

Revised February 22, 2021  
April 2, 2020

Daniel Caruso, PE  
DW Caruso Inc.  
201 Province Line Road  
Wrightstown, NJ, NJ 562

Re: Hidden Hills Estates  
Lots 28 & 30 in Block 19  
Taylors Mill Road  
Manalapan Township, Monmouth County  
MRA File No. 20-127

Dear Mr. Caruso:

As requested, McDonough & Rea Associates (MRA) has prepared a *Traffic Impact Study* for a plan providing for 10 single family homes on property located on the south side of Taylors Mill Road between Rockingham Court to the west and Blair Lane to the east in Manalapan Township, Monmouth County, New Jersey. The following represents our analysis.

**EXISTING CONDITIONS/TRAFFIC VOLUMES**

Taylors Mill Road in the vicinity of the site is a 2-lane east/west roadway providing for 1 travel lane in each direction. Taylors Mill Road is a collector roadway which collects and distributes traffic from residential neighborhoods along Taylors Mill Road to higher order roadways such as Tennent Road (CR-3) and Route 9 to the east and CR-522 to the west.

The subject property is located between Rockingham Court and Blair Lane. Rockingham Court and Blair Lane serve large lot residential communities. Traffic volume counts were conducted on weekdays in early December 2015 when weather was not a factor, schools were open and there were no detours, construction, etc., that would affect normal or routine traffic flow. Volumes were expanded to 2021 by utilizing the New Jersey Department of Transportation (NJDOT) *Historical Growth Rate* data for the area. *Table I* illustrates existing peak hour traffic flow passing the property frontage on Taylors Mill Road.

**TABLE I**  
**EXISTING TRAFFIC VOLUMES**  
**TAYLORS MILL ROAD**

APPROACH	AM PSH	PM PSH
Eastbound	265	280
Westbound	125	185

The peak hours on Taylors Mill Road in this area occur between 7:00 AM to 8:00 AM and 4:00 PM to 5:00 PM.

**TRIP GENERATION AND DISTRIBUTION**

Estimates of traffic to be generated by the 10 new single family homes were made after consulting the 10<sup>th</sup> Edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. *Table II* illustrates anticipated peak hour traffic that would be generated by the 10 new homes.

**TABLE II**  
**TRIP GENERATION**  
**10 SINGLE FAMILY HOMES**

	<u><b>IN</b></u>	<u><b>OUT</b></u>	<u><b>TOTAL</b></u>
AM Peak Street Hour	3	9	12
PM Peak Street Hour	7	4	11

Traffic from the community was distributed to and from the east and to and from the west on Taylors Mill Road based upon existing traffic patterns exhibited by the single family homes on Blair Lane. Based upon existing traffic patterns, slightly more traffic is oriented to the east than to the west during peak hours.

### **ANALYSIS OF FUTURE TRAFFIC**

A design year of 2025 was assumed for analysis. The NJDOT's *Background Growth Rate* data for the area was consulted and a conservative growth rate of 10 percent was assumed over the next 5 years in order to arrive at base 2025 traffic volumes. Site generated and distributed traffic was then surcharged onto 2025 *no-build* traffic volumes. *Table III* illustrates anticipated traffic flow, assuming a single point of access (worst case scenario) from the community to Taylors Mill Road.

**TABLE III**  
**2025 BUILD VOLUMES**

<b>ROADWAY</b>	<b>APPROACH</b>	<b>MOVEMENT</b>	<b>AM PSH</b>	<b>PM PSH</b>
Taylors Mill Road	Eastbound	Thru	290	310
		Right	1	2
	Westbound	Thru	140	205
		Left	2	5
Site Access	Northbound	Left	6	2
		Right	3	2

Traffic engineers calculate levels of service of unsignalized intersections which relate to the quality of traffic flow. Level of service is a measure of average control delay. Average control delay is the time lost due to deceleration and the amount of time from when a vehicle is stopped for a traffic control device (or at the end of the queue) to when the vehicle departs the intersection. Delay is a relative quantity of driver discomfort, frustration, fuel consumption, and loss in travel time.

Levels of service range from "A" to "F" with "A" being the highest or best attainable level of service. Level of service "E" with average control delays of not more than 50 seconds per vehicle at an unsignalized intersection indicates near to or at capacity conditions and is generally considered the limit of acceptable level of service and delay.

Daniel Caruso, PE

-4-

February 22, 2021

Full definitions of levels of service for unsignalized intersections as well as level of service summaries are included in the *Appendix*. The intersections studied by this report were analyzed according to the procedures set forth in the *Highway Capacity Manual 2010*, using the *Highway Capacity Software (HCS)*, release 7.5.

Based on the volumes entering and exiting Taylors Mill Road, MRA anticipates that the level of service for exiting movements from the property onto Taylors Mill Road will do so at level of service “B” during the AM peak street hour and level of service “B” during the PM peak street hour. This assumes a single point of access to Taylors Mill Road.

### **CONCLUSIONS**

It is concluded, based on our analysis of the Taylors Mill Road property that plans to construct 10 single family homes can be approved and operate compatibly with future traffic conditions in the area. Levels of service at the site access to Taylors Mill Road will be well within accepted traffic engineering parameters.

If you have any questions regarding this information, please do not hesitate to call.

Very truly yours,

John H. Rea, PE  
Principal

Scott T. Kennel  
Sr. Associate

cc: Justin McCarthy, Esq.  
Bob Bruno