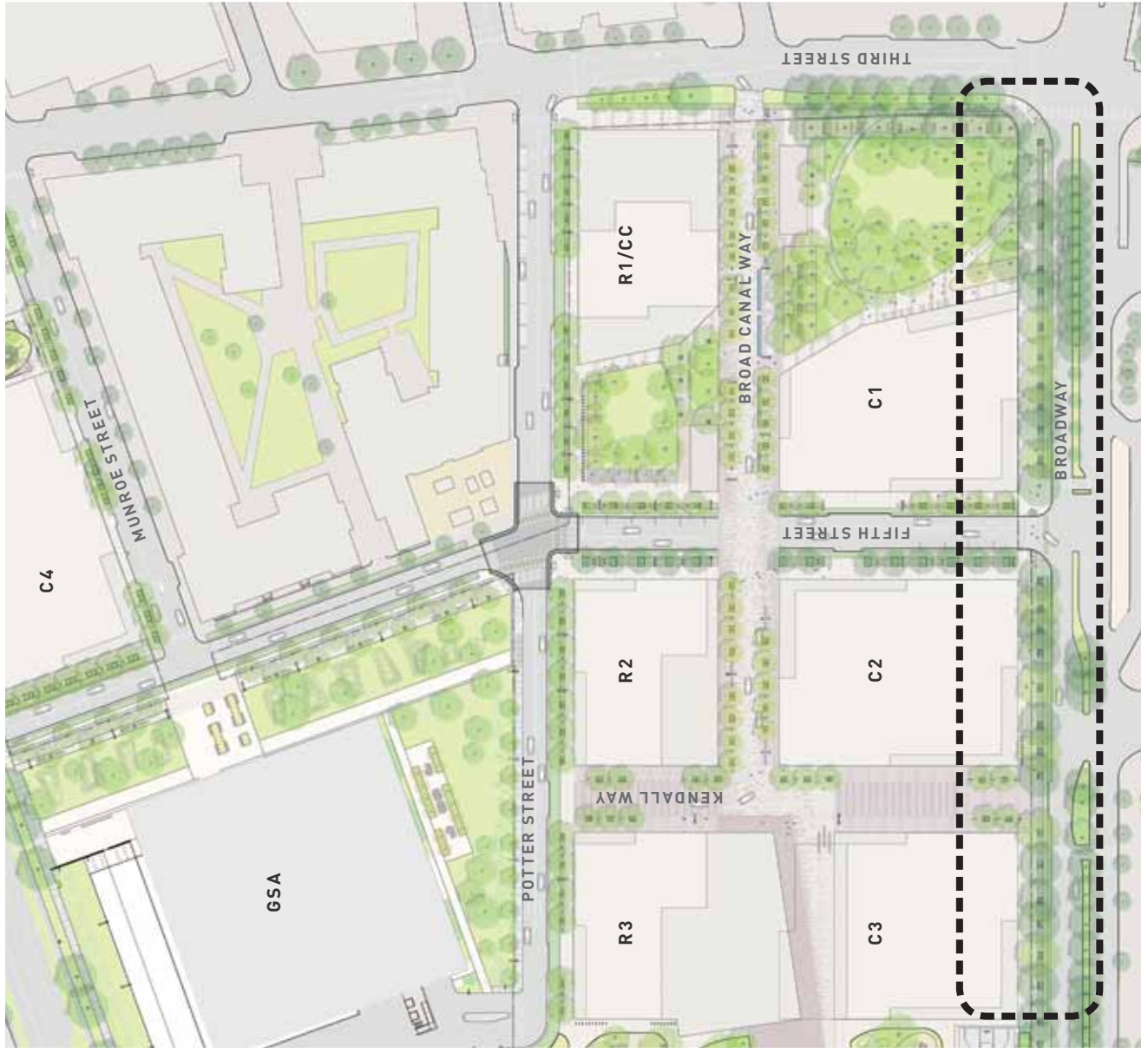


Figure D21: Broadway Plan

Broadway Resiliency: A View from the Street

The finished floor elevation for all buildings in the Project will be set to a minimum elevation of 21.4 CCB to allow for buildings to be resilient towards the 2070 100-year storm elevation. The building frontage along Broadway is anticipated to have an approximate 18-inch grade change to meet the resiliency elevation of 21.4' CCB.

The raised ground floor elevation to accommodate sea-level rise should be embraced as an opportunity to create a raised deck for dining and sitting that affords a slight separation from and view over the pedestrian flow of Broadway.



Figure D22: Broadway Porch at Fifth Street



*DIMENSIONS ARE APPROXIMATE

Figure D23: Street Section - Broadway

Binney Street and Third Street

Binney Street: An Accessible Public Realm

Binney Street is a broad, commercial street with a series of relatively new, large-scale buildings lining most of its north side. Yet its nature is somewhat chimerical. In a sense, it acts as a threshold to the residential neighborhood to its north, with the commercial scale of its buildings acting as a buffer between the scale of Kendall Square and that of the East Cambridge neighborhood. Within the length of the Volpe Development Plan, building use along Binney Street varies from governmental at the new Volpe National Transportation Center, to commercial at parcel C4, and residential at parcel R4.

Characteristics:

- Landscape and streetscape elements should relate to the scale of buildings along Binney Street and to the commercial and vehicular-arterial nature of the roadway.
- The density of tree planting may be modulated in response to commercial or residential character of the proposed buildings, but it should also create a sense of cohesiveness via growth habits, if not rhythm.

Third Street: Active Retail

Third Street will remain one of the main commercial corridors of East Cambridge: a double-loaded street, extending the active retail streetwall south from Potter Street to Broad Canal Way, and engaging with the active civic park at Third Street and Broadway and the CRA Parcel at the corner of Binney and Third Streets. The strong presence of street trees and the wide sidewalk of Third Street are to be continued along its length within the Volpe Development Plan.

Characteristics:

- Ground floor building frontage and streetscape design at parcel R1/CC should relate to the active retail of Third Street.
- At its north and south extremities, the public realm of Third Street's western sidewalk should actively engage with the CRA plaza adjacent to parcel R4 and the civic park at Third Street and Broadway, each of which act as shared open space and provide spatial relief to the retail frontage and opening up to the scale and pace of Binney Street and Broadway.

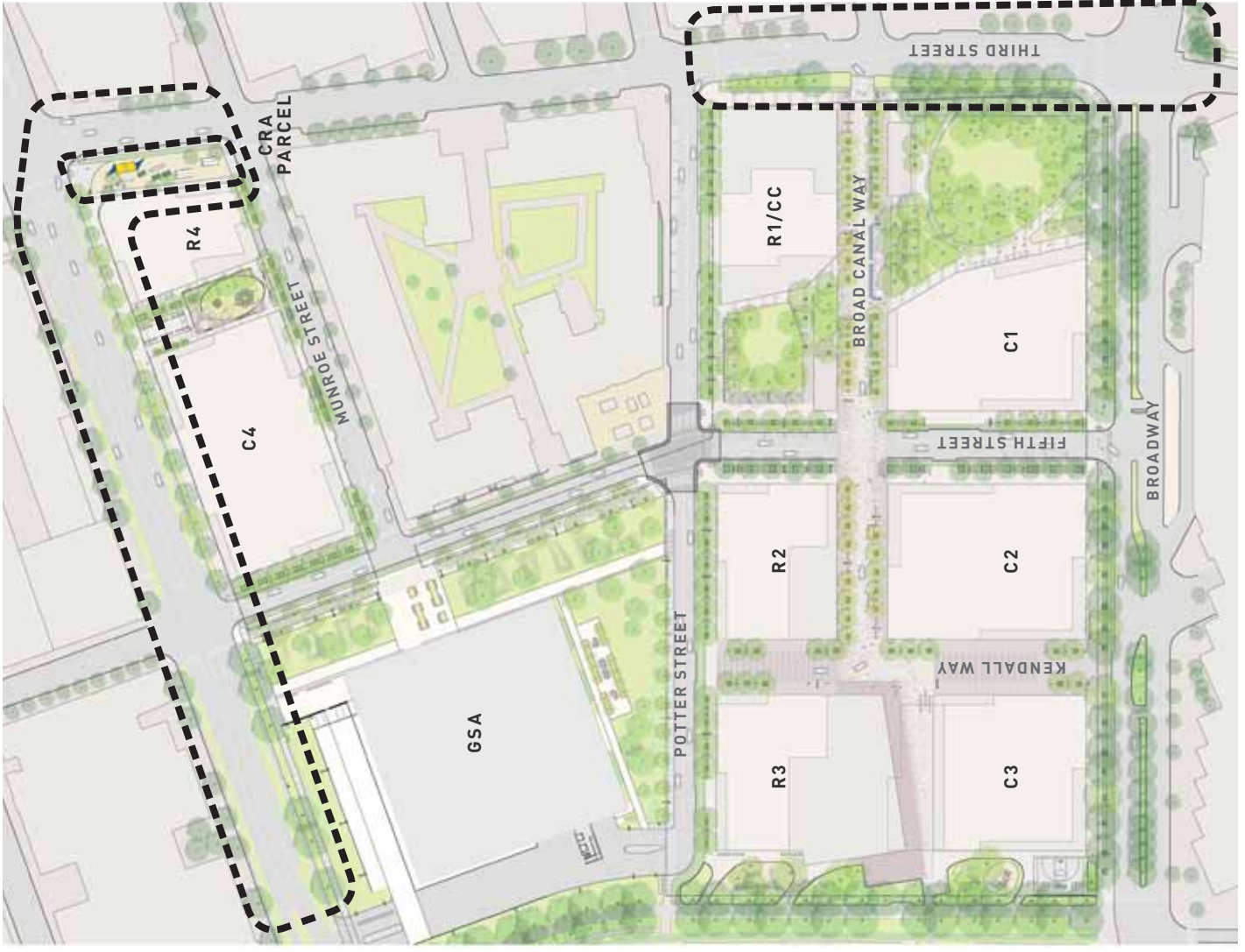


Figure D24: Binney and Third Street Plan

Binney Street: Planting Connectivity

Existing street trees should be supplemented with new trees to create variety and increased planting density. Species should be selected to relate to existing trees along Binney Street and to transition to the tree typologies to be used within the Volpe Development Plan.

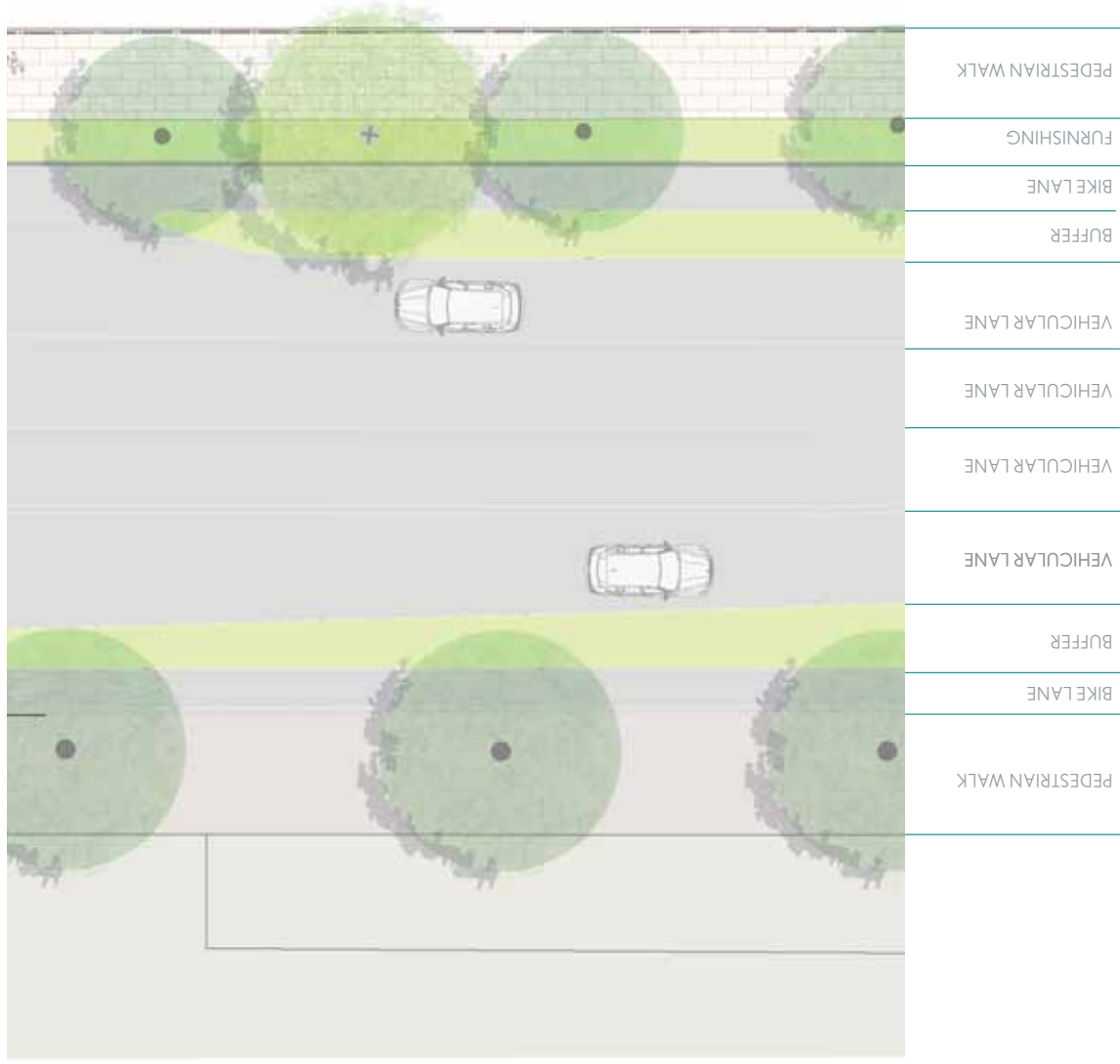
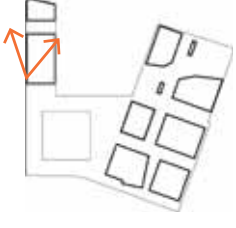


Figure D25: Binney Street Detailed Plan



*DIMENSIONS ARE APPROXIMATE

Figure D26: Street Section - Binney Street

Potter Street

Residential in Scale and Function

The extension of Potter Street further subdivides the former superblock while providing access to the new Volpe National Transportation Center site. This street will provide parking access and curbside front door addresses to three of the residential buildings in the development, as well as a wide continuous pedestrian sidewalk.

Characteristics:

- Potter Street is to be developed as a two-way residential street with residential amenities.
- The roadway is to be curb-lined, with wide continuous sidewalks along the residential frontage.

1. 19th and Mercer / Seattle, WA

Figure D27: Potter Street Precedent



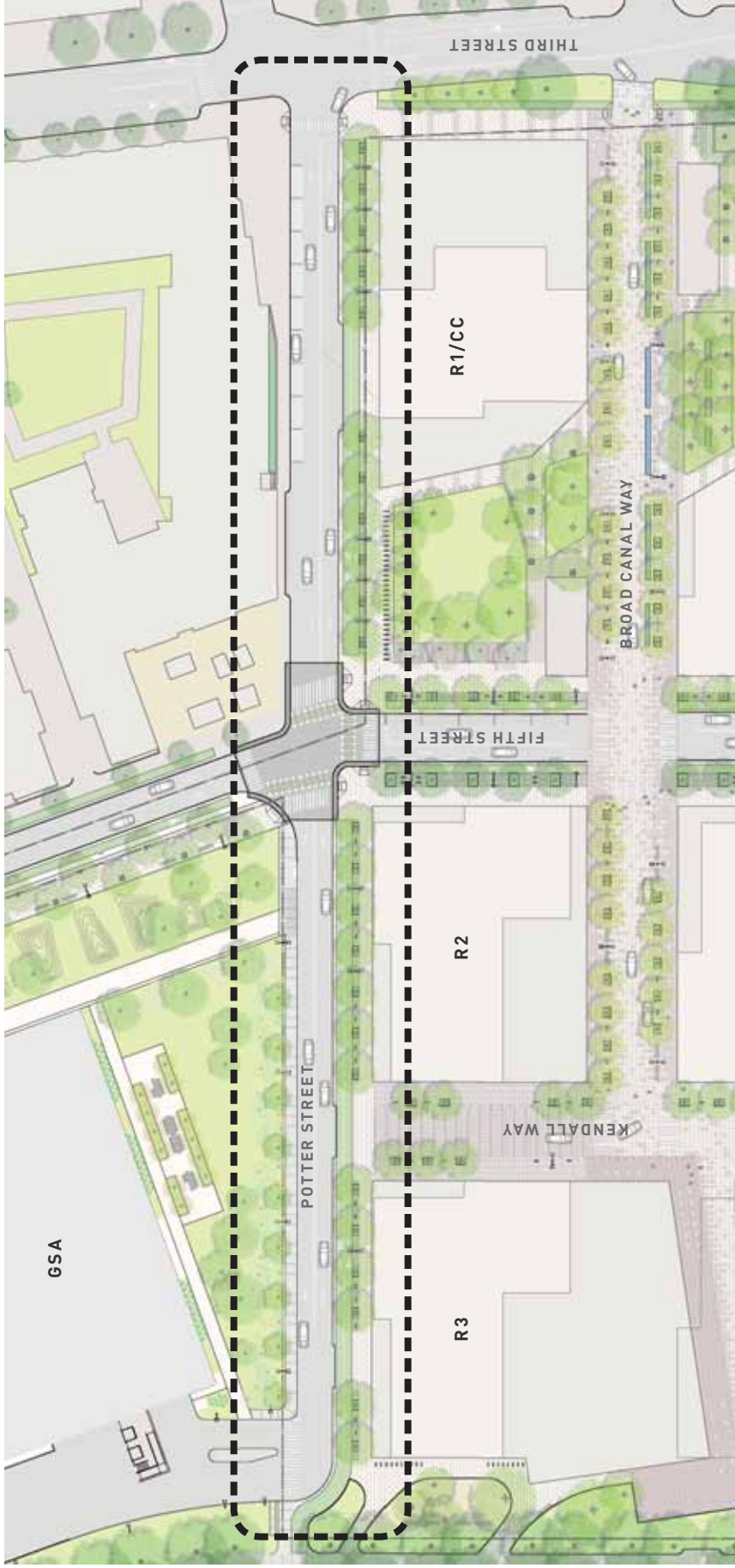


Figure D28: Potter Street Plan

**Potter Street: Good Trees
Make Good Neighbors**

The east end of Potter Street, opposite the 303 Third Residences, is intended to emphasize the residential character of this neighborhood street. A dense line of street trees along the north side of parcel R1/CC should be planted to establish that residential character and to act as counterpoint to the more hardscaped nature of the sidewalk south of 303 Third.

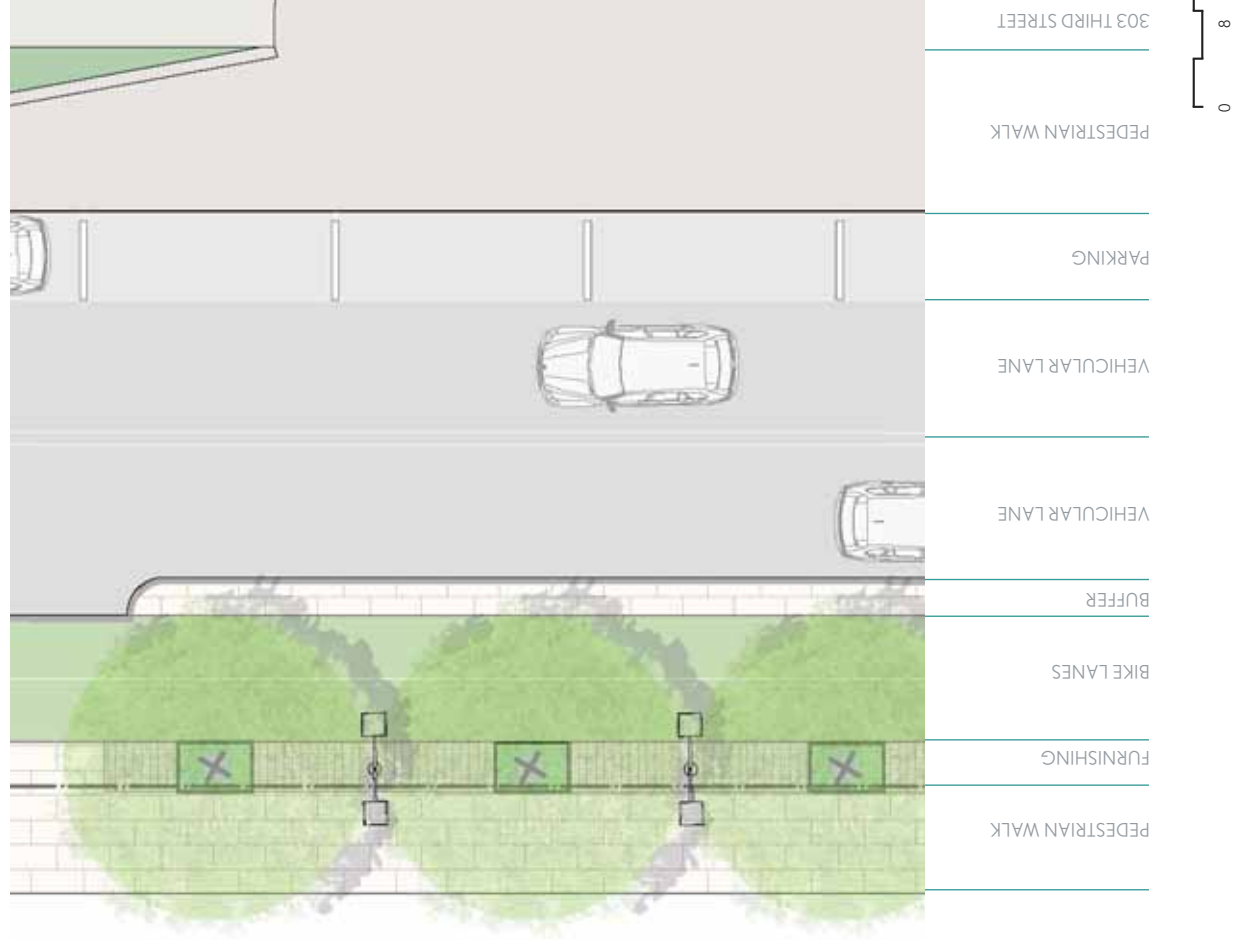
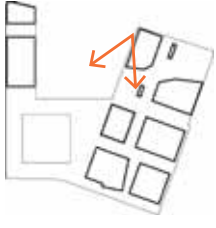


Figure D29: Potter Street Detailed Plan



*DIMENSIONS ARE APPROXIMATE

Figure D30: Street Section - Potter Street

Broad Canal Way

Shared Street in the District Center

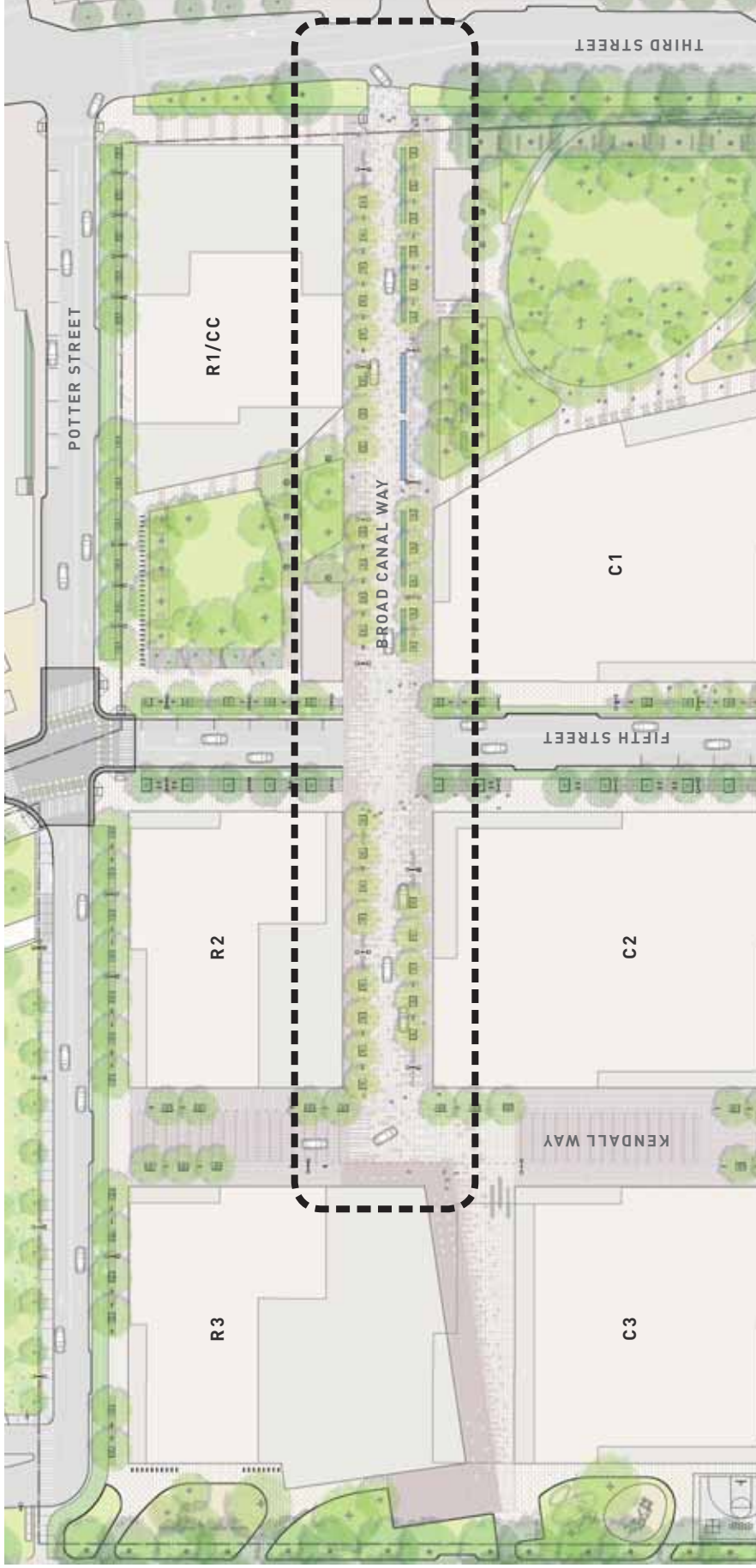
The Broad Canal Way extension will create a vibrant pedestrian-oriented destination for an active commercial district. Canopy trees are to provide a ceiling for the street, bringing the scale down to pedestrian life. Broad Canal Way will be punctuated by the Community Center at mid-length and the Performance Venue at its western end, and will support the diverse social and communal aspects of the district through active drop-off zones and spill-over space for gatherings.

Characteristics:

- Broad Canal Way is to be a one-way street with active retail, and managed vehicular traffic. It is planned to be one way west from Third Street to Fifth Street and one way east from Kendall Way to Fifth Street.
- The roadway shall be pedestrian-oriented, with flush curbs and uniform materials creating a continuous surface for free mobility along its length.
- A landscape and site-furnishing zone of street trees, lighting, benches, bollards and bike racks is to act as a buffer, separating vehicular access from pedestrians.
- Varied and distributed areas of short-term parking and active curb drop-offs are to be located along the length of the street.



Figure D31: Broad Canal Way Precedents



1. New Road / Brighton, UK
2. Washington Street/ Boston, MA
3. Elliot Street / Auckland, NZ

Figure D32: Broad Canal Way Plan

Broad Canal Way at Third Street Park: Blurring the Edge

The multi-modal nature of Broad Canal Way will be integral to Third Street Park. As a paved, pedestrian-focused zone immediately south of the retail frontage of Building R1/CC, it will act as both terrace and promenade, blurring the edge between inside and outside. Similarly, a single story, transparent retail pavilion is intended to provide both separation and connection of Broad Canal Way and Third Street Park, simultaneously allowing the street to be part of the park and the park to be part of the street.

The history of the Broad Canal is interpreted and celebrated through a thin water sheet, punctuating the length of the east block, and culminating with a series of jets adjacent Third Street Park. This water feature animates the street edge, creating a lively atmosphere and a draw for families.

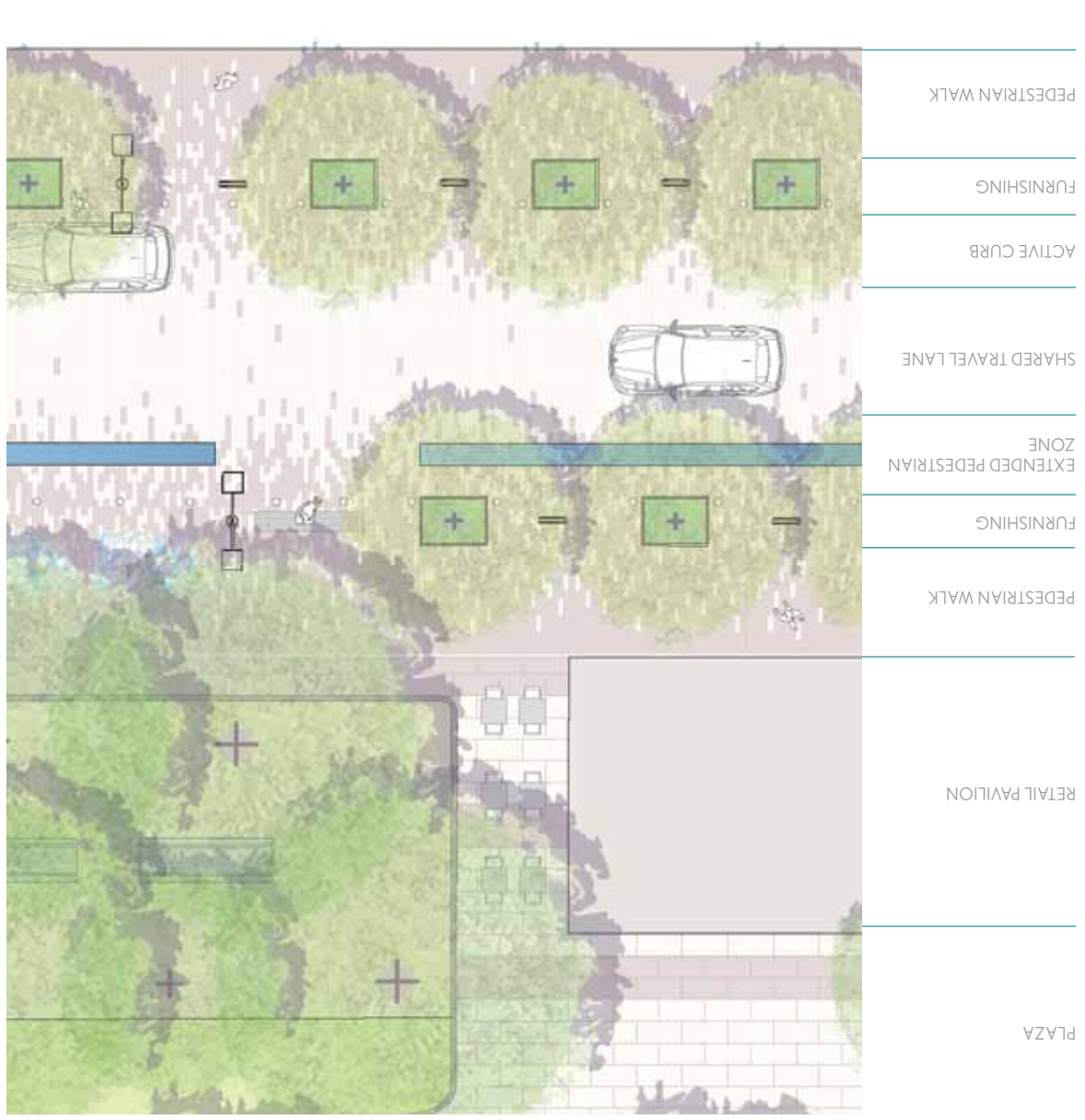
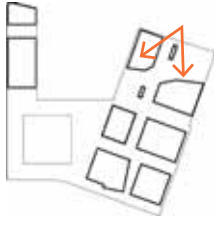


Figure D33: Broad Canal Way at Third Street Park Detailed Plan



*DIMENSIONS ARE APPROXIMATE

Figure D34: Street Section - Broad Canal Way East

Broad Canal Way Mid-Block: Street Entertainment

Between parcels R2 and C2, Broad Canal Way will continue as a multi-modal, pedestrian-focused street. Flush curbs and continuous street trees will emphasize its character, and the location of the proposed Entertainment Venue at its western terminus will accentuate its nature as an active and entertaining pedestrian zone. Both the streetscape and the architectural form of the Entertainment Venue should be developed to suggest connections through the passageway to Loughrey Walkway.

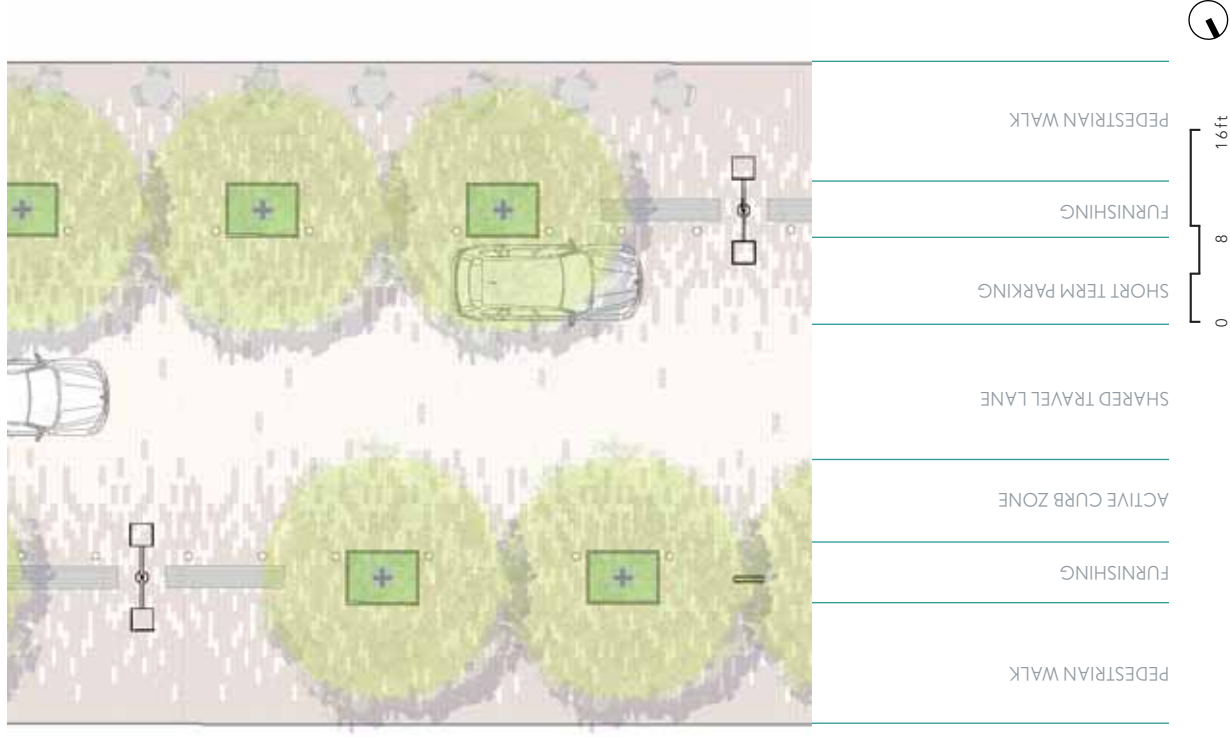


Figure D35: Broad Canal Way Mid-Block Detailed Plan



PEDESTRIAN WALK +/- 10'-0"	FURNISHING 5'-0"	ACTIVE CURB 7'-0"	SHARED TRAVEL LANE 11'-0"	SHORT TERM PARKING 7'-0"	FURNISHING 5'-0"	PEDESTRIAN WALK +/- 10'-0"
C2 COMMERCIAL FRONTAGE			BROAD CANAL WAY [SHARED USE]			R2 COMMERCIAL FRONTAGE

*DIMENSIONS ARE APPROXIMATE

Figure D36: Street Section - Broad Canal Way West

Kendall Way

Pedestrian-Oriented Shared Use Street

Kendall Way will serve functionally as a service street for the adjacent buildings, yet is to emphasize the pedestrian experience by eliminating raised curbs and dedicated parking zones.

Characteristics:

- The roadway is to be a two-way, curbless street with managed vehicular traffic
- Though it provides service access to the planned buildings, it is to be pedestrian oriented and plaza like.



1. Pearl Street / Washington DC

Figure D37: Kendall Way Precedent

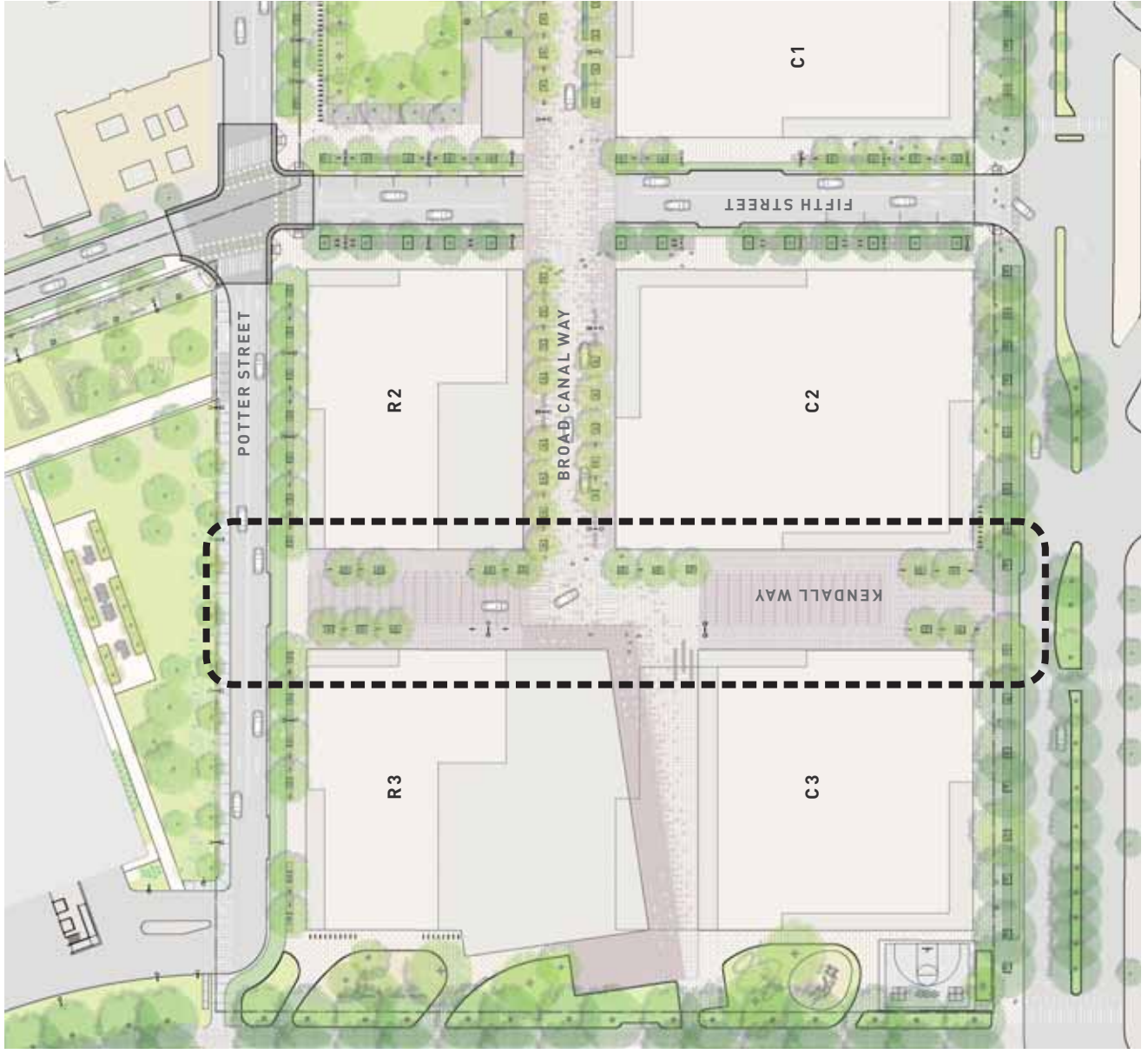


Figure D38: Kendall Way Plan

Kendall Way: Trucks and Bikes and Trees

Kendall Way is not intended as a vehicular through street. Instead, it will serve multiple functions, accommodating service traffic to Buildings R2 and R3 from Potter Street, Buildings C2 and C3 from Broadway, and pedestrian connections from Broadway to Potter Street and the Volpe National Transportation Center. Paving should utilize unit pavers across the surface to visually emphasize pedestrian use over service traffic, while the use of bollards and furnishings control vehicular traffic. Trees should be selected for canopy forms that will accommodate truck traffic.

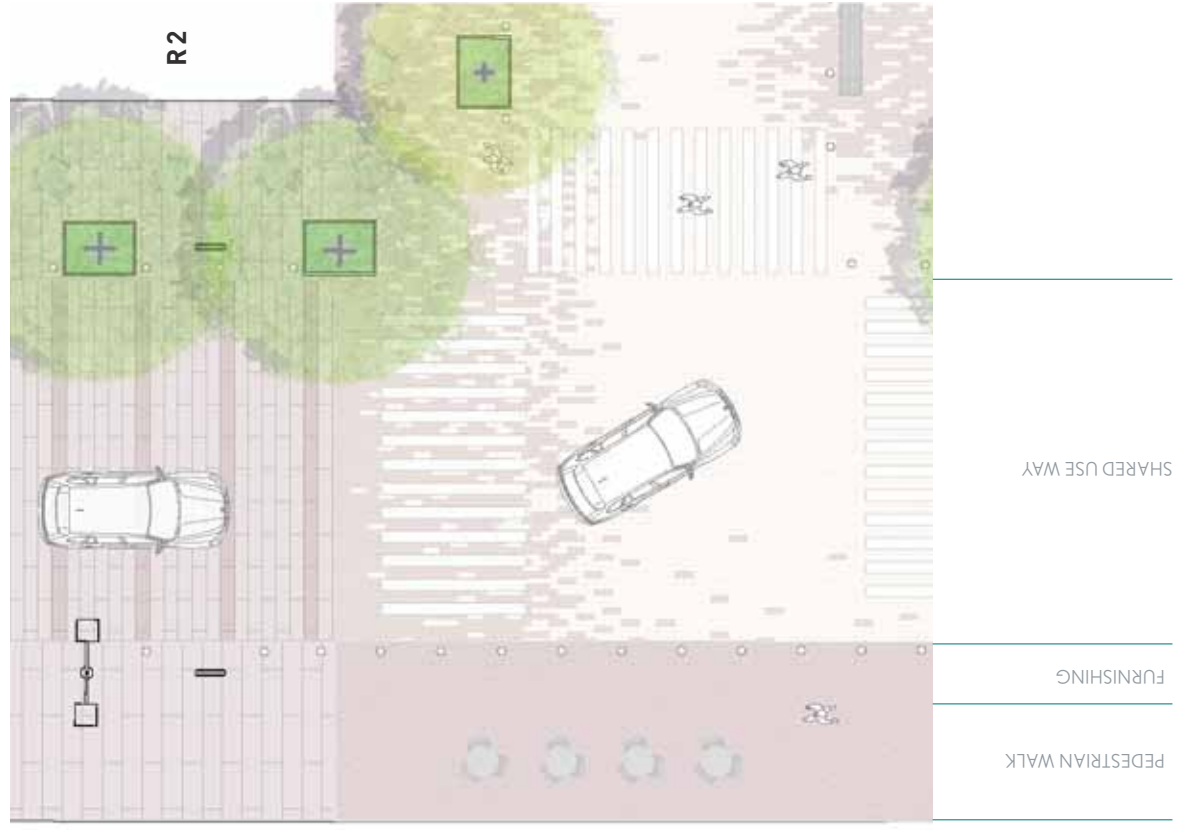
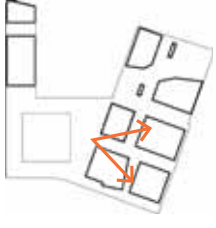


Figure D39: Kendall Way Detailed Plan



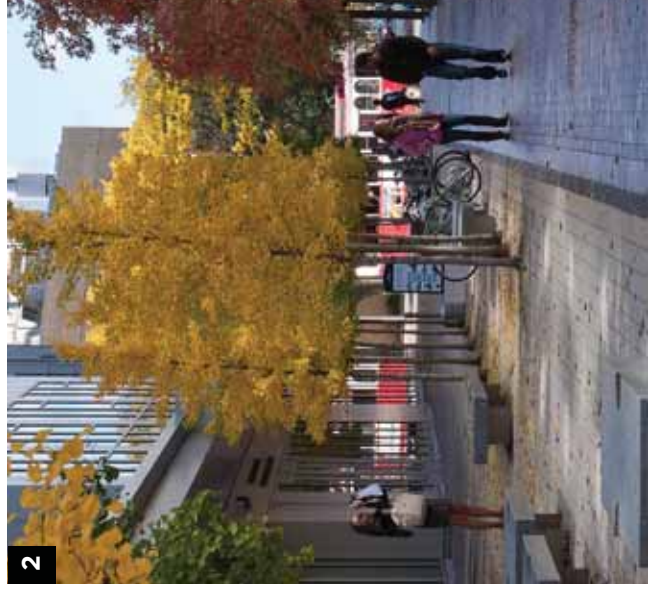
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Figure D40: Street Section - Kendall Way

Street Trees and the Urban Forest

Street Tree Typologies

The intent of the planting design is a high-performance street tree planting with continuous shade to support the urban forest of Cambridge, create a long-lived canopy for the Volpe site, and provide the environmental benefits that accrue from tree plantings. Tree plantings should be diverse and resilient, contributing to the biodiversity and the green infrastructure of the site, and be selected based on character, form, tolerance to urban conditions, concern for maintenance, and consideration for climate resiliency and diversity. All new trees, including those over the garage, are to be planted in generous and continuous soil volumes supported by aeration, irrigation and sub-drainage.



1. Central Wharf / Boston, MA
2. MIT / Cambridge, MA

Figure D41: Street Tree Typologies



Figure D42: Street Tree Character

Park Trees

The character of the park trees should be broad and reaching, varying in species and loosely organized as a combination of groves and individual specimen trees. Examples of appropriate species are elms, various oaks, maples, catalpa, katsura trees, and tulip poplars.

Broad Canal Way

Street Trees along the shared street of Broad Canal Way should be light and airy in canopy while providing dappled shade on the street. These trees should be arranged in lines of singular species alternating in bands down the length of the street. Examples of appropriate species are honey locusts, coffee trees, ginkgoes, and Japanese pagoda trees.

Fifth Street

As part of the longest street internal to the Volpe Development Plan, Fifth Street affords opportunities for a generous pedestrian zone shaded by street trees. To achieve a holistic landscape and streetscape, integral with its adjacent conditions, the street trees along Fifth Street should be chosen from the species planted at the Volpe National Transportation Center.

Kendall Way

The shared use street of Kendall Way calls for consistent spacing of trees that are vertical and upright in form or vase-shaped and arching to extend over the height of service trucks. Examples of appropriate species are elms, hackberries, tupelo, and columnar varieties of oaks, beech, or others.

Commercial Streets

Third Street, Broadway and Binney Street each has a well-established existing street tree presence, with a regular spacing that provides a consistent rhythm to the streetscape. This character should be maintained and infilled as necessary with matching species of London plane trees, lindens, and honey locusts.

Residential Street

The canopy trees of Potter Street help bring a pedestrian and residential scale to the street. Regular in spacing, additional trees should provide a consistent canopy along the length of the street. Species shall be selected for their shade tolerance, such as hackberry, lindens, tupelos, and American hop hornbeams.



Pocket Park

The courts provide an opportunity for smaller and more intimate scale planting of understory trees and small to mid-sized canopy trees. These trees should exhibit seasonal characteristics of distinctive bark, flower blooms, and fall color. Examples of appropriate understory species are cherries, dogwoods, and tree lilac. Mid-story canopy trees could include river birches, ironwood, hornbeams, or tupelos.



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Street Tree Typologies

The intent of the planting design is to support the urban forest of Cambridge, and create a long-lived canopy for the Volpe site. Tree plantings will be diverse and resilient, contributing to the biodiversity and the green infrastructure of the site, and selected based on character, form, tolerance to urban conditions and with concern for maintenance. New trees will be planted in generous and continuous soil volumes supported by aeration, irrigation and subdrainage.



6



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1. Tulip Tree
2. Katsura Tree
3. Honeylocust Tree
4. Black Tupelo
5. London Plane Tree
6. Princeton Elms
7. Swamp White Oak Tree

Figure D43: Street Trees

Streetscape Paving

Streetscape Paving

Simple, durable and elegant, the paving material palette should help unify the development site while providing subtle and necessary variations in material, size of pavers, and pattern to differentiate changes in use:

Buffer Paving

- Stone or pre-cast concrete unit pavers;
- Light and neutral in color to meet SRI ratings;
- Highly durable.

Active Curb/ Short Term Parking

- Unit pavers to help reduce the visual width of the vehicular circulation zone;
- Highly durable;
- Light and neutral in color to meet SRI ratings;

Pedestrian Walk Paving

- Stone or pre-cast concrete unit pavers;
- Light and neutral in color to meet SRI ratings;
- Highly durable;

Furnishing Zone Paving

- Stone or pre-cast concrete unit pavers with wide, open joints for permeability;
- Light and neutral in color to meet SRI ratings;
- Highly durable;

Bike Lane Paving

- Smooth continuous surfaces;
- Complete with City-regulated striping and markings.



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1. Aker Brygge / Oslo, Norway
2. Bahnhofstrasse / Boblingen, Germany
3. Seaport Square / Boston, MA
4. Boston Public Library / Boston, MA

Figure D44: Streetscape Paving Precedents

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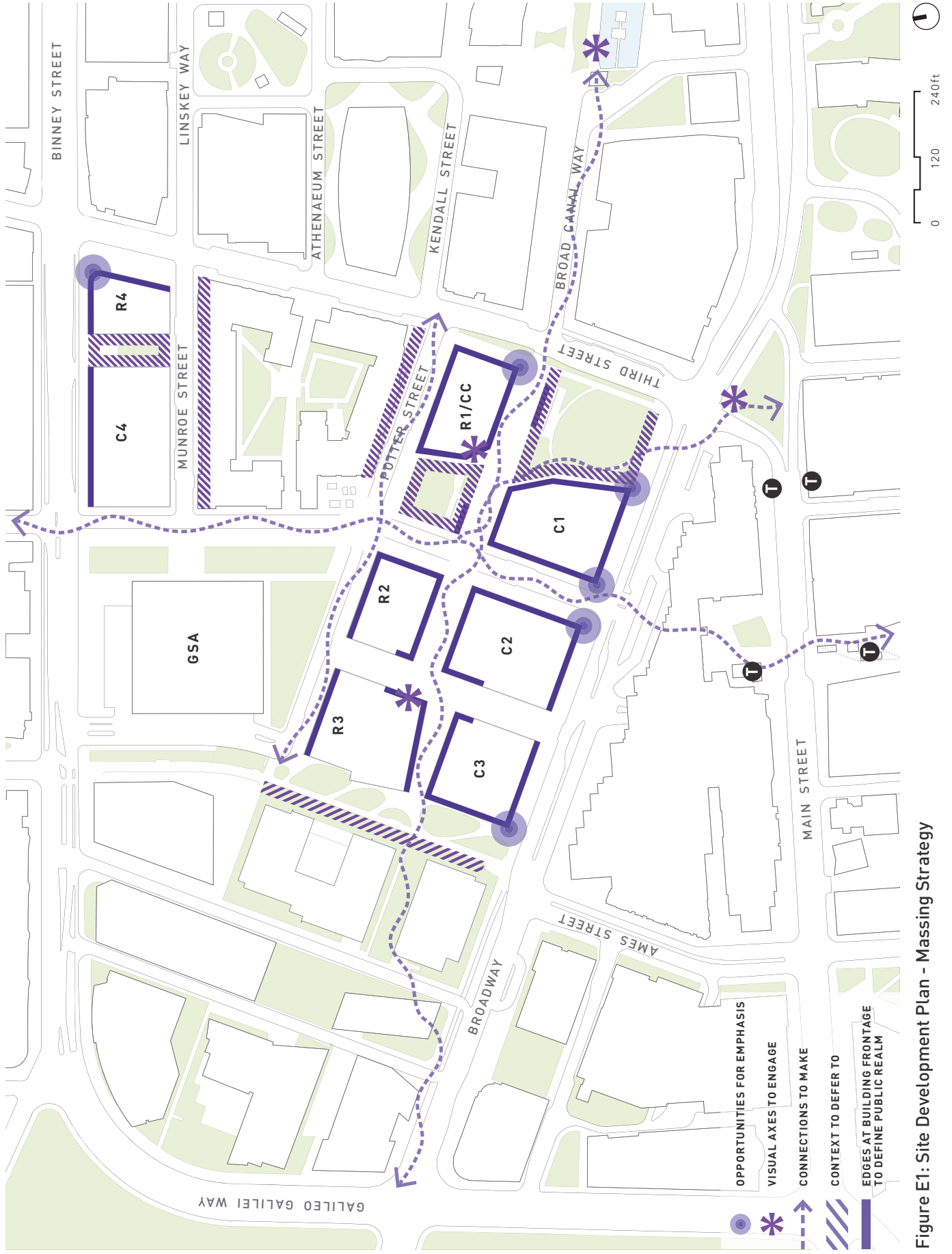


Figure E1: Site Development Plan - Massing Strategy

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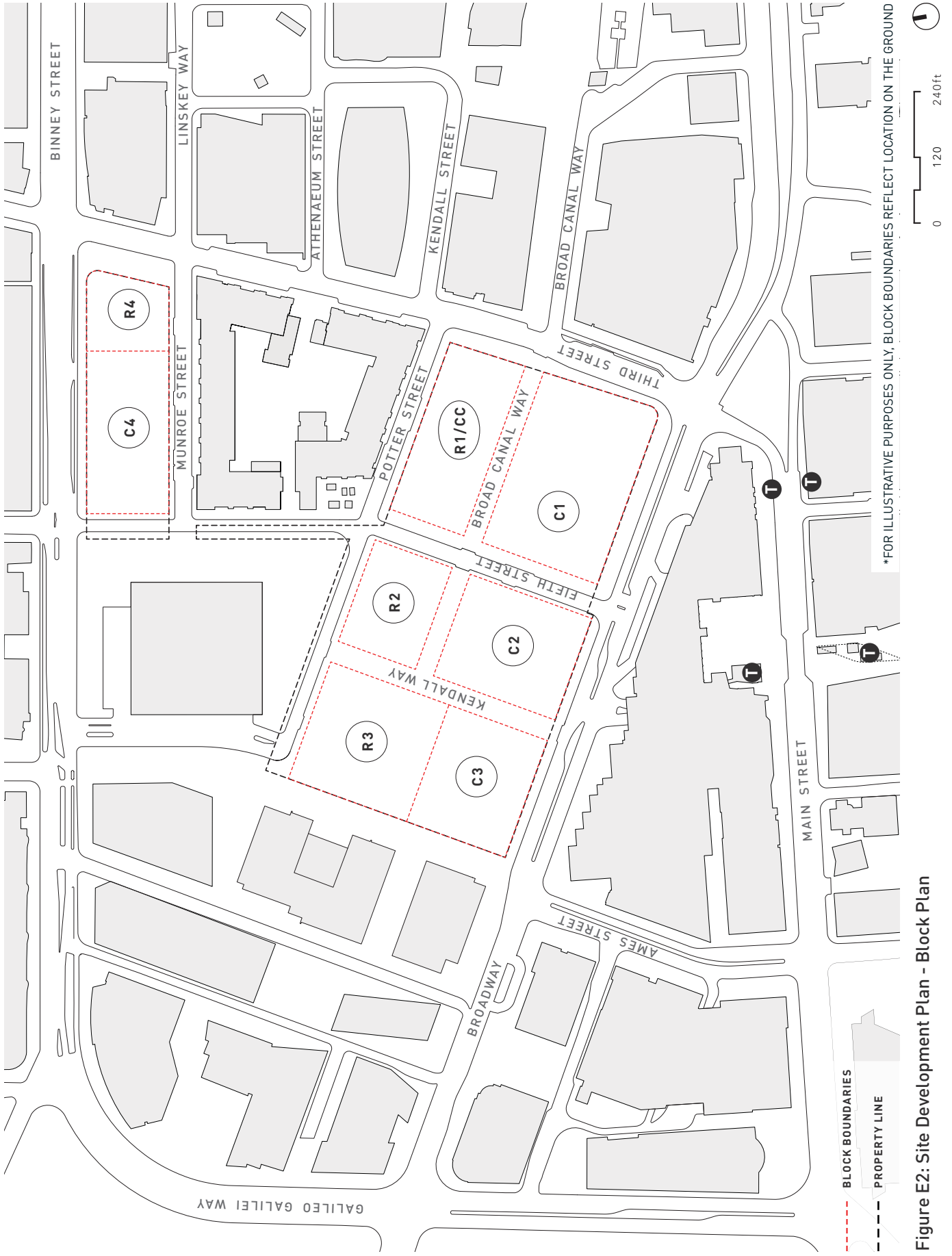


Figure E2: Site Development Plan - Block Plan

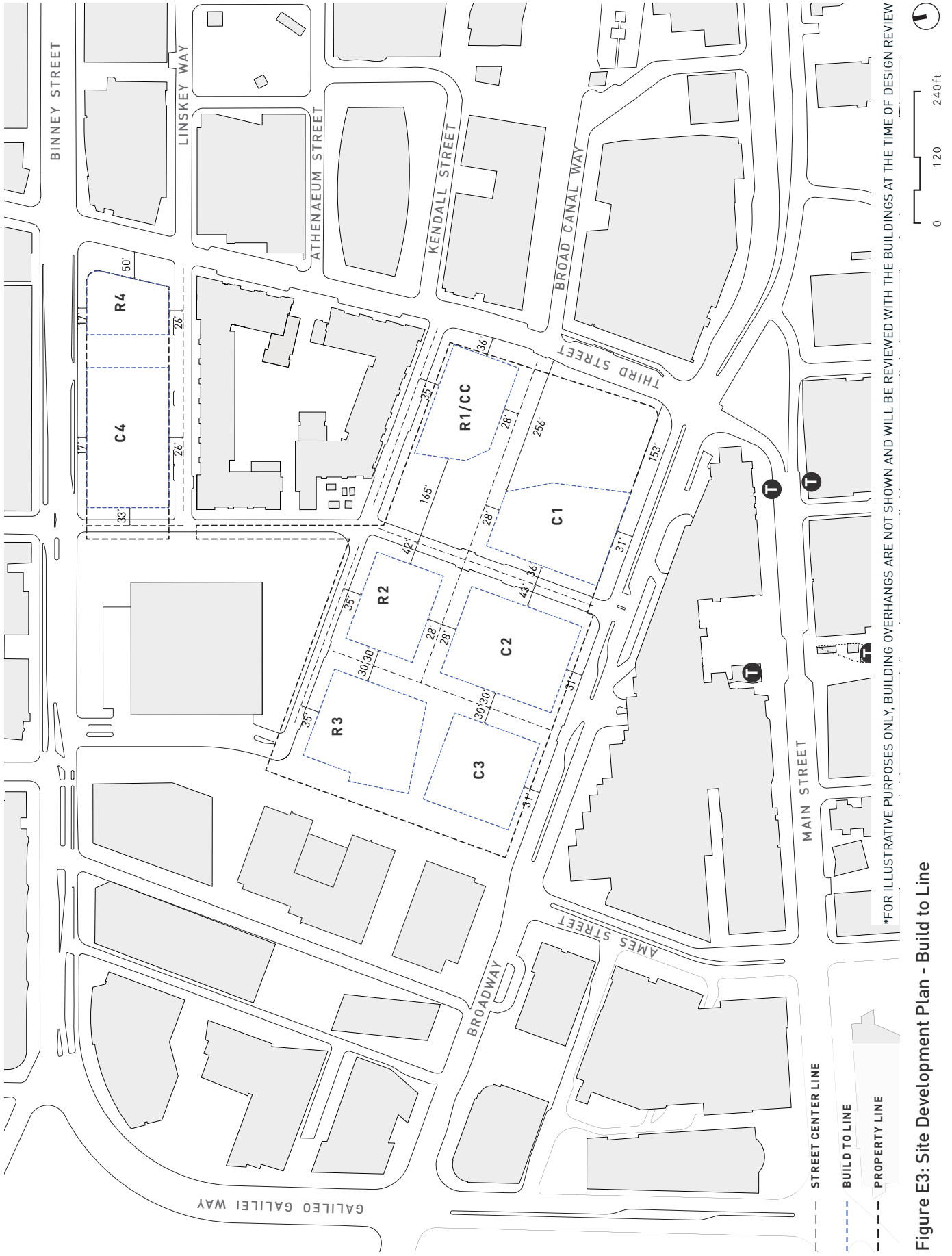


Figure E3: Site Development Plan - Build to Line

Block R1/CC

Approximate GFA : 175,000 - 225,000 SF

Maximum height : 250FT (and with conditions up to 500FT)

Use : Residential, Retail and Community Center

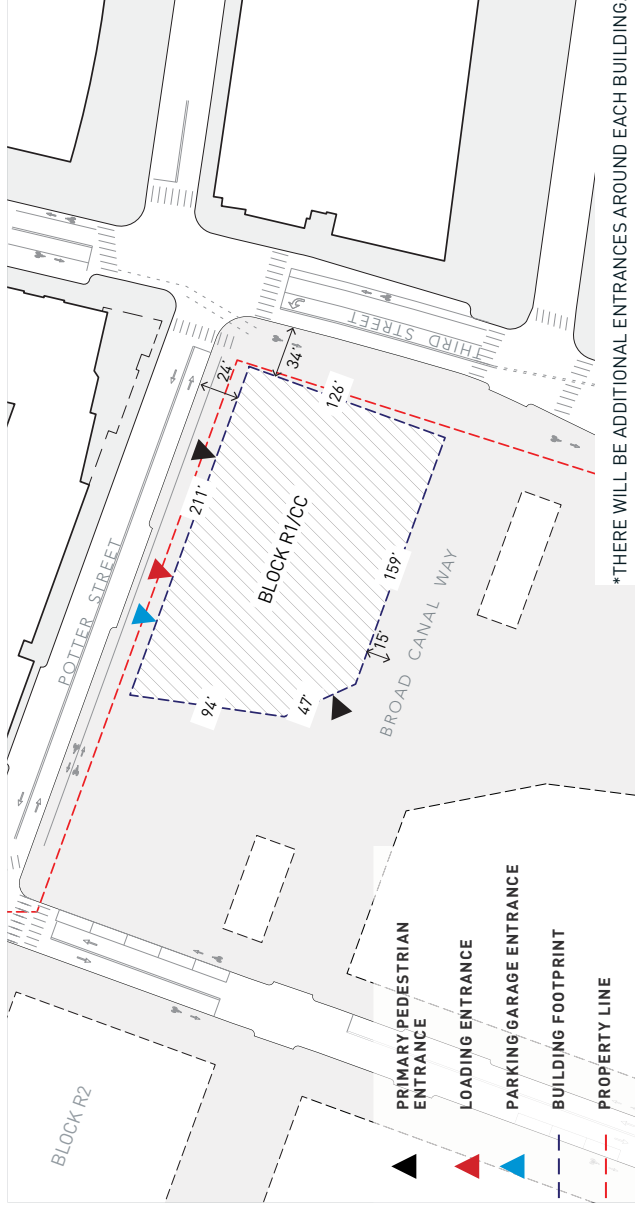
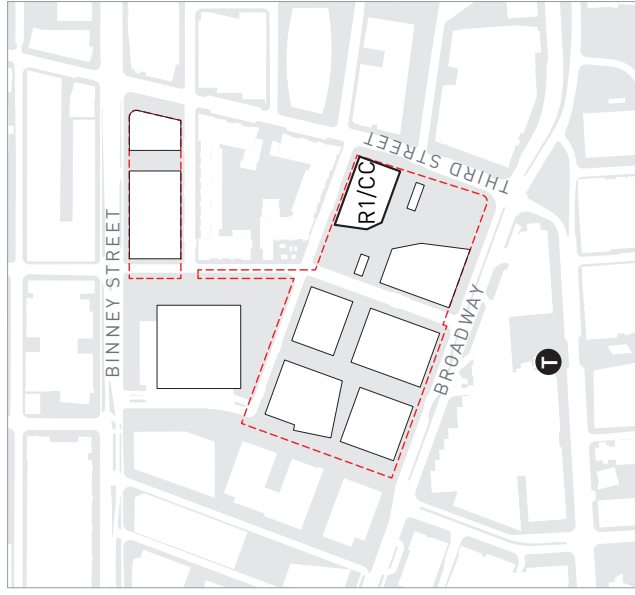
Block R1/CC is a residential building parcel that also includes the Community Center, bounded by Third Street to the east, Potter Street to the north, and Broad Canal Way to the south. Building R1/CC will be a gateway building, highly visible from Broadway, Galaxy Park, Broad Canal Way and Third Street.

- The tower massing for R1/CC should recognize

that it is located across Potter Street from the residential property at 303 Third Street. The massing variations are specifically designed to minimize view impacts for the condominium owners at 303 Third Street. The pedestrian frontage and streetwall should contribute to the residential character of Potter Street.

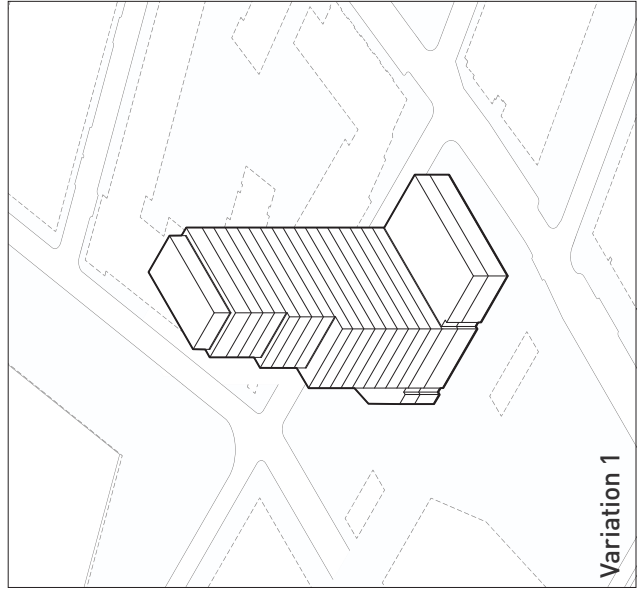
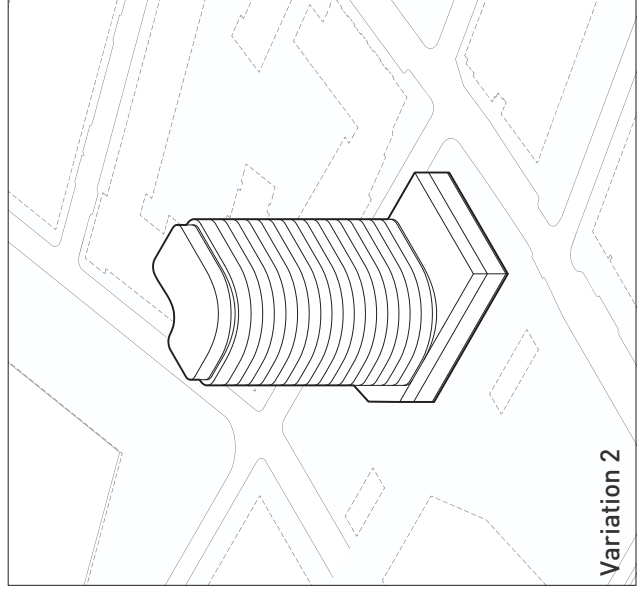
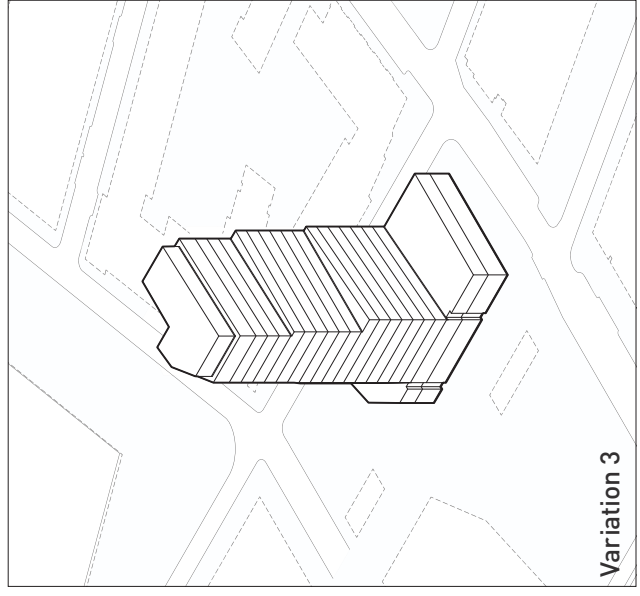
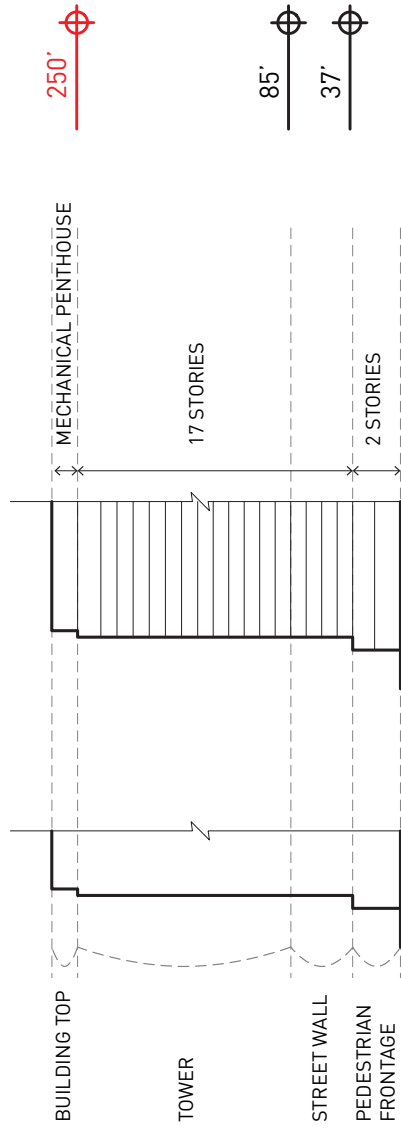
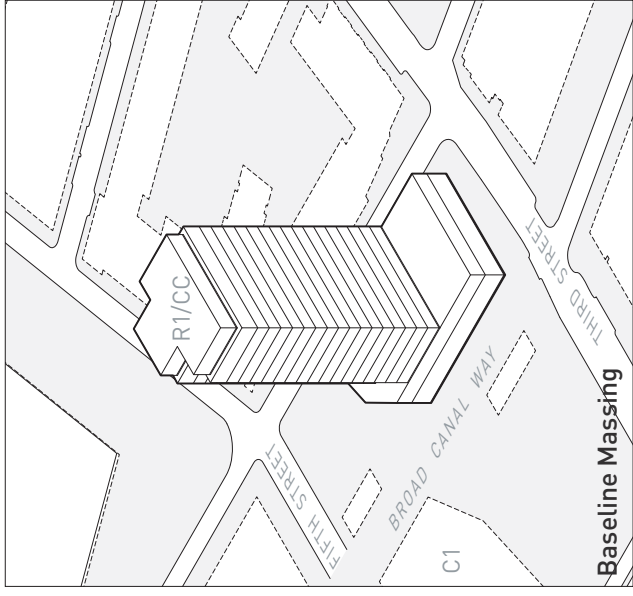
- The street wall along Third Street is to be appropriate in height and compositional scale with other buildings along Third Street.
- The design should recognize that R1/CC abuts the public open space of Third Street Park and Community Center Park, and take into consideration views, shadows, sound and the public character of the open space.

- Create a special visual terminus at the Community Center that enhances its visibility from Third Street Park and Community Center Park;
- The pedestrian frontage and streetwall are to engage Broad Canal Way and are important elements with which to articulate the character of this street and create a comfortable pedestrian experience.
- The ground floor along Broad Canal Way and Third Street is to be lined with active uses and contribute to the vibrancy of the district.
- The street level at Community Center Park may be operable to connect interior uses with the park.



*THERE WILL BE ADDITIONAL ENTRANCES AROUND EACH BUILDING.

Figure E4: Block Guidelines - R1/CC



Block R2

Approximate GFA : 275,000 – 325,000 SF

Maximum height : 250FT (and with conditions up to 500FT)

Use : Residential and Retail

Block R2 is a residential building parcel, bounded by Fifth Street to the east, Potter Street to the north, Kendall Way to the west, and Broad Canal Way to the south. Building R2 will be highly visible along Broad Canal Way and will play an important part in creating the identity of Broad Canal Way.

- The relationship between R2, C2 and R3 will be carefully studied. Consider tower setbacks

from the streetwall along Broad Canal Way and Kendall Way to maintain distance from adjacent towers to maximize daylight and views.

- The design should recognize that R2 abuts Fifth Street and the public open space of Community Center Park, and take into consideration views, shadows, sound and the public character of the open space.
- The pedestrian frontage and streetwall are to engage Broad Canal Way. They are important elements with which to articulate the character of this street and create a comfortable pedestrian experience.
- The ground floor along Broad Canal Way and

Fifth Street is to be lined with active uses and contribute to the vibrancy of the district.

- The pedestrian frontage and streetwall along Potter Street are to contribute to the residential character of the street.
- Consider enhancing the view corridor from Broad Canal Way to Loughrey Walkway with adjustment to building configuration. Maintain visibility of active uses such as the entertainment venue at the base of R3.

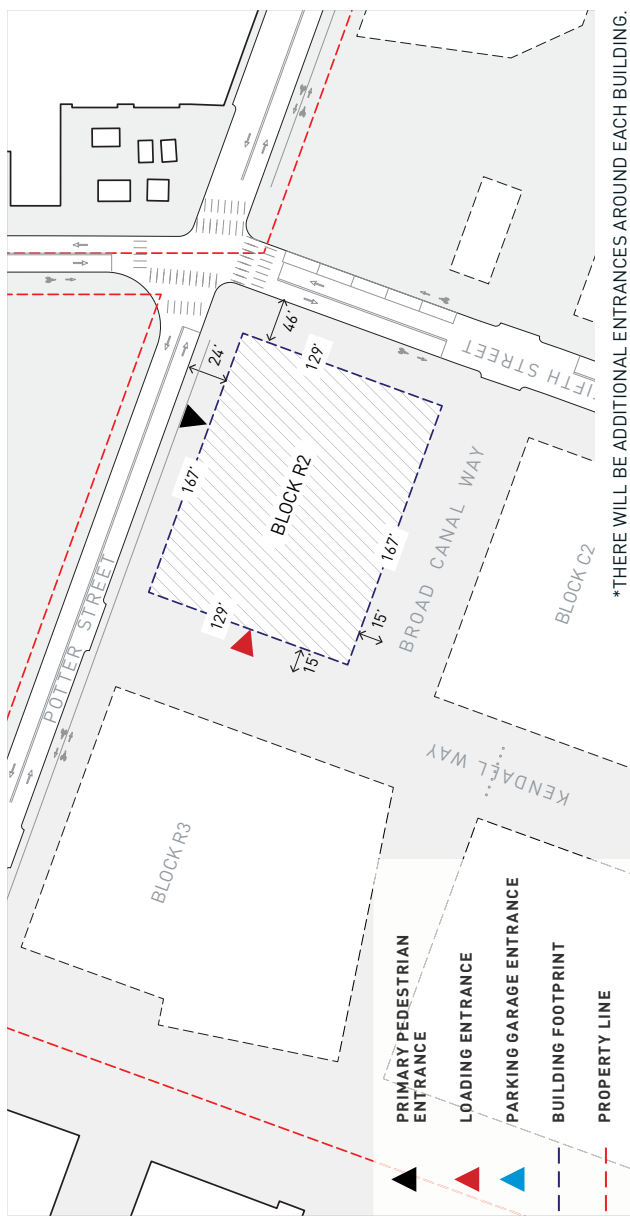
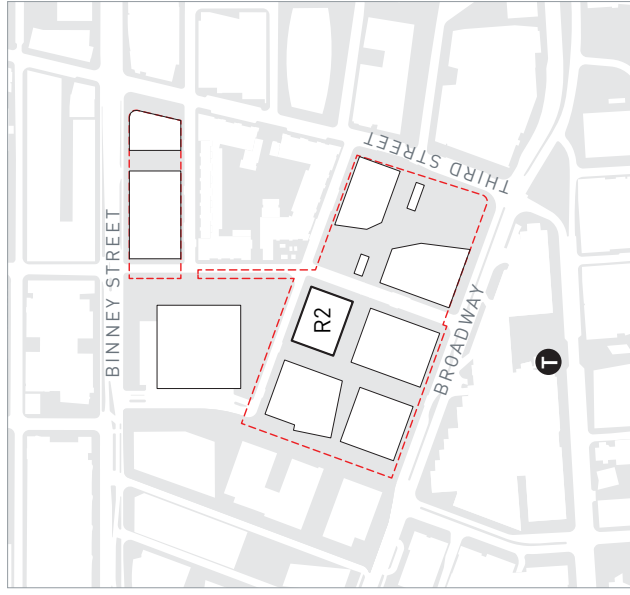
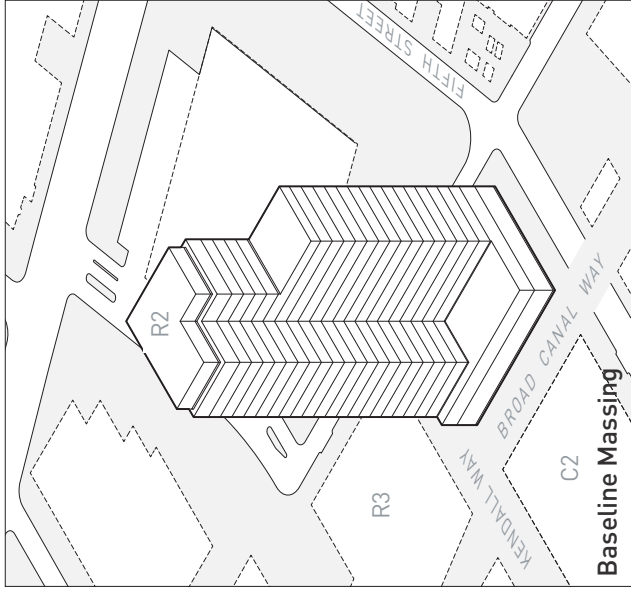
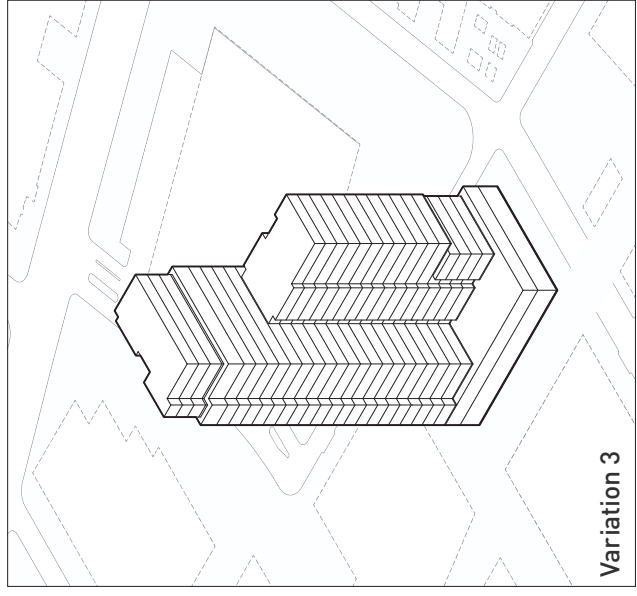
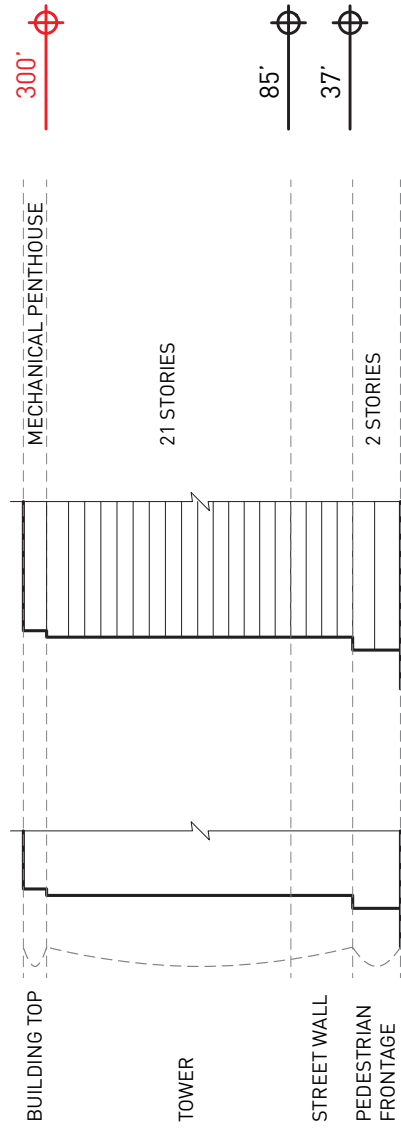


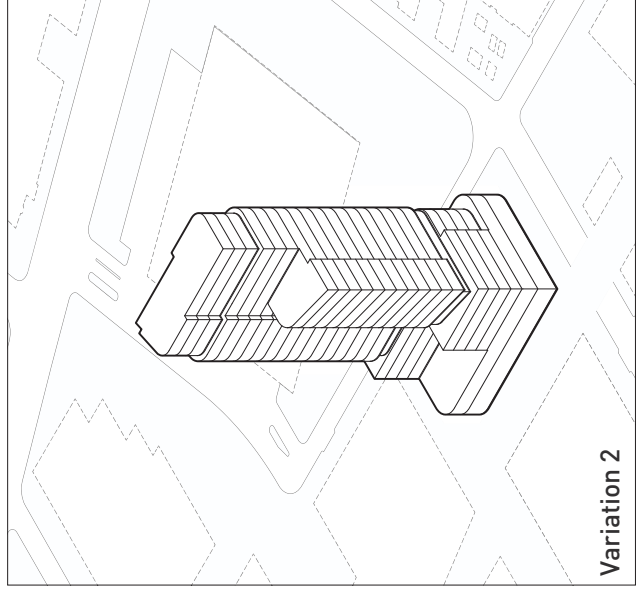
Figure E5: Block Guidelines - R2



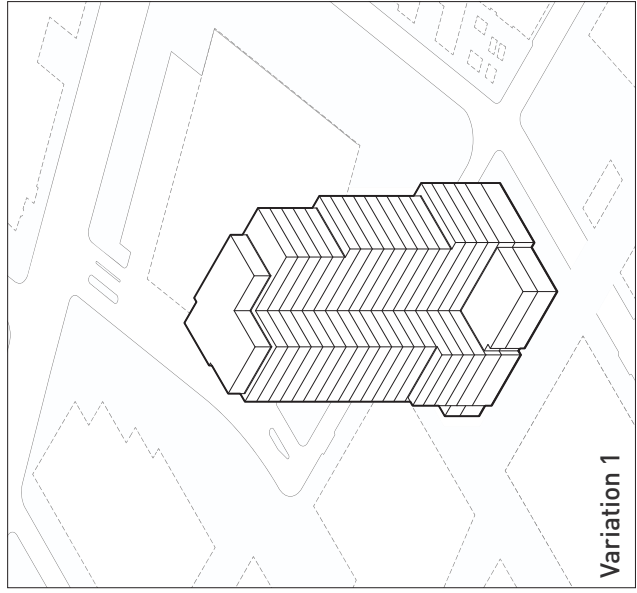
Baseline Massing



Variation 3



Variation 2



Variation 1

Block R3

Approximate GFA : 400,000 - 450,000 SF

Maximum height : 250FT (and with conditions up to 500FT)

Use : Residential and Retail

Block R3 is a residential building parcel bounded by Kendall Way to the east, Potter Street to the north, the public open space of Sixth Street Park to the west, and the covered passage to Loughrey Walkway to the south.

- The relationship between R3, C3 and R2 will be carefully studied. Consider tower setbacks from the streetwall along Broad Canal Way

and Kendall Way to maintain distance from adjacent towers to maximize daylight and views.

- Consider the orientation of R3 to take advantage of exposure to view corridors.
- Create a special visual terminus at the end of Broad Canal Way that enhances the connection to the Loughrey Walkway while maintaining the visibility of active uses at the base of R3, such as the entertainment venue;
- The design should recognize that R3 abuts the public open space of Sixth Street Park and the covered passage to Loughrey Walkway, and take into consideration views, shadows, sound and the public character of the open space.

The tower massing is to be set back from these edges to enhance the open space.

- The pedestrian frontage and streetwall are to engage Kendall Way and are important elements with which to articulate the character of this street and create a comfortable pedestrian experience.
- The ground floor and uses along the west facade should engage Sixth Street Park.
- The pedestrian frontage and streetwall along Potter Street are to contribute to the residential character of the street.
- Consider enhancing the passage to Loughrey Walkway with adjustment to building configuration.

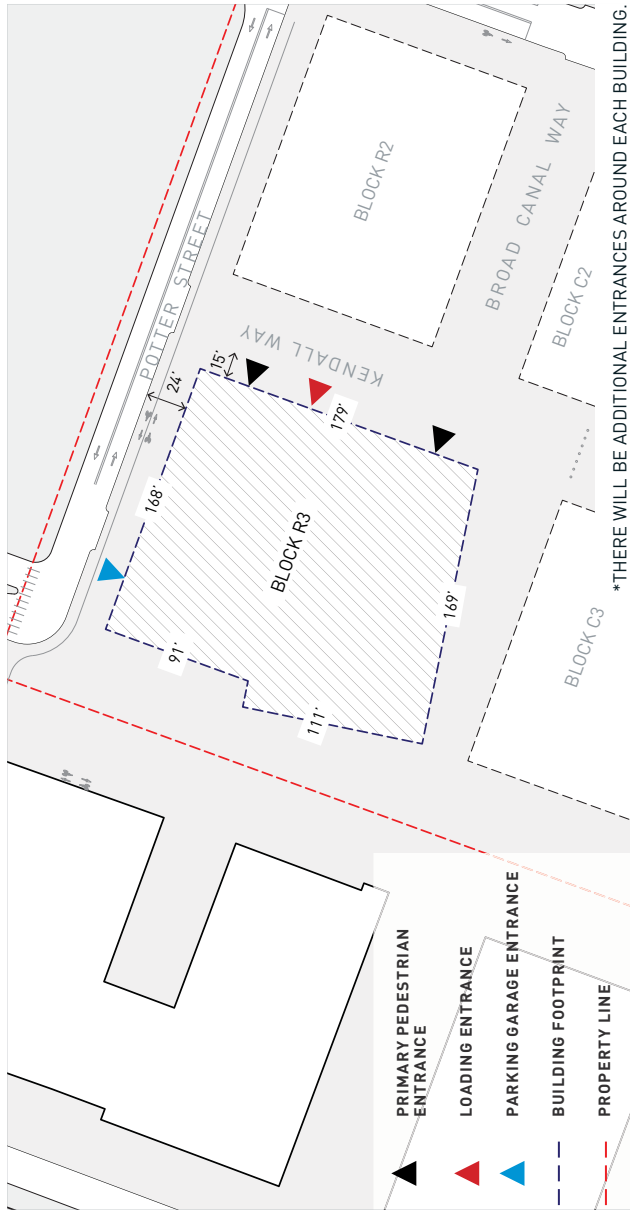
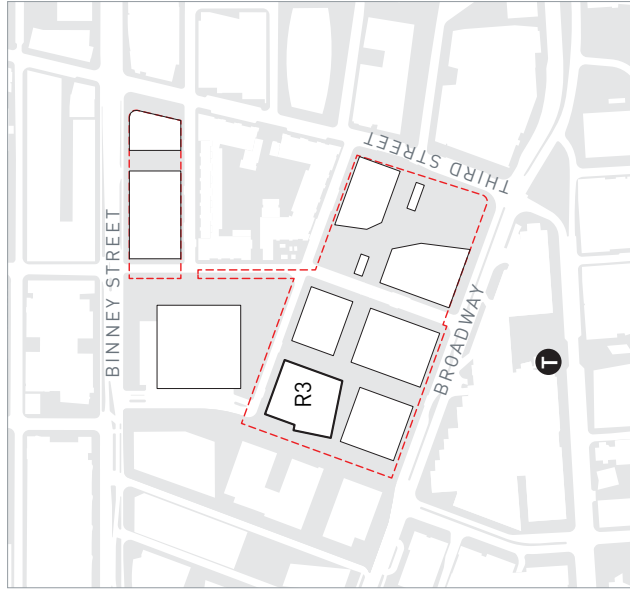
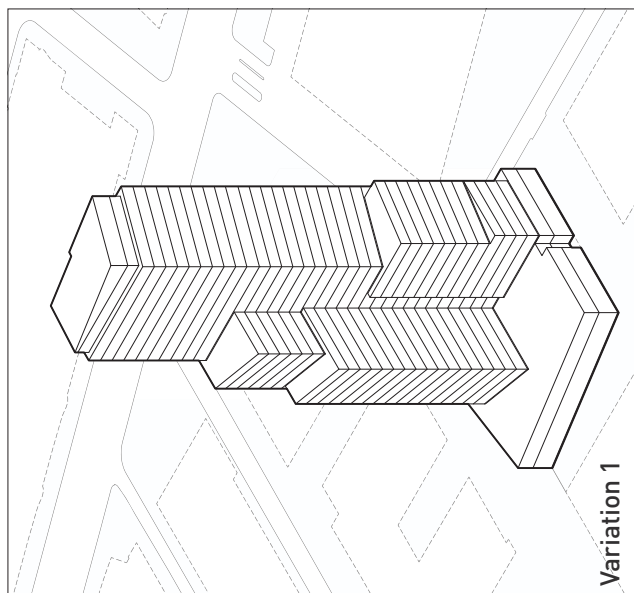
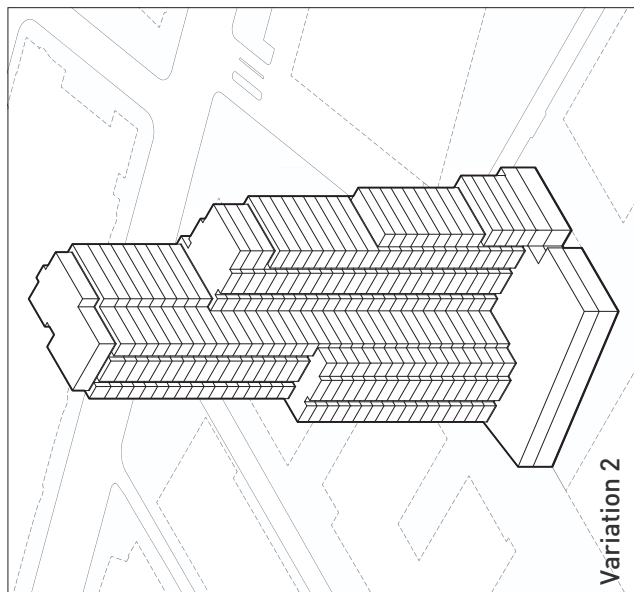
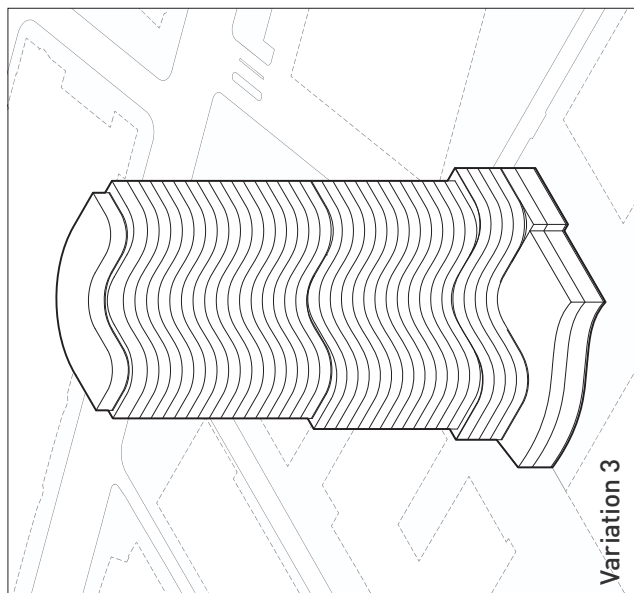
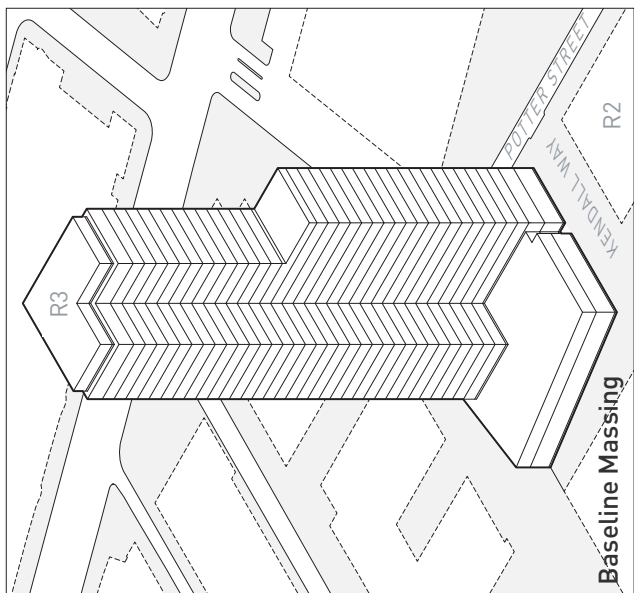
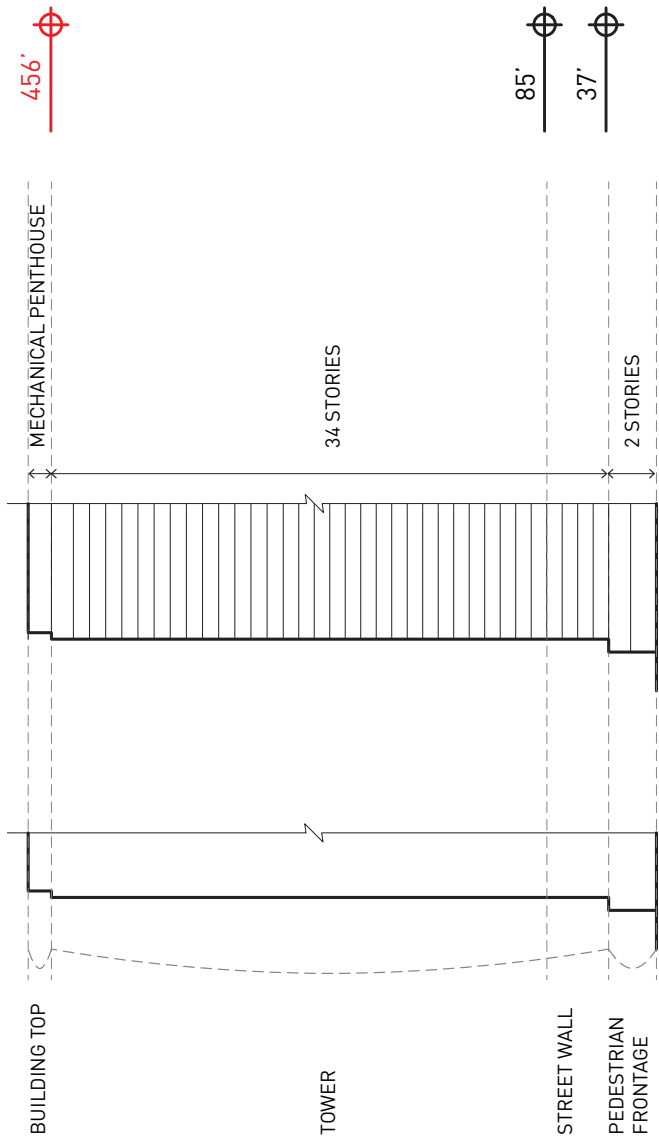


Figure E6: Block Guidelines - R3



Block R4

Approximate GFA : 200,000 – 250,000 SF

Maximum height : 250 FT

Use : Residential and Retail

carefully studied. The pedestrian frontage and streetwall are to contribute to the residential character of Munroe Street.

- The streetwall along Third Street and Binney Street is to be consistent in height and compositional scale with other buildings along these urban edges.
- Consider the orientation of R4 to take advantage of exposure to view corridors.
- The design should recognize that R4 is located between open space to the east and Binney Street Pocket Park to the west, and take into consideration views, shadows, sound and the public character of these open spaces. Consider tower setbacks from these edges to

enhance those open spaces.

- The pedestrian frontage and streetwall are to engage Third Street and are important elements with which to articulate the character of this street and create a comfortable pedestrian experience.
- The ground floor along Binney Street and Third Street is to be lined with active uses and contribute to the vibrancy of the district.

Block R4 is a residential building parcel bounded by a small parcel of land owned by the CRA and Third Street to the east, Binney Street to the north, and Munroe Street to the south. Building R4 will be highly visible from both Binney Street and Third Street.

- The relationship between R4 and 303 Third Street Residential Apartments will be

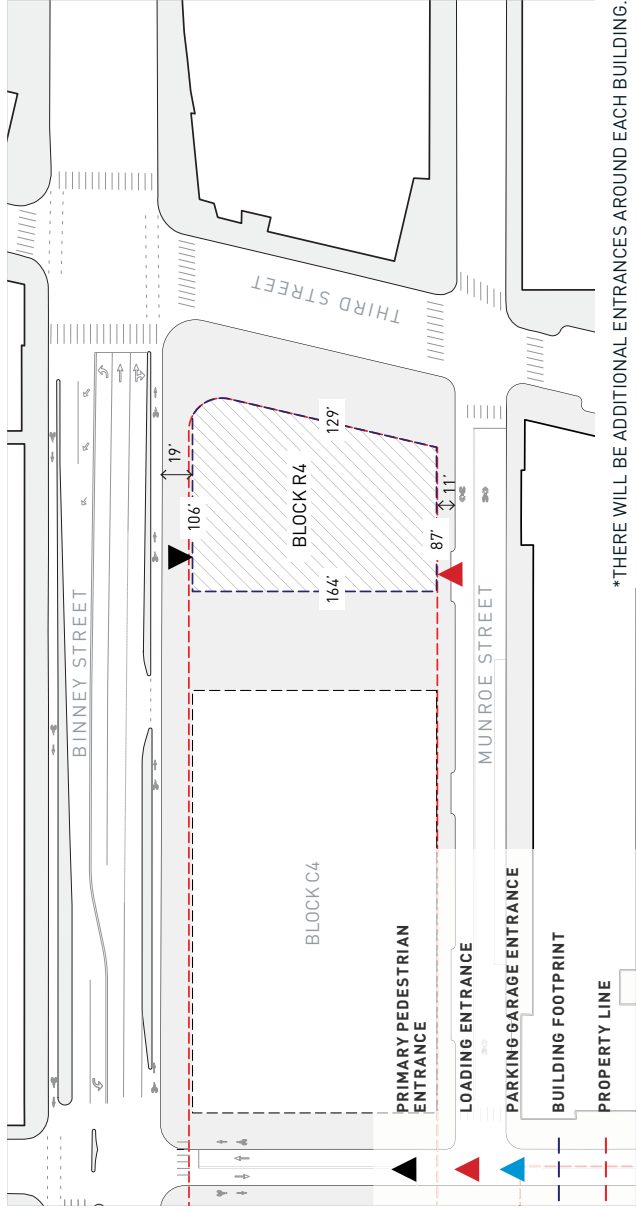
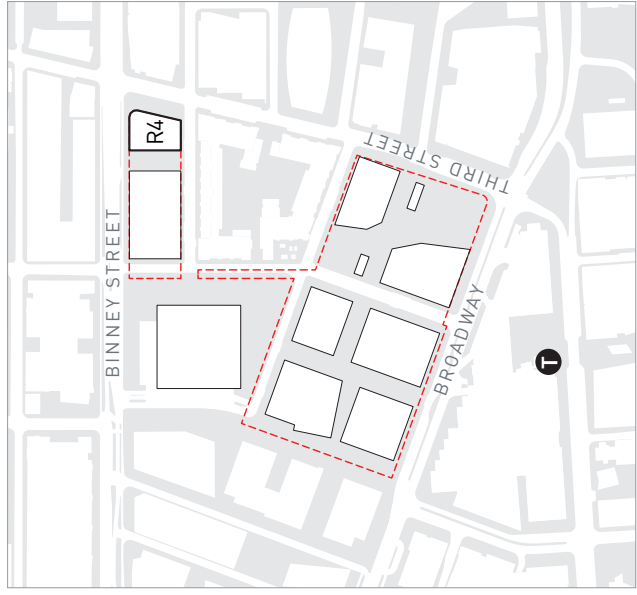
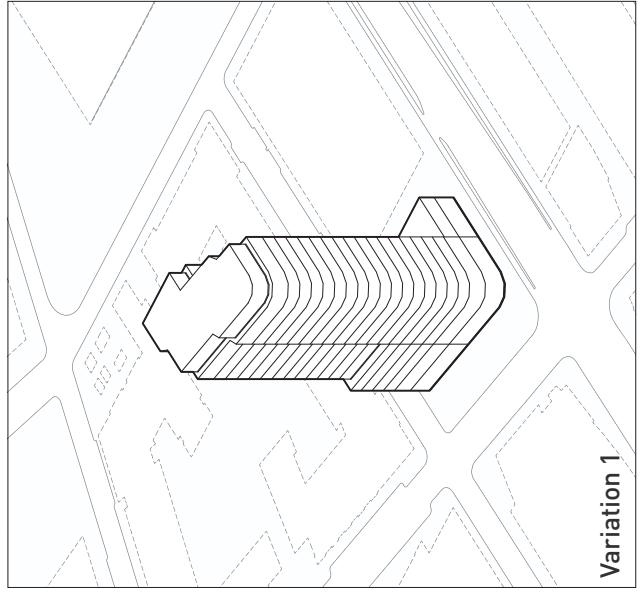
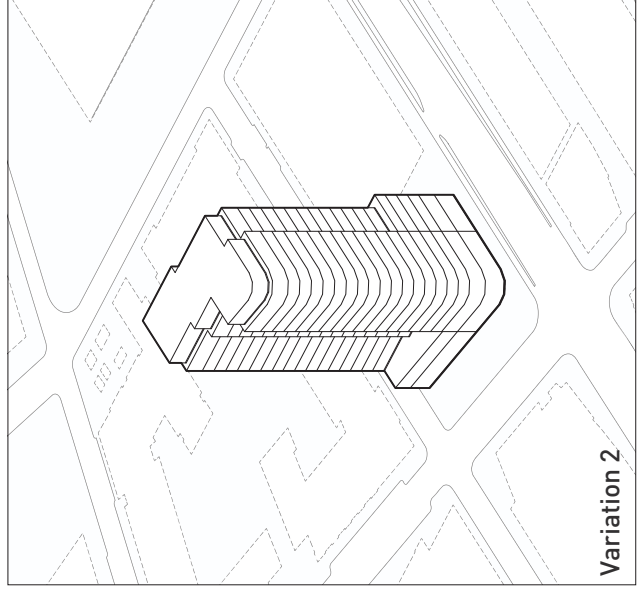
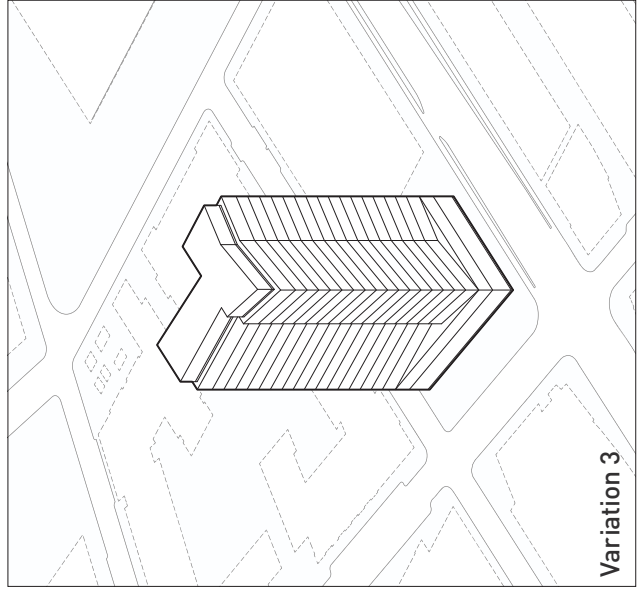
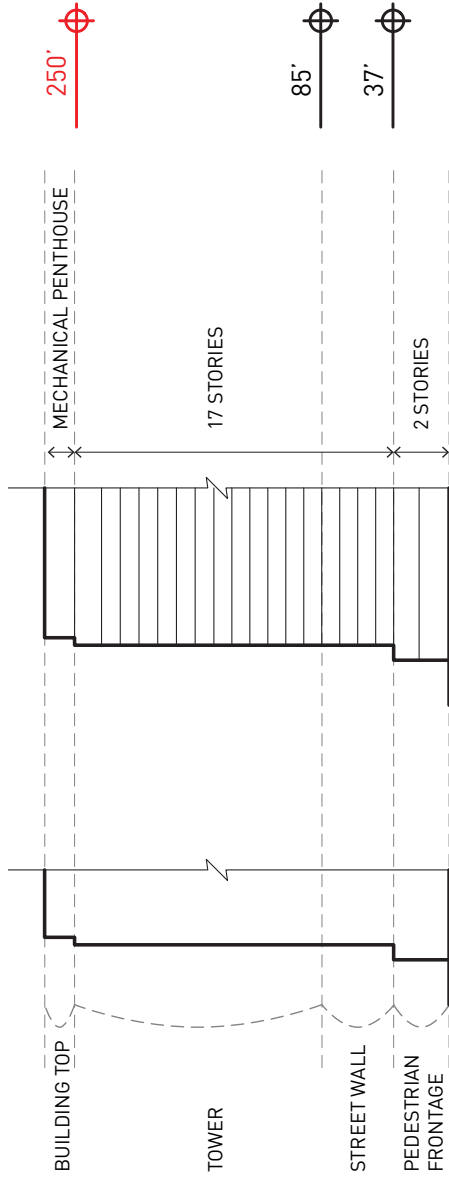
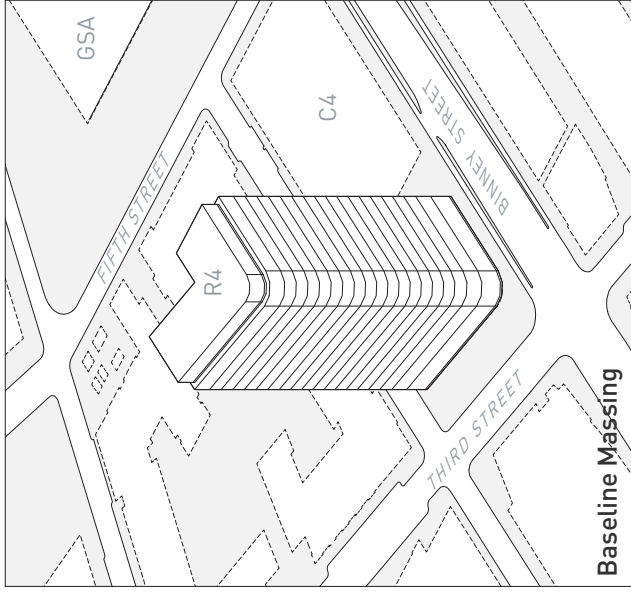


Figure E7: Block Guidelines - R4



Block C1

Approximate GFA : 400,000 - 450,000 SF

Maximum height : 250FT (and with conditions up to 300FT)

Use : Technical Office and Retail

Block C1 is a commercial building parcel bounded by Third Street Park to the east, Broad Canal Way to the north, Fifth Street to the west, and Broadway to the south. Building C1 will be a gateway building, highly visible from Broadway, Galaxy Park, Broad Canal Way and Third Street.

- C1 is an important landmark for the site and is highly visible from Broadway and

the approach to Kendall Square from the Longfellow Bridge. Consider the orientation of C1 to take advantage of exposure to view corridors. Special corner treatment should be considered at Broadway and Third Street Park.

- The location of building entrances and ground floor active use are to consider pedestrian crossings along Broadway.
- The design should recognize that C1 abuts the public open space of Third Street Park, and take into consideration views, shadows, sound and the public character of the open space.
- The ground floor and uses along the east facade should engage Third Street Park.

- The design should recognize that C1 abuts Fifth Street - an important north-south pedestrian connection that leads to the Kendall Square T-station. The massing is to minimize the impact of wind along Fifth Street.
- The pedestrian frontage and streetwall are to engage Broad Canal Way and are important elements in the retail continuity of the street.

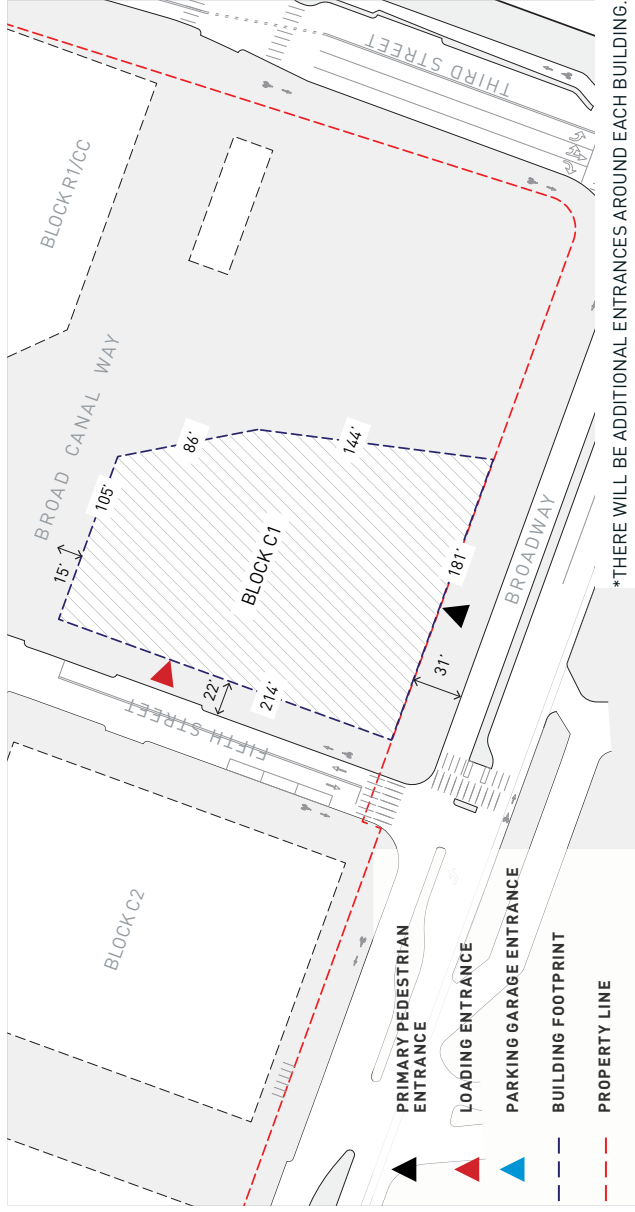
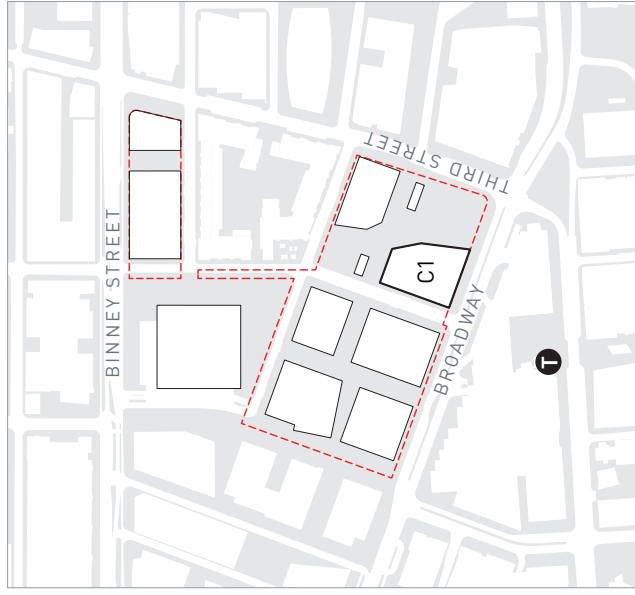
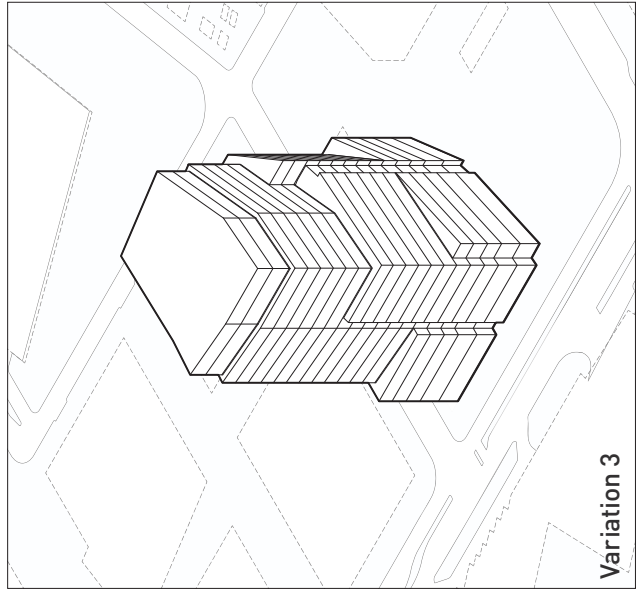
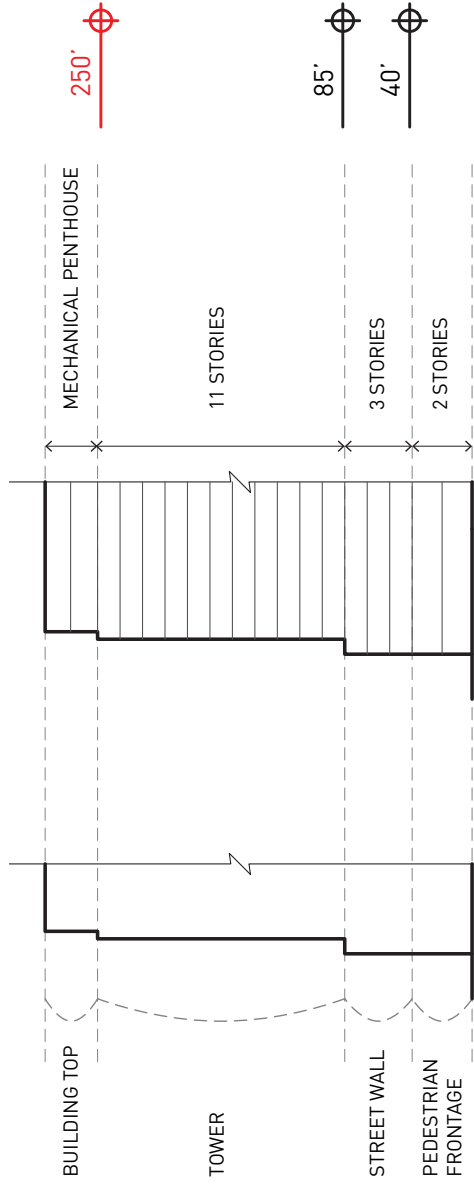
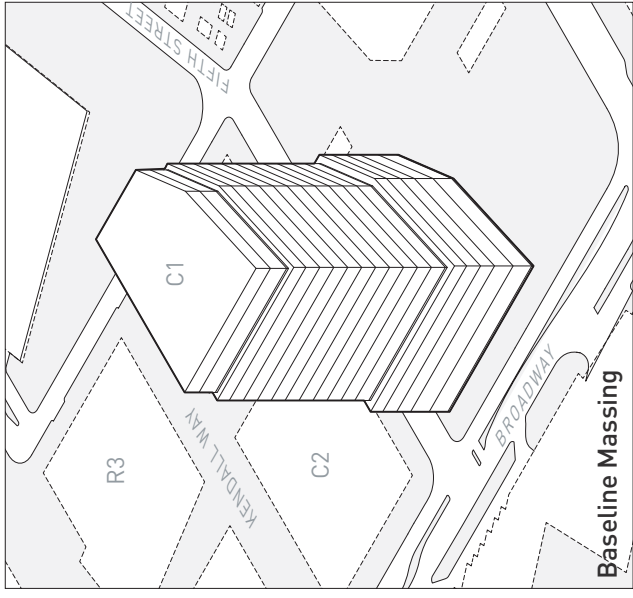
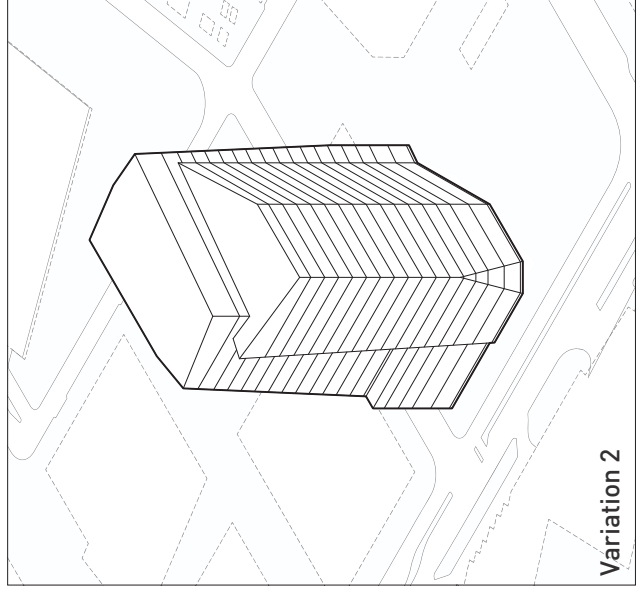


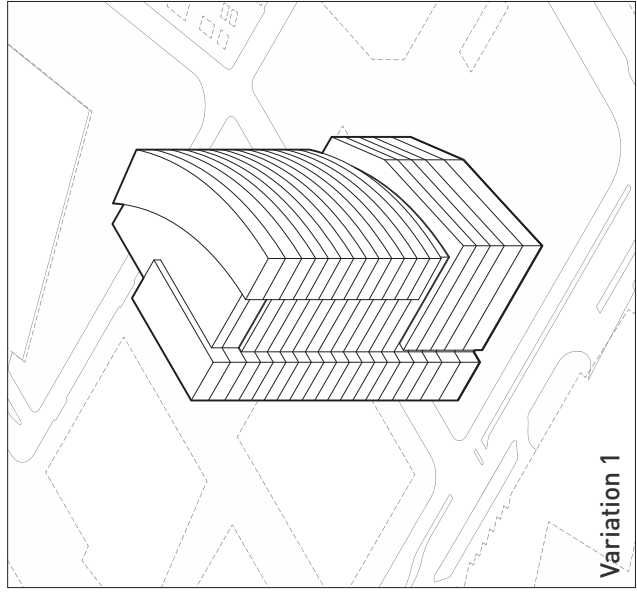
Figure E8: Block Guidelines - C1



Variation 3



Variation 2



Variation 1

Block C2

Approximate GFA : 500,000 – 550,000 SF

Maximum height : 250FT (and with conditions up to 300FT)

Use : Technical Office and Retail

Block C2 is a commercial building parcel bounded by Fifth Street to the east, Broad Canal Way to the north, Kendall Way to the west, and Broadway to the south.

- The relationship between C2 and Kendall Center will be studied. The street wall along Broadway is to be consistent in compositional scale with buildings along Broadway. The

massing and articulation of the south facade will be important in defining the character of Broadway.

- The location of building entrances and ground floor active use are to consider pedestrian crossings along Broadway.

- The design should recognize that C2 abuts Fifth Street - an important north-south pedestrian connection that leads to the Kendall Square T-station. The massing is to minimize the impact of wind along Fifth Street.

- The pedestrian frontage and streetwall should engage Broad Canal Way and are important elements with which to articulate the character of this street and create a

comfortable pedestrian experience.

- Consider enhancing the view corridor from Broad Canal Way to Loughrey Walkway with adjustment to building configuration. Maintain visibility of active uses such as the entertainment venue at the base of R3.

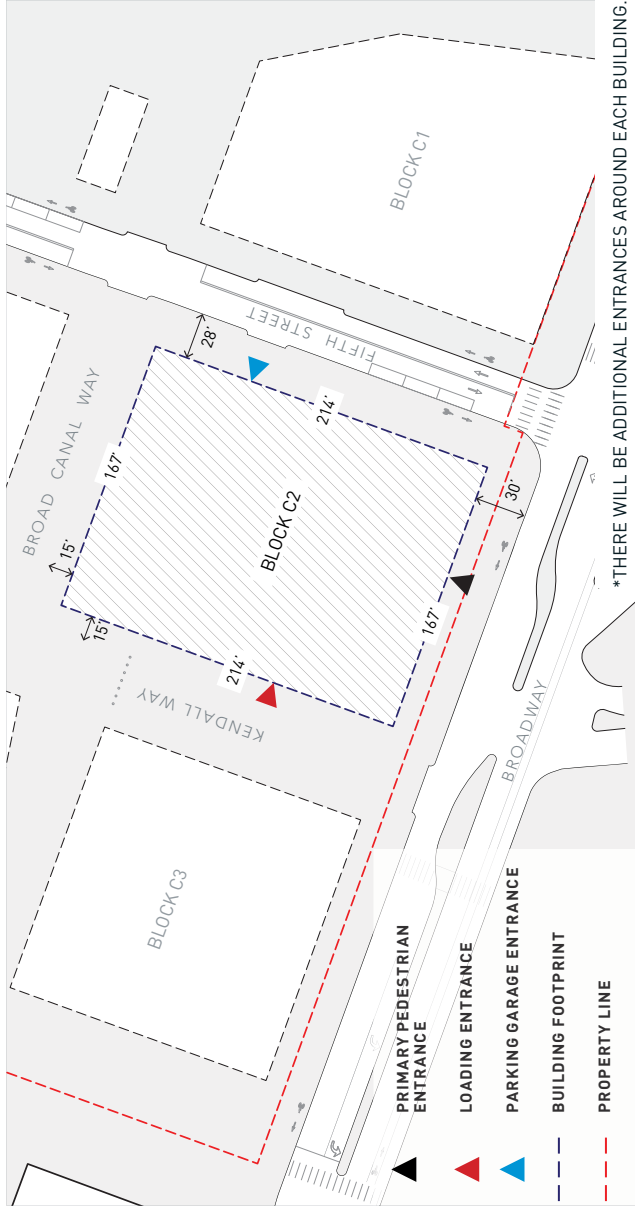
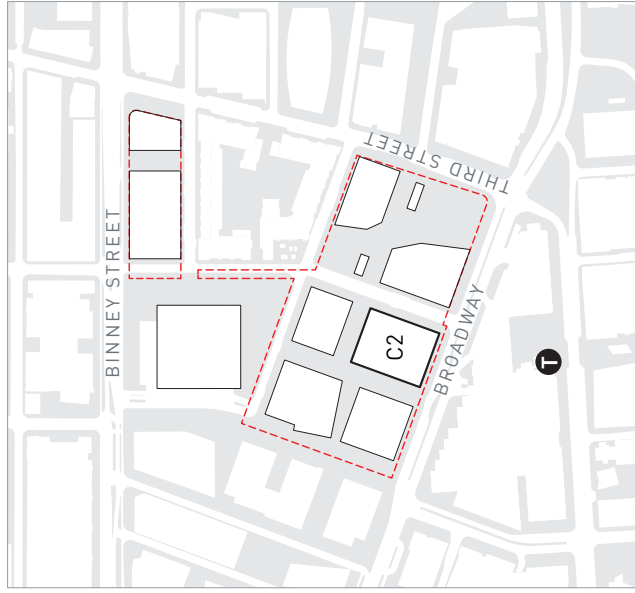
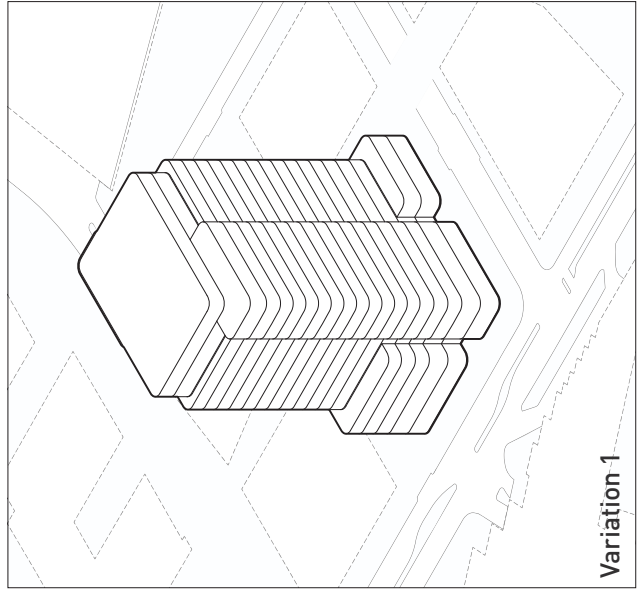
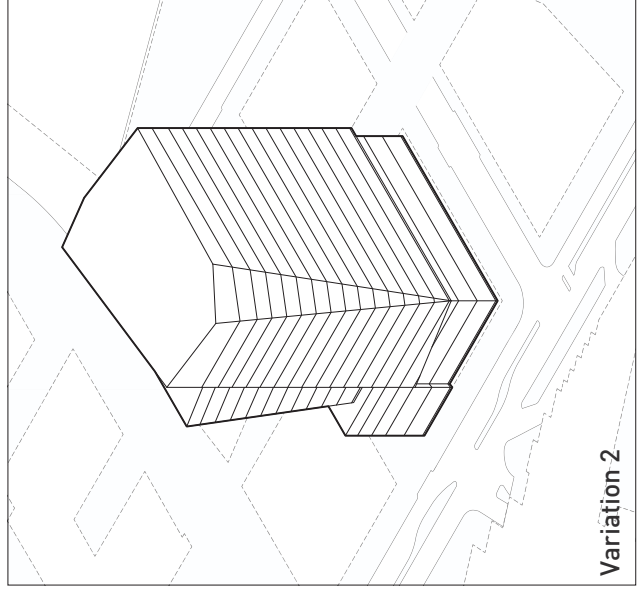
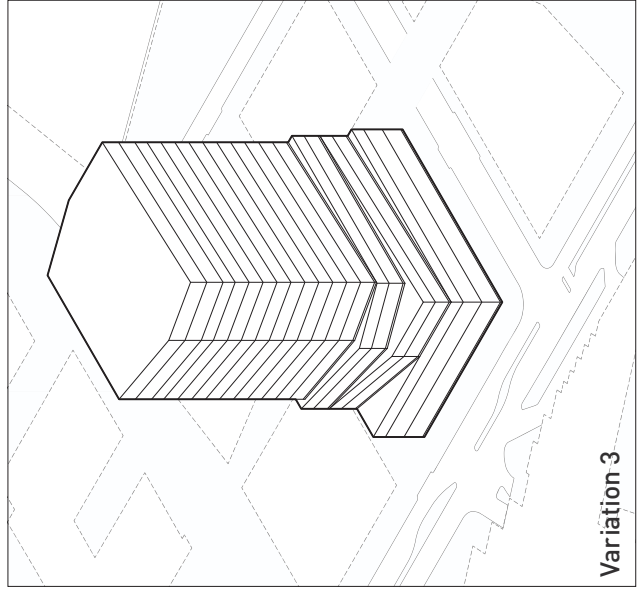
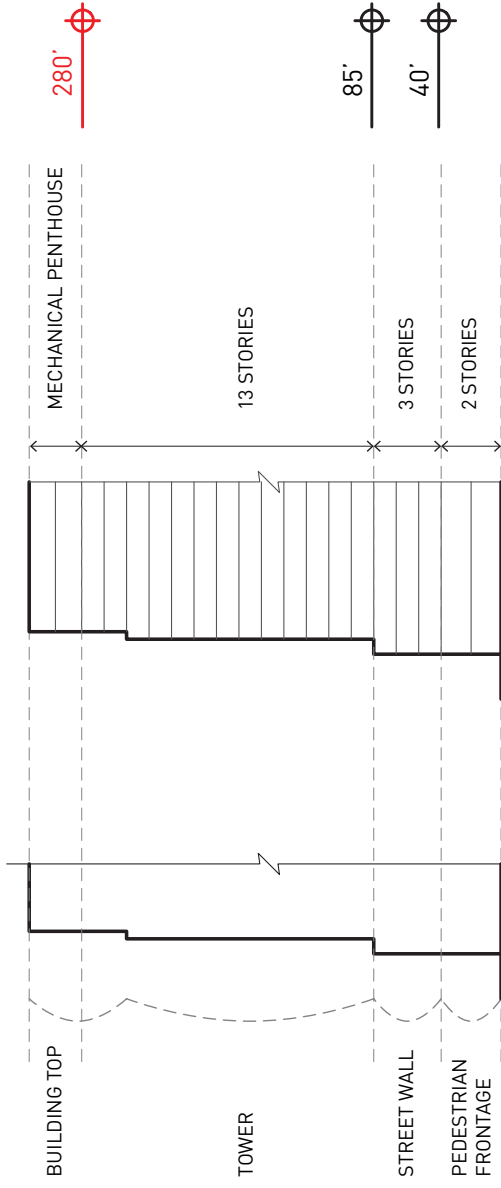
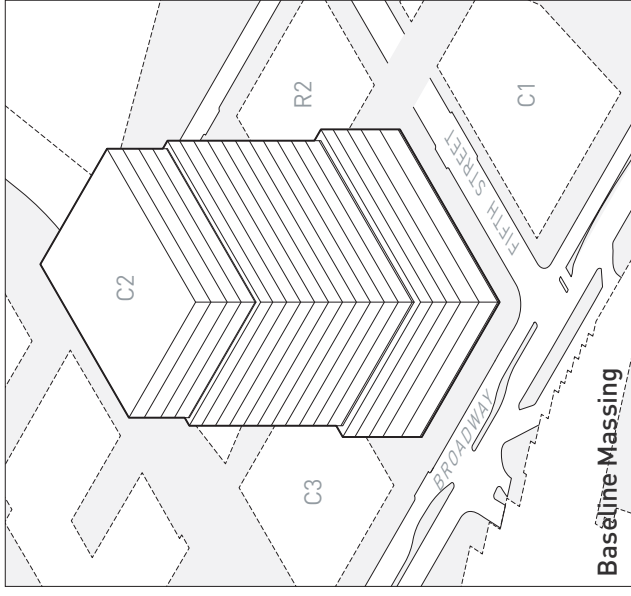


Figure E9: Block Guidelines - C2



Block C3

Approximate GFA : 450,000 – 500,000 SF

Maximum height : 250FT (and with conditions up to 300FT)

Use : Technical Office and Retail

Block C3 is a commercial building parcel bounded by Kendall Way to the east, the covered passage to Loughrey Walkway to the north, the public open space of Sixth Street Park to the west, and Broadway to the south.

- The relationship between C3 and Kendall Center will be studied. The streetwall along Broadway is to be consistent in compositional

scale with buildings along Broadway. The massing and articulation of the south facade will be important in defining the character of Broadway.

- The location of building entrances and ground floor active use are to consider pedestrian crossings along Broadway.
- Consider the orientation of C3 to take advantage of exposure to view corridors.
- The design should recognize that C3 abuts the public open space of Sixth Street Park and a pedestrian passage, and take into consideration views, shadows, sound and the public character of these open spaces. The design is to enhance the active street

experience and inviting nature of those open spaces. Consider tower setbacks from the streetwall along Sixth Street Park.

- The pedestrian frontage and streetwall are to engage Kendall Way and are important elements with which to articulate the character of this street and create a comfortable pedestrian experience.
- The ground floor and uses along the west facade should engage Sixth Street Park.
- Consider enhancing the passage to Loughrey Walkway with adjustment to building configuration.

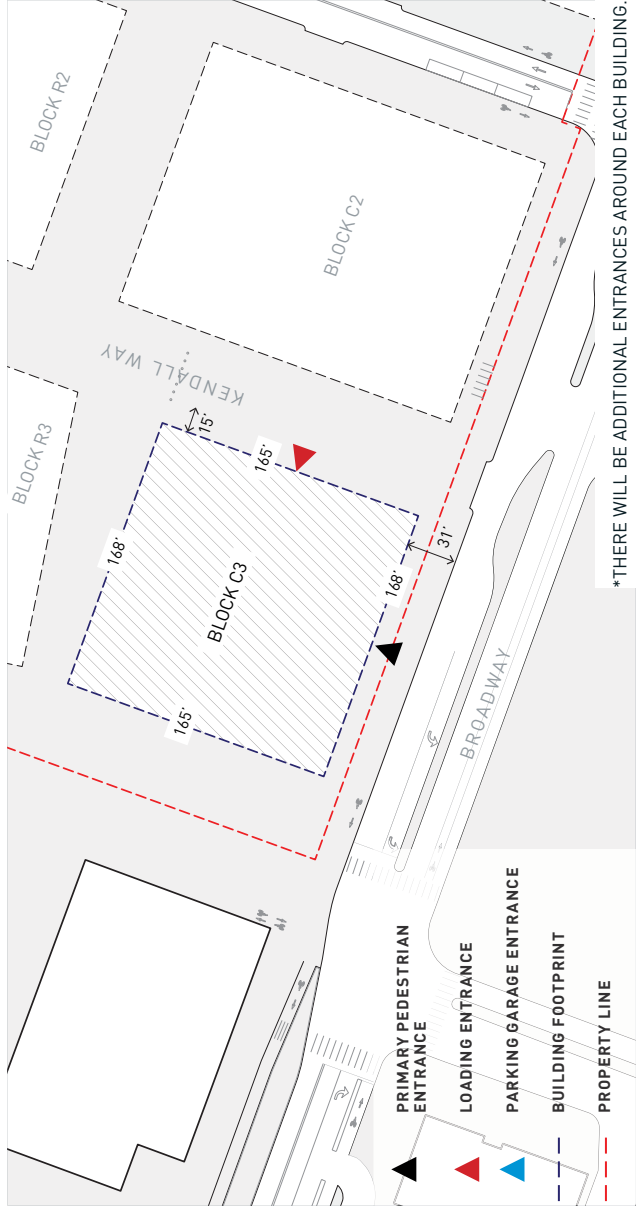
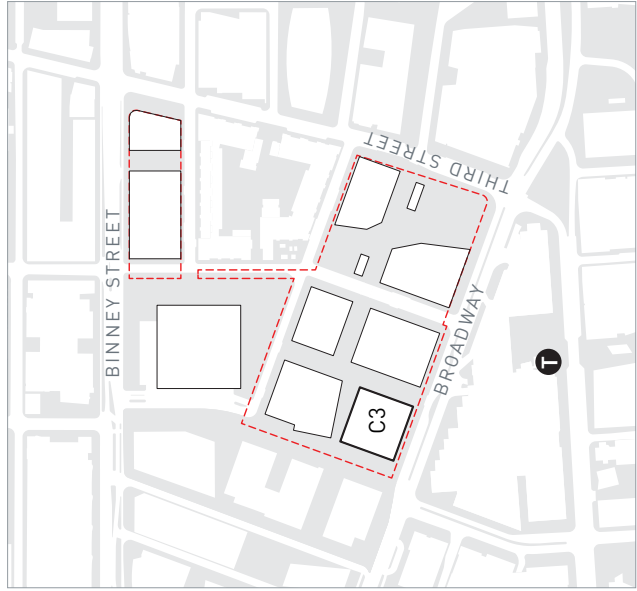
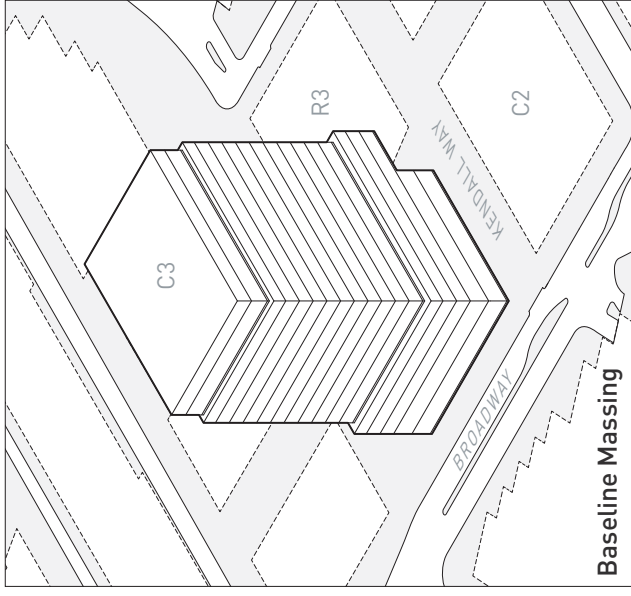
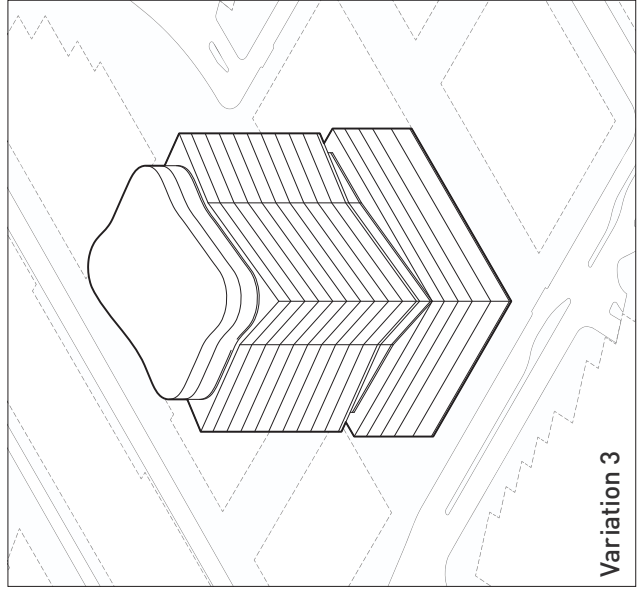
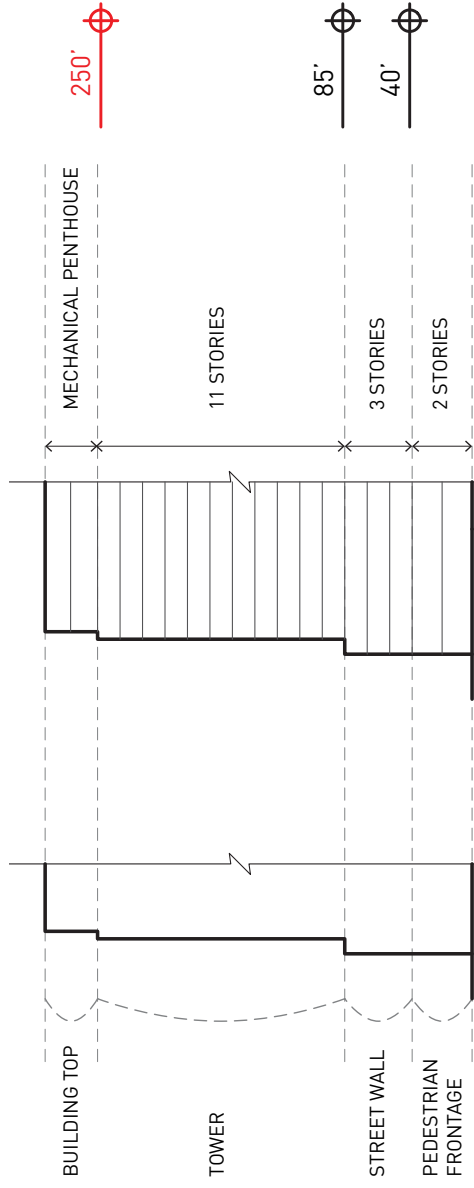


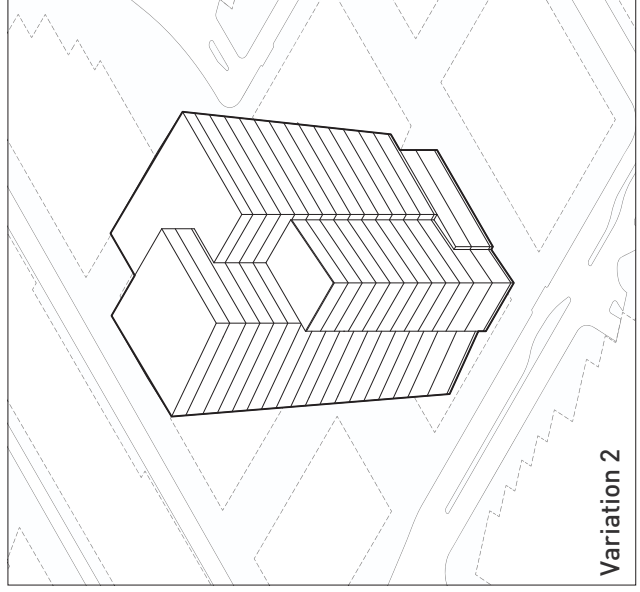
Figure E10: Block Guidelines - C3



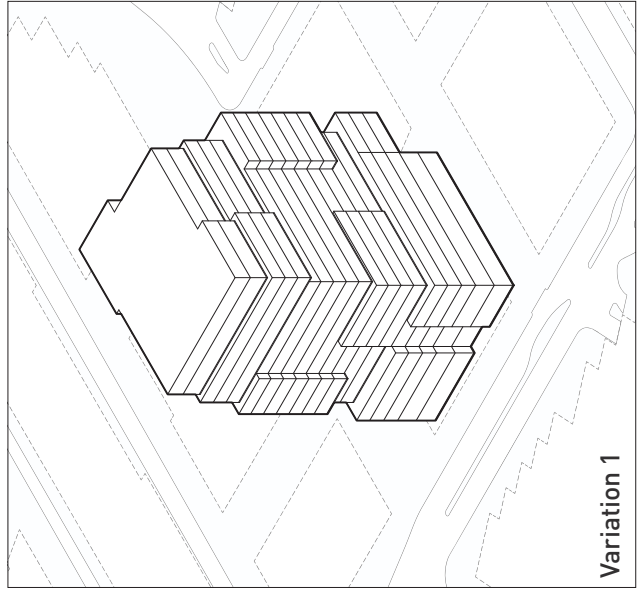
Baseline Massing



Variation 3



Variation 2



Variation 1

Block C4

Approximate GFA : 350,000 – 400,000 SF

Maximum height : 170 FT

Use : Technical Office and Retail

- The streetwall along Binney Street is to be consistent in compositional scale with buildings along this urban edge. The massing and articulation of the north facade will be important in defining the character of Binney Street. The location of building entrances and ground floor active use are to consider existing pedestrian crossings along Binney Street.
- Consider the orientation of R4 to take advantage of exposure to view corridors.
- The design should recognize that C4 abuts Binney Street Pocket Park and take into consideration views, shadows, sound and the public character of the open space.
- The pedestrian frontage and streetwall

are to engage Binney Street and are important elements with which to articulate the character of this street and create a comfortable pedestrian experience.

Block C4 is a commercial building parcel bounded by Binney Street to the north, Fifth Street to the west and Munroe Street to the south.

- The relationship between C4 and 303 Third Street Residential Apartments will be carefully studied. The pedestrian frontage and streetwall are to contribute to the residential character of Munroe Street.

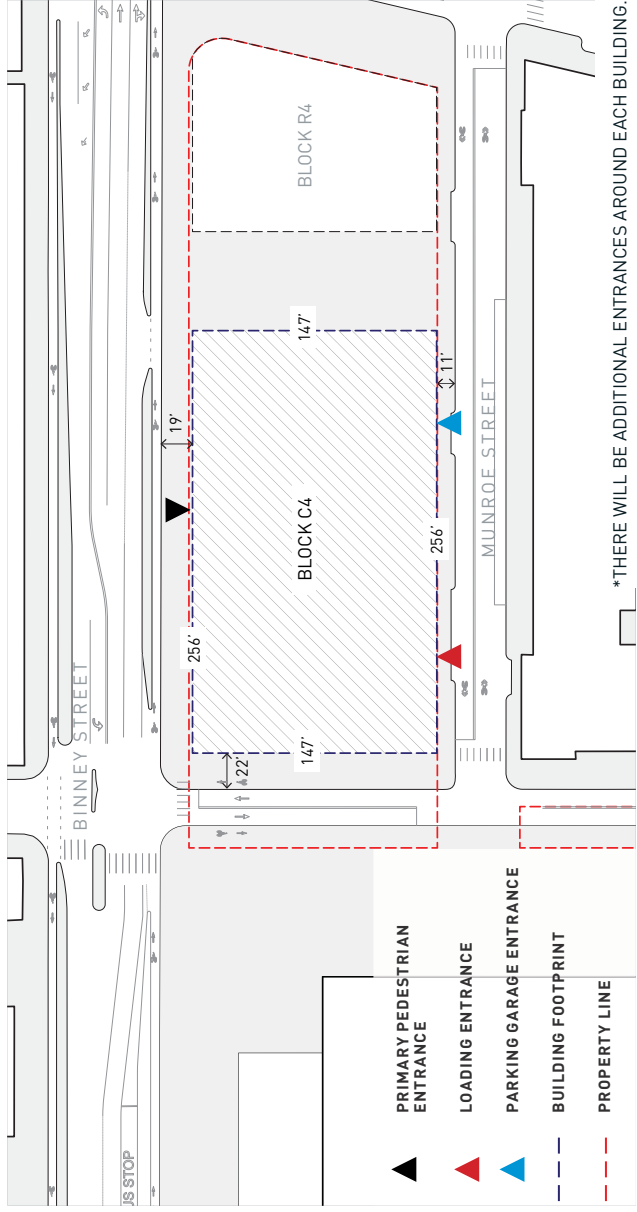
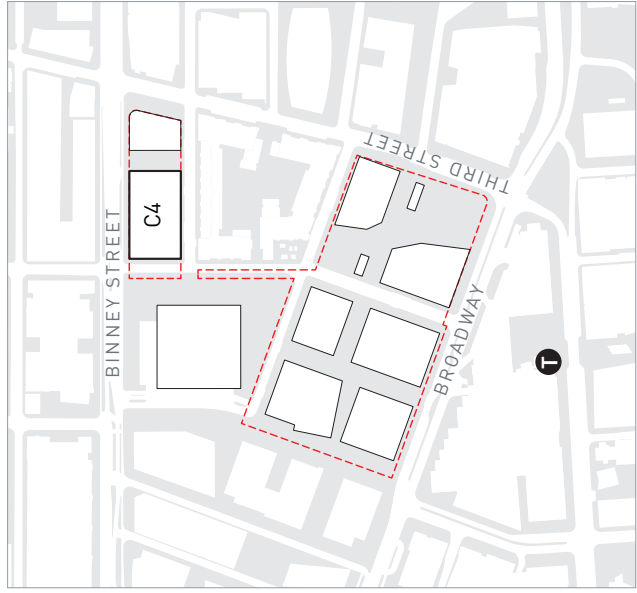
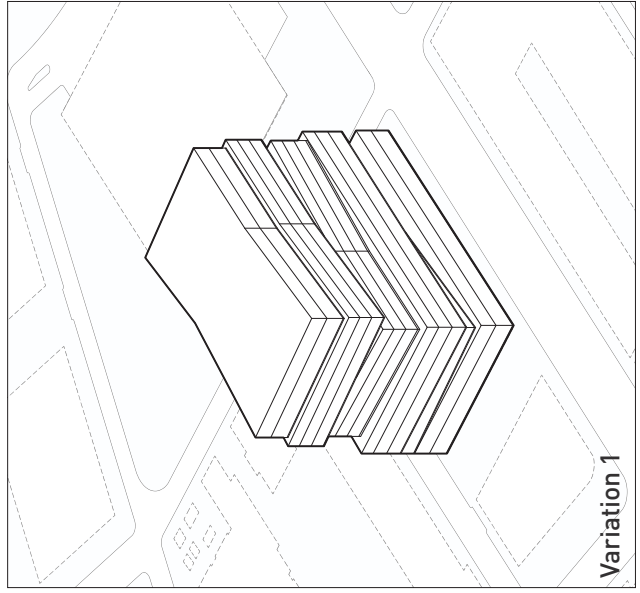
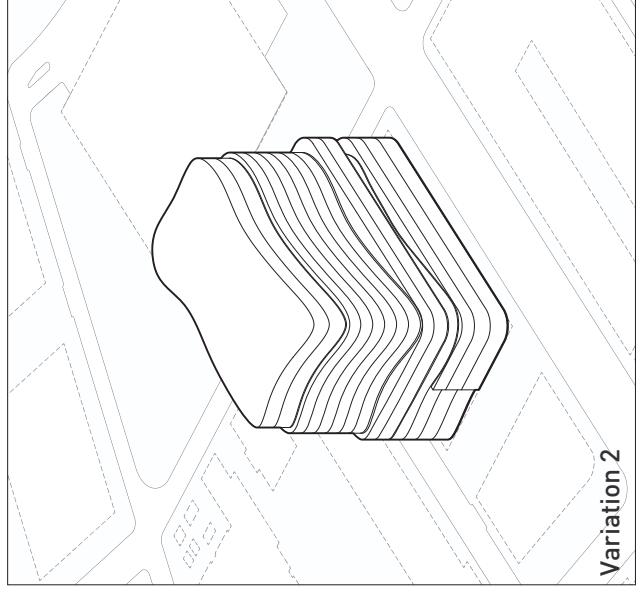
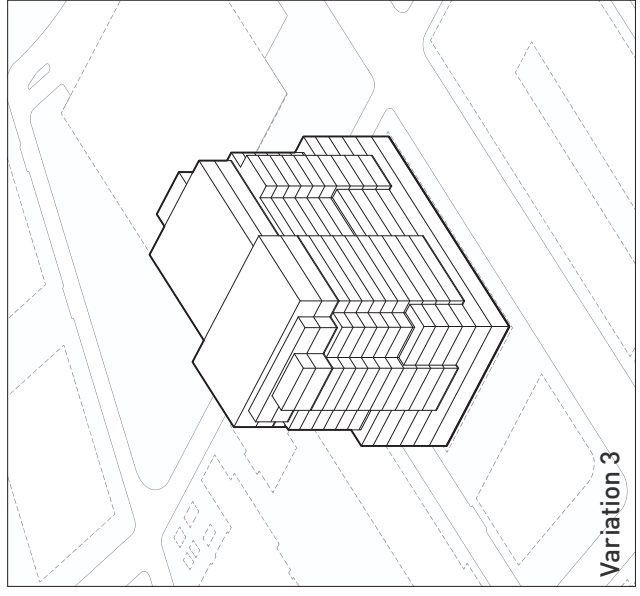
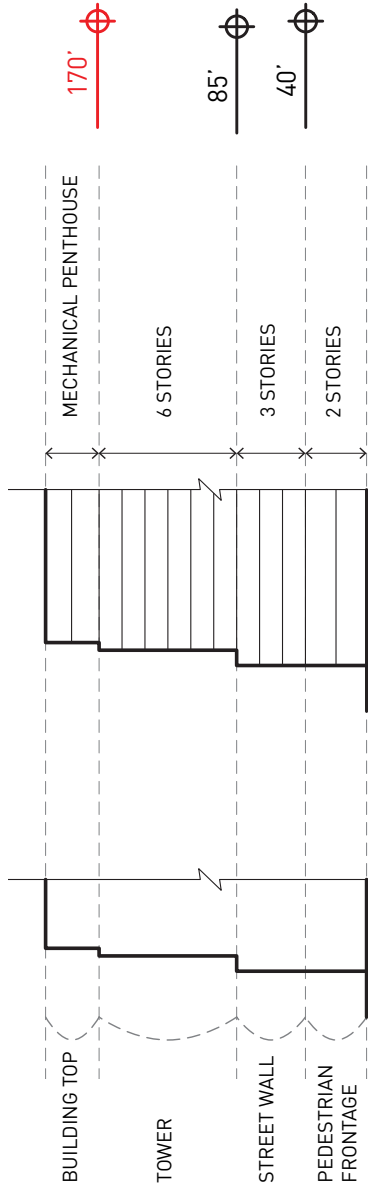
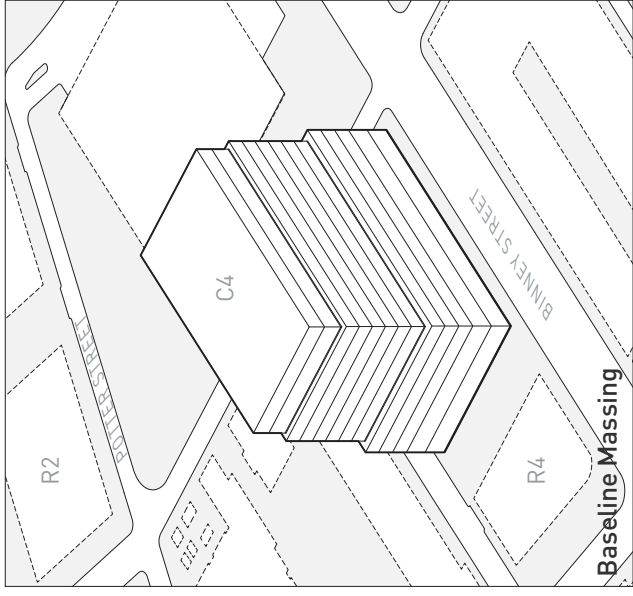


Figure E11: Block Guidelines - C4



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F: Environmental Guidelines

Overarching project goals include the desire to increase connectivity between the Volpe development site and the surrounding city and to improve the quality, vibrancy, diversity and inclusiveness of the public realm through a network of open spaces. At the same time, the development must maximize sustainable strategies and minimize adverse impacts on environmental comfort. The following describes efforts necessary to understand the existing environmental conditions, predict any potentially adverse impacts of the proposed development, and develop strategies to minimize or mitigate those impacts.

long-term vision for a low-carbon New England power grid. Load sharing between complementary building programs should be explored to maximize heat exchange and optimize energy performance across the greater development site. On-site rooftop photovoltaic (PV) arrays, supplemented by procurement of off-site renewable energy, should be explored during individual project design as a means of offsetting the overall development's electricity use.

LEED

As required under the PUD-7 Zoning Regulations of the City of Cambridge, all proposed buildings within the Volpe redevelopment site must achieve a minimum of Leadership in Energy and Environmental Design (LEED) Gold certification. An integrative sustainable design process is to be utilized in each project design to ensure that best practices will be employed in the design of exterior envelopes, building energy- and water-use systems, site planting, and site storm water management systems. Construction practices and materials, interior and exterior lighting design, and daylight maximization should all contribute to the achievement of LEED Gold certification.

The Volpe Development Plan will include one of only three blackwater treatment systems in New England, enabling 100% of all non-lab sanitary wastewater flow to be treated and re-used –

Net Zero Emissions Strategy

The project will achieve leadership in sustainability by minimizing emissions from fossil fuels. The focus throughout the design process for individual buildings should be to drive down projected emissions, both in the manufacture of construction elements and in the long-term operation of the buildings. The Volpe Development Plan has been master planned to maximize energy efficiency and support a path for a net-zero carbon future. Residential buildings (40% of the development) are to be all-electric, generating zero on-site emissions from fossil fuel, and commercial buildings are to be designed with a path to electrification that would integrate with the

removing up to 250,000 gallons per day from the city's sanitary sewer system. The collection, treatment, and reuse of all available greywater and blackwater in phased district blackwater treatment plants will minimize potable water consumption, improve self-sufficiency of the district, and mitigate the impact of the development on regional sewer systems. Every individual non-laboratory project will be expected to connect to one of the blackwater treatment facilities.

Wind

A quantitative pedestrian-level wind study of the proposed master plan build-out was conducted by RWDI, utilizing wind-tunnel analysis. The assessment focused on critical pedestrian areas, including building entrances and public sidewalks. Wind tunnel analysis of the proposed building massing and landscaping indicated that wind conditions at grade level on and around the project site are generally predicted to be similar or slightly lower than the existing wind conditions and suitable for the intended uses. Mean wind speeds and gust criteria were predicted to occasionally exceed desired conditions at certain building corners in winter or spring. Manipulations of the massing at building corners are to be utilized to mitigate this effect.

Similar quantitative pedestrian-level wind studies of individual proposed projects must

be undertaken by the future design teams, also utilizing wind-tunnel analysis. Wind analysis is to consider the impacts of neighboring existing and proposed buildings and landscape, and to quantitatively evaluate the suitability of predicted wind conditions for the intended uses within the public realm. Future design efforts for individual buildings and development-wide streetscape and landscape design is to mediate any marginal conditions.

Shadow

The Volpe Development Plan design team has performed a shadow study to evaluate the shadow impacts of the proposed building massing on existing neighboring buildings as well as on existing and proposed elements of the public realm - the network of open spaces that will connect the Volpe Development plan to the neighboring context of the City of Cambridge. Refer to Section K, Environmental Comfort Plan, for further narrative and graphic analyses.

Shadow studies must be performed for individual future projects to evaluate the shadow impacts of specific proposed building massing on neighboring buildings and on the streetscape and landscape of the public realm. Shadow studies are to evaluate existing and proposed conditions to determine the area of net new shadows at the specific annual markers of 9:00 am, 12:00 pm, and 3:00 pm on the

Summer and Winter Solstices and on the Spring / Fall Equinox. Shadows are to be measured at the ground plane and on neighboring rooftops. For the purposes of future shadow studies, the new Volpe National Transportation Center, now under construction, will be considered to be existing, as will any new buildings within the Volpe Redevelopment Plan that precede a subject project into design or construction. The massing of other future buildings within the redevelopment plan, as used to generate shadows, are to be consistent with the maximum building envelopes as described by the proposed massing diagrams in the Volpe Development Plan master plan.

Lighting

Urban street, sidewalk, pathway and landscape site lighting is critical to providing a sense of comfort, safety and security. A consistent, cohesive approach to illumination and fixture selection will contribute to the connectivity of the open space network within the public realm. Similarly, the interior illumination of active retail, dining and Entertainment Venue will increase transparency into those public uses, blur the edge between indoor and outdoor space, and heighten the sense of security and neighborhood identity well into the evening. Exterior building lighting will also be important for identity, especially for commercial buildings within the Volpe Development Plan.

Future building and site design must address these positive attributes while also mitigating light spill, avoiding light pollution, and conforming to applicable night-sky ordinances. The use of occupancy or vacancy sensors within the upper floors of commercial buildings and light cut-off housings for exterior pole-type fixtures are two specific methods (among others) that future building and landscape design must address.

Heat Island Effect

Urban heat island effects are to be mitigated with a hybrid approach. All new buildings are to employ high albedo, green roof, blue roof, or solar panels, as applicable, to reflect heat and mitigate urban heat island effects in accordance with the PUD-7 zoning requirement. Site hardscape materials are to be chosen for high SR/SRI values. Outdoor spaces with vegetation such as canopy trees, pergolas, trellises, green walls, and other measures are to be considered as means to reduce urban heat gain.

Shade trees and canopies should be employed to mitigate heat gain on sidewalks and pedestrians while ground vegetation and light colored paving surfaces are to be utilized to reduce overall heat island effects, and to align with key strategies for climate resiliency to withstand and recover from extreme weather events. Individual future

projects should employ combinations of these heat resiliency strategies.

Noise

The specific parcels that comprise the Volpe Development Plan will be designed to meet the requirements of both the MassDEP noise policy (310 CMR 7.10) and the City of Cambridge Noise Control Ordinance (Chapter 8.16 of the Cambridge, Massachusetts Municipal Code).

To confirm compliance with the MassDEP noise policy, projects developed on the site are to undertake, during the Article 19 design review process, a survey of existing ambient noise levels that establish prevailing background sound levels. This survey will define site-specific limits that, together with the fixed limits in the Cambridge Noise Control Ordinance, will apply to each building developed on the parcels.

During design of each building on the site, project design teams are to engage qualified acoustics and noise control consultants to advise them on the noise mitigation measures necessary to comply with MassDEP's noise limits as well as the limits prescribed in the Cambridge Noise Control Ordinance. These measures may include strategic equipment selection and location, equipment noise barriers or screens, sound attenuation devices, or other measures necessary to confirm compliance.

The primary elements that contribute to sound generation within an urban development project include mechanical equipment noise and building service and loading activities. Construction activity temporarily generates noise during the construction of buildings and infrastructure. Construction activity noise is limited separately within the Cambridge Noise Control Ordinance.

Mechanical equipment: The future design of individual buildings is to locate major mechanical equipment within enclosed roof-top mechanical penthouses and lower level mechanical service rooms. When large mechanical equipment is located outside, buildings will comply with the Cambridge Noise Ordinance.

Service and loading activities: Building loading and service areas are to be located off-street, at ground level, internal to the building footprint. Loading bays are not to impinge upon adjacent sidewalk, roadway right-of-ways, and service traffic is to be managed to avoid adverse impact on local traffic circulation.

Construction activities: Construction activities associated with the individual buildings and site infrastructure (underground utilities, roadways, and public realm landscape and hardscape features) will temporarily create an increase in noise levels emanating from within the Volpe site. Those activities that are likely to generate

the highest levels of construction noise include demolition, excavation and foundations. Primary noise-generating construction activities are to be limited to daytime hours. Individual construction projects (both building- and infrastructure-related) are to develop a series of mitigation measures in collaboration with the City of Cambridge.

Climate Resiliency

To respond to the changing climate and prepare for projected increases in precipitation, the Volpe Development Plan will embrace resilient design

strategies including elevating mission-critical equipment, residential units, and all building ground floors at the projected 2070 100-year flood elevation; incorporating stormwater mitigation strategies; and providing standby power for mission critical equipment. To minimize risks associated with projected temperature increases, all proposed development projects should reduce urban heat island effect through the use of high-albedo roofing and paving, and minimize cooling loads by insulating and shading building facades.



CITY OF CAMBRIDGE

TRAFFIC, PARKING, + TRANSPORTATION

MEMORANDUM

To: Cambridge Planning Board
From: Joseph E. Barr, Director
Date: July 15, 2021
Subject: MIT Volpe Exchange Parcel (PB#368)

The Cambridge Traffic, Parking, and Transportation Department (TP+T) has been working with the Massachusetts Institute of Technology (MIT) through the MIT Investment Management Company (MITIMCo) over the last several months on the proposed Volpe Exchange Parcel project and has reviewed the Project's Final Development Plan dated June 4, 2021.

MITIMCo is seeking approval of a Planning Board Special Permit for the overall development of the Volpe Exchange Parcel at 55 Broadway, to consist of approximately 3 million square feet of mixed use development, including approximately 1.1 million square feet of residential use (approximately 1,400 units), 1.75 million square feet of commercial space (i.e., Office/R&D, innovative space) and approximately 125,000 square feet of retail/active use (which includes a community center and entertainment space). Overall, the Project's Final Development Plan proposes a maximum of 1,759 parking spaces (a reduction from the 1,876 parking spaces originally proposed), primarily in two below-grade parking garages and a limited number of surface parking spaces. The Project has also updated its bicycle parking spaces to 1,876 long-term and 338 short-term bicycle parking spaces. It plans to continue to provide approximately 14 loading bays to serve its eight (8) proposed buildings.

MITIMCo completed a Transportation Impact Study (TIS) for the Project which was certified by TP+T on November 4, 2020. The TIS indicated that due to its size, the Project triggered 113 Planning Board Special Permit transportation exceedances. The Project will generate the following trips:

- 6,553 daily vehicle trips, including 757 AM and 852 PM peak hour vehicle trips;
• 6,263 daily transit trips (721AM/814 PM peak hour transit trips);
• 2,623 daily pedestrian trips (284 AM/335 PM peak hour pedestrian trips); and,
• 1,099 daily bicycle trips (138 AM/152 PM peak hour bicycle trips).

TP+T submitted a memo to the Planning Board dated March 29, 2021 with our initial comments on the Project and have had many productive meetings with MITIMCo and their traffic consultant VHB since then as the Project has advanced.

Although there are various details that will need to be evaluated by TP+T during design review for each individual building, overall TP+T is satisfied with the Project's high-level

master plan transportation parameters, such as the roadway access and circulation plan, maximum parking supply, and transportation mitigation program.

In TP+T's March 29, 2021 Planning Board memo, we listed various transportation goals for the Project. From our work with MITIMCo, TP+T believes that the Project is meeting the goals in the following ways:

- Reduce overall vehicle trips; shift trips to sustainable modes.
 - The Project is a mixed-use project located in a transit-oriented location which by its nature reduces vehicle trips. The Project has an approved PTDM Plan with a commitment to prioritizing sustainable modes of transportation and to not exceed a 35% single occupancy vehicle (SOV) mode share for Office/R&D employees.
- Promote transit use while taking account of existing congestion on the transit network.
 - The Project has committed to provide \$8.5 million to the City toward transit improvements. The Project will provide transit-pass subsidies and continue to work cooperatively with the City on fostering improved transit conditions for Kendall Square.
- Reduce vehicle trips on neighborhood streets.
 - The Project will first and foremost support and prioritize walking, biking, and transit trips to and from the Project instead of SOV travel by committing to various measures such as limiting and charging for automobile parking spaces, constructing a bicycle, pedestrian and transit accessible development, and designing and constructing a Binney Street/Fifth Street intersection that physically blocks neighborhood cut-through traffic to/from the site from using Fifth Street north of Binney Street.
- Improve safety and operations at intersections and streets for all modes.
 - The Project will construct and maintain privately owned roadways, sidewalks, paths/pathways, and bike facilities which will provide new and safe connections that are open to the public for all modes. The Project will also fund and/or contribute toward the 100% design plans for and reconstruction of abutting City streets/intersections including, Binney Street (between Third and Fifth Street), Third Street (between Broadway and Binney Street), and Broadway (between Third Street and Ames Street), to improve safety and meet the needs for all users of these street.
- Improve, contribute to, and support availability of transit and bicycle trips.
 - As noted above, the Project will contribute \$8.5 million to the City to use as the City decides toward area transit improvements. The Project will subsidize transit and bike trips and provide and maintain 1,876 long-term and 338 short-term bicycle parking spaces.
- Improve pedestrian and bicycle safety, connections, and convenience.
 - The Project will create new sidewalks and bicycle facilities that will provide accessible, safe, and convenient connections between the Project site and destinations in Kendall Square.
- Manage parking supply, use Transportation Demand Management to manage automobile demand, and incentivize non-SOV modes. Monitor trip generation and transportation impacts.
 - The Project has an approved PTDM plan including a monitoring program. The Project will use best practices to manage and monitor its parking supply and demand.

- Actively manage loading and deliveries.
 - The Project will establish a loading and delivery plan for each new building which, as feasible, will include tools to help consolidate the number of deliveries to minimize the number of vehicles and also facilitate or prioritize deliveries made by small, electric vehicles or delivery bicycles. .

As stated above, TP+T has been working with MITIMCo and has reviewed the Final Development Plan and offers the following comments to the Planning Board for your consideration.

Site Plan

There has been good progress made and TP+T generally supports the overall revised site plan including roadway alignments and cross-sections.

- In terms of the internal streets, TP+T generally supports the Fifth Street alignment and conceptual layout—including separated bicycle facilities on each side of the street,¹ as well as the two-way bicycle facility on the south side of Potter Street which will connect Third Street to the Kitty Knox path. It is important to note that these designs are subject to additional changes and refinements during design review for individual buildings.
- TP+T supports the updated site plans which moves the proposed location of the left-turn lane off Broadway to Fifth Street and removes the previously proposed driveway to the parking garage located directly off Broadway west of Fifth Street.
- More discussions and analysis will be needed for the “truck only” restriction for right turn in and out only at the Broadway/Kendall Way intersection as opposed to allowing all users to make the turn. However, that regulation can be determined by TP+T and MITIMCo as part of individual building permit design review for buildings on Kendall Way. The regulation may also be “tested” or changed over time based on operational experience.
- TP+T believes that the alignment of the Fifth Street and Potter Street intersection has been improved and is acceptable subject to any further refinements, such as making the intersection raised or other design details which can be addressed as part of individual building design reviews.
- As the Project is built-out, other minor roadway changes can be addressed with City staff, unless staff determines that a change is “material”, at which point MITIMCo will be asked to submit an appropriate amendment for Planning Board review and approval.
- MITIMCo has proposed to be responsible for regulating, managing, and enforcing street use on Broad Canal Way and Kendall Way, and, together with the adjacent

¹ While MIT intends to construct one-way cycle tracks on each side of Fifth Street, we understand that its ability to do so in the segment between Potter Street and Munroe Street will depend on being able to obtain rights from the owners of 303 Third Street as 303 Third Street owns to the centerline of Fifth Street in this location. MIT has agreed to undertake commercially reasonable efforts to obtain those rights, but if it is unsuccessful in obtaining such rights, MIT will coordinate modifications to the cycle tracks on Fifth Street with Cambridge TP+T and DPW and will file the modified plan agreed to by MIT and DPW with TP+T and the Planning Board as an update to the Final Development Plan, which modification shall be deemed part of the Final Development Plan.

property owner, on Fifth Street and Potter Street. TP+T is generally fine with this approach, subject to a Special Permit condition that the streets are to be open for public use upon such terms, conditions, and reservations as are acceptable to TP+T, the Department of Public Works and MITIMCo.

- MITIMCo should provide a “Curb Use Operation & Signage Plan” during the Design Review process for each site that would provide clarification and details on types of proposed curb use and will be subject to TP+T approval.
- MITIMCo will be responsible for maintaining or ensuring the maintenance of the privately owned roadways, sidewalks, parks/pathways, and bike facilities. For the public ROW, and locations where the “public” sidewalks and bike facilities may end up moving in and out of MITIMCo property, they are expected to maintain (plow and sweep) both the sidewalk and bike facilities abutting their Project, regardless of whether they are in City ROW or their property, along with any other sidewalks and bike facilities mutually agreed upon by MITIMCo and City departments. TP+T, in coordination with the Department of Public Works (DPW) has developed a framework for a maintenance agreement which should be finalized between MITIMCo, DPW, and TP+T prior to the issuance of the first Building Permit, and subject to changes as agreed to between the City and MITIMCo.
- All private ways, sidewalks, and bicycle facilities within the site shall be open to public travel and uses upon such terms, conditions, and reservations as are acceptable to DPW, TP+T, CDD, and MITIMCo. These agreements shall be in place for each private way, sidewalk, and bicycle facility prior to the opening of the relevant phase of development.
- Lastly, the extension of Broad Canal Way as a unique street is an exciting opportunity. However, the specific elements will still require further City review, such as if and when vehicles would be allowed on the street, if there will be a raised street curb compared to a shared street with no raised curb between the sidewalk and street, details of the proposed water feature, and various other design and access control questions. TP+T will continue to work with MITIMCo and other City staff on a final design and operational plan for Broad Canal Way and the Project’s other private streets during design review for individual buildings, to be approved by TP+T prior to issuance of certificates of occupancy for buildings that are accessed by those streets. TP+T may also approve operational plans on a temporary basis while streets are under development.

Automobile Parking

- TP+T has worked with MITIMCo on their parking plan and supports the proposed Final Development Plan including a maximum of 1,759 spaces (which is a 117 space reduction from the originally proposed 1,876 spaces for the Project). The parking will be primarily located in two below-grade parking garages and includes a limited number of on-street parking spaces. The change in the total number of spaces is from MITIMCo agreeing to a maximum 0.75 parking space per 1,000 sf for the Office/R&D uses instead of a maximum 0.8 ratio. TP+T believes that a maximum

0.75 ratio this is a more appropriate because of the Project's transit-oriented location.

- To finalize the parking plan, MITIMCo worked with TP+T and updated their TIS parking analysis in a memo dated May 10, 2021. The analysis includes shared parking between site users that have peak parking demands during different times of the day (i.e., Office and Residential uses have maximum parking demands during different times in a day which allows parking spaces to be used by residents at night and office workers during the day). Based on the updated parking analysis, the Project's Parking demand is expected to peak at noon on weekdays with 1,759 spaces in use. At 9 AM, the Project is expected to have 147 empty parking spaces and at 10 PM, the Project is expected to have 992 empty parking spaces when site employees are at their homes.
- In addition, MITIMCo is in negotiations with abutters around opportunities to use underutilized parking spaces that already exist near the Project site. In the event that MITIMCo enters into such an arrangement with an abutter, the approved number of parking spaces to be constructed will be reduced by the number of parking spaces that are the subject of such an agreement. Page 114 in the Special Permit Final Development Plan Application discusses this in more detail and explains that up to 250 parking spaces within the 303 Third Street parking garage could potentially be utilized for this Project. TP+T strongly supports this type of shared parking by using underutilized parking spaces that already exists in the area before building new parking spaces. This would mean the Project would construct 1,509 new parking spaces instead of 1,759 spaces, but because an agreement with an abutter, the Project would have use of up to a total of 1,759 spaces. The 303 Third Street Project or another Project would likely need its own Special Permit from the Cambridge Planning Board to permit the parking plan. TP+T has proposed and supports such a shared parking arrangement, and we recommend the following:
 - The Volpe Exchange Parcel Project should have a maximum parking supply of 1,759 spaces and no minimum parking supply.
 - The Volpe Exchange Parcel Project should be allowed to enter into an agreement with another Property located within 1,000 feet to utilize that Property's parking spaces for residential or non-residential parking for the Volpe Exchange Parcel Project and to reduce the number of on-site spaces at the Volpe Exchange Parcel project by an equal number of spaces as in the agreement.
 - If the 303 Third Street Property or another nearby property seeks a Special Permit for a reduction in required parking in order to enter into an agreement with the Volpe Exchange Parcel Project, we would expect to support the Planning Board looking favorably on approving such an arrangement, assuming that the specific parameters are appropriate within the context. This would enable the use of existing unused accessory parking spaces at one facility to be used to meet the parking needs at another Project thus reducing the overall supply of parking spaces.
- In general, the parking plan is based on the following parameters:

- Office/R&D: No minimum accessory parking required. Maximum 0.75 spaces/ksf
- Residential: Maximum 0.49 spaces/unit (note, however, additional parking (up to 0.75 spaces/unit) shall be made available during evenings and weekends for residents or resident guests if spaces are available on-site).
- Retail/Active Uses: Maximum 0.25 spaces/ksf during daytime (note, however, that maximum retail parking for Project special events may be increased during evenings/weekends if spaces are available on-site subject to approval by TP+T).
- To begin to align with recent requests from the City Council, the Project should Install 90 dual-head Level 2 chargers (serving 180 vehicles) and Install conduit and /or wiring to support the future installation of additional Level 2 chargers to serve the remainder of the parking spaces, and ensure sufficient capacity in electrical panels and transformers to support future installation of chargers serving all 1759 spaces. MITIMCo shall track use of the EV charging stations (including users requests) on at least an annual basis and increase the number of installed charging stations to meet/slightly exceed identified demand such that there is always available capacity for EV charging as the number of EVs in service grows.
- The parking plan is balanced in order to meet the Project's parking needs but not provide too much parking that may encourage auto use.
- MITIMCo should help consolidate the number of deliveries to minimize the number of vehicles, and also set policy, facilitate, or prioritize deliveries made by small, electric vehicles or delivery bicycles.
- At no time shall parking spaces be available that exceeds the maximum parking ratios for any land use at the site, unless approved by TP+T. Any excess parking spaces built before buildings are occupied shall be made physically inaccessible to parking, such as roped off or physical barriers, provided however, that MIT shall be allowed to use such excess spaces for parking by construction workers that are actively working on the Development Parcel until the establishment of the uses to be served by the parking facilities on a permanent basis.

Bicycle Parking

- As stated above the Project will provide 1,876 long-term and 338 short-term bicycle parking spaces to meet the City's bicycle zoning parking requirements.
- The detailed location for the long-term and short-term bicycle parking spaces have been provided in the Special Permit Application and PTDM Plan. They are well spread-out throughout the Project and appear to meet the City's Bicycle Parking Zoning layout design requirements. The TP+T and CDD will also work with MITIMCo on the final locations as part of Design Review for individual garages and buildings as the project is built-out.

Transportation Mitigation

TP&T and MITIMCo share the goal of long-term success for the Kendall Square area and will continue to work together on an ongoing basis. To mitigate the Project's transportation impacts and the 113 Planning Board Special Permit transportation

exceedances documented in the TIS, TP+T worked with MITIMCo to develop a transportation mitigation program that aligns with the transportation goals discussed above and other City goals, plans and policies, such as the Envision Cambridge Plan, Cambridge 2015 and 2020 Bicycle Plan, 2015 Cambridge Transit Strategic Plan, Cambridge Pedestrian Plan, Vehicle Trip Reduction Ordinance and many other policies, plans and goals.

To mitigate the Project's transportation impacts, the measures described in the attached table should be in place before completion of the Project. The mitigation phasing schedule described in the table shall apply, subject to reasonable changes or adjustments as approved by the City, and as dictated by circumstances of the development build-out. Changes to the phasing of mitigation may be approved by the Planning Board as a Minor Amendments; however, changes to the phasing that are determined by TP+T to be necessary due to circumstances beyond the control of MITIMCo may be approved administratively by TP+T, in coordination with DPW and CDD. The phasing described below is based on the overall phasing plan submitted as part of the Final Development Plan; should that overall phasing contained in Final Development Plan change then a new mitigation phasing timeline may need to be developed and, if required, will require an Amendment to the Special Permit (whether a minor or major amendment is required to be determined based on the overall Amendment required for the overall phasing change and the language of the Final Development Plan Special Permit).

Further detailed design review will occur during the Project's Design Review process by City staff prior to the issuance of a Building Permit for each building. The design review process shall include street and sidewalk cross-sections, pavement marking and signage plans, and construction management plans. The limits of the street and sidewalk work shall be based on building construction phasing in a logical manner and may require interim plans and conditions as the Project is built-out for roads to be open to the public when safe and feasible, as approved by the City.

	Transportation Mitigation	Phasing*
1	Binney Street Reconstruction - Complete 100% design plans and reconstruction for Binney St. between Fifth St. and Third St based on the plans developed by the Cambridge Redevelopment Authority. Intersection of Binney St./Fifth St. to include turn lanes, crossings and signalization (if warranted).	Prior to completion of Phase 3, except for interim conditions as coordinated with TPT and DPW. MIT occupancy permits shall not be dependent on work required to be completed by other developers.
2	Update the traffic signal equipment at the Binney St./Third St. intersection to accommodate proposed new sidewalk level separated bicycle lanes (i.e., bicycle signal heads if needed, phasing adjustments, etc.).	Prior to completion of Phase 3.
3	Third Street Reconstruction - Complete 100% design plans for Third St. between Binney St. and Broadway, based on the plans being developed by the Cambridge Redevelopment Authority). Reconstruct Third St. in the following segments: <ul style="list-style-type: none"> • Segment 1 from Broadway to Potter St., including dedicated northbound left turn lane on Third St. and crosswalks at approaches, a new traffic signal at the Potter St./Third St. intersection (or other traffic control devices as approved by TP+T), and crosswalks and appropriate signage at the Third St./Broad Canal Way intersection. • Segment 3 from Munroe Street to Binney Street. 	Segment 1 prior to completion of Phase 1, and segment 3 prior to completion of Phase 3, except for interim conditions as coordinated with TPT and DPW. MIT occupancy permits shall not be dependent on work required to be completed by other developers. New signal at Third Street/Potter Street to be operational prior to the issuance of the Certificate of Occupancy for the main parking garage.
4	Update the traffic signal equipment at the Broadway/Third St. intersection to accommodate proposed new cycle tracks (i.e. bicycle signal heads if needed, phasing adjustments, etc.).	Prior to completion of Phase 1.
5	Broadway Reconstruction – Complete 100% design plans and reconstruction of Broadway between Ames Street and Third Street. Intersection of Broadway with Fifth St. to include left turn lane from Broadway westbound and new crossing on the east side of the intersection signalized with a Rectangular Rapid Flashing Beacon (RRFB), or other similar control as determined by TP+T. Reconstruction to also include a new crossing near the intersection of Broadway / Kendall Way / Green Garage, signalized with a Rectangular Rapid Flashing Beacon (RRFB), or other similar control as determined by the City.	Prior to completion of Phase 1, except for interim conditions along C3 frontage as coordinated with TPT and DPW.

6	<p>As part of the construction/reconstruction of Fifth Street between Broadway and Binney Street, construct sidewalk level separated bicycle lanes on Fifth Street - Design and construct one-way cycle tracks on each side of Fifth St. Extension between Binney St. and Broadway, to the extent permitted by agreement of the abutting owner in the segment between Potter Street and Munroe Street.</p>	<p>Fifth St. section between Broadway and Potter St. to be constructed prior to completion of Phase 1, with remaining section from Potter St. to Binney St. prior completion of Phase 3. Interim conditions to be in place upon completion of Phase 1, as coordinated with TPT and DPW.</p>
7	<p>As part of the construction/reconstruction of Potter Street between Third Street and the Volpe GSA driveway, construct sidewalk level separated bicycle lanes on Potter Street - Design and construct a two-way separated cycle track on Potter St. and Potter St. Extension between Third St. and Volpe GSA driveway, to the extent permitted by agreement of the abutting owner in the segment between Third Street and Fifth Street.</p>	<p>Potter St. section between Third St. and Fifth St. to be constructed prior to completion of Phase 1, with remaining section from Fifth St. to GSA driveway prior to completion of Phase 3. Interim conditions to be in place upon completion of Phase 2 as coordinated with TPT and DPW.</p>
8	<p>Kittie Knox Path / Sixth Street Walkway Connections - Design and construct a ped/bike connection from Potter St to Kittie Knox Path/Sixth Street walkway, and a second connection from Broad Canal Way to Kittie Knox Path/Sixth Street walkway.</p>	<p>Kendall Way connection prior to completion of Phase 2, with Potter St. connection prior to completion of Phase 3.</p>
9	<p>Munroe Street Reconstruction – Reconstruct Munroe St. between Third St. and Fifth St. Construction includes mill and overlay of roadway as necessary, installation of new sidewalk, curb, and street signs on the north side of the street, and pavement markings. Existing street cross-section to remain.</p>	<p>Prior to completion of Phase 3.</p>
10	<p>Loading Dock and Traffic Management Plan. MIT will provide a loading dock and traffic management plan for each building for City approval. MIT will monitor operations and if the operations cause concerns with respect to public users and infrastructure (e.g. vehicles blocking other users or parking illegally) then MIT will work with the City to resolve those issues.</p>	<p>Prior to the issuance of a Certificate of Occupancy for each building and ongoing. Plan may be later amended with TP+T approval.</p>
11	<p>Bus Stops on Fifth Street – Construct and maintain bus stops—which may include bus shelters and real-time transit display screens—along Fifth Street at two locations (one northbound and one southbound), between Broadway and Binney Street, if determined by TP+T and CDD to be needed for future bus service. Bus stops, if found to be needed, to be installed in a location mutually agreed to by the City and MIT.</p>	<p>Prior to completion of Phase 3.</p>

12	<p>Residential Transportation Demand Management Measures (TDM)</p> <ul style="list-style-type: none"> i. Make available up to 2 carsharing spaces for a vehicle-sharing company (such as Zipcar). As demand dictates additional carsharing vehicles may be added over time. ii. Offer each adult member of each household (up to 2) upon move-in a Charlie Card valued at the cost of 100% bus/subway pass (subject to fare increases) for 2 consecutive months. This benefit will end after 2 months for the household and begins anew upon unit turnover. iii. Offer each adult member of each household (up to 2) upon move-in a 1-year Gold-Level Bluebikes membership. This benefit will end after one year for the household and begins anew upon unit turnover. iv. Provide air pumps and other bike tools in the bicycle storage room. v. Join the Charles River TMA vi. Provide free EZRide Shuttle sticker for each adult member of each household each year. vii. Charge parking separately from the residential rent, in order to remind tenants how much they pay for parking. viii. Install a real-time multimodal transportation display screen in the lobby of each building to help people decide which mode to choose for each trip (transit, carsharing, vehicle, Bluebike bikeshare, etc.). ix. Designate a transportation coordinator (TC) for the site to manage the TDM program. The TC will also oversee the marketing and promotion of transportation options to all residents at the site x. The TC will compile and distribute up-to-date information explaining all transportation options to all new residents as part of their New Resident Packet (some items are available for purchase from the Community Development Department). The packets will contain information on both the range of options available to any programs to support the use of these options. xi. The TC will be on-site during a minimum of 2 hours per week and will be available during other times to residents via email and telephone. Email and phone information for the TC will be posted in the transportation information center. 	Ongoing after issuance of the Occupancy Permit for each residential building.
13	<p>Residential Transportation Monitoring</p> <p>MIT will conduct a transportation monitoring program that includes annual monitoring of mode splits, biennial garage driveway counts, biennial counts of parking space utilization (vehicles and bikes) and a detailed survey of the residents with regard to their pattern of trips, auto and bicycle ownership and where the residents customarily store such vehicles overnight. All surveys and counts to be designed and conducted in a manner approved by CDD and TP+T.</p>	Ongoing starting 18 months after issuance of Occupancy Permit of the first residential building.

14	<p>PUD-7 Zoning Transit Improvement Fund - The permittee shall be required to contribute to a Kendall Square Fund established by the City Manager. The contribution shall be calculated by multiplying ten dollars (\$10.00) by the number of square feet of new GFA for all non-residential uses in the subject building not-exempt from GFA. Transit Improvements: Fifty percent (50%) of any Fund Contribution Payments (estimated at \$8.5 million) shall be allocated for transportation improvements and services to benefit the Kendall Square neighborhood and residents in adjacent neighborhoods not already required by the City of Cambridge Parking and Traffic Demand Management (PTDM) Ordinance. The transit improvement funds shall be allocated at the direction of the City Manager.</p>	<p>Payment associated with non-residential space within a building shall be paid prior to issuance of the first Certificate of Occupancy for such space (based on the GFA of such space).</p>
15	<p>PUD-7 Commitment to Grand Junction: Within 30 days of the completion of the design for the Grand Junction Path and the City's receipt of all rights, consents and/or approvals necessary to construction the Grand Junction Path, MIT will, at MIT's option, either (i) deliver to the City \$8,000,000 for the design and construction of the Grand Junction Path or (ii) commence construction of the portion of the Grand Junction Path located on the MIT Property.</p> <p>An additional \$500,000 has already been contributed for the design of the Grand Junction Path (in the Fall of 2017).</p>	<p>Within 30 days of the completion of the design for the Grand Junction Path and the City's receipt of all rights, consents and/or approvals necessary to construction the Grand Junction Path.</p>

***Notwithstanding the Phasing requirements, a Certificate of Occupancy may be issued prior to the completion of the construction, reconstruction or update, as reasonably approved by TP&T, in the event that the work is substantially complete or delayed due to circumstances that are not within the reasonable control of the developer. Substantially complete condition can exclude final paving, signage, striping and landscaping as reasonably approved by TP&T for functional reasons. Note: All work in public ways is subject to the grant of all necessary approvals, licenses or other rights from the City of Cambridge and/or other parties.**

Appendix D



Figure E1: Conceptual Open Space Plan



- PARK
- POCKET PARK
- PLAZA
- PASSAGE
- SHARED STREET

Figure E2: Open Space Typologies



Open Space	Acres
Third Street Park	approximately 1.0 acre
Community Center Park	approximately 0.5 acre
Sixth Street Park	approximately 0.5 acre
Binney Street Pocket Park	approximately 0.2 acre



AREA OF OPEN SPACE

Figure E3: Four New Parks: Approximate Size

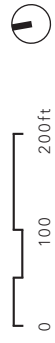


Category of Open Space	Acres
Publicly Beneficial Open Space	over 3.5 acres
Potential Additional Publicly Beneficial Open Space	0.04 acres



- PUBLICLY BENEFICIAL OPEN SPACE
- POTENTIAL ADDITIONAL PUBLICLY BENEFICIAL OPEN SPACE

Figure E4: Open Space Plan - Publicly Beneficial Open Space



Category of Open Space	Acres
Permanently Guaranteed Open Space	2.00 acres
Publicly Beneficial Open Space	over 3.5 acres
Potential Additional Publicly Beneficial Open Space	0.04 acres

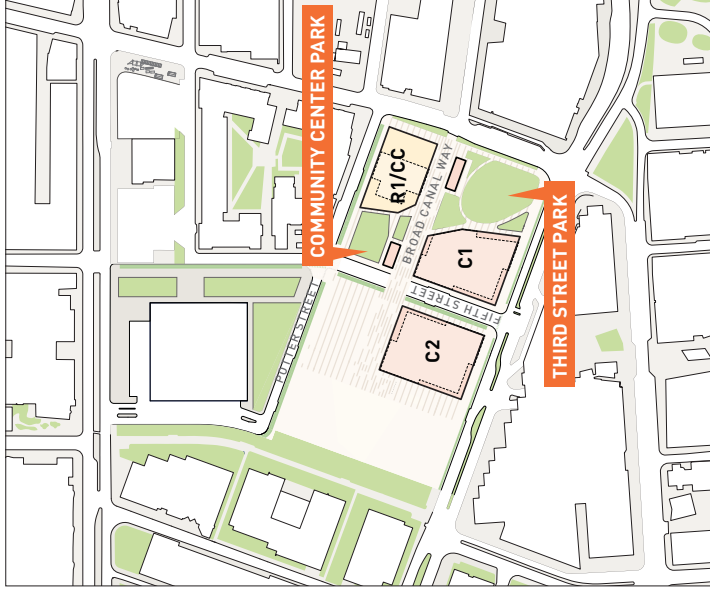


- PERMANENTLY GUARANTEED OPEN SPACE
- PUBLICLY BENEFICIAL OPEN SPACE
- POTENTIAL ADDITIONAL PUBLICLY BENEFICIAL OPEN SPACE

Figure E5: Open Space Plan – Permanently Guaranteed for Public Use



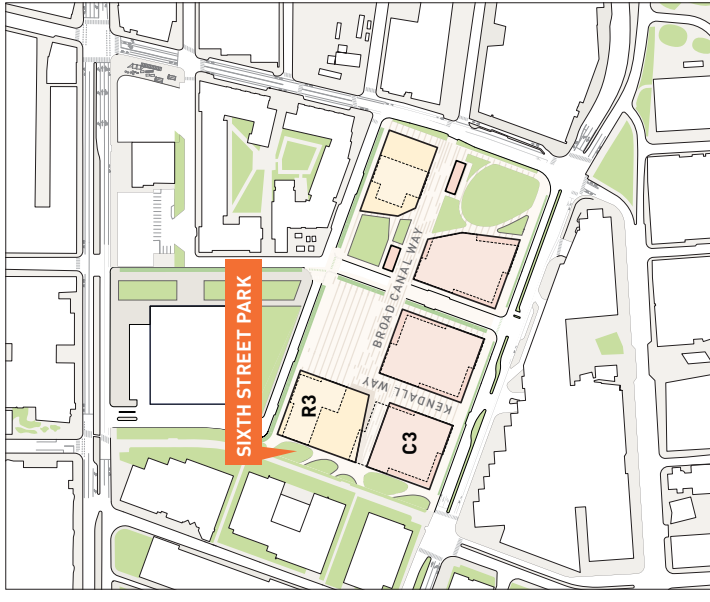
Appendix E



PHASE ONE

Buildings C1, C2, R1/CC
 Third Street Park, Community Center Park
 Fifth Street south of Potter
 Broad Canal Way east of Fifth Street
 Potter Street

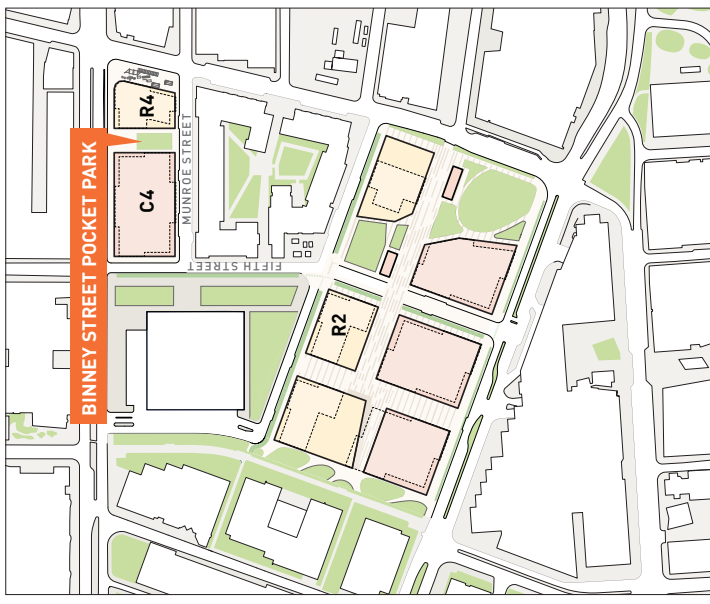
- ± 17% Residential
- ± 53% Commercial
- ± 69% Permanently Guaranteed Open Space
- 100% Community Center



PHASE TWO

Buildings C3, R3
 Sixth Street Park
 Broad Canal Way west of Fifth Street
 Kendall Way

- ± 38% Residential
- ± 26% Commercial
- ± 20% Permanently Guaranteed Open Space



PHASE THREE

Buildings C4 R4, R2
 Binney Street Pocket Park
 Fifth Street north of Potter

- ± 45% Residential
- ± 21% Commercial
- ± 11% Permanently Guaranteed Open Space

Figure H1: Preliminary Phasing Plan



October 23, 2017

Mayor E. Denise Simmons
Vice Mayor Marc C. McGovern
Ordinance Committee Co-Chair Dennis J. Carlone
Ordinance Committee Co-Chair Leland Cheung
City Councilor Craig A. Kelley
City Councilor Jan Devereux
City Councilor Timothy J. Toomey, Jr.
City Councilor Nadeem A. Mazen
City Councilor David P. Maher
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, Massachusetts 02139

Re: Commitments and conditions accompanying the amended zoning petition (the “PUD-7 Zoning”) for PUD-7 District (the “PUD-7 District”) attached hereto as Attachment A

Dear Mayor Simmons, Vice Mayor McGovern, Ordinance Committee Co-Chairs Carlone and Cheung and Councilors Kelley, Devereux, Toomey, Mazen and Maher:

The purpose of this letter is to describe commitments and benefits which the Massachusetts Institute of Technology (“MIT”) is prepared to offer the City of Cambridge to facilitate and enable MIT to revitalize and redevelop the Volpe Transportation Center Site, excluding the parcel on which a new federal building will be constructed (the “Project”), through the construction of new mixed-use buildings, subject to the satisfaction of the “Conditions” set forth below.

Capitalized terms used, but not otherwise defined, herein shall have the meanings ascribed to them in Article 13.90 of the City of Cambridge Zoning Ordinance.

MIT’s Commitments

- A. Grand Junction Multi-Use Path.** Recognizing the importance of establishment of a multi-use path along the Grand Junction corridor, which corridor is identified in the Kendall Square Mobility Task Force Report dated August 2017 (the “Task Force Report”), to the City’s and region’s transportation network and mobility and in an effort to assist the City in its goals of reducing automobile traffic, MIT agrees that it shall, upon



the passage of the PUD-7 Zoning, commence work with the City of Cambridge and other stakeholders and agencies to advance the implementation of such a path. In keeping with the recommendations of the Task Force Report and the findings contained in the Grand Junction Community Path and MIT Property Feasibility Study (October 2014)(the "2014 Study"), and in order to assist the City in making a path over the Grand Junction corridor (the "Grand Junction Path") a reality, MIT agrees that:

- immediately following the adoption of the PUD-7 Zoning, MIT will work with the City to prepare and enter expeditiously into an agreement with the City that shall memorialize a commitment by MIT to convey to the City perpetual permanent easements or interests in fee, at the election of MIT, sufficient for the construction of the Grand Junction Path on all portions of the Grand Junction Path to be constructed on land owned and controlled by MIT (the "MIT Property"). The agreement memorializing MIT's commitment to convey such easements or fee interests to the City shall be (i) consistent with the 2014 Study, including identification of easement areas, (ii) on such terms and conditions as MIT and the City shall reasonably agree; and (iii) shall provide that MIT must convey all such easements and /or interests in fee to the City by no later than thirty (30) days after completion of the design of the Grand Junction Path;
- immediately following the adoption of the PUD-7 Zoning, MIT shall contribute \$500,000 to the City for the development of the design for the Grand Junction Path; and
- within thirty (30) days of the completion of the design of the Grand Junction Path and the City's receipt of all rights, consents and/or approvals necessary to construct the Grand Junction Path, MIT will, at MIT's option, either (i) deliver to the City \$8,000,000.00 for the design and construction of the Grand Junction Path or (ii) commence construction of the portion of the Grand Junction Path located on the MIT Property and diligently pursue such construction to completion. All construction shall be completed in accordance with the design approved by the City, and reviewed by MIT, the 2014 Study, the easement documents and any and all agency approvals and consents.

B. Community Space Design and Construction Funding; Initial Funding of Operations. MIT agrees that it shall fund, or cause to be funded, in the aggregate (and as more specifically set forth below), costs and expenses up to \$22,000,000.00 that are incurred in connection with the design and construction of a community center/space within the PUD-7 District (the "Community Space"). MIT will form an advisory committee consisting of representatives from City government, members of adjacent neighborhoods and MIT (the "Community Space Advisory Committee"), which will review and make recommendations to MIT concerning the design and programming of the Community Space and fundraising efforts associated with the operating and



programming funds for the Community Space.

In connection with the planning and construction of the Community Space, MIT agrees to make the following deposits into an escrow fund to be established with an escrow agent mutually satisfactory to MIT and the City Manager:

- a one-time aggregate amount of \$500,000.00 for planning and design costs on or before the first anniversary of this letter;
- additional amounts, as needed from time-to-time, totaling up to \$500,000.00 in the aggregate to pay for planning and design costs; and
- a one-time aggregate amount equal to \$22,000,000.00 less the cost of any planning and design costs paid in connection with the community space on or before the date that MIT (or its nominee) acquires title to the majority of the PUD-7 District, which contribution shall be paid within thirty (30) days of the later to occur of (i) the Planning Board issuing its first PUD Final Development Plan Special Permit for a development within the PUD-7 District (and the expiration of any associated appeal period without an appeal being taken) and (ii) MIT's acquisition of the non-Government Owned Parcels from the Federal Government.

The above amounts, after funding, shall be released from escrow periodically to fund the planning and design and/or construction of the Community Space, as the case may be, pursuant to escrow instructions reasonably agreed to by MIT and the City.

In addition, immediately upon the opening of the Community Space to the public, MIT shall contribute \$3,500,000 into the above escrow fund, which shall be accessible by the operator of the Community Space (either MIT or an operator selected by MIT), in order to provide initial endowment for the provision of operating funds.

C. Graduate Student Housing. MIT agrees that it shall create 950 new beds for graduate students (collectively, the "**New GSH Beds**"), pursuant to the schedule set forth in this letter. To that end, MIT agrees that it shall

- use diligent efforts to complete, on or before December 31, 2020, the construction of Building 4 of MIT's South of Main Street Project in Kendall Square (the construction of which broke ground on October 11, 2017), containing 450 graduate student beds, of which 250 beds will be net New GSH Beds;
- no later than December 31, 2020, apply for a discretionary permit (or a building permit if no discretionary permits are required) to create at least 500 New GSH Beds; and



- use diligent efforts, on or before December 31, 2020, to either add, by conversion of existing beds and/or establishment of new beds, or apply for a discretionary permit (or building permit(s) and/or alteration permit(s), as the case may be, if no discretionary permit is required) for, or a combination thereof, a minimum of 200 New GSH Beds in existing buildings or otherwise located on MIT's campus or properties owned by MIT, which may include the recently converted 133 graduate student beds at 70 Amherst Street.

D. Job Connector Space and Program. MIT agrees to include space and programming for a job connector operation within the Community Space, the purpose of which is to connect Cambridge residents with jobs and programs that will allow them to take advantage of Cambridge's innovation economy. MIT agrees, upon the opening of the Community Space, to deposit \$1,500,000 in an account established by the operator of the Community Space to provide funding, and acquire resources, for the job connector program. MIT will create such program with the advice of and input from City staff and other stakeholders. Within eighteen (18) months of the adoption of the PUD-7 Zoning, MIT will initiate a job connector operation at a location (or locations) to be determined by MIT. MIT will keep such location open and will fund \$125,000 annually toward the staffing and operation of the program at such location until such time as the Community Space opens to the public.

E. Middle Income Housing. MIT commits to the construction of a minimum of twenty (20) Middle Income Units (as defined below) in the PUD-7 District, in the aggregate, to be delivered by MIT proportionately with the delivery of residential units within the PUD-7 District or at such earlier time as MIT may determine. For the purposes of this letter, the term "**Middle Income Units**" shall be defined as residential dwellings units for which (i) the occupancy is restricted to households whose total income is no less than eighty percent (80%) and no more than one hundred twenty percent (120%) of Area Median Income (as defined in the Zoning Ordinance); and (ii) the rent (including utilities) does not exceed thirty percent (30%) of the income of the renting household or such equivalent standard as may be determined by the Board of Trustees of the Affordable Housing Trust Fund. Middle Income Units shall not be considered Affordable Dwelling Units for the purpose of meeting the Inclusionary Housing requirements of Section 11.200; however, Middle Income Housing units shall be administered pursuant to such reasonable policies, regulations, and standards as are established by the City that apply to the administration of all Middle Income Housing units in the City.

F. Innovation Housing; Limitations on Residential Parking Permit. A minimum of five percent (5%) of the Dwelling Unit Net Floor Area of minimum housing required by the PUD-7 Zoning shall be devoted to units measuring between three hundred fifty (350) and four hundred fifty (450) square feet in size (the "**Residential Innovation Housing Units**"). MIT agrees that it shall include or cause to be included a covenant that the unit



tenants shall not apply to the City of Cambridge Traffic, Parking & Transportation Department for a Resident Parking Permit in thirty (30) of the residential leases (or other equivalent occupancy agreements) for the Residential Innovation Housing Units constructed within the PUD-7 District.

- G. Open Space and Retail Advisory Committee.** In order to ensure that the adjacent neighborhoods are involved in the programming of activities for the open spaces and the types of retailers for the retail space in the PUD-7 District, MIT will establish an advisory committee to provide input on the programming of these spaces. The advisory committee shall meet once annually for a period of 10 years. The advisory committee shall include representatives from the Community Development Department, adjacent neighborhoods and three (3) representatives designated by MIT. To effectuate a vibrant community-based open space and retail plan, MIT shall create an open space and retail programming plan for any new commercial building and present such plan to the advisory committee six (6) months prior to the substantial completion of that building. MIT may update the programming plan from time to time.
- H. Community Event Programming.** MIT agrees that it shall spend no less than \$300,000, in the aggregate, to host community engagement events in or around the PUD-7 District, which events shall be held at such time(s) and location(s) as MIT may determine and shall be open to members of the general public, but shall be held no less frequently than once per calendar year and shall continue until such time as MIT acquires land in the PUD-7 District from the United States.
- I. Real Estate Taxes.** Notwithstanding the provisions of any agreement that MIT may have entered into with the City previously, MIT hereby agrees that in the event that it converts any new commercial building constructed pursuant to the PUD-7 Zoning from commercial to exempt institutional use, MIT will remove such property from the tax rolls of the City of Cambridge incrementally over a period of ten (10) years. During the ten (10) year period following the conversion of such a property to institutional use, MIT agrees not to claim an exemption for the percentage of the assessed value of the property that would exceed the following: 10% in year one, 20% in year two, 30% in year three, 40% in year four, 50% in year five, 60% in year six, 70% in year seven, 80% in year eight, 90% in year nine and 95% in year ten. Commencing in year eleven and for each subsequent year that the ownership and use of such parcel satisfies the requirements for exemption under M.G.L. c. 59, MIT will have the right to claim that 100% of the value of property is exempt from assessment.
- J. Innovation Arts Program.** Within thirty (30) days of MIT obtaining a Permanent Certificate of Occupancy for the first commercial building in the PUD-7 District, it shall establish an art program that includes, but is not limited to, outdoor exhibits and recognitions of innovation and entrepreneurship in the Kendall Square area. Between the date on which MIT establishes the art program and the date that is the tenth (10th) anniversary of the issuance of the above Permanent Certificate of Occupancy, MIT shall



expend up to \$1,000,000, in the aggregate, in connection with the implementation of such art program.

Conditions to MIT's Commitments

For purposes of clarification, MIT's commitments set forth above are offered if the following conditions (the "**Conditions**") are met:

1. The amendments to the Cambridge Zoning Ordinance set forth in Attachment A are duly adopted in the form attached hereto as Attachment A, and no challenge to the validity of the same shall have been made (or in the event of any challenge, such challenge shall have been finally resolved in favor of such validity).
2. With regard to any commitments outstanding as of the date that MIT applies for PUD and/or Article 19 Special Permits for the Project, MIT shall have received such Special Permits, including, without limitation, PUD Special Permits and Article 19 Special Permits, from the City of Cambridge Planning Board, and such other permits and approvals as may be necessary to allow for the build-out of the Gross Floor Area contemplated by and in accordance with the attached PUD-7 Zoning.

In addition to meeting the requirements and conditions of any required permits or approvals for the Project (and the payment of any and all fees associated with the issuance of such permits or approvals), MIT is making these payments and providing the other mitigation referenced above to the City in order to provide the City with resources to mitigate any impacts which might result from the Project as a result of the rezoning and any special permit issued pursuant thereto.

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As MIT's duly authorized representative, I am pleased to make these commitments on MIT's behalf.

Sincerely,

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
a Massachusetts non-profit corporation

By: _____

Name: Israel Ruiz

Title: Executive Vice President and Treasurer

Attachment A: Zoning Petition

November 16, 2020

City of Cambridge Planning Board
344 Broadway
Cambridge, MA 02139

RE: Specialist Memo || Volpe Retail Strategy

Graffito SP (“GSP”) has been engaged by MIT to assist in the development of a ground floor activation and leasing approach for the PUD-7 zoning district (the “Project” or the “Site” or “Volpe”) that embraces the following general values and goals as articulated by the City’s Volpe Working Group (2017):

The Volpe ground floor and retail plan shall bring together a range of uses that, collectively, provide the “critical mass” of civic activity needed to make the Project feel welcoming to the community at large while also attracting people who may not have previously had reason to visit Kendall Square.

To achieve to aforementioned objective, the Volpe development and leasing team will deploy a thoughtful and deliberate recruitment strategy for the Project’s retail and active use spaces. This memo summarizes such and also provides an overview of the Project’s Master Plan as related to retail.

I. Master Planning Summary: Retail Approach.

The Volpe Master Plan creates a central node of activity in and around Broad Canal Way, a pedestrian-scaled street that cuts through the heart of the Project and drafts off the success of the existing eastern portion of the street, which runs between Third Street and the Broad Canal. Building fronts on Broad Canal Way will be occupied by retail, cultural, community and recreational uses. North-South running streets intersecting Broad Canal Way will act as feeder streets (from a retail perspective), providing ground floor spaces that can be occupied by similar uses, and also spaces that will support less foot-traffic dependent active uses such as fitness, neighborhood services, commuter services, maker spaces and other “Active Space” and “Innovation Spaces” as defined in the PUD Ordinance. Buildings in the Project fronting Binney, Third and Broadway will house retail and active uses that benefit from adjacencies to vehicular centric streets and the unique attributes of said edges and their respective proximity to projects outside of PUD-7.

Taken together, the various street characters, demising possibilities, and design attributes (as detailed in the *Volpe Site Design Guidelines (2017)*) within the Project will provide a range of premises that will appeal to the very “recreational, retail, and civic amenities that will draw a broad range of community members” to Volpe (quote from: *Volpe Working Group Planning & Design Principles, 2017*).

II. Recruitment & Leasing Tactics

Similar to the Kendall Square SoMa & NoMa retail approach and as further detailed in the Volpe Site Development Plan Narrative, the Volpe project team will prioritize deals with small, local, independent businesses. The viability of these establishments will be boosted by adjacencies to cultural, recreational, and

GRAFFITO SP

open space anchors, which will draw visitors to Volpe from across Cambridge and Greater Boston. Specifically, the project team will embrace the following in its tenant recruitment strategy for the Project:

- In keeping with its commitments to building a neighborhood that is racially and culturally diverse, equitable, and inclusive, recruit and prioritize deals with female and minority-owned businesses;
- Aggressively pursue retail tenants for the Project that offer services/uses that have been identified as missing from the neighborhood through the extensive (and continuing) public engagement process for Volpe;
- Deliver rentable premises within the Project of varying shapes and sizes in an effort to foster maximum flexibility in tenant recruitment;
- Think about ground floor activation as far more than just ‘retail’ by incorporating into planning and tenanting programmatic and cultural partners and collaborators;
- Embrace a set of transactional norms for certain spaces that lowers the barriers of entry for start-up retailers (*i.e.* shorter lease terms, more landlord investment into tenant improvements, smaller security deposits, and no personal guarantees); and
- Offer reduced or alternative rent deals to the most highly desirable retail tenants to lessen the rent challenges faced by Cambridge-based retailers as reported in the City’s *Retail Strategy for the City of Cambridge, Market Analysis and Recommendations Report* (2017).

III. Conclusion

By deploying the aforementioned strategies and tactics, I am sincerely confident that MIT will deliver a dynamic place at Volpe that meets the retail and place-activation goals as articulated by the City and community over the past five years of public process. Furthermore, I am similarly confident that the Volpe master plan embraces an approach to urban design, retail design, and landscape architecture that will allow for flexibility and adaptation over time as the local and national retail climate continues to evolve and change. Lastly, and perhaps most importantly, I am inspired and encouraged by the commitment of this team to talk about, plan for, and ready itself for action as we pursue a retail community at Volpe that is made of up a diverse set of entrepreneurs and shopkeepers that better reflects the racial, ethnic, and cultural diversity of Cambridge.

I look forward to working with you all on this exciting project in the months and years ahead.

Respectfully,



Jesse Baerkahn
President & Founder
Graffito SP