



CITY OF CAMBRIDGE

TRAFFIC, PARKING, + TRANSPORTATION

MEMORANDUM

To: Cambridge Planning Board

From: Joseph E. Barr, Director

Date: February 22, 2022

Subject: Alewife Park Project, 36-64 Whittemore Avenue (PB#387)

The Cambridge Traffic, Parking, and Transportation Department (TP+T) has reviewed the Project Review Special Permit Application for the Alewife Park project located at 36-64 Whittemore Avenue by IQHQ-Alewife LLC. The Project proposes to redevelop an approximately 19.6-acre site into a new research-based complex totaling 735,500 square feet (353,500 net new gross square feet including a 121,000 square feet parking garage). The Project proposes 653 parking spaces comprising an above-grade parking garage and surface parking lots, 140 long-term bicycle parking spaces, 44 short-term bicycle parking spaces, and 8 total loading bays.

IQHQ-Alewife LLC completed a Transportation Impact Study (TIS) for the Project which was certified by TP+T on June 8, 2021. The TIS was included in the Special Permit Application and indicated that the Project will generate the following trips:

- 220 net new AM and 150 net new PM peak hour vehicle trips
- 159 AM/108 PM peak hour transit trips
- 78 AM/68 PM peak hour pedestrian trips
- 42 AM/29 PM peak hour bicycle trips.

Planning Board Special Permit Transportation Exceedances

The TIS indicated that the Project triggered 26 Planning Board Special Permit Transportation Exceedances, which are summarized below.

- There were 3 transportation exceedances for impacts on vehicle level of service (LOS).
 - The unsignalized intersection of Steel Place at Alewife Station Access Road during the AM peak hour has an existing LOS F (pre-covid) and the Project will add 7% more traffic volumes to the intersection. The intersection will have approximately 49 additional seconds of delay due to the Project trips. Delay at this intersection is expected to get worse (i.e., another 55.3 seconds of delay) due to other projects in the region. TP+T is considering signaling this intersection, which will require coordination with MassDOT.
 - The unsignalized site driveway at Alewife Access Road (AKA the loop road) during the PM peak hour will degrade from LOS D to F due to the Project trips.

About 70 new vehicles are expected to exit the Project site in the evening peak hour onto the Alewife Access Road for a total of about 112 vehicles in the Future condition scenario.

- The signalized Alewife Brook Parkway at Cambridgepark Drive intersection will degrade from LOS D to E in the evening peak hour. The Project will add approximately 32 new vehicle trips on Alewife Brook Parkway southbound at this intersection which will add an additional 12 seconds of delay for the southbound thru movement traffic. There will be an additional 24.3 seconds of southbound delay in the Future condition scenario when considering other development in the region. Alewife Brook Parkway, Rt. 2 and Rt. 16 are heavily congested during peak hours because they carry a significant amount of regional traffic. The Rt. 2/16 intersection is among the top 10 most congested road segments in the state according to a 2019 MassDOT study¹. Route 2 eastbound approaching Alewife at 8 AM in the morning was the second most severe occurrence of congestion in the state with over 1.3 miles of congestion by 8 AM. The MassDOT study provided recommendations such as improving bus transit.
- There were 17 exceedances from existing conditions pedestrian delays crossing intersections including, Massachusetts Avenue at Alewife Brook Parkway, Alewife Brook Parkway at Rindge Avenue, and Alewife Brook Parkway at Rt. 2/16. Very heavy traffic congestion during rush hours requires long cycle lengths and multiple signal phases which cause the pedestrian level of service to be LOS E and LOS F.
- There was 1 exceedance for missing sidewalk on the Alewife Station Access Road (loop road).
- There were 5 exceedances for no bicycle facilities on Whittemore Avenue or Alewife Station Access Road (loop road).

TP+T Initial Comments

TP+T offers the following initial comments to the Planning Board for consideration of this Project's Planning Board Special Permit Application.

Automobile Parking

The Project site currently has approximately 681 parking spaces based on a survey by the Applicant, which means the existing site has a parking ratio of about 1.8 parking spaces/1,000 square feet (382,000 sf / 681 parking spaces).

The Project proposes 653 total parking spaces, which would be a parking ratio of about 1.07 parking spaces/1,000 square feet for the proposed Project (611,000 sf). TP+T expects that the additional 3,500 square feet of retail space will not be a destination retail use that will attract many vehicle trips and will primarily serve the site users. It is important to note that because the Project proposes to reduce the parking supply from

¹ [Congestion in the Commonwealth](#), Report to Governor 2019, MassDOT.

681 spaces existing to 653 spaces proposed, it does not require preparation of a Parking and Transportation Demand Management Plan. As a result, all of the mitigation requirements—including transportation demand management measures—will need to be included in the Special Permit.

The Project site is in the Special District 3 (SD-3) zone which has no minimum parking requirement under SD-3 section 17.34.1.

The Envision Alewife plan recommends a maximum 0.8 parking spaces/1,000 sf for R&D uses, which would be about 489 parking spaces for the Project (611,000 sf x 0.8 ratio). The Envision Alewife plan assumed an employee density of 2.2 employees per 1,000 sf. The Project's TIS estimated the Project will have about 2.5 employees per 1,000 sf, which would create a parking demand of about 615 parking spaces at 40% auto mode share (which is the auto mode share goal in the Envision Alewife Plan). The 126-space parking demand difference between 489 spaces vs. 615 spaces is therefore a function of how many employees will be working on-site at any one time in the future. Overall, TP+T believes that the Project would potentially be better if it was consistent with the Alewife Plan's recommendation for a maximum 0.8 parking ratio. This is the case both because the Project is located right next to the Alewife MBTA station and because the greater the number of parking spaces makes it more likely that employees will drive to work and more difficult to achieve a low single occupancy mode share. TP+T also notes the changing work patterns with more people working remotely also reduces daily parking demands.

We recognize that the Project is moving forward under the current zoning and that the proposed parking does represent a reduction from the current supply. However, we would also like to explore how the parking supply could potentially be adjusted in the future to bring it closer to the Envision Alewife plan recommendations. One option for the Planning Board to consider could be a condition like the 75-101 Smith Place Project that permits the Project to have a higher parking ratio initially (i.e., to attract tenants) while providing a mechanism to enable and/or require a future reduction in the parking ratio. Triggers for when the parking would need to be reduced could be ten years after the issuance of the first Occupancy Permit, or another agreed upon time frame or milestone. However, it's important to note that it is harder to change people's habits away from driving to work if they are provided with parking spaces initially.

In addition to the number of parking spaces, another important consideration is the location of the parking spaces. The Project proposes to generally maintain the four existing surface parking lots on the northern side of Whittemore Avenue. TP+T does not know what IQHQ-Alewife LLC's future plans are for those lots, but if site parking supply is reduced, then those lots could be put towards another use.

TP+T looks forward to hearing the Planning Board comments on the Project's parking plan and supply, and is happy to continue to work with IQHQ-Alewife LLC on this issue.

Bicycle Parking

The Project's Special Permit Application proposes 140 long-term bicycle parking spaces and 44 short-term bicycle parking spaces distributed around the Project's property.

The long-term bicycle parking spaces appear to meet the City's Bicycle Parking requirements. Some of the short-term bicycle parking spaces, however, appear to not fully meet the City's Bicycle Parking zoning layout requirements. For example, a required 8-foot-long short-term bike space appears to be only 6 feet long. The Project team should work with TP+T and CDD staff to make sure all the bicycle parking spaces comply with zoning dimensions.

Site Plan, Service and Loading

The Project site will have access from Whittemore Avenue and the Alewife Access Road. To prevent cut through traffic through the site, (which according to the TIS was observed during the evening peak hour between Whittemore Avenue and the Alewife Access Road), the Project proposes roadway gates for its internal roadways. TP+T has no issue with gates for private roads if they don't cause back-ups onto public roadways. However, we do note various pros and cons for the gates. They may prevent some undesirable traffic on the residential streets north of the site, but they will also make site feel and function as a much more exclusive area. Allowing vehicles to travel in their most direct route can also reduce some level of traffic. Other development areas in Cambridge, such as Technology Square and the future MIT Volpe exchange parcel project have or will have private roadways that are open to the public and feel like city streets. They can serve as an important part of an urban transportation network.

The Project will also have an access at the end of Harvey Street. However, to prevent neighborhood impacts on Harvey Street, a gate will restrict access from Harvey Street to emergency vehicles, pedestrians and bicycles. TP+T supports a gate at Harvey Street as proposed, but would like to work closely with IQHQ and the immediate neighbors to look at design options that could reduce the likelihood of cars unintentionally continuing Harvey Street beyond Clifton Street while also improving the crossing at Linear Path

The site circulation plan will create new vehicle trips using the Rt. 2 eastbound off-ramp and Steel Place intersection which will cause delays to other vehicles heading to the important Alewife MBTA station from the west. Vehicles exiting the Project will use the Alewife Access Road back to Rt. 2 westbound which will add delays for vehicles exiting the MBTA Alewife Station. TP+T believes that in lieu of creating an entirely new circulation plan for the site, the Project should mitigate these trips. TP+T recommendations are discussed below under Transportation Mitigation.

TP+T, in coordination with the Community Development Department (CDD) is continuing to review the overall site plan and internal roadway circulation plan, including roadways, sidewalks and pathway designs. We believe that there are improvements that can still be made to better integrate bike and pedestrian connections in the site. For example, there should be a stronger and clearer connection between the "Promenade" and the Linear Path; a pedestrian/bicycle path between Linear Path and Whittemore Avenue is required in zoning (Article 17.36.4), and widths and buffers should match Cambridge standards. The CDD memo has more comments about the site and circulation plan. Overall, it's important that the path widths meet national standards, roadways are no wider than needed, bicycle facilities are protected, and sidewalks have street trees to provide shade (including for the new Service Road which may also be used by the public).

The Project will have 8 total loading bays on site, which TP+T supports, and thinks is positive. Loading bays will accommodate 40-foot-long trucks (WB-40).

Transportation Mitigation

Below are TP+T's initial recommendations to mitigate the Project's Planning Board Special Permit Transportation exceedances and overall transportation impacts by improving bicycle, transit, and pedestrian conditions and encouraging sustainable and healthy forms of transportation instead of single occupancy vehicle use. We expect to have a final transportation mitigation program soon.

Infrastructure Improvements

- One of the most important mitigation items TP+T recommends is to design and construct a bus-only lane along the Alewife Access Road (loop road) after vehicles exit the arched tunnel under Alewife Brook Parkway. A large portion of the Alewife Access Road loop road is owned by the Applicant and the bus-only lane would benefit site employees that are using transit and exiting the MBTA Alewife Station. The dedicated bus lane on the loop road would pair with the dedicated bus lane recently created by MassDOT on the Rt. 2 eastbound off-ramp to access the MBTA Alewife station. Therefore, bus riders would have priority over single-occupancy vehicles for both entering and exiting the MBTA Alewife Station. The local community has also expressed an interest in the widening of the arched tunnel to accommodate safer bicycle facilities connecting from the Minuteman Bikeway to the site. Within one year of the issuance of the first Building Permit for the Project, IQHQ-Alewife LLC should therefore independently study both the widening of the arched tunnel and the construction of a bus-only lane along the loop road, for review by the City, MassDOT, MBTA, DCR, and Cambridge Conservation Commission. Should the bus-only lane on the loop road be determined to be feasible, the Applicant shall develop 100% design plans for review by the relevant agencies, and then construct those improvements within five years (or sooner) of the Project's first Certificate of Occupancy or another timeline if reasonably necessary due to conditions outside the control of the Applicant and as approved by the City and MassDOT. These improvements shall also include any necessary intersection changes at the Alewife Access Road/Rt. 2/16 intersection to support the bus-only lane, as well as creating any necessary compensatory flood storage and providing an easement across any land that is owned by the Applicant. Completion of the widening of the arched tunnel will not be the responsibility of the Applicant, but they shall provide 100% design plans to the appropriate agency for construction.
- A second important mitigation item is, if requested by TP+T, to fund the signalization of the Steel Place/Alewife Access Road intersection, including transit priority treatment and Miovision traffic equipment or similar traffic control equipment approved by TP+T. This improvement is expected to cost approximately \$250,000 (subject to inflation). The improvement should be completed prior to the issuance of a final certificate of occupancy for the Project or a later date as approved by TP+T.
- The Applicant should fund a 27-dock public bikeshare station (Bluebikes or its successor) on the Project site. Payment will be made prior to the issuance of a Building Permit. The Project proponent will be responsible for securing a

siting/licensing agreement if the station is on proponent's property prior to Certificate of Occupancy.

- Reconstruct the driveway apron on Rindge Avenue to better accommodate MBTA buses turning off Rindge Avenue into the Comeau Park parking lot without having an abrupt bump. TP+T believes that the slope of the driveway apron needs adjusting, and the curb cut width may not need to be widened, however, final design shall be approved by the Department of Public Works (DPW). The improvement should be completed prior to the issuance of the Project's first Occupancy Permit.
- The Applicant should work with the city to improve and reconstruct the end of Harvey Street west of Clifton Street to improve safety for pedestrians and bicyclists that access the Project site.
- In order to support the increasing number of people walking and bicycling in the area -- including people of all ages and abilities -- and minimize user's conflicts, a more direct pedestrian and bicycle connection should be created between the Linear Path and the MBTA's east headhouse, designed in such a way as to minimize impact on habitat and hydrology (for example, a more direct connection in the vicinity of the community garden area).
- To align with recent requests from the City Council for electric vehicle charging in development projects, the Project should install EVSE in 25% of spaces, or one dual-head Level 2 charger for every two vehicles served. The remaining 75% of spaces should be EV-ready (wiring installed to, in the future, support installation of an additional dual-head Level 2 charger for every 2 vehicles served. In addition, the project should ensure sufficient capacity in electrical panel and transformer to support future installation of chargers serving all spaces.
- Provide and maintain publicly accessible sidewalks and paths, including performance of crack repairs, snow and ice removal. IQHQ-Alewife LLC shall have a maintenance agreement with the Department of Public Works (DPW) prior to the issuance of the first Occupancy Permit for the publicly accessible pedestrian/bicycle connections as mutually agreed upon between IQHQ-Alewife LLC and DPW.
- It is also important to note that the Applicant has committed to significant improvements around Jerry's Pond, including adding new and expanded bicycle and pedestrian connections from Rindge Avenue, Alewife Brook Parkway, and the area around the MBTA's east headhouse. Taken together, all of these improvements and enhancements will contribute significantly to improving sustainable transportation access to both the Project site and the Alewife area in general.

Proposed Transportation Demand Management (TDM) Measures

- Charge employees 100% market rate parking fee by the day while working to mitigate the potential impacts of Cambridge residents parking on nearby streets.
- Permanently reserve and post signs that designate 5% of parking spaces for carpool/vanpool parking.
- Provide carpool/vanpool parking at discounted rate
- Provide employees 100% transit pass subsidies, up to the federal fringe tax benefit.
- Allow pre-tax purchase for all federal fringe benefit categories
- Provide Gold-level Bluebikes corporate membership to employees.
- Provide showers/lockers to employees.
- Provide at least one publicly available bicycle repair tool stand with pump.

- Provide electric outlets in bike parking rooms for charging small electric devices such as e-bikes and e-scooters.
- Designate an on-site Transportation Coordinator to promote walking, biking, taking the bus, train, or shuttle, and carpooling to employees, including posting information on the Project's website and newsletters, coordinating with the Alewife TMA, providing up to date information to all employees, and responding to individual requests for information. Post information about pedestrian and bicycle facilities near the project; MBTA maps, schedules and fares; "Getting Around in Cambridge" maps; carsharing/ride-matching programs; Bluebikes system. Alternatively, the Project can provide real-time transportation information by hanging a screen at building lobbies or locations accessible to all employees and visitors.
- Become a member of the Alewife TMA, to offer ride-matching services and emergency ride home program for all employees who commute by walk, bike, bus, train, shuttle, or carpool.
- Provide free shuttle service to Porter Square commuter rail station, which can be eliminated if/when a commuter rail stop is available at Alewife MBTA station.
- Hold an annual transportation event day.
- Provide annual transportation monitoring reports to CDD and TP+T using a form and format as approved by CDD. The monitoring program should include an employee mode share and preference survey and parking/driveway counts for cars and bikes.
- Tenants will work with the Office of Workforce Development (OWD) to hire Cambridge residents.

Other Project commitments supported by TP+T

- The Project has indicated a commitment to restore the MBTA Alewife Station east headhouse plaza and lighting, subject to MBTA approval, including replacing pavers, providing separated bike and pedestrian circulation, new/improved lighting, green space/planters/trees, clean and repaint the headhouse, replace doors, install art and other items subject to MBTA agreement and approval.
- The Project has agreed to participate with other developers and the City to help initiate formal study for a new commuter rail stop in the Alewife/Quad area.
- If MassDOT builds two-way bike/pedestrian paths through the arched tunnel under Alewife Brook Parkway, IQHQ will build connecting bike/pedestrian paths on its property in order to provide a more direct connection between the Linear Path to the east with the Fitchburg Bypass path to the west, and with the Minuteman Path to the north
- IQHQ-Alewife LLC has made commitments to police details for afternoon peak hours as available and needed to reduce unwanted cut-through traffic through the Project Site and adjacent neighborhood
- The Project has also agreed to allow residential parking on site during specific time periods (weekdays, 6 PM-8 AM, Friday-Sunday, 6 PM-8 AM Monday).
- Residents will have access to electric vehicle charging stations.
- The Project has agreed to allow residents to park on site during declared snow emergencies.

- The Project will also permit residents direct access across the site and to the MBTA headhouse from the north and east neighborhoods on pedestrian and bicycle connections.
- Rt. 16 sidewalk improvements including repairing and adding lights.

PROJECT

Project Name: IQHQ | Alewife Park

Project Address: 1 Alewife Center
Cambridge, MA 02140

Owner/Developer Name/Proponent: IQHQ-Alewife, LLC

Contact Person: David Surette

Contact Address: 201 Washington Street
#3920
Boston, MA 02108

Contact Phone Number: 617-314-7906

SIZE

ITE sq. ft.: 615,000 GSF

Land Use Type: Office/R&D and Retail/Amenity

PARKING

Existing Parking Spaces*:	722 surface parking spaces	Building Use: Office/R&D
Proposed Parking Spaces:	653 garage/surface parking spaces	Building Use: Office/R&D + Retail/Amenity
Net New Parking Spaces:	-69	<i>(compared to existing)</i>

**Registered parking spaces*

TRIP GENERATION

	Morning Peak Hour	Evening Peak Hour
Vehicle	220*	150*
Transit	159	108
Walk	78	68
Bicycle	42	29
Other	47	32

**Net-New Project Generated Trips*

MODE SPLIT (Share of Person Trips)

	R&D/Office Use	Retail/Amenity Use
SOV	58%	5%
HOV	2%	5%
Transit	23%	3%
Walk	4%	86%
Bike	6%	1%
Other	7%	0%

TRANSPORTATION CONSULTANT

Company Name: VHB
 Contact Name: Sean M. Manning, PE, PTOE
 Contact Phone Number: 617-728-7777

Date of Building Permit Approval:

Planning Board Criteria

Total Data Entries = 161 Total Number of Criteria Exceedances = 26

Criteria A – Project Vehicle Trip Generation

Period	Criteria (trips)	Build (trips)	Exceeds Criterion?
Weekday Daily	2,000	1,507	No
Weekday Morning Peak Hour	240	220	No
Weekday Evening Peak Hour	240	149	No

Criteria B – Vehicular LOS

Intersection	Morning Peak Hour				Evening Peak Hour			
	Baseline Condition	Build Condition	Traffic Increase	Exceeds Criterion?	Baseline Condition	Build Condition	Traffic Increase	Exceeds Criterion?
Massachusetts Avenue at Alewife Brook Parkway	F	F	1%	No	F	F	2%	No
Massachusetts Avenue at Columbus Avenue	B	B	0%	No	C	D	2%	No
Massachusetts Avenue at Magoun Street	B	B	1%	No	C	C	1%	No
Columbus Avenue at Madison Avenue	A	A	3%	No	A	A	-9%	No
Whittemore Avenue at Magoun Street	A	A	14%	No	A	A	0%	No
Whittemore Avenue at Madison Avenue	A	A	13%	No	A	A	2%	No
Whittemore Avenue at East Site Driveway	A	A	15%	No	A	A	2%	No
Whittemore Avenue at Seagrave Road	A	A	25%	No	A	A	-38%	No
Whittemore Avenue at West Site Driveway	A	A	75%	No	A	A	12%	No

Whittemore Avenue at Alewife Brook Parkway	C	C	4%	No	C	D	2%	No
Alewife Brook Parkway at Route 2/16	E	E	1%	No	D	D	2%	No
Steel Place at Alewife Station Access Road	F	F	7%	Yes	F	F	0%	No
Alewife Station Access Road at Site Driveway	B	B	42%	No	D	F	9%	Yes
Alewife Brook Parkway at Cambridgepark Drive	F	F	1%	No	D	E	1%	Yes
Alewife Brook Parkway at Rindge Avenue	F	F	1%	No	D	D	1%	No

Criteria C – Traffic on Residential Streets

Roadway	Segment	Amount of Residential	Morning Peak Hour			Evening Peak Hour		
			Existing ¹	Increase ²	Exceeds Criterion?	Existing ¹	Increase ²	Exceeds Criterion?
Massachusetts Ave	Between Columbus Ave and Magoun St	More than 1/2	1,923	8	No	1,934	12	No
	East of Magoun St	More than 1/2	1,907	14	No	1,929	11	No
Columbus Ave	Between Mass Ave and Madison Ave	Between 1/2 and 1/3	82	4	No	91	-8	No
	West of Madison Ave	Between 1/2 and 1/3	71	3	No	79	-9	No
Magoun St	Between Mass Ave and Whittemore Ave	More than 1/2	30	6	No	24	0	No
Madison Ave	Between Columbus Ave and Whittemore Ave	More than 1/2	16	0	No	11	1	No
Whittemore Ave	East of Magoun St	More than 1/2	17	0	No	13	0	No
	Between Magoun St and Madison Ave	Between 1/2 and 1/3	40	6	No	36	0	No
	Between Madison Ave and East Site Driveway	Between 1/2 and 1/3	38	6	No	46	1	No
Seagrave Rd	North of Whittemore Ave	Between 1/2 and 1/3	13	3	No	16	0	No

- 1 Where driveways/on-street parking created a segment inflow/outflow volume imbalance, an average was calculated per direction and added
- 2 Net new project trips after trip credits are applied

Criteria D – Lane Queue (for signalized intersections)

Intersection	Lane	Morning Peak Hour			Evening Peak Hour		
		Baseline Condition	Build Condition	Exceeds Criterion?	Baseline Condition	Build Condition	Exceeds Criterion?
Massachusetts Avenue at Alewife Brook Parkway	Massachusetts Avenue EB L/T	37	37	No	37	36	No
	Massachusetts Avenue EB T	37	37	No	36	36	No
	Massachusetts Avenue EB R	4	3	No	2	3	No
	Massachusetts Avenue WB L	7	7	No	6	7	No
	Massachusetts Avenue WB L/T	7	7	No	8	8	No
	Massachusetts Avenue WB T/R	5	4	No	5	6	No
	Alewife Brook Parkway NB L	4	3	No	5	5	No
	Alewife Brook Parkway NB T	19	24	No	59	59	No
	Alewife Brook Parkway NB T/R	23	28	No	59	59	No
	Alewife Brook Parkway SB L	5	6	No	5	5	No
	Alewife Brook Parkway SB T	22	22	No	12	12	No
Alewife Brook Parkway SB T/R	20	21	No	10	11	No	
Alewife Brook Parkway at Route 2/16	Alewife Brook Parkway (Signal 11b) NB T	10	10	No	11	11	No
	Alewife Brook Parkway (Signal 11c) NB T	4	4	No	6	6	No
	Alewife Brook Parkway (Signal 11b) SB T	7	7	No	4	5	No
	Alewife Brook Parkway (Signal 11a) SB R	7	7	No	8	8	No
	Route 2 (Signal 11b) EB L	7	7	No	7	7	No
	Route 2 (Signal 11d) EB T	12	12	No	9	9	No
	Alewife Station Exit Ramp (Signal 11c) WB T	3	4	No	10	6	No
Alewife Station Exit Ramp (Signal 11c) WB R	1	1	No	8	7	No	
Alewife Brook Parkway at Cambridgepark Drive	Alewife Brook Parkway NB L	7	7	No	4	4	No
	Alewife Brook Parkway NB T	5	5	No	8	8	No
	Alewife Brook Parkway SB T	38	38	No	37	37	No
	Cambridgepark Drive EB L	3	3	No	18	18	No
Alewife Brook Parkway at Rindge Avenue	Alewife Brook Parkway NB T/R	16	15	No	17	20	No
	Alewife Brook Parkway SB T	4	4	No	8	8	No
	Rindge Avenue WB L	19	18	No	6	6	No
	Rindge Avenue WB R	71	71	No	36	38	No

Criteria E - 1 – Pedestrian Delay

Intersection	Crosswalk	Morning Peak Hour			Evening Peak Hour		
		Baseline Condition	Build Condition	Exceeds Criterion?	Baseline Condition	Build Condition	Exceeds Criterion?
Massachusetts Avenue at Alewife Brook Parkway	East	F	F	Yes	F	F	Yes
	West	F	F	Yes	F	F	Yes
	North	F	F	Yes	F	F	Yes
	South	F	F	Yes	F	F	Yes
Massachusetts Avenue at Columbus Avenue	South	A	A	No	A	A	No
Massachusetts Avenue at Magoun Street	North	A	A	No	A	A	No
	South	A	A	No	A	A	No
	West	F	F	Yes	F	F	Yes
Columbus Avenue at Madison Avenue	East	A	A	No	A	A	No
	South	A	A	No	A	A	No
Whittemore Avenue at Magoun Street	North	A	A	No	A	A	No
Whittemore Avenue at Madison Avenue	North	A	A	No	A	A	No
	West	A	A	No	A	A	No
Whittemore Avenue at Seagrave Road	East	A	A	No	A	A	No
Alewife Brook Parkway at Route 2/16	East	E	E	Yes	E	E	Yes
Steel Place at Alewife Station Access Road	North	D	E	Yes	D	D	No
	East	A	A	No	D	D	No
	West	A	A	No	A	A	No
Alewife Brook Parkway at Rindge Avenue	East	E	E	Yes	E	E	Yes
	South	E	E	Yes	E	E	Yes

Criteria E – 2 & 3 – Pedestrian and Bicycle Facilities

Adjacent Street	Link (between)	Sidewalk or Walkway Present	Exceeds Criteria?	Bicycle Facilities or Right of Ways Present	Exceeds Criteria?
Whittemore Ave	Between Magoun St and Madison Ave	Yes	No	No	Yes
	Between Madison Ave and East Site Driveway	Yes	No	No	Yes
	Between East Site Driveway and Seagrave Rd	Yes	No	No	Yes
	Between West Site Driveway and Alewife Brook Parkway	Yes	No	No	Yes
Alewife Station Access Road	Between Site Driveway and Steel Place	Yes	No	No	Yes
	Between Alewife Park Driveway and Alewife Brook Parkway	No	Yes	No	Yes