



Aiken Road Apartments

The Garrett Companies

Trip Generation and Distribution

July 15, 2015

Prepared for: Metro Louisville

Aiken Road Apartments

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2. Existing Conditions

Aiken Road is a Metro maintained road with an estimated 2015 Average Annual Daily Traffic (AADT) volume of 6,100 vehicles per day west of Commercial Drive, as estimated from the Kentucky Transportation Cabinet (KYTC) 2014 count at station 062. The road is a two-lane highway with 12 foot lanes, with left turn lanes at key intersections, and curb and gutter. The speed limit is 35 mph. There are sidewalks along the north side of Aiken Road between Vale Road and North English Station Road. The intersections of Shelbyville Road and North English Station Road are controlled with traffic signals.

Jacobs Engineering Group, Inc. obtained a.m. and p.m. peak hour traffic counts at the intersections of Aiken Road and Shelbyville Road (US 60) and North English Station Road on July 7 and 9, 2015. The a.m. peak hour occurred between 7:45 and 8:45 a.m. at N. English Station Road and between 8:00 and 9:00 at Shelbyville Road. The p.m. peak hour occurred between 5:00 and 6:00 p.m. at both intersections. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes.

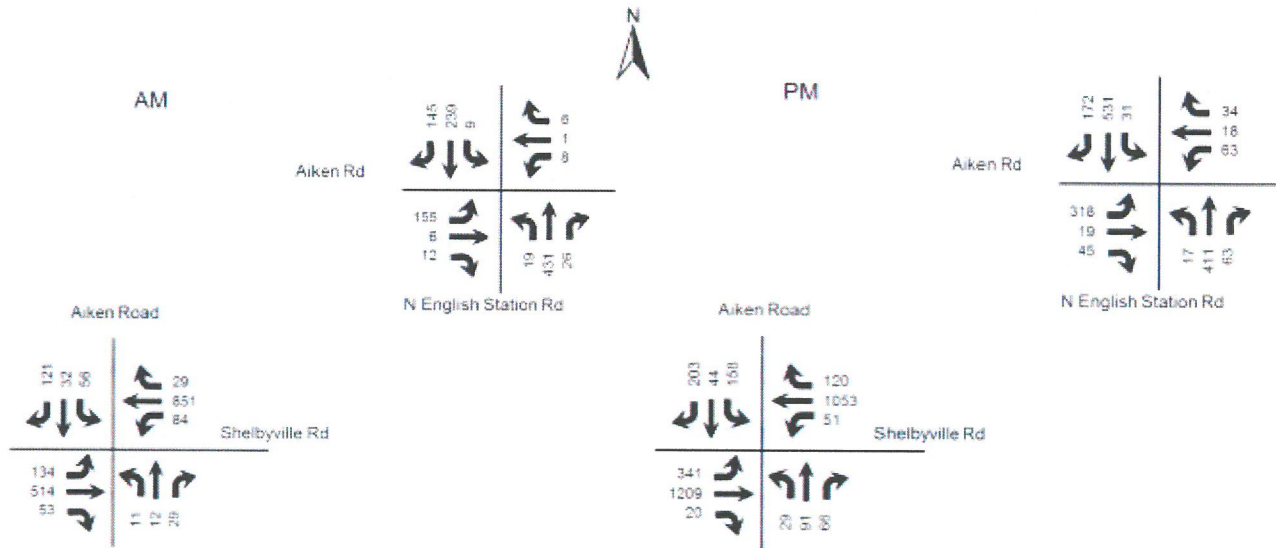


Figure 2 : Peak Hour Counts

3. Future Conditions

The projected completion year for this development is 2017, so the analysis year for this study is 2017. To predict traffic conditions in 2017, two and one third percent (2.33%) annual growth in traffic was added. This is standard rate for Metro. **Figure 3** displays the 2017 No Build peak hour volumes.

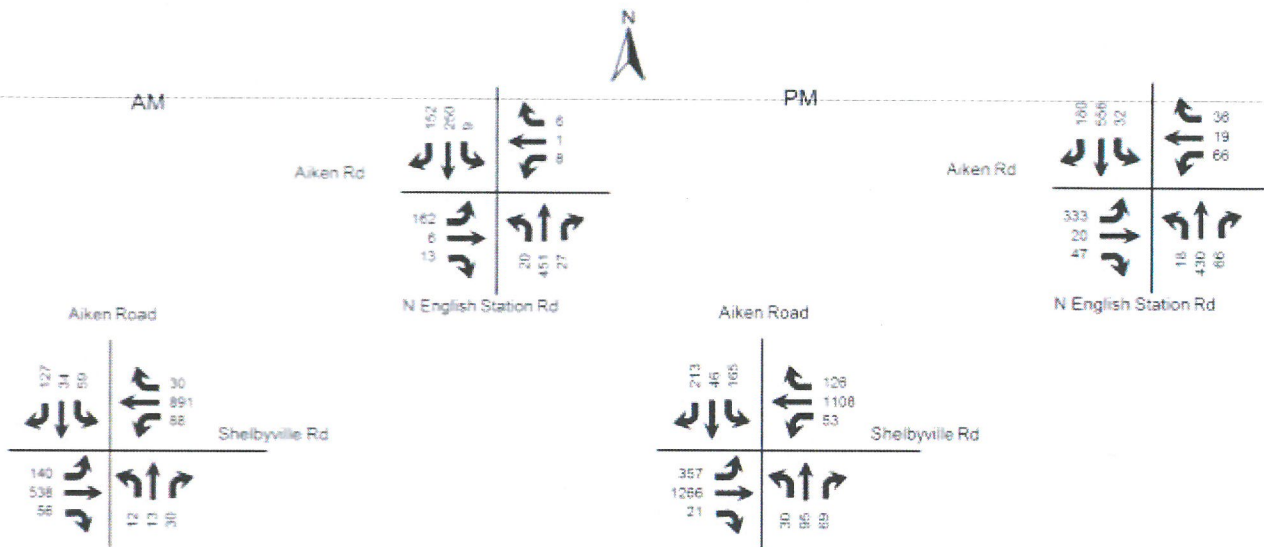


Figure 3 : No Build Peak Hour Volumes

4. Trip Generation and Distribution

The Institute of Transportation Engineers Trip Generation Manual, 9th Edition contains trip generation rates for a wide range of developments. The land use of "Apartment (220)" best describes this development. The trip generation results are listed in **Table 1**. The results of the trip generation analysis are that this development will generate 107 a.m. peak hour trips and 133 p.m. peak hour trips. The trips were assigned to the highway network with 60 percent to/from the south and 40 percent to/from the north. **Figure 4** shows the trips generated by this development and distributed throughout the road network for the year 2017 during the peak hours.

Table 1. Trip Generation Results

	A.M.			P.M.		
	Total Trips	Entering	Exiting	Total Trips	Entering	Exiting
210 Apartment units	107	21	86	133	86	47

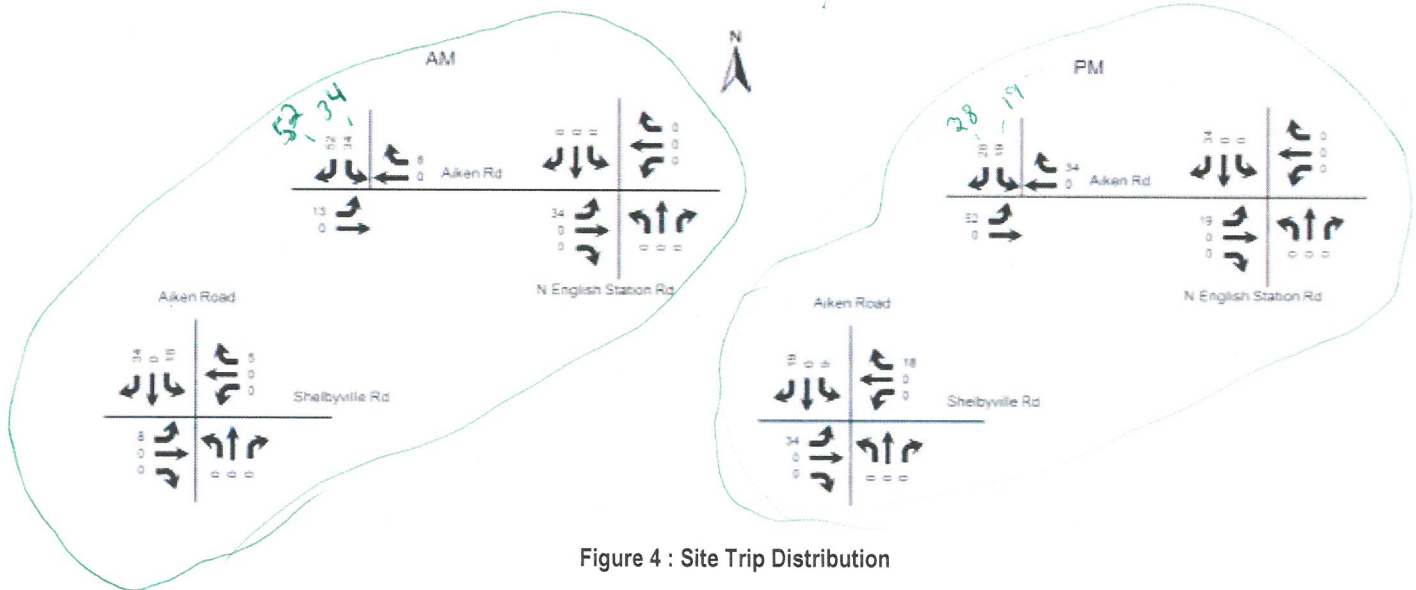


Figure 4 : Site Trip Distribution

Appendix A. Traffic Counts

7/7/2014

Shelbyville Road at Aiken Road

Interval Start Time	Aiken Road			Shelbyville Road			Town Creek Road			Shelbyville Road		
	From North			From East			From South			From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00	4	3	20	8	128	6	2	0	4	22	73	3
7:15	4	1	32	8	162	3	1	3	9	34	90	2
7:30	5	2	2	16	206	5	3	3	10	40	112	5
7:45	8	8	36	22	218	2	0	8	5	48	126	9
8:00	12	5	24	22	216	3	1	0	9	39	115	9
8:15	11	10	36	28	203	9	3	4	5	22	107	18
8:30	12	10	28	22	211	6	5	4	8	37	146	15
8:45	21	7	33	12	221	11	2	4	7	36	146	11
16:00	35	9	40	5	210	13	3	6	16	48	258	3
16:15	27	7	51	11	252	18	2	9	16	50	267	6
16:30	46	8	39	13	260	19	11	14	12	59	257	2
16:45	41	9	52	7	286	25	7	20	13	66	303	3
17:00	43	8	61	11	263	24	7	29	27	86	286	0
17:15	32	7	45	14	285	27	5	24	12	74	289	6
17:30	51	20	39	13	271	27	9	20	13	90	294	7
17:45	32	9	58	13	234	42	8	18	14	91	340	7

AM Peak	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
8:00	12	5	24	22	216	3	1	0	9	39	115	9
8:15	11	10	36	28	203	9	3	4	5	22	107	18
8:30	12	10	28	22	211	6	5	4	8	37	146	15
8:45	21	7	33	12	221	11	2	4	7	36	146	11
	56	32	121	84	851	29	11	12	29	134	514	53
PM Peak												
17:00	43	8	61	11	263	24	7	29	27	86	286	0
17:15	32	7	45	14	285	27	5	24	12	74	289	6
17:30	51	20	39	13	271	27	9	20	13	90	294	7
17:45	32	9	58	13	234	42	8	18	14	91	340	7
	158	44	203	51	1053	120	29	91	66	341	1209	20

7/9/2015

Aiken Road at N. English Station Road

Interval Start Time	<i>N English Station</i>			<i>Aiken Road</i>			<i>N English Station</i>			<i>Aiken Road</i>		
	From North			From East			From South			From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00	0	28	18	0	0	1	2	72	1	13	0	1
7:15	0	42	20	0	1	1	2	103	3	26	0	0
7:30	2	41	39	2	0	1	5	105	2	45	0	4
7:45	2	55	30	1	0	3	9	123	7	53	3	4
8:00	2	48	20	2	1	1	5	116	6	46	3	1
8:15	2	77	47	2	0	0	2	91	6	34	0	3
8:30	3	59	48	3	0	2	3	101	7	22	0	4
8:45	2	81	41	3	0	0	7	91	11	31	1	2
16:00	0	116	51	5	4	2	1	92	8	51	1	3
16:15	1	117	52	5	0	4	4	102	5	68	2	7
16:30	2	177	42	5	1	2	3	105	11	51	0	8
16:45	5	137	55	4	2	3	5	101	17	59	5	3
17:00	4	154	53	16	3	3	5	98	7	79	3	17
17:15	8	123	51	12	2	4	4	110	11	89	4	8
17:30	9	134	36	17	5	14	6	102	23	85	5	12
17:45	10	120	32	18	8	13	2	101	22	65	7	8

AM Peak	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:45	2	55	30	1	0	3	9	123	7	53	3	4
8:00	2	48	20	2	1	1	5	116	6	46	3	1
8:15	2	77	47	2	0	0	2	91	6	34	0	3
8:30	3	59	48	3	0	2	3	101	7	22	0	4
	9	239	145	8	1	6	19	431	26	155	6	12
PM Peak												
17:00	4	154	53	16	3	3	5	98	7	79	3	17
17:15	8	123	51	12	2	4	4	110	11	89	4	8
17:30	9	134	36	17	5	14	6	102	23	85	5	12
17:45	10	120	32	18	8	13	2	101	22	65	7	8
	31	531	172	63	18	34	17	411	63	318	19	45