



Sabra, Wang & Associates, Inc.

Engineers • Planners • Analysts

December 14, 2015

Mr. Richard Charnovich
Manager, Town of Somerset
4510 Cumberland Avenue
Chevy Chase, MD 20815

Reference: Re: Origin – Destination Study: Evaluation of Cut-through traffic

Mr. Charnovich:

Sabra Wang and Associates (SWA) has completed our analysis of the vehicle identification data provided to us by Town volunteers and we are pleased to present the results in the memorandum below.

Background

The following 7 intersections, shown in Figure 1, were the subject of this study:

- 1) Dorset Ave & Wisconsin Ave;
- 2) Dorset Ave & Little Falls Parkway;
- 3) Dorset Ave & River Road;
- 4) Cumberland at Wisconsin;
- 5) Brookside at River;
- 6) Greystone at River;
- 7) Kennedy at Bradley.

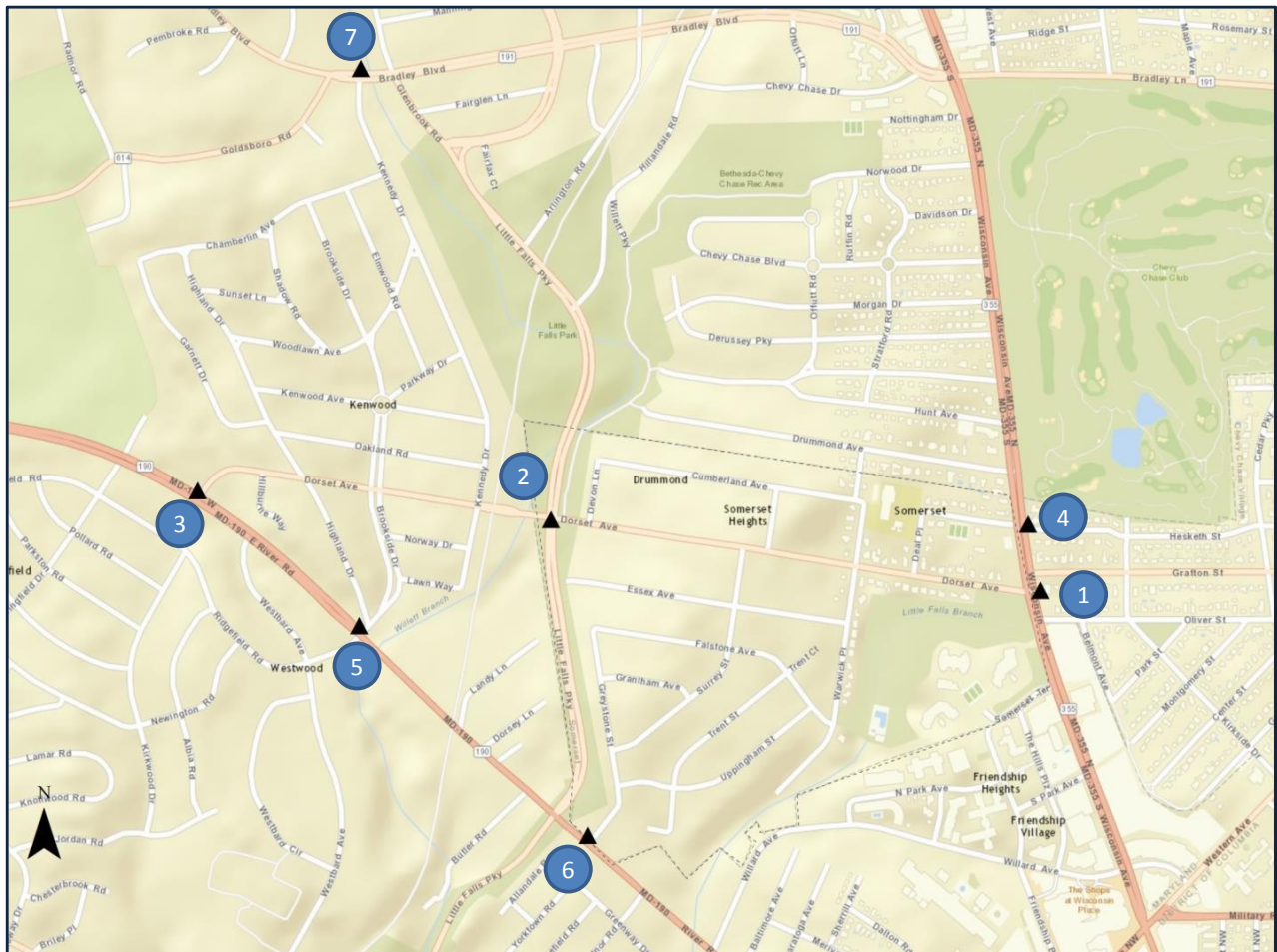


Figure 1: Map of the 7 study area intersections

Origin Destination and Volume Analysis

From the data collected, SWA compiled overall entering traffic information at select intersections for a 2-hour time period in the AM and PM commuting hours. From this data set, we determined the number of entering vehicles that exited at select intersections that would correlate with cut-through traffic. Our results are shown both in tabular format, and also graphically in the accompanying maps – all which can be found at the end of the memorandum.

The following are the general analysis parameters:

1. Intersections 1 through 6 were analyzed as potential cut through *entry* points. Intersection #7 (Kennedy at Bradley) was presumed to be an *exit only* point for cut-through traffic.
2. All intersections were tested as potential cut-through *exit* points.
3. Cut through traffic was analyzed over 2 consecutive hours in the AM and PM peak commuting periods 7 – 9 AM and 4- 6 PM.
4. Vehicles that entered one intersection and exited another *in twenty minutes or less*, were considered cut-through traffic.
5. The entering traffic Dorset Road in both Somerset and Kenwood matched historical SHA traffic data very closely, indicating no recent growth in traffic volume along Dorset.
6. The following cut-through scenarios were tested:
 - a. Vehicles Entering Dorset from Wisconsin and exiting at:
 - i. Dorset Ave & Little Falls
 - ii. Kennedy Dr & Bradley Blvd
 - iii. Dorset Ave & River Rd
 - iv. Brookside Dr & River Rd
 - v. Greystone St & River Rd
 - b. Vehicles Entering Cumberland from Wisconsin and exiting at:
 - i. Dorset Ave & Little Falls
 - ii. Kennedy Dr & Bradley Blvd
 - iii. Dorset Ave & River Rd
 - iv. Brookside Dr & River Rd
 - v. Greystone St & River Rd
 - c. Vehicles Entering Dorset (into Somerset) from Little Falls and exiting at:
 - i. Cumberland Ave & Wisconsin Ave
 - ii. Dorset Ave & Wisconsin Ave
 - d. Vehicles Entering Dorset (into Kenwood) from Little Falls and exiting at:
 - i. Dorset Ave & River Rd
 - ii. Brookside Dr & River Rd
 - e. Vehicles Entering Dorset from River Road and exiting at:
 - i. Dorset Ave & Little Falls Pkwy
 - ii. Cumberland Ave & Wisconsin Ave
 - iii. Dorset Ave & Wisconsin Ave
 - f. Vehicles Entering Brookside Drive from River Road and exiting at:

- i. Dorset Ave & Little Falls Pkwy
- ii. Kennedy Dr & Bradley Blvd
- iii. Cumberland Ave & Wisconsin Ave
- iv. Dorset Ave & Wisconsin Ave
- g. Vehicles Entering Greystone Street from River Road and exiting at:
 - i. Cumberland Ave & Wisconsin Ave
 - ii. Dorset Ave & Wisconsin Ave

Conclusions:

Based on the analysis of the vehicle data, we have formulated the following conclusions:

1. The majority of traffic entering Somerset and entering Kenwood is not cut-through traffic.
2. About ¼ of the traffic entering Somerset from the intersection of Dorset and Wisconsin represents cut-through traffic.
 - a. Of the traffic entering Somerset from the intersection of Dorset and Wisconsin, about 3% and 8% (in the AM and PM, respectively) cut through *both* Somerset and Kenwood to get to River.
3. Greystone/Warwick is generally not used as a cut-through between Wisconsin and River.
4. Cumberland sees much less incoming traffic and less cut-through traffic than Dorset, though it does see some cut-through traffic to Little Falls.
5. Despite having turn restrictions in the commuting peak periods at Dorset and River, 60 vehicles and 40 vehicles still enter into Kenwood from River during this time; of these about 30% and 20%, respectively cut through to Little Falls.
 - a. Very little of this traffic cuts through *all the way* to Wisconsin.
6. About 30% of the traffic entering Brookside cuts through to Little Falls. A small percentage cuts through all the way to Wisconsin Ave.
 - a. About 3% of entering traffic cuts through to Bradley, via Kennedy.
7. The overall traffic volumes are generally low on the major cut-through routes and are consistent with traffic counts conducted by SHA in November 2012¹, indicating that the traffic has not increased in the past 3 years.

In general, while cut-through traffic exists, the majority of traffic entering Somerset (or Kenwood) appears to be residents – and not cut-through traffic.

Sincerely,
SABRA, WANG & ASSOCIATES, INC.

Sincerely,

Bryon J. White, P.E., PTOE
Project Manager



¹ SHA data for the AM and PM peak period showed 200 and 280 vehicles, respectively, entering Dorset from Wisconsin. This is comparable to the 206 and 276 vehicles counted by the Town's volunteers.

Table 1: Traffic Originating at Dorset & Wisconsin and cutting through

Origin: Dorset Avenue & Wisconsin Avenue		AM		PM	
number of vehicles entering		206		276	
number of vehicles exiting	Dorset Ave & Little Falls	46	22.3%	74	26.8%
	Kennedy Dr & Bradley Blvd	1	0.5%	0	0.0%
	Dorset Ave & River Rd (in Kenwood)	7	3.4%	23	8.3%
	Brookside Dr & River Rd	1	0.5%	0	0.0%
	Greystone St & River Rd	2	1.0%	3	1.1%

Table 2: Traffic Originating at Cumberland & Wisconsin and cutting through

Origin: Cumberland Avenue & Wisconsin Avenue		AM		PM	
number of vehicles entering		87		50	
number of vehicles exiting	Dorset Ave & Little Falls Pkwy	16	18.4%	4	8.0%
	Greystone St & River Rd	3	3.4%	0	0.0%
	Kennedy Dr & Bradley Blvd	3	3.4%	0	0.0%
	Dorset Ave & River Rd (in Kenwood)	7	8.0%	0	0.0%
	Brookside Dr & River Rd	1	1.1%	0	0.0%

Table 3: Traffic Originating at Dorset & Little Falls and cutting through *into Somerset*

Origin: Dorset Ave & Little Falls Pkwy (into Somerset)		AM		PM	
number of vehicles entering (Somerset)		444		337	
number of vehicles exiting	Cumberland Ave & Wisconsin Ave	1	0.2%	0	0.0%
	Dorset Ave & Wisconsin Ave	76	17.1%	92	27.3%

Table 4: Traffic Originating at Dorset & Little Falls and cutting through *into Kenwood*

Origin: Dorset Ave & Little Falls Pkwy)		AM		PM	
number of vehicles entering (Kenwood)		96		109	
number of vehicles exiting	Dorset Ave & River Rd	25	26.0%	30	27.5%

Table 5: Traffic Originating at Dorset & River and cutting through

Origin: Dorset Avenue & River Road (in Kenwood)		AM		PM	
number of vehicles entering		58		41	
number of vehicles exiting	Dorset Ave & Little Falls Pkwy	19	32.8%	9	22.0%
	Cumberland Ave & Wisconsin Ave	0	0.0%	0	0.0%
	Dorset Ave & Wisconsin Ave	3	5.2%	1	2.4%

Table 6: Traffic Originating at Brookside & River and cutting through

Origin: Brookside Drive & River Road		AM		PM	
	number of vehicles entering	244		248	
number of vehicles exiting	Dorset Ave & Little Falls Pkwy	74	30.3%	76	30.6%
	Kennedy Dr & Bradley Blvd	9	3.7%	9	3.6%
	Cumberland Ave & Wisconsin Ave	0	0.0%	0	0.0%
	Dorset Ave & Wisconsin Ave	9	3.7%	18	7.3%

Table 7: Traffic Originating at Greystone & River and cutting through

Origin: Greystone Street & River Road		AM		PM	
	number of vehicles entering	72		108	
number of vehicles exiting	Cumberland Ave & Wisconsin Ave	0	0.0%	0	0.0%
	Dorset Ave & Wisconsin Ave	2	2.8%	6	5.6%

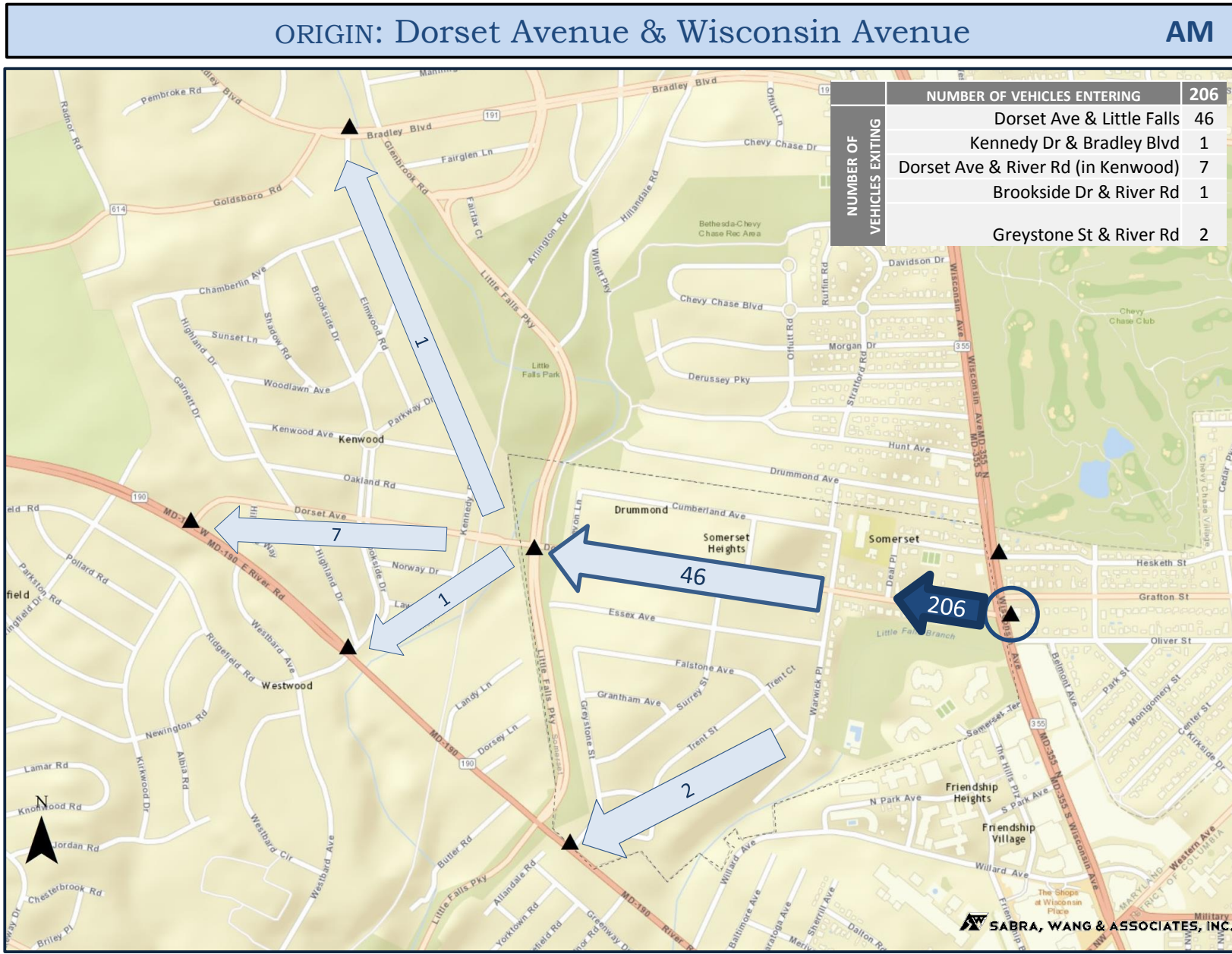


Figure 2: AM Entering Traffic at Dorset & Wisconsin, and corresponding cut-thru traffic

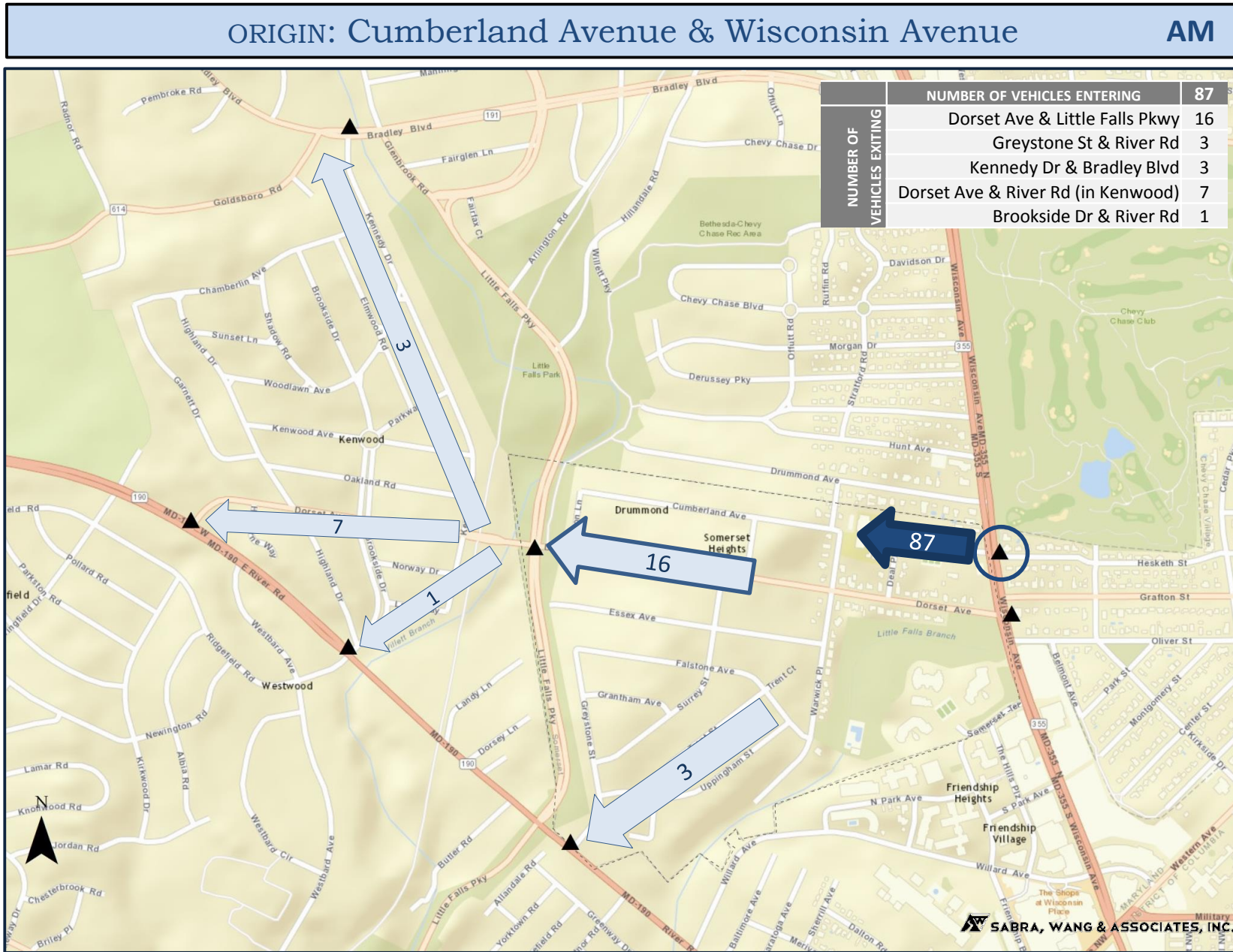


Figure 3: AM Entering Traffic at Cumberland & Wisconsin, and corresponding cut-thru traffic

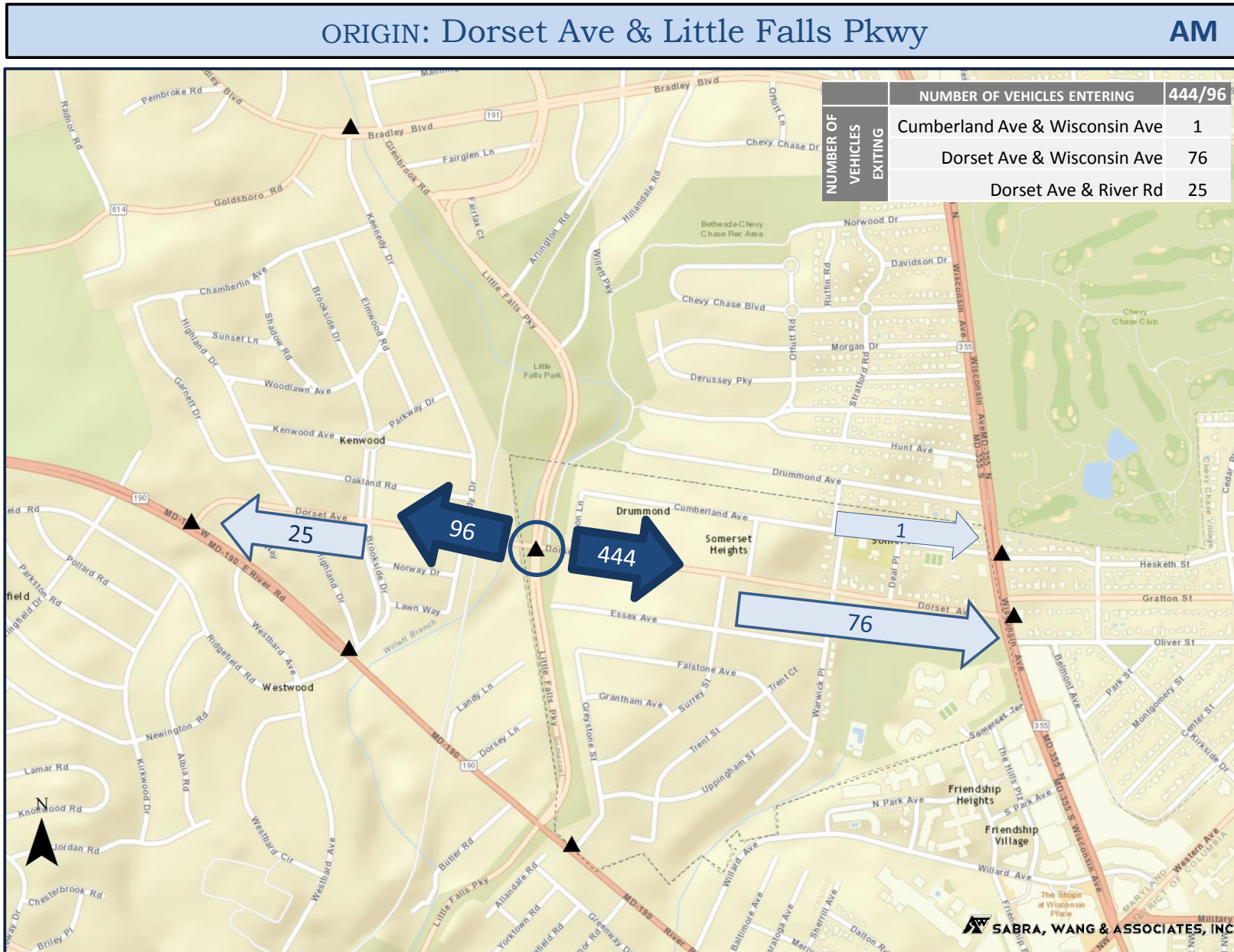


Figure 4: AM Entering Traffic at Dorset & Little Falls, and corresponding cut-thru traffic

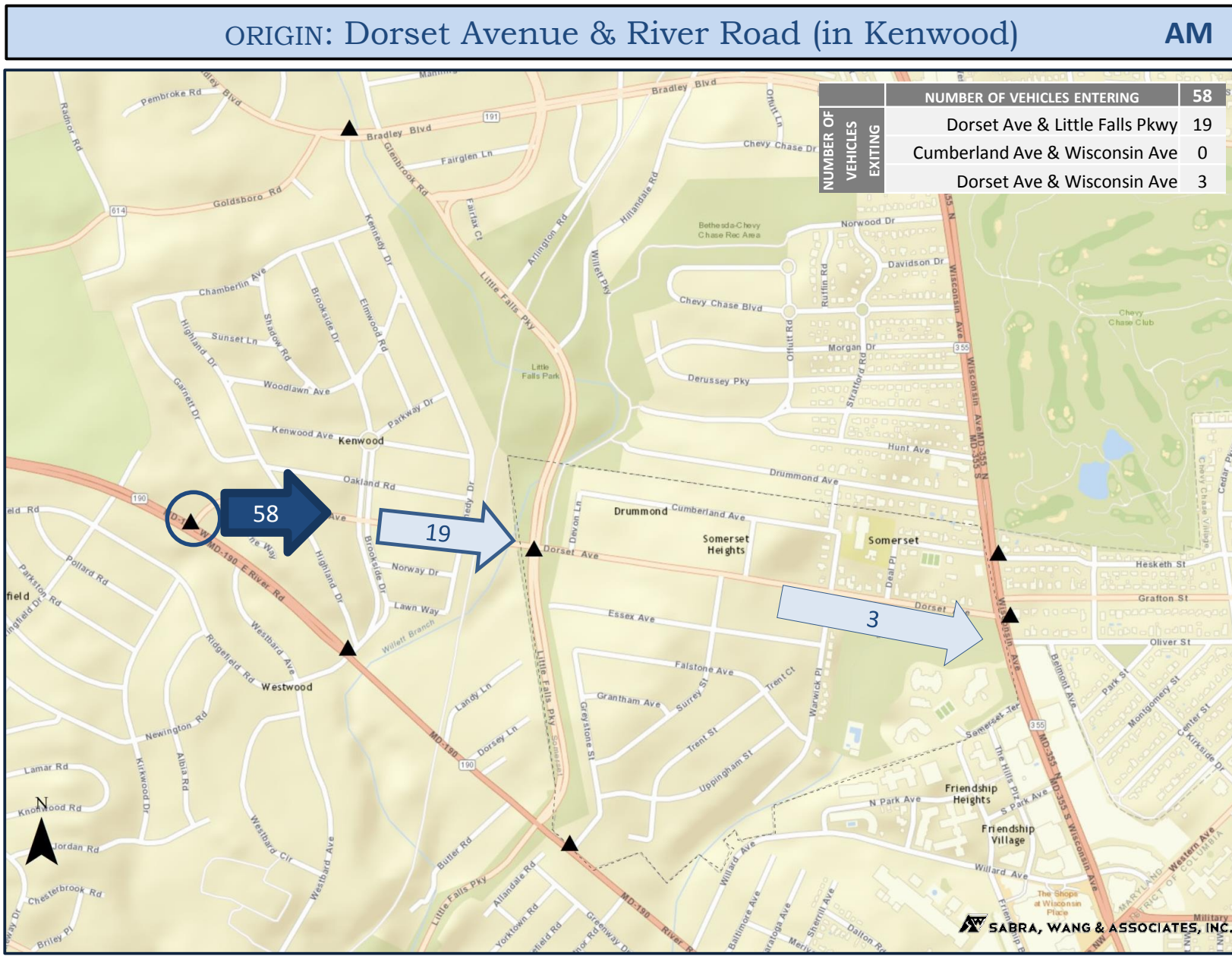


Figure 5: AM Entering Traffic at Dorset & River, and corresponding cut-thru traffic

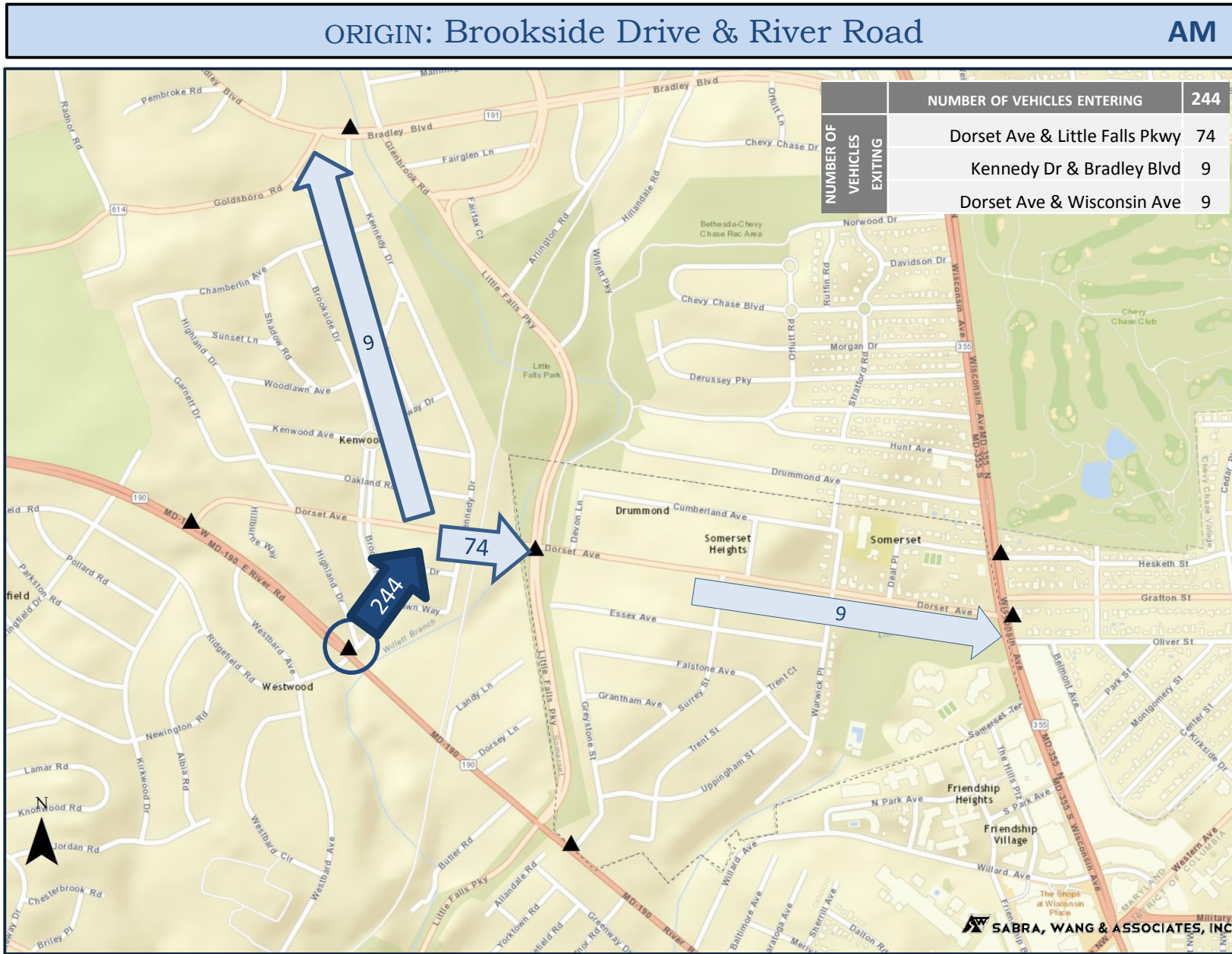


Figure 6: AM Entering Traffic at River & Brookside, and corresponding cut-thru traffic

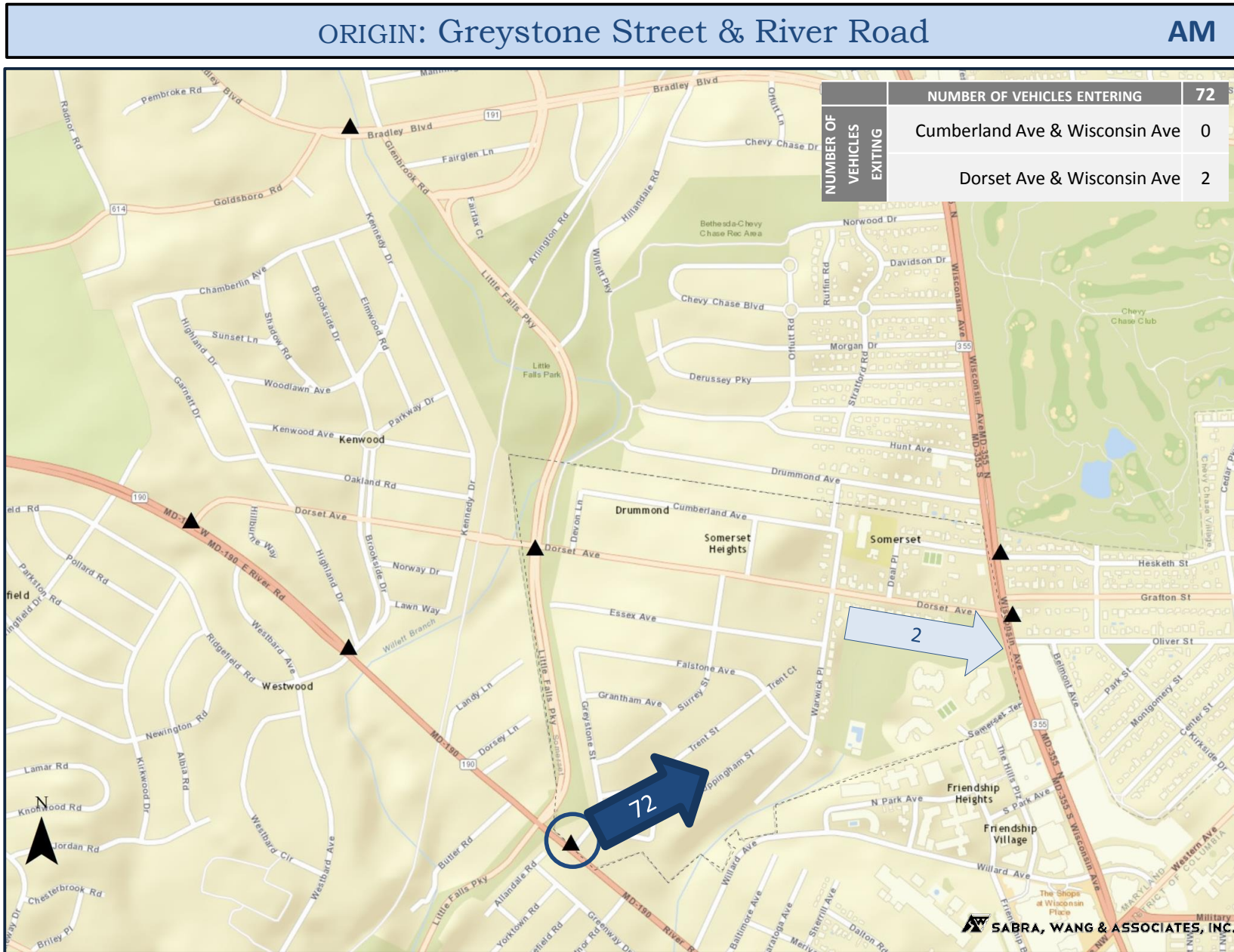


Figure 7: AM Entering Traffic at Greystone & River, and corresponding cut-thru traffic

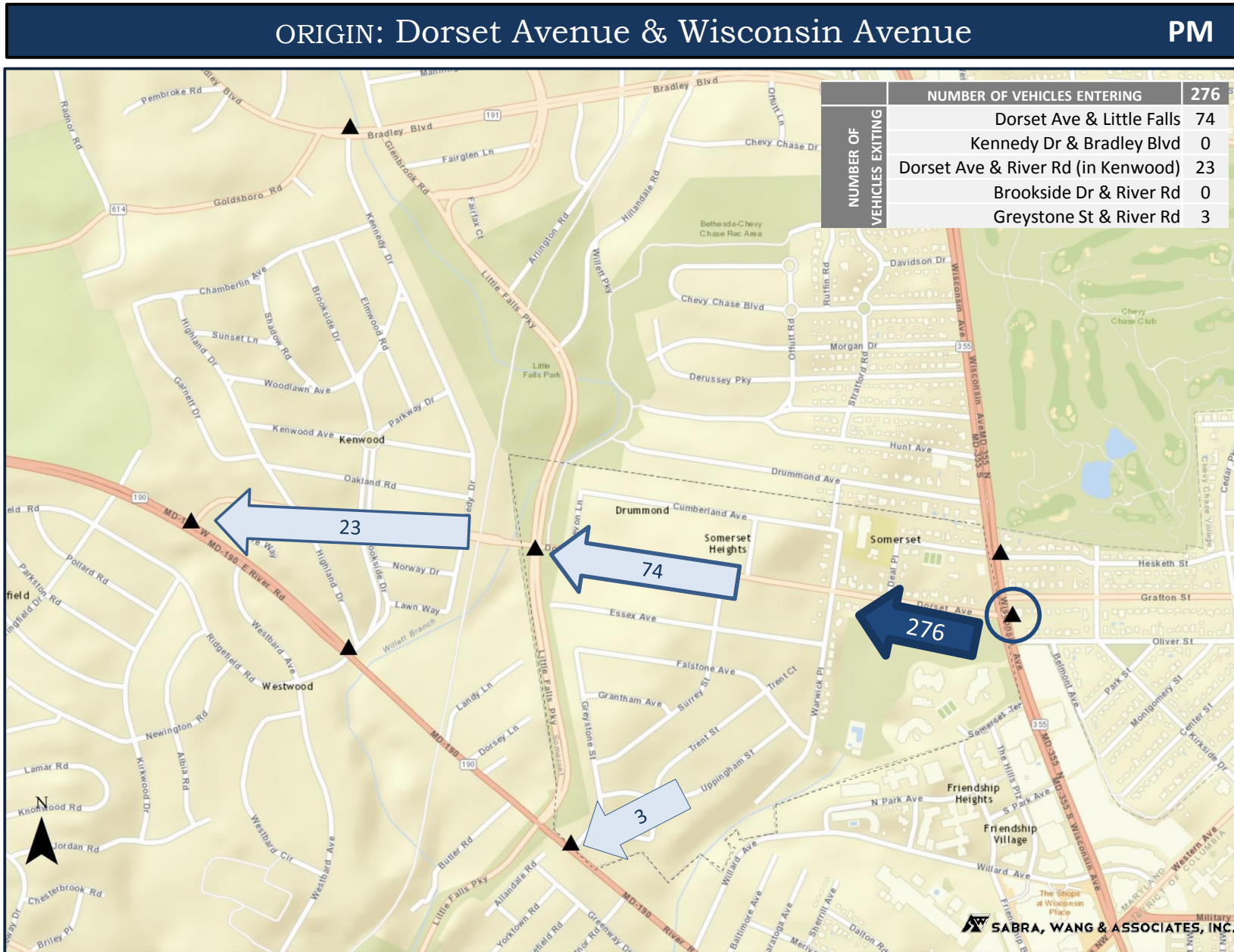


Figure 8: PM Entering Traffic at Dorset & Wisconsin, and corresponding cut-thru traffic

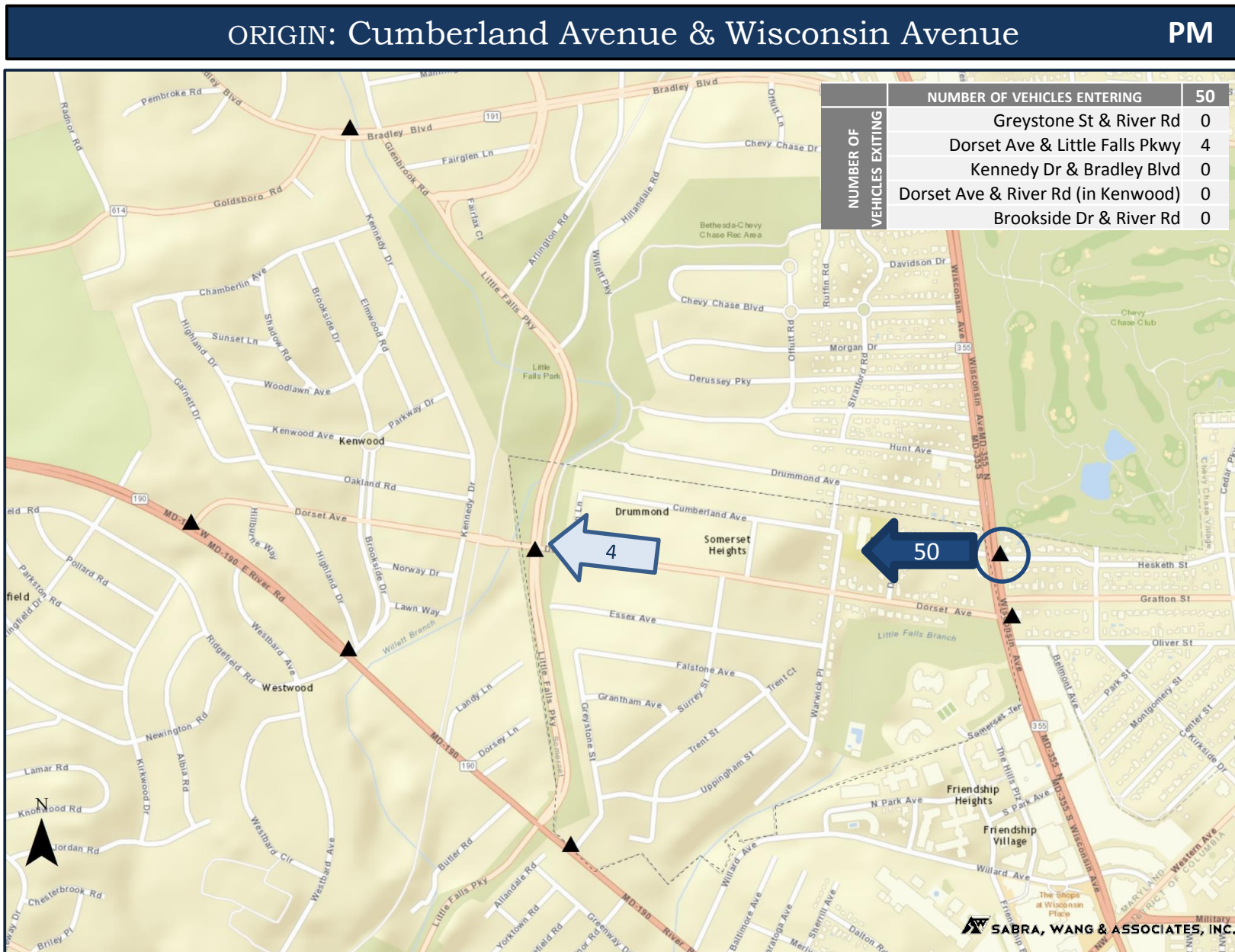


Figure 9: PM Entering Traffic at Cumberland & Wisconsin, and corresponding cut-thru traffic

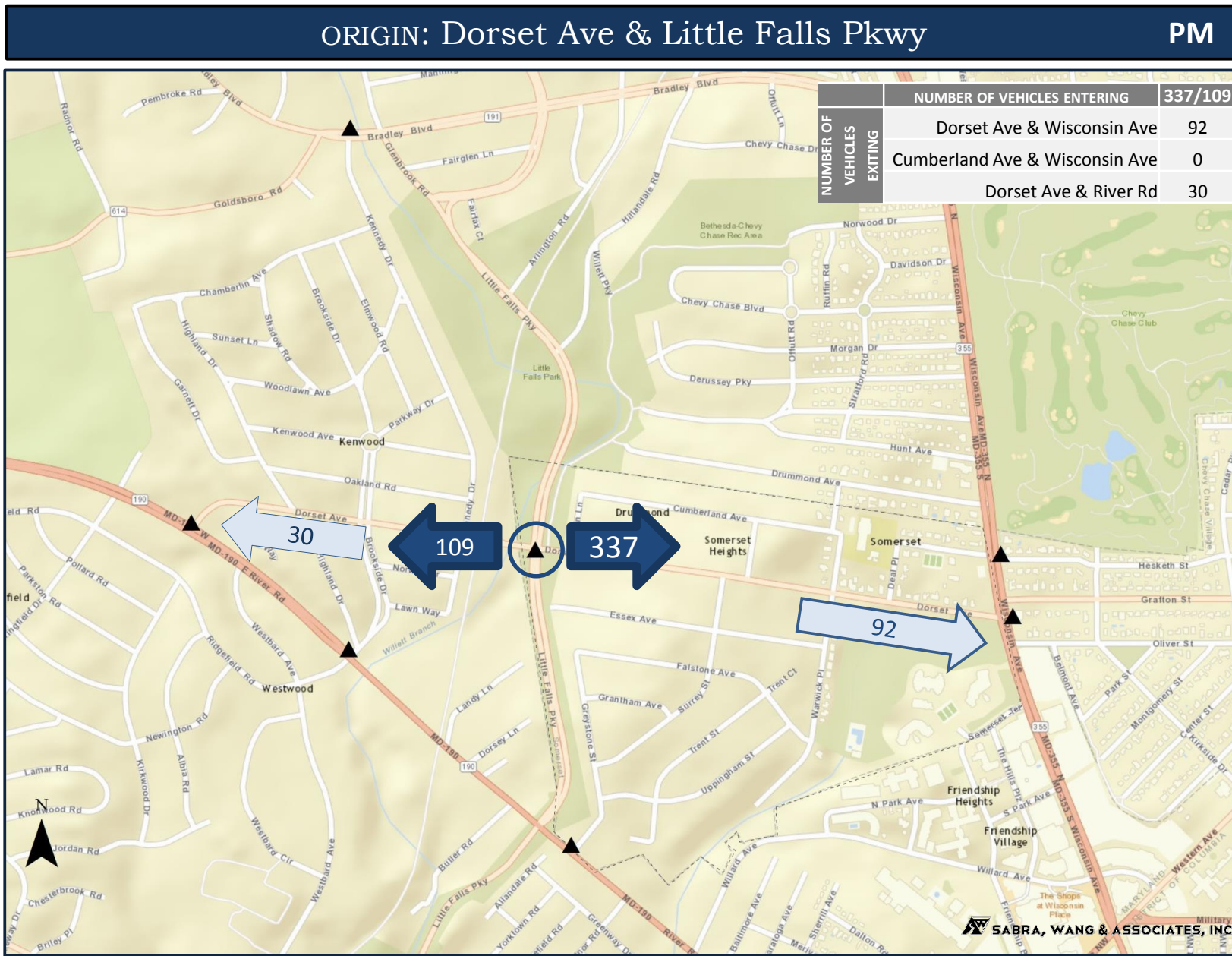


Figure 10: PM Entering Traffic at Dorset & Little Falls, and corresponding cut-thru traffic

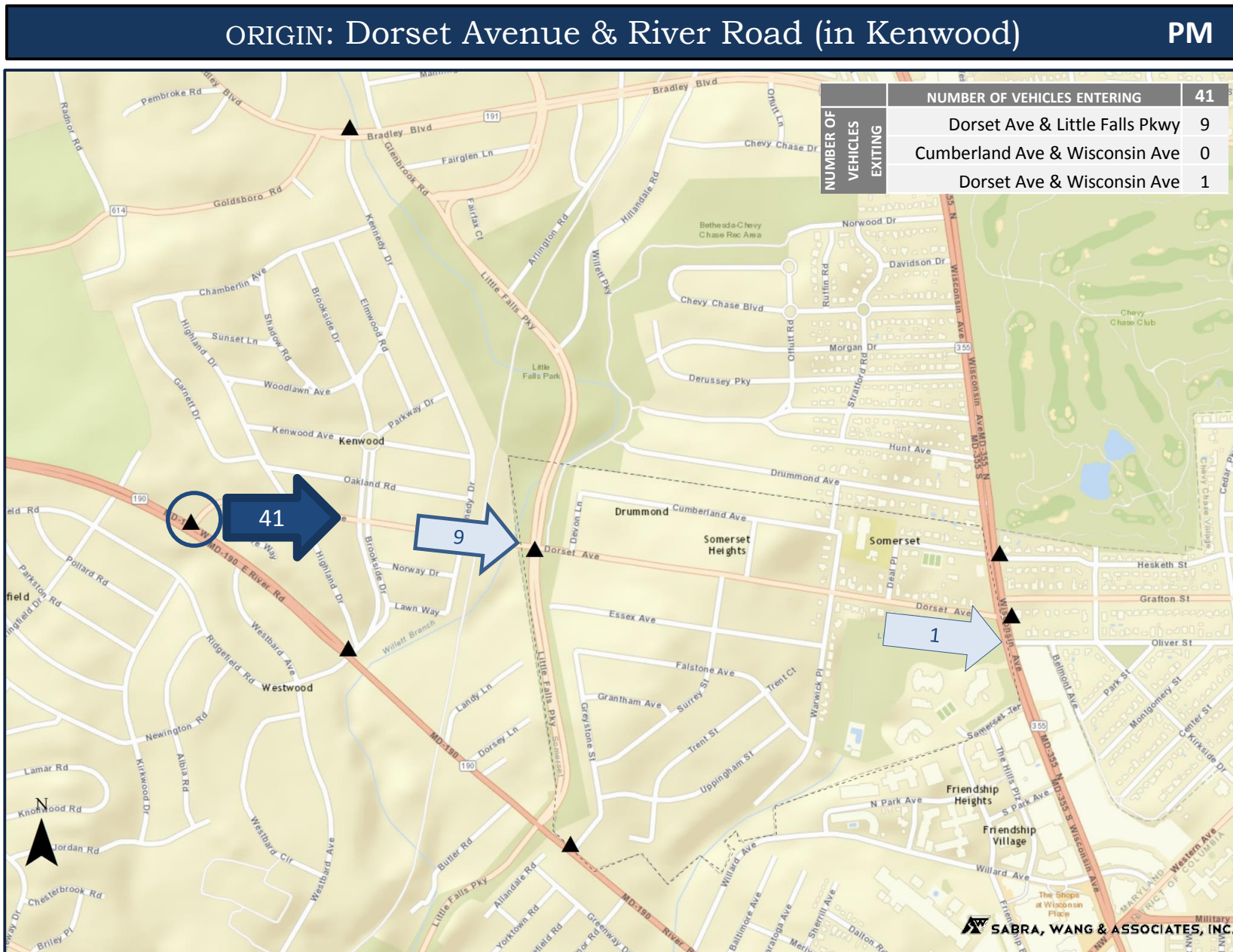


Figure 11: PM Entering Traffic at Dorset & River, and corresponding cut-thru traffic

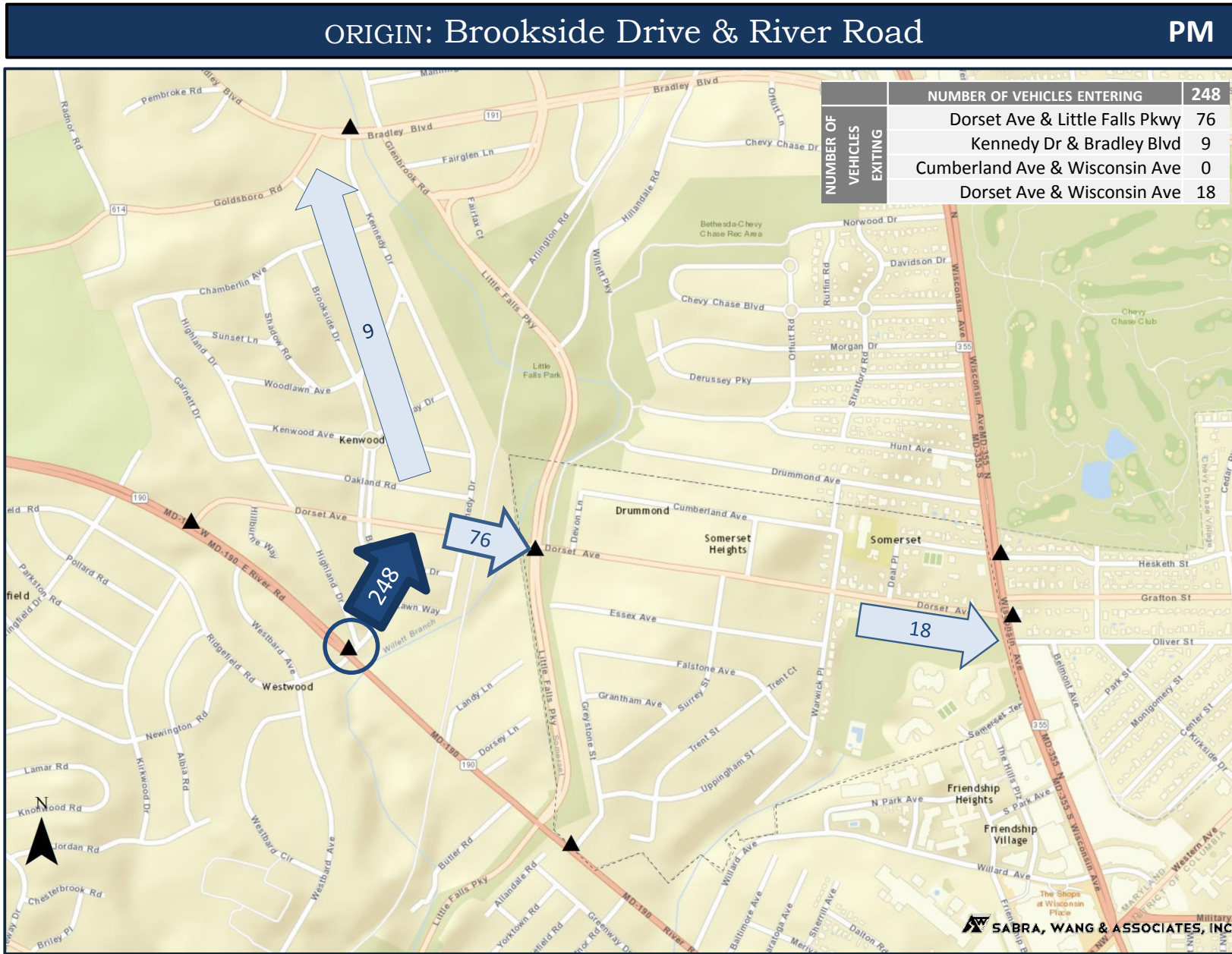


Figure 12: PM Entering Traffic at River & Brookside, and corresponding cut-thru traffic

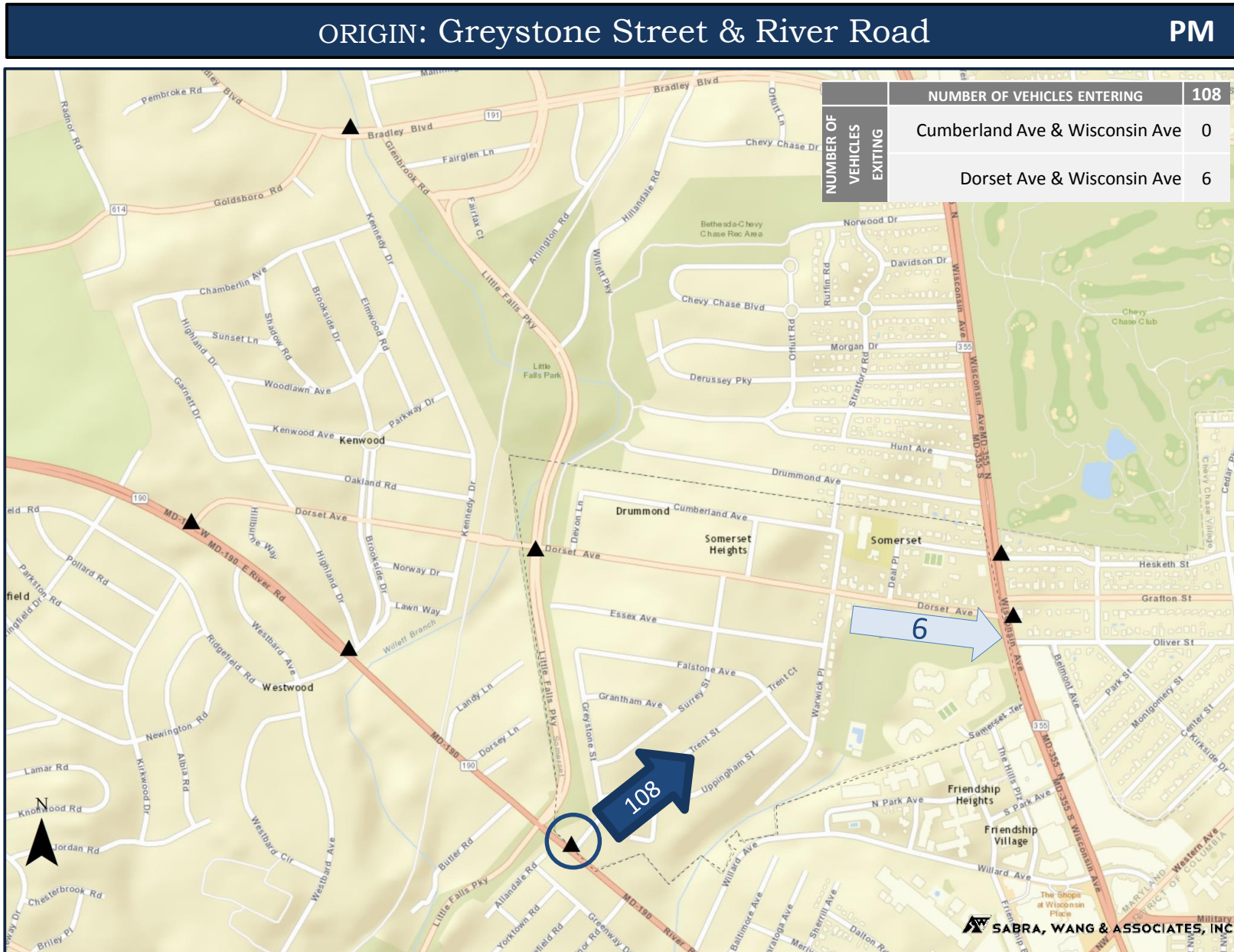


Figure 13: AM Entering Traffic at Greystone & River, and corresponding cut-thru traffic