

MEMORANDUM

TO: Jim Negley, Derry Township
FROM: Herbert, Rowland, & Grubic, Inc.
DATE: September 27, 2018
RE: Ridge Road Traffic Evaluation

Herbert, Rowland, & Grubic, Inc. (HRG) has been asked by the Township of Derry, to provide engineering services to analyze increased traffic volumes along Ridge Road. Specifically, residents have expressed concerns regarding increased traffic volumes, speeds, and truck traffic along northbound Ridge Road between Cocoa Avenue and Chocolate Avenue (SR 0422). HRG collected traffic data and origin-destination data along Ridge Road and Park Boulevard to help quantify the current traffic conditions and determine how much of the traffic issues are seasonally-related to Hersheypark.

Automated Traffic Recordings (ATR) counts were completed during a typical weekday (Thursday August 23, 2018) at four (4) locations for a minimum of 24 hours. The ATR counts provide pertinent information such as total traffic volumes, vehicle classifications, and speed data. Refer to the attached Location Map for alphabetical data collection locations.

Data Collection Location	Daily Traffic (vehicles/day)
A. Ridge Road, near 6 th Street	Northbound – 1,240 Southbound – 425
B. Ridge Road, near 3 rd Street	Northbound – 1,875
C. Park Boulevard, just west of Ridge Road	Northbound – 2,060
D. Park Boulevard, north of Chocolate World Way	Northbound – 1,715

Along typical 2-way roadways, the 24-hour volumes in both directions are typically comparable. As shown for count Location A, there is significantly more traffic northbound than southbound. With consideration to the one-way operation along Ridge Road (north of Route 422), it can be surmised that **the majority of northbound traffic (approximately 800 vehicles per day) along Ridge Road at Location A is likely cut-through traffic** destined to Park Boulevard (either for Hersheypark or continuing to Hersheypark Drive/Route 39). Also, it is noted that there is a considerable increase in northbound traffic between Location A and Location B, indicating **a significant portion of Ridge Road traffic (near Location B) is not coming directly from Route 743.**

In addition to the ATR counts, four (4) Origin / Destination counts were conducted along the specified cut-through route. The Origin / Destination counts provide HRG another set of data recorded via WiFi that track the percentage of vehicles passing, which in turn, is necessary in order to calculate the percentage of cut-through traffic using Ridge Road. The locations of the origin destination counts are listed numerically on the attached Location Map.

From the origin-destination data, it was further determined that northbound traffic along Ridge Road is traveling to the following locations:

- 35% (approx. 650 vehicles per day) are destined along Route 422 or other side street;
- 25% (approx. 470 vehicles per day) are destined to Hersheypark/Chocolate World;
- 40% (approx. 750 vehicles per day) are destined Hersheypark Drive or Route 39.

This data indicates that, **while Hersheypark traffic contributes to the cut-through traffic along Ridge Road, cut-through traffic is not simply a seasonal occurrence.**

As part of the ATR count data collection, speed data was obtained for both directions at count Location 1 and for the northbound direction at count Location 2. The speed data (summarized below) indicates that traffic is generally traveling within 5 mph of the 25 mph posted speed limit; in such cases, **traffic calming applications are typically not necessary.**

- Count Location #1 85th Percentile Speed
 - Northbound: 29 MPH
 - Southbound: 27 MPH
- Count Location #2 85th Percentile Speed
 - Northbound: 30 MPH

Additionally, heavy vehicle data was obtained for both directions at Count Location #1. The data was collected over a 7-day period. During the week-long data collection, over 12,000 vehicles were recorded; a total of 51 vehicles (excluding buses) had more than 2 axles, equating to 0.4 of all vehicles. Table 2 summarizes the heavy vehicles recorded for both directions at Count Location #1.

Table 2: Heavy Vehicle Percentages		
Count Location #1 (Northbound)		Percentage
	Cars/Bikes	94.6%
	Buses	0.4%
	Small Trucks (2 axle, 6-wheel)	4.7%
	Trucks (>2 axles)	0.3%
Count Location #1 (Southbound)		Percentage
	Cars/Bikes	94.7%
	Buses	0.6%
	Small Trucks (2 axle, 6-wheel)	4.0%
	Trucks (>2 axles)	0.7%

Based on the data presented above, **multi-axle trucks represent a small portion of the overall traffic along the corridor**, with approximately 7 trucks per day.

Summary and Recommendations

Based on the findings of the traffic evaluation, we offer the following summary and recommendations:

- There is significant cut-through traffic along Ridge Road from Cocoa Avenue through to Route 422 or Park Boulevard. Though some of this traffic is park-related, the majority of cut-through traffic is not destined to Hersheypark. Accordingly, cut-through traffic along Ridge Road is a year-round occurrence, not just a seasonal occurrence.
- Traffic volumes along Ridge Road are heavier closer to Route 422, indicating that much of the traffic is generated within the Hershey core residential area.
- The traffic data does not indicate regular speeding issues; accordingly, traffic calming is not recommended. However, routine speed enforcement is recommended.
- The data does not indicate a regular passage of truck traffic. As such, a truck restriction evaluation is not recommended.
- Though traffic volumes have increased along Ridge Road, particularly in the northbound direction, the increased volume can be safely accommodated. Marked crosswalks and ADA ramps shall be placed at each intersection to safely accommodate crossing pedestrians, assuming adequate sight distance is provided.
- Existing stop signs are located at three intersections along Ridge Road. These stop signs have recently been marked with red reflective tape to increase awareness of the regulatory signs. Routine enforcement is recommended to ensure compliance with the stop signs.

