

**Traffic Engineering
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Mr. Daniel DeRemer, AIA
JW Design
412 S. Washington St., Suite 100
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March 15, 2012


Dear Mr. DeRemer:

Traffic Engineering Associates, Inc. (TEA) is pleased to provide you with the completed traffic analysis for the proposed Avon Wellness Center development to be located on Meadowfield Drive in the City of Rochester Hills, Oakland County, Michigan. The following study will compare the anticipated traffic volumes that will be generated by the nursing home proposed site plan as compared to the traffic generated by the previously approved 58 unit condominium development site plan.

The study determined that with the proposed new site plan, there will be a reduction of 12 vehicle trips in the AM peak hour, a reduction of 9 vehicle trips in the PM peak hour, and a reduction of 105 trips for the weekday daily total. Using the accepted guidelines in the "Evaluating Traffic Impact Studies - A Recommended Practice for Michigan Communities" a traffic statement or a traffic impact study will not be required for this project.

Please contact me if you have any questions or need further information.

Sincerely,


David J. Sonnenberg, PE





TRAFFIC ANALYSIS

For The Proposed

Avon Wellness Center Development

City of Rochester Hills, Oakland County, MI

March 2012

Prepared by:

**Traffic Engineering
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PROJECT DESCRIPTION

As we understand it, the proposed Avon Wellness Center development will be located on the west side of Rochester Road and south of Avon Road. The site was originally approved as a 58 single story condominium project, and is being changed to 126 bed single story nursing home. This traffic analysis will comprise of a comparison of vehicle trip generation between the proposed nursing home and the previously approved condominium project to determine the impacts of the proposed site use change.

The proposed project is located west of Rochester Drive and north of Meadowfield Drive in the City of Rochester Hills, Oakland County, Michigan.

SCOPE OF WORK

The following work elements were used to generate the results for this traffic analysis.

- Calculate site generated traffic for both the proposed Avon Wellness Center development and the previous PUD condominium site plan.
- Compare the vehicle trip generation for the two sites to determine if trip volumes will increase or decrease with the proposed site changes.



TRAFFIC ANALYSIS FOR THE 58 UNIT CONDOMINIUM DEVELOPMENT

The condominium development site plan consisted of 58 units with a single access drive on the west side of the property.

The trip generation rates were derived from the "ITE Trip Generation Manual." The ITE trip generation rates for the Residential Condominium/Townhouse (Land Use Code 230) were selected as representing the 58 unit condominium development. The ITE description is as follows:

Residential condominiums/townhouses are defined as ownership units that have at least one other owned unit within the same building structure. Both condominiums and townhouses are included in this land use.

Using the ITE Trip Generation Manual, the analysis shows that the PUD 58 unit condominium development would have generated a total of 33 trips during the AM peak hour, 39 trips during the PM peak hour and 404 daily weekday trips. The trip generation for the proposed condominium development is shown in **Table 1**.

TRAFFIC ANALYSIS FOR THE AVON WELLNESS CENTER DEVELOPMENT

The proposed Avon Wellness Center development site plan is a complete change in the use of this site. The proposed development consisted of 126 units with a single access drive on the east side of the property.

The trip generation rates were derived from the "ITE Trip Generation Manual." The ITE trip generation rates for the Nursing Home (Land Use Code 620) were selected as representing the proposed 126 unit Avon Wellness Center development. The ITE description is as follows:

A nursing home is any facility whose primary function is to provide care for persons who are unable to care for themselves. Examples of such facilities include rest homes and chronic care and convalescent homes. Skilled nurses and nursing aides are present 24 hours a day at these sites. Nursing homes are occupied by residents who do little or no driving; traffic is primarily generated by employees, visitors and deliveries.

Using the ITE Trip Generation Manual, the analysis shows that the Avon Wellness Center development would have generated a total of 21 trips during the AM peak hour, 28 trips during the PM peak hour and 299 daily weekday trips. The trip generation for the proposed condominium development is shown in **Table 1**.



Table 1
Vehicle Trip Generation Summary
Condominium Site vs. Nursing Home Site

	Condominiums (ITE Code 230)	Nursing Home (ITE Code 620)	Difference
Size of Development	58 Units	126 Beds	
AM Peak Hour Vehicle Trips	33	21	-12
In	6	15	+9
Out	27	6	-21
PM Peak Hour Vehicle Trips	39	28	-9
In	26	9	-17
Out	13	19	+6
Weekday Daily Vehicle Trips	404	299	-105

Trip estimates in *ITALICS* were derived from fitted curve equations. All other trip estimates utilized average trip rates, per ITE standards.



CONCLUSIONS

A comparison of the trip generation volumes from Table 1 show that with the proposed Avon Wellness Center Development the AM peak hour trips will decrease by 12 trips, the PM peak hour trips will decrease by 9 trips and the weekday daily trips will decrease by 105 trips. There is a small change for the AM exiting volumes and the PM entering volumes due to the commuter patterns for the condominiums, going to work and coming home from work, as compared to the nursing home where employees arrive to work in the AM and leave work in the PM. Overall, the site plan change will reduce traffic to the development and will generate fewer trips on the surrounding roadway system than the previously approved condominium site.

"Evaluating Traffic Impact Studies - A Recommended Practice for Michigan Communities," is a recommended guideline to determine if a traffic impact study or a traffic analysis is needed for future projects. Using this guideline, a traffic analysis is justified when the proposed project will generate 50 to 99 peak hour directional trips, and to justify a traffic impact statement the project will need to generate more than 100 peak hour directional trips. The proposed Avon Wellness Center does not meet the criteria (new traffic generation) to justify a traffic analysis or a traffic impact study.

