



Williams & Sparages, LLC
189 North Main Street, Suite 101
Middleton, Massachusetts
Phone: 978-539-8088
Website: www.wsengineers.com

Traffic Memorandum

Village at Rock Pond

206 West Main Street Residential Building

Georgetown, Massachusetts

Executive Summary

Background:

The “*Village at Rock Pond*” applicant is proposing the construction of a 9-unit residential development at 206 West Main Street (Route 97). The site is currently occupied by a restaurant which is not in operation. The purpose of this study is to determine the traffic generation and safety impacts associated with the build out of the proposed development on West Main Street.

Results:

The principal findings of this study are:

- The proposed development is expected to generate 52 trips during an average weekday, 4 trips during the a.m. peak hour and 5 trips during the p.m. peak hour.
- The existing restaurant, based on the occupancy, generated 829 trips during an average weekday, 8 trips during the a.m. peak hour and 75 trips during the p.m. peak hour.

This proposed project represents a substantial reduction in vehicle trips contributing to traffic in West Main Street in comparison to the prior restaurant use.

- Adequate sight distance is available at the site ingress/egress.
- Safety improvements are provided through consolidation of curb cuts on West Main Street

This study is based upon the development plan proposing 9 residential units. Assuming the general characteristics of the proposed development remain approximately the same as documented, minor changes in the final design are not expected to materially alter the results of this study.

1. Forecasted Traffic

a. Site Traffic Forecasting

A trip generation analysis was performed for the development site for both the proposed use and the prior use. The analysis is based on the methods published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition*. Trip generation rates are provided by the same ITE manual.

The ITE manual compiles studies from across the country to provide a national average traffic for various land uses.

The resultant new trips generated by the proposed development as well as previous use generation are shown in Tables 1 & 2 below.

Table 1 – New Trip Generation

Land Use Code – Source ¹	Description & Size	Daily(weekday)		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out
230 - ITE	Condominiums - 9 Units.	26	26	1	3	3	2
	Total	52		4		5	

Table 2 – Restaurant Trip Generation

Land Use Code – Source ¹	Description & Size	Daily(weekday)		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out	In	Out
230 - ITE	Restaurant – 290 seats*	414	414	6	2	50	25
	Total	829		8		75	

*Restaurant occupancy based on most recent available occupancy permit

2. Sight distance/safety

Curb cuts:

In the existing condition, the site is available for ingress/egress through three (3) curb cuts with varying widths and separation. These openings provide various opportunities for conflicting traffic movements within the parking field and on West Main Street.

The proposed development plan provides one location for ingress/egress while closing two (2) of the three (3) curb cuts.

The resulting geometry represents a safety improvement over the existing conditions.

Sight Distance:

Table 3 – Sight Distance

Intersection/sight distance measurement	Feet	
	Required Minimum (SSD)	Measured
Stopping sight distance Site Driveway (Approaching from east)	305	575
Stopping sight distance Site Driveway (Approaching from West)	305	600

Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 6th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2011; and based on a 40-mph approach speed on West Main Street.

As can be seen in Table 3, sight lines at the site driveway were found to exceed the recommended minimum sight distance for safe operation (SSD) for a 40-mph approach speed along West main Street.