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Memo

To:	Elise Selinger	From:	Rick Bryant
	2Life holdings LLC		Northampton, MA
File:	2Life, Nahanton Street, Newton, MA	Date:	May 20, 2022

Reference: Traffic Impact Study Addendum
Opus Senior Living Community,
Newton, MA

Per your request we are providing this addendum to the April 2021 traffic impact assessment prepared by Stantec for the above referenced project. The addendum considers a proposed project change that would increase the number of residential units. This investigation concludes that the proposed change will not have a significant impact on area traffic operations and does not change the findings of the original traffic investigation.

Project Description

2Life Communities is proposing a new senior housing community on the JCC campus off Nahanton Street in Newton, Massachusetts. 2Life has proposed to add 31 additional units of senior housing to the 175 units that were studied. (The project was approved for 174 units. The traffic study considered 175 units.) Additional on-site parking will also be provided to support these new units.

Study Area

The study area for this addendum includes the JCC Drive/Wells Avenue/Nahanton Street intersection. This intersection functions as the entrance to the project site and was included in the traffic study submitted for the project in April 2021. The 2021 study used traffic data collected in January 2020 prior to the Covid pandemic.

Additional Trip Generation

Daily and peak-hour vehicle trip generation estimates for the additional units were determined using Institute of Transportation Engineers (ITE) trip generation rates. Trip rates applied for this project relate to Senior Adult Housing – ITE Land Use Code #252. As shown in Table 1, the additional units are expected to generate approximately 100 vehicle trips on a typical weekday, including seven trips during the morning peak hour and nine trips during the afternoon peak hour. The Build condition traffic volume networks from the earlier study indicate 3,238 AM and 3,387 PM peak hour vehicles entering the study intersection. As such, the traffic associated with the proposed 31 additional units will increase peak hour volumes at the study intersection by only 0.2 to 0.3 percent. The impact of these additional trips on traffic operations is discussed below.

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Opus Senior Living Community

Table 1 Additional Project Vehicle Trip Generation

Trip Direction	AM Peak Hour	PM Peak Hour	Daily
Entering	2	4	50
Exiting	5	5	50
Total	7	9	100
Assumes 31 additional dwelling units.			

Traffic Operations

The additional vehicle trips cited above were added to the Build condition traffic volume networks of the original study in accordance with the trip distribution pattern used in that study. The new Build condition peak hour flows were then analyzed to determine intersection operating levels of service. As shown in Table 2, new vehicle trips associated with the proposed additional units will have negligible impacts on intersection peak hour operations. Calculated average delays per vehicle for the AM peak hour increase by only 0.1 second and no change in delay was calculated for the PM peak hour. A comparison of the 2025 No Build and 2025 Build results in the table show that even the original 175 units studied increase delays at this intersection by less than one second. The original 175 units considered add only one percent to the peak hour traffic volumes at the intersection.

Table 2 Comparison of JCC Drive/Nahanton Street Intersection Operations with and without 31 Additional Opus Units

Intersection	Peak Hour	2025 No-Build			2025 Build			2025 Build + 31 More Units		
		LOS[1]	Delay[2]	V/C[3]	LOS	Delay	V/C	LOS	Delay	V/C
Wells Avenue/JCC Drive/Nahanton Street	AM	D	35.9	0.93	D	36.2	0.93	D	36.2	0.93
	PM	F	94.5	1.22	F	95.4	1.23	F	95.5	1.23

1 Signalized Level of Service as defined in the Highway Capacity Manual
2 Delay in Seconds per vehicle
3 Volume to Capacity Ratio as defined in the Highway Capacity Manual

Traffic Volume Updates

The Covid pandemic has had an impact on commuter patterns such that the results of the traffic study submission in 2021, which used pre-Covid volumes taken in January 2020, are likely conservative. Commuter peak period traffic volume data was collected for the study area

intersection in May 2022. Vehicle turning movement and classification counts (TMC's) were conducted during the morning (7:00 to 9:00 AM) and afternoon (4:00 to 6:00 PM) peak commuter periods on Thursday, May 12, 2022. The recorded volumes are shown in Table 3 and compared to the January 2020 peak hour volumes collected for the original study. The current volumes are lower than the earlier volumes collected prior to the Covid pandemic. AM peak hour volumes are approximately five percent lower and PM peak hour volumes are approximately ten percent lower. Consequently, the traffic analysis results presented above are conservative (present a worst-case scenario). If the study were updated to reflect existing volume conditions, the operations analyses presented above would show better levels of performance.

Table 3 Updated Traffic Volumes Comparison

Direction/Movement	AM		PM	
	2020	2022	2020	2022
Northbound (Wells Ave.)				
Left	84	70	572	335
Through	0	1	4	3
Right	111	95	415	204
Southbound (JCC Drive)				
Left	65	49	94	55
Through	2	2	2	1
Right	46	45	81	54
Eastbound (Nahanton St)				
Left	114	78	44	46
Through	857	1019	705	874
Right	457	333	223	167
Westbound (Nahanton St)				
Left	130	67	62	50
Through	684	800	609	749
Right	317	160	213	167
Total	**2867**	**2719**	**3024**	**2721**

Conclusion

The additional 31 units will not have a significant impact on traffic operations at the study intersection. The findings and recommendations of the original study remain valid with the proposed increase in units.

Very truly yours,

Stantec Consulting

Reference: Traffic Impact Study Addendum
Opus Senior Living Community

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