

Route B and Waco

Crash Severity Summary

Crash Severity	2011	2012	2013	2014	2015	Total
Fatalities	0	0	0	0	0	0
Disabling Injury	0	1	0	0	0	1
Minor Injury	0	2	1	2	1	6
Property Damage Only	0	0	1	0	0	1
Total Crashes	0	3	2	2	1	8

Crash Type Summary

Type of Crash	2011	2012	2013	2014	2015	Total
Rear End	0	0	0	1	0	1
Out of Control	0	1	1	0	1	3
Right Angle	0	1	1	0	0	2
Head On	0	1	0	1	0	2
Total Crashes	0	3	2	2	1	8

Central District Traffic

1511 MO Blvd.
Jefferson City, MO, 65102

Boone
RtBandWacoRoad
Logpoint
John Kuhlman

File Name : BooneRTBandWaco09172015_258478_09-17-2015
Site Code :
Start Date : 9/17/2015
Page No : 1

Groups Printed- Lights - Mediums - Articulated Trucks - Bicycles on Road - Pedestrians

Start Time	Route B <i>SB</i>					Waco Rd <i>WB</i>					Route B <i>NB</i>					Waco Rd <i>EB</i>					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	8	241	1	0	250	8	0	0	0	8	11	53	26	0	90	1	1	1	0	3	351
06:45 AM	9	220	5	0	234	0	0	2	0	2	12	113	22	0	147	1	2	3	0	6	389
Total	17	461	6	0	484	8	0	2	0	10	23	166	48	0	237	2	3	4	0	9	740
07:00 AM	11	276	2	0	289	1	0	0	0	1	13	85	29	0	127	0	0	11	0	11	428
07:15 AM	8	321	4	0	333	1	0	2	0	3	34	97	33	0	164	0	1	8	0	9	509
07:30 AM	7	360	4	0	371	5	1	2	0	8	25	95	52	0	172	0	0	10	0	10	561
07:45 AM	1	343	3	0	347	4	2	0	0	6	29	86	6	0	121	0	0	11	0	11	485
Total	27	1300	13	0	1340	11	3	4	0	18	101	363	120	0	584	0	1	40	0	41	1983
08:00 AM	2	232	3	0	237	38	2	11	0	51	28	68	7	0	103	0	1	27	0	28	419
08:15 AM	0	199	0	0	199	15	1	6	0	22	20	71	3	0	94	0	0	38	0	38	353
08:30 AM	0	181	0	0	181	1	2	1	0	4	12	82	4	0	98	1	0	8	0	9	292
08:45 AM	1	143	2	0	146	4	0	0	0	4	11	67	1	0	79	1	0	2	0	3	232
Total	3	755	5	0	763	58	5	18	0	81	71	288	15	0	374	2	1	75	0	78	1296
09:00 AM	0	122	1	0	123	2	0	0	0	2	6	66	5	0	77	0	0	14	0	14	216
09:15 AM	1	124	2	0	127	6	1	0	0	7	6	97	3	0	106	1	0	5	0	6	246
09:30 AM	0	131	1	0	132	4	1	0	0	5	8	76	4	0	88	0	0	9	0	9	234
09:45 AM	0	123	4	0	127	1	1	0	0	2	4	83	4	0	91	0	0	5	0	5	225
Total	1	500	8	0	509	13	3	0	0	16	24	322	16	0	362	1	0	33	0	34	921
10:00 AM	1	106	2	0	109	5	0	0	0	5	7	84	2	0	93	0	0	9	0	9	216
10:15 AM	1	118	3	0	122	3	0	0	0	3	7	69	5	0	81	1	1	6	0	8	214
10:30 AM	0	123	2	0	125	1	1	1	0	3	11	101	3	0	115	2	0	8	0	10	253
10:45 AM	0	111	0	0	111	3	0	1	0	4	7	83	3	0	93	1	0	9	0	10	218
Total	2	458	7	0	467	12	1	2	0	15	32	337	13	0	382	4	1	32	0	37	901
11:00 AM	1	108	2	0	111	11	0	1	0	12	11	104	2	0	117	0	0	10	0	10	250
11:15 AM	1	98	0	0	99	5	1	1	0	7	13	97	1	0	111	1	0	18	0	19	236
11:30 AM	0	99	1	0	100	11	2	3	0	16	6	75	4	0	85	1	0	9	0	10	211
11:45 AM	0	86	2	0	88	8	0	0	0	8	7	99	6	0	112	0	1	11	0	12	220
Total	2	391	5	0	398	35	3	5	0	43	37	375	13	0	425	2	1	48	0	51	917
12:00 PM	0	99	3	0	102	5	0	2	0	7	7	97	3	0	107	1	0	6	0	7	223
12:15 PM	2	85	2	0	89	4	0	2	0	6	11	129	15	0	155	1	2	16	0	19	269
12:30 PM	2	110	2	0	114	4	0	0	0	4	11	104	8	0	123	0	1	9	0	10	251
12:45 PM	0	105	3	0	108	3	0	0	0	3	11	95	8	0	114	0	2	6	0	8	233
Total	4	399	10	0	413	16	0	4	0	20	40	425	34	0	499	2	5	37	0	44	976
01:00 PM	1	90	1	0	92	2	0	1	0	3	8	92	4	0	104	0	0	9	0	9	208
01:15 PM	0	92	2	0	94	2	1	0	0	3	6	109	2	0	117	0	1	6	0	7	221
01:30 PM	0	110	0	0	110	3	0	0	0	3	17	118	4	0	139	0	1	8	0	9	261
01:45 PM	0	90	0	0	90	4	0	0	0	4	5	119	6	0	130	0	1	12	0	13	237
Total	1	382	3	0	386	11	1	1	0	13	36	438	16	0	490	0	3	35	0	38	927
02:00 PM	1	100	0	0	101	5	1	0	0	6	8	113	1	0	122	0	0	9	0	9	238
02:15 PM	0	89	2	0	91	3	0	0	0	3	7	164	3	0	174	0	0	4	0	4	272
02:30 PM	1	105	2	0	108	8	0	0	0	8	15	118	2	0	135	2	1	7	0	10	261
02:45 PM	1	70	2	0	73	13	1	1	0	15	20	131	4	0	155	0	0	8	0	8	251
Total	3	364	6	0	373	29	2	1	0	32	50	526	10	0	586	2	1	28	0	31	1022

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Groups Printed- Lights - Mediums - Articulated Trucks - Bicycles on Road - Pedestrians

Start Time	Route B <i>SB</i>					Waco Rd <i>WB</i>					Route B <i>NB</i>					Waco Rd <i>EB</i>					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
03:00 PM	5	99	4	0	108	8	1	1	0	10	25	147	8	0	180	1	0	19	0	20	318
03:15 PM	2	106	2	0	110	10	1	2	0	13	32	170	7	0	209	0	1	30	0	31	363
03:30 PM	2	154	2	0	158	15	3	15	0	33	10	214	4	0	228	0	0	14	0	14	433
03:45 PM	1	119	2	0	122	6	1	4	0	11	16	202	3	0	221	0	0	13	0	13	367
Total	10	478	10	0	498	39	6	22	0	67	83	733	22	0	838	1	1	76	0	78	1481
04:00 PM	0	106	1	0	107	17	2	1	0	20	11	220	1	0	232	0	0	23	0	23	382
04:15 PM	1	101	0	0	102	11	0	2	0	13	7	210	0	0	217	0	0	17	0	17	349
04:30 PM	0	104	1	0	105	10	1	1	0	12	10	236	1	0	247	1	0	17	0	18	382
04:45 PM	0	111	0	0	111	10	1	3	0	14	5	285	3	0	293	0	0	5	0	5	423
Total	1	422	2	0	425	48	4	7	0	59	33	951	5	0	989	1	0	62	0	63	1536
05:00 PM	0	123	0	0	123	13	2	1	0	16	10	281	3	0	294	0	0	14	0	14	447
05:15 PM	0	143	0	0	143	2	1	1	0	4	4	272	1	0	277	0	0	5	0	5	429
05:30 PM	0	110	0	0	110	7	1	1	0	9	10	240	1	0	251	1	0	9	0	10	380
05:45 PM	0	76	0	0	76	6	0	1	0	7	13	197	1	0	211	1	0	13	0	14	308
Total	0	452	0	0	452	28	4	4	0	36	37	990	6	0	1033	2	0	41	0	43	1564
06:00 PM	0	106	0	0	106	8	0	0	0	8	4	148	1	0	153	0	0	13	0	13	280
06:15 PM	0	92	0	0	92	6	0	1	0	7	5	166	1	0	172	0	0	5	0	5	276
Grand Total	71	6560	75	0	6706	322	32	71	0	425	576	6228	320	0	7124	19	17	529	0	565	14820
Apprch %	1.1	97.8	1.1	0		75.8	7.5	16.7	0		8.1	87.4	4.5	0		3.4	3	93.6	0		
Total %	0.5	44.3	0.5	0	45.2	2.2	0.2	0.5	0	2.9	3.9	42	2.2	0	48.1	0.1	0.1	3.6	0	3.8	
Lights	62	6156									5739										13700
% Lights	87.3	93.8	92	0	93.8	89.8	78.1	87.3	0	88.5	89.4	92.1	86.2	0	91.7	94.7	94.1	89.4	0	89.7	92.4
Mediums	6	317	5	0	328	13	6	9	0	28	47	413	25	0	485	1	1	45	0	47	888
% Mediums																					
Articulated Trucks	3	85	1	0	89	20	1	0	0	21	14	75	19	0	108	0	0	11	0	11	229
% Articulated Trucks	4.2	1.3	1.3	0	1.3	6.2	3.1	0	0	4.9	2.4	1.2	5.9	0	1.5	0	0	2.1	0	1.9	1.5
Bicycles on Road	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
% Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rte. B & Waco Rd Signal Warrant Study

Warrant 1: Eight Hour Vehicular Volume- As can be seen by the Traffic Signal Warrant Worksheet eight hours of the day do not meet the required values found in Table 4C-1 of the Manual on Uniform Traffic Control Devices (MUTCD).

Determination: **Not warranted**

Warrant 2: Four Hour Vehicular Volume- As can be seen by the Traffic Signal Warrant Worksheet four hours of the day do not meet the required values found in the Manual on Uniform Traffic Control Devices (MUTCD). The data has been graphed in Figure 4C-1.

Determination: **Not warranted**

Warrant 3: Peak Hour - As can be seen by the Traffic Signal Warrant Worksheet four hours of the day do not meet the required values found in the Manual on Uniform Traffic Control Devices (MUTCD). The data has been graphed in Figure 4C-3.

Determination: **Not warranted**

Warrant 3: Pedestrian Volume - As can be seen by Figure 4C-5 and 4C-7 the warrant for pedestrian volume was not met. There were no pedestrians at this intersection during the time of the vehicle and pedestrian count.

Determination: **Not warranted**

Warrant 5: School Crossing- Route B and Waco Road is not used as school crossing and there did not appear to be more gaps in the traffic stream than minutes when school children were using the crosswalk.

Determination: **Not warranted**

Warrant 6: Coordinated Signal System- Adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive option. The only other signal in the area is an existing traffic signal at Route B and Brown Station Road. That intersection is about 0.43 miles away Route B and Waco Road. At a 55 mph speed limit on this roadway there would only be about 28 seconds between the signals. This spacing isn't ideal, but the two signals could be coordinated.

Determination: **Not warranted**

Warrant 7: Crash Experience- There vehicle accident history from 2010-2015 can be seen in the table below:

Incident #	Date	Incident time	Nature	Address	Disposition Code Description
2015069749	4/19/2015	9:47:40	29D2P-VEH COLLISION ROLLOVER	ROUTE B-CO/WACO RD-CO	
2013045692	3/11/2013	8:16:57	A-ACCIDENT	WACO RD-CO/ROUTE B-CO	NO REPORT
2013247354	12/27/2013	7:02:59	29B4-ACCIDENT UNK INJURY	ROUTE B-CO/WACO RD-CO	ACCIDENT INVESTIGATION
2012146206	7/30/2012	20:26:09	29D2L-CYCLIST ACCIDENT	ROUTE B-CO/WACO RD-CO	ACCIDENT INVESTIGATION
2012193163	10/8/2012	6:54:03	29B4-ACCIDENT UNK INJURY	ROUTE B-CO/WACO RD-CO	
2012146206	7/30/2012	20:26:09	29D2L-CYCLIST ACCIDENT	ROUTE B-CO/WACO RD-CO	ACCIDENT INVESTIGATION
2012193163	10/8/2012	6:54:03	29B4-ACCIDENT UNK INJURY	ROUTE B-CO/WACO RD-CO	
2010013521	1/21/2010	12:38:13	A-ACCIDENT	ROUTE B-CO/WACO RD-CO	NO REPORT
2010082710	4/26/2010	8:53:17	A-ACCIDENT	ROUTE B-CO/WACO RD-CO	NO REPORT
2010174610	9/1/2010	16:42:41	A-ACCIDENT	WACO RD-CO/ROUTE B-CO	
2010193442	9/27/2010	11:58:32	29B4-ACCIDENT UNK INJURY	WACO RD-CO/ROUTE B-CO	ACCIDENT INVESTIGATION

In 2015 there has been only one crash. No one calendar year had any more than 4 crashes. The crash history does not warrant a signal.

Determination: **Not warranted**

Warrant 8: Roadway Network- The Route B and Waco Road intersection currently has 6 hours per day where there are more than 1,000 vehicles entering the intersection per hour. Route B and Waco Road have both been identified as minor arterials in the CATSO Major Roadway Plan.

Determination: **Warranted**

Warrant 9: Intersection Near a Grade Crossing- There is not a rail crossing at this intersection, although the railroad does cross Route B about 1,200 feet to the north of the intersection.

Determination: **Not warranted**

Summary: Route B and Waco Road are both found to be minor arterials on the CATSO Major Roadway Plan. Using Warrant 8 found in the MUTCD a signal may be warranted based on the volume of the roadway. These roadways are an important piece in the major roadway network of Columbia. A signal is warranted at this location by using Warrant 8.