

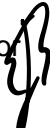


CITY OF CAMBRIDGE

TRAFFIC, PARKING, + TRANSPORTATION

MEMORANDUM

To: Cambridge Planning Board

From: Joseph E. Barr, Director 

Date: September 24, 2021

Subject: KSURP Infill Development Concept Plan Amendment 2 (PB#315)

The Cambridge Traffic, Parking, and Transportation Department (TP+T) has been working with the Boston Properties Limited Partnership on their Kendall Square Urban Renewal Plan (KSURP) Infill Development Concept Plan since 2016. Boston Properties received a Planning Board Special Permit for a new master plan in 2017 and Amendment #1 in 2018. They are now seeking a second Amendment for significant changes to the Project site. A short project narrative is provided below.

Project Background

- 2016. The Project originally completed a Traffic Impact Study (TIS).
- 2017. The Project received a Planning Board Special Permit (#315) for approximately 1,066,500 net new square feet.
- 2018. The Project received an Amendment (Amendment #1) for changes to the Project, including the relocation of Building B from 250 Binney Street to 325 Main Street and approval to not construct a new 650-space parking garage at 250 Binney Street. The gross square feet of the project did not change. Overall, the Project included approximately 1,066,500 square feet, 494 residential units.

The total number of parking spaces for the KSURP Infill Development Concept Plan has changed as the Project evolved. During each Project change, TP+T worked with Boston Properties and evaluated their parking plan to make sure it meets the City's parking ratio goals and policies, including the ratios recommended in the City's Kendall Square (K2) Plan and the Envision Cambridge Plan.

Current Proposed Amendment 2

Boston Properties is currently seeking changes to the Project as Amendment #2, which includes approximately 800,000 square feet of net-new commercial development (in addition to the previously approved 1,066,500 square feet of development). A key modification to the master plan is the accommodation of an Eversource electrical substation on the MXD site. Other changes to the master plan include public open space (to be located above the underground electric substation), consolidation of two residential buildings into a single building, demolition of the Blue Parking Garage, and construction of new below-grade parking.

To evaluate the proposed Amendment #2 changes from a transportation perspective, the original 2016 TIS was updated in a new modified 2021 TIS. TP+T certified the 2021 updated TIS as accurate and complete on August 6, 2021. The updated TIS estimated the Project generated trips for the Project's full build-out (i.e., the original permitted 1,066,500 sf project plus the currently proposed additional 800,000 sf).

A summary of the Project's trip generation by mode is shown in Table 1, including the net change in Project trips to be generated by the proposed Amendment #2. For example, prior to this proposed Amendment #2, the Project was expected to generate approximately 367 AM peak hour vehicle trips from 1,066,500 sf of development. The proposed 800,000 sf additional development will generate an additional 260 AM peak hour vehicle trips resulting in approximate 627 total AM peak hour vehicles trips for the Project's full build-out of 1,866,500 sf.

Table 1. Net New Trips for the Proposed 800,000 sf Amendment #2

		2018 Total Trips Amendment #1 (1,066,500 sf)	2021 Total Trips Amendment #2 (1,866,500 sf)	Net Change in Trips from Amendment #1 to Amendment #2 (+800,000 sf)
Vehicles	Daily	3,224	4,948	1,724
	AM Peak Hr.	367	627	260
	PM Peak Hr.	387	654	267
Transit	Daily	3,906	6,146	2,240
	AM Peak Hr.	458	792	334
	PM Peak Hr.	476	822	346
Pedestrians	Daily	1,374	1,706	332
	AM Peak Hr.	132	184	52
	PM Peak Hr.	147	199	52
Bicycles	Daily	1,046	1,590	544
	AM Peak Hr.	120	201	81
	PM Peak Hr.	126	209	83

The original TIS had 31 Planning Board Special Permit Transportation Criteria exceedances. The updated TIS has 52 exceedances. Many of the 21 new exceedances are from Criteria C (Traffic on Residential Streets) due to the 800,000 sf of development generating new vehicle trips that are expected to be driving to and from the site from O'Brien Highway and then north/south on Third Street between O'Brien Highway and Binney Street. The First Street connection to O'Brien Highway, which is currently under construction, may help minimize the trips on Third Street by providing a more direct connection between O'Brien Highway and First Street, as a means to access Binney Street and Kendall Square.

The additional 800,000 sf of development also triggered the level of service (LOS) criteria at the intersections of Broadway/Portland Street, Broadway/Ames Street, and Broadway/Third Street.

The lane queue was also exceeded in the evening peak hour for the westbound left lane queue at the Broadway/Galileo Galilei Way intersection. This is because all the evening

peak hour vehicle trips exiting the new parking garages will exit from the east service road and make a right-turn onto Broadway toward the Broadway/Galileo Galilei Way intersection. In the 2024 future condition scenario, approximately 480 cars will turn off the east service road onto Broadway, compared to about 139 vehicles in 2016. This is caused from replacing the Blue Garage (about 1,170 spaces) with new garages totaling 1,584 spaces to serve the additional 800,00 sf of development. The Broadway/Galileo Galilei Way intersection was at level of service F (pre-COVID) in 2019 and will experience additional delays in the future caused by this proposed Project. But the intersection will also be impacted by other development projects in the area, such as the MIT Volpe Exchange Parcel project and other projects in the development pipeline. The Broadway/Galileo Galilei Way intersection, as well as many other intersections in the area will continue to be congested in the future.

For the Kendall Square area, nearly all the major intersections on Broadway and Binney Street will operate at LOS F and experience traffic congestion during the peak hours, in part due to the ongoing development that includes this Project and others in the immediate vicinity. However, it should be noted that these developments would cause significantly more traffic if it wasn't for the area's transit-oriented nature, including the MBTA Red Line Station, MBTA buses, EZ Ride bus service, private shuttle buses, and a strong and improving bicycling and pedestrian network. Furthermore, implementing robust Transportation Demand Management Measures (TDM), including charging market rate parking fees, is a critical element in lessening the traffic impacts and enabling Kendall Square to grow and continue to be an economic engine for the city and the state.

As stated above, TP+T has been working with Boston Properties on the Project and has had many productive meetings. We believe we are in general agreement on the automobile parking plan, and we are working together on a bicycle parking plan based on the updated zoning that was recently adopted for the MXD district. A key outstanding issue that remains to be worked out includes the specific transportation mitigation commitments, but we believe we are on a path to reaching an agreement soon. Boston Properties has been collaborative in this effort and shares similar goals for making Kendall Square a vibrant, mixed-use, transit-oriented area. Like other large development projects in Kendall Square the Project should have the following transportation goals:

- ✓ Reduce overall vehicle trips, shift trips to sustainable modes
- ✓ Promote transit use while taking account of existing congestion on the transit network
- ✓ Reduce vehicle trips on neighborhood streets
- ✓ Improve safety and operations at intersections and streets for all modes
- ✓ Improve, contribute to, and support availability of transit and bicycle trips
- ✓ Improve pedestrian and bicycle safety, connections, and convenience
- ✓ Manage parking supply, use Transportation Demand Management to manage automobile demand, and incentivize non-SOV modes
- ✓ Monitor trip generation and transportation impacts
- ✓ Actively manage loading and deliveries

TP+T offers the following initial comments to the Planning Board for consideration with the goal of helping to make the Project best reflect the goals above, which are consistent with the Envision Cambridge and Kendall Square plans.

Site Plan, Loading and Service Delivery Plan

The overall Project will continue to provide vehicle access and egress off Broadway and Binney Street using the existing east and west service roads. For the new below-grade parking garages to be constructed beneath the 250 and 290 Binney Street buildings, access will be from the east service road. Loading and service delivery will also be located in loading docks off the east service road. Overall, TP+T believes that it is positive that the Project will continue to accommodate its parking garage access and loading within their site.

The detailed designs for the service roads, garage access, and loading zones should be part of the design review for the individual buildings. Loading docks should be designed so trucks do not extend into the service road, and not block pedestrians’ path of travel. Particular attention should be given to locations that will have conflicts between cars, trucks, pedestrians, and cyclists on the service roads, including conflict points between vehicles entering and exiting the service roads from Binney Street and Broadway where there will be pedestrians on sidewalks and cyclists utilizing bicycle facilities. The Project’s east/west pedestrian and bicycle connections, including connections to between the Kittie Knox Bicycle Path, should be designed to be safe, wide, and welcoming to the greater bicycle and pedestrian networks in the Kendall Square area.

Automobile Parking

The Project’s parking plan has evolved since 2016 when the KSURP Infill Development Concept Plan began. Amendment #2 proposes to demolish the Blue Garage (approximately 1,170 spaces) and replace it with new below grade parking garages under 250 and 290 Binney Street with approximately 1,584 parking spaces.

TP+T has been working with Boston Properties and their transportation consultant, VHB, on the parking plan and we are supportive of the plan because it is consistent with the parking recommendations in the Kendall Square (K2) Plan and the Envision Cambridge Plan.

The total maximum parking supply for the Kendall Square Urban Renewal Area will be 3,750 parking spaces located in 4 parking garages as shown in Table 2. Some of the parking spaces are planned to be managed parking spaces (e.g., valet parking in the aisles).

Table 2. KSURP Parking Plan Amendment #2

Parking Facility	2021 Parking Plan
250 and 290 Binney Street	1,584
145 Broadway	457
Green Garage	824
Yellow Garage	885
Total Future KSURP Parking Supply	3,750

The Parking Plan includes shared parking between residents at night and employees during the day. The parking plan will also meet the zoning parking requirements which include 0 minimum and a maximum 0.9/space per 1,000 sf for Office/R&D uses, minimum 0.4 and maximum 0.75 spaces per unit for residential, and 0 minimum and maximum 0.5 spaces/1,000 sf for retail uses.

Prior to the COVID-19 pandemic, KSURP's three parking garages (Blue, Green, and Yellow Garages) were not fully utilized, with 93% peak occupancy occurring around 11 AM. The detailed parking supply and demand analysis in the TIS estimated that in the Future (i.e., full build-out) the Project will have a parking demand of 3,878 spaces, or a 115 space short-fall from the 3,750 spaces proposed. However, it should be noted that this would only occur at the peak hour of the day and there would be sufficient parking during most other times of the day. If parking were to reach capacity at any point in time (which is hard to know for sure since travel patterns may change in the future), then during the peak occupancy time, Boston Properties would close the commercial parking garages (Green and Yellow Garages) to transient parkers until spaces are available (transient parkers are people who pull tickets to pay for the actual time in which they use the garage, as opposed to parkers with monthly parking privileges). Boston Properties has committed in their TIS to monitor real-time parking utilization of the garages, monitor long-term parking trends, and provide annual parking and monitoring data to the City.

Overall, TP+T believes that the parking plan is reasonable and should generally meet the parking needs for the Kendall Square Urban Renewal Area, while also limiting and managing parking in order to encourage sustainable modes of travel by walking, biking, taking public transit, and carpooling/vanpooling.

Bicycle Parking

City staff have been working with Boston Properties on a bicycle parking plan that would meet the demand using creative approaches, such as a valet bicycle parking program. Various details of the program still need to be worked out, but it is expected that a mutually agreed-upon bicycle parking plan will be reached. However, some specific details may need to be worked out during later phases of the project design and construction. City staff have provided Boston Properties a list of operational performance standards that will need to be followed to ensure that the bicycle parking plan and any valet bicycle parking system provides the access and functionality required to make it successful, such as being cost-free for all residents, employees, and visitors to the site. The plan will also include a monitoring component including reports sent to the City. The plan is also expected to include new Bluebikes stations in lieu of some short-term and long-term bicycle parking spaces, as allowed in the zoning. The exact details are still being worked out and will be detailed in future communications with the Planning Board.

Transportation Mitigation

Given the overall size of the Amendment (800,000 sf), and the existing transportation conditions in Kendall Square, we expect that the Project will need to provide mitigation to address transportation impacts, which will only serve to benefit future tenants and

visitors. A robust transportation mitigation program was already established and included in Special Permit #315, which is expected to continue to be required. The question is how much additional impacts and therefore transportation mitigation is needed.

TP+T is recommending that Boston Properties fund the 100% design and reconstruction of Binney Street between Fifth Street and Sixth Street, which will be the last missing segment of the Binney Street Reconstruction Project.

TP+T also expects that for the additional 800,000 sf of development with 2,240 new daily transit trips, Boston Properties will contribute additional funds toward the Kendall Square Transit Enhancement Program (KSTEP) or to another transit improvement project or program. KSTEP was initially established in 2017 to preserve, enhance and expand transit access and mobility in the Kendall Square area as part of the MEPA process. KSTEP funds are maintained by the Cambridge Redevelopment Authority (CRA), in coordination with the City, MassDOT and other parties. The initial KSTEP contribution by Boston Properties was \$6 million. The mitigation for Amendment #2 has not been determined but will likely be finalized as part of the MEPA permitting process.

Because new parking spaces are being created, the Project will also need an Amended PTDM Plan approved by the City's PTDM Planning Officer, which must be in place prior to the issuance of a special permit.

As stated above, the existing Special Permit #315 transportation mitigation conditions will continue to be required and the new buildings will be subject to those conditions. A few adjustments may be needed, such as clarifications regarding TDM measures for the Google building, changes to completion dates for various construction projects (such as the Kendall Square station northbound headhouse and the cycle track), and trip generation thresholds, which if exceeded would trigger requirements for additional mitigation measures to reduce automobile trips. The thresholds may need to be adjusted to align with the updated trip generation numbers for the KSURP project. Notwithstanding the foregoing, the conditions set forth in the TP&T Memo dated November 27, 2018, the current deadlines included in Special Permit #315 Amendment #1 regarding improvements to the MBTA Kendall Outbound Headhouse (delayed due to coordination with the MBTA and other stakeholders) and the remaining cycle track infrastructure (delayed due to the inclusion of the Eversource substation into this project) should be extended to a date to be determined, and no longer linked to the issuance of a Certificate of Occupancy for 325 Main Street.

Finally, TP+T wants to thank Boston Properties and the Cambridge Redevelopment Authority for working with us and we look forward to continuing to work with them as the project moves forward.