



August 23, 2022

To: Peter Schroeder, Roers Companies
Travis Fauchald, Roers Companies
From: Vernon Swing, PE

Re: Trip Generation Study – Roers Shakopee Apartments, Shakopee, MN

Per your request, S² Traffic Solutions, LLC has conducted a trip generation comparison between the originally planned Highway Commercial use and the current planned Roers Shakopee Apartments mid-rise apartment building with 233 units within the Windermere Development site located in the SW quadrant of the CSAH 15 and TH 169 intersection in Shakopee, MN. The original plan for the 5.53 acre site included commercial spaces which could develop as a 20,000 square foot grocery store, plus a 4,000 square foot drive-thru fast-food restaurant, as well as a 16 pump gas/convenience store. This memorandum compares the trip generation potential for these two proposed uses.

Trip Generation

The trip generation for the proposed Roers Shakopee Apartments development has been estimated based on the methodology described by the Institute of Transportation Engineers (ITE) in *Trip Generation*, 11th Edition. Table 1 summarizes the findings.

Table 1
Trip Generation

Land Use	ITE Code	AM Peak Hour		PM Peak Hour		Daily Trips
		Enter	Exit	Enter	Exit	
Mid Rise Apartments	221	20 Trips	66 Trips	55 Trips	36 Trips	1,058 Trips
TOTAL		88 Trips		91 Trips		1,058 Trips

As shown in Table 1, the site is estimated to generate 20 entering and 66 exiting trips during the morning traffic peak, 55 entering and 36 exiting trips during the afternoon traffic peak hour, and 1,058 trips per day.

To compare these estimated trips with the original proposed commercial use, ITE Trip Generation, Edition 11 was used again. It is noted the trip generation for the earlier proposed uses included primary trips, those destined to the uses specifically, and pass-by trips, those that are on the roadway system and stop at the retail/commercial uses on the way to their primary destination. Table 2 summarizes the findings.

Table 2
Trip Generation

Land Use	ITE Code	AM Peak Hour		PM Peak Hour		Daily Trips
		Enter	Exit	Enter	Exit	
Gas Convenience	945	216 Trips	217 Trips	182 Trips	182 Trips	4,114 Trips
Fast-Food w/Drive-thru	934	91 Trips	87 Trips	69 Trips	63 Trips	1,870 Trips
Grocery	850	34 Trips	23 Trips	90 Trips	89 Trips	1,877 Trips
SUBTOTAL		341 Trips	327 Trips	341 Trips	334 Trips	7,861 Trips
<i>Pass-by Adjustment</i>		<i>-191 Trips</i>	<i>-187 Trips</i>	<i>-179 Trips</i>	<i>-177 Trips</i>	<i>-4,161 Trips</i>
NET TOTAL		150 Trips	140 Trips	162 Trips	157 Trips	3,700 Trips

As shown in Table 2, the development of the site as commercial retail is estimated to generates 150 entering and 140 exiting trips for a total of 290 trips during the morning traffic peak, 162 entering and 157 exiting trips for a total of 319 trips during the afternoon traffic peak hour, and 3,700 trips per day. Comparison of the two uses indicates the proposed new Roers Shakopee Apartments will generate 202 fewer trips during the AM peak, 228 fewer trips during the PM peak, and 2,642 fewer daily trips than the previously approved commercial retail development plan. Therefore, the existing roadway network as planned has sufficient capacity to accommodate the proposed development.

In conclusion, the development will generate less traffic than initially anticipated for the area and has appropriate access to the site and to the surrounding roadway network. In other words, the roadway network serving the proposed development will function well with the proposed addition of the Roers Shakopee Apartment development to the Windermere Development area.

Please contact Vernon Swing at vswingtraffic@gmail.com or 612-968-4142 with any questions.