

INTEROFFICE MEMO

To: Mr. Michael L. Spurgeon, City Manager

From: Mr. Kenneth D. Schwab, P.E., CFM, Assistant City Manager – Operations

Copied: Mr. Steve Arant, Streets and Stormwater Director

Date: October 25, 2017

Re: Traffic Counts at Selected Intersections – Tulsa County Only

KDS
10-25-17

Staff has developed a tabular representation of the total average daily traffic at selected intersections within the city of Broken Arrow for every five-year increment beginning in 1995 and extending through 2015. The data includes total traffic in all directions summed up in to a single number for the specific intersection. Directional data is available for each intersection; however, it simply is not reported in this format.

It is important to note that the data presented represents a single 24-hour period of time taken one day a year for the individual intersection. If an intersection was under construction at the time of the count, then staff used the previous year to incorporate into the table. If any leg of the intersection was not in the city limits, then that leg was not counted. It was reflected as a zero count in the summation process. If the entire intersection is not in the city limits, then it is recorded as a zero count.

The data reflects that a shift in traffic patterns has occurred over time. In 1995, the Kenosha Street and Elm Place intersection was the busiest intersection with a count of 43,977 vehicles in the course of a 24-period of time. By the year 2000, the busiest intersection was Kenosha Street and Aspen Avenue with a count of 49,917. By the year 2015, both of these intersections carry about the same number of vehicles. The record 5-year count occurred at Kenosha Street and Aspen Avenue in 2010 with a total daily count of 55,971.

In addition to the individual intersections, staff totaled the data in such a manner as to examine an entire roadway corridor. The table examines the total traffic for a single day along the north-south corridors such as Olive Avenue, Aspen Avenue, Elm Place, 9th Street and 23rd Street from Omaha Street to Jasper Street. Likewise, it totals the east-west corridors such as Omaha Street, Albany Street, Kenosha Street, Houston Street, Washington Street, New Orleans Street, Florence Street, Tucson Street and Jasper Street from Olive Avenue to 23rd Street.

This information indicates that in 1995 Elm Place from Omaha Street to Jasper Street was the busiest north-south corridor, but since that time Aspen Avenue has become the busiest north-

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south corridor with a record high count at Aspen Avenue of 270,094 vehicles over the course of a single day in 2010. In 2015, the count between Elm Place and Aspen Avenue over this length of road was less than 10,000 vehicles a day.

Conversely, Kenosha Street from Olive Avenue to 23rd Street has been and remains the busiest east-west corridor in the city. Its record daily count is 211,197 which occurred in 2015.

Probably the most interesting trend to note is the fact that the Kenosha Street intersections at Aspen Avenue, Elm Place and 9th Street all averaged around 46,000 vehicles per day in 2015. This is a significant impact on our transportation system.

Please see attached table for reference.

SELECTED INTERSECTION TRAFFIC COUNTS

(Prepared by KDS on October 24, 2017)

BROKEN ARROW (TULSA COUNTY)																										
Year	1995					2000					2005					2010					2015					
Street	Olive	Aspen	Elm	9th	23rd	Olive	Aspen	Elm	9th	23rd	Olive	Aspen	Elm	9th	23rd	Olive	Aspen	Elm	9th	23rd	Olive	Aspen	Elm	9th	23rd	
Omaha	0	8,546	0	5,653	11,100	0	16,588	0	10,276	13,718	0	18,154	0	15,935	17,352	0	19,550	10,736	17,500	19,949	0	21,093	11,235	26,837	21,645	
Albany	19,125	27,276	4,646	8,922	8,220	24,138	33,823	3,313	14,255	12,477	25,204	33,720	13,719	16,213	16,455	28,900	47,114	15,281	25,134	19,696	27,586	41,733	20,389	30,144	22,159	
Kenosha	22,762	34,740	43,977	23,271	29,282	26,097	49,917	44,035	34,952	33,508	38,379	50,731	35,054	35,668	40,992	39,416	55,971	47,481	39,253	41,378	32,908	46,579	45,546	46,404	39,760	
Houston	23,755	30,014	31,472	11,353	14,931	19,895	42,898	35,205	15,653	19,623	23,527	38,842	21,451	16,599	18,007	25,623	41,807	36,289	15,742	17,172	29,238	39,136	39,663	14,942	18,863	
Washington	20,935	25,571	38,253	9,376	14,823	20,798	32,275	38,471	8,268	8,503	24,644	34,940	20,136	12,788	9,585	24,760	37,037	36,762	12,991	9,377	22,859	32,197	35,250	14,075	11,376	
New Orleans	14,434	20,902	38,790	8,497	6,531	16,144	28,523	27,131	10,576	8,305	16,426	26,264	17,821	12,798	11,996	15,469	28,400	34,267	12,442	10,806	17,116	27,506	32,175	15,227	13,499	
Florence	9,369	8,107	21,497	933	0	9,080	12,911	22,546	3,544	0	9,035	13,186	23,939	3,935	0	11,023	12,648	24,780	3,876	0	11,539	16,584	23,862	4,430	0	
Tucson	4,548	5,324	12,907	3,245	5,102	5,815	7,789	17,162	3,891	5,560	5,663	9,616	18,765	4,101	6,971	7,645	8,731	19,728	4,217	6,428	11,186	13,750	19,545	4,788	7,764	
Jasper	16,276	8,624	14,099	0	4,621	14,474	17,003	21,854	0	6,434	13,812	18,257	22,399	0	7,223	16,545	18,838	22,516	0	7,680	19,303	19,836	20,949	0	7,660	
Maximum	23,755	34,740	43,977	23,271	29,282	26,097	49,917	44,035	34,952	33,508	38,379	50,731	35,054	35,668	40,992	39,416	55,971	47,481	39,253	41,378	32,908	46,579	45,546	46,404	39,760	55,971
Minimum	4,548	5,324	4,646	933	4,621	5,815	7,789	3,313	3,544	5,560	5,663	9,616	13,719	3,935	6,971	7,645	8,731	10,736	3,876	6,428	11,186	13,750	11,235	4,430	7,660	933
Average	16,400	18,789	25,705	8,906	11,826	17,055	26,858	26,215	12,677	13,516	19,586	27,079	21,660	14,754	16,072	21,173	30,010	27,538	16,394	16,560	21,467	28,712	27,624	19,606	17,841	

The following corridor totals include 9 intersections and 8 miles of streets

	1995	2000	2005	2010	2015
Olive	131,202	136,439	156,688	169,380	171,734
Aspen	169,103	241,725	243,709	270,094	258,412
Elm	205,639	209,716	173,283	247,838	248,613
9th	71,250	101,413	118,035	131,153	156,846
23rd	94,608	108,126	128,578	132,484	142,724

The following corridor totals include 5 intersections and 4 miles of streets

	1995	2000	2005	2010	2015
Omaha	25,298	40,581	51,440	67,735	80,809
Albany	68,189	88,006	105,310	136,124	142,010
Kenosha	154,031	188,509	200,823	182,119	211,197
Houston	111,524	133,273	118,425	136,632	141,841
Washington	108,957	108,314	102,091	111,549	115,756
New Orleans	89,153	90,678	85,304	101,383	105,522
Florence	39,905	48,079	50,094	52,326	56,415
Tucson	31,126	40,215	45,114	46,748	57,032
Jasper	43,620	59,765	61,691	65,579	67,748

Notes:

1. The City of Broken Arrow obtains traffic counts at our intersection in the fall. Generally, this counts are taken around November of each year. Since 2012, the counts are taken every three years.
2. A zero (0) count at an intersection simply means that the intersection in question was not read during that time period because it was not under our jurisdiction or city limits.
3. Traffic counts provided above are a total of all four (4) directions summed together over the course of a single 24-hour period.
4. Directional counts are available, but not provided in this summary.