



June 17, 2020  
File: 210801686

**Mr. Chris Manning, Project Development Manager**  
LCS Development  
400 Locust Street, Suite 820  
Des Moines, IA 50309-2334

Dear Mr. Manning,

**Reference: Senior Housing Parking Investigation  
The Vale, Woburn, MA**

Per your request we investigated parking requirements for the proposed senior living community at The Vale in Woburn, Massachusetts. Based on investigations the estimated peak parking demand at the proposed facility is 108 vehicles. The proposed parking supply, 193 spaces, will be more than adequate to serve this demand. The proposed project and our analysis are presented below.

## Project Description

The Vale is a proposed mixed-used development at the former Kraft Foods site in Woburn, Massachusetts. Within the development Delaney has proposed a senior living community including:

- 103 Independent Living Units:
- 84 Assisted Living Units: and,
- 36 Memory Care Units.

A zoning analysis indicates that the proposed uses require 282 parking spaces. Delaney is proposing 193 spaces based on parking supplies provided at some of its other facilities. The proposed parking ratio is 0.87 spaces per unit.

## Parking Demand Calculations

Stantec reviewed available parking rates published by the Institute of Transportation Engineers (ITE) in *Parking Generation, 4<sup>th</sup> Edition 2010* and applied them to the proposed land use program. The applied parking rates and parking forecasts are shown in Table 1. As noted, the project will generate a peak parking demand of 108 vehicles indicating an overall parking demand ratio of 0.48 vehicles per unit. The proposed parking supply greatly exceeds the estimated parking demand.

Reference: Senior Housing Parking Investigation The Vale, Woburn, MA

Table 1 Parking Demand Estimate for The Vale Senior Community

Land Use	Corresponding ITE			Units	Parking Ratio	Parked Vehicles
	Category	ITE Code	# of Units			
Independent Living	Senior Adult Housing	252	103	Units	0.59	61
Assisted Living	Assisted Living	254	84	Units	0.41	34
Memory Care	Nursing Home	620	<u>36</u>	Beds	0.35	<u>13</u>
			223			108

ITE-Institute of Transportation Engineers.

## Validation

The above parking demand estimates are based on ITE data collected at sites across North America. Available local data were considered to validate the ITE based parking rates. Specifically, data for two Woburn sites were examined:

- Benchmark Assisted Living on Cedar Street; and,
- Brightview Country Club Heights on Crescent Street.

These investigations support the ITE based calculations as discussed below.

## Benchmark Assisted Living

Stantec provided transportation planning support during the local permitting process for the Benchmark Assisted Living Facility on Cedar Street. The project was permitted for 87 units and 70 parking spaces were constructed at the site. The parking supply ratio is 0.80 spaces per unit. This ratio is lower than the 0.87 spaces per unit proposed for The Vale.

Parking adequacy was investigated during the Benchmark permitting process. At the time, the City requested justification for the proposed parking ratio. A study commissioned by Benchmark and shared with the City measured actual parking demands at two existing Benchmark facilities. A copy of this study is attached. At Waltham Crossing, an 89-unit/107-bed assisted living facility located at 126 Smith Street in Waltham, Massachusetts, a peak parking demand ratio of 0.52 vehicles per unit was recorded. At Haverhill Crossing, an 85-unit/108 bed assisted living facility located at 254 Amesbury Road in Haverhill, Massachusetts, a peak parking demand ratio of 0.59 vehicles per unit was recorded. The ratios recorded at these comparable facilities are also well below the proposed parking supply ratio of 0.87 spaces per unit proposed for The Vale.

**Reference:** Senior Housing Parking Investigation The Vale, Woburn, MA

## Brightview

Stantec contacted the facility manager at the Brightview senior community in June 2020 to determine parking conditions at this site. The property includes 83 assisted living units and 24 memory care units. The site shares parking with adjacent land uses and consequently it is difficult to measure parking demand for this property by counting parked vehicles. However, the facility manager estimates peak parking demand of approximately 40 vehicles. This indicates a parking demand ratio of 0.37 vehicles per unit. This ratio is well below the parking supply ratio of 0.87 spaces per unit proposed for The Vale.

## Conclusion

An examination of industry standard parking rates indicates an anticipated peak parking demand of 108 vehicles for the proposed 223-unit senior community at The Vale. This compares quite favorably to the proposed parking supply of 193 spaces. The proposed parking ratio of 0.87 spaces per unit is also higher than the parking ratio at the Benchmark facility in Woburn. This ratio is much higher than parking demand ratios reported at two other Benchmark facilities in the region and at one other senior community in Woburn. The proposed parking supply at The Vale will adequately accommodate anticipated peak parking demands.

We appreciate you inviting us to conduct the above parking investigation. Please do not hesitate to call should you have questions regarding this analysis.

Regards,

**Stantec Consulting Services Inc.**



**Mr. Richard S. Bryant, PE**  
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Attachment: August 30, 2013 Benchmark Parking Survey

c. Dylan Stevens

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**Stantec Consulting Services Inc.**  
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**Stantec**

August 30, 2013

Mr. Lee Bloom,  
Senior Director of Development  
Benchmark Senior Living  
40 William Street, Suite 350  
Wellesley, MA 02481

**Reference: Proposed Assisted Living Community  
320 Salem Street  
Woburn, MA**

Dear Mr. Bloom:

Per your request Stantec conducted a parking study of two existing Benchmark Senior Living developments to determine the parking supply required for a typical assisted living facility in eastern Massachusetts. The study findings are provided to aid the city of Woburn, Massachusetts in its review of your proposed 87-unit/104-bed assisted living facility to be located at 320 Salem Street. The study indicates that assisted living facilities require 0.56 parking spaces per dwelling unit during peak times. The proposed Woburn facility would therefore require 49 parking spaces based on this ratio. We understand that approximately 70 spaces will be provided at the Woburn site. Consequently, the proposed parking supply will exceed the peak parking demand by more than 40 percent. Details of the parking study are described below.

## **1.0 STUDY DESCRIPTION**

Two Benchmark Senior Living owned facilities were monitored with respect to parking demands to determine the parking needs of residents, staff and visitors. The two sites observed are described below. At both sites there is little or no public transit service available.

- Waltham Crossing: Waltham Crossing is an 89-unit/107-bed assisted living facility located at 126 Smith Street in Waltham, Massachusetts. The site is accessed by way of a single driveway on Smith Street and includes 70 parking spaces. Staffing includes three shifts with the largest number of employees on site, 25 to 30 employees, during the 7:00 AM – 3:00 PM shift. Approximately 12 to 18 people staff the 3:00 PM – 11:00 PM shift and seven to ten people work the 11:00 PM-7:00 AM shift. The occupancy rate at the facility was 91 percent during the on-site parking surveys.
- Haverhill Crossing: Haverhill Crossing is an 85-unit/108 bed assisted living facility located at 254 Amesbury Road in Haverhill, Massachusetts. The site is accessed by way of a single driveway on Amesbury Road and includes 69 parking spaces. Staffing and shift times at Haverhill Crossing are similar to those at the Waltham Crossing site. The occupancy rate at this facility was 98 percent at the time of the parking surveys.

A review of other published studies of assisted living facilities indicates that parking demands for assisted living facilities peak during the day to evening shift change when employees from both shifts may be on site. Accordingly, parking utilization counts were conducted every hour on the hour from 2:00 PM to 7:00 PM at each site with an additional observation made at 3:30 PM. Counts were conducted over the span of two

consecutive weekdays at each site on Wednesday, August 14, 2013, and Thursday, August 15, 2013. The two days selected were assumed to represent typical weekdays however, continuous automated traffic counts were taken on each site driveway over a seven-day period to confirm this assumption.

## 2.0 PARKING DATA

The parking data are summarized in Figures 1 and 2 for the Waltham and Haverhill sites, respectively. As shown, parking demands peak in the afternoon hours and taper off into the evening hours. At Waltham Crossing the maximum number of vehicles parked was 46. At Haverhill Crossing up to 50 vehicles were parked on site at any one time. The raw parking data are attached.

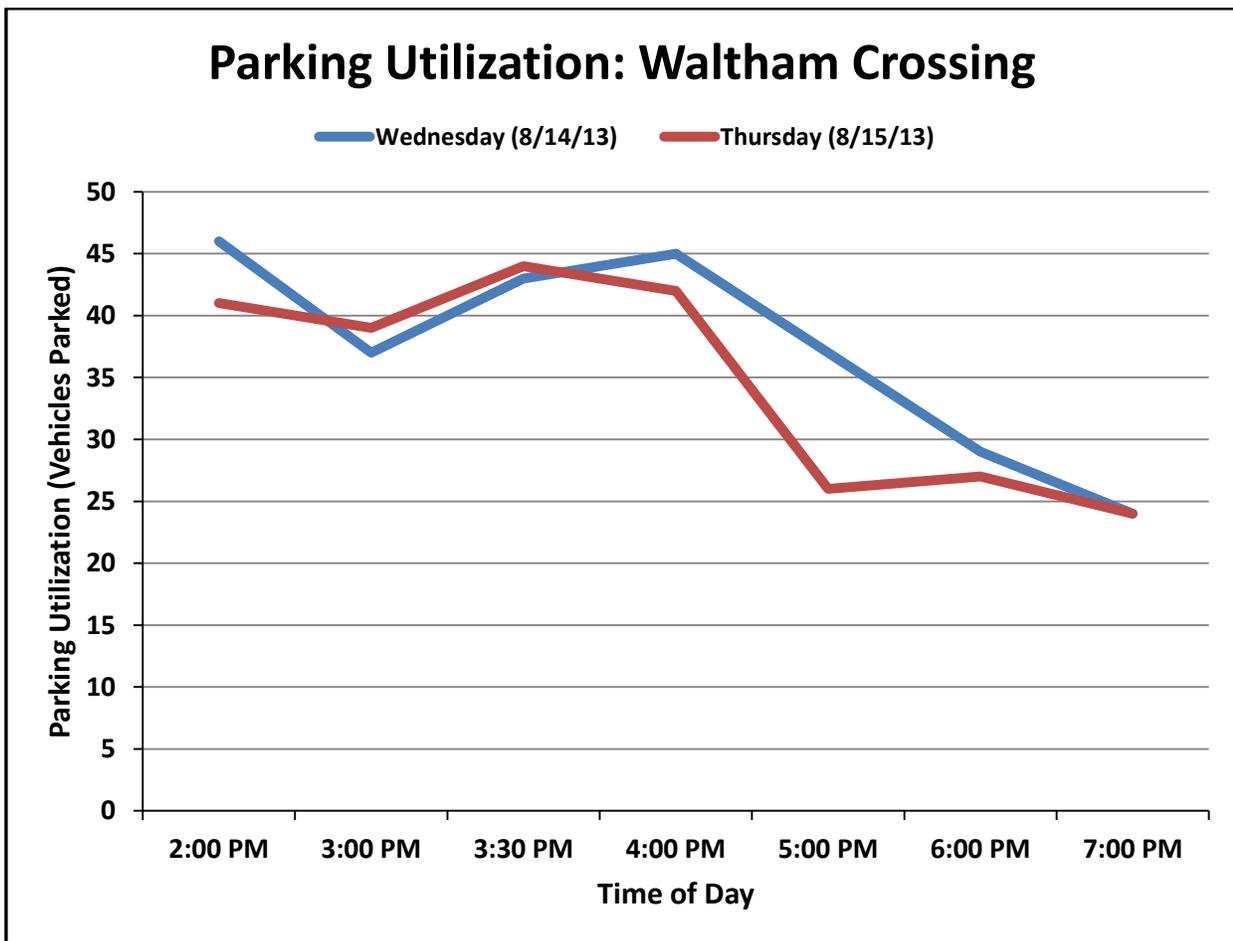


Figure 1 Observed Parking Demands at Waltham Crossing

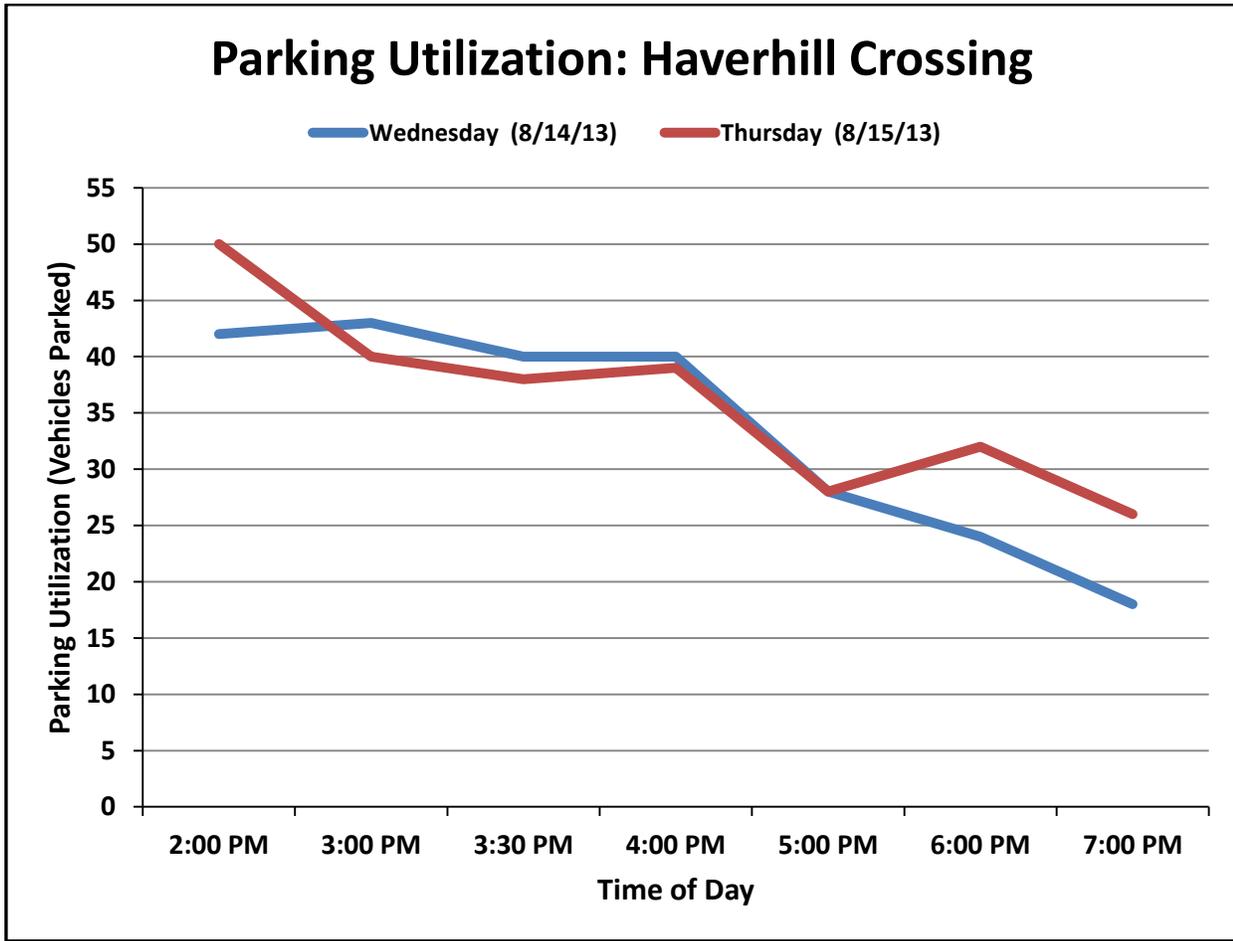


Figure 2 Observed Parking Demands at Haverhill Crossing

### 3.0 TRAFFIC DATA

As noted above, hourly traffic counts were conducted for a one-week period at the two site driveways to confirm that Wednesdays and Thursdays represent typical days at the facilities monitored. The data, summarized in Table 1, indicates that at the Waltham facility Wednesday and Thursday are the two busiest days of the week. At the Haverhill facility, Tuesday was the busiest day of the week. Wednesday and Thursday represent the second and third busiest days of the week. Consequently, it can be concluded that the parking surveys were conducted on above-average activity days.

Site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Waltham Crossing</b>	349	398	402	422	397	215	277
<b>Haverhill Crossing</b>	342	464	353	437	352	282	244

Note: Counts taken Thursday, August 15, 2013 through August 21, 2013.

Table 1 Observed Driveway Volumes (Vehicles per Day)

**4.0 PARKING RATES**

The observed parking data was used to develop parking rates or parking ratios for each of the sites. These calculations are summarized in Table 2. As shown, with up to 46 vehicles parked at Waltham Crossing the peak parking ratio is 0.52 vehicles per unit or 0.43 vehicles per bed. Haverhill Crossing exhibited a slightly higher rate of 0.59 vehicles per unit. The average rate for the two sites is 0.56 vehicles parked per unit.

Site	Units	Beds	Available Parking Supply (spaces)	Peak Wednesday Parking	Peak Thursday Parking	Peak Parking Ratio (vehicles/bed)	Peak Parking Ratio (vehicles/unit)
<b>Waltham Crossing</b>	89	107	70	<b>46</b>	44	0.43	0.52
<b>Haverhill Crossing</b>	85	108	69	43	<b>50</b>	0.46	0.59
					Average Rates	0.45	0.56

Note: Figures in bold used to calculate rates.

Table 2 Observed Parking Rates

**5.0 CONCLUSIONS AND RECOMMENDATIONS**

Based on the above analysis the expected peak parking demand at assisted living facilities is 0.56 vehicles per unit. Applying this ratio to the proposed 87-unit Woburn facility indicates a peak parking demand of 49 vehicles. Application of the highest rate observed, 0.59 vehicles per unit, suggest a peak parking demand of 51 vehicles.

We trust that the above adequately describes the results of our study. Should you have any questions please do not hesitate to contact us.

Sincerely

**STANTEC CONSULTING SERVICES, INC.**

Richard S. Bryant, PE  
Senior Project Manager

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**Appendix A**

<b>Time</b>	<b>Total</b>	<b>Regular</b>	<b>Handicap</b>	<b>Staff</b>	<b>Visitor</b>
	<i>74</i>	<i>69</i>	<i>4</i>	<i>1</i>	<i>0</i>
2:00 PM	46	43	2	1	
3:00 PM	37	34	3	0	
3:30 PM	43	38	4	1	
4:00 PM	45	41	3	1	
5:00 PM	37	33	3	1	
6:00 PM	29	26	3	0	
7:00 PM	24	20	4	0	

Table A- 1: Waltham Parking Lot Study 8/14/2013

<b>Time</b>	<b>Total</b>	<b>Regular</b>	<b>Handicap</b>	<b>Staff</b>	<b>Visitor</b>
	<i>74</i>	<i>69</i>	<i>4</i>	<i>1</i>	<i>0</i>
2:00 PM	41	37	4	0	
3:00 PM	39	34	4	1	
3:30 PM	44	39	4	1	
4:00 PM	42	37	4	1	
5:00 PM	26	22	4	0	
6:00 PM	27	24	3	0	
7:00 PM	24	20	3	1	

Table A- 2: Waltham Parking Lot Study 8/15/2013

<b>Time</b>	<b>Total</b>	<b>Regular</b>	<b>Handicap</b>	<b>Staff</b>	<b>Visitor</b>	<b>Non Marked Spots</b>
	72	61	2	6	3	
2:00 PM	42	38	0	3	1	0
3:00 PM	43	35	0	3	1	4
3:30 PM	40	35	0	3	1	1
4:00 PM	40	33	0	4	2	1
5:00 PM	28	23	0	3	2	0
6:00 PM	24	19	0	4	1	0
7:00 PM	18	15	0	3	0	0

Table A- 3: Haverhill Crossing Parking Lot Study 8/14/2013

	<b>Total</b>	<b>Regular</b>	<b>Handicap</b>	<b>Resident</b>	<b>Visitor</b>	<b>Non Marked Spots</b>
	72	61	2	6	3	
2:00 PM	50	41	1	4	3	1
3:00 PM	40	31	1	4	3	1
3:30 PM	38	29	1	4	3	1
4:00 PM	39	27	1	5	2	4
5:00 PM	28	24	0	3	0	1
6:00 PM	32	20	1	4	3	4
7:00 PM	26	18	1	2	1	4

Table A- 4: Haverhill Crossing Parking Lot Study 8/15/2013