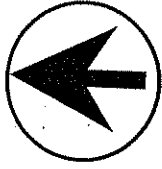


Date : 06/15/06

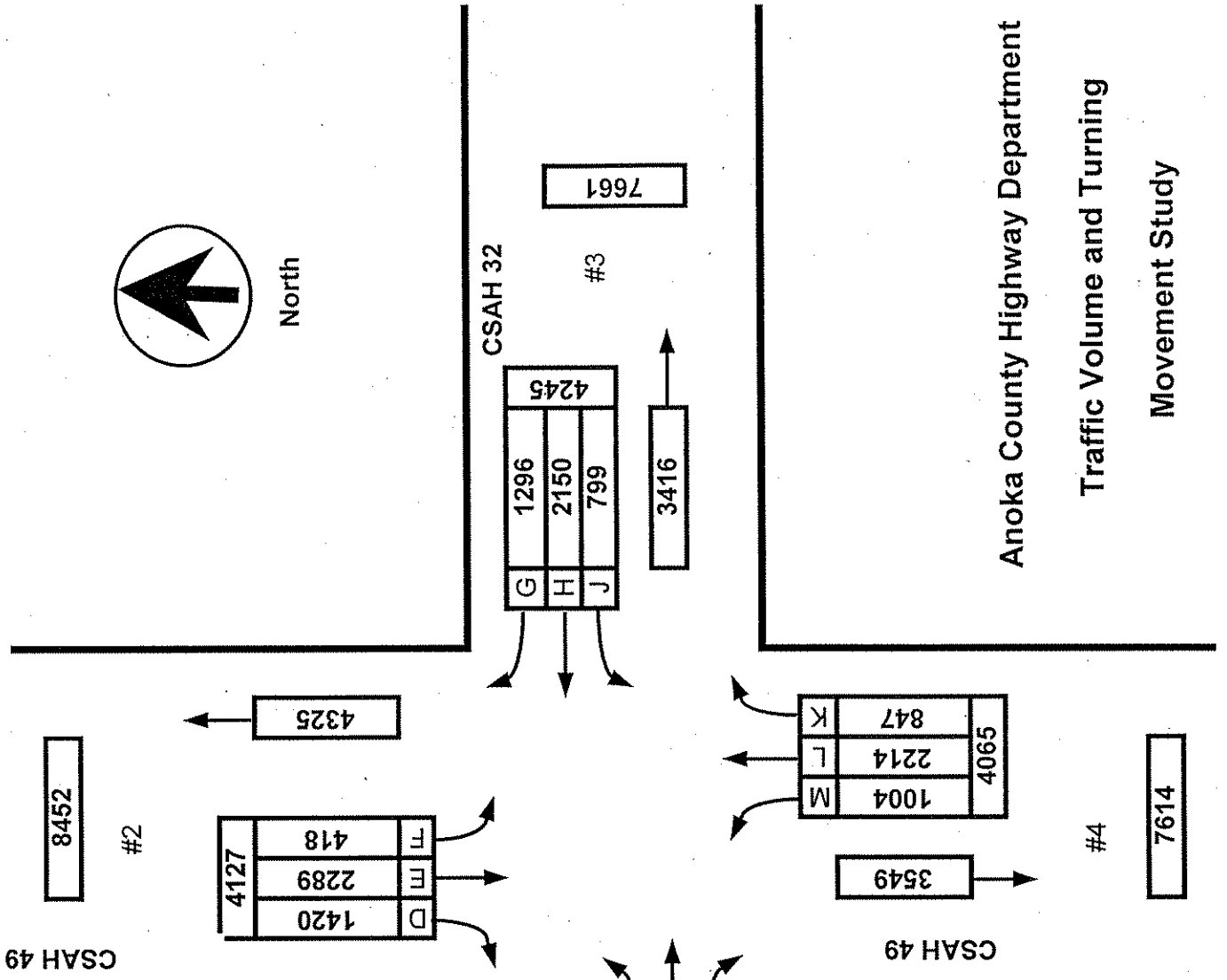
Count Number : TMC0611

Location : CSAH 49 (Hodgson Rd.)

@ CSAH 32 (County Rd. "J")



North



Anoka County Highway Department
Traffic Volume and Turning
Movement Study

	LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	1	0	1	2
#2	1	0	1	2
#3	0	0	1	1
#4	1	0	1	2

Anoka County Highway Department
 Traffic Engineering
 Traffic Volume and Turning Movement Stud

File Name : TMC0611
 Site Code : 06061101
 Start Date : 06/15/2006
 Page No : 2

Weather: Sunny and Warm
 Counter: DB-400
 Counted by: Jordan/Tom

Groups Printed- 1 - Unshifted

Start Time	CSAH 49 Southbound					CSAH 32 Westbound					CSAH 49 Northbound					CSAH 32 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
19:00	3	29	17	0	49	2	15	5	0	22	15	30	11	0	56	24	32	12	0	68	0	195	195
19:15	2	22	18	0	42	12	26	11	1	49	12	33	9	1	54	24	32	10	0	66	2	211	213
19:30	11	19	14	0	44	6	28	1	0	35	12	30	10	0	52	17	22	3	1	42	1	173	174
19:45	6	21	14	0	41	2	18	2	0	22	13	18	7	0	38	19	27	6	0	52	0	153	153
Total	22	91	63	0	176	22	87	19	1	128	52	111	37	1	200	84	113	31	1	228	3	732	735
20:00	8	23	19	0	50	8	29	2	0	39	11	21	9	0	41	22	22	12	0	56	0	186	186
20:15	5	16	10	0	31	7	24	7	0	38	23	28	12	0	63	14	24	5	0	43	0	175	175
20:30	2	18	23	0	43	8	20	5	0	33	16	15	8	0	39	25	39	15	0	79	0	194	194
20:45	2	15	10	0	27	6	21	7	1	34	25	13	14	0	52	13	27	9	0	49	1	162	163
Total	17	72	62	0	151	29	94	21	1	144	75	77	43	0	195	74	112	41	0	227	1	717	718
21:00	2	13	12	0	27	3	22	5	0	30	16	21	17	0	54	13	24	8	0	45	0	156	156
21:15	5	18	12	0	35	8	15	3	1	26	9	21	10	1	40	17	28	5	0	50	2	151	153
21:30	0	16	8	0	24	3	16	3	0	22	9	19	7	0	35	15	20	6	1	41	1	122	123
21:45	12	15	14	0	41	3	16	9	0	28	6	14	8	0	28	10	10	6	0	26	0	123	123
Total	19	62	46	0	127	17	69	20	1	106	40	75	42	1	157	55	82	25	1	162	3	552	555
Grand Total	418	228	142	185	4127	815	215	461	142	3427	100	221	847	188	4065	129	215	799	288	4245	803	15864	16667
Apprch %	10.1	55.5	34.4			23.8	62.8	13.5			24.7	54.5	20.8			30.5	50.6	18.8					
Total %	2.6	14.4	9.0		26.0	5.1	13.6	2.9		21.6	6.3	14.0	5.3		25.6	8.2	13.6	5.0		26.8	4.8	95.2	

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name : TMC0611
Study Date : 06/23/06
Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 49

Number of Lanes: 2
Approach Speed: 50
Total Approach Volume: 4,065

Southbound: CSAH 49

Number of Lanes: 2
Approach Speed: 50
Total Approach Volume: 4,127

Minor Street Approaches

Eastbound: CSAH 32

Number of Lanes: 2

Total Approach Volume: 4,245

Westbound: CSAH 32

Number of Lanes: 2

Total Approach Volume: 3,427

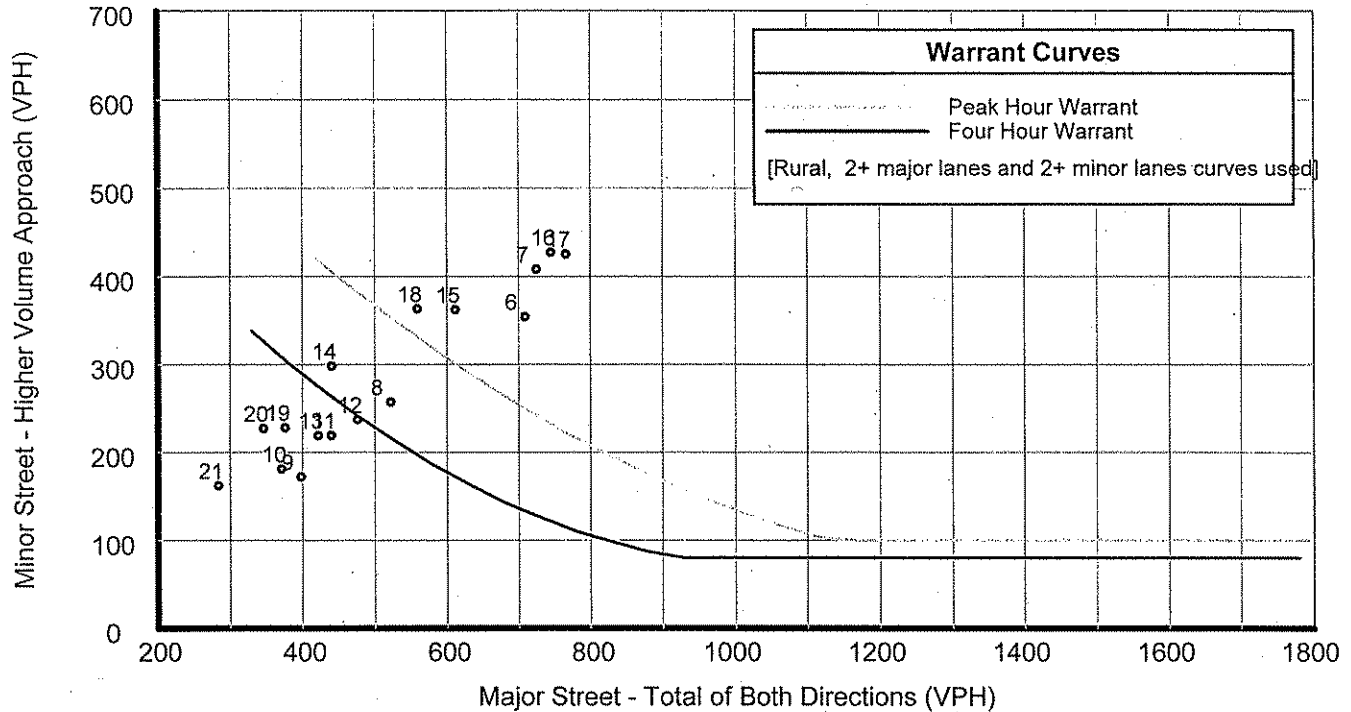
Warrant Summary (Rural values apply.)

Warrant 1 - Eight Hour Vehicular Volumes	Satisfied
Warrant 1A - Minimum Vehicular Volume	Satisfied
Required volumes reached for 11 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic	Not Satisfied
Required volumes reached for 4 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants	Not Satisfied
Required volumes reached for 7 hours, 8 are needed	
 Warrant 2 - Four Hour Volumes	 Satisfied
Number of hours (8) volumes exceed minimum >= minimum required (4).	
 Warrant 3 - Peak Hour	 Satisfied
Warrant 3A - Peak Hour Volumes	Satisfied
Volumes exceed minimums for at least one hour.	
Warrant 3B - Peak Hour Delay	Satisfied
Number of hours (43) volumes exceed minimum >= required (1). Delay data not evaluated.	
 Warrant 4 - Pedestrian Volumes	 Not Evaluated
 Warrant 5 - School Crossing	 Not Evaluated
 Warrant 6 - Coordinated Signal System	 Not Evaluated
 Warrant 7 - Crash Experience	 Not Evaluated
 Warrant 8 - Roadway Network	 Not Evaluated

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name : TMC0611
Study Date : 06/23/06
Page No. : 2

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor		War-1A			War-1B			War-1A&B		
		Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
01:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
02:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
03:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
04:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
05:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
06:00	709	354	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
07:00	725	408	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
08:00	522	257	WB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-Yes	112-Yes	Both
09:00	398	172	EB	420-No	140-Yes	Minor	630-No	70-Yes	Minor	504-No	112-Yes	Minor
10:00	371	181	EB	420-No	140-Yes	Minor	630-No	70-Yes	Minor	504-No	112-Yes	Minor
11:00	440	219	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-No	112-Yes	Minor
12:00	476	237	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-No	112-Yes	Minor
13:00	422	219	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-No	112-Yes	Minor
14:00	441	298	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-No	112-Yes	Minor
15:00	612	362	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-Yes	112-Yes	Both
16:00	745	427	EB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
17:00	766	425	EB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
18:00	559	363	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-Yes	112-Yes	Both
19:00	376	228	EB	420-No	140-Yes	Minor	630-No	70-Yes	Minor	504-No	112-Yes	Minor
20:00	346	227	EB	420-No	140-Yes	Minor	630-No	70-Yes	Minor	504-No	112-Yes	Minor
21:00	284	162	EB	420-No	140-Yes	Minor	630-No	70-Yes	Minor	504-No	112-Yes	Minor
22:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
23:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name : TMC0611
Study Date : 06/23/06

Multi-Way Stop Warrant Report

Major Street Approaches

Northbound: CSAH 49
Total Approach Volume: 4,065
Approach Speed: 50

Southbound: CSAH 49
Total Approach Volume: 4,127
Approach Speed: 50

Minor Street Approaches

Eastbound: CSAH 32
Total Approach Volume: 4,245

Westbound: CSAH 32
Total Approach Volume: 3,427

Warrant Summary

Criteria A - Interim Measure Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.

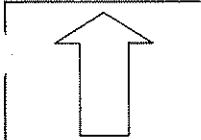
Criteria B - Crash Experience Not Satisfied
Number of crashes (0) is less than the minimum required (5).

Criteria C - Minimum Volumes and Delays Satisfied
Delay data not evaluated
Required volumes reached for 16 hours, 8 are needed

Criteria D - 80% of Volumes, Delays, and Crashes Not Satisfied
Delay data not evaluated
Required volumes reached for 16 hours, 8 are needed

Analysis of 8-Hour Volume Warrants:

Time	Major Crit	Minor	Crit C			Crit D		
	Total	Total	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00 - 01:00	0	0	210-No	140-No	No	240-No	160-No	No
01:00 - 02:00	0	0	210-No	140-No	No	240-No	160-No	No
02:00 - 03:00	0	0	210-No	140-No	No	240-No	160-No	No
03:00 - 04:00	0	0	210-No	140-No	No	240-No	160-No	No
04:00 - 05:00	0	0	210-No	140-No	No	240-No	160-No	No
05:00 - 06:00	0	0	210-No	140-No	No	240-No	160-No	No
06:00 - 07:00	709	535	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
07:00 - 08:00	725	702	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
08:00 - 09:00	522	507	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
09:00 - 10:00	398	329	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
10:00 - 11:00	371	342	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
11:00 - 12:00	440	378	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
12:00 - 13:00	476	385	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
13:00 - 14:00	422	381	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
14:00 - 15:00	441	471	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
15:00 - 16:00	612	606	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
16:00 - 17:00	745	722	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
17:00 - 18:00	766	733	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
18:00 - 19:00	559	586	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
19:00 - 20:00	376	356	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
20:00 - 21:00	346	371	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
21:00 - 22:00	284	268	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
22:00 - 23:00	0	0	210-No	140-No	No	240-No	160-No	No
23:00 - 00:00	0	0	210-No	140-No	No	240-No	160-No	No



COUNT LOCATION:

CSAH 49 (Hodgson Rd.)

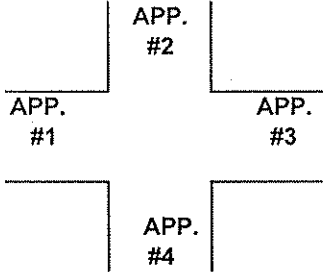
DATE:

06/15/2006

@ CSAH 32 (85th Ave./"J")

NORTH

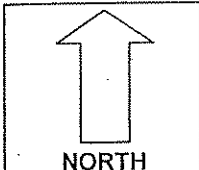
APP.#2= CSAH 32
APP.#2= CSAH 49
APP.#3= CSAH 32
APP.#4= CSAH 49



- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						6		
6:15-6:30				1	1	6	1	2
6:30-6:45						13		2
6:45-7:00						15		1
HOURLY TOTAL					1	HOURLY TOTAL		46
7:00-7:15						16		
7:15-7:30						15		
7:30-7:45						13		
7:45-8:00						17		2
HOURLY TOTAL						HOURLY TOTAL		63
8:00-8:15						24	1	2
8:15-8:30						17		3
8:30-8:45						19		
8:45-9:00						23		
HOURLY TOTAL						HOURLY TOTAL		89
9:00-9:15				2	2	18		
9:15-9:30		2			2	13		2
9:30-9:45				2	2	19	1	1
9:45-10:00						21		2
HOURLY TOTAL					6	HOURLY TOTAL		77
10:00-10:15						17		
10:15-10:30						18		
10:30-10:45						15		2
10:45-11:00						10		
HOURLY TOTAL						HOURLY TOTAL		62
11:00-11:15				1	1	15		5
11:15-11:30			1		1	13		3
11:30-11:45						29		2
11:45-12:00						22		
HOURLY TOTAL					2	HOURLY TOTAL		89
12:00-12:15						24		1
12:15-12:30						15	1	2
12:30-12:45						15		
12:45-1:00				1	1	15		
HOURLY TOTAL					1	HOURLY TOTAL		73
1:00-1:15						17		4
1:15-1:30						19		
1:30-1:45						17		1
1:45-2:00						11		
HOURLY TOTAL						HOURLY TOTAL		69
					TOTAL	9		
							TOTAL	568

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COUNT LOCATION:

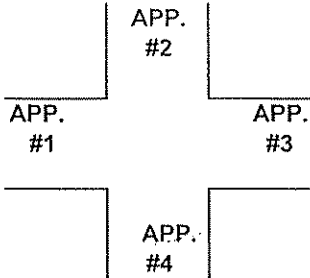
CSAH 49 (Hodgson Rd.)

DATE:

06/19/2006

@ CSAH 32 (85th Ave./"J")

APP.#2= CSAH 32
APP.#2= CSAH 49
APP.#3= CSAH 32
APP.#4= CSAH 49



- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
2:00-2:15PM						17		
2:15-2:30						11		
2:30-2:45		1			1	10		2
2:45-3:00						14		
HOURLY TOTAL					1	HOURLY TOTAL		54
3:00-3:15						23		1
3:15-3:30		1	1		2	15		
3:30-3:45						14		
3:45-4:00				1	1	18		
HOURLY TOTAL					3	HOURLY TOTAL		71
4:00-4:15						12		1
4:15-4:30		1	1		2	12		3
4:30-4:45						11		
4:45-5:00						14	1	1
HOURLY TOTAL					2	HOURLY TOTAL		55
5:00-5:15						5		
5:15-5:30						8	1	
5:30-5:45			1		1	13		
5:45-6:00		1	1		2	5		1
HOURLY TOTAL					3	HOURLY TOTAL		33
6:00-6:15						5		
6:15-6:30						3		
6:30-6:45						1		
6:45-7:00		1			1	2		
HOURLY TOTAL					1	HOURLY TOTAL		11
7:00-7:15								
7:15-7:30						2		
7:30-7:45						1		
7:45-8:00								
HOURLY TOTAL						HOURLY TOTAL		3
8:00-8:15		2			2			
8:15-8:30								
8:30-8:45								
8:45-9:00						1		
HOURLY TOTAL					2	HOURLY TOTAL		1
9:00-9:15								
9:15-9:30						2		
9:30-9:45						1		
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		3
TOTAL					12	TOTAL		800

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