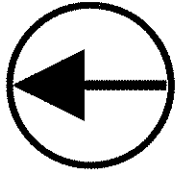


Date : 10/28/97AM 10/29/97PM

Count Number : TMC9722

Location : CSAH 116 (BUNKER LAKE BLVD)

@ CROOKED LAKE BLVD



North

WB CSAH 116 (BUNKER LAKE BLVD)

G	6105	6245
H	140	
J		

6347

12616

#1

6269	C	B	A
5994			275

#3

12394

6149

EB CSAH 116 (BUNKER LAKE BLVD.)

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

NB CROOKED LAKE BLVD.

M	242	397
L		
K	155	

415

#4

812

Anoka County Highway Department
Traffic Volume and Turning
Movement Study

Weather :
 Counted by: Randy and Josie
 Board # :
 cher :

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 Horsham, PA.

Study Name: TMC9722
 Site Code : 97220202
 Start Date: 10/28/97
 Page : 1

Vehicle group 1

Start Time	CSAH 116 (BUNKER LAKE Westbound)			CROOKED LAKE BLVD. Northbound			CSAH 116 (BUNKER LAKE Eastbound)			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
10/28/97												
06:00	0	64	1	2	2	0	44	0	0	113	1	112
06:15	1	70	3	2	4	0	68	1	6	155	9	146
06:30	1	125	6	6	3	0	84	0	6	231	12	219
06:45	0	176	11	6	4	2	114	4	8	325	21	304
Hour	2	435	21	16	13	2	310	5	20	824	43	781
07:00	3	187	9	4	4	1	131	3	11	353	21	332
07:15	0	138	6	2	7	2	119	3	18	295	26	269
07:30	3	146	10	14	8	0	121	1	17	320	27	293
07:45	2	177	11	5	1	0	130	1	13	340	24	316
Hour	8	648	36	25	20	3	501	8	59	1308	98	1210
08:00	0	103	10	4	2	1	78	2	13	213	24	189
08:15	0	95	9	4	0	1	92	2	13	216	23	193
08:30	4	131	21	5	5	2	69	4	8	249	31	218
08:45	5	169	11	4	6	1	108	5	19	328	31	297
Hour	9	498	51	17	13	5	347	13	53	1006	109	897
09:00	1	130	12	3	1	0	103	2	20	272	32	240
09:15	1	110	6	3	1	1	79	4	11	216	18	198
09:30	3	105	17	5	0	0	77	7	7	221	24	197
09:45	1	105	12	4	2	0	91	1	10	226	22	204
Hour	6	450	47	15	4	1	350	14	48	935	96	839
10:00	2	90	11	3	1	0	80	3	9	199	20	179
10:15	3	88	14	6	1	1	90	5	9	217	24	193
10:30	1	94	8	2	0	1	95	4	13	218	22	196
10:45	1	77	7	2	2	0	101	3	11	204	18	186
Hour	7	349	40	13	4	2	366	15	42	838	84	754
11:00	0	104	11	1	2	0	113	3	13	247	24	223
11:15	4	97	15	2	0	0	98	6	7	229	22	207
11:30	3	104	11	6	2	1	129	8	22	286	34	252
11:45	6	100	13	2	5	0	117	6	9	258	22	236
Hour	13	405	50	11	9	1	457	23	51	1020	102	918
12:00	2	117	6	8	1	2	105	8	14	263	22	241
12:15	2	115	6	2	3	1	114	6	6	255	13	242
12:30	1	95	9	6	1	1	111	8	4	236	14	222
12:45	2	96	6	5	3	0	111	9	10	242	16	226
Hour	7	423	27	21	8	4	441	31	34	996	65	931

Weather :
 Counted by: Randy and Josie
 Board # :
 cher :

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Study Name: TMC9722
 Site Code : 97220202
 Start Date: 10/28/97
 Page : 2

Vehicle group 1

Start Time	CSAH 116 (BUNKER LAKE Westbound)			CROOKED LAKE BLVD. Northbound			CSAH 116 (BUNKER LAKE Eastbound)			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
13:00	4	100	9	6	0	0	117	7	9	252	18	234
13:15	4	89	11	4	0	0	97	6	4	215	15	200
13:30	2	93	8	6	6	1	107	6	5	234	14	220
13:45	0	75	15	6	0	0	114	4	10	224	25	199
Hour	10	357	43	22	6	1	435	23	28	925	72	853
14:00	2	106	10	2	1	0	106	1	5	233	15	218
14:15	4	95	8	9	1	1	144	12	6	280	15	265
14:30	3	113	7	2	3	1	125	4	8	266	16	250
14:45	4	122	6	5	2	1	115	3	6	264	13	251
Hour	13	436	31	18	7	3	490	20	25	1043	59	984
15:00	2	128	14	6	1	1	160	14	3	329	18	311
15:15	6	156	18	4	7	0	124	7	6	328	24	304
15:30	6	156	7	7	4	1	196	3	15	395	23	372
15:45	4	165	6	3	7	1	198	11	7	402	14	388
Hour	18	605	45	20	19	3	678	35	31	1454	79	1375
16:00	8	158	4	4	2	0	192	10	13	391	17	374
16:15	3	158	5	6	4	1	195	8	12	392	18	374
16:30	8	203	1	9	7	0	202	9	7	446	8	438
16:45	5	221	6	4	15	0	224	10	4	489	10	479
Hour	24	740	16	23	28	1	813	37	36	1718	53	1665
17:00	8	194	4	10	6	1	211	9	6	449	11	438
17:15	6	191	3	10	7	0	220	17	8	462	11	451
17:30	5	193	3	8	7	0	196	8	6	426	9	417
17:45	4	181	0	13	4	0	179	17	7	405	7	398
Hour	23	759	10	41	24	1	806	51	27	1742	38	1704
Total	140	6105	417	242	155	27	5994	275	454	13809	898	12911
% Apr.	2.1	91.6	6.2	57.0	36.5	6.3	89.1	4.0	6.7	-	-	-
% Int.	1.0	44.2	3.0	1.7	1.1	0.1	43.4	1.9	3.2	-	-	-

Major Street Approaches:

Eastbound:

CSAH 116 (BUNKER LAKE BLVD)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9722.PDF
 Count Type: IMC. Channel: 0. Count Date: 10/28/97
 Number of Lanes: 2
 Approach Speed: 50
 Total Approach Traffic: 6269

Westbound:

CSAH 116 (BUNKER LAKE BLVD)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9722.PDF
 Count Type: IMC. Channel: 0. Count Date: 10/28/97
 Number of Lanes: 2
 Approach Speed: 50
 Total Approach Traffic: 6245

Minor Street Approaches:

Northbound:

CROOKED LAKE BLVD.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9722.PDF
 Count Type: IMC. Channel: 0. Count Date: 10/28/97
 Number of Lanes: 2
 Approach Speed: 30
 Total Approach Traffic: 397

Southbound:

CROOKED LAKE BLVD.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9722.PDF
 Count Type: IMC. Channel: 0. Count Date: 10/28/97
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 0

Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main (Total)	Side			Warrant 1		Warrant 2		Warrant 8	
		Vol.	Dir.	Rank	Meets?	Criteria	Meets?	Criteria	Meets?	Criteria
0	0	0	N	13		140		70		112
1	0	0	N	14		140		70		112
2	0	0	N	15		140		70		112
3	0	0	N	16		140		70		112
4	0	0	N	17		140		70		112
5	0	0	N	18		140		70		112
6	752	29	N	6	MAIN	140	MAIN	70	MAIN	112
7	1165	45	N	3	MAIN	140	MAIN	70	MAIN	112
8	867	30	N	5	MAIN	140	MAIN	70	MAIN	112
9	820	19	N	11	MAIN	140	MAIN	70	MAIN	112
10	737	17	N	12	MAIN	140	MAIN	70	MAIN	112
11	898	20	N	10	MAIN	140	MAIN	70	MAIN	112
12	902	29	N	7	MAIN	140	MAIN	70	MAIN	112
13	825	28	N	8	MAIN	140	MAIN	70	MAIN	112
14	959	25	N	9	MAIN	140	MAIN	70	MAIN	112
15	1336	39	N	4	MAIN	140	MAIN	70	MAIN	112
16	1614	51	N	2	MAIN	140	MAIN	70	MAIN	112
17	1639	65	N	1	MAIN	140	MAIN	70	MAIN	112
18	0	0	N	19		140		70		112
19	0	0	N	20		140		70		112
20	0	0	N	21		140		70		112
21	0	0	N	22		140		70		112
22	0	0	N	23		140		70		112
23	0	0	N	24		140		70		112

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.

Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. Ped volumes too low. Criteria--190 Peds in peak hour, 100 peds in 4th high hour.

Warrant 4 - School Crossing

NOT APPLICABLE. Gap data has not been defined.

Warrant 5 - Progressive Movement

NOT SATISFIED. Adjacent signals closer than 1000 feet and/or not part of coordinated system.

Warrant 6 - Accident Experience

NOT SATISFIED. 0 correctable accidents is fewer than required 5.

Correctable Accidents: 0; Right Angle Accidents: 0; Left Turn Accidents: 0; Other Accidents: 0.

Warrant 7 - Systems Warrant

NOT SATISFIED. At least one street has no major approaches. Peak hour total entering volume: 1704.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which appear as a major route in an official transportation plan.

Warrant 8 - Combination of Warrants

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main: 504; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 1 hours.

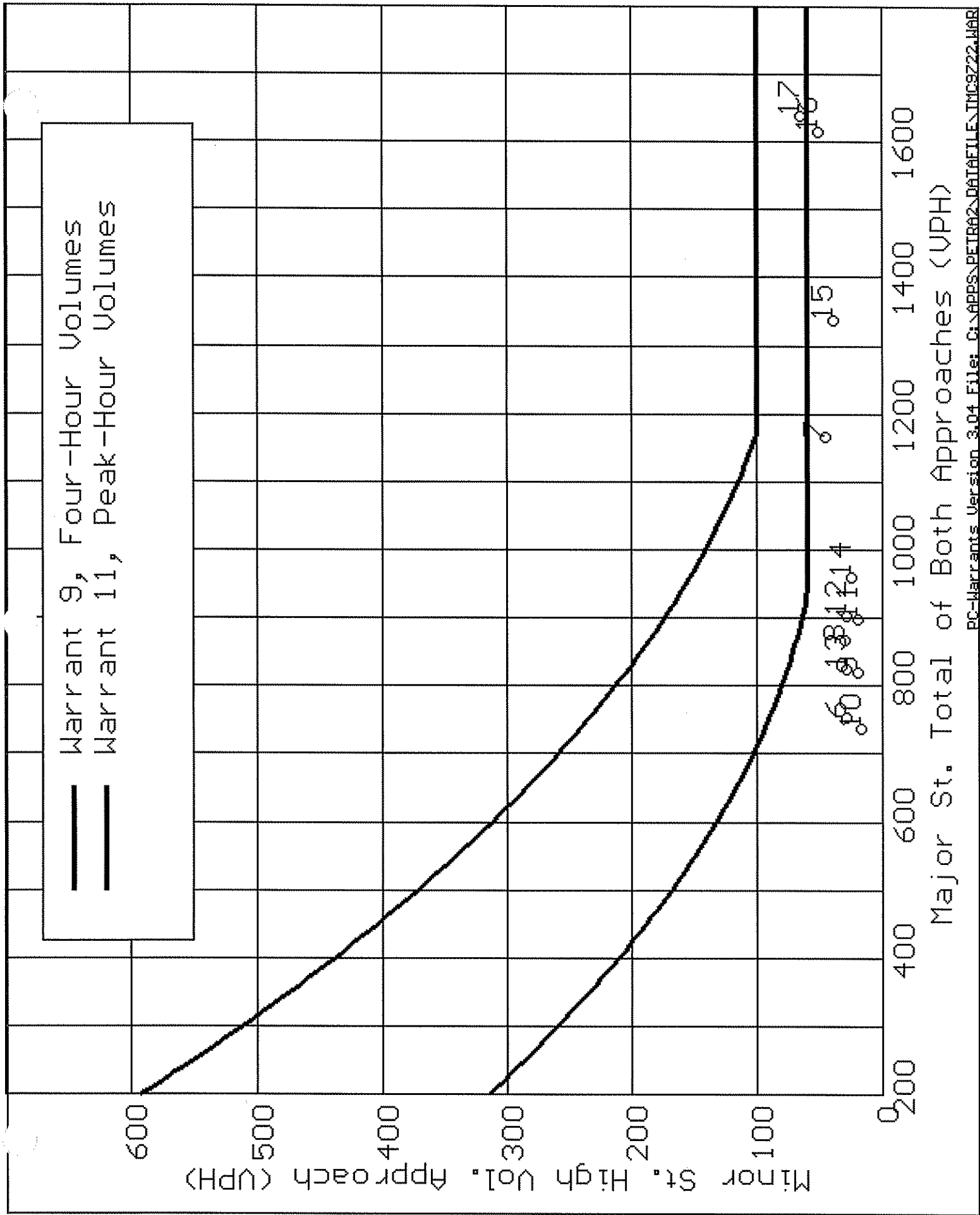
Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1700 hours) volume not adequate.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 150.

Warrant 11 - Peak Hour Volume

NOT SATISFIED.



Major St. Total of Both Approaches (VPH)



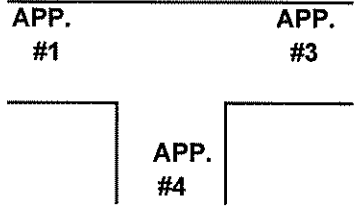
COUNT LOCATION:

CSAH 116 (BUNKER LAKE BLVD)
@ CROOKRD LAKE BLVD.

DATE:

10/28 & 10/29/97

APP. #1=EB CSAH 116
 (BUNKER LAKE BLVD)
 APP. #3=WB CSAH 116
 (BUNKER LAKE BLVD)
 APP. #4=NB CROOKED
 LAKE BLVD



- 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						7		6
6:15-6:30								
6:30-6:45						5		3
6:45-7:00						3		18
HOURLY TOTAL						HOURLY TOTAL		42
7:00-7:15						12		9
7:15-7:30						16		10
7:30-7:45						25		3
7:45-8:00						17		8
HOURLY TOTAL						HOURLY TOTAL		100
8:00-8:15						18		5
8:15-8:30						17		5
8:30-8:45						23		9
8:45-9:00						16		16
HOURLY TOTAL						HOURLY TOTAL		109
9:00-9:15						23		9
9:15-9:30						17		6
9:30-9:45						25		
9:45-10:00						22		
HOURLY TOTAL						HOURLY TOTAL		102
10:00-10:15						19		
10:15-10:30						24		
10:30-10:45						20		2
10:45-11:00						17		1
HOURLY TOTAL						HOURLY TOTAL		83
11:00-11:15						21		3
11:15-11:30						20		4
11:30-11:45						28		6
11:45-12:00						20		2
HOURLY TOTAL						HOURLY TOTAL		104
12:00-12:15						13		9
12:15-12:30						13		2
12:30-12:45						12		1
12:45-1:00						9		7
HOURLY TOTAL						HOURLY TOTAL		66
1:00-1:15						14		3
1:15-1:30						15		
1:30-1:45						11		2
1:45-2:00						10		15
HOURLY TOTAL						HOURLY TOTAL		70



NORTH

COUNT LOCATION:

CSAH 116 (BUNKER LAKE BLVD)
@ CROOKRD LAKE BLVD.

DATE:

10/29/97

APP. #1=EB CSAH 116
(BUNKER LAKE BLVD)
APP. #3=WB CSAH 116
(BUNKER LAKE BLVD)
APP. #4=NB CROOKED
LAKE BLVD

APP. #1 APP. #3
APP. #4

- 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						10		5
2:15-2:30						6		7
2:30-2:45						6		10
2:45-3:00						11		2
HOURLY TOTAL						HOURLY TOTAL		57
3:00-3:15						5		10
3:15-3:30						14		8
3:30-3:45						11		11
3:45-4:00						6		7
HOURLY TOTAL						HOURLY TOTAL		72
4:00-4:15						7		10
4:15-4:30						8		9
4:30-4:45						3		5
4:45-5:00						5		5
HOURLY TOTAL						HOURLY TOTAL		52
5:00-5:15						10		1
5:15-5:30						11		1
5:30-5:45						11		2
5:45-6:00								
HOURLY TOTAL						HOURLY TOTAL		36
6:00-6:15								
6:15-6:30								
6:30-6:45								
6:45-7:00								
HOURLY TOTAL						HOURLY TOTAL		
7:00-7:15								
7:15-7:30								
7:30-7:45								
7:45-8:00								
HOURLY TOTAL						HOURLY TOTAL		
8:00-8:15								
8:15-8:30								
8:30-8:45								
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		
9:00-9:15								
9:15-9:30								
9:30-9:45								
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		