ENGINEERING SUCCESS **TOGETHER**

July 2, 2013

Mr. Hans Larsen, Executive Director
Town of Wellesley
525 Washington Street
3rd Floor
Wellesley, MA 02482

4505-07

Re: **Wellesley Inn Redevelopment**

Dear Mr. Larsen:

At your request, BETA has reviewed the Wellesley Inn Site Redevelopment Traffic Impact Update memorandum by Conley Associates, dated May 30, 2013. The memorandum discuses traffic impacts related to the modified building program, which includes: 30 residential units (25 market rate and 5 affordable) and 9,500 square feet of commercial space. We note that the program proposes 9 additional "on-site" residential units (5 affordable and 4 market rate), and increases the commercial component by 500 square feet. This building program is an alteration of a previous building program for this site. Table 1 shows a comparison of the previous and current proposed program.

Table 1: Program Comparison

Land Use Type		February 2006	February 2007	May 2013	Net Change 2007 to 2013
Residential	Market Rate	20 Condos	19 Units On-Site	25 Units On-Site	4 Units
	Affordable	-	2 Units On-Site	5 Units On-Site	1 Unit
Commercial	Retail	5130 Sqft.	9000 Sqft.	9500 Sqft.	500 Sqft.
	Restaurant	8094 Sqft.	-	-	-
Parking	Housing		45 Spaces	63 Spaces	18 Spaces

EXISTING CONDITIONS

The proponent collected Automatic Traffic Recorder (ATR) data on Tuesday, May 7, 2013 at the same locations on Washington Street and Grove Street used in the 2006 study. The proponent provided a comparison table describing the changes in traffic volumes. A summary of this table is shown in Table 2. It should be noted that the volumes used in the 2006 study were collected in 2004.

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Table 2: Traffic Volume Comparison

Location	2004 Traffic Volumes	2013 Traffic Volumes	Net Change
Washington Street	11460	10000	-13%
Eastbound	6080	5100	-16%
Westbound	5380	4900	-9%
Grove Street	4535	4140	-9%
Northbound	2515	2200	-13%
Southbound	2020	1940	-4%

The proponent's data shows a decrease in volume for the two roadways between 2004 and 2013. Washington Street's volume decreased 13% in nine years, while Grove Street's volume decreased 9% in nine years. The reduction in traffic volume is consistent with previous traffic data collected for other projects. In addition, this has also been a regional trend for the past five years. For example in Needham Town Center on Route 135 the reduction in traffic volumes ranges from 10 to 20% within the last five years. Since the volumes have decreased, the previous analysis and volumes are considered conservative.

The proponent found the AM peak hour for Washington Street to be 7:45AM to 8:45AM during which 790 vehicles passed by the site, and the AM peak hour for Grove Street to be 7:30AM to 8:30AM during which 322 vehicles passed by the site. The PM peak hour was found to be 4:45PM to 5:45PM during which 845 and 340 vehicles passed by the site on Washington Street and Grove Street respectively. We find this acceptable.

It should be noted, the proponent included ATR data collected in 2004, but not data collected in 2013. Likewise, turning movement data for the intersection of Central Street, Washington Street, and Grove Street was not included with this memorandum. The proponent has since provided the 2013 ATR data via email on June 27, 2013. BETA has reviewed the data and finds it acceptable.

SITE RELATED TRAFFIC

The proponent determined trip generation for the proposed site using the Institute of Transportation Engineers' Trip Generation Manual, 9th Edition. The proponent attributed the 30 residential units with LUC 230: Residential Condominium/Townhouse, and attributed the 9,500 square feet of commercial space with LUC 826: Specialty Retail Center. This is consistent with the methodology used in the previous studies for the Wellesley Inn Redevelopment. It should be noted that LUC 826: Specialty Retail Center does not include trip generation estimates for the "AM Peak Hour of Adjacent Street" and for "Saturday Peak Hour of Generator." To determine the estimated trips for these periods, the proponent used a ratio of average rates from LUC 820: Shopping Center. This

methodology is also consistent with that used in previous studies for this project. A comparison of previous building programs and their associated trips is show in Table 3.

Table 3: Trip Generation Comparison

		Total Trips February 2006	Total Trips February 2007	Total Trips May 2013	Net Change 2007 to 2013
Weekday AM Peak Hour					
	IN	8	6	6	0
	OUT	12	11	14	3
	TOTAL	20	17	20	3
Weekday PM Peak Hour					
	IN	54	18	21	3
	OUT	31	18	19	1
	TOTAL	85	36	40	4
Saturday Midday Peak Hour					
	IN	67	22	25	3
	OUT	49	21	22	1
	TOTAL	116	43	47	4

[1]Residential trips estimated with LUC 230: Residential Condominium

[2]Commercial trips estimated with LUC 826: Specialty Retail Center, and LUC 820: Shopping Center

The proponent estimated an increase of approximately four vehicle trips, for each peak hour, due to the addition of nine residential units and 500 square feet of commercial space. BETA estimated the number of added trips using a similar method to that of the proponent to verify their findings. We found similar results for the AM Peak Hour, but estimated an added six trips for the PM and Saturday Peak Hours, a difference of two vehicle trips from the results of the proponent. Should the estimation yield six trips or four trips in the PM Peak Hour, these trips are projected to have a negligible effect on the overall traffic operations of the study area.

TRAFFIC OPERATIONS

Since the 2013 traffic volumes were less than those collected for the 2006 report, the newly generated trips were added to the projected volumes from the 2006 analysis. The analysis revealed that the parking garage driveway at Grove Street maintains Level of Service (LOS) B in the PM Peak Hour. The analysis also revealed that the intersection of Central Street, Washington Street and Grove Street remains at poor LOS (F) in the PM Peak Hour. The additional four to six trips will not have any adverse impact to the overall traffic operations within the study area.

PARKING

The previous (2007) program provided 45 parking spaces for the housing component; parking for the retail component will rely on existing public parking within the study area. An additional 18 spaces will be provided for the added nine on-site residential units. We want to note that the updated parking layout plan shows 14 tandem parking spaces. It is our understanding that the tandem spaces

would be associated with a single unit to avoid conflicts. In addition, the fire department would review the use of tandem parking during Site Plan Review with the ZBA.

CONCLUSIONS

- Traffic volumes were collected in May 2013 at the same count locations used in November 2004. The current 2013 volumes were found to be 13% and 9% less than those collected in 2004 for Washington Street and Grove Street, respectively. The reduction in volume is consistent with previous data collected for other projects in Wellesley. Since volumes have decreased, the 2004 volumes are considered conservative and were used for analysis. We find this acceptable.

- The proponent included the data collected in 2004, but did not include data collected in 2013. We have requested the 2013 data from the proponent's traffic consultant for our review/reference. The proponent provided the 2013 data for our review on June 27, 2013 via email. The data provided was found to be acceptable.

- Similar to the previous study, the proponent used LUC 826: Specialty Retail Center to estimate trips for the commercial component. This land use code was chosen to represent smaller specialty stores, rather than larger stores. Since this land use code does not include trip generation rates for the "AM Peak Hour" or "Saturday Peak Hour" the proponent estimated rates by creating a ratio using LUC 820: Shopping Center. This methodology is consistent with that in the previous studies and is acceptable.

- The added residential units and commercial space was estimated to add four vehicle trips to the site. BETA performed a similar estimation that yielded an added six trips in the PM Peak and Saturday Peak Hours, rather than the four trips estimated by the proponent. Whether the estimation yields six trips or four trips, we agree that these will have a negligible effect on traffic operations within the study area.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Kien Ho, PE, PTOE
Vice President

cc:

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