Town of Brookline

Massachusetts

TRANSPORTATON ACCESS PLAN GUIDELINES

Effective January 1, 2018

Town of Brookline
Transportation Access Plan Guidelines
January 1, 2018

I. INTRODUCTION

The purpose of Access Plans is to analyze the impacts on the transportation system of new construction and the rehabilitation of existing structures. These guidelines have been prepared to aid the Transportation Division in reviewing transportation impacts in the areas of vehicular and pedestrian traffic, parking, transit usage, site circulation, loading, and construction-related activity. An Access Plan should include:

1) A transportation impact analysis; and
2) A proposed package of mitigation measures.

In addition, certain large scale projects are required to enter into a formal legal agreement with the Town to insure that the agreed upon mitigation is carried out.

A. Objectives

Brookline is predominantly a residential community, whose citizens are concerned about traffic impacts of new development. At the same time, it is understood that commercial development is needed to help diversify the tax base which funds Town services. The objectives of the Access Plan program are to:

- Ensure that new development is properly and adequately served by transportation facilities;
- Provide consistent, factual transportation information on proposed projects which can be used both to evaluate single projects and to determine the cumulative effects of individual projects;
- Identify appropriate traffic mitigation measures;
- Ensure that these measures are carried out by the developer and subsequent occupants of the development project; and
- Ensure that new or renovated parking areas employ energy efficiency and sustainability measures.

These requirements support other requirements of the Planning Board and the Zoning Board.

B. Thresholds

Access plan requirements vary according to the size, uses and location of development projects. The table below indicates the threshold levels for document submittal. These thresholds correspond to those in the Brookline Zoning Code for Design Review and Major Impact Project Review. Projects in each category must, **as a minimum**, provide the listed documents. **However, for projects which are determined to have impacts of particular concern, the Town may require the next higher level of**

submittal. A third category has also been added as a requirement for all projects which exceed 100,000 square feet or 100 dwelling units.

Size of Development **All projects above the following thresholds:**	**Required Documents** **Must supply at a minimum:**
10,000 square feet commercial space 10 dwelling units	Project Summary and Project Description
25,000 square feet commercial space 25 dwelling units	Above, plus Transportation Impact Study and Access Plan
100,000 square feet commercial space 100 dwelling units	Above, plus Access Plan Agreement

The Town may also request an Access Plan for projects which are under the thresholds, if they are deemed likely to generate significant transportation impacts. The contents of each Access Plan will be determined at a scoping session with the Town, as discussed below.

C. Scoping

This document provides guidelines for preparing a Transportation Impact Study and Access Plan. These are general guidelines and not every component of an impact study listed below will apply to every project. However, the final plan must incorporate the components relevant to the project under review as determined in the scope approved by the Brookline Transportation Division.

Each project sponsor for projects above 10,000 square feet or 10 dwelling units, or for other projects upon request, should submit a Project Summary and Project Description to the Transportation Division to launch the review process. For most projects in this category, the Project Summary and Project Description will be all that is required, unless the sponsor is notified otherwise by the Transportation Division.

If the project exceeds 25,000 square feet or 25 dwelling units, the sponsor should also at that time submit a proposed scope of work for the Access Plan for review and approval by the Brookline Transportation Division, and meet with the Transportation Division to review the scope if requested. The Brookline Transportation Division will review the proposed scope for comprehensiveness and technical approach and in cooperation with the Brookline Planning Department, revise it as necessary and approve it as the basis for the Access Plan. This will be done within 30 days of the scoping session.

D. Draft and Final Plan Submittal

Two copies of the Access Plan should be submitted to the Brookline Transportation Division and the Brookline Planning Department as a draft for review. The draft will be reviewed by both agencies for completeness and accuracy within thirty days of submission to the Town. Further information may be required to answer questions or address deficiencies. The plan should not be finalized until staff review

is completed. A decision on adequacy of the Final Access Plan will be made within thirty days of its receipt by the Town.

The Final Access Plan may be the basis for an Access Plan Agreement, a legal agreement between the Town and the project sponsor specifying the measures necessary to mitigate impacts of the proposed project and committing the project sponsor to their implementation. The Agreement may also describe monitoring procedures to verify compliance and to evaluate the effectiveness of the mitigation measures.

E. Fees

Each Draft Access Plan shall be accompanied with a certified check made payable to the Town of Brookline in the amount of $100, to help cover administrative costs.

F. Correspondence

Please direct all correspondence related to Transportation Access Plans to:

Mr. Peter Ditto
Director
Town of Brookline Engineering and Transportation Division
333 Washington Street
Brookline, MA 02445

II. ACCESS PLAN GUIDELINES

These guidelines describe the elements of an Access Plan. The Scope prepared by the project sponsor should include, but not be limited to, these elements.

A. Project summary (to be submitted for all projects above 10,000 square feet or 10 dwelling units, or smaller projects as may be scoped by the Town)

This section should contain the following background information about the proposed project.

- Project name and street address
- Project location including adjacent intersections
- Project sponsor's name, address, telephone number, and name of contact person
- Anticipated construction starting and completion dates
- Current zoning designation of the project, and code requirements with regard to parking, loading bays and building scale
- Required permits, variances, and licenses.

B. Project description (to be submitted for all projects above 10,000 square feet or 10 dwelling units, or smaller projects as may be scoped by the Town)

This section should describe the proposed project's use, size, and transportation facilities, as follows:

1) Identify the anticipated uses for the project (e.g. office, retail, hotel residential, mixed use, other). For each land use category, provide the following information, as appropriate.

- Site area (square feet)
- Building gross leasable square feet
- Floor-area ratio
- Number of dwelling units and number of bedrooms
- Number of hotel rooms
- Building height and number of stories
- Number of on-site parking spaces
- Number and dimensions of loading docks.

2) Submit an 8-1/2 by 11 –inch section of a 1:400 scale map showing the project location, surrounding streets, and their circulation pattern. Indicate the Study Area boundary and the intersections to be analyzed. On a separate map, also identify nearby bus and rapid transit routes and stops and/or public parking facilities.

3) Submit a site plan for the project, indicating pedestrian and vehicular circulation patterns; project entrances and exits, drop-off and pick-up locations and taxi stands (if applicable); and curb cut widths. Dumpster locations, loading docks, and their storage and receiving areas should be identified. A standard engineering scale should be used.

4) Provide a plan that describes the physical layout of the proposed parking facility. Include the following information. A standard engineering scale should be used.

- Number of spaces on each level;
- Location and dimensions of parking spaces, ramps, aisles, ceiling heights, turning radil and curb cuts;
- Queuing space and location of entry/exit gates; and
- Location of carpool, vanpool, handicap and bicycle spaces.

C. Transportation Impact Study and Access Plan (to be submitted for all projects above 25,000 square feet or 25 Dwelling units, or smaller projects as may be scoped and other as scoped by the Town)

Subject to the specific scope issued by the Town, this report should evaluate the impact of the vehicular and pedestrian traffic generated by the project on the street and sidewalk network, parking availability, and the public transportation system, focusing on the study area and the horizon years as specified in the approved scope. It should also detail the transportation operations of the project itself: its delivery and service vehicle access; internal circulation, vehicular and pedestrian; parking management and allocation.

In order to separate the impacts of the proposed project from those of other developments that will take place independent of this project, the study should analyze the following three scenarios: (1) a base-case study of existing conditions; (2) a no-build scenario that looks solely at the impacts of the

background development in the study year; and (3) a build scenario that looks at the impact of the project in combination with background development in the study year.

1) Methodology

a) Process: For each of the modes noted below, describe conditions in the study area under each of the following scenarios:

- Base-case: existing conditions
- No-build: conditions in horizon year assuming the project is not built
- Project build: in horizon year

Forecasts of a project's effect on transportation systems should be based on the standard four-step analysis:

- Trip generation,
- Modal split,
- Trip distribution; and
- Trip assignment.

This analysis should be conducted for all day traffic and for peak period(s). When preparing an Access Plan, total trips generated by a given site should be separated into work and non-work trips. The units used should be either trips-per-square-foot or trips-per-unit (in the case of residential development). Likewise, for modal split and vehicle occupancy, rates for different trip purposes and times of day should be distinguished as appropriate.

For the No-Build and Build scenarios, projects planned or under construction should be listed, and the trips generated by them should be included as "background development." A list of pending projects is available from the Planning Department.

In the case of a project involving rehabilitation, change of use, or enlargement of an existing building, the Access Plan should present net additional traffic as a result of the project. The existing conditions analysis should take into account the building's transportation characteristics under the old use; the build scenario should show those volumes subtracted and replaced by the volumes generated by the new use.

2) Assumptions

Vehicular trip generation and parking demand rates from the ITE Trip Generation and Parking Generation Manuals, ULI Parking Generation Reports, and previous Access Plans, environmental Impact Reports and transportation studies or the Central Transportation Planning Staff may be used as appropriate. Transit use rates, in areas served by the MBTA, can be obtained from the Central Transportation Planning Staff. The project sponsor should justify why the assumptions used are appropriate for the proposed project. Project sponsors are encouraged to conduct surveys of buildings with similar uses and in comparable locations to derive more accurate trip generation, distribution and modal split rates. As more information becomes available about travel characteristics in Brookline, better forecasting of future impacts will be possible.

3) Impact Analysis

a) Traffic Analysis: This section should indicate traffic volumes in major corridors and calculate levels of service for intersections identified in the scope. The Town will specify automatic traffic recorder (ATR) counts and manual intersection turning movement counts to be conducted by the project sponsor. New counts will be required for any locations where available data is over two years old.

Levels of service may be expressed according to the procedures of either Circular 212, in terms of volume/capacity ratios, or the most recent version of the Highway Capacity Manual issued by the Transportation Research Board, in terms of seconds of delay. The software program for intersection capacity analysis, as required in the Massachusetts Executive Office of Environmental Affairs "Guidelines for EIR/EIS Traffic Impact Assessment" (March 2014), is recommended[1].

b) Parking Analysis: This section should present parking supply and demand relationships, both for the project itself and study area as a whole. If existing parking spaces would be displaced as a result of the project, similar data should be presented for the lost spaces. Depending on the type, location and size of the project, a survey of parking supply in the surrounding area may be required. Both total number of spaces available and their usage (capacity, peak accumulation, and turnover) should be determined. The parking needs of the following user groups should be distinguished:

- Residents
- Hotel guests
- Workers/employees
- Visitors/shoppers, etc.
- bicycles

The number of parking spaces to be provided for each user group should be given, and any shortfall identified.

The conditions under which existing on-site parking exists – e.g., temporary permit, licensed open-air lot, informal or illegal parking – should be noted.

The parking analysis shod also discuss proposed parking rates structure and type of ownership of spaces, if, for example in a residential condominium project, spaces are to be conveyed to unit purchasers.

c) Delivery and Service Vehicle Analysis: This subsection shall analyze the supply-demand relationship for delivery and service vehicle parking. It should differentiate large-size trucks from small ones and indicate the parking/loading spaces provided for both types.

[1] The EOEA traffic study guidelines are available from the Commonwealth of Massachusetts Executive Office of Environmental Affairs, 100 Cambridge Street, Boston, MA 02202. http://www.mass.gov/eea/docs/mepa/transportation-impact-assessment-guidelines-3-13-14.pdf

d) Driveway Sightline Analysis: This section shall document the available intersection sight distance at proposed site driveway(s). Sight distance measurements must be in conformance with the latest edition of the AASHTO manual, A Policy on Geometric Design of Highways and Streets.

e) Safety Analysis: This section shall be prepared per the requirements of the MassDOT Traffic and Safety Engineering 25% Design Submission Guidelines. Collection and analysis of crash records for all corridors and intersections within the study area is required. The crash data should be based on the latest 5 years of data available from MassDOT and the Brookline Police Department. Calculation of the study area intersection(s) and segment(s) crash rates, as applicable, are required and shall be compared to the MassDOT District and State-wide average crash rates. Collision diagrams shall be based on actual crash reports with crash diagrams and narratives and shall be completed for all study area intersections with more than 3 crashes per year unless otherwise directed by Brookline Transportation Division. Intersection safety narratives shall discuss potential crash causes and potential remedies.

f) Emergency Vehicle Access: This section shall demonstrate, using Autoturn, the ability of Fire Department and other emergency vehicles to enter and exit the proposed site driveway(s).

g) Transit Analysis: For each transit corridor, a forecast should be made of the number of new transit users in the peak period, separated into service types: local bus, express bus, rapid transit, etc. MBTA capacity to handle large numbers of new rides should be addressed where appropriate.

h) Pedestrian Analysis: A forecast of pedestrian volumes and their impacts should be performed. The pedestrian analysis should identify the possible points of conflict between pedestrians and vehicles, such as at driveways and loading areas. If appropriate, qualitative analysis will be required of such pedestrian-access issues as security, legibility and hours of operation (for indoor facilities). Pedestrian counts and capacity analysis may be necessary in selected instances.

i) Construction Management : The Town of Brookline requires the submission of separate Construction Management Plans for all major construction projects, detailing the construction-period impacts and the measures necessary to mitigate them. The Access Plan should contain a general discussion of construction management issues and a list of mitigation measures to deal with them.

The Construction Management program and procedures are outlined in guidelines available from the Brookline Transportation Division.

4) Impact Mitigation

This section should identify a package of measures designed to mitigate the adverse impacts of the project on the transportation system. These may include, but should not be limited to, the following:

a) Construction Management
- Develop new truck routes.

- Provide satellite parking and shuttle buses for construction workers.
- Use off-site location for storage construction equipment and materials.
- Store construction equipment on-site.
- Provide covered walkways for pedestrian safety.

b) Traffic Mitigation and Encouragement of Alternative Modes of Transportation:

- Establish a Parking & Transportation Demand Management program for employees. The program would include the following elements:

    1. Designate an on-site Transportation Coordinator to oversee all transportation issues including managing Parking & Transportation Demand Management measures, parking, loading, etc.;

    2. Operate shuttle services to remote parking facilities, transit stops, and/or tenant employee residences;

    3. Provide real-time MBTA schedule information on-site;

    4. Provide pre-tax pay check deduction for MBTA passes;

    5. Subsidize MBTA passes with minimum 30% transit subsidy paid by employer;

    6. Encourage flexible work schedules and work from home opportunities;

    7 Encourage bicycle commuting with on-site covered bike racks, showers, and locker room for employees;

    8. Subsidize Hubway membership with minimum 30% subsidy paid by employer;

    9. Formulate a rideshare program and encourage carpooling through MassRides and other carpool programs;

    10. Subsidize employee use of Taxi, Transportation Network Company, and car share services;

    11. Provide discount parking spaces for rideshare vehicles;

    12. Reserve parking spaces for high-occupancy vehicles;

    13. Provide on-site electric vehicle charging stations for employee use;

    14. Provide a guaranteed ride home program.

- Provide services such as arranging for car rentals by concierge, operating delivery and passenger shuttles, and consolidating courier activities.

- Help organize or participate in an existing area-wide Transportation Management Association.

c) Parking Management

- Provide differential parking rate structure to encourage short-term use as opposed to commuter parking;
- Reserve parking spaces for neighborhood residents at night and on weekends;
- No early bird rates or all-day discount.

d) Transit Improvements

- Construct transit shelters at bus stops adjacent to project;
- Provide shuttle bus or van connections to transit rail stations.

e) Delivery/Service Vehicles

- Regulate delivery schedules and size of trucks;
- Post building tenant list at the freight elevator;
- Locate the freight elevator adjacent to the loading dock;
- Provide sufficient temporary storage area behind loading docks.

f) Pedestrian Amenities

- Provide increased pedestrian capacity by constructing arcade (with Planning Board design approval);
- Grant public pedestrian easements through building plaza and/or lobby;
- Enhance pedestrian environment with benches, planting, etc.

g) Capital Improvements

- Contribute cash for signal improvements, streets or intersection geometric changes;
- Participate in a Transportation Management Association for area-wide planning and/or infrastructure improvements;
- The costs of these measures and the parties responsible for implementation should be discussed in this subsection, as should funding mechanisms.

5) Energy Efficiency and Sustainability Measures

This section identifies energy efficiency and sustainability measures to reduce polluting greenhouse gas emissions.

a) Electric Vehicle Charging Stations

This subsection ensures that parking areas provide charging equipment and accommodate the future installation of charging equipment to service electric vehicles to meet the needs of a growing number of residents and employees who own, or consider owning, electric vehicles. By planning for these needs before construction, property owners will save costs in retrofitting parking areas 5 to 10 years from now. To prepare for the increasing demand for electric vehicles, it is strongly recommended that either one parking space or 2% of parking spaces (whichever is greater) be installed with electric vehicle charging stations and that an additional 15% of parking spaces have conduit to accommodate the installation of electric vehicle charging stations in the future. The Applicant shall provide:

1. An electrical plan for parking areas, subject to the review and approval of both the Director of Engineering and the Building Commissioner or their designees, that shows:

    - Installation of electric vehicle charging stations

    - Conduit to accommodate future installation of electric vehicle charging stations in parking areas

2. Resources and guidelines for assessing demand, best practices, State and utility grants/incentives, and selecting and installing electrical vehicle charging stations are available on the Town website.

D. Access Plan Agreement and Impact Monitoring (required for all projects above 100,000 square feet or 100 dwelling units and other smaller projects as may be scoped by the Town)

1) Access Plan Agreement

For large projects (all projects above 100,000 square feet or 100 dwelling units plus others below that limit if so determined by the Transportation Division), a legally binding Access Plan Agreement will be required. This Agreement will set forth mitigation commitments to be carried out by the developer, present an implementation schedule, and outline financial responsibilities and commitments as appropriate. Through its language, its provisions will be binding not only on the original developer but also his successors and assigns, including any associations or entities which assume powers of control over the site or any portion thereof.

2) Monitoring Mechanism

To insure implementation of mitigation measures, and as a general planning tool to aid the Town in evaluating development and its impacts, periodic monitoring reports may also be required for

certain large projects. On an annual basis, or as determined by the Town, developers should submit reports detailing factors such as observed trip generation, trip distribution, modal choice and vehicle occupancy. Survey forms used by the developer for the documentation of these items, and for evaluating the effectiveness of the mitigation measures should be submitted to the Brookline Transportation Division for approval in advance of their use.

The administration and monitoring of mitigation measures on a project's transportation impacts, the project sponsor should propose a set of access goals. These goals represent the standards against which the Town will evaluate the project's effectiveness in mitigating transportation impacts.

Access goals may include, but are not limited to, the following:

- Increased transit modal share;
- Reduced peak-hour traffic percentage; and
- Increased vehicle occupancy rate.