




# CITY OF CAMBRIDGE

# TRAFFIC, PARKING, + TRANSPORTATION

## MEMORANDUM

**To:** Cambridge Planning Board  
**From:** Joseph E. Barr, Director   
**Date:** March 29, 2021  
**Subject:** MIT Volpe Exchange Parcel (PB#368)

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The Cambridge Traffic, Parking, and Transportation Department (TP+T) has been working with the MIT Investment Management Company (MITIMCo) on the proposed Volpe Exchange Parcel project. 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) approximately 120,000 square feet of retail/active use (which includes a community center and entertainment space). Overall, the project proposes approximately 1,876 parking spaces, primarily in below-grade garages and a limited number of surface parking spaces. The Project also proposes 1,862 long-term and 302 short-term bicycle parking spaces, and approximately 14 loading bays to serve 9 proposed buildings.

MITIMCo completed a Transportation Impact Study (TIS) for the Project which was certified by TP+T on November 4, 2020. It should be noted that there are some slight differences in the square feet analyzed in the TIS compared to the Special Permit Application (which sometimes occurs between the time a TIS is finalized and a Special Permit is submitted), however TP+T does not believe the differences are significant enough to change the overall findings in the TIS. The TIS was not required for and does not include the approximately 400,000 square feet building that is under construction for the US Department of Transportation Volpe National Transportation Systems Center, which is being relocated as part of the overall project. Furthermore, because some site uses are exempt from zoning, the total zoning square feet of approximately 2.85 million square feet is different from the Project's 3 million gross square feet. The TIS evaluated the impacts of the full 3 million square feet since even though some uses are exempt from zoning, they still generate trips.

The TIS was included in the Special Permit Application and 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).

Overall, TP&T believes that the MIT Volpe Exchange Parcel Project is in many ways consistent with City goals for a mixed-use, transit-oriented development, including residential, retail, office uses, and open space.

TP+T has been working with MITIMCo and has made good progress recently on some key Project elements, particularly the Project's site access and circulation. However, a number of outstanding issues and details remain to be worked out, including the parking supply and specific transportation mitigation commitments. TP+T has had many productive meetings with MITIMCo and they have continued to be very cooperative, especially since City staff and MITIMCo share similar goals for the Project and for Kendall Square overall, such as the following:

- ✓ 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, 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 in your Preliminary Determination, with the goal of helping to make the Project better reflect the goals above, which are consistent with the Envision Cambridge and Kendall Square plans.

## Site Plan

As stated above, there has been good progress on the site plan and circulation. MITIMCo's latest proposed site plan addresses a number of these improvements, including the proposed location of the left-turn lane off Broadway at Fifth Street and changes to the parking garage access locations. Some of the specific items that require additional discussion include the following:

- There needs to be more discussion with adjacent property owners and evaluation of the 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.
- There needs to be a clear 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.
- Site plans need to show the property lines and ownership more clearly for all roadways. TP+T needs to understand the ultimate ownership of all roadways and any easements in the final future condition.

- Although the intersection design for Third Street at Broadway will be determined by the City as part of the design process being managed by the Cambridge Redevelopment Authority, it is important that the Project's design for the open space at the corner of Third Street and Broadway be compatible with the intersection design, including any potential bus queue jump lanes and/or transit priority signals and the location of crosswalks. This would likely require some space to be located on the project's property for people walking and biking along Third Street between Potter Street and Broadway (that do not impact the health of the mature oak trees within the property), thus requiring an agreement or easement for public access.
- TP+T has been working with MITIMCo on the alignment of the Fifth Street/Potter Street intersection. The original intersection layout was skewed, which could cause the intersection to be less safe and functional. The latest intersection layout plan has improved this situation, but some additional work/refinement is still needed, such as to decide if the intersection should be a raised intersection and/or any other refinements to the intersection design. TP+T believes that most of these details do not need to be resolved for the "master plan" permitting of the Project and could be refined as part of individual building design permits. Similarly, 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 MIT will be asked to submit a minor amendment for Planning Board review and approval.
- The Special Permit should condition that streets are to be open as private ways open to public use upon such terms, conditions and reservations as are acceptable to the Department of Public Works and MIT.
- Work is still needed to understand how the street curbs will be regulated, managed, and enforced, and if that will be done by MIT or the if the City will have any role.
- Further clarification is needed between on-street parking, short-term loading, and "Active Curb" as shown on Figure 7 in the March 16, 2021 Special Permit materials.
- Overall, the sidewalks and roadways should look and feel like city streets and be open, accessible, and welcoming to the general public, unless there is a decision that certain streets should operate in a different manner.
- MITIMCo recognizes an opportunity to make the extension of Broad Canal Way a unique street. However, the specific elements required to achieve this goal require more work and discussion. Issues to be addressed include 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, and various other design and access control questions which need further clarification. TP+T will work with MITIMCo and other City staff on a final design and operational plan for Broad Canal Way, which should ideally be determined before the issuance of the Planning Board Special Permit.

## **Automobile Parking**

- The Project proposes 1,876 parking spaces, primarily in two underground parking garages and a limited number of surface parking spaces. The US Department of Transportation Volpe National Transportation Systems Center building currently

under construction off Binney Street will have its own parking facility with about 350 parking spaces at that site.

- Page 98 in the Special Permit application says that *MIT is committed to not overbuild parking and by taking advantage of exceptional transit and walking/biking options around the project.* In the TIS, MIT calculated parking three different ways (using zoning ratios, employee density, and PTDM data), and used the lowest ratio for each respective use to calculate the parking supply. However, it's important to note that the minimum parking ratios for all the uses on the site is zero. Further discussions are currently underway with MITIMCo regarding parking supply and the associated assumptions, and whether there are any opportunities to reduce the total number of spaces provided.
- TIS indicates a projected parking demand of 2,128 spaces, but by taking into consideration shared parking, the Project proposes 1,876 spaces (reduction of 252 spaces). According to the TIS, some parking spaces will be shared between residents at night and office/lab employees during the day because they have different peak parking demand times. TP+T supports this plan and is pleased to see some level of shared parking proposed in the plan, but TP+T also notes the following:
  - The Project is still seeking the maximum parking ratio of 0.8 spaces/1,000 sf for office/lab.
  - The shared parking assumptions in the TIS are conservative and we would like to further discuss shared parking assumption with MITIMCo, which would lower the number of new parking spaces that would need to be built.
  - The parking analysis needs to be updated due to changes to some of the parameters of the project from the TIS, such as number of housing units.
- TP+T believes more work is needed on the total number of parking spaces and whether there are other options to limit the number of newly built spaces while still meeting the Project's parking needs. This is especially important considering how parking demands have changed in the past year with more remote work and consideration of future trends--such as autonomous vehicles and the impacts they may have on parking demand. Overall, TP+T would potentially be supportive of addition reductions in parking supply because less parking would translate into lower traffic impacts and greater use of transit, walking, biking, and carpooling/vanpooling. Based on productive discussions to date we are confident we can come to some resolution on the parking supply in the near future.

## **Bicycle Parking**

- Page 37 in the Special Permit Application states that MIT is a leader in transportation technology and innovation and will use the Project to showcase the future of mobility and transportation, and plans to accommodate the latest in future innovations in mobility and transportation such as bicycle and automobile smart parking technology. However, the proposed long-term bicycle racks appear to be mainly in a below-grade parking garage accessible by elevators. TP+T would like to have further discussions with MITIMCo on the bicycle parking plan and determine whether there is any opportunity to take advantage of the provisions in zoning for further innovation. For example, zoning (Section 6.108.1) states that requirements for bicycle parking may be modified upon granting of a special permit by the Planning

Board and that modifications may be appropriate for a campus master plan or other large development site when bicycle parking is planned comprehensively across an area instead of on a specific site-by-site basis (Section 6.108.3). TP+T would like to discuss ideas such as valet bicycle parking, and other ideas like even testing automated bicycle parking facilities.

- The project proposes 302 short-term bicycle parking spaces, but the exact locations still need to be finalized. We would also be excited to see the Project develop a way to address both short-term and long-term bicycle parking needs in a creative and innovative manner.
- The Project has committed to fund and provide space for two (2) extra-large (27-dock) Bluebikes Stations which is positive. The exact location and details should be detailed and finalized as we move forward.
- Given the high level of Bluebikes demand in the Kendall Square area, the project should also identify an area for valet services to store Bluebikes, the specifications for which will be worked out with the City's Bluebikes staff.

## Transportation Mitigation

Given the overall scale of the project and the existing transportation conditions in Kendall Square, we expect that the Project will need to provide significant mitigation to address transportation impacts, which will only serve to benefit future tenants and visitors. A number of potential mitigation items are listed below, in response to the significant impacts associated with the project and with the goal of promoting sustainable transportation. We also look forward to additional feedback from the Applicant, from Planning Board members, and from the community, to help us refine and finalize the full package of transportation mitigation.

- MITIMCo is currently working with the City's PTDM Planning Officer on their PTDM plan, which will include Transportation Demand Management Measures (TDM) measures appropriate to the project size and scope.
- TP+T needs more discussion with MITIMCo about the commitments made during the zoning process (including the \$8.5 million contributed towards transit improvements) as compared to the transportation mitigation that will be part of a Planning Board Special Permit.
- TP+T believes that because there are several large development projects currently proposed in Kendall Square, and all are interesting in improving transit, this may be an ideal time and opportunity to work together and pool together mitigation funds for creating new or improved transit services in the area. TP+T looks forward to working with MITIMCo (and other area developers) on ideas that could showcase future innovative mobility and improve transit options in the area, which would benefit the Project's employees, residents, and visitors.
- TP+T expects that the Project will be required to complete 100% design plans and reconstruct both sides of Binney Street between 3<sup>rd</sup> Street and 6<sup>th</sup> Street as per the existing design plan, including raised bicycle facilities on both sides of Binney Street. The Project site plans should show the full design of Binney Street between Sixth Street and Third Street, including the new pedestrian crossing and access at Fifth Street.

- The Project will also be expected to share the cost of completing a 100% design plan and reconstructing Third Street between Binney St. and Broadway. The costs are expected to be shared between MITIMCo and BioMed Realty Trust which is proposing a large development project at 585 Third Street. The details of the cost sharing will need to be determined and finalized.
- Plans for Broadway between Third Street and Ames Street are also currently being developed by the City in coordination with the Cambridge Redevelopment Authority and it is expected that the Project will also be required to share the cost of completing a 100% design plan and construct the plans (including both sides of Broadway), subject to further discussions with the City and the property owner of the other side of Broadway (Boston Properties), depending on what the final plans are for Broadway.
- As the site and circulation plans are developed in greater detail, we expect that additional mitigation commitments are likely to emerge.