

Ref: 7926

September 5, 2018

Mr. Mark McSharry
McSharry Brothers, Inc.
P.O. Box 206
Abington, MA 02351

Re: Proposed Commercial Development
Winter Street
Hanover, Massachusetts

Dear Mark:

Vanasse & Associates, Inc. (VAI) has completed a supplemental assessment of the potential impacts on the transportation infrastructure associated with the proposed warehouse/storage facility to be located between 273 and 301 Winter Street in Hanover, Massachusetts (hereafter referred to as the "Project"). Specifically, we have obtained traffic count data from a similar operating facility in Pembroke, Massachusetts, to provide a comparative assessment to the traffic volume data for the Project that was presented in the May 16, 2018 *Transportation Impact Assessment* (the May 2018 TIA").

As proposed, the Project will entail the construction of a storage facility that will encompass $40,500 \pm$ square feet (sf) of space that will be demised to accommodate approximately 27 storage units for use by contractors or others for the storage of goods and materials.¹ It is anticipated that these units may contain a small office and other supporting amenities related to the trade that will operate from the unit. This mix of uses does not fit the traditional definition of a self-storage facility as characterized by the Institute of Transportation Engineers (ITE),² which is more commonly associated with the short or long-term storage of goods in individual units with generally limited visitations on a daily basis. As such, while the ITE trip-generation data for a self-storage facility does provide a contextual baseline with respect to the potential impact of the Project, the collection of empirical data from a similar operating facility is highly recommended. As such, traffic count data was obtained from a contractor warehouse/storage facility located at 256 Washington Street (Route 53) in Pembroke that contains the same number of storage units as the Project (27 units proposed). The traffic count data was collected on Thursday, August 30, 2018, from 7:00 to 9:00 AM and from 4:00 to 6:00 PM, which coincide with both the peak traffic volume periods for the site and the adjacent roadway. Table 1 summarizes the peak-hour traffic count data obtained from the Pembroke facility and compares the data to the ITE trip-generation data that was presented in the May 2018 TIA.

¹The May 2018 TIA and the associated trip projections were based on $48,000 \pm$ sf of space and 33 storage units.

²*Trip Generation*, 10th Edition; Institute of Transportation Engineers; Washington, DC; 2017.

Table 1
TRIP GENERATION SUMMARY AND COMPARISON

Time Period/Direction	Vehicle Trips		
	(A) Empirical Data ^a	(B) ITE Data ^b	(A – B) Difference
<i>Average Weekday Daily:</i>			
Entering	45	36	
<u>Exiting</u>	<u>45</u>	<u>36</u>	
Total	90 ^c	72	+18
<i>Weekday Morning Peak Hour:</i>			
Entering	9	3	
<u>Exiting</u>	<u>5</u>	<u>2</u>	
Total	14	5	+9
<i>Weekday Evening Peak Hour:</i>			
Entering	3	4	
<u>Exiting</u>	<u>7</u>	<u>4</u>	
Total	10	8	+2

^aBased on traffic count data collected on Thursday, August 30, 2018.

^bBased on ITE LUC 151, *Mini-Warehouse* (48,000 sf).

^cBased on the ratio of the ITE weekday evening peak-hour trip rate to the average weekday trip rate.

As can be seen in Table 1, using the traffic volume data that was obtained from the Pembroke facility, the Project would be expected to generate approximately 90 vehicle trips on an average weekday (45 vehicles entering and 45 exiting), with 14 vehicle trips expected during the weekday morning peak hour (9 vehicles entering and 5 vehicles exiting) and 10 vehicle trips expected during the weekday evening peak-hour (3 vehicles entering and 7 exiting). In comparison to the trip projections for the Project that were presented in the May 2018 TIA and were obtained using the ITE data, the empirical data produced 18 additional vehicle trips for the Project on an average weekday, with 9 additional vehicle trips predicted during the weekday morning peak-hour and 2 additional vehicle trips predicted during the weekday evening peak-hour. This still represents an approximate 2 percent increase in traffic along Winter Street on a daily basis and peak-hour traffic volume increases of less than one (1) additional vehicle every 4 to 6 minutes, ***a level of impact that would not be readily apparent over existing conditions and that would not result in a material impact (increase) on motorist delays or vehicle queuing.***

If you should have any questions regarding this supplemental assessment, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.

Jeffrey S. Dirk

Jeffrey S. Dirk, P.E., PTOE, FITE
Principal

Professional Engineer in CT, MA, ME, NH, RI and VA

