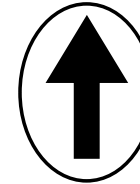


Date : 10/12/21

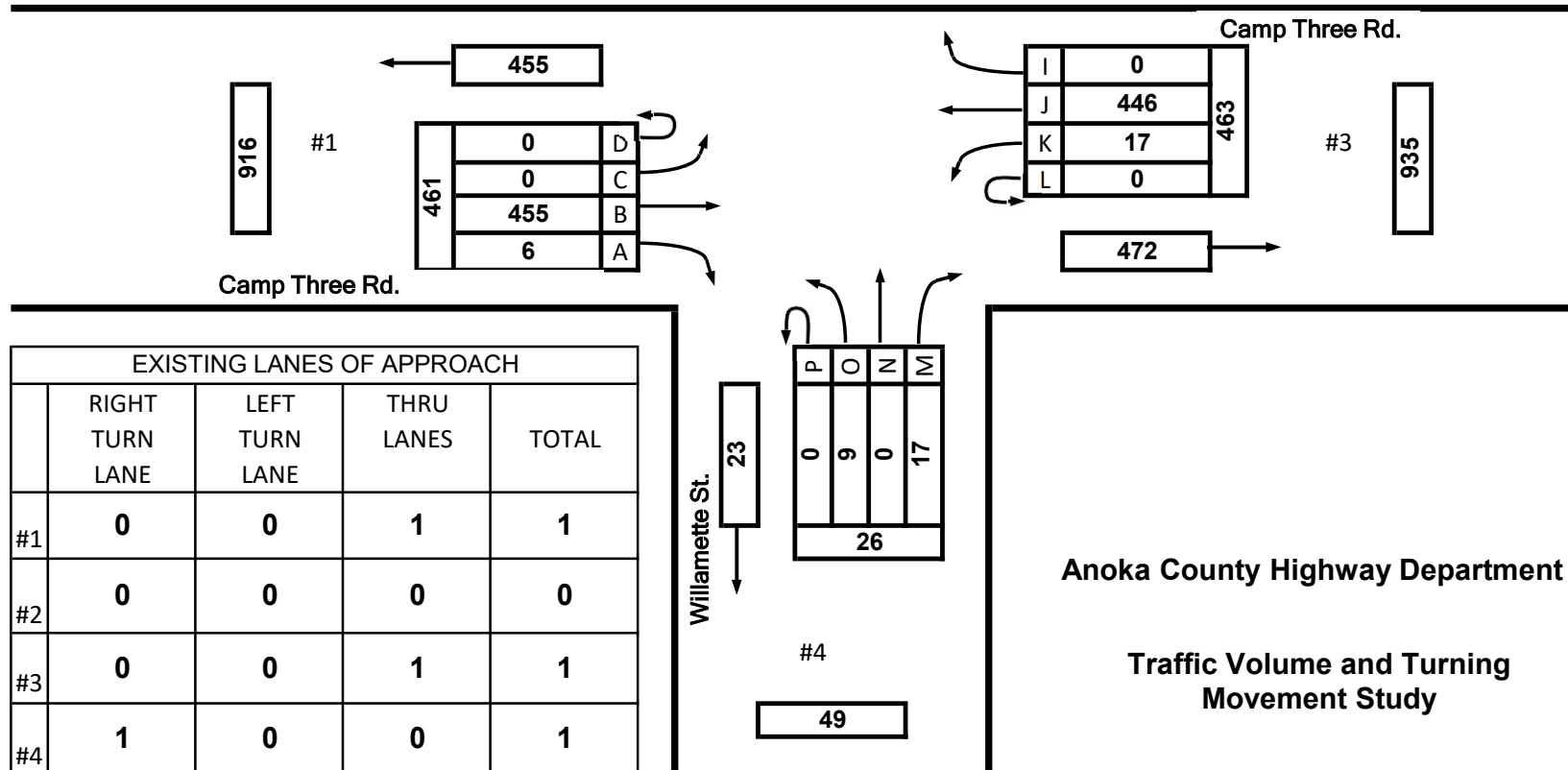
Count Number : TMC 2146

Location : Camp Three Rd.
@ Willamette St.

Collection Period : 24 Hours



North



Anoka County Highway Department

Traffic Volume and Turning Movement Study

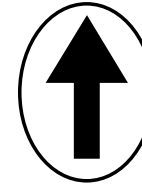
Date : 10/12/21

Count Number : TMC 2146

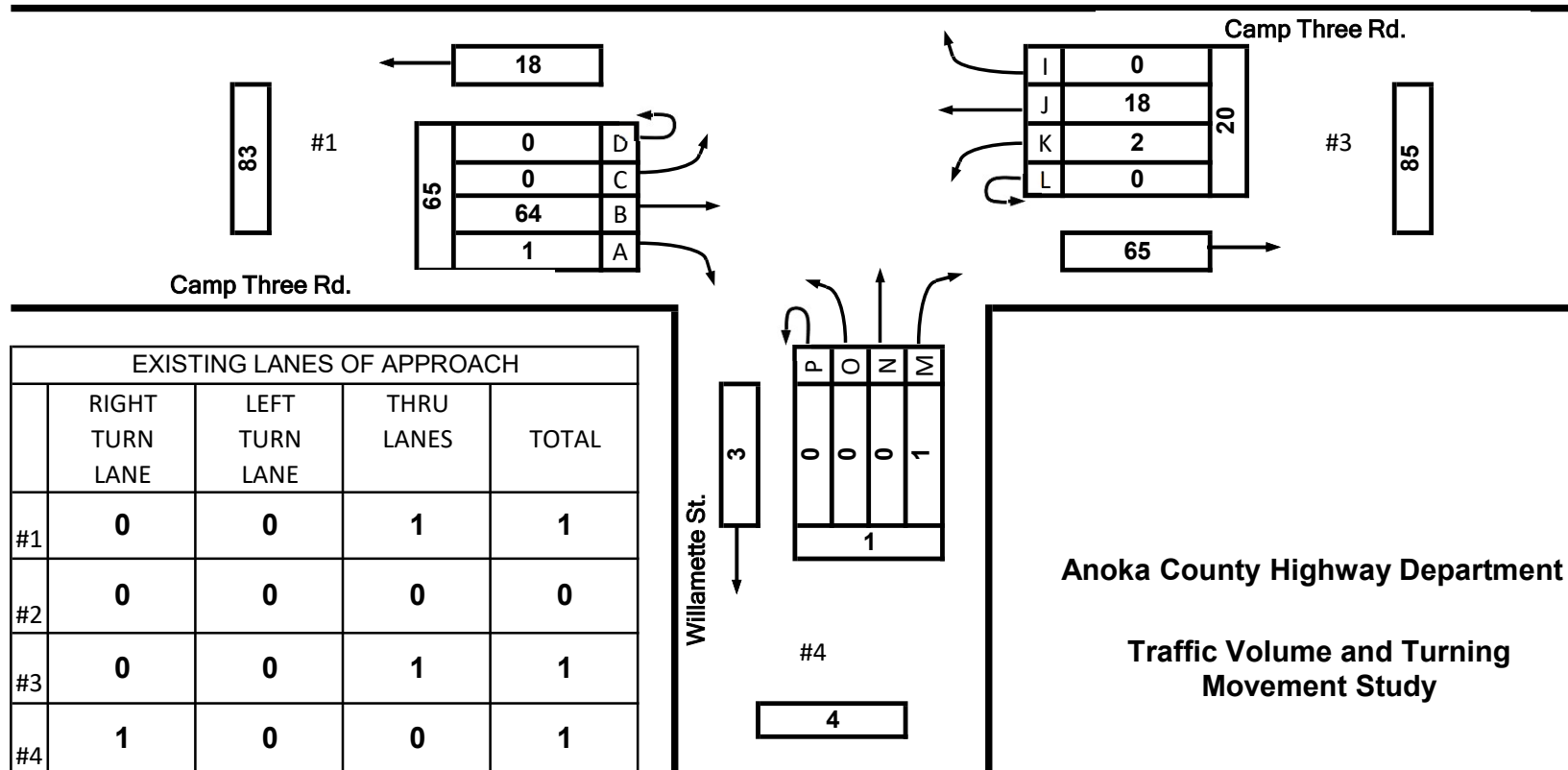
Location : Camp Three Rd.
@ Willamette St.

Collection Period : 7:15 - 8:15 AM

AM PEAK



North



Anoka County Highway Department

Traffic Volume and Turning Movement Study

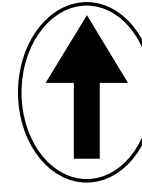
Date : 10/12/21

Count Number : TMC 2146

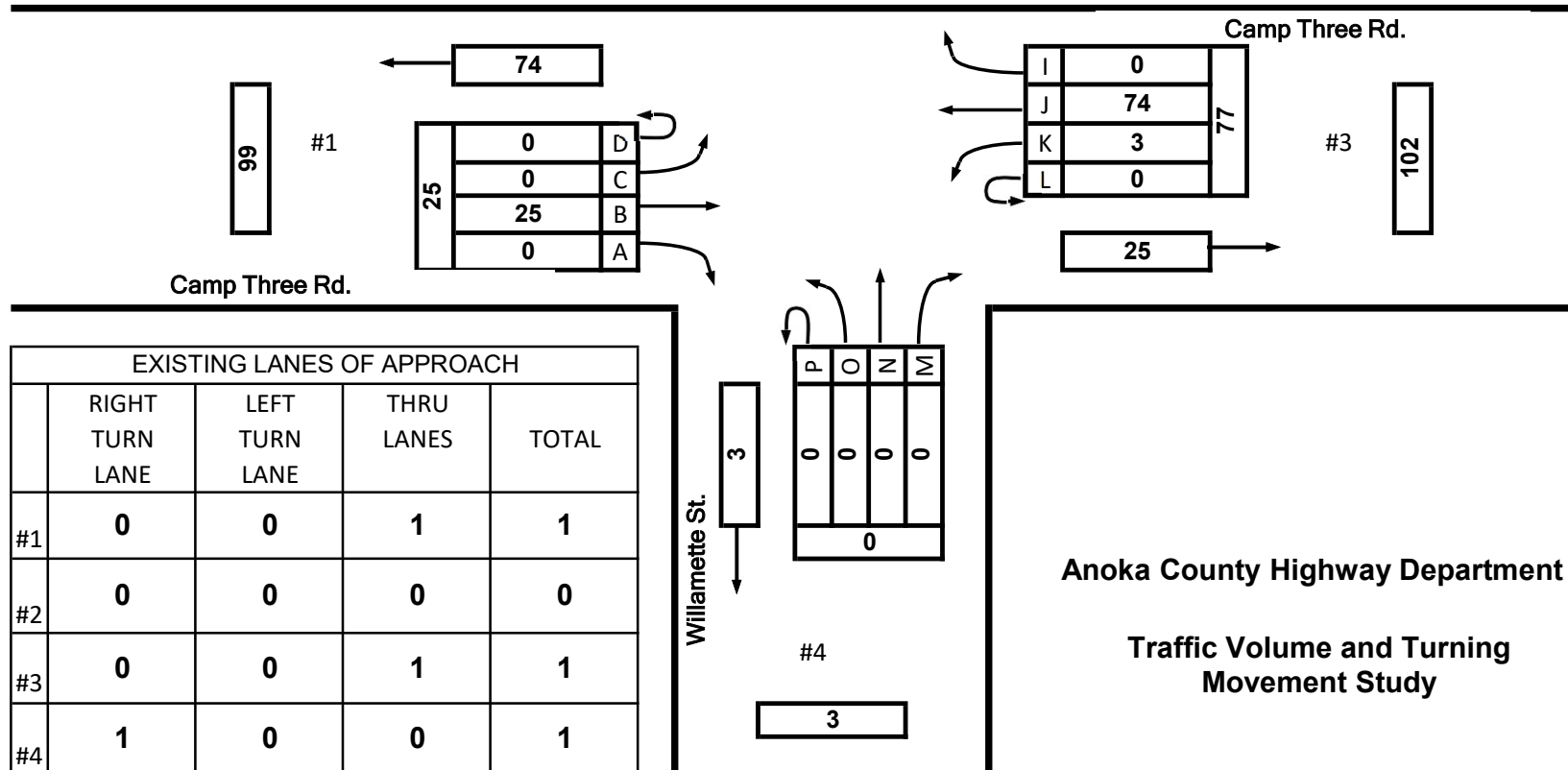
Location : Camp Three Rd.
@ Willamette St.

Collection Period : 4:30 - 5:30 PM

PM PEAK



North



Anoka County Highway Department

Traffic Volume and Turning Movement Study

**TMC 2146
Columbus, MN
Tuesday, October 12, 2021**

Time	Southbound 0						Westbound Camp Three Rd.						Northbound Willamette St.						Eastbound Camp Three Rd.						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2
Hourly Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	3
2:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	3	0	0	3	6
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	2	0	0	0	0	5	0	0	5	9
5:00 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	0	2	5
5:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	9	0	0	9	10
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	9
Hourly Total	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	24	0	0	24	28
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	9
6:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	7	0	0	7	9
6:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	8	0	0	8	9
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	14
Hourly Total	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	38	0	0	38	41
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	15	0	0	15	16
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	18	0	0	18	19
7:30 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	26	0	0	26	31
7:45 AM	0	0	0	0	0	0	0	0	1	4	0	5	0	0	0	1	0	0	1	0	9	1	0	10	16
Hourly Total	0	0	0	0	0	0	0	0	1	11	0	12	0	0	0	1	0	0	1	0	68	1	0	69	82

**TMC 2146
Columbus, MN
Tuesday, October 12, 2021**

Time	Southbound 0						Westbound Camp Three Rd.						Northbound Willamette St.						Eastbound Camp Three Rd.						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
8:00 AM	0	0	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	0	0	11	0	0	11	20
8:15 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	12	0	0	12	15
8:30 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4	1	0	5	9
8:45 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	1	0	0	0	9	0	0	9	14
Hourly Total	0	0	0	0	0	0	0	1	20	0	0	21	0	0	0	0	1	0	0	0	36	1	0	37	58
9:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	4
9:15 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	6	0	0	6	13
9:30 AM	0	0	0	0	0	0	0	1	6	0	0	7	0	1	0	0	0	1	0	0	10	1	0	11	19
9:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	2	0	0	5	0	0	5	8
Hourly Total	0	0	0	0	0	0	0	1	16	0	0	17	0	1	0	2	0	3	0	0	23	1	0	24	44
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	11
10:15 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	8	0	0	8	12
10:30 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	10	0	0	10	14
10:45 AM	0	0	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	0	0	8	0	0	8	17
Hourly Total	0	0	0	0	0	0	0	1	16	0	0	17	0	0	0	0	0	0	0	0	37	0	0	37	54
11:00 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	8	0	0	8	15
11:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	1	0	1	0	0	15	0	0	15	18
11:30 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6	10
11:45 AM	0	0	0	0	0	0	0	1	6	0	0	7	0	0	0	1	0	1	0	0	4	0	0	4	12
Hourly Total	0	0	0	0	0	0	0	1	19	0	0	20	0	0	0	2	0	2	0	0	33	0	0	33	55
12:00 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	1	0	0	0	1	0	0	3	0	0	3	8
12:15 PM	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	0	0	5	0	0	5	19
12:30 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	5	1	0	6	11
12:45 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	1	0	0	0	1	0	0	6	0	0	6	13
Hourly Total	0	0	0	0	0	0	0	0	29	0	0	29	0	2	0	0	0	2	0	0	19	1	0	20	51
1:00 PM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	7	0	0	7	14
1:15 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	5	0	0	5	11
1:30 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	8	0	0	8	12
1:45 PM	0	0	0	0	0	0	0	0	12	0	0	12	0	0	0	1	0	1	0	0	5	0	0	5	18
Hourly Total	0	0	0	0	0	0	0	0	29	0	0	29	0	0	0	1	0	1	0	0	25	0	0	25	55
2:00 PM	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	3	0	3	0	0	7	0	0	7	16
2:15 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	6	0	0	6	11
2:30 PM	0	0	0	0	0	0	0	1	18	0	0	19	0	0	0	0	0	0	0	0	7	0	0	7	26
2:45 PM	0	0	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	0	0	0	6	0	0	6	14
Hourly Total	0	0	0	0	0	0	0	3	35	0	0	38	0	0	0	3	0	3	0	0	26	0	0	26	67
3:00 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	1	0	0	0	1	0	0	8	0	0	8	20
3:15 PM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	5	0	0	5	14
3:30 PM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	2	0	2	0	0	3	0	0	3	16
3:45 PM	0	0	0	0	0	0	0	2	10	0	0	12	0	0	0	0	0	0	0	0	4	0	0	4	16
Hourly Total	0	0	0	0	0	0	0	2	41	0	0	43	0	1	0	2	0	3	0	0	20	0	0	20	66

TMC 2146
Columbus, MN
Tuesday, October 12, 2021

Time	Southbound 0						Westbound Camp Three Rd.						Northbound Willamette St.						Eastbound Camp Three Rd.						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	0	0	0	0	0	0	0	0	16	0	0	16	0	1	0	1	0	2	0	0	10	0	0	10	28
4:15 PM	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	0	0	6	0	0	6	20
4:30 PM	0	0	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	0	0	8	0	0	8	28
4:45 PM	0	0	0	0	0	0	0	1	17	0	0	18	0	0	0	0	0	0	0	0	3	0	0	3	21
Hourly Total	0	0	0	0	0	0	0	1	67	0	0	68	0	1	0	1	0	2	0	0	27	0	0	27	97
5:00 PM	0	0	0	0	0	0	0	2	22	0	0	24	0	0	0	0	0	0	0	0	7	0	0	7	31
5:15 PM	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	7	0	0	7	22
5:30 PM	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	1	0	1	0	0	1	0	0	1	15
5:45 PM	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	8	0	0	8	23
Hourly Total	0	0	0	0	0	0	0	3	64	0	0	67	0	0	0	1	0	1	0	0	23	0	0	23	91
6:00 PM	0	0	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	0	0	0	4	0	0	4	20
6:15 PM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	4	0	0	4	11
6:30 PM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	1	0	1	0	0	4	0	0	4	15
6:45 PM	0	0	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	0	0	4	0	0	4	14
Hourly Total	0	0	0	0	0	0	0	2	41	0	0	43	0	0	0	1	0	1	0	0	16	0	0	16	60
7:00 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	2	0	0	0	2	0	0	4	0	0	4	12
7:15 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	1	0	1	0	2	0	0	3	2	0	5	13
7:30 PM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	0	0	3	0	0	3	13
7:45 PM	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Hourly Total	0	0	0	0	0	0	0	0	31	0	0	31	0	3	0	1	0	4	0	0	10	2	0	12	47
8:00 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
8:15 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	1	0	0	1	6
8:30 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	2	0	0	2	8
8:45 PM	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	6	0	0	6	8
Hourly Total	0	0	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	0	0	0	10	0	0	10	26
9:00 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	5	0	0	5	8
9:15 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	1	0	0	1	7
9:30 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
9:45 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
Hourly Total	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	0	0	7	0	0	7	24
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
10:15 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	5
10:30 PM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	4	0	0	4	7
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	7	0	0	7	0	1	0	0	0	1	0	0	5	0	0	5	13
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
11:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	4
DAILY TOTAL	0	0	0	0	0	0	0	17	474	0	0	491	0	9	0	17	1	26	0	0	455	6	0	461	978
Cars	0	0	0	0	0	0	0	17	446	0	0	463	0	9	0	17	1	26	0	0	437	5	0	442	931
Heavy Vehicles	0	0	0	0	0	0	0	0	28	0	0	28	0	0	0	0	0	0	0	0	18	1	0	19	47
Heavy Vehicle %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.91%	0.00%	0.00%	5.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.96%	16.67%	0.00%	4.12%	4.81%

TMC 2146
Columbus, MN
Tuesday, October 12, 2021
AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	19
7:30 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	26	0	0	26	0	0	0	0	0	0	31
7:45 AM	0	0	0	0	0	0	0	1	4	0	0	5	0	0	0	1	0	1	0	0	9	1	0	10	0	0	0	0	0	0	16
8:00 AM	0	0	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	20
Peak Hour Total	0	0	0	0	0	0	0	2	18	0	0	20	0	0	0	1	0	1	0	0	64	1	0	65	0	0	0	0	0	0	86
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.563	0.000	0.000	0.556	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.615	0.250	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.694

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
4:30 PM	0	0	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	28
4:45 PM	0	0	0	0	0	0	0	1	17	0	0	18	0	0	1	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	21
5:00 PM	0	0	0	0	0	0	0	2	22	0	0	24	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	31
5:15 PM	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	22
Peak Hour Total	0	0	0	0	0	0	0	3	74	0	0	77	0	0	0	0	0	0	0	0	25	0	0	25	0	0	0	0	0	0	102
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.841	0.000	0.000	0.802	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.781	0.000	0.000	0.781	0.000	0.000	0.000	0.000	0.000	0.000	0.823

Total Vehicles On Leg		0	
Vehicles Entering Intersection		0	
Vehicles Exiting Intersection		0	
Southbound			
Cars	0	0	0
Heavy	0	0	0
Total	0	0	0

Total Vehicles on Leg 944	Vehicles Entering Intersection 461	Eastbound	Cars	0	0	0
			Heavy	0	0	0
			Total	0	0	0
	Vehicles Exiting Intersection 483		Cars	437	18	455
			Heavy	5	1	6

Cars	0	0	0	Westbound	Vehicles Entering Intersection 491	Total Vehicles on Leg 963
Heavy	0	0	0			
Total	0	0	0			
Cars	446	28	474			
Heavy	17	0	17			
Cars	0	0	0	Vehicles Exiting Intersection 472		
Heavy	0	0	0			

Daily Volumes

Cars	1	0	9	0	17
Heavy	0	0	0	0	0
Total	1	0	9	0	17
Northbound					
Vehicles Entering Intersection 26			Vehicles Exiting Intersection 23		
Total Vehicles On Leg			49		

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2146

Study Date : 11/17/2021

Signal Warrants - Summary

Major Street Approaches

Eastbound: Camp Three Rd.

Number of Lanes : 1

Total Approach Volume: 461

Westbound: Camp Three Rd.

Number of Lanes : 1

Total Approach Volume: 491

Minor Street Approaches

Northbound: Willamette St.

Number of Lanes : 1

Total Approach Volume: 26

Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

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

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2146

Study Date : 11/17/2021

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **500**

Veh/Hr Minor = **150**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
	Major Road					Minor Road		
	Camp Three Rd.					Willamette St.		
16:30 - 17:30	25	+	77	=	102	0	0	No
16:15 - 17:15	24	+	76	=	100	0	0	No
16:00 - 17:00	27	+	68	=	95	2	0	No
15:45 - 16:45	28	+	62	=	90	2	0	No
17:00 - 18:00	23	+	67	=	90	1	0	No
16:45 - 17:45	18	+	70	=	88	1	0	No
07:15 - 08:15	65	+	20	=	85	1	0	No
07:00 - 08:00	69	+	12	=	81	1	0	No
07:30 - 08:30	59	+	22	=	81	1	0	No
06:45 - 07:45	73	+	7	=	80	0	0	No
17:15 - 18:15	20	+	59	=	79	1	0	No
15:30 - 16:30	23	+	53	=	76	4	0	No
14:30 - 15:30	26	+	47	=	73	1	0	No
14:15 - 15:15	27	+	43	=	70	1	0	No
15:15 - 16:15	22	+	48	=	70	4	0	No
17:45 - 18:45	20	+	48	=	68	1	0	No
17:30 - 18:30	17	+	51	=	68	1	0	No
13:45 - 14:45	25	+	42	=	67	4	0	No
14:00 - 15:00	26	+	38	=	64	3	0	No
10:30 - 11:30	41	+	22	=	63	1	0	No
15:00 - 16:00	20	+	43	=	63	3	0	No
14:45 - 15:45	22	+	39	=	61	3	0	No
07:45 - 08:45	38	+	21	=	59	1	0	No
10:45 - 11:45	37	+	22	=	59	1	0	No
18:00 - 19:00	16		43		59	1	0	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2146

Study Date : 11/17/2021

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Volume Requirements

Veh/Hr Major = **750**

Veh/Hr Minor = **75**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	25	+	77	=	102	0	0	No
16:15 - 17:15	24	+	76	=	100	0	0	No
16:00 - 17:00	27	+	68	=	95	2	0	No
15:45 - 16:45	28	+	62	=	90	2	0	No
17:00 - 18:00	23	+	67	=	90	1	0	No
16:45 - 17:45	18	+	70	=	88	1	0	No
07:15 - 08:15	65	+	20	=	85	1	0	No
07:00 - 08:00	69	+	12	=	81	1	0	No
07:30 - 08:30	59	+	22	=	81	1	0	No
06:45 - 07:45	73	+	7	=	80	0	0	No
17:15 - 18:15	20	+	59	=	79	1	0	No
15:30 - 16:30	23	+	53	=	76	4	0	No
14:30 - 15:30	26	+	47	=	73	1	0	No
14:15 - 15:15	27	+	43	=	70	1	0	No
15:15 - 16:15	22	+	48	=	70	4	0	No
17:45 - 18:45	20	+	48	=	68	1	0	No
17:30 - 18:30	17	+	51	=	68	1	0	No
13:45 - 14:45	25	+	42	=	67	4	0	No
14:00 - 15:00	26	+	38	=	64	3	0	No
10:30 - 11:30	41	+	22	=	63	1	0	No
15:00 - 16:00	20	+	43	=	63	3	0	No
14:45 - 15:45	22	+	39	=	61	3	0	No
07:45 - 08:45	38	+	21	=	59	1	0	No
10:45 - 11:45	37	+	22	=	59	1	0	No
18:00 - 19:00	16		43		59	1	0	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2146

Study Date : 11/17/2021

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **400 600**

Veh/Hr Minor = **120 60**

Major Road Camp Three Rd.

Minor Road Willamette St.

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:30 - 17:30	25	+	77	=	102	0	0	No
16:15 - 17:15	24	+	76	=	100	0	0	No
16:00 - 17:00	27	+	68	=	95	2	0	No
15:45 - 16:45	28	+	62	=	90	2	0	No
17:00 - 18:00	23	+	67	=	90	1	0	No
16:45 - 17:45	18	+	70	=	88	1	0	No
07:15 - 08:15	65	+	20	=	85	1	0	No
07:00 - 08:00	69	+	12	=	81	1	0	No
07:30 - 08:30	59	+	22	=	81	1	0	No
06:45 - 07:45	73	+	7	=	80	0	0	No
17:15 - 18:15	20	+	59	=	79	1	0	No
15:30 - 16:30	23	+	53	=	76	4	0	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:30 - 17:30	25	+	77	=	102	0	0	No
16:15 - 17:15	24	+	76	=	100	0	0	No
16:00 - 17:00	27	+	68	=	95	2	0	No
15:45 - 16:45	28	+	62	=	90	2	0	No
17:00 - 18:00	23	+	67	=	90	1	0	No
16:45 - 17:45	18	+	70	=	88	1	0	No
07:15 - 08:15	65	+	20	=	85	1	0	No
07:00 - 08:00	69	+	12	=	81	1	0	No
07:30 - 08:30	59	+	22	=	81	1	0	No
06:45 - 07:45	73	+	7	=	80	0	0	No
17:15 - 18:15	20	+	59	=	79	1	0	No
15:30 - 16:30	23	+	53	=	76	4	0	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2146

Study Date : 11/17/2021

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

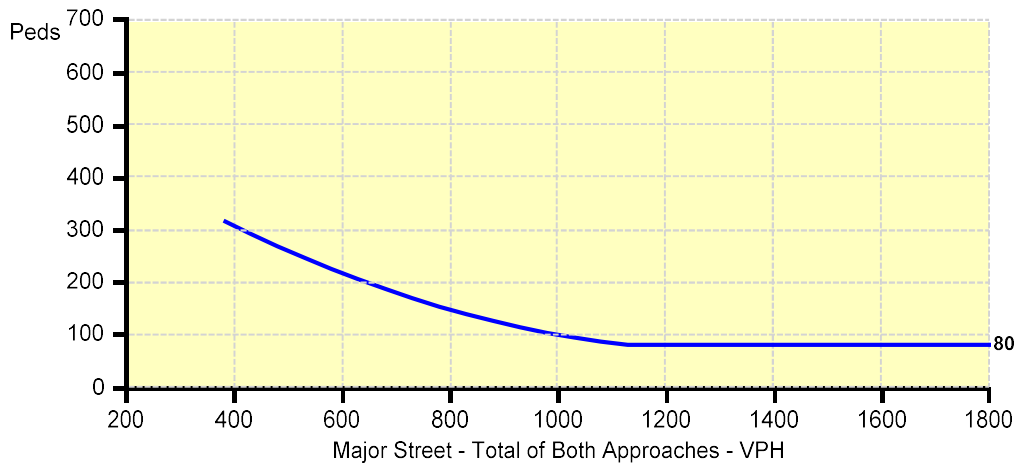
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Time	Major Road Camp Three Rd.				=	Total	Minor Road Willamette St.		Met?
	Major EB	+	Major WB				Minor NB	Minor SB	
16:30 - 17:30	25	+	77	=	102	0	0	No	
16:15 - 17:15	24	+	76	=	100	0	0	No	
16:00 - 17:00	27	+	68	=	95	2	0	No	
15:45 - 16:45	28	+	62	=	90	2	0	No	
17:00 - 18:00	23	+	67	=	90	1	0	No	
16:45 - 17:45	18	+	70	=	88	1	0	No	
07:15 - 08:15	65	+	20	=	85	1	0	No	
07:00 - 08:00	69	+	12	=	81	1	0	No	
07:30 - 08:30	59	+	22	=	81	1	0	No	
06:45 - 07:45	73	+	7	=	80	0	0	No	
17:15 - 18:15	20	+	59	=	79	1	0	No	



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2146

Study Date : 11/17/2021

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **False**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Time	Major Road Camp Three Rd.				=	Total	Minor Road Willamette St.		Met?
	Major EB	+	Major WB	Minor NB			Minor SB		
16:30 - 17:30	25	+	77	=	102	0	0	No	
16:15 - 17:15	24	+	76	=	100	0	0	No	
16:00 - 17:00	27	+	68	=	95	2	0	No	
15:45 - 16:45	28	+	62	=	90	2	0	No	
17:00 - 18:00	23	+	67	=	90	1	0	No	
16:45 - 17:45	18	+	70	=	88	1	0	No	
07:15 - 08:15	65	+	20	=	85	1	0	No	
07:00 - 08:00	69	+	12	=	81	1	0	No	
07:30 - 08:30	59	+	22	=	81	1	0	No	
06:45 - 07:45	73	+	7	=	80	0	0	No	
17:15 - 18:15	20	+	59	=	79	1	0	No	

