

To: Mr. Michael Gleba
Senior Planner
City of Newton, Massachusetts

Date: March 2, 2020

From: Michael A. Santos, PE, PTOE

Proj. No. 28402.03

Re: Transportation Peer Review – Cannabis Dispensary
1158 Beacon Street
Newton, Massachusetts

As requested, BSC Group, Inc. (BSC) conducted a peer review of the Traffic Review Letter prepared by Fuss & O'Neill and dated April 2, 2019 for the proposed cannabis dispensary at 1158 Beacon Street in Newton, Massachusetts.

The purpose of this review is to ensure that the traffic analysis conforms to industry standards, to confirm that the traffic study methods are appropriate for the setting, and to ensure that the recommendations and proposed mitigation adequately address potential project impacts and are consistent with the City of Newton's recommended guidelines for transportation improvements.

The Project site is located at 1158 Beacon Street, approximately 280 feet west of Beaconwood Road and 825 feet west of the signalized intersection of Beacon Street at Walnut Street. The Project will remodel a portion of the existing building to be used as a cannabis dispensary. The Project will also remove a small portion of the rear of the building, reconstruct the parking lot, and provide additional landscaping elements. The previous uses of the space included a dry-cleaning business. The other use in the building is a take-out style restaurant. A total of 18 parking spaces will be provided on the site to accommodate the Project and the existing restaurant. Access to the site is currently provided by two curb cuts, which will remain in place. The western curb cut will operate as an entrance-only and the eastern curb cut will operate as exit-only.

The key findings of our review of the Traffic Review Letter are presented in the following sections. **BSC's comments and recommendations are presented in bold.**

Scope of Review

The following topics were reviewed in the Traffic Review Letter as part of the peer review:

- Study methodology
- Existing traffic volumes
- Crash Analysis
- Trip distribution and trip generation
- Parking Analysis, Sight Distance, and Site Plan

Study Methodology

The traffic analysis provided in the Traffic Review Letter presented a limited evaluation of the impacts of the Project. The evaluation included traffic counts along Beacon Street, a trip generation, distribution, and assignment analysis, a review of motor vehicle crash data, a parking analysis, and sight distance

measurements. The evaluation did not include peak-hour turning movement volumes or a traffic operations analysis at any intersections and did not provide information related to pedestrian and bicycle travel to/from the site. The evaluation also did not present specific mitigation or transportation demand management measures to be implemented by the Applicant as part of the Project.

- 1. Based on the location of the Project and the expected trip generation, the methodology used in the study is adequate and consistent with industry standards.**
- 2. The Applicant should develop a transportation demand management (TDM) plan to reduce the number of single-occupancy vehicles that travel to the site.**
- 3. The Applicant should include a description and qualitative evaluation of the pedestrian and bicycle facilities that serve the Project site. Due to the site's location in Newton, we expect that some of the trips to and from the site will be made by non-motorized modes of travel.**
- 4. The Applicant should provide a description of the anticipated operations of the site. It is unclear if customers will be required to make an appointment to patronize the site. The Applicant should also provide anticipated hours and days of operation.**

Existing Traffic Volumes

The Applicant collected automatic traffic recorder (ATR) counts and speed measurements along Beacon Street, east of Beaconwood Road, on Thursday March 28, 2019. Beacon Street currently carries approximately 11,539 vehicles on a typical weekday in March. The 85th percentile speeds along Beacon Street were measured to be 33 miles per hour (mph) in the westbound direction and 29 mph in the eastbound direction.

- 5. The traffic volumes on Beacon Street were conducted on a typical weekday in March 2019. The Project is also expected to have impacts on Saturdays, especially during the afternoon peak period. BSC recommends that the City request the Applicant to provide traffic volumes on a Saturday based on new counts or an acceptable adjustment factor. The Project may have a different level of impact during the Saturday midday than it will during the weekday peak hours.**

Crash Analysis

The Applicant provided crash data obtained from the MassDOT Crash Portal for Beacon Street in the vicinity of the site driveways. A total of 12 crashes were reported over the most recent three-year period for which data is available (2014-2016), with the majority occurring east of the site driveways between Beaconwood Road and Walnut Street.

- 6. The Applicant should define the limits of the segment analyzed in the crash analysis. It is unclear if crash data was provided for the intersection of Beacon Street at Walnut Street.**

Trip Distribution and Trip Generation

The Traffic Review Letter estimates the trips generated by the Project based on the *Institute of Transportation Engineers (ITE)'s Trip Generation, 10th Edition*, using Land Use Code (LUC) 882 – Marijuana Dispensary. The trips related to the former dry-cleaning business or the existing restaurant on the site were not estimated. Based on the evaluation provided in the Traffic Review Letter, the dispensary is expected to generate 24 trips during the weekday morning peak hour and 50 trips during the weekday evening peak hour. Trip generation

was not estimated for the Saturday midday peak hour.

7. **The ITE LUCs that were used are appropriate for the previous and proposed land uses. Trip generation estimates were not provided for the existing restaurant uses on the site, which will use both site driveways. In order to develop accurate traffic volumes entering and exiting the site, the restaurant uses should be included. We recommend that the City request the Applicant to estimate the additional Saturday midday peak hour trips generated by the Project. The Project is expected to generate more trips during Saturday midday peak hour than either of the weekday peak hours.**
8. **Trip generation estimates for cannabis dispensaries are based on a few data points that are highly variable. Actual trip generation will be dependent upon market factors such as proximity to other dispensaries. The site may experience heavy vehicular activity upon opening. As such, the City should request that the Applicant commit to providing a police detail on the site to direct traffic during the peak periods to account for activity that exceeds the trip generation estimates presented in the traffic analysis.**
9. **It is expected that some trips will occur by non-vehicular modes such as walking and bicycling. It is also expected that some trips may occur in the form of pass-by trips, which represent vehicles already traveling along Beacon Street that stop at the site as they travel to their final destination. The Applicant did not apply mode-shares or account for pass-by trips, resulting in higher trip generation estimates. No additional analysis is necessary to account for mode-share or pass-by trips.**

Parking Analysis, Sight Distance, and Site Plan

The Applicant provided a parking analysis based on requirements of the City of Newton Zoning Ordinance. Based on the ordinance, a total of 12 spaces are required for the dispensary (1 space per 300 sf and an additional space per 3 employees) and 2 spaces are required for the existing restaurant (1 space per 3 seats and an additional space per 3 employees). A total of 18 parking spaces will be provided on the site, including one accessible space. The parking supply meets the zoning requirements.

10. **The parking supply shown on the site plan complies with the zoning regulations for the uses on the site. However, the project may experience increased activity upon opening. The City should request that the Applicant provide a plan for potential overflow parking on the site in the event that site activity exceeds the projected estimates. On-street parking is not permitted along Beacon Street or anywhere in the vicinity of the site to accommodate overflow parking.**
11. **The four parking spaces in the front of the building appear to conflict with movements entering the site. The City should request that the Applicant provide vehicle maneuver diagrams using AutoTURN or a similar CAD-based software for passenger vehicles entering and exiting the site, showing vehicles entering and exiting the parking space closest to the enter-only driveway to accurately visualize any potential conflicts.**

Access to the site will be provided by two driveways along Beacon Street. An entrance-only driveway will be located on the western edge of the site and an exit-only driveway will be located on the eastern edge of the site. The exit-only driveway will be placed under stop control.

12. **An evaluation of loading, deliveries, and trash pick-up was not provided in the Traffic Review Letter. The Applicant should provide a description of anticipated loading, deliveries, and trash servicing and should ensure that the design will allow all loading, deliveries, and trash service to**

occur on the site to minimize impacts to the public right-of-way and surrounding transportation network.

- 13. An evaluation of existing pedestrian and bicycle infrastructure was not provided in the Traffic Review Letter. The Applicant has indicated that there will be a new bicycle rack in the front of the building, which meets the requirements of the City of Newton Zoning Code (Chapter 30: Zoning Ordinance, Section 5.1.11).**
- 14. The proposed driveway is shown to be 19-feet in width on the site plan. The City of Newton Zoning Code (Chapter 30: Zoning Ordinance, Section 5.1.8.D) requires that drive aisles be a minimum of 20-feet for two-way travel on commercial sites. We recommend that the City require the Applicant to show movement diagrams for two passenger vehicles traveling in the 19-foot wide segment of the driveway. We also recommend that the City require the Applicant to provide vehicle movement diagrams for an emergency vehicle and for the largest delivery truck that is expected to access the site (typically an SU-36, or a single-unit box truck approximately 40-feet in length).**

The Applicant provided a sight distance analysis at the proposed exit-only driveway along Beacon Street. Based on the measured 85th percentile speeds of 33 mph in the westbound direction and 29 mph in the eastbound direction, a total of 370 feet is recommended for intersection sight distance (ISD), which is the distance needed for a vehicle to exit a side street or driveway and make a left-turning maneuver onto the intersecting roadway. Based on the evaluation, adequate sight distance is provided at the exit-only driveway.

- 15. BSC conducted a site visit and verified that there are adequate lines of sight along Beacon Street at the site driveway locations. We recommend that the City of Newton require the Applicant to commit to maintaining proposed vegetation along the site frontage to continue to provide adequate sight distance.**

Conclusions

BSC reviewed the Traffic Review Letter submitted for the proposed cannabis dispensary located at 1158 Beacon Street. Based on the trip generation estimates presented in the letter, we recommend further study of the surrounding transportation network, including providing Saturday traffic counts and trip generation estimates for the Project. We also recommend that the City of Newton require the Applicant to respond to and address all BSC's numbered comments in this letter and submit a response letter for our review.