

KENDALL SQUARE TRANSIT ENHANCEMENT PROGRAM

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (the "MOU") is entered into by the Cambridge Redevelopment Authority (the "CRA"), the City of Cambridge (the "City"), the Massachusetts Department of Transportation ("MassDOT") and the Massachusetts Bay Transportation Authority ("MBTA"). (The CRA, the City, MassDOT and the MBTA are collectively sometimes referred to herein as "the parties".) Boston Properties Limited Partnership ("BP" or the "Concurring Party"), the designated redeveloper of the Mixed Use District (the "MXD District") under the Kendall Square Urban Renewal Plan (the "KSURP") is a concurring party to this MOU.

WHEREAS, since 1977, the CRA has undertaken the successful redevelopment of forty-three (43) acres within the MXD District which has resulted in the creation of an economic hub of 3.3 million gross square feet of office, retail, lab, innovation, hotel and residential development with road improvements, transit investment, parking garages, open spaces and other public amenities;

WHEREAS, in 1979 the CRA selected BP as the Master Developer for the Cambridge Center property in the MXD District of the KSURP, and BP remains the primary property owner in the MXD District;

WHEREAS, the success of the MXD District has been greatly enhanced by the favorable transportation mode split, with greater than seventy percent (70%) of trips to and from KSURP area utilizing transit, walking, biking, shuttles and car pools, the majority of which relies heavily on service provided by the MBTA's Red Line and the Kendall Square Red Line station;

WHEREAS, from 2011 through 2013, the City conducted an extensive planning process of the Kendall Square area as part of its Kendall Square Central Square Planning Study ("K2C2 Study") to develop a vision for the study area and formulated recommendations to achieve the vision, which included among other things; increased mixed use development opportunities and the provision of local transit improvements;

WHEREAS, in 2015, MassDOT formed the Kendall Square Mobility Task Force (the "Task Force") to study the transportation network and facilities servicing the Kendall Square area from throughout the region;

WHEREAS, the CRA wishes to enhance the transit-oriented environment in the KSURP area by piloting innovative programs to expand mobility through partnerships with both public and private parties, and MassDOT and the MBTA also wish to enter into such partnerships that can maximize alternative funding opportunities to support the MBTA's transit development and operations;

WHEREAS, in 2015 the CRA and the City amended the KSURP and the zoning for the MXD District, consistent with the K2C2 Study, to add approximately 600,000 square feet of gross floor area for commercial office, innovation and retail space and approximately 400,000

square feet of gross floor area for residential uses which expansion program is more fully described in KSURP Amendment No. 10 (the "Project");

WHEREAS, the CRA submitted a Single EIR for the Project for review under the Massachusetts Environmental Policy Act (MEPA) and on which the Secretary of Environmental Affairs issued a Certificate, dated November 25, 2015 (the "EIR");

WHEREAS, the EIR required the CRA to work with the MBTA, MassDOT, and the City to develop an MOU that outlines enforceable commitments to support the maintenance and improvement of the transit system servicing the KSURP area; and

WHEREAS, the CRA submitted a Notice of Project Change for the Project for review under MEPA and on which the Secretary of Environmental Affairs issued a Certificate dated August 5, 2016 finding that no further MEPA review was required.

NOW, THEREFORE, in recognition of the critically important role access and mobility play to the successful redevelopment and expansion in the MXD District and the Kendall Square area, the parties to this MOU wish to set forth their understanding regarding certain commitments and the process to be undertaken that will lead to identification of the specific measures to be developed and implemented over the next 15 years that will preserve, enhance and expand transit access and mobility in the Kendall Square area through a Kendall Square Transit Enhancement Program ("KSTEP").

1. The parties to this MOU acknowledge and agree that all transit enhancement measures that are identified in this document for implementation under the terms of this MOU and the proposed KSTEP will be coordinated with planning efforts of MassDOT, the City, and other transportation programs identified by the parties.
2. The parties agree that funding to be provided under this MOU shall be focused on both short and long range transit enhancements that provide direct benefits to the KSURP area as well as to other properties and institutions located in and around Kendall Square. Accordingly, the parties agree to work together to establish a program that will contribute to transit funding in a manner that improves transit mobility in the MXD District and in the Kendall Square area.
3. The parties further agree that a KSTEP fund (the "KSTEP Fund") shall be established and maintained by the CRA, in coordination with the City and the other parties to this MOU. The CRA Board shall authorize disbursement of funds from the KSTEP Fund after concurring with and obtaining approval from the City's City Manager (the "City Manager"). As the geographic scope of the KSTEP is potentially expanded beyond the KSURP area, as discussed further in Section 10 below, it is anticipated that the KSTEP Fund may transition into or merge with a different governance structure, with the City playing a more central role in its administration in any amendment of this MOU that is agreed upon in writing by all parties.
4. The CRA shall convene a working group, which shall include representatives appointed by each of the parties to this MOU, additional contributors to the KSTEP Fund and

other stakeholders as may be designated by the CRA Board and the City Manager (the "Working Group"), for the purpose of establishing funding priorities and allocations under the KSTEP Fund for consideration and approval by the CRA Board and the City Manager. Where projects involve the assets or resources of the MBTA or MassDOT, final approval for such projects shall be given by the Secretary of Transportation or the General Manager of the MBTA, as the MBTA and/or MassDOT may designate. The Working Group, utilizing the recommendations of other relevant planning efforts, shall give consideration, at minimum, to projects with:

- a. measurable improvement to transit service levels in the Kendall Square area (transit services that touch Kendall Square), including connections to and from transit service in the Kendall Square area;
- b. the ability to leverage multiple layers of available public and private funds and remain long-term economically sustainable from a capital and operational perspective; and
- c. a high level of utility from a broad mobility perspective.

5. Funding for the KSTEP Fund will be provided initially by Boston Properties and the CRA, in conjunction with its addition of commercial GFA within the KSURP area as part of the Project, with the Initial Payment to be made to the KSTEP Fund upon the issuance of any building permit for new commercial development. The KSTEP funding provided by Boston Properties and the CRA shall be in a lump sum of six million dollars (\$6,000,000).

6. Before the Initial Payment, the Working Group shall meet to decide on initial funding allocations for short-term transit enhancements and shall consider projects to be included in an immediate scope of transit investments for up to one-third (1/3) of the KSTEP funding commitment, which may include:

- a. Capital investment for additional MBTA bus service to Kendall Square from under-served corridors and potentially including new routes that can be added relatively quickly;
- b. Capital investment for additional EZ Ride bus service to address commuter peak periods or additional routes to under-served corridors, and/or expansion of off peak service; or
- c. Capital investment for dedicated or shared bus lanes and modernization of bus stop shelters, and capital investment for transit signal priority implementation,

7. Within a year from the Initial Payment, the Working Group shall meet to recommend longer term funding allocations for enhanced transit service in Kendall Square, potentially leveraging additional resources from an expanding KSTEP or other sources for more significant service enhancements in the future. The Working Group may consider the following projects as the scope for potential future transit funding.

- a. Capital improvements to the existing transit infrastructure at Kendall Station, including increased station capacity by expanding passenger waiting areas, or similar enhancements, improved Kendall Square station transit information, resiliency measures, and/or improved bus connectivity.
- b. Operating and capital support for new ground transportation via non-MBTA shuttles and/or MBTA buses or Bus Rapid Transit (BRT) aimed at facilitating access to and from Kendall Square to and from Central Square, Sullivan Square, Union Square, Longwood Medical Area, North Station, or other locations with a demonstrated clear need for access to or from Kendall Square;
- c. Red Line service modernization and improvements, including signal, track, station, and other technology improvements designed to increase capacity and reliability especially at peak-of-the-peak, including enhancing headways (time between service) and other improvements that will positively impact the quality and capacity of transit service and the customer experience;
- d. Other strategic investments that are consistent with the considerations listed above, and with the 2030 and 2040 transportation planning efforts, which all may also be considered for funding from the KSTEP Fund, including feasibility investigations and potential capital investments toward new transit service benefiting the Kendall Square area.

8. Prior to recommending allocations for funding from the KSTEP, the Working Group will obtain approval from the entity to which the funding is being allocated, confirming that entity is ready and willing to accept and expend those funds for the purpose intended by the Working Group.

The parties acknowledge that the Working Group may incur preliminary administrative and/or engineering costs in connection with transit enhancements under this MOU. The Working Group may be provided funds from the KSTEP Fund to cover those costs, and such provision may not be contingent on the outcome of any given transit enhancement project, provided the Working Group has obtained approval for such funds from the CRA Board and the City Manager in advance.

9. The CRA may with the approval of the City Manager reserve up to two-thirds (2/3rds) of the Initial Payment to the KSTEP Fund or otherwise place limits on the usage of funds for up to five (5) years from the date of the Initial Payment, in order to preserve a tangible link between the development investment in Kendall Square that generated the funds and the subsequent supporting investment in transit, especially related to the percentage of funds that may be used for capital expenditures, operational/maintenance expenditures or planning expenditures. The Parties will develop metrics of success to measure the success of the KSTEP within two years of the Initial Payment and after consultation with the MBTA/MassDOT.

10. Additional ongoing funding for the KSTEP may also be provided by property owners and developers in the Kendall Square area under a transit enhancement funding program

to be developed in cooperation with the parties to this MOU. The parties agree to use good faith efforts to expand the area and funding sources supporting the KSTEP and to advance efforts to implement a program of ongoing annual KSTEP Fund payments, or other financial contributions to transit improvements, by property owners and developers in the Kendall Square area.

11. This Agreement does not preclude the CRA or the City from seeking additional funding sources in the future for the KSTEP Fund or combining this fund with other transit funding programs, such as but not limited to the introduction by the City of a special assessment district to Kendall Square. The parties further agree that the payments contemplated in paragraph 9, above, will require certain actions and approvals by the City and must be implemented in a non-discriminatory fashion consistent with the requirements of all applicable federal, state and local laws and regulations. Further, in connection with the payments to the KSTEP Fund, the parties acknowledge and agree that the transit funding required and to be required hereunder must take into consideration all other transportation mitigation payments required by state and municipal permits related to a particular development project, so as not to disproportionately or unfairly impact any single owner or property.

12. Before MassDOT and/or the MBTA commences the provision of any new or enhanced transportation service(s) pursuant to this MOU, the parties shall reach an agreement as to what will occur in the event that services are terminated, including the cessation of services once funding is removed. Any such agreement shall account for obligations regarding the service imposed by local, state or federal law.

IN WITNESS WHEREOF, this Agreement is hereby duly executed by the parties on this 9th day of MAY, 2017.

CITY OF CAMBRIDGE

By: 

Name: Louis A. DePasquale

Title: City Manager

CAMBRIDGE REDVELEOPMENT AUTHORITY

By: 


Name: Kathleen Born

Title: Board Chair

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

By: 
Name: Stephanie Pollack
Title: Secretary and CEO

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

By: 
Name: Brian Shortsleeve
Title: Chief Administrator and Acting General Manager

CONCURRING PARTY:

BOSTON PROPERTIES LIMITED PARTNERSHIP

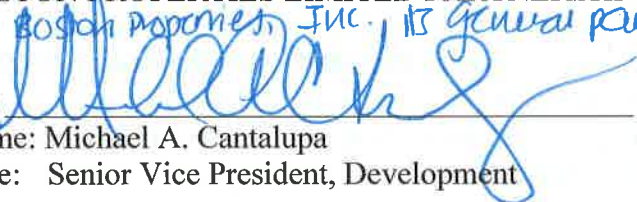
By: 
Name: Michael A. Cantalupa
Title: Senior Vice President, Development

Exhibit A

Kendall Square Transit Enhancement Program (KSTEP)

Funding Formula and Methodology

Formula Inputs

- Space/Square Footage: The square footage of development based on land use type (ie: office, retail, residential) is used in a standard trip generation calculation to predict the number of trips a future development project may generate through commonly accepted modeling by qualified transportation engineers and planners. Trip generation is calculated for all modes – auto, transit, bike and walk.
 - *The KSTEP uses only the commercial space square footage (600,000 GSF from the Project), in order to incentivize residential.*

- Daily Transit Trips Generated: The daily number of trips predicted to be generated by the proposed development is based upon the square footage of development in different land use categories and results in predicted daily vehicle, transit, walking and biking trips. Because the KSTEP is intended to benefit public transit it utilizes the transit trip generation number from the Project.
 - *The KSTEP uses only the adjusted daily office space transit trip generation to levy funding responsibility in order to not disincentive residential development. The KSTEP accepts the funding responsibility of 50% of each transit trip as the presumed destination of the trip.*

- Timeframe: The Kendall Square Urban Renewal Plan, which provides the initial regulatory framework for the adoption of the KSTEP, expires in 2030 and therefore the KSTEP calculations are based on a 15 year development window. There are at least 260 weekdays in a calendar year, and in Massachusetts there are 11 legal holidays according to the Secretary of State's Office, leaving at least 249 working days in a year.
 - *The KSTEP is calculated using the number of weekdays in a year because the capacity burden on the T system from the proposed development is on weekdays.¹ In the case of the KSTEP funding calculation, 249 weekdays is multiplied by 15 years to equal 3,735 total days.*

- Fare Recovery Gap Per Trip: There are multiple methods to calculate the cost of a single MBTA trip. The CRA has concluded that the simplest and most effective way to calculate it using easily available data is to reverse calculate the fare recovery ratio presented in the Governor's Special Panel to Review the MBTA in spring 2015: *Back on Track – An Action Plan to Transform the MBTA*. That report states that the fare recovery ratio is 26% for bus, 48% for commuter rail, 55% for light rail/trolley, 61% for heavy rail/subway.

Utilizing the 2015 standard subway fare (\$2.10) a reverse calculation of the Fare Recovery Gap per MBTA Trip for subway service can be estimated. This number represents the cost gap that is not covered by each transit passenger fare. This gap is a significant financial burden on the MBTA and

¹ Alternatively, the capacity burden for other types of developments may be focused on weekend trips, such as a casino for example.

for each new trip on the system, this gap adds to that deficit. The MBTA lacks sufficient non-fare revenue, state aid, or federal aid to continue to close this accumulating gap, as new trips are continuously added through increased transit oriented development. For purposes of the KSTEP, the parties have determined that the subway fare gap per trip is \$1.34.

- *The KSTEP calculation uses only the subway fare gap (\$1.34/trip) as the multiplier because subway service is the primary MBTA service used by transit trips in and out of Kendall Square.*

Application of the KSTEP Funding Formula to the Kendall Square Urban Renewal Project

*DAILY TRANSIT TRIPS GENERATED BY THE PROJECT x .50 x
TIMEFRAME (WEEKDAYS PER 15 YEARS) x FARE RECOVERY GAP PER TRIP =
KSTEP Project Contribution*

Product rounded up to \$6,000,000