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September 14, 2018

James Bernardino
Bohler Engineering MA. LLC
352 Turnpike Road
Southborough, MA 01772

RE: Trip Generation Assessment
Dunkin' Donuts Development
New Bedford, MA

Dear Mr. Bernardino:

McMahon Associates has completed a trip generation assessment for the proposed Dunkin' Donuts development to be located at 101 Belleville Avenue in New Bedford, MA. The site is currently occupied by a car dealership with an 1,866 square foot building. The proposed project calls for the razing of the existing building and the construction of a new 795 square foot Dunkin' Donuts with a drive-through window and walk-in service. No customer seating is proposed to be provided as part of this project.

As part of the proposed development, access to the project site would be reconfigured. The existing site currently provides full-access driveways on Cotter Street and Cedar Grove Street. As part of the proposed development, the driveway on Cedar Grove Street would continue to provide full-access while the driveway on Cotter Street would be reconfigured to provide exit-only access. Access to the site would additionally be provided via a proposed full-access driveway on Belleville Avenue. The proposed driveway configuration would allow customers to select the most convenient means of access between the proposed site and the surrounding roadway network.

In order to review the proposed project, a trip generation comparison between the previous use on site and the proposed site was completed for the weekday peak hour periods and for a typical weekday. To establish the trip generation comparison, the Institute of Transportation Engineers (ITE) publication, *Trip Generation Manual, 10th Edition* was used as a reference. ITE is a national research organization of transportation professionals and their publication provides traffic generation information for various land uses compiled from studies conducted by members nationwide. This reference establishes vehicle trip rates based on actual traffic counts conducted at similar existing facilities.

Vehicle trip generation estimates were developed based on data published by ITE using Land Use Code 841 (Automobile Sales (Used)) for the existing use and Land Use Code 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating) for the proposed use. Table 1 presents a

comparison of the project site trips associated with the former use and the project site trips expected for the proposed Dunkin' Donuts.

Table 1: Vehicular Trip Generation Comparison

		Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily		
Description	**Size**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Existing Site Trips[1]	1,866 s.f.	3	1	4	3	4	7	25	25	50
Proposed Site Trips[2]	975 s.f.	134	134	268	33	33	66	795	795	1,590
Additional Project Trips[3]		131	133	264	30	29	59	770	770	1,540

(1) ITE Land Use Code 841 (Automobile Sales (Used)), based on 1,866 s.f.

(1) ITE Land Use Code 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating), based on 975 s.f.

(3) Difference in vehicle trips between existing and proposed site.

Not all (driveway) trips to coffee/donut stops with drive-through windows are "new" trips. In fact, a significant portion of the total trips attracted to such a commercial use are "pass-by" trips. According to ITE, for the land use category "Coffee/Donut Shop with Drive-Through and No Indoor Seating," approximately 89 percent of the weekday daily trips attracted to this type of retail use are attributed to pass-by trips. ITE does not provide a pass-by rate for the weekday morning and weekday afternoon peak hours, but the percentage of peak period pass-by trips would be expected to be similar to the daily pass-by percentage. Therefore, a pass-by rate of 89 percent was utilized for the weekday morning and weekday afternoon peak hours. The vehicle trips expected to be generated by the proposed development are separated into pass-by vehicle trips and new vehicle trips, as shown in Table 2.

Table 2: Summary of New and Pass-by Trips

	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily		
Description	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Total Additional Trips[1]	131	133	264	30	29	59	770	770	1,540
- Pass-By Trips[2]	118	118	236	27	27	54	686	686	1,372
Additional "New" Trips	13	15	28	3	2	5	84	84	168

(1) From Table 1.

(2) Based on LUC 938 89% of weekday daily and weekday AM and PM peak hour trips are attributed to "pass-by" trips.

Since pass-by traffic is already on the adjacent roadways, this portion of the total development traffic is reflected in the existing traffic volumes and does not represent additional traffic on the roadway network. Therefore, the total proposed development traffic volume is reduced by the pass-by trips to estimate the "new" traffic generated by the proposed development. As shown in Table 2, the peak hour trip generation of the proposed Dunkin' Donuts is estimated to result in an increase of approximately 28 "new" vehicle trips (13 entering vehicles and 15 exiting vehicles) during the weekday morning peak hour and an increase of approximately 5 "new" vehicle trips (3 entering vehicles and 2 exiting vehicles)

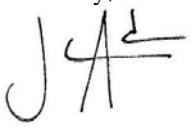
during the weekday afternoon peak hour. Over the course of a typical weekday, the project site is projected to generate approximately 168 "new" vehicle trips (84 entering vehicles and 84 exiting vehicles).

Traffic volume data collected by the Massachusetts Department of Transportation (MassDOT) from 2012 shows an annual average daily traffic (AADT) volume of approximately 14,800 vehicles on Belleville Avenue half a mile north of the site. Interstate 195 provides access directly south of the site on Washburn Street as well.

The project site has been designed to provide safe and efficient operations, and the proposed project would not be expected to have a significant impact on the surrounding roadway network.

Please do not hesitate to contact me should you require any further information.

Sincerely,



Jason Adams, P.E., PTOE
Senior Project Manager