



# MINNESOTA DEPARTMENT OF TRANSPORTATION

## METRO DIVISION - TRAFFIC ENGINEERING

### SIGNAL WARRANTS ANALYSIS

LOCATION: TH-244 & WEDGEWOOD DR.

COUNTY: WASHINGTON

REF. POINT: 002.892

DATE: 9/18/2000

OPERATOR: RE

Speed	Approach Description	Lanes
45	Major App1: TH-244 EB, W OF WEDGEWOOD DR.	3
45	Major App3: TH-244 WB, E OF WEDGEWOOD DR.	3
30	Minor App2: WEDGEWOOD DR. NB, S OF TH-244	1
30	Minor App4: WEDGEWOOD DR. SB, N OF TH-244	1

0.70 FACTOR USED? YES

POPULATION < 10,000? NO

EXISTING SIGNAL ? NO

HOUR	420/630				105/52		105/52		MET SAME HOURS
	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	WARRANT MET	MINOR APP. 2	MINOR APP. 4	WARRANT MET APP.2	WARRANT MET APP. 4	
0:00 - 1:00	27	17	44	/	0	1	/	/	/
1:00 - 2:00	15	5	20	/	0	1	/	/	/
2:00 - 3:00	6	10	16	/	0	1	/	/	/
3:00 - 4:00	9	7	16	/	1	3	/	/	/
4:00 - 5:00	11	20	31	/	1	0	/	/	/
5:00 - 6:00	26	115	141	/	3	11	/	/	/
6:00 - 7:00	126	380	506	X/	13	57	/	/X	/
7:00 - 8:00	223	663	886	X/X	26	81	/	/X	/X
8:00 - 9:00	291	524	815	X/X	24	47	/	/	/
9:00 - 10:00	334	482	816	X/X	18	30	/	/	/
10:00 - 11:00	343	361	704	X/X	25	22	/	/	/
11:00 - 12:00	443	407	850	X/X	17	30	/	/	/
12:00 - 13:00	495	414	909	X/X	22	30	/	/	/
13:00 - 14:00	422	372	794	X/X	12	45	/	/	/
14:00 - 15:00	596	447	1043	X/X	16	45	/	/	/
15:00 - 16:00	693	476	1169	X/X	21	85	/	/X	/X
16:00 - 17:00	776	483	1259	X/X	14	89	/	/X	/X
17:00 - 18:00	879	526	1405	X/X	19	90	/	/X	/X
18:00 - 19:00	777	486	1263	X/X	25	86	/	/X	/X
19:00 - 20:00	525	405	930	X/X	15	76	/	/X	/X
20:00 - 21:00	438	277	715	X/X	14	52	/	/X	/X
21:00 - 22:00	293	207	500	X/	4	20	/	/	/
22:00 - 23:00	144	91	235	/	3	15	/	/	/
23:00 - 24:00	60	39	99	/	0	4	/	/	/

	Met (Hr)	Required (Hr)	
Warrant 1	0	8	Not satisfied
Warrant 2	7	8	Not satisfied
Warrant 6	11	8	Satisfied, check accident record
Warrant 8	4	8	Not satisfied
Warrant 9	6	4	Satisfied
Warrant 11	4	1	Satisfied

LOCATION: TH-244 & WEDGEWOOD DR.

COUNTY: WASHINGTON

REF. POINT: 002.892

DATE: 9/18/2000

OPERATOR: RE

0.70 FACTOR USED? YES  
 POPULATION < 10,000? NO  
 EXISTING SIGNAL ? NO

Speed	Approach Description	Lanes
45	Major App1: TH-244 EB, W OF WEDGEWOOD DR.	3
45	Major App3: TH-244 WB, E OF WEDGEWOOD DR.	3
30	Minor App2: WEDGEWOOD DR. NB, S OF TH-244	1
30	Minor App4: WEDGEWOOD DR. SB, N OF TH-244	1

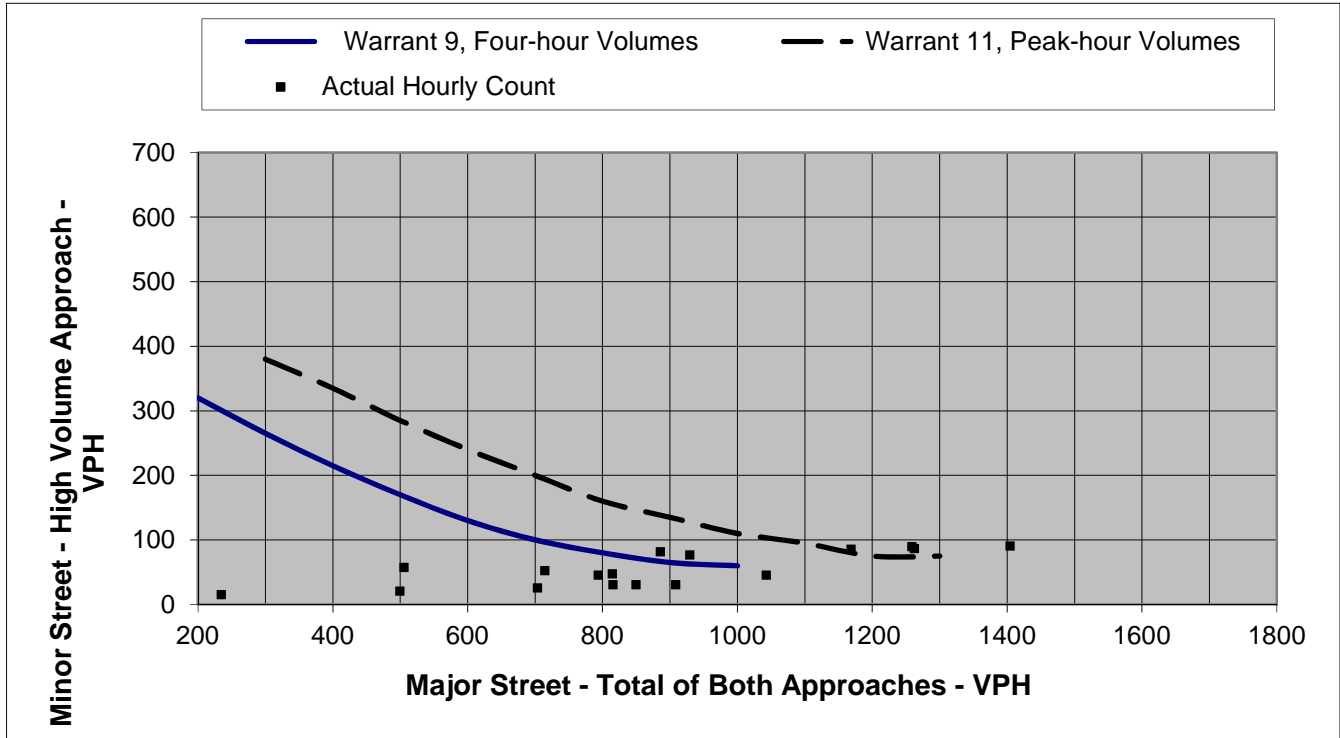


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Major	Warrant Criteria		Actual Hourly Count	
	Warrant 9, F	Warrant 11, P	Major	Actual Hourly Count
200	320		44	1
300	265	380	20	1
400	215	335	16	1
500	170	285	16	3
600	130	240	31	1
700	100	200	141	11
800	80	160	506	57
900	65	135	886	81
1000	60	110	815	47
1100		95	816	30
1200		75	704	25
1300		75	850	30
1400			909	30
1500			794	45
1600			1043	45
1700			1169	85
1800			1259	89
			1405	90
			1263	86
			930	76
			715	52
			500	20
			235	15
			99	4

Four Hour Warrant

Major App	Minor App		
	1 & 1	2 & 1	2 & 2
300	360	440	590
400	310	390	530
500	260	340	460
600	215	290	390
700	180	245	330
800	150	205	280
900	125	170	235
1000	100	145	195
1100	85	120	165
1200	80	100	135
1300	80	83	110
1400	80	80	110

Peak Hour

Major App	1 & 1
400	475
500	425
600	370
700	330
800	280
900	240
1000	204
1100	175
1200	150
1300	130
1400	115
1500	100
1600	100
1700	100
1800	100

Four Hour Warrant Factored

Major App	Minor App		
	1 & 1	2 & 1	2 & 2
200	250	320	420
300	210	265	350
400	170	215	285
500	130	170	230
600	93	130	175
700	70	100	135
800	60	80	103
900	60	65	80
1000	60	60	80

Peak Hour

Major App	1 & 1
300	320
400	270
500	225
600	180
700	145
800	115
900	90
1000	75
1100	75
1200	75
1300	75



Warrant

Minor App

2 & 1	2 & 2
570	725
520	665
465	600
420	540
370	480
330	425
285	375
250	330
220	285
190	250
160	220
140	187
115	165
100	150
100	150

Warrant Factored

Minor App

2 & 1	2 & 2
380	500
335	435
285	370
240	315
200	260
160	215
135	175
110	140
95	115
75	100
75	100



# MINNESOTA DEPARTMENT OF TRANSPORTATION

## METRO DIVISION - TRAFFIC ENGINEERING

### ALL WAY STOP WARRANT

LOCATION: TH-244 & WEDGEWOOD DR.

COUNTY: WASHINGTON

REF. POINT: 002.892

DATE: 9/18/2000

OPERATOR: RE

Speed	Approach Description	Lanes
45	Major App1: TH-244 EB, W OF WEDGEWOOD DR.	3
45	Major App3: TH-244 WB, E OF WEDGEWOOD DR.	3
30	Minor App2: WEDGEWOOD DR. NB, S OF TH-244	1
30	Minor App4: WEDGEWOOD DR. SB, N OF TH-244	1

0.70 FACTOR USED? Yes

HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	350	140	WARRANT MET
					TOTAL Σ (APP.1 to APP. 4)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	27	17	0	1	45	1	/
1:00 - 2:00	15	5	0	1	21	1	/
2:00 - 3:00	6	10	0	1	17	1	/
3:00 - 4:00	9	7	1	3	20	4	/
4:00 - 5:00	11	20	1	0	32	1	/
5:00 - 6:00	26	115	3	11	155	14	/
6:00 - 7:00	126	380	13	57	576	70	X/
7:00 - 8:00	223	663	26	81	993	107	X/
8:00 - 9:00	291	524	24	47	886	71	X/
9:00 - 10:00	334	482	18	30	864	48	X/
10:00 - 11:00	343	361	25	22	751	47	X/
11:00 - 12:00	443	407	17	30	897	47	X/
12:00 - 13:00	495	414	22	30	961	52	X/
13:00 - 14:00	422	372	12	45	851	57	X/
14:00 - 15:00	596	447	16	45	1104	61	X/
15:00 - 16:00	693	476	21	85	1275	106	X/
16:00 - 17:00	776	483	14	89	1362	103	X/
17:00 - 18:00	879	526	19	90	1514	109	X/
18:00 - 19:00	777	486	25	86	1374	111	X/
19:00 - 20:00	525	405	15	76	1021	91	X/
20:00 - 21:00	438	277	14	52	781	66	X/
21:00 - 22:00	293	207	4	20	524	24	X/
22:00 - 23:00	144	91	3	15	253	18	/
23:00 - 24:00	60	39	0	4	103	4	/

Allway Stop Warrant: Met (Hr) 0 Required (Hr) 8 Not satisfied

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# MINNESOTA DEPARTMENT OF TRANSPORTATION

## METRO DIVISION - TRAFFIC ENGINEERING

### TRAFFIC COUNT DATA

ROUTE #: TH-244 EB, W OF WEDGEWOOD DR.

COUNTY: WASHINGTON

REF. PT.: 002.892

SITE CODE: APPROACH

OPERATOR: RE

FOR COUNTS BEGINNING: **September 18, 2000**

DATE HOUR \ DAY	18 MON.	19 TUE.	20 WED.	21 THU.	22 FRI.	23 SAT.	24 SUN.	AVE. WK.DAY	AVE. WKEND
0:00 - 1:00		25	29					27	
1:00 - 2:00		17	14					15	
2:00 - 3:00		6	7					6	
3:00 - 4:00		13	6					9	
4:00 - 5:00		10	12					11	
5:00 - 6:00		29	24					26	
6:00 - 7:00		118	134					126	
7:00 - 8:00		194	252					223	
8:00 - 9:00		277	305					291	
9:00 - 10:00		325	343					334	
10:00 - 11:00	351	318	361					343	
11:00 - 12:00	412	435	484					443	
12:00 - 13:00	520	471						495	
13:00 - 14:00	440	405						422	
14:00 - 15:00	587	605						596	
15:00 - 16:00	717	669						693	
16:00 - 17:00	785	768						776	
17:00 - 18:00	915	843						879	
18:00 - 19:00	793	761						777	
19:00 - 20:00	523	527						525	
20:00 - 21:00	418	459						438	
21:00 - 22:00	281	305						293	
22:00 - 23:00	149	139						144	
23:00 - 24:00	61	60						60	
<b>TOTAL</b>	<b>6952</b>	<b>7779</b>	<b>1971</b>					<b>7952</b>	

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\244EBWED



# MINNESOTA DEPARTMENT OF TRANSPORTATION

## METRO DIVISION - TRAFFIC ENGINEERING

### TRAFFIC COUNT DATA

ROUTE #: WEDGEWOOD DR. NB, S OF TH-244

COUNTY: WASHINGTON

REF. PT.: 002.892

SITE CODE: APPROACH

OPERATOR: RE

FOR COUNTS BEGINNING: **September 18, 2000**

DATE HOUR \ DAY	18 MON.	19 TUE.	20 WED.	21 THU.	22 FRI.	23 SAT.	24 SUN.	AVE. WK.DAY	AVE. WKEND
0:00 - 1:00		0	0					0	
1:00 - 2:00		0	0					0	
2:00 - 3:00		0	1					0	
3:00 - 4:00		2	1					1	
4:00 - 5:00		0	3					1	
5:00 - 6:00		3	3					3	
6:00 - 7:00		14	12					13	
7:00 - 8:00		25	28					26	
8:00 - 9:00		26	23					24	
9:00 - 10:00		18						18	
10:00 - 11:00	24	26						25	
11:00 - 12:00	15	20						17	
12:00 - 13:00	25	19						22	
13:00 - 14:00	19	5						12	
14:00 - 15:00	17	15						16	
15:00 - 16:00	23	20						21	
16:00 - 17:00	15	14						14	
17:00 - 18:00	20	18						19	
18:00 - 19:00	22	28						25	
19:00 - 20:00	13	17						15	
20:00 - 21:00	13	15						14	
21:00 - 22:00	7	2						4	
22:00 - 23:00	4	2						3	
23:00 - 24:00	0	0						0	
<b>TOTAL</b>	<b>217</b>	<b>289</b>	<b>71</b>					<b>293</b>	

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\WEDGEWNB





# MINNESOTA DEPARTMENT OF TRANSPORTATION

## METRO DIVISION - TRAFFIC ENGINEERING

### TRAFFIC COUNT DATA

ROUTE #: TH-244 WB, E OF WEDGEWOOD DR.

COUNTY: WASHINGTON

REF. PT.: 002.892

SITE CODE: APPROACH

OPERATOR: RE

FOR COUNTS BEGINNING: **September 18, 2000**

DATE HOUR \ DAY	18 MON.	19 TUE.	20 WED.	21 THU.	22 FRI.	23 SAT.	24 SUN.	AVE. WK.DAY	AVE. WKEND
0:00 - 1:00		19	15					17	
1:00 - 2:00		5	5					5	
2:00 - 3:00		11	9					10	
3:00 - 4:00		6	8					7	
4:00 - 5:00		21	19					20	
5:00 - 6:00		112	118					115	
6:00 - 7:00		375	386					380	
7:00 - 8:00		648	678					663	
8:00 - 9:00		488	561					524	
9:00 - 10:00		470	494					482	
10:00 - 11:00		357	366					361	
11:00 - 12:00	420	384	418					407	
12:00 - 13:00	385	435	423					414	
13:00 - 14:00	380	364						372	
14:00 - 15:00	451	443						447	
15:00 - 16:00	514	438						476	
16:00 - 17:00	498	468						483	
17:00 - 18:00	489	563						526	
18:00 - 19:00	501	472						486	
19:00 - 20:00	408	402						405	
20:00 - 21:00	276	279						277	
21:00 - 22:00	257	157						207	
22:00 - 23:00	103	80						91	
23:00 - 24:00	42	37						39	
<b>TOTAL</b>	<b>4724</b>	<b>7034</b>	<b>3500</b>					<b>7214</b>	

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\244WBWED



# MINNESOTA DEPARTMENT OF TRANSPORTATION

## METRO DIVISION - TRAFFIC ENGINEERING

### TRAFFIC COUNT DATA

ROUTE #: WEDGEWOOD DR. SB, N OF TH-244

COUNTY: WASHINGTON

REF. PT.: 002.892

SITE CODE: APPROACH

OPERATOR: RE

FOR COUNTS BEGINNING: **September 18, 2000**

DATE HOUR \ DAY	18 MON.	19 TUE.	20 WED.	21 THU.	22 FRI.	23 SAT.	24 SUN.	AVE. WK.DAY	AVE. WKEND
0:00 - 1:00		2	1					1	
1:00 - 2:00		2	1					1	
2:00 - 3:00		1	2					1	
3:00 - 4:00		2	4					3	
4:00 - 5:00		1	0					0	
5:00 - 6:00		10	12					11	
6:00 - 7:00		53	61					57	
7:00 - 8:00		80	83					81	
8:00 - 9:00		39	55					47	
9:00 - 10:00		27	34					30	
10:00 - 11:00		19	26					22	
11:00 - 12:00	25	35	32					30	
12:00 - 13:00	31	33	26					30	
13:00 - 14:00	49	42	45					45	
14:00 - 15:00	47	43						45	
15:00 - 16:00	87	84						85	
16:00 - 17:00	94	84						89	
17:00 - 18:00	90	91						90	
18:00 - 19:00	91	82						86	
19:00 - 20:00	64	89						76	
20:00 - 21:00	50	55						52	
21:00 - 22:00	20	20						20	
22:00 - 23:00	15	16						15	
23:00 - 24:00	3	5						4	
<b>TOTAL</b>	<b>666</b>	<b>915</b>	<b>382</b>					<b>921</b>	

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\WEDGEWSB