

Appendix G

Traffic Data

CONTENTS

This appendix includes background and input data for the various traffic forecasting and analyses found throughout the TSP. See below for the location of the data for each type of analysis.

Peak Hour Turn Movement and 24-Hour Tube Counts	G-2
Existing Conditions Synchro Analysis	G-98
Future Conditions Synchro Analysis.....	G-122
Signal Warrant Worksheet	G-145
Crash Data.....	G-146
Project Cost Estimates.....	G-166

Peak Hour Summary

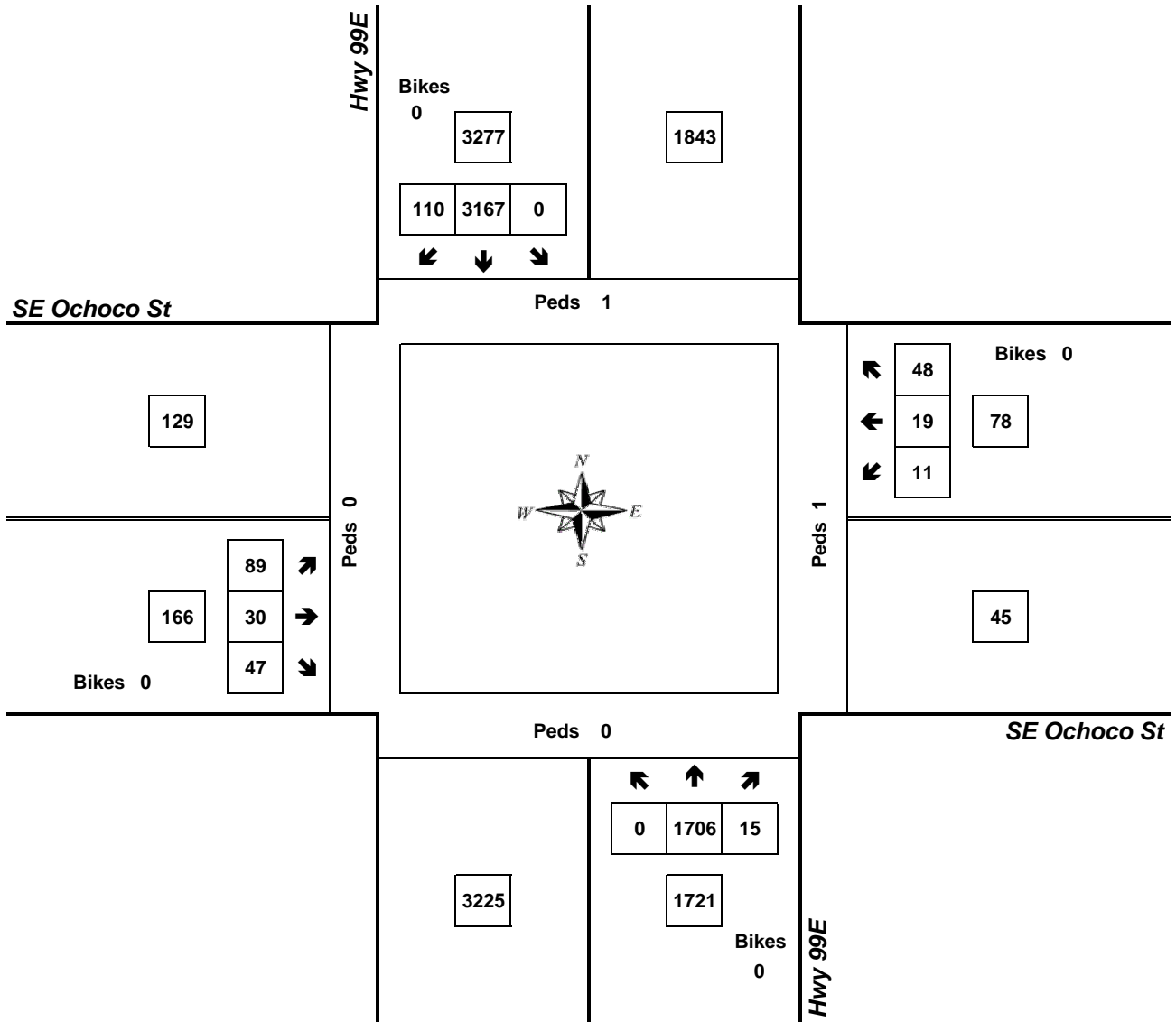


Clay Carney
(503) 833-2740

Hwy 99E & SE Ochoco St

4:30 PM to 5:30 PM

Wednesday, November 29, 2006



Approach	PHF	HV%	Volume
EB	0.78	20.5%	166
WB	0.78	20.5%	78
NB	0.90	3.1%	1,721
SB	0.97	2.7%	3,277
Intersection	0.97	3.6%	5,242

Count Period: 3:00 PM to 6:00 PM

Peak Hour Summary

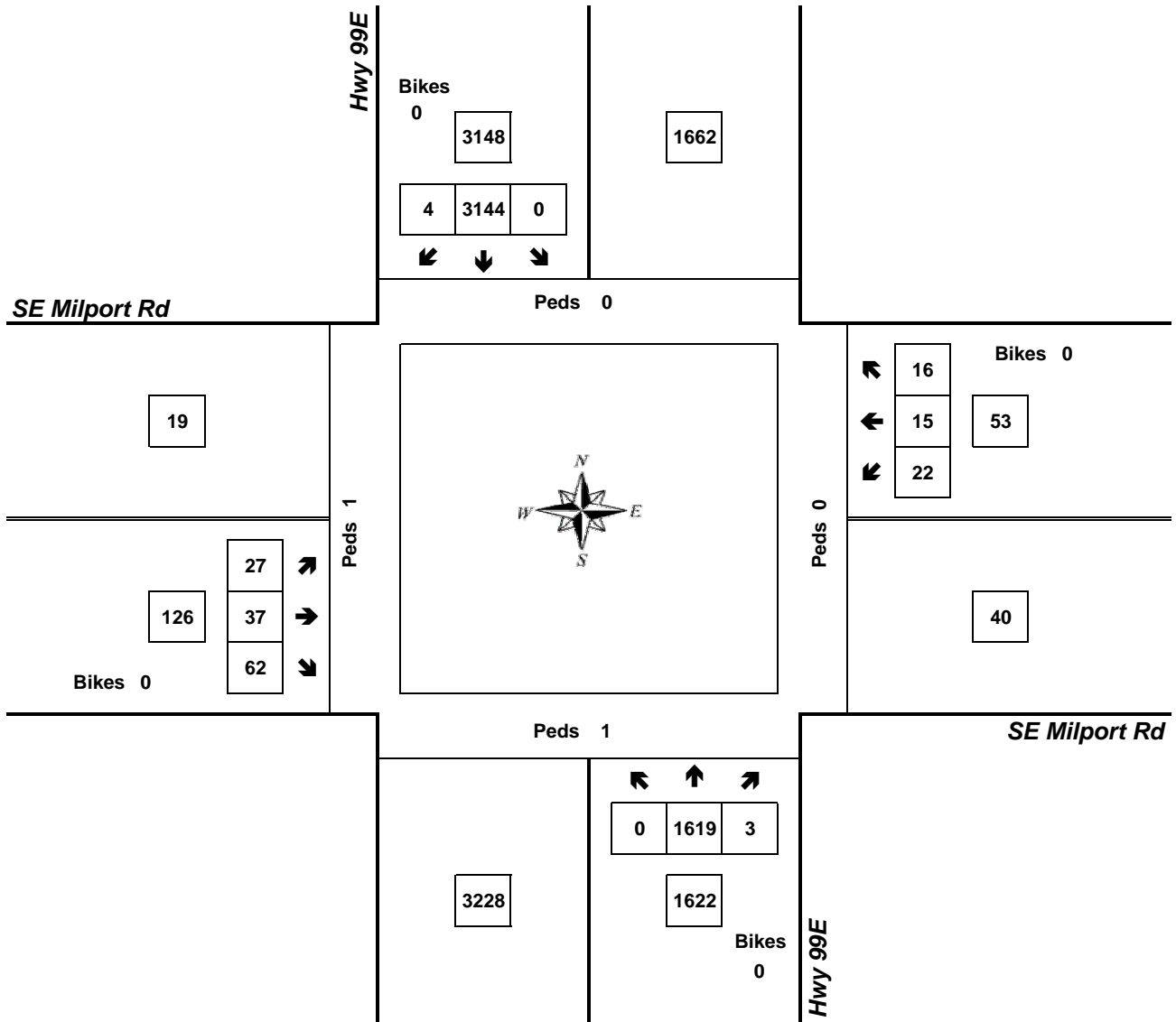


Clay Carney
(503) 833-2740

Hwy 99E & SE Milport Rd

4:15 PM to 5:15 PM

Wednesday, November 29, 2006



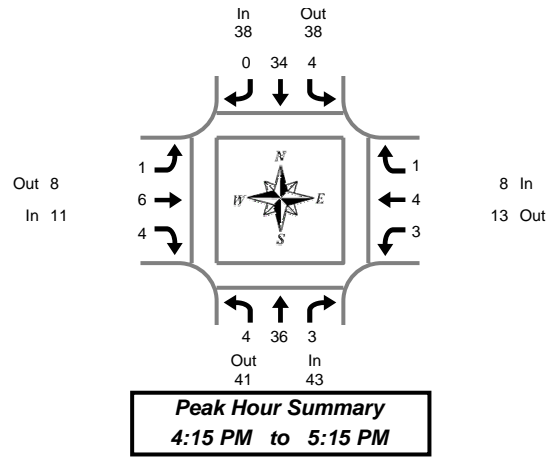
Approach	PHF	HV%	Volume
EB	0.85	5.6%	126
WB	0.78	0.0%	53
NB	0.92	4.1%	1,622
SB	0.94	2.4%	3,148
Intersection	0.96	3.0%	4,949

Count Period: 3:00 PM to 6:00 PM

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE Harrison St

Wednesday, November 29, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	1	5	1	7	0	12	1	13	1	1	2	4	2	1	1	4	28
3:15 PM	0	8	0	8	0	14	0	14	0	1	3	4	1	1	1	3	29
3:30 PM	0	10	1	11	0	14	0	14	0	2	1	3	0	1	0	1	29
3:45 PM	2	10	3	15	1	15	0	16	0	2	3	5	3	1	1	5	41
4:00 PM	2	14	1	17	4	10	1	15	0	2	6	8	3	1	0	4	44
4:15 PM	2	9	1	12	2	11	0	13	0	2	1	3	0	1	1	2	30
4:30 PM	2	10	1	13	0	7	0	7	1	1	2	4	2	1	0	3	27
4:45 PM	0	8	0	8	2	7	0	9	0	1	1	2	0	1	0	1	20
5:00 PM	0	9	1	10	0	9	0	9	0	2	0	2	1	1	0	2	23
5:15 PM	2	2	1	5	1	6	0	7	0	1	1	2	0	1	0	1	15
5:30 PM	0	3	0	3	0	8	0	8	0	0	0	0	0	1	0	1	12
5:45 PM	1	4	2	7	0	2	1	3	0	1	1	2	1	1	0	2	14
Total Survey	12	92	12	116	10	115	3	128	2	16	21	39	13	12	4	29	312

Heavy Vehicle Peak Hour Summary 4:15 PM to 5:15 PM

By Approach	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Harrison St			Westbound SE Harrison St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	43	41	84	38	38	76	11	8	19	8	13	21	100
PHF	0.24			0.21			0.17			0.18			0.22

By Movement	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Harrison St				Westbound SE Harrison St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	4	36	3	43	4	34	0	38	1	6	4	11	3	4	1	8	100
PHF	0.17	0.26	0.15	0.24	0.14	0.20	0.00	0.21	0.25	0.25	0.10	0.17	0.13	0.33	0.13	0.18	0.22

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	3	33	5	41	1	55	1	57	1	6	9	16	6	4	3	13	127
3:15 PM	4	42	5	51	5	53	1	59	0	7	13	20	7	4	2	13	143
3:30 PM	6	43	6	55	7	50	1	58	0	8	11	19	6	4	2	12	144
3:45 PM	8	43	6	57	7	43	1	51	1	7	12	20	8	4	2	14	142
4:00 PM	6	41	3	50	8	35	1	44	1	6	10	17	5	4	1	10	121
4:15 PM	4	36	3	43	4	34	0	38	1	6	4	11	3	4	1	8	100
4:30 PM	4	29	3	36	3	29	0	32	1	5	4	10	3	4	0	7	85
4:45 PM	2	22	2	26	3	30	0	33	0	4	2	6	1	4	0	5	70
5:00 PM	3	18	4	25	1	25	1	27	0	4	2	6	2	4	0	6	64

Peak Hour Summary

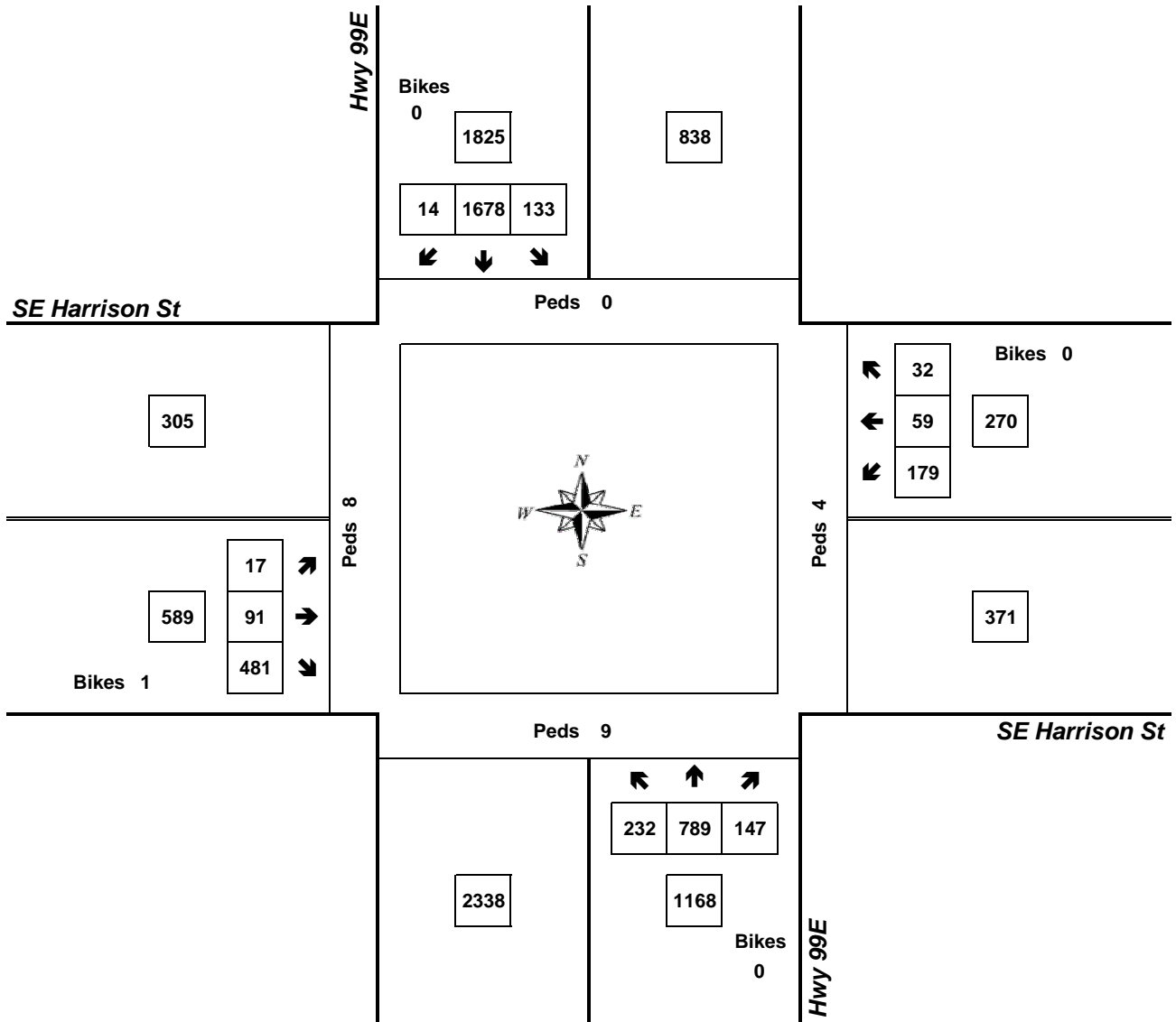


Clay Carney
(503) 833-2740

Hwy 99E & SE Harrison St

4:15 PM to 5:15 PM

Wednesday, November 29, 2006



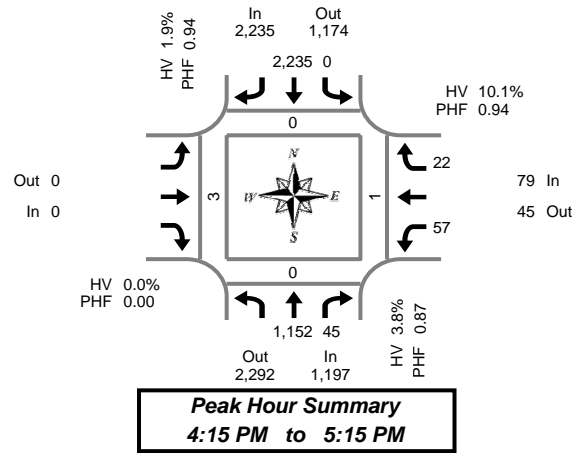
Approach	PHF	HV%	Volume
EB	0.91	1.9%	589
WB	0.89	3.0%	270
NB	0.94	3.7%	1,168
SB	0.92	2.1%	1,825
Intersection	0.96	2.6%	3,852

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE Monroe St

Wednesday, November 29, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
3:00 PM	280	16	0	0	415	0			0	14	0	0	739	0	3	0	0
3:15 PM	240	14	0	0	434	0			0	17	0	0	715	0	0	0	0
3:30 PM	298	13	0	0	520	0			0	7	0	0	851	0	0	1	1
3:45 PM	226	5	0	0	536	0			0	12	0	0	793	0	0	0	0
4:00 PM	296	13	0	0	583	0			0	10	0	0	906	0	0	0	0
4:15 PM	276	10	0	0	591	1			0	13	0	0	895	0	0	0	0
4:30 PM	289	5	0	0	540	0			0	16	0	0	854	0	0	0	0
4:45 PM	263	11	1	0	512	0			0	10	0	0	806	0	0	1	3
5:00 PM	324	19	0	0	592	0			0	18	0	0	956	0	0	0	0
5:15 PM	242	14	0	0	544	0			0	19	0	0	827	0	0	0	0
5:30 PM	254	12	0	0	558	0			0	12	0	0	843	0	0	0	0
5:45 PM	234	8	0	0	543	0			0	13	0	0	805	0	0	0	0
Total Survey	3,222	140	1	0	6,368	1			0	161	0	0	9,990	0	3	2	4

Peak Hour Summary 4:15 PM to 5:15 PM

By Approach	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Monroe St				Westbound SE Monroe St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,197	2,292	3,489	1	2,235	1,174	3,409	1	0	0	0	0	79	45	124	0	3,511	0	0	1	3
%HV	3.8%				1.9%				0.0%				10.1%				2.7%				
PHF	0.87				0.94				0.00				0.94				0.92				

By Movement	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Total				
	T	R	Total	L	T	Total			Total	L	R	Total					
Volume	1,152	45	1,197	0	2,235	2,235			0	57	22	79	3,511				
%HV	NA	4.0%	0.0%	3.8%	0.0%	1.9%	NA	1.9%	NA	NA	NA	0.0%	14.0%	NA	0.0%	10.1%	2.7%
PHF	0.89	0.59	0.87	0.00	0.94	0.94			0.00	0.79	0.55	0.94	0.92				

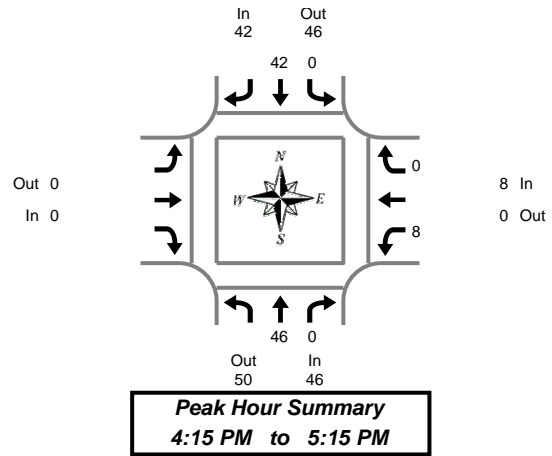
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes			Bikes	L	R	Bikes		North	South	East	West
3:00 PM	1,044	48	0	0	1,905	0			0	50	51	0	3,098	0	3	1	1
3:15 PM	1,060	45	0	0	2,073	0			0	46	41	0	3,265	0	0	1	1
3:30 PM	1,096	41	0	0	2,230	1			0	42	36	0	3,445	0	0	1	1
3:45 PM	1,087	33	0	0	2,250	1			0	51	27	0	3,448	0	0	0	0
4:00 PM	1,124	39	1	0	2,226	1			0	49	23	0	3,461	0	0	1	3
4:15 PM	1,152	45	1	0	2,235	1			0	57	22	0	3,511	0	0	1	3
4:30 PM	1,118	49	1	0	2,188	0			0	63	25	0	3,443	0	0	1	3
4:45 PM	1,083	56	1	0	2,206	0			0	59	28	0	3,432	0	0	1	3
5:00 PM	1,054	53	0	0	2,237	0			0	62	25	0	3,431	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE Monroe St

Wednesday, November 29, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
3:00 PM	8	0	8	0	15	15			0	2		2	25
3:15 PM	9	1	10	0	18	18			0	2		2	30
3:30 PM	12	0	12	0	15	15			0	2		2	29
3:45 PM	13	0	13	0	20	20			0	2		2	35
4:00 PM	13	1	14	0	19	19			0	3		3	36
4:15 PM	13	0	13	0	14	14			0	1		1	28
4:30 PM	13	0	13	0	12	12			0	3		3	28
4:45 PM	8	0	8	0	10	10			0	2		2	20
5:00 PM	12	0	12	0	6	6			0	2		2	20
5:15 PM	6	0	6	0	10	10			0	4		4	20
5:30 PM	2	0	2	0	8	8			0	4		4	14
5:45 PM	6	1	7	0	5	5			0	2		2	14
Total Survey	115	3	118	0	152	152			0	29		29	299

Heavy Vehicle Peak Hour Summary 4:15 PM to 5:15 PM

By Approach	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	46	50	96	42	46	88	0	0	0	8	0	8	96
PHF	0.29			0.19			0.00			0.20			0.24

By Movement	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	46	0	46	0	42	42			0	8		8	96
PHF	0.29	0.00	0.29	0.00	0.19	0.19			0.00	0.20		0.20	0.24

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Monroe St			Westbound SE Monroe St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
3:00 PM	42	1	43	0	68	68			0	8		8	119
3:15 PM	47	2	49	0	72	72			0	9		9	130
3:30 PM	51	1	52	0	68	68			0	8		8	128
3:45 PM	52	1	53	0	65	65			0	9		9	127
4:00 PM	47	1	48	0	55	55			0	9		9	112
4:15 PM	46	0	46	0	42	42			0	8		8	96
4:30 PM	39	0	39	0	38	38			0	11		11	88
4:45 PM	28	0	28	0	34	34			0	12		12	74
5:00 PM	26	1	27	0	29	29			0	12		12	68

Peak Hour Summary

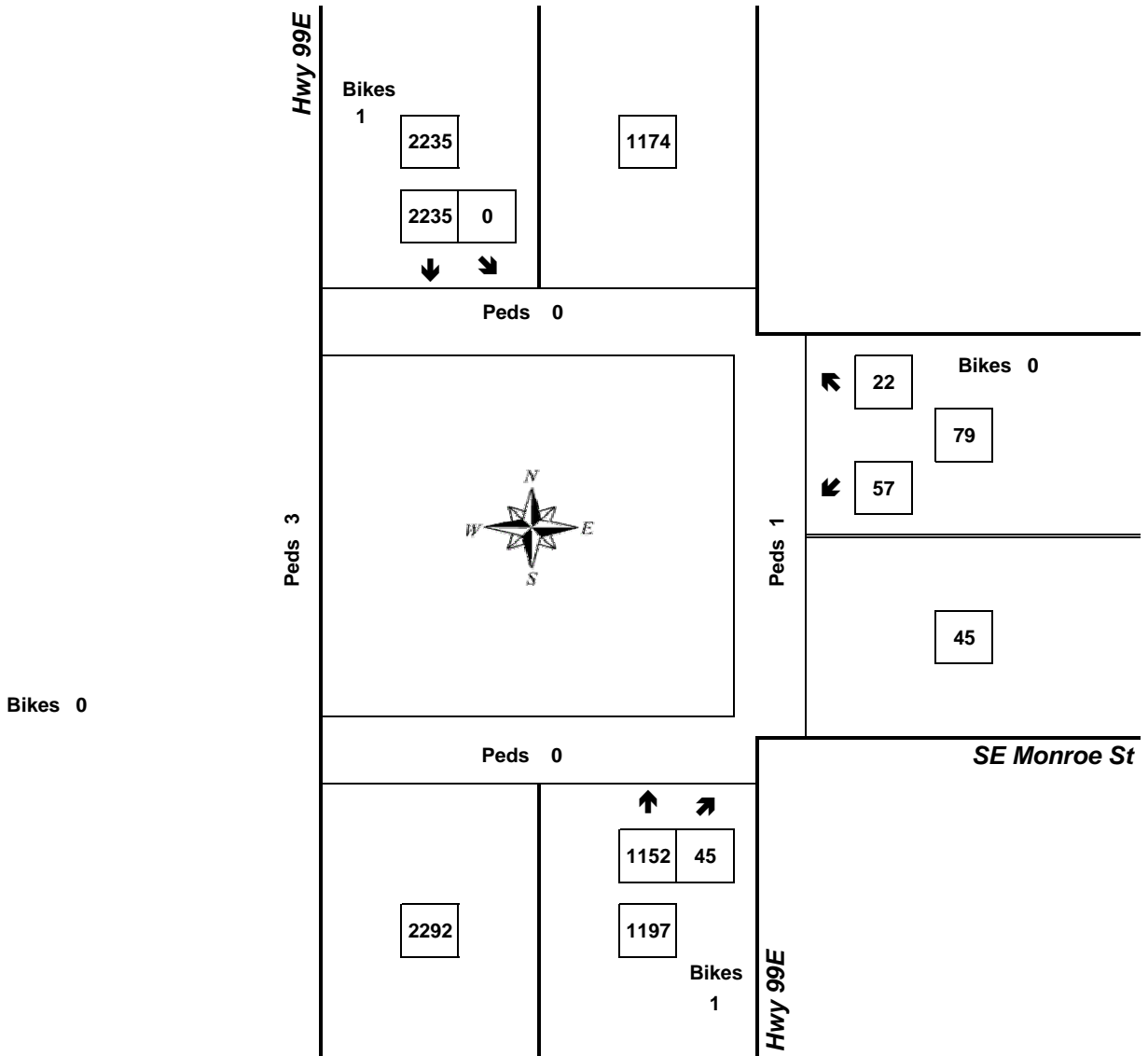


Clay Carney
(503) 833-2740

Hwy 99E & SE Monroe St

4:15 PM to 5:15 PM

Wednesday, November 29, 2006



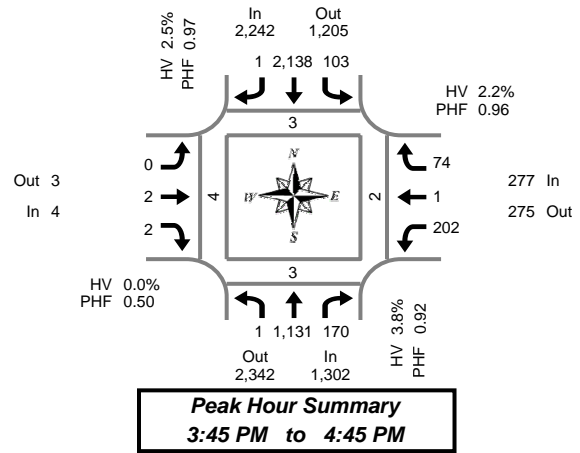
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.94	10.1%	79
NB	0.87	3.8%	1,197
SB	0.94	1.9%	2,235
Intersection	0.92	2.7%	3,511

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE Washington St

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary

3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	0	274	43	0	19	387	1	0	2	0	0	0	43	0	15	0	784	0	1	1	0
3:15 PM	0	265	47	0	27	461	2	0	0	0	2	0	45	0	14	0	863	0	1	1	0
3:30 PM	0	255	37	0	33	455	0	0	0	2	1	0	56	0	18	0	857	0	3	1	0
3:45 PM	0	293	48	0	32	528	0	0	0	0	0	0	57	0	15	0	973	0	1	0	0
4:00 PM	0	263	30	0	29	543	1	0	0	0	0	0	43	0	21	0	930	1	0	1	0
4:15 PM	1	302	51	0	19	512	0	0	0	1	1	0	52	1	19	0	959	1	0	0	4
4:30 PM	0	273	41	0	23	555	0	0	0	1	1	0	50	0	19	0	963	1	2	1	0
4:45 PM	0	279	25	0	26	516	0	0	0	0	0	0	38	0	23	0	907	2	1	0	1
5:00 PM	0	273	30	0	32	533	1	0	0	1	0	0	42	0	20	0	932	0	0	0	1
5:15 PM	0	289	40	0	22	570	1	0	0	0	0	0	36	0	21	0	979	3	3	3	0
5:30 PM	0	274	32	0	29	518	0	0	0	0	0	0	50	0	14	0	917	0	3	0	0
5:45 PM	0	250	25	0	24	508	0	0	0	0	1	0	30	0	9	0	847	0	0	0	0
Total Survey	1	3,290	449	0	315	6,086	6	0	2	5	6	0	542	1	208	0	10,911	8	15	8	6

Peak Hour Summary

3:45 PM to 4:45 PM

By Approach	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,302	2,342	3,644	0	2,242	1,205	3,447	0	4	3	7	0	277	275	552	0	3,825	3	3	2	4
%HV	3.8%				2.5%				0.0%				2.2%				3.0%				
PHF	0.92				0.97				0.50				0.96				0.98				

By Movement	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	1,131	170	1,302	103	2,138	1	2,242	0	2	2	4	202	1	74	277	3,825
%HV	0.0%	4.1%	2.4%	3.8%	3.9%	2.5%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	2.7%	2.2%	3.0%
PHF	0.25	0.94	0.83	0.92	0.80	0.96	0.25	0.97	0.00	0.50	0.50	0.50	0.89	0.25	0.88	0.96	0.98

Rolling Hour Summary

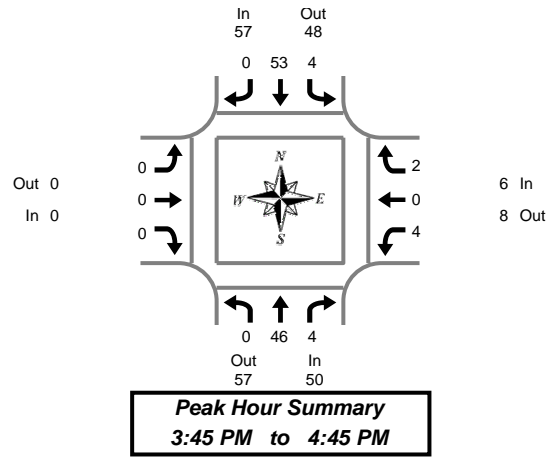
3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	0	1,087	175	0	111	1,831	3	0	2	2	3	0	201	0	62	0	3,477	0	6	3	0
3:15 PM	0	1,076	162	0	121	1,987	3	0	0	2	3	0	201	0	68	0	3,623	1	5	3	0
3:30 PM	1	1,113	166	0	113	2,038	1	0	0	3	2	0	208	1	73	0	3,719	2	4	2	4
3:45 PM	1	1,131	170	0	103	2,138	1	0	0	2	2	0	202	1	74	0	3,825	3	3	2	4
4:00 PM	1	1,117	147	0	97	2,126	1	0	0	2	2	0	183	1	82	0	3,759	5	3	2	5
4:15 PM	1	1,127	147	0	100	2,116	1	0	0	3	2	0	182	1	81	0	3,761	4	3	1	6
4:30 PM	0	1,114	136	0	103	2,174	2	0	0	2	1	0	166	0	83	0	3,781	6	6	4	2
4:45 PM	0	1,115	127	0	109	2,137	2	0	0	1	0	0	166	0	78	0	3,735	5	7	3	2
5:00 PM	0	1,086	127	0	107	2,129	2	0	0	1	1	0	158	0	64	0	3,675	3	6	3	1

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE Washington St

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	20	0	20	1	12	1	14	0	0	0	0	2	0	0	2	36
3:15 PM	0	11	1	12	3	13	1	17	0	0	0	0	1	0	0	1	30
3:30 PM	0	9	1	10	1	20	0	21	0	0	0	0	0	0	1	1	32
3:45 PM	0	12	1	13	4	14	0	18	0	0	0	0	0	0	0	0	31
4:00 PM	0	12	0	12	0	19	0	19	0	0	0	0	1	0	0	1	32
4:15 PM	0	12	2	14	0	9	0	9	0	0	0	0	0	0	0	0	23
4:30 PM	0	10	1	11	0	11	0	11	0	0	0	0	3	0	2	5	27
4:45 PM	0	9	1	10	0	11	0	11	0	0	0	0	0	0	1	1	22
5:00 PM	0	10	2	12	0	12	0	12	0	0	0	0	1	0	1	2	26
5:15 PM	0	9	0	9	2	8	0	10	0	0	0	0	0	0	0	0	19
5:30 PM	0	5	1	6	0	8	0	8	0	0	0	0	0	0	1	1	15
5:45 PM	0	5	1	6	0	8	0	8	0	0	0	0	0	0	1	1	15
Total Survey	0	124	11	135	11	145	2	158	0	0	0	0	8	0	7	15	308

Heavy Vehicle Peak Hour Summary 3:45 PM to 4:45 PM

By Approach	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE Washington St			Westbound SE Washington St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	50	57	107	57	48	105	0	0	0	6	8	14	113
PHF	0.30			0.25			0.00			0.19			0.29

By Movement	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	46	4	50	4	53	0	57	0	0	0	0	4	0	2	6	113
PHF	0.00	0.29	0.25	0.30	0.13	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.25	0.00	0.13	0.19	0.29

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE Washington St				Westbound SE Washington St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	52	3	55	9	59	2	70	0	0	0	0	3	0	1	4	129
3:15 PM	0	44	3	47	8	66	1	75	0	0	0	0	2	0	1	3	125
3:30 PM	0	45	4	49	5	62	0	67	0	0	0	0	1	0	1	2	118
3:45 PM	0	46	4	50	4	53	0	57	0	0	0	0	4	0	2	6	113
4:00 PM	0	43	4	47	0	50	0	50	0	0	0	0	4	0	3	7	104
4:15 PM	0	41	6	47	0	43	0	43	0	0	0	0	4	0	4	8	98
4:30 PM	0	38	4	42	2	42	0	44	0	0	0	0	4	0	4	8	94
4:45 PM	0	33	4	37	2	39	0	41	0	0	0	0	1	0	3	4	82
5:00 PM	0	29	4	33	2	36	0	38	0	0	0	0	1	0	3	4	75

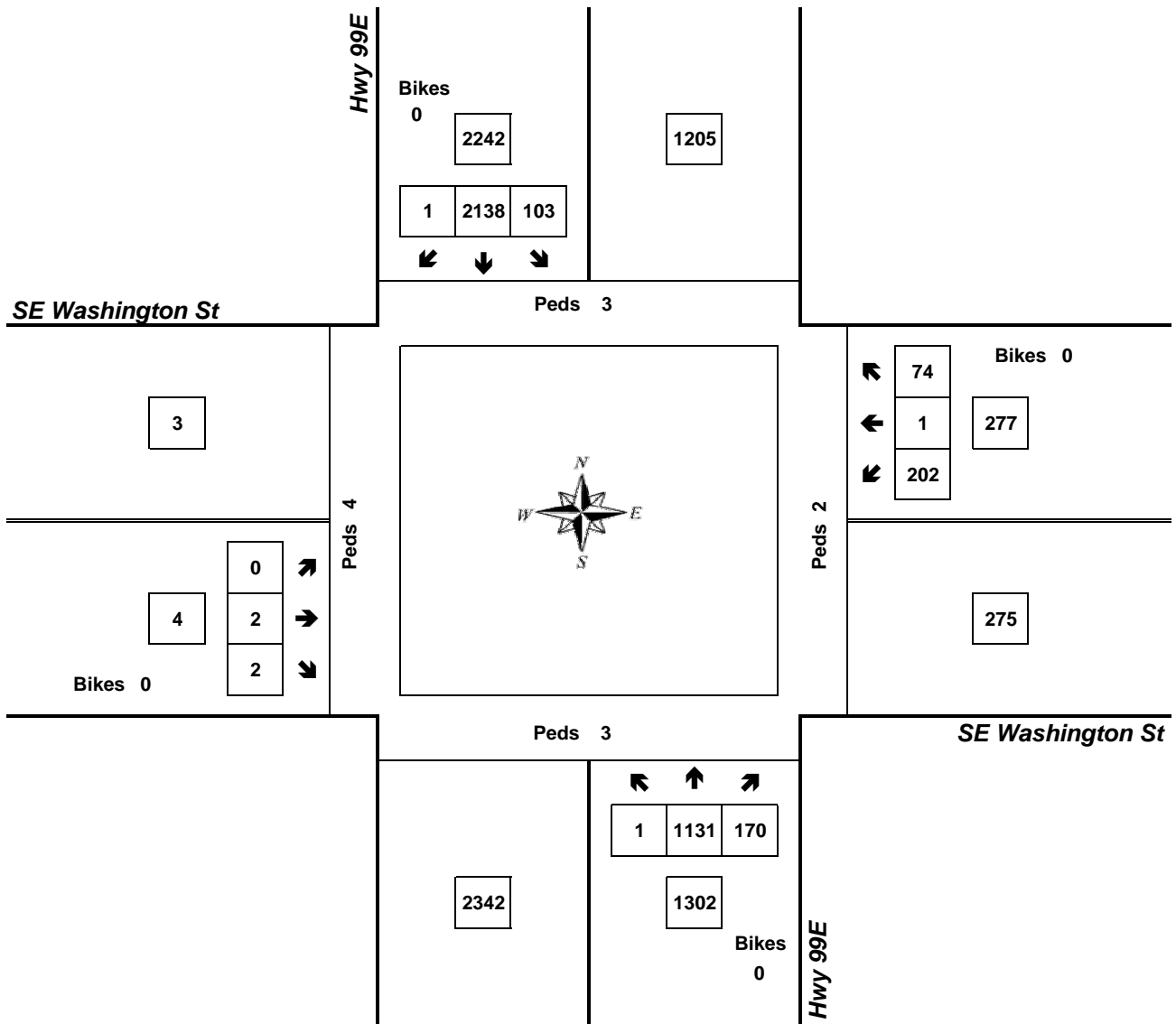
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 99E & SE Washington St

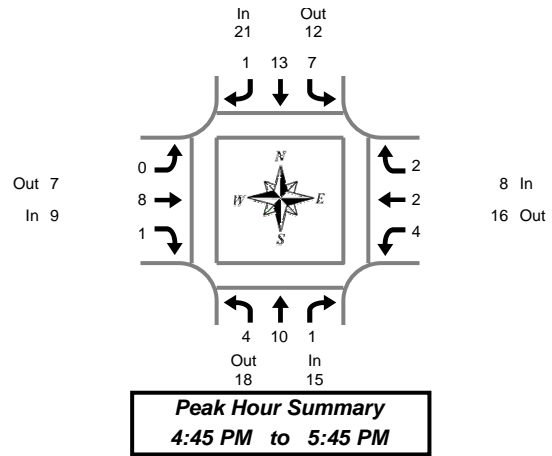
3:45 PM to 4:45 PM
Tuesday, December 05, 2006



Approach	PHF	HV%	Volume
EB	0.50	0.0%	4
WB	0.96	2.2%	277
NB	0.92	3.8%	1,302
SB	0.97	2.5%	2,242
Intersection	0.98	3.0%	3,825

Count Period: 3:00 PM to 6:00 PM

Heavy Vehicle Summary



SE Main St & SE Harrison St

Wednesday, November 29, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Main St				Southbound SE Main St				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	1	2	0	3	1	2	1	4	1	1	0	2	2	3	0	5	14
3:15 PM	1	1	1	3	0	2	1	3	0	1	0	1	1	1	1	3	10
3:30 PM	1	1	1	3	0	2	0	2	0	2	0	2	0	0	2	2	9
3:45 PM	1	3	1	5	2	3	0	5	3	3	1	7	3	3	1	7	24
4:00 PM	1	0	1	2	1	2	1	4	0	5	2	7	1	1	2	4	17
4:15 PM	2	2	0	4	0	2	0	2	2	1	2	5	2	0	1	3	14
4:30 PM	1	3	0	4	2	3	2	7	0	3	0	3	0	0	0	0	14
4:45 PM	1	5	0	6	0	4	0	4	0	3	1	4	1	1	0	2	16
5:00 PM	1	2	1	4	3	4	1	8	0	3	0	3	1	0	0	1	16
5:15 PM	1	1	0	2	1	1	0	2	0	2	0	2	1	1	1	3	9
5:30 PM	1	2	0	3	3	4	0	7	0	0	0	0	1	0	1	2	12
5:45 PM	1	1	0	2	0	3	0	3	0	2	0	2	1	1	0	2	9
Total Survey	13	23	5	41	13	32	6	51	6	26	6	38	14	11	9	34	164

Heavy Vehicle Peak Hour Summary 4:45 PM to 5:45 PM

By Approach	Northbound SE Main St			Southbound SE Main St			Eastbound SE Harrison St			Westbound SE Harrison St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	15	18	33	21	12	33	9	7	16	8	16	24	53
PHF	0.27			0.28			0.12			0.14			0.24

By Movement	Northbound SE Main St				Southbound SE Main St				Eastbound SE Harrison St				Westbound SE Harrison St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	4	10	1	15	7	13	1	21	0	8	1	9	4	2	2	8	53
PHF	0.25	0.25	0.08	0.27	0.25	0.30	0.08	0.28	0.00	0.20	0.05	0.12	0.17	0.13	0.10	0.14	0.24

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Main St				Southbound SE Main St				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	4	7	3	14	3	9	2	14	4	7	1	12	6	7	4	17	57
3:15 PM	4	5	4	13	3	9	2	14	3	11	3	17	5	5	6	16	60
3:30 PM	5	6	3	14	3	9	1	13	5	11	5	21	6	4	6	16	64
3:45 PM	5	8	2	15	5	10	3	18	5	12	5	22	6	4	4	14	69
4:00 PM	5	10	1	16	3	11	3	17	2	12	5	19	4	2	3	9	61
4:15 PM	5	12	1	18	5	13	3	21	2	10	3	15	4	1	1	6	60
4:30 PM	4	11	1	16	6	12	3	21	0	11	1	12	3	2	1	6	55
4:45 PM	4	10	1	15	7	13	1	21	0	8	1	9	4	2	2	8	53
5:00 PM	4	6	1	11	7	12	1	20	0	7	0	7	4	2	2	8	46

Peak Hour Summary

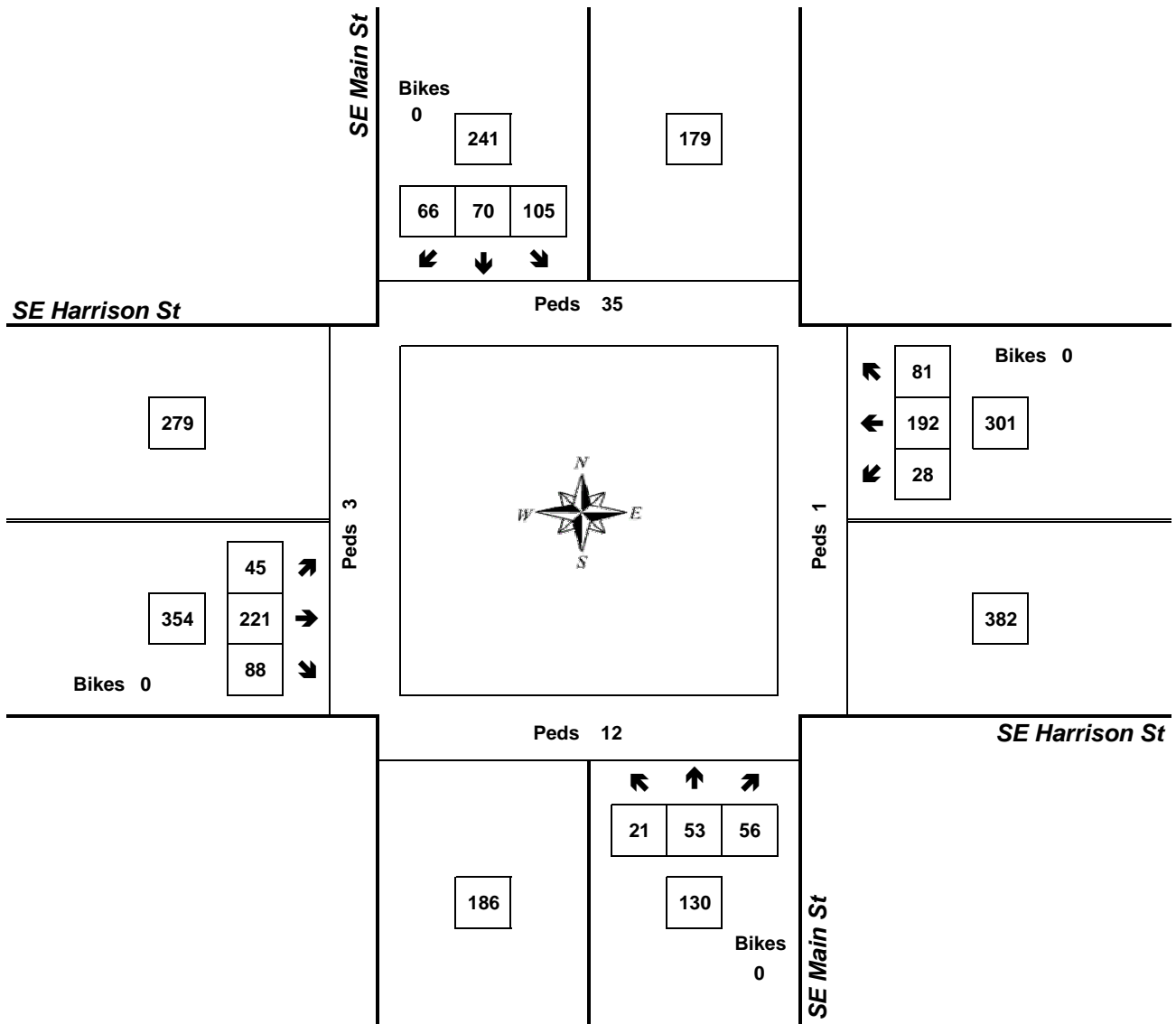


Clay Carney
(503) 833-2740

SE Main St & SE Harrison St

4:45 PM to 5:45 PM

Wednesday, November 29, 2006



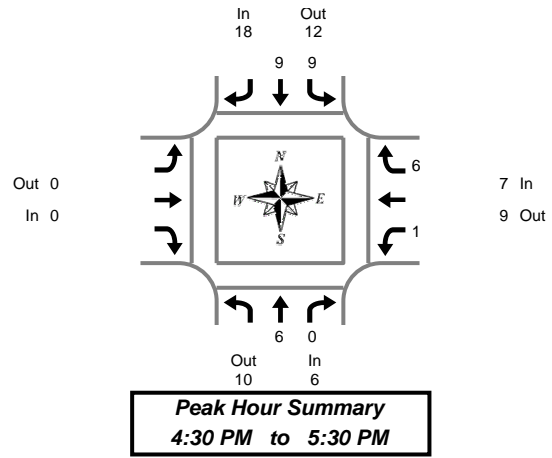
Approach	PHF	HV%	Volume
EB	0.84	2.5%	354
WB	0.95	2.7%	301
NB	0.88	11.5%	130
SB	0.84	8.7%	241
Intersection	0.98	5.2%	1,026

Count Period: 3:00 PM to 6:00 PM

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



SE 17th Ave & Hwy 224

Wednesday, November 29, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE 17th Ave			Southbound SE 17th Ave			Eastbound Hwy 224			Westbound Hwy 224			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
3:00 PM	1	2	3	3	2	5			0	1	3	4	12
3:15 PM	1	0	1	3	1	4			0	3	4	7	12
3:30 PM	1	1	2	1	3	4			0	0	2	2	8
3:45 PM	1	3	4	1	4	5			0	1	1	2	11
4:00 PM	2	0	2	1	6	7			0	1	1	2	11
4:15 PM	4	1	5	3	4	7			0	0	1	1	13
4:30 PM	2	0	2	3	5	8			0	0	3	3	13
4:45 PM	1	0	1	3	0	3			0	0	1	1	5
5:00 PM	1	0	1	0	2	2			0	0	1	1	4
5:15 PM	2	0	2	3	2	5			0	1	1	2	9
5:30 PM	1	0	1	2	0	2			0	0	0	0	3
5:45 PM	3	0	3	1	3	4			0	0	1	1	8
Total Survey	20	7	27	24	32	56			0	7	19	26	109

Heavy Vehicle Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound SE 17th Ave			Southbound SE 17th Ave			Eastbound Hwy 224			Westbound Hwy 224			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	6	10	16	18	12	30	0	0	0	7	9	16	31
PHF	0.14			0.20			0.00			0.13			0.21

By Movement	Northbound SE 17th Ave			Southbound SE 17th Ave			Eastbound Hwy 224			Westbound Hwy 224			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	6	0	6	9	9	18			0	1	6	7	31
PHF	0.19	0.00	0.14	0.25	0.15	0.20			0.00	0.06	0.17	0.13	0.21

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE 17th Ave			Southbound SE 17th Ave			Eastbound Hwy 224			Westbound Hwy 224			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
3:00 PM	4	6	10	8	10	18			0	5	10	15	43
3:15 PM	5	4	9	6	14	20			0	5	8	13	42
3:30 PM	8	5	13	6	17	23			0	2	5	7	43
3:45 PM	9	4	13	8	19	27			0	2	6	8	48
4:00 PM	9	1	10	10	15	25			0	1	6	7	42
4:15 PM	8	1	9	9	11	20			0	0	6	6	35
4:30 PM	6	0	6	9	9	18			0	1	6	7	31
4:45 PM	5	0	5	8	4	12			0	1	3	4	21
5:00 PM	7	0	7	6	7	13			0	1	3	4	24

Peak Hour Summary

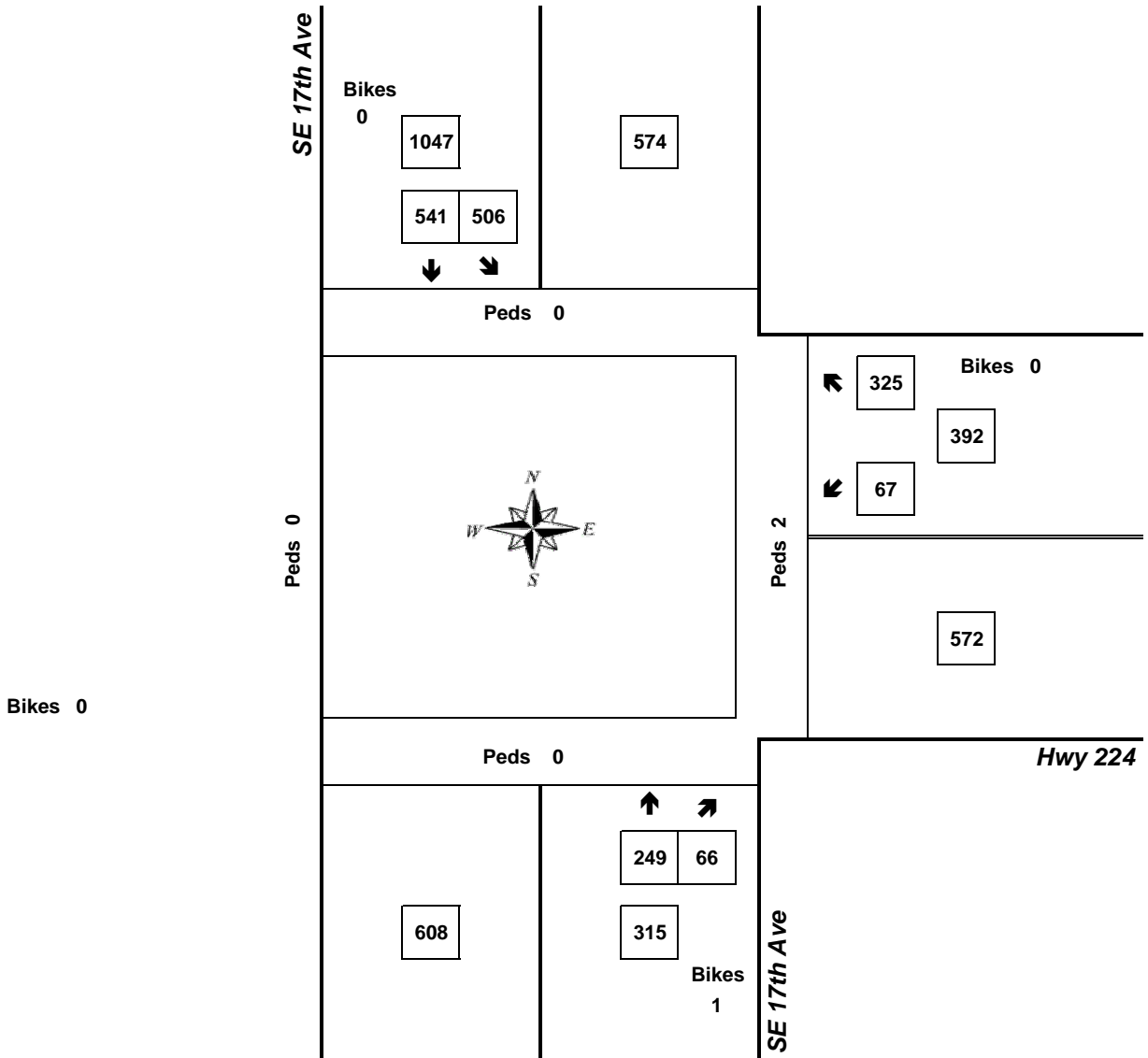


Clay Carney
(503) 833-2740

SE 17th Ave & Hwy 224

4:30 PM to 5:30 PM

Wednesday, November 29, 2006



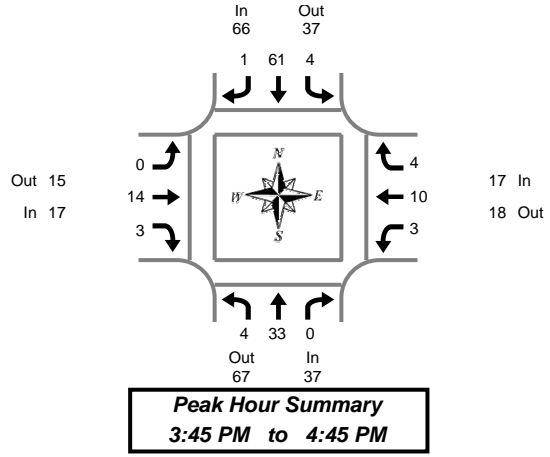
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.87	1.8%	392
NB	0.93	1.9%	315
SB	0.91	1.7%	1,047
Intersection	0.91	1.8%	1,754

Count Period: 3:00 PM to 6:00 PM

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Harrison St

Thursday, December 07, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	2	13	1	16	2	25	1	28	0	5	0	5	1	4	3	8	57
3:15 PM	2	16	2	20	3	27	0	30	0	3	2	5	2	6	0	8	63
3:30 PM	1	16	0	17	1	14	0	15	0	3	2	5	1	0	2	3	40
3:45 PM	1	16	0	17	1	16	0	17	0	2	2	4	1	5	0	6	44
4:00 PM	0	4	0	4	0	25	0	25	0	5	1	6	1	1	2	4	39
4:15 PM	1	6	0	7	2	10	0	12	0	3	0	3	0	1	2	3	25
4:30 PM	2	7	0	9	1	10	1	12	0	4	0	4	1	3	0	4	29
4:45 PM	1	6	0	7	1	4	1	6	0	5	0	5	0	2	0	2	20
5:00 PM	1	7	0	8	0	8	0	8	0	4	0	4	0	3	0	3	23
5:15 PM	0	6	0	6	0	6	0	6	0	3	0	3	0	5	0	5	20
5:30 PM	0	8	0	8	0	7	0	7	0	4	0	4	0	2	1	3	22
5:45 PM	0	2	0	2	0	9	0	9	0	2	0	2	0	4	1	5	18
Total Survey	11	107	3	121	11	161	3	175	0	43	7	50	7	36	11	54	400

Heavy Vehicle Peak Hour Summary 3:45 PM to 4:45 PM

By Approach	Northbound Hwy 224			Southbound Hwy 224			Eastbound SE Harrison St			Westbound SE Harrison St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	37	67	104	66	37	103	17	15	32	17	18	35	137
PHF	0.17			0.23			0.28			0.22			0.21

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Harrison St				Westbound SE Harrison St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	4	33	0	37	4	61	1	66	0	14	3	17	3	10	4	17	137
PHF	0.20	0.17	0.00	0.17	0.17	0.23	0.13	0.23	0.00	0.27	0.13	0.28	0.19	0.23	0.20	0.22	0.21

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	6	61	3	70	7	82	1	90	0	13	6	19	5	15	5	25	204
3:15 PM	4	52	2	58	5	82	0	87	0	13	7	20	5	12	4	21	186
3:30 PM	3	42	0	45	4	65	0	69	0	13	5	18	3	7	6	16	148
3:45 PM	4	33	0	37	4	61	1	66	0	14	3	17	3	10	4	17	137
4:00 PM	4	23	0	27	4	49	2	55	0	17	1	18	2	7	4	13	113
4:15 PM	5	26	0	31	4	32	2	38	0	16	0	16	1	9	2	12	97
4:30 PM	4	26	0	30	2	28	2	32	0	16	0	16	1	13	0	14	92
4:45 PM	2	27	0	29	1	25	1	27	0	16	0	16	0	12	1	13	85
5:00 PM	1	23	0	24	0	30	0	30	0	13	0	13	0	14	2	16	83

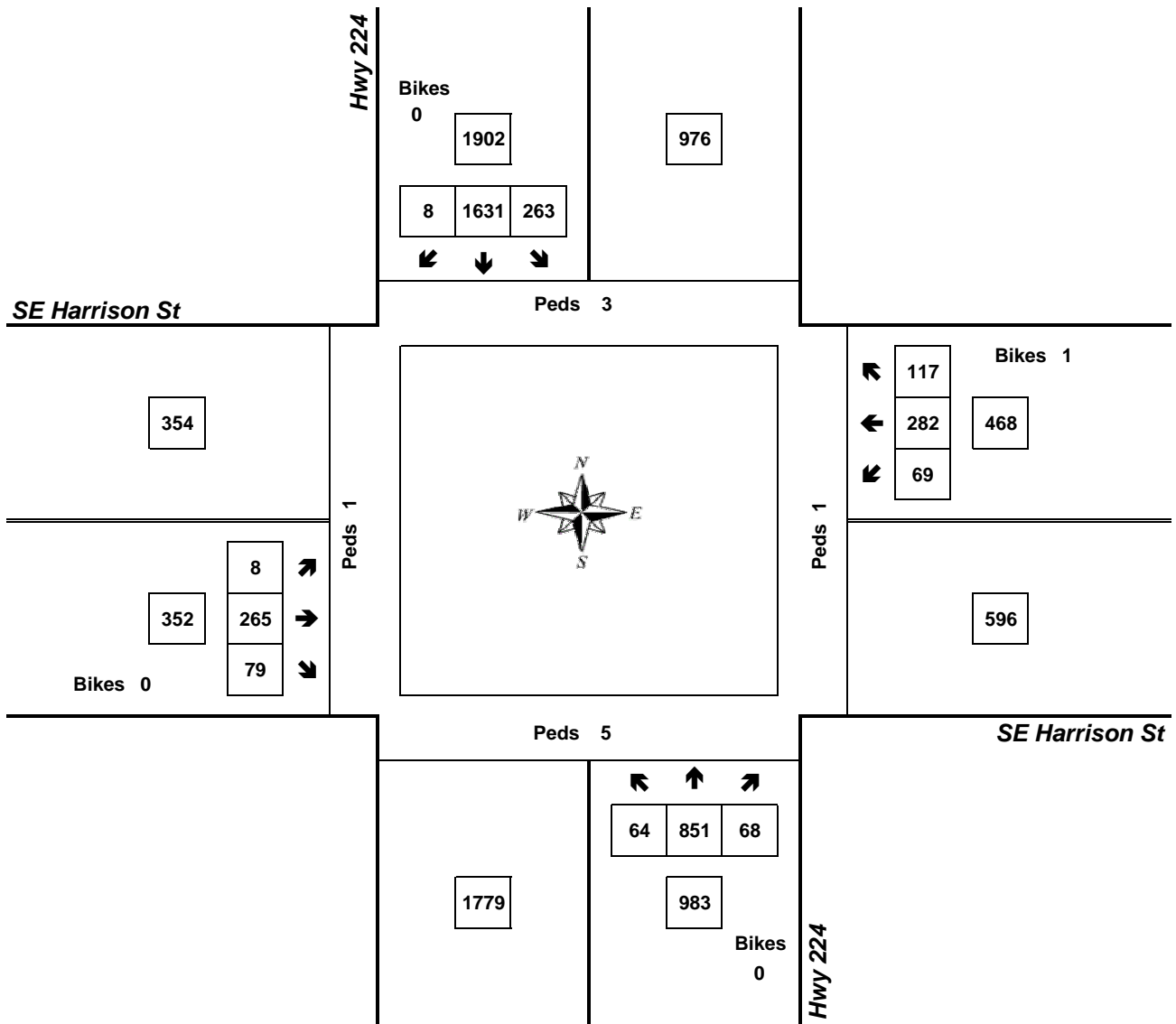
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 224 & SE Harrison St

3:45 PM to 4:45 PM
Thursday, December 07, 2006



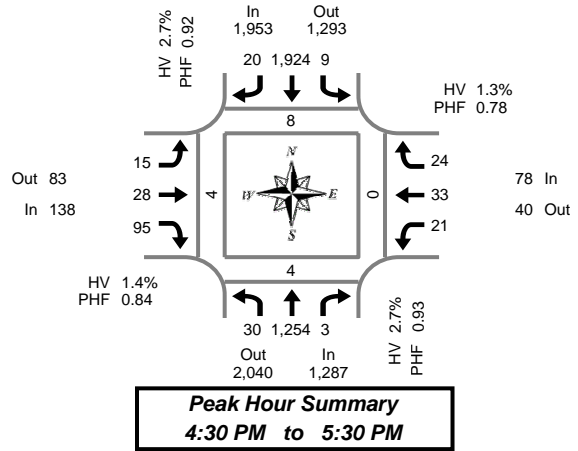
Approach	PHF	HV%	Volume
EB	0.87	4.8%	352
WB	0.92	3.6%	468
NB	0.86	3.8%	983
SB	0.91	3.5%	1,902
Intersection	0.95	3.7%	3,705

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Monroe St

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	4	221	0	0	3	367	3	0	4	3	16	0	5	5	9	0	640	0	0	0	0
3:15 PM	16	181	3	0	3	393	3	0	6	11	32	0	4	16	15	1	683	1	0	0	2
3:30 PM	7	234	5	0	3	382	5	0	2	13	30	0	12	12	19	0	724	0	1	0	0
3:45 PM	9	236	7	0	7	422	5	0	3	8	14	0	9	8	9	0	737	2	0	0	0
4:00 PM	8	296	3	0	2	469	2	0	3	8	12	1	4	6	7	0	820	1	1	0	1
4:15 PM	9	268	2	0	8	395	4	0	5	9	19	0	2	10	9	0	740	4	0	0	0
4:30 PM	9	281	2	0	3	451	3	0	1	4	26	0	7	10	8	2	805	4	1	0	0
4:45 PM	8	299	0	0	3	454	7	0	7	8	22	0	2	11	5	0	826	1	1	0	0
5:00 PM	8	334	0	0	2	492	5	0	5	11	25	1	8	7	4	0	901	3	1	0	0
5:15 PM	5	340	1	0	1	527	5	0	2	5	22	0	4	5	7	0	924	0	1	0	4
5:30 PM	7	268	1	0	1	454	3	0	3	9	18	0	6	6	10	0	786	2	0	0	3
5:45 PM	8	257	1	0	2	413	4	0	4	7	24	0	6	7	1	0	734	0	1	0	5
Total Survey	98	3,215	25	0	38	5,219	49	0	45	96	260	2	69	103	103	3	9,320	18	7	0	15

Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,287	2,040	3,327	0	1,953	1,293	3,246	0	138	83	221	1	78	40	118	2	3,456	8	4	0	4
%HV	2.7%				2.7%				1.4%				1.3%				2.6%				
PHF	0.93				0.92				0.84				0.78				0.94				

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
Volume	30	1,254	3	1,287	9	1,924	20	1,953	15	28	95	138	21	33	24	78	3,456				
%HV	0.0%	2.8%	0.0%	2.7%	11.1%	2.6%	5.0%	2.7%	0.0%	0.0%	2.1%	1.4%	0.0%	0.0%	4.2%	1.3%	2.6%				
PHF	0.83	0.92	0.38	0.93	0.75	0.91	0.71	0.92	0.54	0.64	0.91	0.84	0.66	0.75	0.75	0.78	0.94				

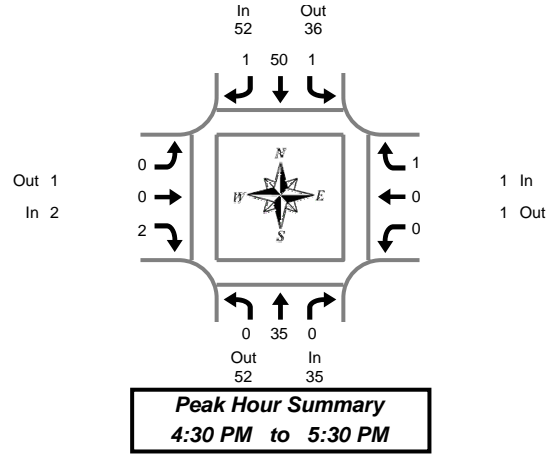
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	36	872	15	0	16	1,564	16	0	15	35	92	0	30	41	52	1	2,784	3	1	0	2
3:15 PM	40	947	18	0	15	1,666	15	0	14	40	88	1	29	42	50	1	2,964	4	2	0	3
3:30 PM	33	1,034	17	0	20	1,668	16	0	13	38	75	1	27	36	44	0	3,021	7	2	0	1
3:45 PM	35	1,081	14	0	20	1,737	14	0	12	29	71	1	22	34	33	2	3,102	11	2	0	1
4:00 PM	34	1,144	7	0	16	1,769	16	0	16	29	79	1	15	37	29	2	3,191	10	3	0	1
4:15 PM	34	1,182	4	0	16	1,792	19	0	18	32	92	1	19	38	26	2	3,272	12	3	0	0
4:30 PM	30	1,254	3	0	9	1,924	20	0	15	28	95	1	21	33	24	2	3,456	8	4	0	4
4:45 PM	28	1,241	2	0	7	1,927	20	0	17	33	87	1	20	29	26	0	3,437	6	3	0	7
5:00 PM	28	1,199	3	0	6	1,886	17	0	14	32	89	1	24	25	22	0	3,345	5	3	0	12

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Monroe St

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	13	0	13	0	21	0	21	0	0	0	0	1	0	0	1	35
3:15 PM	1	17	0	18	0	19	0	19	1	0	1	2	2	0	1	3	42
3:30 PM	0	16	0	16	1	20	1	22	0	0	1	1	0	0	1	1	40
3:45 PM	0	12	1	13	0	15	1	16	0	0	0	0	1	0	0	1	30
4:00 PM	0	17	0	17	0	24	0	24	0	0	0	0	0	0	1	1	42
4:15 PM	0	16	0	16	0	15	0	15	0	0	0	0	0	0	0	0	31
4:30 PM	0	15	0	15	0	12	0	12	0	0	1	1	0	0	1	1	29
4:45 PM	0	7	0	7	1	13	0	14	0	0	0	0	0	0	0	0	21
5:00 PM	0	5	0	5	0	12	1	13	0	0	1	1	0	0	0	0	19
5:15 PM	0	8	0	8	0	13	0	13	0	0	0	0	0	0	0	0	21
5:30 PM	0	7	0	7	0	6	0	6	0	0	0	0	0	0	0	0	13
5:45 PM	0	8	0	8	0	7	0	7	0	0	1	1	0	0	0	0	16
Total Survey	1	141	1	143	2	177	3	182	1	0	5	6	4	0	4	8	339

Heavy Vehicle Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound Hwy 224			Southbound Hwy 224			Eastbound SE Monroe St			Westbound SE Monroe St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	35	52	87	52	36	88	2	1	3	1	1	2	90
PHF	0.18			0.21			0.17			0.05			0.19

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	35	0	35	1	50	1	52	0	0	2	2	0	0	1	1	90
PHF	0.00	0.18	0.00	0.18	0.25	0.21	0.13	0.21	0.00	0.00	0.25	0.17	0.00	0.00	0.13	0.05	0.19

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Monroe St				Westbound SE Monroe St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	1	58	1	60	1	75	2	78	1	0	2	3	4	0	2	6	147
3:15 PM	1	62	1	64	1	78	2	81	1	0	2	3	3	0	3	6	154
3:30 PM	0	61	1	62	1	74	2	77	0	0	1	1	1	0	2	3	143
3:45 PM	0	60	1	61	0	66	1	67	0	0	1	1	1	0	2	3	132
4:00 PM	0	55	0	55	1	64	0	65	0	0	1	1	0	0	2	2	123
4:15 PM	0	43	0	43	1	52	1	54	0	0	2	2	0	0	1	1	100
4:30 PM	0	35	0	35	1	50	1	52	0	0	2	2	0	0	1	1	90
4:45 PM	0	27	0	27	1	44	1	46	0	0	1	1	0	0	0	0	74
5:00 PM	0	28	0	28	0	38	1	39	0	0	2	2	0	0	0	0	69

Peak Hour Summary

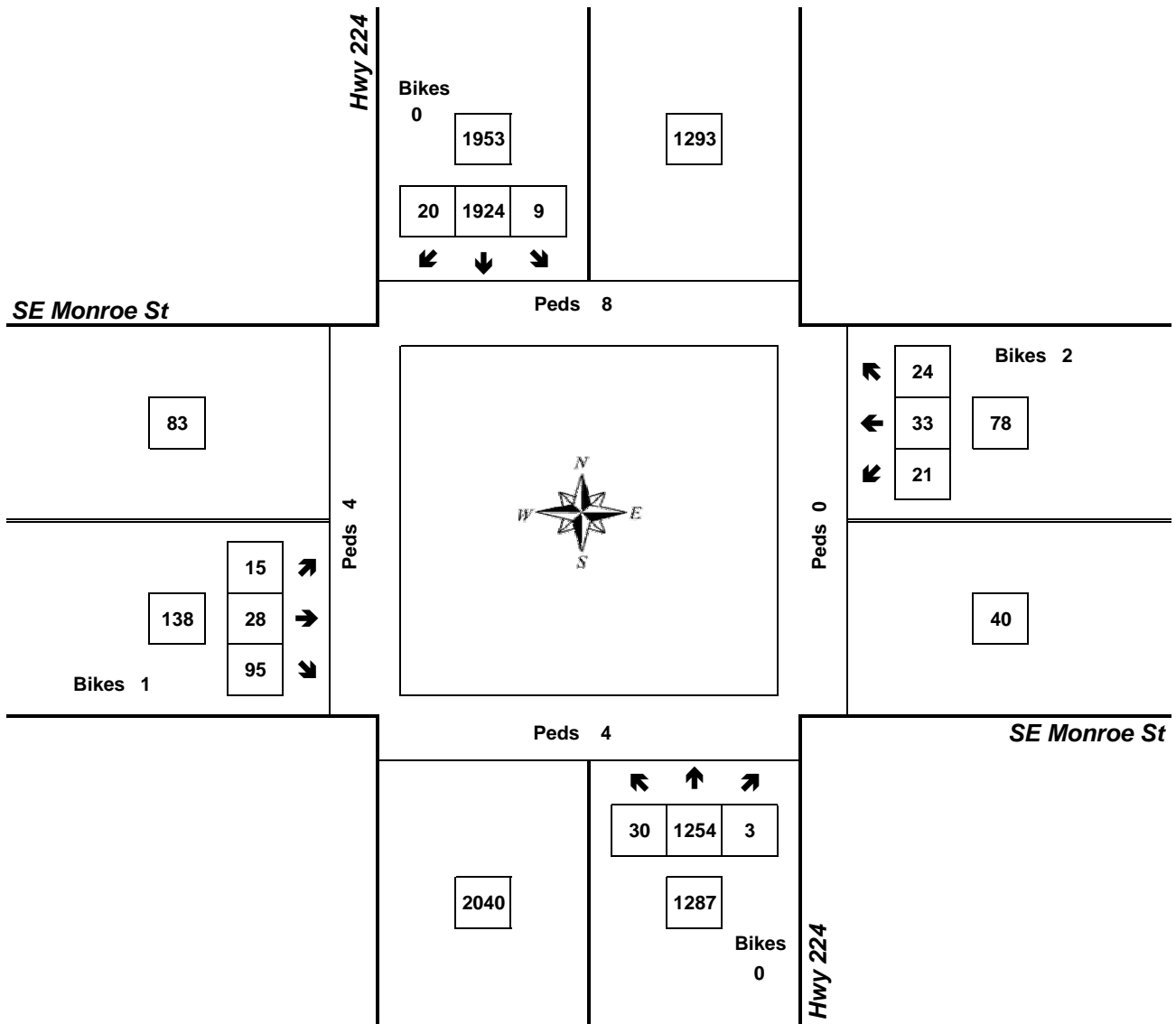


Clay Carney
(503) 833-2740

Hwy 224 & SE Monroe St

4:30 PM to 5:30 PM

Tuesday, December 05, 2006



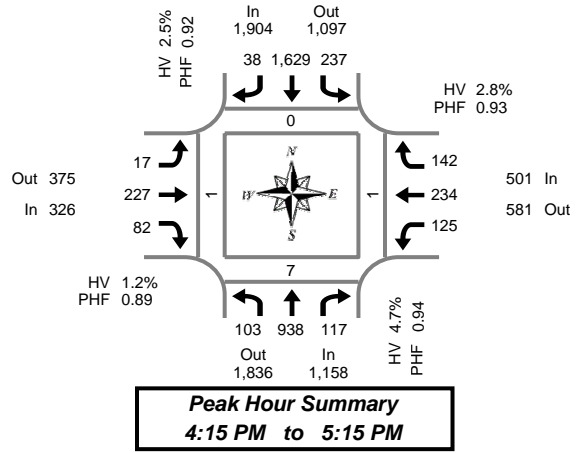
Approach	PHF	HV%	Volume
EB	0.84	1.4%	138
WB	0.78	1.3%	78
NB	0.93	2.7%	1,287
SB	0.92	2.7%	1,953
Intersection	0.94	2.6%	3,456

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Oak St

Thursday, November 30, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	25	197	39	0	39	317	12	0	1	37	18	1	26	72	27	0	810	0	0	2	0
3:15 PM	31	165	29	0	39	344	11	0	6	56	22	0	40	62	18	0	823	0	0	0	1
3:30 PM	25	210	29	0	54	306	6	0	2	89	22	0	32	82	32	0	889	0	2	0	1
3:45 PM	21	181	26	0	42	375	7	0	6	56	20	0	33	54	24	1	845	0	1	0	4
4:00 PM	24	228	42	0	51	442	5	0	1	55	22	0	32	48	18	0	968	0	4	1	1
4:15 PM	30	240	29	0	64	444	8	0	0	63	22	0	33	56	45	0	1,034	0	3	0	0
4:30 PM	32	215	30	0	60	360	11	0	7	50	21	0	34	50	41	0	911	0	0	1	1
4:45 PM	20	223	32	0	50	395	13	0	3	64	25	0	25	74	29	2	953	0	4	0	0
5:00 PM	21	260	26	0	63	430	6	0	7	50	14	0	33	54	27	1	991	0	0	0	0
5:15 PM	22	222	33	0	73	400	9	0	0	48	16	0	32	78	31	0	964	0	1	0	0
5:30 PM	22	231	37	0	55	416	10	0	4	60	17	0	22	63	22	0	959	0	0	0	0
5:45 PM	18	188	37	0	58	389	5	0	0	53	17	1	27	70	28	0	890	0	0	0	0
Total Survey	291	2,560	389	0	648	4,618	103	0	37	681	236	2	369	763	342	4	11,037	0	15	4	8

Peak Hour Summary 4:15 PM to 5:15 PM

By Approach	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,158	1,836	2,994	0	1,904	1,097	3,001	0	326	375	701	0	501	581	1,082	3	3,889	0	7	1	1
%HV	4.7%				2.5%				1.2%				2.8%				3.1%				
PHF	0.94				0.92				0.89				0.93				0.94				

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	103	938	117	1,158	237	1,629	38	1,904	17	227	82	326	125	234	142	501	
%HV	2.9%	4.9%	5.1%	4.7%	0.4%	2.9%	0.0%	2.5%	5.9%	0.9%	1.2%	1.2%	6.4%	0.4%	3.5%	2.8%	3.1%
PHF	0.80	0.90	0.91	0.94	0.93	0.92	0.73	0.92	0.61	0.89	0.82	0.89	0.92	0.79	0.79	0.93	0.94

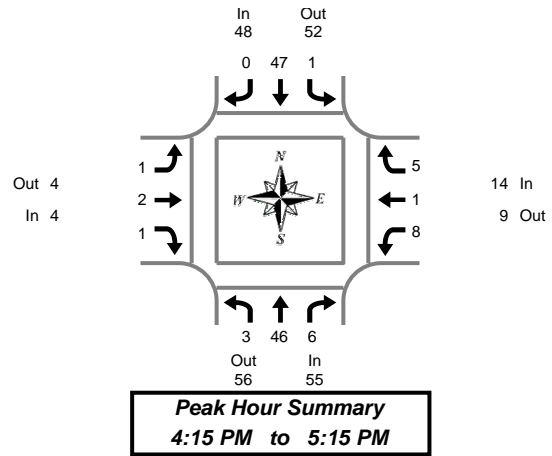
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	102	753	123	0	174	1,342	36	0	15	238	82	1	131	270	101	1	3,367	0	3	2	6
3:15 PM	101	784	126	0	186	1,467	29	0	15	256	86	0	137	246	92	1	3,525	0	7	1	7
3:30 PM	100	859	126	0	211	1,567	26	0	9	263	86	0	130	240	119	1	3,736	0	10	1	6
3:45 PM	107	864	127	0	217	1,621	31	0	14	224	85	0	132	208	128	1	3,758	0	8	2	6
4:00 PM	106	906	133	0	225	1,641	37	0	11	232	90	0	124	228	133	2	3,866	0	11	2	2
4:15 PM	103	938	117	0	237	1,629	38	0	17	227	82	0	125	234	142	3	3,889	0	7	1	1
4:30 PM	95	920	121	0	246	1,585	39	0	17	212	76	0	124	256	128	3	3,819	0	5	1	1
4:45 PM	85	936	128	0	241	1,641	38	0	14	222	72	0	112	269	109	3	3,867	0	5	0	0
5:00 PM	83	901	133	0	249	1,635	30	0	11	211	64	1	114	265	108	1	3,804	0	1	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Oak St

Thursday, November 30, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
3:00 PM	1	10	2	13	1	24	1	26	0	0	3	3	3	1	2	0	6	48
3:15 PM	2	14	0	16	0	25	0	25	0	0	0	0	2	2	0	4	45	
3:30 PM	2	14	0	16	2	19	0	21	0	2	0	2	2	1	2	5	44	
3:45 PM	2	15	0	17	0	15	0	15	0	0	0	0	1	2	0	3	35	
4:00 PM	0	4	2	6	4	22	0	26	0	8	0	8	1	2	0	3	43	
4:15 PM	2	9	4	15	0	10	0	10	0	1	1	2	4	0	2	6	33	
4:30 PM	1	14	0	15	0	12	0	12	0	0	0	0	2	0	3	5	32	
4:45 PM	0	15	1	16	1	15	0	16	0	1	0	1	1	0	0	1	34	
5:00 PM	0	8	1	9	0	10	0	10	1	0	0	1	1	1	0	2	22	
5:15 PM	0	8	0	8	1	11	0	12	0	0	0	0	1	0	1	2	22	
5:30 PM	0	6	0	6	0	7	1	8	0	0	0	0	0	0	0	0	14	
5:45 PM	0	6	0	6	0	12	0	12	0	0	0	0	0	0	0	0	18	
Total Survey	10	123	10	143	9	182	2	193	1	12	4	17	18	9	10	37	390	

Heavy Vehicle Peak Hour Summary 4:15 PM to 5:15 PM

By Approach	Northbound Hwy 224			Southbound Hwy 224			Eastbound SE Oak St			Westbound SE Oak St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	55	56	111	48	52	100	4	4	8	14	9	23	121
PHF	0.28			0.17			0.10			0.23			0.22

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	46	6	55	1	47	0	48	1	2	1	4	8	1	5	14	121
PHF	0.13	0.27	0.25	0.28	0.04	0.17	0.00	0.17	0.25	0.05	0.08	0.10	0.29	0.05	0.25	0.23	0.22

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Oak St				Westbound SE Oak St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	7	53	2	62	3	83	1	87	0	2	3	5	8	6	4	18	172
3:15 PM	6	47	2	55	6	81	0	87	0	10	0	10	6	7	2	15	167
3:30 PM	6	42	6	54	6	66	0	72	0	11	1	12	8	5	4	17	155
3:45 PM	5	42	6	53	4	59	0	63	0	9	1	10	8	4	5	17	143
4:00 PM	3	42	7	52	5	59	0	64	0	10	1	11	8	2	5	15	142
4:15 PM	3	46	6	55	1	47	0	48	1	2	1	4	8	1	5	14	121
4:30 PM	1	45	2	48	2	48	0	50	1	1	0	2	5	1	4	10	110
4:45 PM	0	37	2	39	2	43	1	46	1	1	0	2	3	1	1	5	92
5:00 PM	0	28	1	29	1	40	1	42	1	0	0	1	2	1	1	4	76

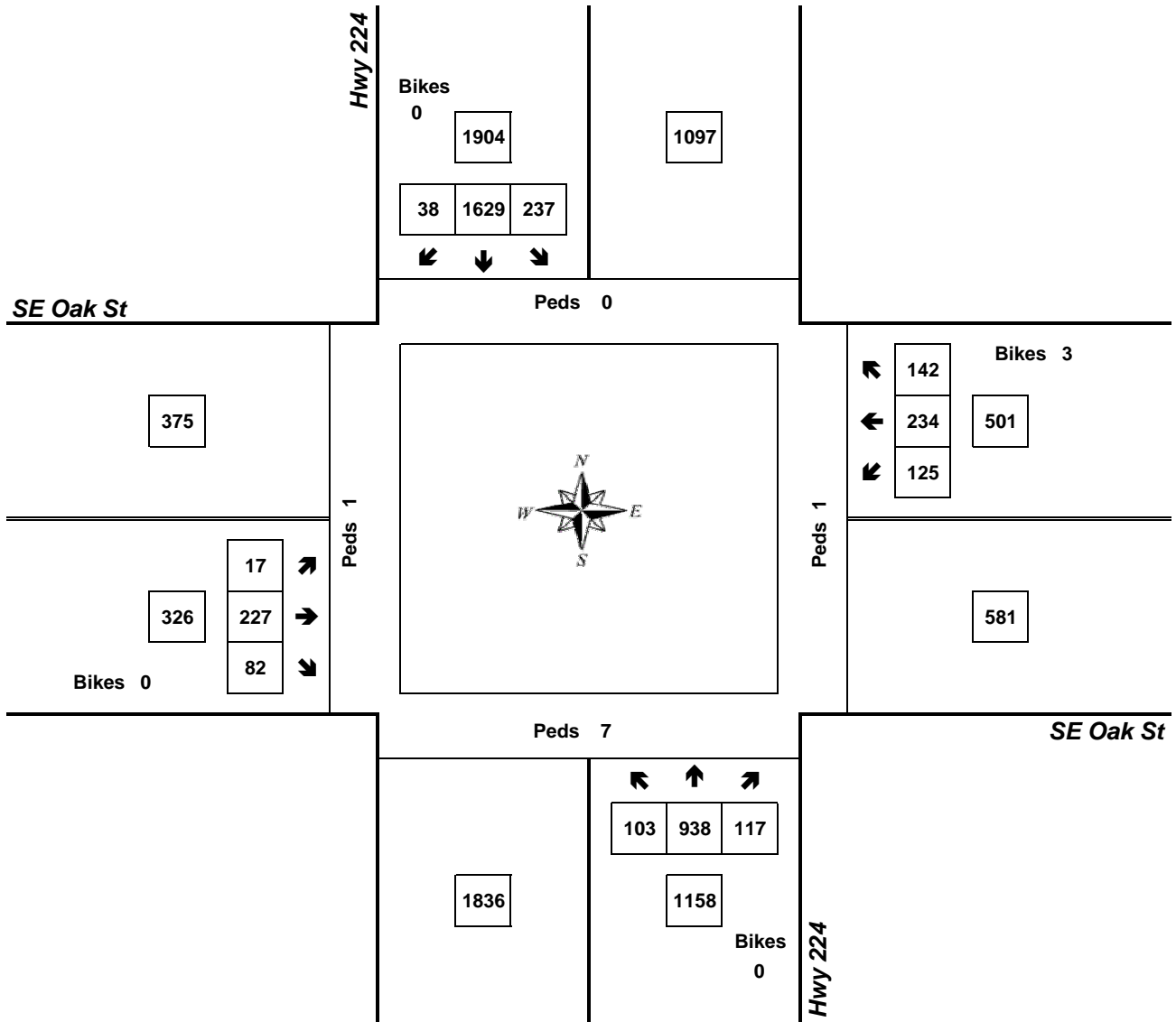
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 224 & SE Oak St

4:15 PM to 5:15 PM
Thursday, November 30, 2006



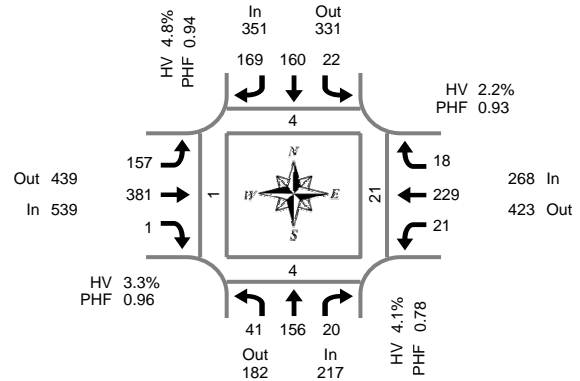
Approach	PHF	HV%	Volume
EB	0.89	1.2%	326
WB	0.93	2.8%	501
NB	0.94	4.7%	1,158
SB	0.92	2.5%	1,904
Intersection	0.94	3.1%	3,889

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



SE 32nd Ave & SE Harrison St

Thursday, December 07, 2006
3:00 PM to 6:00 PM

Peak Hour Summary
4:00 PM to 5:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	10	29	7	0	6	35	45	0	41	93	1	0	7	54	5	0	333	2	1	7	0
3:15 PM	11	47	8	0	9	47	46	0	43	79	2	0	4	55	5	0	356	6	6	4	0
3:30 PM	12	35	3	0	11	33	42	0	47	91	4	0	4	52	9	0	343	0	4	8	0
3:45 PM	4	42	5	0	6	55	45	0	37	56	0	0	4	44	6	0	304	5	2	12	1
4:00 PM	14	52	4	0	2	36	51	0	45	95	0	0	5	60	2	0	366	1	0	7	0
4:15 PM	11	38	6	0	8	40	36	0	39	97	0	0	4	57	2	0	338	0	1	3	0
4:30 PM	6	31	5	2	4	49	40	0	37	103	1	0	6	58	8	0	348	3	1	7	0
4:45 PM	10	35	5	0	8	35	42	0	36	86	0	0	6	54	6	0	323	0	2	4	1
5:00 PM	11	26	3	0	11	35	32	0	37	85	0	0	3	31	1	0	275	8	1	6	0
5:15 PM	16	52	4	0	7	36	46	0	28	95	1	0	7	39	6	0	337	4	2	7	2
5:30 PM	9	46	3	0	3	45	40	0	32	99	0	0	4	50	5	0	336	0	1	5	0
5:45 PM	11	33	4	0	6	32	35	0	24	100	1	0	7	49	5	0	307	1	1	1	0
Total Survey	125	466	57	2	81	478	500	0	446	1,079	10	0	61	603	60	0	3,966	30	22	71	4

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	217	182	399	2	351	331	682	0	539	439	978	0	268	423	691	0	1,375	4	4	21	1
%HV	4.1%				4.8%				3.3%				2.2%				3.6%				
PHF	0.78				0.94				0.96				0.93				0.94				

By Movement	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	41	156	20	217	22	160	169	351	157	381	1	539	21	229	18	268	1,375
%HV	7.3%	3.8%	0.0%	4.1%	0.0%	5.6%	4.7%	4.8%	7.6%	1.6%	0.0%	3.3%	0.0%	2.2%	5.6%	2.2%	3.6%
PHF	0.73	0.75	0.83	0.78	0.69	0.82	0.83	0.94	0.87	0.92	0.25	0.96	0.88	0.95	0.56	0.93	0.94

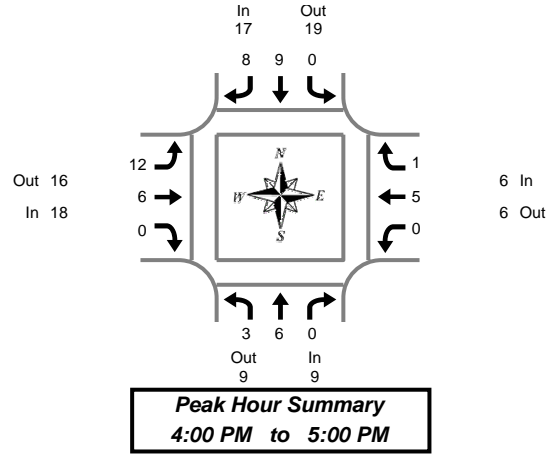
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	37	153	23	0	32	170	178	0	168	319	7	0	19	205	25	0	1,336	13	13	31	1
3:15 PM	41	176	20	0	28	171	184	0	172	321	6	0	17	211	22	0	1,369	12	12	31	1
3:30 PM	41	167	18	0	27	164	174	0	168	339	4	0	17	213	19	0	1,351	6	7	30	1
3:45 PM	35	163	20	2	20	180	172	0	158	351	1	0	19	219	18	0	1,356	9	4	29	1
4:00 PM	41	156	20	2	22	160	169	0	157	381	1	0	21	229	18	0	1,375	4	4	21	1
4:15 PM	38	130	19	2	31	159	150	0	149	371	1	0	19	200	17	0	1,284	11	5	20	1
4:30 PM	43	144	17	2	30	155	160	0	138	369	2	0	22	182	21	0	1,283	15	6	24	3
4:45 PM	46	159	15	0	29	151	160	0	133	365	1	0	20	174	18	0	1,271	12	6	22	3
5:00 PM	47	157	14	0	27	148	153	0	121	379	2	0	21	169	17	0	1,255	13	5	19	2

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



SE 32nd Ave & SE Harrison St

Thursday, December 07, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	1	1	2	1	1	4	6	3	4	0	7	0	3	0	3	18
3:15 PM	0	0	2	2	1	3	5	9	6	2	0	8	0	2	0	2	21
3:30 PM	0	1	0	1	0	0	2	2	5	4	0	9	0	1	1	2	14
3:45 PM	0	0	0	0	0	3	2	5	2	1	0	3	0	3	0	3	11
4:00 PM	0	3	0	3	0	3	1	4	3	1	0	4	0	1	1	2	13
4:15 PM	3	2	0	5	0	4	3	7	1	2	0	3	0	2	0	2	17
4:30 PM	0	0	0	0	0	1	4	5	3	2	0	5	0	1	0	1	11
4:45 PM	0	1	0	1	0	1	0	1	5	1	0	6	0	1	0	1	9
5:00 PM	0	1	0	1	0	0	2	2	2	1	0	3	0	1	0	1	7
5:15 PM	0	1	0	1	0	2	3	5	3	4	0	7	0	1	1	2	15
5:30 PM	0	0	0	0	0	0	3	3	3	2	0	5	0	2	0	2	10
5:45 PM	0	0	0	0	0	0	2	2	2	1	0	3	0	1	0	1	6
Total Survey	3	10	3	16	2	18	31	51	38	25	0	63	0	19	3	22	152

Heavy Vehicle Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound SE 32nd Ave			Southbound SE 32nd Ave			Eastbound SE Harrison St			Westbound SE Harrison St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	9	9	18	17	19	36	18	16	34	6	6	12	50
PHF	0.28			0.25			0.19			0.21			0.24

By Movement	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	3	6	0	9	0	9	8	17	12	6	0	18	0	5	1	6	50
PHF	0.25	0.30	0.00	0.28	0.00	0.23	0.18	0.25	0.21	0.15	0.00	0.19	0.00	0.21	0.13	0.21	0.24

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE 32nd Ave				Southbound SE 32nd Ave				Eastbound SE Harrison St				Westbound SE Harrison St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	2	3	5	2	7	13	22	16	11	0	27	0	9	1	10	64
3:15 PM	0	4	2	6	1	9	10	20	16	8	0	24	0	7	2	9	59
3:30 PM	3	6	0	9	0	10	8	18	11	8	0	19	0	7	2	9	55
3:45 PM	3	5	0	8	0	11	10	21	9	6	0	15	0	7	1	8	52
4:00 PM	3	6	0	9	0	9	8	17	12	6	0	18	0	5	1	6	50
4:15 PM	3	4	0	7	0	6	9	15	11	6	0	17	0	5	0	5	44
4:30 PM	0	3	0	3	0	4	9	13	13	8	0	21	0	4	1	5	42
4:45 PM	0	3	0	3	0	3	8	11	13	8	0	21	0	5	1	6	41
5:00 PM	0	2	0	2	0	2	10	12	10	8	0	18	0	5	1	6	38

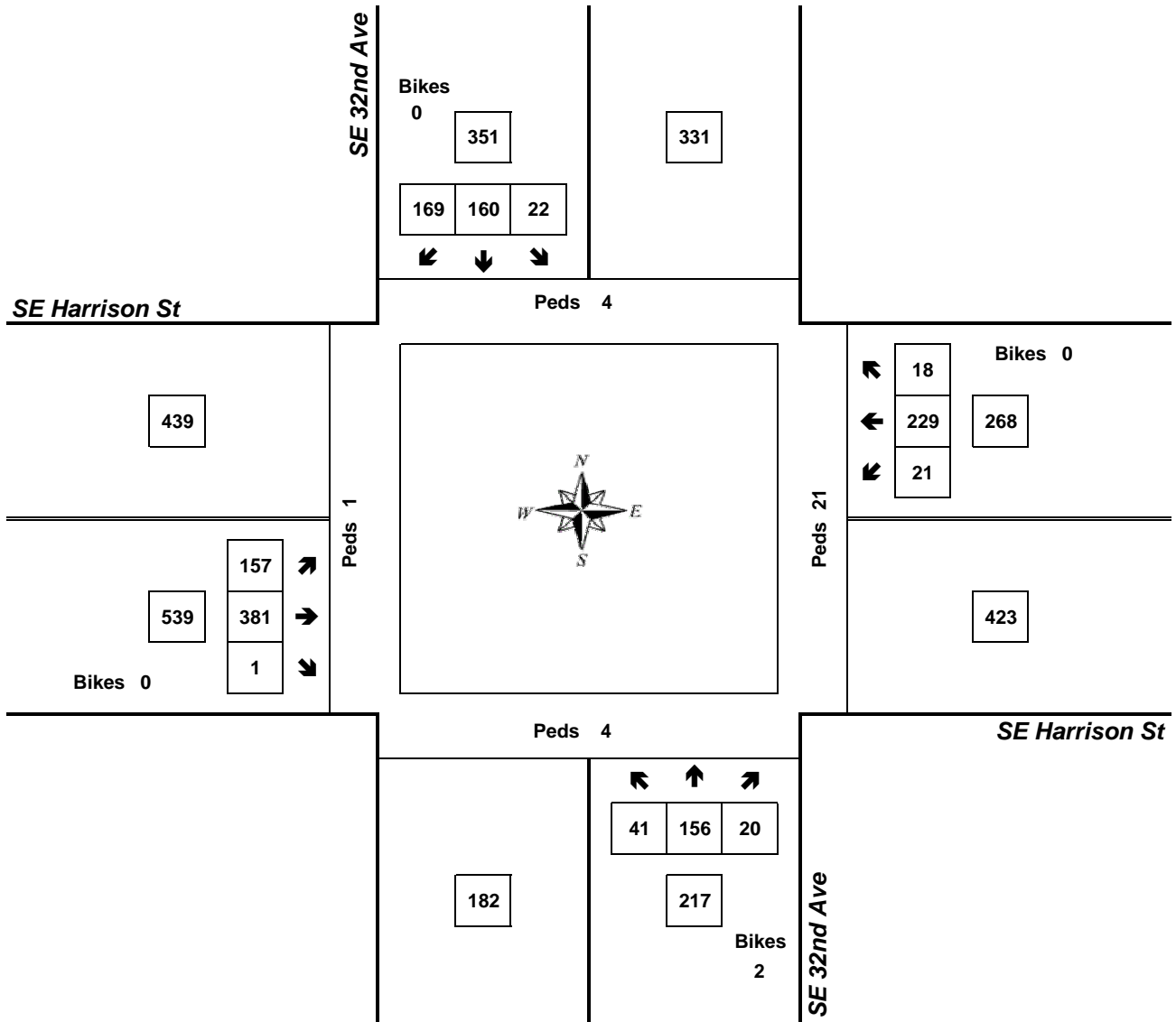
Peak Hour Summary



Clay Carney
(503) 833-2740

SE 32nd Ave & SE Harrison St

4:00 PM to 5:00 PM
Thursday, December 07, 2006



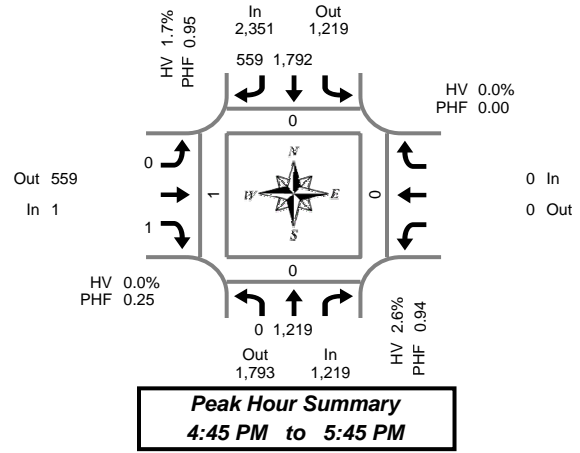
Approach	PHF	HV%	Volume
EB	0.96	3.3%	539
WB	0.93	2.2%	268
NB	0.78	4.1%	217
SB	0.94	4.8%	351
Intersection	0.94	3.6%	1,375

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE 22nd Ave

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Interval Total	Pedestrians Crosswalk			
	L	T	Bikes	T	R	Bikes	L	R	Bikes			Bikes		North	South	East	West
3:00 PM	0	296	0	337	75	0	0	0	0	0	0	0	708	0	0	0	0
3:15 PM	0	316	0	398	97	0	0	2	0	0	0	0	813	0	0	0	0
3:30 PM	0	316	0	415	104	0	0	0	0	0	0	0	835	0	0	0	0
3:45 PM	0	341	0	415	138	0	0	0	0	0	0	0	894	0	0	0	0
4:00 PM	0	299	0	490	110	1	0	2	0	0	0	0	901	0	0	0	0
4:15 PM	0	337	0	411	118	0	0	1	0	0	0	0	867	0	0	0	0
4:30 PM	0	284	0	471	149	0	0	0	0	0	0	0	904	0	0	0	0
4:45 PM	0	269	1	393	134	0	0	1	0	0	0	0	797	0	0	0	1
5:00 PM	0	308	0	463	154	0	0	0	0	0	0	0	925	0	0	0	0
5:15 PM	0	318	0	476	134	1	0	0	0	0	0	0	928	0	0	0	0
5:30 PM	0	324	0	460	137	0	0	0	0	0	0	0	921	0	0	0	0
5:45 PM	0	265	0	431	94	0	0	0	0	0	0	0	790	0	0	0	0
Total Survey	0	3,673	1	5,160	1,444	2	0	6	0	0	0	0	10,283	0	0	0	1

Peak Hour Summary 4:45 PM to 5:45 PM

By Approach	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE 22nd Ave				Westbound SE 22nd Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,219	1,793	3,012	1	2,351	1,219	3,570	1	1	559	560	0	0	0	0	0	0	0	0	0	1
%HV	2.6%				1.7%				0.0%				0.0%				2.0%				
PHF	0.94				0.95				0.25				0.00				0.96				

By Movement	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Total
	L	T	Total	T	R	Total	L	R	Total			Total	
Volume	0	1,219	1,219	1,792	559	2,351	0	1	1			0	3,571
%HV	0.0%	2.6%	NA	2.1%	0.4%	1.7%	0.0%	NA	0.0%	0.0%	NA	NA	2.0%
PHF	0.00	0.94	0.94	0.94	0.91	0.95	0.00	0.25	0.25			0.00	0.96

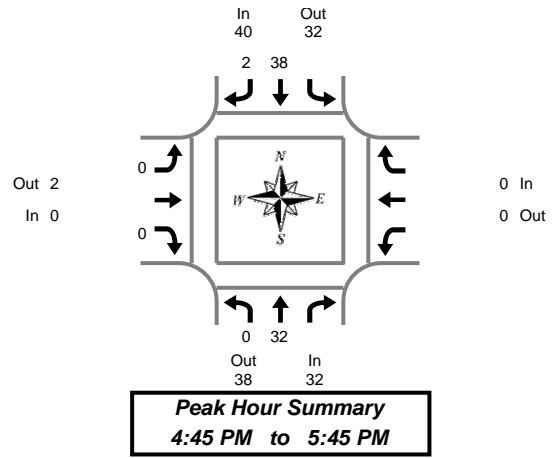
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Interval Total	Pedestrians Crosswalk			
	L	T	Bikes	T	R	Bikes	L	R	Bikes			Bikes		North	South	East	West
3:00 PM	0	1,269	0	1,565	414	0	0	2	0	0	0	0	3,250	0	0	0	0
3:15 PM	0	1,272	0	1,718	449	1	0	4	0	0	0	0	3,443	0	0	0	0
3:30 PM	0	1,293	0	1,731	470	1	0	3	0	0	0	0	3,497	0	0	0	0
3:45 PM	0	1,261	0	1,787	515	1	0	3	0	0	0	0	3,566	0	0	0	0
4:00 PM	0	1,189	1	1,765	511	1	0	4	0	0	0	0	3,469	0	0	0	1
4:15 PM	0	1,198	1	1,738	555	0	0	2	0	0	0	0	3,493	0	0	0	1
4:30 PM	0	1,179	1	1,803	571	1	0	1	0	0	0	0	3,554	0	0	0	1
4:45 PM	0	1,219	1	1,792	559	1	0	1	0	0	0	0	3,571	0	0	0	1
5:00 PM	0	1,215	0	1,830	519	1	0	0	0	0	0	0	3,564	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE 22nd Ave

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Interval Total
	L	T	Total	T	R	Total	L	R	Total			Total	
3:00 PM	0	20	20	12	2	14	0	0	0			0	34
3:15 PM	0	12	12	14	0	14	0	0	0			0	26
3:30 PM	0	10	10	19	1	20	0	0	0			0	30
3:45 PM	0	13	13	14	0	14	0	0	0			0	27
4:00 PM	0	12	12	14	5	19	0	0	0			0	31
4:15 PM	0	14	14	9	0	9	0	0	0			0	23
4:30 PM	0	15	15	14	0	14	0	0	0			0	29
4:45 PM	0	5	5	11	0	11	0	0	0			0	16
5:00 PM	0	12	12	12	1	13	0	0	0			0	25
5:15 PM	0	9	9	7	1	8	0	0	0			0	17
5:30 PM	0	6	6	8	0	8	0	0	0			0	14
5:45 PM	0	6	6	7	0	7	0	0	0			0	13
Total Survey	0	134	134	141	10	151	0	0	0			0	285

Heavy Vehicle Peak Hour Summary 4:45 PM to 5:45 PM

By Approach	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	32	38	70	40	32	72	0	2	2	0	0	0	72
PHF	0.19			0.19			0.00			0.00			0.20

By Movement	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Total
	L	T	Total	T	R	Total	L	R	Total			Total	
Volume	0	32	32	38	2	40	0	0	0			0	72
PHF	0.00	0.19	0.19	0.20	0.08	0.19	0.00	0.00	0.00			0.00	0.20

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE 22nd Ave			Westbound SE 22nd Ave			Interval Total
	L	T	Total	T	R	Total	L	R	Total			Total	
3:00 PM	0	55	55	59	3	62	0	0	0			0	117
3:15 PM	0	47	47	61	6	67	0	0	0			0	114
3:30 PM	0	49	49	56	6	62	0	0	0			0	111
3:45 PM	0	54	54	51	5	56	0	0	0			0	110
4:00 PM	0	46	46	48	5	53	0	0	0			0	99
4:15 PM	0	46	46	46	1	47	0	0	0			0	93
4:30 PM	0	41	41	44	2	46	0	0	0			0	87
4:45 PM	0	32	32	38	2	40	0	0	0			0	72
5:00 PM	0	33	33	34	2	36	0	0	0			0	69

Peak Hour Summary

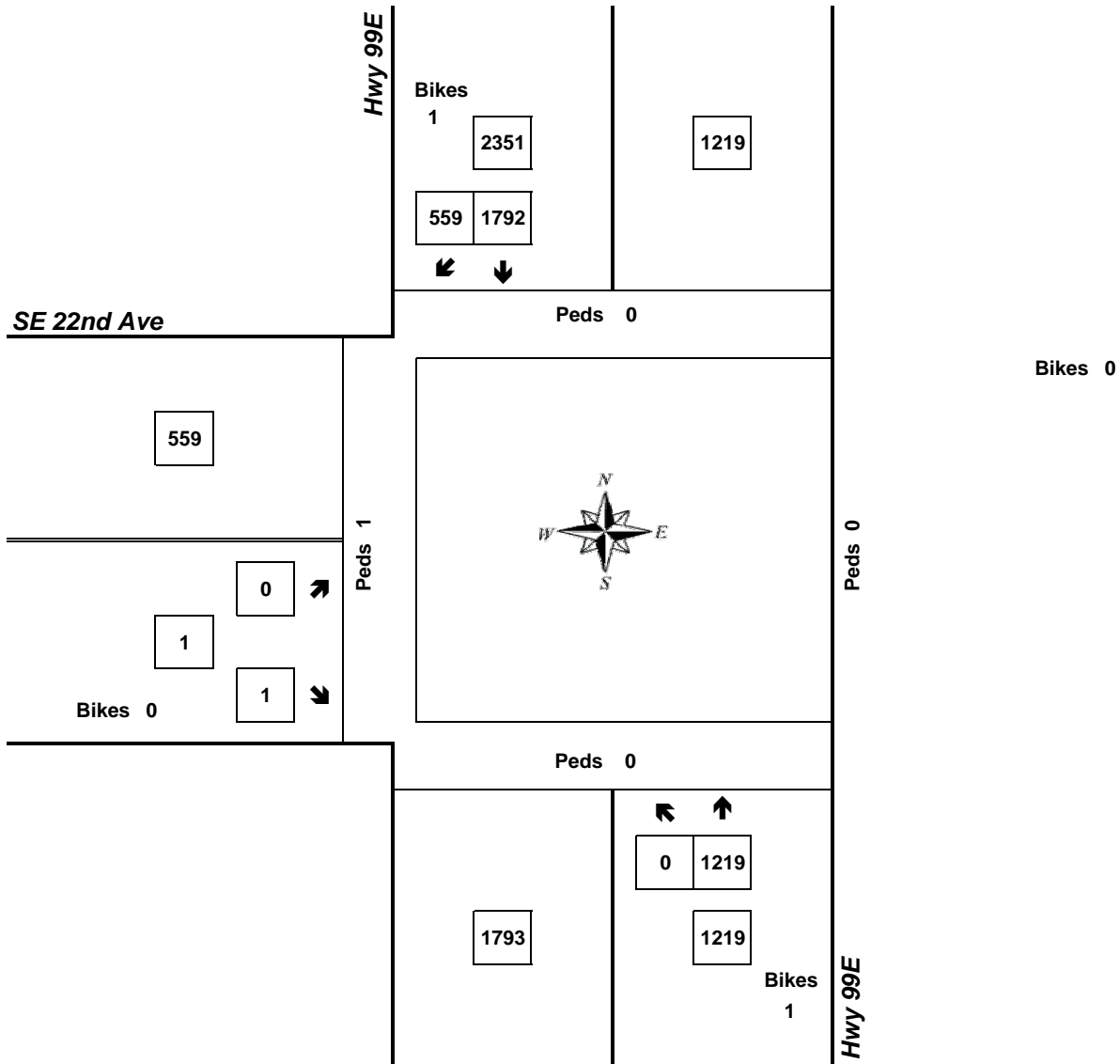


Clay Carney
(503) 833-2740

Hwy 99E & SE 22nd Ave

4:45 PM to 5:45 PM

Tuesday, December 05, 2006



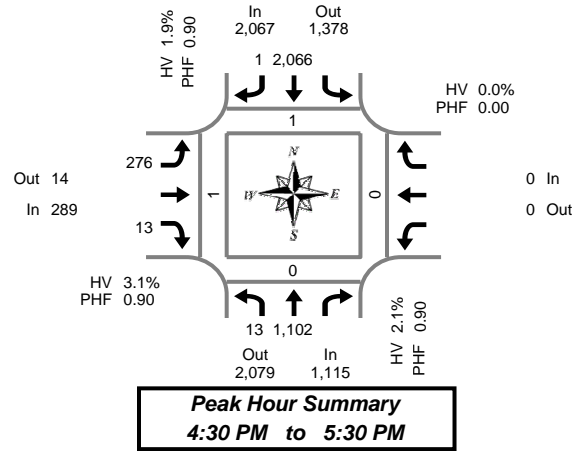
Approach	PHF	HV%	Volume
EB	0.25	0.0%	1
WB	0.00	0.0%	0
NB	0.94	2.6%	1,219
SB	0.95	1.7%	2,351
Intersection	0.96	2.0%	3,571

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE River Rd

Wednesday, December 06, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE River Rd			Westbound SE River Rd			Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L	R	Bikes			Bikes	North		South	East	West	
3:00 PM	5	202		0	361	0	0	69		2	0			0	639	0	0	0	1
3:15 PM	5	262		0	371	0	0	61		4	0			0	703	0	1	0	0
3:30 PM	8	256		0	422	0	0	55		5	0			0	746	0	0	0	0
3:45 PM	4	288		0	457	0	0	74		3	0			0	826	0	0	0	1
4:00 PM	8	258		0	532	1	0	70		1	0			0	870	0	1	0	2
4:15 PM	1	249		0	508	1	0	59		15	0			0	833	2	0	0	3
4:30 PM	3	290		0	539	0	0	74		6	0			0	912	0	0	0	0
4:45 PM	3	271		0	462	0	0	64		1	0			0	801	1	0	0	1
5:00 PM	3	235		0	495	0	0	67		0	0			0	800	0	0	0	0
5:15 PM	4	306		0	570	1	0	71		6	0			0	958	0	0	0	0
5:30 PM	5	244		0	485	0	0	74		4	0			0	812	0	0	0	0
5:45 PM	6	271		0	517	0	0	60		2	0			0	856	0	0	0	2
Total Survey	55	3,132		0	5,719	3	0	798		49	0			0	9,756	3	2	0	10

Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE River Rd				Westbound SE River Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,115	2,079	3,194	0	2,067	1,378	3,445	0	289	14	303	0	0	0	0	0	3,471	1	0	0	1
%HV		2.1%				1.9%				3.1%				0.0%			2.0%				
PHF		0.90				0.90				0.90				0.00			0.91				

By Movement	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE River Rd			Westbound SE River Rd			Total		
	L	T		Total	T	R	Total	L	R	Total			Total				
Volume	13	1,102		1,115	2,066	1	2,067	276		13	289		0	3,471			
%HV	7.7%	2.0%	NA	2.1%	NA	1.9%	0.0%	1.9%	3.3%	NA	0.0%	3.1%	NA	NA	NA	0.0%	2.0%
PHF	0.81	0.90		0.90	0.91	0.25	0.90	0.93		0.54	0.90		0.00	0.91			

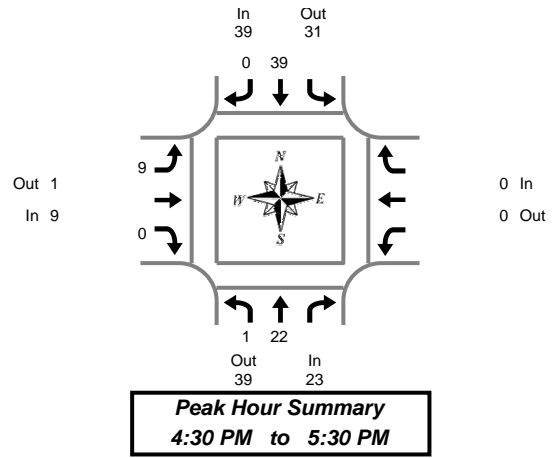
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound SE River Rd			Westbound SE River Rd			Interval Total	Pedestrians Crosswalk			
	L	T		Bikes	T	R	Bikes	L	R	Bikes			Bikes	North		South	East	West	
3:00 PM	22	1,008		0	1,611	0	0	259		14	0			0	2,914	0	1	0	2
3:15 PM	25	1,064		0	1,782	1	0	260		13	0			0	3,145	0	2	0	3
3:30 PM	21	1,051		0	1,919	2	0	258		24	0			0	3,275	2	1	0	6
3:45 PM	16	1,085		0	2,036	2	0	277		25	0			0	3,441	2	1	0	6
4:00 PM	15	1,068		0	2,041	2	0	267		23	0			0	3,416	3	1	0	6
4:15 PM	10	1,045		0	2,004	1	0	264		22	0			0	3,346	3	0	0	4
4:30 PM	13	1,102		0	2,066	1	0	276		13	0			0	3,471	1	0	0	1
4:45 PM	15	1,056		0	2,012	1	0	276		11	0			0	3,371	1	0	0	1
5:00 PM	18	1,056		0	2,067	1	0	272		12	0			0	3,426	0	0	0	2

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & SE River Rd

Wednesday, December 06, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE River Rd			Westbound SE River Rd			Interval Total
	L	T	Total	T	R	Total	L	R	Total		Total		
3:00 PM	0	13	13	10	0	10	1	0	1		0	24	
3:15 PM	0	17	17	14	0	14	1	0	1		0	32	
3:30 PM	1	6	7	10	0	10	1	1	2		0	19	
3:45 PM	1	15	16	12	0	12	0	0	0		0	28	
4:00 PM	1	11	12	6	0	6	2	0	2		0	20	
4:15 PM	0	11	11	8	0	8	4	1	5		0	24	
4:30 PM	1	4	5	10	0	10	4	0	4		0	19	
4:45 PM	0	10	10	11	0	11	3	0	3		0	24	
5:00 PM	0	3	3	9	0	9	1	0	1		0	13	
5:15 PM	0	5	5	9	0	9	1	0	1		0	15	
5:30 PM	1	6	7	10	0	10	2	0	2		0	19	
5:45 PM	0	7	7	6	0	6	1	0	1		0	14	
Total Survey	5	108	113	115	0	115	21	2	23		0	251	

Heavy Vehicle Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE River Rd			Westbound SE River Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	23	39	62	39	31	70	9	1	10	0	0	0	71
PHF	0.14			0.27			0.19			0.00			0.22

By Movement	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE River Rd			Westbound SE River Rd			Total
	L	T	Total	T	R	Total	L	R	Total		Total		
Volume	1	22	23	39	0	39	9	0	9		0	71	
PHF	0.08	0.14	0.14	0.27	0.00	0.27	0.20	0.00	0.19		0.00	0.22	

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound SE River Rd			Westbound SE River Rd			Interval Total
	L	T	Total	T	R	Total	L	R	Total		Total		
3:00 PM	2	51	53	46	0	46	3	1	4		0	103	
3:15 PM	3	49	52	42	0	42	4	1	5		0	99	
3:30 PM	3	43	46	36	0	36	7	2	9		0	91	
3:45 PM	3	41	44	36	0	36	10	1	11		0	91	
4:00 PM	2	36	38	35	0	35	13	1	14		0	87	
4:15 PM	1	28	29	38	0	38	12	1	13		0	80	
4:30 PM	1	22	23	39	0	39	9	0	9		0	71	
4:45 PM	1	24	25	39	0	39	7	0	7		0	71	
5:00 PM	1	21	22	34	0	34	5	0	5		0	61	

Peak Hour Summary

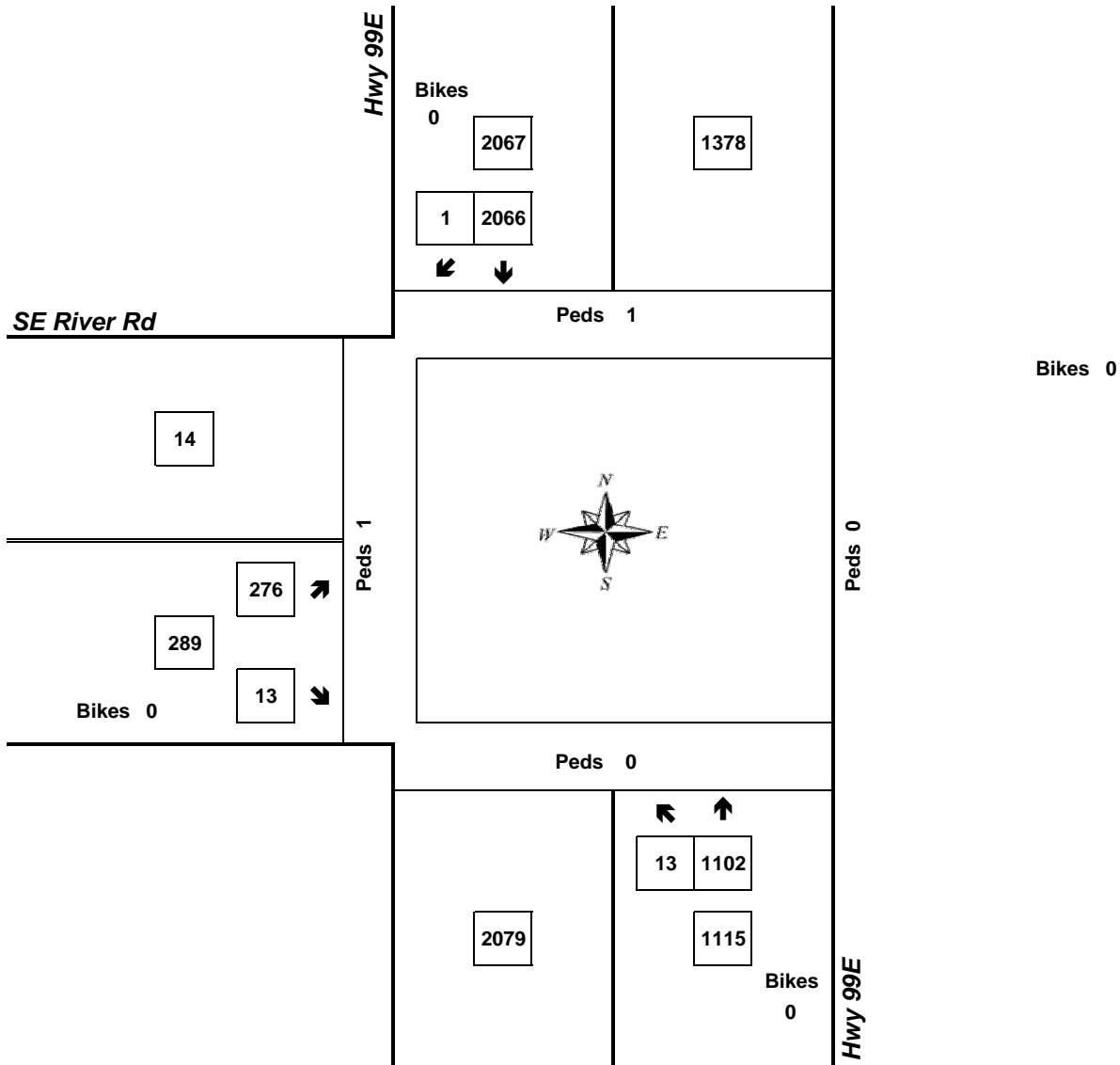


Clay Carney
(503) 833-2740

Hwy 99E & SE River Rd

4:30 PM to 5:30 PM

Wednesday, December 06, 2006



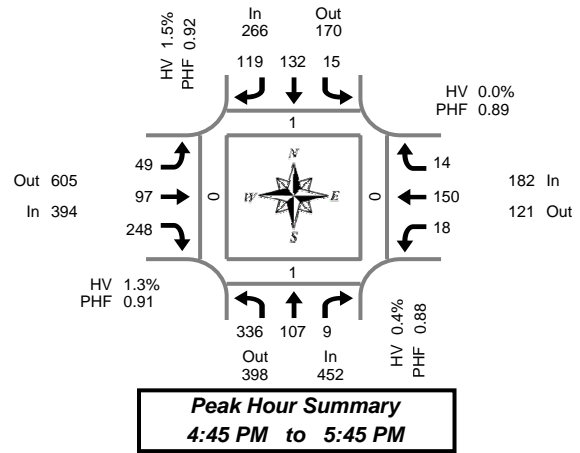
Approach	PHF	HV%	Volume
EB	0.90	3.1%	289
WB	0.00	0.0%	0
NB	0.90	2.1%	1,115
SB	0.90	1.9%	2,067
Intersection	0.91	2.0%	3,471

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



SE Lake Rd & SE Oatfield Rd

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	62	29	2	0	3	31	11	0	14	20	53	0	2	28	1	0	256	0	1	1	0
3:15 PM	74	35	5	0	5	54	26	0	19	24	49	0	2	28	6	0	327	2	0	0	0
3:30 PM	66	24	5	0	7	53	35	0	7	25	60	0	10	18	1	0	311	8	1	2	0
3:45 PM	67	17	6	0	2	45	23	0	10	31	72	0	5	30	3	0	311	3	1	0	0
4:00 PM	71	36	8	0	2	32	27	0	10	27	62	0	6	35	5	0	321	2	9	0	12
4:15 PM	99	22	7	0	5	38	18	1	9	20	59	0	8	35	2	0	322	0	0	0	1
4:30 PM	95	24	4	0	7	27	18	0	9	27	55	0	6	36	2	0	310	0	4	0	0
4:45 PM	98	24	2	0	1	27	28	0	11	24	63	0	3	35	2	0	318	0	0	0	0
5:00 PM	102	25	2	0	5	25	37	0	5	26	53	0	2	44	5	0	331	0	1	0	0
5:15 PM	60	27	4	0	4	42	26	0	19	21	64	0	8	33	2	0	310	0	0	0	0
5:30 PM	76	31	1	0	5	38	28	0	14	26	68	0	5	38	5	0	335	1	0	0	0
5:45 PM	65	17	0	0	5	25	15	0	15	19	44	0	3	25	1	0	234	0	0	0	1
Total Survey	935	311	46	0	51	437	292	1	142	290	702	0	60	385	35	0	3,686	16	17	3	14

Peak Hour Summary 4:45 PM to 5:45 PM

By Approach	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	452	398	850	0	266	170	436	0	394	605	999	0	182	121	303	0	1,294	1	1	0	0
%HV	0.4%				1.5%				1.3%				0.0%				0.9%				
PHF	0.88				0.92				0.91				0.89				0.97				

By Movement	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	336	107	9	452	15	132	119	266	49	97	248	394	18	150	14	182	1,294
%HV	0.0%	0.0%	22.2%	0.4%	6.7%	0.0%	2.5%	1.5%	4.1%	0.0%	1.2%	1.3%	0.0%	0.0%	0.0%	0.0%	0.9%
PHF	0.82	0.86	0.56	0.88	0.75	0.79	0.80	0.92	0.64	0.93	0.91	0.91	0.56	0.85	0.70	0.89	0.97

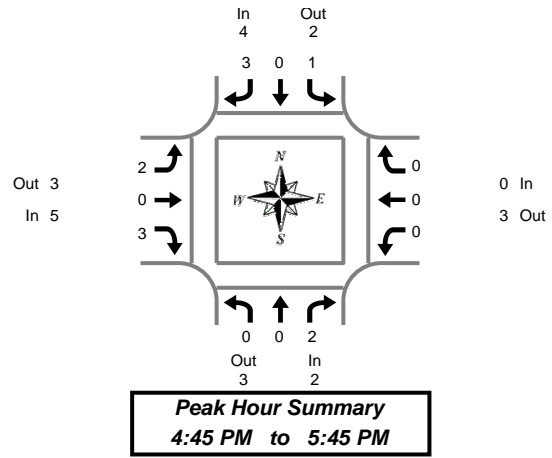
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	269	105	18	0	17	183	95	0	50	100	234	0	19	104	11	0	1,205	13	3	3	0
3:15 PM	278	112	24	0	16	184	111	0	46	107	243	0	23	111	15	0	1,270	15	11	2	12
3:30 PM	303	99	26	0	16	168	103	1	36	103	253	0	29	118	11	0	1,265	13	11	2	13
3:45 PM	332	99	25	0	16	142	86	1	38	105	248	0	25	136	12	0	1,264	5	14	0	13
4:00 PM	363	106	21	0	15	124	91	1	39	98	239	0	23	141	11	0	1,271	2	13	0	13
4:15 PM	394	95	15	0	18	117	101	1	34	97	230	0	19	150	11	0	1,281	0	5	0	1
4:30 PM	355	100	12	0	17	121	109	0	44	98	235	0	19	148	11	0	1,269	0	5	0	0
4:45 PM	336	107	9	0	15	132	119	0	49	97	248	0	18	150	14	0	1,294	1	1	0	0
5:00 PM	303	100	7	0	19	130	106	0	53	92	229	0	18	140	13	0	1,210	1	1	0	1

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



SE Lake Rd & SE Oatfield Rd

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	2	2	0	4	0	3	0	3	1	1	2	4	0	1	0	1	12
3:15 PM	1	4	1	6	0	3	0	3	3	0	1	4	0	2	0	2	15
3:30 PM	3	1	0	4	1	6	2	9	0	0	1	1	1	1	0	2	16
3:45 PM	2	1	0	3	0	0	0	0	1	1	5	7	1	0	0	1	11
4:00 PM	1	0	0	1	0	0	0	0	1	1	2	4	0	0	0	0	5
4:15 PM	0	0	2	2	0	0	1	1	1	1	1	3	1	1	0	2	8
4:30 PM	1	1	0	2	1	0	0	1	0	0	2	2	2	1	0	3	8
4:45 PM	0	0	0	0	0	0	1	1	1	0	1	2	0	0	0	0	3
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	2	2	0	0	1	1	1	0	2	3	0	0	0	0	6
5:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2
Total Survey	10	9	5	24	3	12	6	21	10	4	18	32	5	6	0	11	88

Heavy Vehicle Peak Hour Summary 4:45 PM to 5:45 PM

By Approach	Northbound SE Lake Rd			Southbound SE Lake Rd			Eastbound SE Oatfield Rd			Westbound SE Oatfield Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	2	3	5	4	2	6	5	3	8	0	3	3	11
PHF	0.04			0.07			0.09			0.00			0.06

By Movement	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	2	2	1	0	3	4	2	0	3	5	0	0	0	0	11
PHF	0.00	0.00	0.25	0.04	0.13	0.00	0.38	0.07	0.13	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.06

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Lake Rd				Southbound SE Lake Rd				Eastbound SE Oatfield Rd				Westbound SE Oatfield Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	8	8	1	17	1	12	2	15	5	2	9	16	2	4	0	6	54
3:15 PM	7	6	1	14	1	9	2	12	5	2	9	16	2	3	0	5	47
3:30 PM	6	2	2	10	1	6	3	10	3	3	9	15	3	2	0	5	40
3:45 PM	4	2	2	8	1	0	1	2	3	3	10	16	4	2	0	6	32
4:00 PM	2	1	2	5	1	0	2	3	3	2	6	11	3	2	0	5	24
4:15 PM	1	1	2	4	2	0	2	4	2	1	4	7	3	2	0	5	20
4:30 PM	1	1	2	4	2	0	2	4	2	0	5	7	2	1	0	3	18
4:45 PM	0	0	2	2	1	0	3	4	2	0	3	5	0	0	0	0	11
5:00 PM	0	0	2	2	1	0	2	3	2	0	3	5	0	0	0	0	10

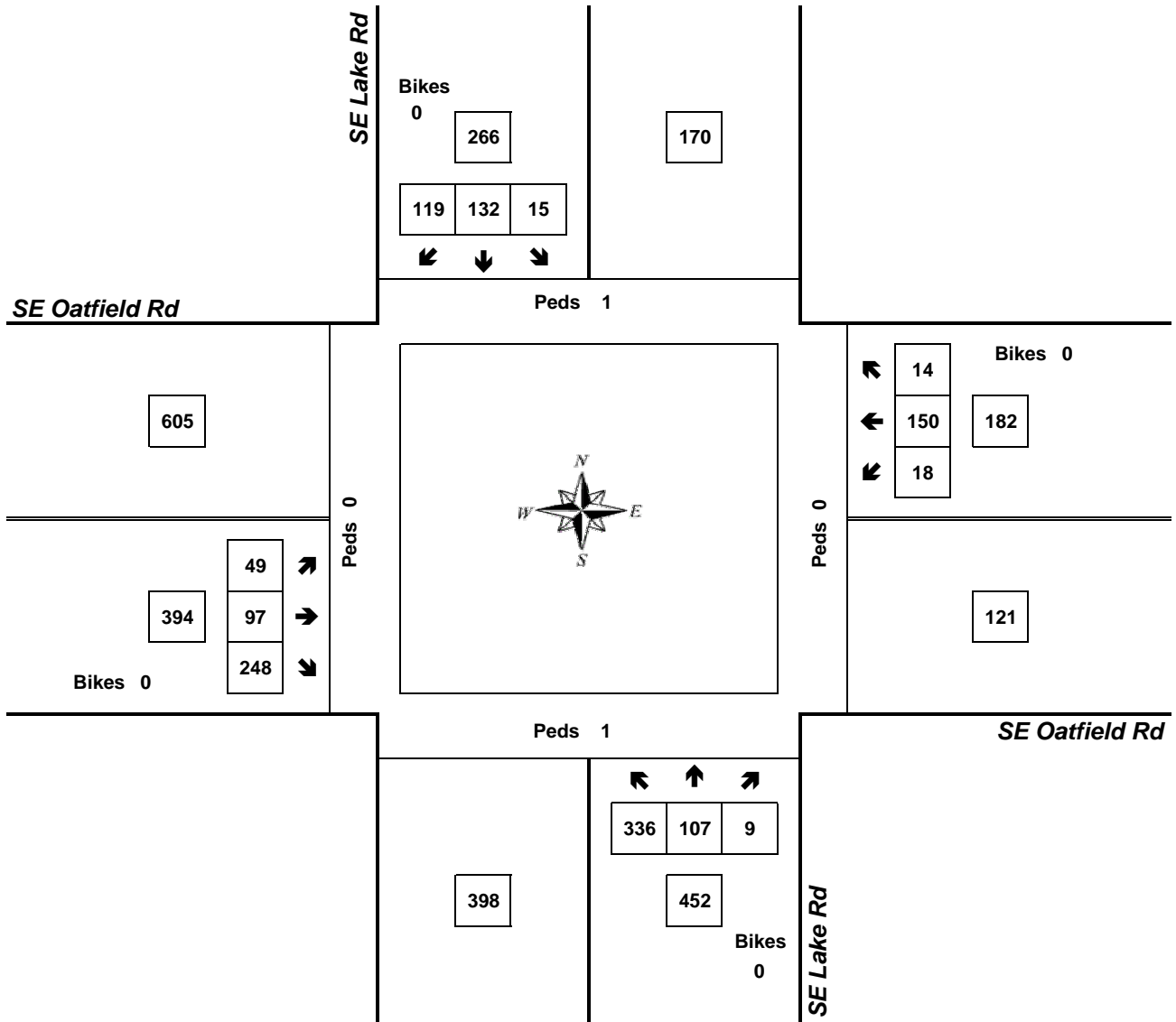
Peak Hour Summary



Clay Carney
(503) 833-2740

SE Lake Rd & SE Oatfield Rd

4:45 PM to 5:45 PM
Tuesday, December 05, 2006



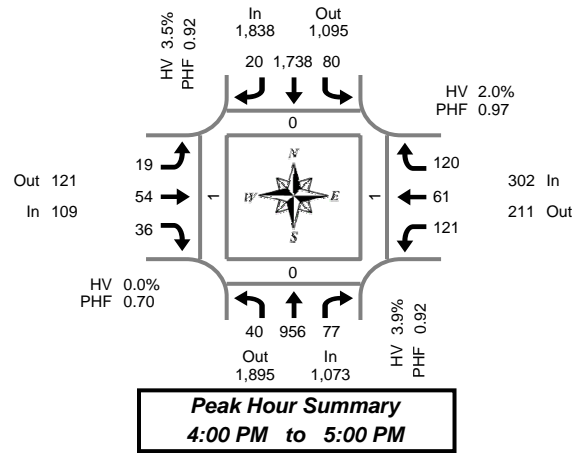
Approach	PHF	HV%	Volume
EB	0.91	1.3%	394
WB	0.89	0.0%	182
NB	0.88	0.4%	452
SB	0.92	1.5%	266
Intersection	0.97	0.9%	1,294

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE 37th Ave

Thursday, November 30, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	10	228	17	0	14	338	1	0	3	10	13	0	29	8	21	0	692	0	0	0	0
3:15 PM	5	229	27	0	14	402	4	0	2	11	8	0	28	10	19	0	759	0	0	0	1
3:30 PM	8	235	26	0	12	331	0	0	1	20	13	0	45	9	25	0	725	0	0	0	0
3:45 PM	7	252	22	0	23	426	2	0	0	13	4	0	27	9	10	0	795	0	0	2	0
4:00 PM	12	252	17	0	18	448	7	0	2	25	12	0	25	20	32	0	870	0	0	0	1
4:15 PM	13	258	21	0	22	472	4	0	8	8	4	0	31	10	33	0	884	0	0	0	0
4:30 PM	8	201	20	0	21	398	4	0	3	13	13	0	35	15	28	0	759	0	0	0	0
4:45 PM	7	245	19	0	19	420	5	0	6	8	7	0	30	16	27	0	809	0	0	1	0
5:00 PM	5	234	22	0	23	453	1	0	3	12	2	0	31	21	45	0	852	0	0	0	0
5:15 PM	11	261	17	0	19	424	6	0	5	10	5	0	29	12	23	0	822	0	0	0	1
5:30 PM	9	249	21	0	15	406	3	0	5	3	7	0	36	18	32	0	804	0	0	0	0
5:45 PM	9	202	19	0	17	427	2	0	0	11	4	0	21	17	18	0	747	0	0	0	0
Total Survey	104	2,846	248	0	217	4,945	39	0	38	144	92	0	367	165	313	0	9,518	0	0	3	3

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,073	1,895	2,968	0	1,838	1,095	2,933	0	109	121	230	0	302	211	513	0	3,322	0	0	1	1
%HV	3.9%				3.5%				0.0%				2.0%				3.4%				
PHF	0.92				0.92				0.70				0.97				0.94				

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	40	956	77	1,073	80	1,738	20	1,838	19	54	36	109	121	61	120	302	3,322
%HV	0.0%	4.3%	1.3%	3.9%	1.3%	3.7%	0.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.8%	1.6%	3.3%	2.0%	3.4%
PHF	0.77	0.93	0.92	0.92	0.91	0.92	0.71	0.92	0.59	0.54	0.69	0.70	0.86	0.76	0.91	0.97	0.94

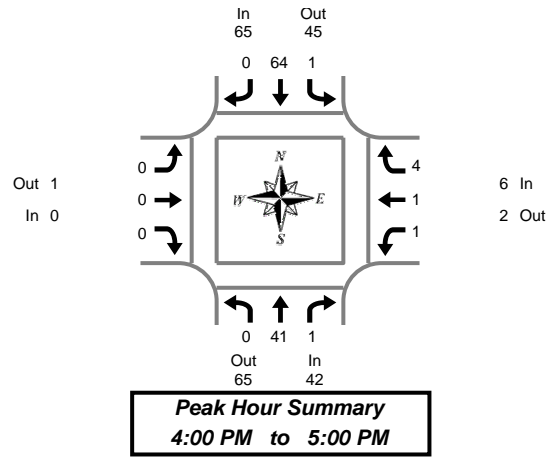
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	30	944	92	0	63	1,497	7	0	6	54	38	0	129	36	75	0	2,971	0	0	2	1
3:15 PM	32	968	92	0	67	1,607	13	0	5	69	37	0	125	48	86	0	3,149	0	0	2	2
3:30 PM	40	997	86	0	75	1,677	13	0	11	66	33	0	128	48	100	0	3,274	0	0	2	1
3:45 PM	40	963	80	0	84	1,744	17	0	13	59	33	0	118	54	103	0	3,308	0	0	2	1
4:00 PM	40	956	77	0	80	1,738	20	0	19	54	36	0	121	61	120	0	3,322	0	0	1	1
4:15 PM	33	938	82	0	85	1,743	14	0	20	41	26	0	127	62	133	0	3,304	0	0	1	0
4:30 PM	31	941	78	0	82	1,695	16	0	17	43	27	0	125	64	123	0	3,242	0	0	1	1
4:45 PM	32	989	79	0	76	1,703	15	0	19	33	21	0	126	67	127	0	3,287	0	0	1	1
5:00 PM	34	946	79	0	74	1,710	12	0	13	36	18	0	117	68	118	0	3,225	0	0	0	1

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE 37th Ave

Thursday, November 30, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	12	1	13	3	19	0	22	0	0	0	0	0	0	1	1	36
3:15 PM	0	21	0	21	2	25	0	27	0	0	0	0	1	0	1	2	50
3:30 PM	0	16	2	18	3	18	0	21	0	0	1	1	1	0	1	2	42
3:45 PM	0	14	1	15	3	18	0	21	0	1	0	1	3	0	0	3	40
4:00 PM	0	8	0	8	1	23	0	24	0	0	0	0	0	0	0	0	32
4:15 PM	0	12	0	12	0	18	0	18	0	0	0	0	1	0	2	3	33
4:30 PM	0	11	1	12	0	14	0	14	0	0	0	0	0	1	1	2	28
4:45 PM	0	10	0	10	0	9	0	9	0	0	0	0	0	0	1	1	20
5:00 PM	0	11	0	11	1	12	0	13	0	0	0	0	0	0	0	0	24
5:15 PM	0	12	0	12	0	11	1	12	0	0	0	0	0	0	0	0	24
5:30 PM	0	5	0	5	0	7	0	7	0	0	0	0	0	0	0	0	12
5:45 PM	0	6	0	6	0	14	0	14	0	0	0	0	0	0	0	0	20
Total Survey	0	138	5	143	13	188	1	202	0	1	1	2	6	1	7	14	361

Heavy Vehicle Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound Hwy 224			Southbound Hwy 224			Eastbound SE 37th Ave			Westbound SE 37th Ave			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	42	65	107	65	45	110	0	1	1	6	2	8	113
PHF	0.19			0.23			0.00			0.21			0.21

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	41	1	42	1	64	0	65	0	0	0	0	1	1	4	6	113
PHF	0.00	0.20	0.08	0.19	0.03	0.26	0.00	0.23	0.00	0.00	0.00	0.00	0.05	0.25	0.25	0.21	0.21

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE 37th Ave				Westbound SE 37th Ave				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	63	4	67	11	80	0	91	0	1	1	2	5	0	3	8	168
3:15 PM	0	59	3	62	9	84	0	93	0	1	1	2	5	0	2	7	164
3:30 PM	0	50	3	53	7	77	0	84	0	1	1	2	5	0	3	8	147
3:45 PM	0	45	2	47	4	73	0	77	0	1	0	1	4	1	3	8	133
4:00 PM	0	41	1	42	1	64	0	65	0	0	0	0	1	1	4	6	113
4:15 PM	0	44	1	45	1	53	0	54	0	0	0	0	1	1	4	6	105
4:30 PM	0	44	1	45	1	46	1	48	0	0	0	0	0	1	2	3	96
4:45 PM	0	38	0	38	1	39	1	41	0	0	0	0	0	0	1	1	80
5:00 PM	0	34	0	34	1	44	1	46	0	0	0	0	0	0	0	0	80

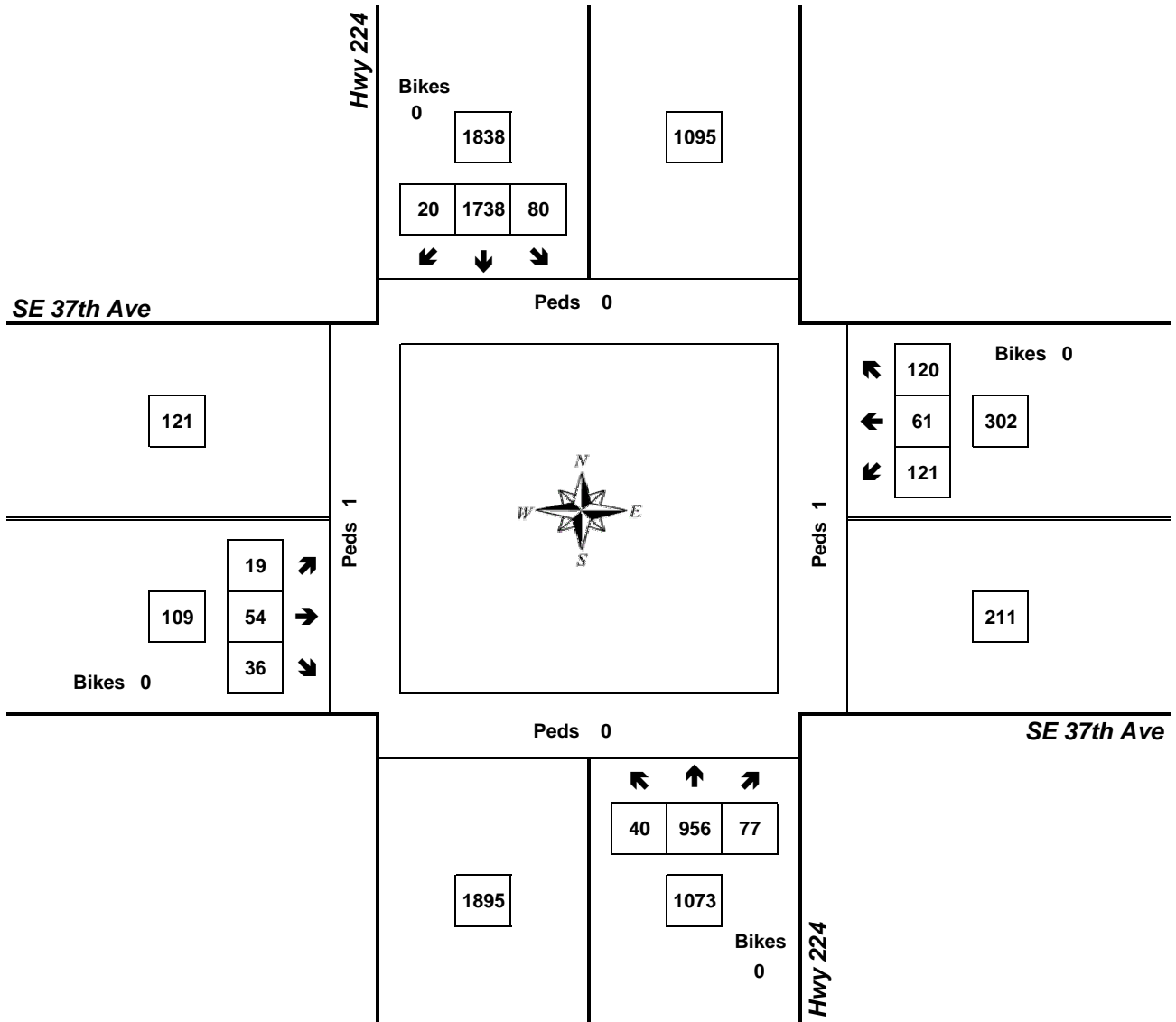
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 224 & SE 37th Ave

4:00 PM to 5:00 PM
Thursday, November 30, 2006



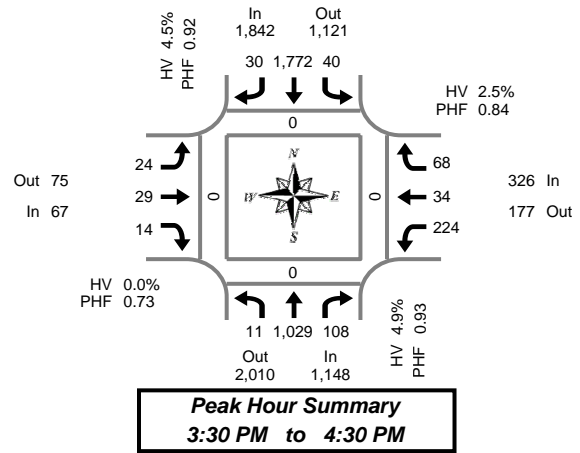
Approach	PHF	HV%	Volume
EB	0.70	0.0%	109
WB	0.97	2.0%	302
NB	0.92	3.9%	1,073
SB	0.92	3.5%	1,838
Intersection	0.94	3.4%	3,322

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Freeman Way

Thursday, November 30, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	1	269	20	0	8	389	7	0	2	2	4	0	41	6	11	0	760	0	0	0	0
3:15 PM	2	244	19	0	16	387	7	0	5	7	1	0	33	13	17	0	751	0	0	0	0
3:30 PM	0	248	42	0	14	385	2	0	3	10	3	0	55	5	13	0	780	0	0	0	0
3:45 PM	3	266	24	0	12	426	11	0	6	13	4	0	38	5	16	0	824	0	0	0	0
4:00 PM	3	226	27	0	7	473	10	0	5	5	2	0	68	7	22	0	855	0	0	0	0
4:15 PM	5	289	15	0	7	488	7	0	10	1	5	0	63	17	17	0	924	0	0	0	0
4:30 PM	10	188	23	0	8	428	13	0	2	4	1	0	54	10	20	0	761	0	0	0	0
4:45 PM	2	262	21	0	10	444	8	0	1	5	3	0	46	10	23	0	835	0	0	0	0
5:00 PM	4	256	15	0	7	443	7	0	1	3	1	0	69	9	16	0	831	0	0	0	0
5:15 PM	13	239	16	0	2	403	12	0	7	3	1	0	63	15	20	0	794	0	0	0	0
5:30 PM	4	283	14	0	8	448	7	0	6	0	1	0	57	8	9	0	845	0	0	0	0
5:45 PM	2	205	14	0	5	422	10	0	6	2	2	0	40	9	9	0	726	0	0	0	0
Total Survey	49	2,975	250	0	104	5,136	101	0	54	55	28	0	627	114	193	0	9,686	0	0	0	0

Peak Hour Summary 3:30 PM to 4:30 PM

By Approach	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,148	2,010	3,158	0	1,842	1,121	2,963	0	67	75	142	0	326	177	503	0	3,383	0	0	0	0
%HV	4.9%				4.5%				0.0%				2.5%				4.3%				
PHF	0.93				0.92				0.73				0.84				0.92				

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	11	1,029	108	1,148	40	1,772	30	1,842	24	29	14	67	224	34	68	326	3,383
%HV	9.1%	5.1%	2.8%	4.9%	2.5%	4.6%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	4.4%	2.5%	4.3%
PHF	0.55	0.89	0.64	0.93	0.71	0.91	0.68	0.92	0.60	0.56	0.70	0.73	0.82	0.50	0.77	0.84	0.92

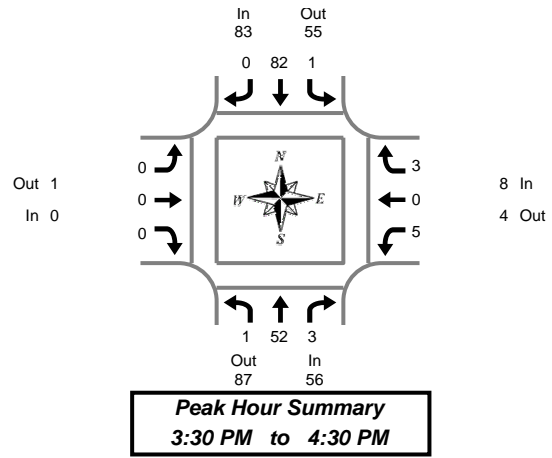
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	6	1,027	105	0	50	1,587	27	0	16	32	12	0	167	29	57	0	3,115	0	0	0	0
3:15 PM	8	984	112	0	49	1,671	30	0	19	35	10	0	194	30	68	0	3,210	0	0	0	0
3:30 PM	11	1,029	108	0	40	1,772	30	0	24	29	14	0	224	34	68	0	3,383	0	0	0	0
3:45 PM	21	969	89	0	34	1,815	41	0	23	23	12	0	223	39	75	0	3,364	0	0	0	0
4:00 PM	20	965	86	0	32	1,833	38	0	18	15	11	0	231	44	82	0	3,375	0	0	0	0
4:15 PM	21	995	74	0	32	1,803	35	0	14	13	10	0	232	46	76	0	3,351	0	0	0	0
4:30 PM	29	945	75	0	27	1,718	40	0	11	15	6	0	232	44	79	0	3,221	0	0	0	0
4:45 PM	23	1,040	66	0	27	1,738	34	0	15	11	6	0	235	42	68	0	3,305	0	0	0	0
5:00 PM	23	983	59	0	22	1,716	36	0	20	8	5	0	229	41	54	0	3,196	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Freeman Way

Thursday, November 30, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	13	0	13	0	29	0	29	0	0	0	0	2	0	3	5	47
3:15 PM	0	15	2	17	3	24	0	27	0	0	0	0	2	0	4	6	50
3:30 PM	0	20	1	21	0	20	0	20	0	0	0	0	2	0	1	3	44
3:45 PM	0	12	0	12	1	18	0	19	0	0	0	0	0	0	2	2	33
4:00 PM	0	9	1	10	0	23	0	23	0	0	0	0	1	0	0	1	34
4:15 PM	1	11	1	13	0	21	0	21	0	0	0	0	2	0	0	2	36
4:30 PM	0	9	2	11	0	13	0	13	0	0	0	0	0	0	2	2	26
4:45 PM	0	10	0	10	0	9	0	9	0	0	0	0	1	0	0	1	20
5:00 PM	0	11	1	12	1	9	0	10	0	0	0	0	0	0	0	0	22
5:15 PM	0	7	0	7	0	12	0	12	0	0	0	0	1	0	1	2	21
5:30 PM	0	6	0	6	0	6	0	6	0	0	0	0	0	0	0	0	12
5:45 PM	0	6	0	6	0	8	0	8	0	0	0	0	0	0	0	0	14
Total Survey	1	129	8	138	5	192	0	197	0	0	0	0	11	0	13	24	359

Heavy Vehicle Peak Hour Summary 3:30 PM to 4:30 PM

By Approach	Northbound Hwy 224			Southbound Hwy 224			Eastbound SE Freeman Way			Westbound SE Freeman Way			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	56	87	143	83	55	138	0	1	1	8	4	12	147
PHF	0.27			0.27			0.00			0.14			0.26

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	52	3	56	1	82	0	83	0	0	0	0	5	0	3	8	147
PHF	0.25	0.27	0.19	0.27	0.06	0.28	0.00	0.27	0.00	0.00	0.00	0.00	0.21	0.00	0.09	0.14	0.26

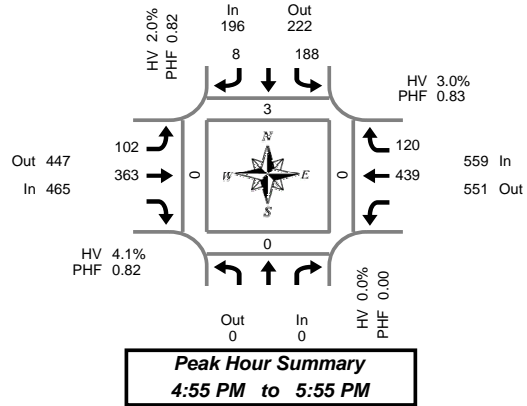
Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Freeman Way				Westbound SE Freeman Way				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	60	3	63	4	91	0	95	0	0	0	0	6	0	10	16	174
3:15 PM	0	56	4	60	4	85	0	89	0	0	0	0	5	0	7	12	161
3:30 PM	1	52	3	56	1	82	0	83	0	0	0	0	5	0	3	8	147
3:45 PM	1	41	4	46	1	75	0	76	0	0	0	0	3	0	4	7	129
4:00 PM	1	39	4	44	0	66	0	66	0	0	0	0	4	0	2	6	116
4:15 PM	1	41	4	46	1	52	0	53	0	0	0	0	3	0	2	5	104
4:30 PM	0	37	3	40	1	43	0	44	0	0	0	0	2	0	3	5	89
4:45 PM	0	34	1	35	1	36	0	37	0	0	0	0	2	0	1	3	75
5:00 PM	0	30	1	31	1	35	0	36	0	0	0	0	1	0	1	2	69

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 EB Ramps & SE Lake Rd

Wednesday, October 11, 2006

4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 EB Ramps				Southbound Hwy 212 EB Ramps				Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total	Pedestrians Crosswalk			
	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes	T	R	North	South		East	West		
4:00 PM	0	5	1	0	7	29	0	26	8	0	76	0	0	0	0				
4:05 PM	0	8	1	0	8	30	0	21	7	0	75	1	0	0	0				
4:10 PM	0	8	2	0	8	32	0	34	12	0	96	0	0	0	0				
4:15 PM	0	6	0	0	10	21	0	43	7	0	87	0	0	0	0				
4:20 PM	0	13	0	0	8	20	0	41	6	0	88	0	0	0	0				
4:25 PM	0	15	1	0	11	25	0	35	4	0	91	0	0	0	0				
4:30 PM	0	10	0	0	6	22	1	39	3	0	80	0	0	0	0				
4:35 PM	0	10	1	0	12	24	0	43	8	0	98	0	0	0	0				
4:40 PM	0	24	0	0	10	30	0	33	10	0	107	0	0	0	0				
4:45 PM	0	10	0	0	15	40	0	27	18	0	110	0	0	0	0				
4:50 PM	0	14	0	0	8	26	0	30	7	0	85	1	0	0	0				
4:55 PM	0	12	1	0	6	35	0	49	11	0	114	1	0	0	0				
5:00 PM	0	9	0	0	8	31	2	29	10	0	87	0	0	0	0				
5:05 PM	0	15	1	0	5	30	0	40	7	0	98	0	0	0	0				
5:10 PM	0	11	0	0	13	28	0	37	6	0	95	0	0	0	0				
5:15 PM	0	18	2	0	6	17	1	34	8	0	85	0	0	0	0				
5:20 PM	0	18	1	0	10	24	0	54	10	0	117	1	0	0	0				
5:25 PM	0	21	0	0	6	26	0	52	11	0	116	0	0	0	0				
5:30 PM	0	17	0	0	10	31	0	23	17	0	98	0	0	0	0				
5:35 PM	0	17	2	0	6	38	0	28	8	0	99	0	0	0	0				
5:40 PM	0	13	1	0	13	43	0	27	9	0	106	1	0	0	0				
5:45 PM	0	18	0	0	8	30	0	31	12	0	99	0	0	0	0				
5:50 PM	0	19	0	0	11	30	0	35	11	0	106	0	0	0	0				
5:55 PM	0	20	1	0	11	29	0	39	8	0	108	0	0	0	0				
Total Survey	0	331	15	0	216	691	4	850	218	0	2,321	5	0	0	0				

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 EB Ramps				Southbound Hwy 212 EB Ramps				Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total	Pedestrians Crosswalk			
	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes	T	R	North	South		East	West		
4:00 PM	0	21	4	0	23	91	0	81	27	0	247	1	0	0	0				
4:15 PM	0	34	1	0	29	66	0	119	17	0	266	0	0	0	0				
4:30 PM	0	44	1	0	28	76	1	115	21	0	285	0	0	0	0				
4:45 PM	0	36	1	0	29	101	0	106	36	0	309	2	0	0	0				
5:00 PM	0	35	1	0	26	89	2	106	23	0	280	0	0	0	0				
5:15 PM	0	57	3	0	22	67	1	140	29	0	318	1	0	0	0				
5:30 PM	0	47	3	0	29	112	0	78	34	0	303	1	0	0	0				
5:45 PM	0	57	1	0	30	89	0	105	31	0	313	0	0	0	0				
Total Survey	0	331	15	0	216	691	4	850	218	0	2,321	5	0	0	0				

Peak Hour Summary 4:55 PM to 5:55 PM

By Approach	Northbound Hwy 212 EB Ramps				Southbound Hwy 212 EB Ramps				Eastbound SE Lake Rd			Westbound SE Lake Rd			Total	Pedestrians Crosswalk					
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out		Total	North	South	East	West	
Volume	0	0	0	0	196	222	418	0	465	447	912	3	559	551	1,110	0	1,220	3	0	0	0
%HV	0.0%				2.0%				4.1%			3.0%			3.3%						
PHF	0.00				0.82				0.82			0.83			0.92						

By Movement	Northbound Hwy 212 EB Ramps				Southbound Hwy 212 EB Ramps				Eastbound SE Lake Rd			Westbound SE Lake Rd			Total					
	Total	L	R	Total	L	T	Total	T	R	Total	T	R	Total							
Volume	0	188	8	196	102	363	465	439	120	559	1,220	3	0	0						
%HV	NA	NA	NA	0.0%	2.1%	NA	0.0%	2.0%	9.8%	2.5%	NA	4.1%	NA	3.4%	1.7%	3.0%	3.3%			
PHF		0.00	0.82	0.67	0.82	0.80	0.81	0.78	0.79	0.83	0.92									

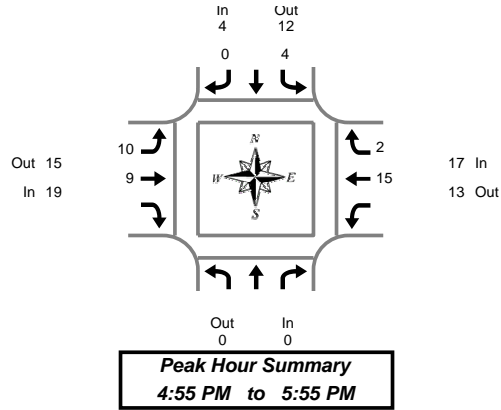
Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 EB Ramps				Southbound Hwy 212 EB Ramps				Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total	Pedestrians Crosswalk			
	Bikes	L	R	Bikes	L	T	Bikes	T	R	Bikes	T	R	North	South		East	West		
4:00 PM	0	135	7	0	109	334	1	421	101	0	1,107	3	0	0	0				
4:15 PM	0	149	4	0	112	332	3	446	97	0	1,140	2	0	0	0				
4:30 PM	0	172	6	0	105	333	4	467	109	0	1,192	3	0	0	0				
4:45 PM	0	175	8	0	106	369	3	430	122	0	1,210	4	0	0	0				
5:00 PM	0	196	8	0	107	357	3	429	117	0	1,214	2	0	0	0				

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 EB Ramps & SE Lake Rd

Wednesday, October 11, 2006

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	3	3	0	0	0	3
4:05 PM	0	0	0	0	0	0	0	6	6	0	0	0	6
4:10 PM	0	0	0	0	0	2	2	4	4	1	0	1	5
4:15 PM	0	0	0	0	0	1	1	1	1	2	0	2	3
4:20 PM	0	0	0	0	0	1	1	1	1	1	0	1	2
4:25 PM	0	2	0	2	1	0	1	1	1	0	0	0	3
4:30 PM	0	1	0	1	2	0	2	2	2	2	0	2	5
4:35 PM	0	0	0	0	2	2	4	4	4	4	1	5	9
4:40 PM	0	2	0	2	1	0	1	1	1	2	0	2	5
4:45 PM	0	0	0	0	0	1	1	1	1	2	1	3	4
4:50 PM	0	0	0	0	1	0	1	1	1	0	0	0	1
4:55 PM	0	0	0	0	1	1	2	2	2	1	0	1	3
5:00 PM	0	0	0	0	0	1	1	1	1	1	0	1	2
5:05 PM	0	1	0	1	1	1	2	2	2	2	0	2	5
5:10 PM	0	0	0	0	2	1	3	3	3	1	0	1	4
5:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	3
5:20 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
5:25 PM	0	0	0	0	1	0	1	1	1	2	0	2	3
5:30 PM	0	0	0	0	2	0	2	2	2	1	1	2	4
5:35 PM	0	1	0	1	0	1	1	1	1	1	0	1	3
5:40 PM	0	0	0	0	1	3	4	4	4	1	0	1	5
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:50 PM	0	0	0	0	2	1	3	3	3	1	1	2	5
5:55 PM	0	0	0	0	0	2	2	2	2	2	0	2	4
Total Survey	0	9	0	9	19	27	46	46	46	31	4	35	90

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	0	0	0	2	11	13	1	0	1	14
4:15 PM	0	2	0	2	1	2	3	2	3	3	0	3	8
4:30 PM	0	3	0	3	5	2	7	2	7	8	1	9	19
4:45 PM	0	0	0	0	2	2	4	2	4	3	1	4	8
5:00 PM	0	1	0	1	3	3	6	3	6	4	0	4	11
5:15 PM	0	2	0	2	1	0	1	0	1	5	0	5	8
5:30 PM	0	1	0	1	3	4	7	3	4	3	1	4	12
5:45 PM	0	0	0	0	2	3	5	2	3	4	1	5	10
Total Survey	0	9	0	9	19	27	46	46	46	31	4	35	90

Heavy Vehicle Peak Hour Summary 4:55 PM to 5:55 PM

By Approach	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	4	12	16	19	15	34	17	13	30	40
PHF	0.00			0.33			0.68			0.71			0.83

By Movement	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	4	0	4	10	9	19	9	19	15	2	17	40
PHF	0.00	0.33	0.00	0.33	0.83	0.56	0.68	0.75	0.50	0.71			0.83

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	5	0	5	10	17	27	15	2	17	2	17	49
4:15 PM	0	6	0	6	11	9	20	18	2	20	2	20	46
4:30 PM	0	6	0	6	11	7	18	20	2	22	2	22	46
4:45 PM	0	4	0	4	9	9	18	15	2	17	2	17	39
5:00 PM	0	4	0	4	9	10	19	16	2	18	2	18	41

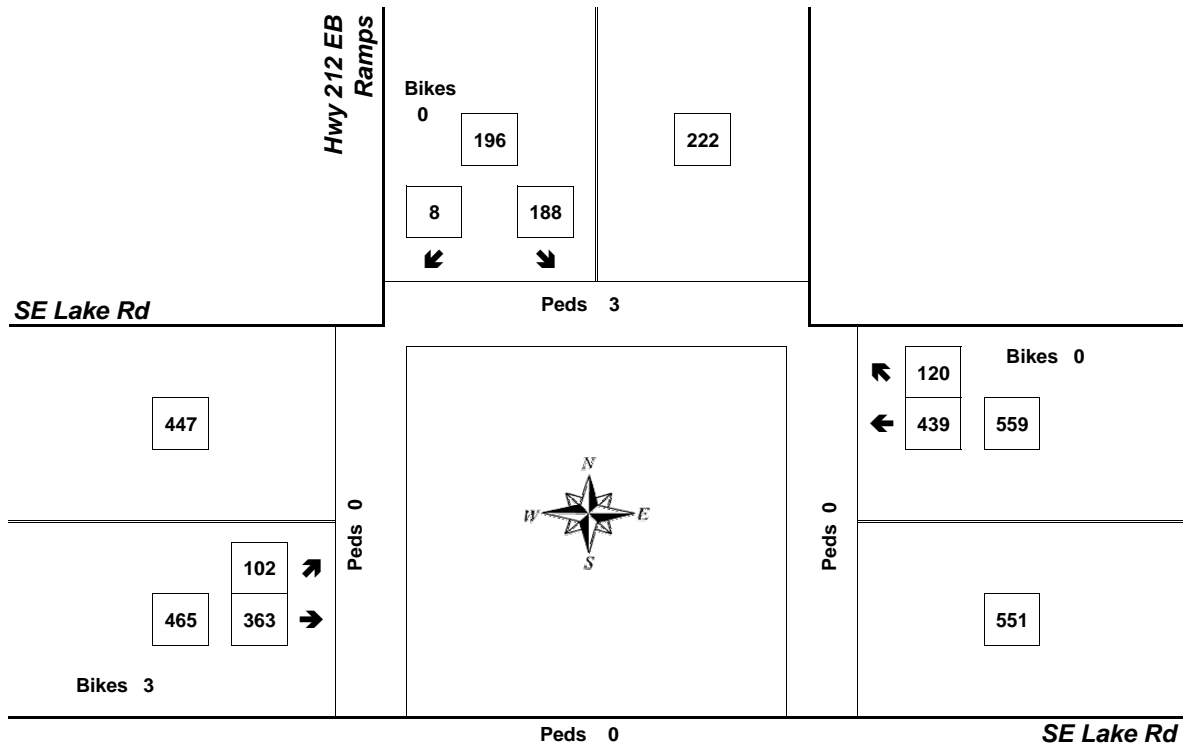
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 212 EB Ramps & SE Lake Rd

4:55 PM to 5:55 PM
Wednesday, October 11, 2006



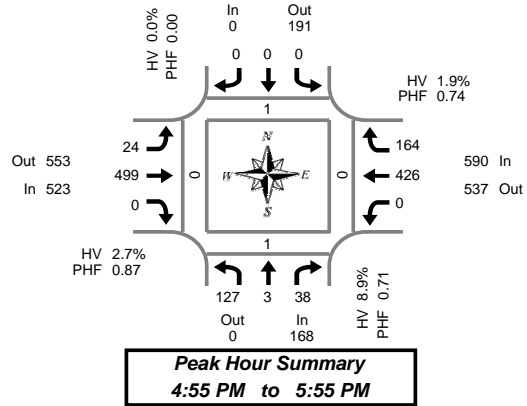
Approach	PHF	HV%	Volume
EB	0.82	4.1%	465
WB	0.83	3.0%	559
NB	0.00	0.0%	0
SB	0.82	2.0%	196
Intersection	0.92	3.3%	1,220

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 WB Ramps & SE Lake Rd

Wednesday, October 11, 2006

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total	Pedestrians Crosswalk				
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West	
4:00 PM	9	0	1	0	0	0	0	0	1	42	0	0	0	37	9	0	0	99	0	0	0	0
4:05 PM	7	0	0	0	0	0	0	0	2	47	0	0	0	34	10	0	0	100	0	0	0	0
4:10 PM	3	0	1	0	0	0	0	0	0	31	0	0	0	33	15	0	0	83	0	0	0	0
4:15 PM	7	2	6	0	0	0	0	0	1	33	0	0	0	73	14	0	0	136	0	0	0	0
4:20 PM	10	0	2	0	0	0	0	0	3	46	0	0	0	38	15	0	0	114	0	0	0	0
4:25 PM	9	0	3	0	0	0	0	0	0	22	0	0	0	20	9	1	0	63	0	0	0	0
4:30 PM	5	1	1	0	0	0	0	0	4	38	0	1	0	27	8	0	0	84	0	0	0	0
4:35 PM	11	0	0	0	0	0	0	0	2	33	0	0	0	37	12	0	0	95	0	0	0	0
4:40 PM	7	0	3	0	0	0	0	0	1	46	0	0	0	33	14	0	0	104	0	0	0	0
4:45 PM	7	0	3	0	0	0	0	0	0	39	0	0	0	32	10	0	0	91	0	0	0	0
4:50 PM	7	1	0	0	0	0	0	0	3	34	0	0	0	46	13	0	0	104	0	0	0	0
4:55 PM	9	0	3	0	0	0	0	0	4	49	0	0	0	34	19	0	0	118	0	0	0	0
5:00 PM	12	0	2	0	0	0	0	0	2	38	0	0	0	31	17	0	0	102	0	0	0	0
5:05 PM	7	0	3	0	0	0	0	0	1	36	0	2	0	33	13	0	0	93	0	0	0	0
5:10 PM	8	0	2	0	0	0	0	0	0	44	0	0	0	40	12	0	0	106	0	1	0	0
5:15 PM	4	0	1	0	0	0	0	0	2	33	0	0	0	51	20	0	0	111	0	0	0	0
5:20 PM	11	0	4	0	0	0	0	0	3	44	0	0	0	57	19	0	0	138	0	0	0	0
5:25 PM	15	0	2	0	0	0	0	0	1	43	0	0	0	31	13	0	0	105	0	0	0	0
5:30 PM	11	1	6	0	0	0	0	0	2	29	0	0	0	29	8	0	0	86	1	0	0	0
5:35 PM	5	0	3	0	0	0	0	0	1	49	0	0	0	25	11	0	0	94	0	0	0	0
5:40 PM	18	1	1	0	0	0	0	0	3	52	0	0	0	36	11	0	0	122	0	0	0	0
5:45 PM	9	1	5	0	0	0	0	0	4	42	0	0	0	23	13	0	0	97	0	0	0	0
5:50 PM	18	0	6	0	0	0	0	0	1	40	0	0	0	36	8	0	0	109	0	0	0	0
5:55 PM	17	0	2	0	0	0	0	0	0	51	0	0	0	34	10	0	0	114	0	0	0	0
Total Survey	226	7	60	0	0	0	0	0	41	961	0	3	0	870	303	1	0	2,468	1	1	0	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total	Pedestrians Crosswalk				
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West	
4:00 PM	19	0	2	0	0	0	0	0	3	120	0	0	0	104	34	0	0	282	0	0	0	0
4:15 PM	26	2	11	0	0	0	0	0	4	101	0	0	0	131	38	1	0	313	0	0	0	0
4:30 PM	23	1	4	0	0	0	0	0	7	117	0	1	0	97	34	0	0	283	0	0	0	0
4:45 PM	23	1	6	0	0	0	0	0	7	122	0	0	0	112	42	0	0	313	0	0	0	0
5:00 PM	27	0	7	0	0	0	0	0	3	118	0	2	0	104	42	0	0	301	0	1	0	0
5:15 PM	30	0	7	0	0	0	0	0	6	120	0	0	0	139	52	0	0	354	0	0	0	0
5:30 PM	34	2	10	0	0	0	0	0	6	130	0	0	0	90	30	0	0	302	1	0	0	0
5:45 PM	44	1	13	0	0	0	0	0	5	133	0	0	0	93	31	0	0	320	0	0	0	0
Total Survey	226	7	60	0	0	0	0	0	41	961	0	3	0	870	303	1	0	2,468	1	1	0	0

Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	168	0	168	0	0	191	191	0	523	553	1,076	2	590	537	1,127	0	1,281	1	1	0	0
%HV	8.9%				0.0%				2.7%				1.9%				3.1%				
PHF	0.71				0.00				0.87				0.74				0.90				

By Movement	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
Volume	127	3	38	168	0	0	0	0	24	499	0	523	0	426	164	590	1,281				
%HV	6.3%	0.0%	18.4%	8.9%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	2.7%	0.0%	1.9%	1.8%	1.9%	3.1%				
PHF	0.71	0.38	0.79	0.71	0.00	0.00	0.00	0.00	0.75	0.87	0.00	0.87	0.00	0.72	0.79	0.74	0.90				

Rolling Hour Summary

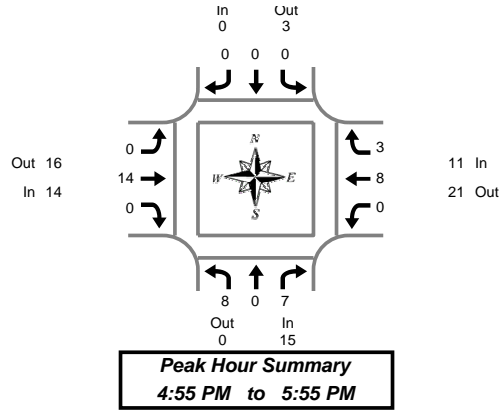
4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	91	4	23	0	0	0	0	0	21	460	0	1	0	444	148	1	1,191	0	0	0	0
4:15 PM	99	4	28	0	0	0	0	0	21	458	0	3	0	444	156	1	1,210	0	1	0	0
4:30 PM	103	2	24	0	0	0	0	0	23	477	0	3	0	452	170	0	1,251	0	1	0	0
4:45 PM	114	3	30	0	0	0	0	0	22	490	0	2	0	445	166	0	1,270	1	1	0	0
5:00 PM	135	3	37	0	0	0	0	0	20	501	0	2	0	426	155	0	1,277	1	1	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 WB Ramps & SE Lake Rd

Wednesday, October 11, 2006

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	0	1	0	1	5
4:05 PM	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	6
4:10 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:15 PM	1	0	2	3	0	0	0	0	0	0	0	0	0	1	0	1	4
4:20 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	2	3	4
4:25 PM	1	0	1	2	0	0	0	0	0	2	0	2	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4
4:35 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	3	1	4	6
4:40 PM	2	0	0	2	0	0	0	0	0	4	0	4	0	0	0	0	6
4:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:50 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	1	1	2	4
4:55 PM	0	0	2	2	0	0	0	0	0	1	0	1	0	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
5:05 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
5:10 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
5:20 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	2	1	3	5
5:25 PM	2	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
5:30 PM	1	0	1	2	0	0	0	0	0	1	0	1	0	1	0	1	4
5:35 PM	3	0	2	5	0	0	0	0	0	5	0	5	0	0	0	0	10
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	1	2	0	0	0	0	0	1	0	1	0	1	0	1	4
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
Total Survey	13	0	12	25	0	0	0	0	0	38	0	38	0	19	7	26	89

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	13	0	13	0	1	0	1	14
4:15 PM	2	0	4	6	0	0	0	0	0	2	0	2	0	2	2	4	12
4:30 PM	2	0	0	2	0	0	0	0	0	7	0	7	0	6	1	7	16
4:45 PM	1	0	3	4	0	0	0	0	0	2	0	2	0	1	1	2	8
5:00 PM	0	0	1	1	0	0	0	0	0	4	0	4	0	4	1	5	10
5:15 PM	3	0	0	3	0	0	0	0	0	2	0	2	0	2	2	4	9
5:30 PM	4	0	3	7	0	0	0	0	0	6	0	6	0	1	0	1	14
5:45 PM	1	0	1	2	0	0	0	0	0	2	0	2	0	2	0	2	6
Total Survey	13	0	12	25	0	0	0	0	0	38	0	38	0	19	7	26	89

Heavy Vehicle Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound Hwy 212 WB Ramps			Southbound Hwy 212 WB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	15	0	15	0	3	3	14	16	30	11	21	32	40
PHF	0.42			0.00			0.50			0.39			0.59

By Movement	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	8	0	7	15	0	0	0	0	0	14	0	14	0	8	3	11	40
PHF	0.33	0.00	0.58	0.42	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	0.00	0.50	0.25	0.39	0.59

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	5	0	7	12	0	0	0	0	0	24	0	24	0	10	4	14	50
4:15 PM	5	0	8	13	0	0	0	0	0	15	0	15	0	13	5	18	46
4:30 PM	6	0	4	10	0	0	0	0	0	15	0	15	0	13	5	18	43
4:45 PM	8	0	7	15	0	0	0	0	0	14	0	14	0	8	4	12	41
5:00 PM	8	0	5	13	0	0	0	0	0	14	0	14	0	9	3	12	39

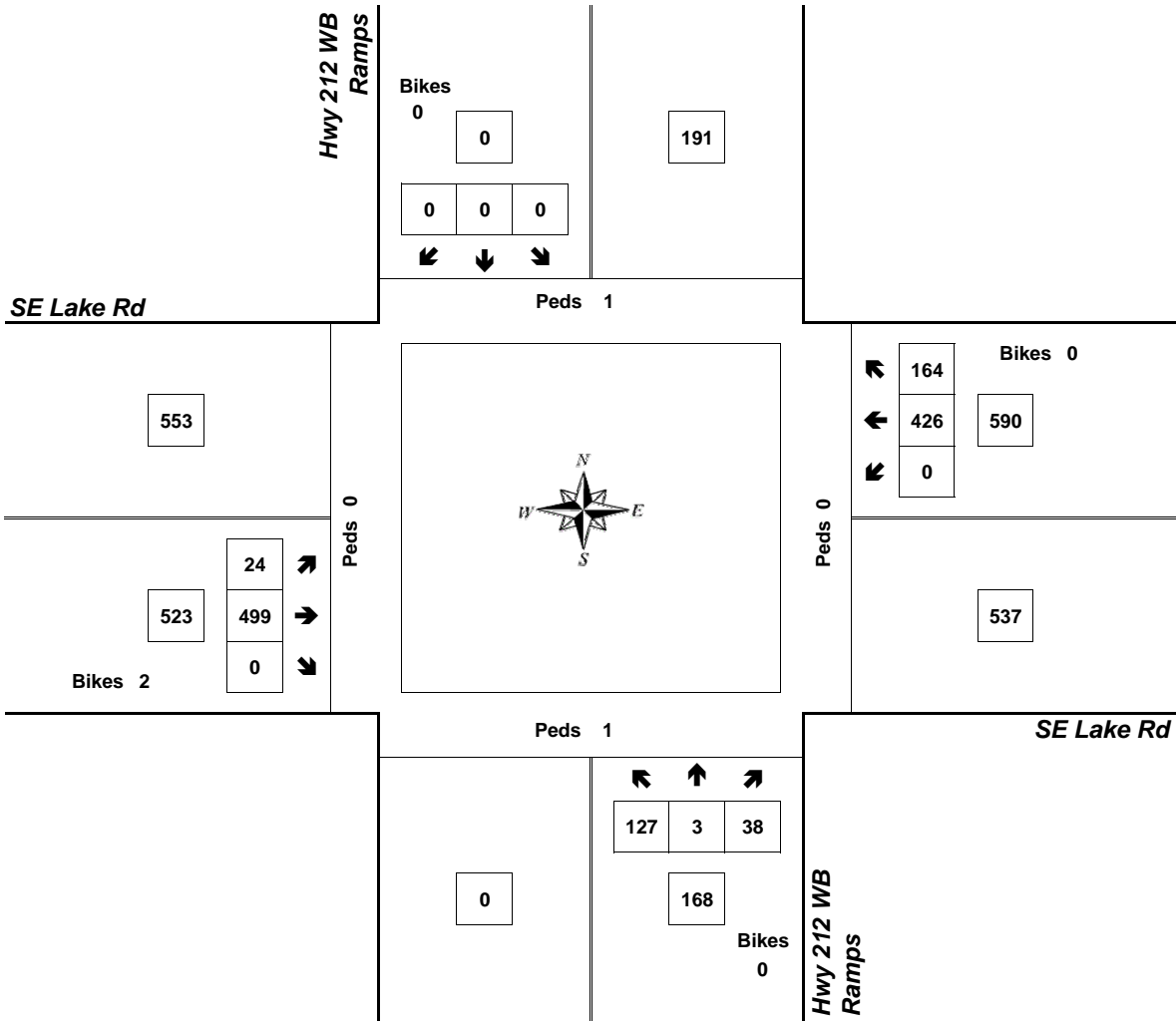
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 212 WB Ramps & SE Lake Rd

4:55 PM to 5:55 PM
Wednesday, October 11, 2006



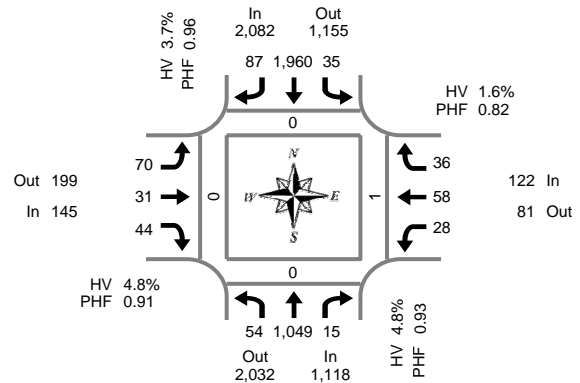
Approach	PHF	HV%	Volume
EB	0.87	2.7%	523
WB	0.74	1.9%	590
NB	0.71	8.9%	168
SB	0.00	0.0%	0
Intersection	0.90	3.1%	1,281

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Rusk Rd

Thursday, November 30, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	16	283	3	0	3	403	12	0	17	1	12	0	0	14	3	0	0	0	0	0	0
3:15 PM	14	266	5	0	5	403	20	0	15	3	10	0	5	8	1	0	0	0	0	0	0
3:30 PM	19	267	2	0	2	403	22	0	21	4	22	1	7	17	5	0	0	0	0	0	0
3:45 PM	12	294	0	0	2	471	19	0	15	10	29	0	6	9	3	0	0	0	1	0	0
4:00 PM	13	262	2	0	5	516	20	0	20	6	13	0	10	14	12	0	0	0	0	0	0
4:15 PM	10	285	4	0	10	512	16	0	14	7	10	0	6	11	6	0	0	0	0	0	0
4:30 PM	13	223	5	0	12	447	22	0	19	9	12	0	9	19	9	1	0	0	1	0	0
4:45 PM	18	279	4	0	8	485	29	0	17	9	9	0	3	14	9	0	0	0	0	0	0
5:00 PM	18	249	6	0	2	459	22	0	23	8	16	0	5	16	9	0	0	0	0	0	0
5:15 PM	13	310	4	0	3	484	15	0	13	6	15	0	6	6	5	0	0	0	0	0	0
5:30 PM	11	263	0	0	4	436	22	0	16	4	6	0	4	11	7	0	0	0	0	0	0
5:45 PM	9	219	1	0	1	452	21	0	11	4	5	0	6	4	5	0	0	0	0	0	0
Total Survey	166	3,200	36	0	57	5,471	240	0	201	71	159	1	67	143	74	1	0	0	2	0	0

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1,118	2,032	3,150	0	2,082	1,155	3,237	0	145	199	344	0	122	81	203	1	0	0	1	0	0
%HV	4.8%				3.7%				4.8%				1.6%				4.0%				
PHF	0.93				0.96				0.91				0.82				0.97				

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	54	1,049	15	1,118	35	1,960	87	2,082	70	31	44	145	28	58	36	122	3,467
%HV	3.7%	4.8%	13.3%	4.8%	2.9%	3.8%	1.1%	3.7%	0.0%	6.5%	11.4%	4.8%	3.6%	1.7%	0.0%	1.6%	4.0%
PHF	0.75	0.92	0.75	0.93	0.73	0.95	0.75	0.96	0.88	0.86	0.85	0.91	0.70	0.76	0.75	0.82	0.97

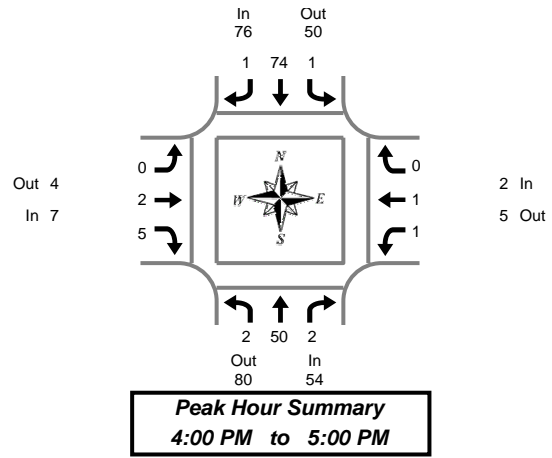
Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	61	1,110	10	0	12	1,680	73	0	68	18	73	1	18	48	12	0	0	0	1	0	0
3:15 PM	58	1,089	9	0	14	1,793	81	0	71	23	74	1	28	48	21	0	0	0	1	0	0
3:30 PM	54	1,108	8	0	19	1,902	77	0	70	27	74	1	29	51	26	0	0	0	1	0	0
3:45 PM	48	1,064	11	0	29	1,946	77	0	68	32	64	0	31	53	30	1	0	0	2	0	0
4:00 PM	54	1,049	15	0	35	1,960	87	0	70	31	44	0	28	58	36	1	0	0	1	0	0
4:15 PM	59	1,036	19	0	32	1,903	89	0	73	33	47	0	23	60	33	1	0	0	1	0	0
4:30 PM	62	1,061	19	0	25	1,875	88	0	72	32	52	0	23	55	32	1	0	0	1	0	0
4:45 PM	60	1,101	14	0	17	1,864	88	0	69	27	46	0	18	47	30	0	0	0	0	0	0
5:00 PM	51	1,041	11	0	10	1,831	80	0	63	22	42	0	21	37	26	0	0	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 224 & SE Rusk Rd

Thursday, November 30, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	2	15	0	17	0	33	0	33	0	0	0	0	0	0	0	0	50
3:15 PM	0	20	0	20	1	23	0	24	1	0	1	2	3	0	0	3	49
3:30 PM	0	14	0	14	0	26	0	26	0	1	0	1	1	0	0	1	42
3:45 PM	0	16	0	16	0	17	0	17	0	0	2	2	1	0	0	1	36
4:00 PM	0	12	0	12	0	21	1	22	0	0	1	1	0	0	0	0	35
4:15 PM	1	18	2	21	0	21	0	21	0	1	2	3	0	0	0	0	45
4:30 PM	1	11	0	12	1	16	0	17	0	0	2	2	1	1	0	2	33
4:45 PM	0	9	0	9	0	16	0	16	0	1	0	1	0	0	0	0	26
5:00 PM	0	10	1	11	0	8	0	8	0	0	0	0	0	0	0	0	19
5:15 PM	0	8	1	9	0	13	0	13	0	0	0	0	1	0	0	1	23
5:30 PM	0	9	0	9	0	10	0	10	0	0	0	0	0	0	0	0	19
5:45 PM	0	8	1	9	0	8	0	8	0	0	0	0	1	0	0	1	18
Total Survey	4	150	5	159	2	212	1	215	1	3	8	12	8	1	0	9	395

Heavy Vehicle Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound Hwy 224			Southbound Hwy 224			Eastbound SE Rusk Rd			Westbound SE Rusk Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	54	80	134	76	50	126	7	4	11	2	5	7	139
PHF	0.26			0.23			0.29			0.10			0.25

By Movement	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	50	2	54	1	74	1	76	0	2	5	7	1	1	0	2	139
PHF	0.25	0.25	0.25	0.26	0.25	0.23	0.25	0.23	0.00	0.25	0.25	0.29	0.05	0.25	0.00	0.10	0.25

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 224				Southbound Hwy 224				Eastbound SE Rusk Rd				Westbound SE Rusk Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	2	65	0	67	1	99	0	100	1	1	3	5	5	0	0	5	177
3:15 PM	0	62	0	62	1	87	1	89	1	1	4	6	5	0	0	5	162
3:30 PM	1	60	2	63	0	85	1	86	0	2	5	7	2	0	0	2	158
3:45 PM	2	57	2	61	1	75	1	77	0	1	7	8	2	1	0	3	149
4:00 PM	2	50	2	54	1	74	1	76	0	2	5	7	1	1	0	2	139
4:15 PM	2	48	3	53	1	61	0	62	0	2	4	6	1	1	0	2	123
4:30 PM	1	38	2	41	1	53	0	54	0	1	2	3	2	1	0	3	101
4:45 PM	0	36	2	38	0	47	0	47	0	1	0	1	1	0	0	1	87
5:00 PM	0	35	3	38	0	39	0	39	0	0	0	0	2	0	0	2	79

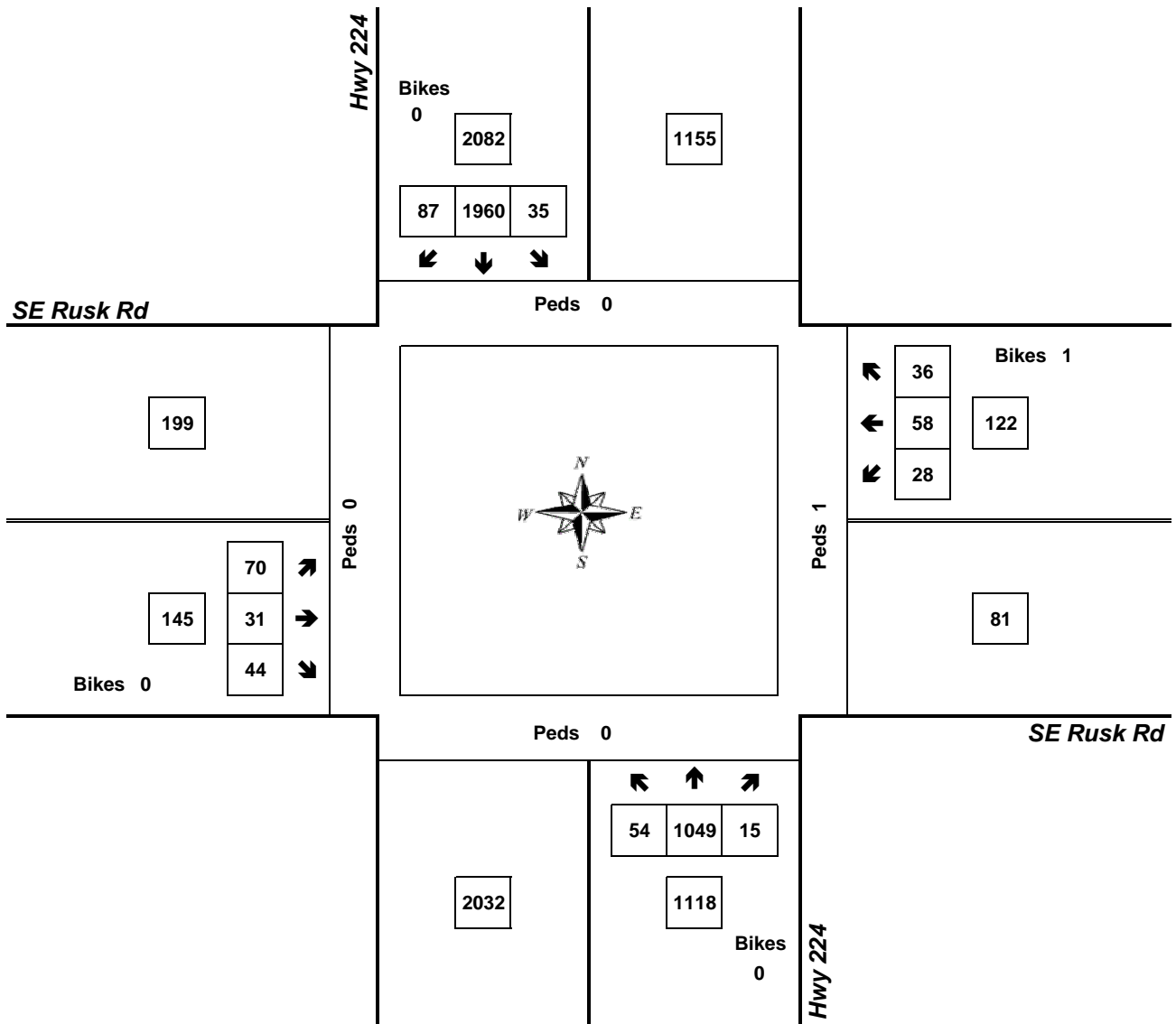
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 224 & SE Rusk Rd

4:00 PM to 5:00 PM
Thursday, November 30, 2006



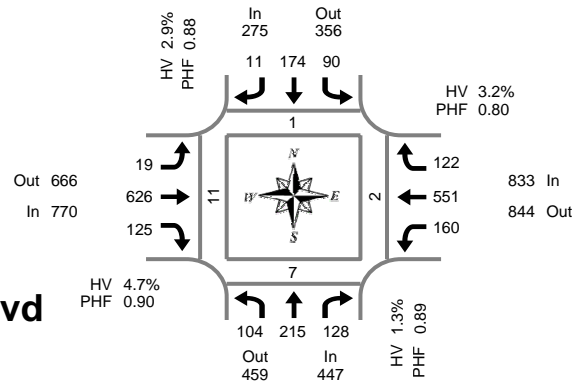
Approach	PHF	HV%	Volume
EB	0.91	4.8%	145
WB	0.82	1.6%	122
NB	0.93	4.8%	1,118
SB	0.96	3.7%	2,082
Intersection	0.97	4.0%	3,467

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



SE Linwood Ave & SE Johnson Creek Blvd

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

Peak Hour Summary
4:30 PM to 5:30 PM

15-Minute Interval Summary

3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	28	26	24	0	15	19	4	0	6	145	22	0	32	135	0	0	456	0	1	1	2
3:15 PM	24	30	28	0	18	29	3	0	5	149	19	0	27	113	0	0	445	0	2	0	2
3:30 PM	15	32	21	0	27	38	3	1	4	160	31	0	33	129	0	0	493	0	2	0	2
3:45 PM	26	46	33	0	20	39	3	0	7	150	22	0	25	139	0	0	510	0	2	0	4
4:00 PM	30	46	39	0	15	39	1	0	4	135	29	0	29	133	0	0	500	0	3	0	2
4:15 PM	19	42	45	1	16	30	4	0	4	175	22	0	38	126	40	0	561	0	3	0	2
4:30 PM	29	61	36	0	25	47	6	0	7	135	36	0	59	162	38	0	641	0	1	1	3
4:45 PM	26	51	35	1	22	38	1	0	2	179	33	1	30	135	35	0	587	1	3	0	2
5:00 PM	26	54	33	0	22	43	3	0	7	166	26	1	29	107	16	0	532	0	2	1	2
5:15 PM	23	49	24	0	21	46	1	0	3	146	30	0	42	147	33	0	565	0	1	0	4
5:30 PM	15	46	39	0	13	45	2	0	2	145	21	0	35	133	23	0	519	1	0	0	0
5:45 PM	15	28	24	0	24	27	4	0	3	136	24	0	47	120	20	0	472	0	0	0	0
Total Survey	276	511	381	2	238	440	35	1	54	1,821	315	2	426	1,579	205	0	6,281	2	20	3	25

Peak Hour Summary

4:30 PM to 5:30 PM

By Approach	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	447	459	906	1	275	356	631	0	770	666	1,436	2	833	844	1,677	0	2,325	1	7	2	11
%HV	1.3%				2.9%				4.7%				3.2%				3.3%				
PHF	0.89				0.88				0.90				0.80				0.91				

By Movement	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	104	215	128	447	90	174	11	275	19	626	125	770	160	551	122	833	2,325
%HV	1.9%	1.4%	0.8%	1.3%	5.6%	1.1%	9.1%	2.9%	5.3%	5.0%	3.2%	4.7%	2.5%	3.8%	1.6%	3.2%	3.3%
PHF	0.90	0.88	0.89	0.89	0.90	0.93	0.46	0.88	0.68	0.87	0.87	0.90	0.68	0.85	0.80	0.80	0.91

Rolling Hour Summary

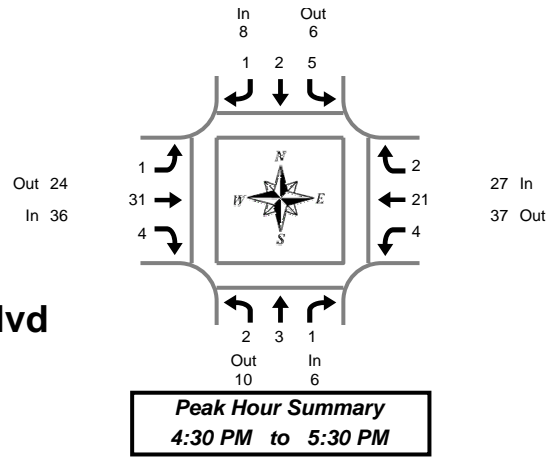
3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	93	134	106	0	80	125	13	1	22	604	94	0	117	516	0	0	1,904	0	7	1	10
3:15 PM	95	154	121	0	80	145	10	1	20	594	101	0	114	514	0	0	1,948	0	9	0	10
3:30 PM	90	166	138	1	78	146	11	1	19	620	104	0	125	527	40	0	2,064	0	10	0	10
3:45 PM	104	195	153	1	76	155	14	0	22	595	109	0	151	560	78	0	2,212	0	9	1	11
4:00 PM	104	200	155	2	78	154	12	0	17	624	120	1	156	556	113	0	2,289	1	10	1	9
4:15 PM	100	208	149	2	85	158	14	0	20	655	117	2	156	530	129	0	2,321	1	9	2	9
4:30 PM	104	215	128	1	90	174	11	0	19	626	125	2	160	551	122	0	2,325	1	7	2	11
4:45 PM	90	200	131	1	78	172	7	0	14	636	110	2	136	522	107	0	2,203	2	6	1	8
5:00 PM	79	177	120	0	80	161	10	0	15	593	101	1	153	507	92	0	2,088	1	3	1	6

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



SE Linwood Ave & SE Johnson Creek Blvd

Tuesday, December 05, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	3	0	0	3	1	1	0	2	2	8	1	11	3	9	0	12	28
3:15 PM	3	1	2	6	0	1	0	1	0	14	2	16	0	7	0	7	30
3:30 PM	0	2	1	3	0	0	0	0	0	11	1	12	2	6	0	8	23
3:45 PM	0	1	1	2	0	1	0	1	0	11	1	12	1	4	0	5	20
4:00 PM	1	2	2	5	0	2	0	2	0	8	0	8	1	7	0	8	23
4:15 PM	1	0	4	5	0	0	0	0	0	9	0	9	1	10	3	14	28
4:30 PM	1	1	0	2	1	2	1	4	0	10	1	11	2	9	0	11	28
4:45 PM	0	0	1	1	1	0	0	1	1	8	1	10	0	6	0	6	18
5:00 PM	1	1	0	2	1	0	0	1	0	9	1	10	1	2	0	3	16
5:15 PM	0	1	0	1	2	0	0	2	0	4	1	5	1	4	2	7	15
5:30 PM	1	2	0	3	0	0	0	0	0	3	0	3	1	1	0	2	8
5:45 PM	0	0	0	0	0	0	0	0	0	3	1	4	2	1	0	3	7
Total Survey	11	11	11	33	6	7	1	14	3	98	10	111	15	66	5	86	244

Heavy Vehicle Peak Hour Summary 4:30 PM to 5:30 PM

By Approach	Northbound SE Linwood Ave			Southbound SE Linwood Ave			Eastbound SE Johnson Creek Blvd			Westbound SE Johnson Creek Blvd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	6	10	16	8	6	14	36	24	60	27	37	64	77
PHF	0.13			0.33			0.23			0.20			0.24

By Movement	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	2	3	1	6	5	2	1	8	1	31	4	36	4	21	2	27	77
PHF	0.08	0.15	0.04	0.13	0.31	0.13	0.25	0.33	0.13	0.22	0.25	0.23	0.20	0.20	0.17	0.20	0.24

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Johnson Creek Blvd				Westbound SE Johnson Creek Blvd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	6	4	4	14	1	3	0	4	2	44	5	51	6	26	0	32	101
3:15 PM	4	6	6	16	0	4	0	4	0	44	4	48	4	24	0	28	96
3:30 PM	2	5	8	15	0	3	0	3	0	39	2	41	5	27	3	35	94
3:45 PM	3	4	7	14	1	5	1	7	0	38	2	40	5	30	3	38	99
4:00 PM	3	3	7	13	2	4	1	7	1	35	2	38	4	32	3	39	97
4:15 PM	3	2	5	10	3	2	1	6	1	36	3	40	4	27	3	34	90
4:30 PM	2	3	1	6	5	2	1	8	1	31	4	36	4	21	2	27	77
4:45 PM	2	4	1	7	4	0	0	4	1	24	3	28	3	13	2	18	57
5:00 PM	2	4	0	6	3	0	0	3	0	19	3	22	5	8	2	15	46

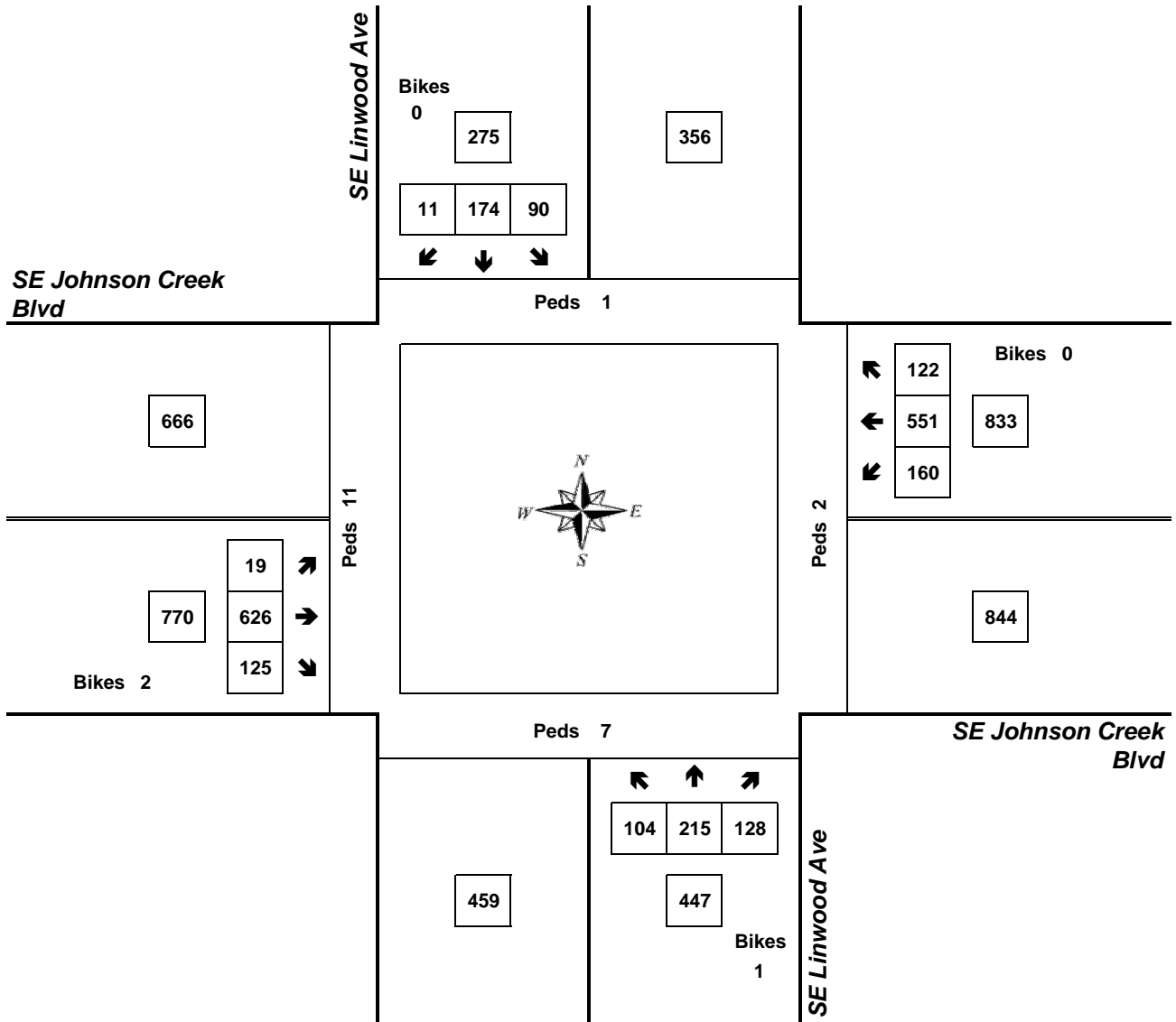
Peak Hour Summary



Clay Carney
(503) 833-2740

SE Linwood Ave & SE Johnson Creek Blvd

4:30 PM to 5:30 PM
Tuesday, December 05, 2006

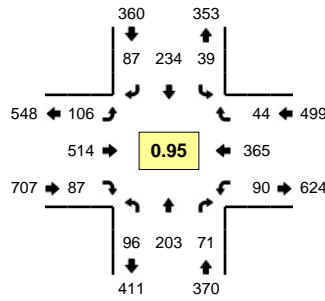


Approach	PHF	HV%	Volume
EB	0.90	4.7%	770
WB	0.80	3.2%	833
NB	0.89	1.3%	447
SB	0.88	2.9%	275
Intersection	0.91	3.3%	2,325

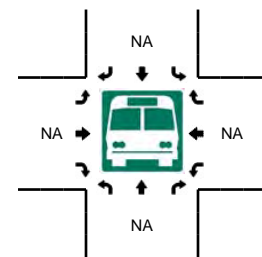
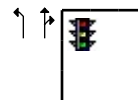
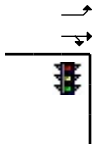
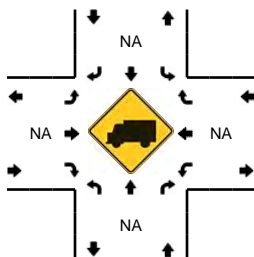
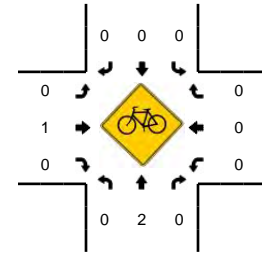
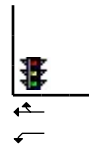
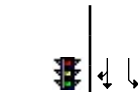
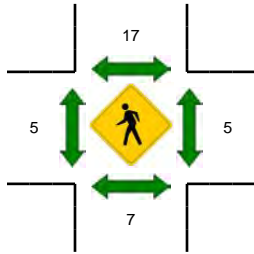
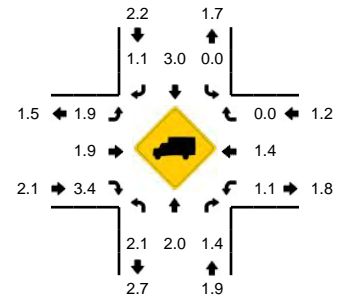
Count Period: 3:00 PM to 6:00 PM

LOCATION: Linwood Ave -- King Rd
CITY/STATE: Milwaukie, OR

QC JOB #: 10776902
DATE: Tue, Jun 12 2012



Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:30 PM -- 5:45 PM



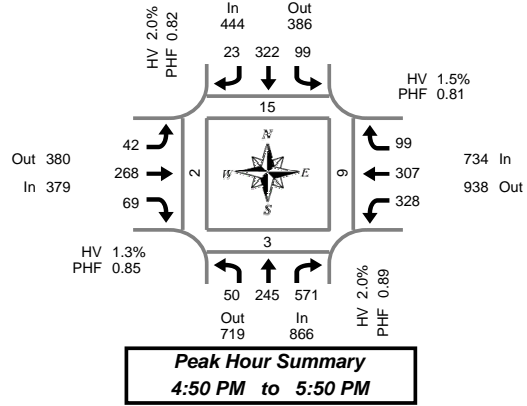
5-Min Count Period Beginning At	Linwood Ave (Northbound)				Linwood Ave (Southbound)				King Rd (Eastbound)				King Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	27	10	0	4	13	4	0	4	37	8	0	6	21	5	0	145	
4:05 PM	8	12	6	0	5	14	3	0	8	35	7	0	12	19	3	0	132	
4:10 PM	5	19	5	0	7	7	6	0	3	53	11	0	4	29	3	0	152	
4:15 PM	10	18	5	0	1	18	4	0	16	34	6	0	9	24	3	0	148	
4:20 PM	5	14	10	0	3	21	6	0	11	42	6	0	2	23	7	0	150	
4:25 PM	4	7	8	0	4	7	3	0	9	43	9	0	5	34	1	0	134	
4:30 PM	13	24	8	0	3	19	3	0	7	36	6	0	5	16	4	0	144	
4:35 PM	8	19	5	0	4	23	14	0	11	32	6	0	16	23	3	0	164	
4:40 PM	6	15	9	0	4	29	8	0	13	28	7	0	10	24	3	0	156	
4:45 PM	3	17	10	0	5	17	8	0	8	47	3	0	11	32	2	0	163	
4:50 PM	13	11	3	0	2	18	7	0	2	38	4	0	6	24	4	0	132	
4:55 PM	3	9	7	0	6	13	6	0	10	37	10	0	8	24	1	0	134	1754
5:00 PM	12	18	5	0	6	15	3	0	6	37	7	0	12	38	3	0	162	1771
5:05 PM	6	21	4	0	3	24	11	0	13	43	8	0	7	28	1	0	169	1808
5:10 PM	5	16	6	0	2	9	7	0	11	43	8	0	6	31	4	0	148	1804
5:15 PM	11	23	9	0	3	25	7	0	9	41	8	0	7	31	3	0	177	1833
5:20 PM	5	19	4	0	5	19	7	0	5	42	9	0	5	42	3	0	165	1848
5:25 PM	10	19	7	0	1	20	11	0	10	41	7	0	8	19	2	0	155	1869
5:30 PM	8	20	10	0	3	14	9	0	14	44	5	0	10	22	2	0	161	1886
5:35 PM	8	13	3	0	7	26	6	0	5	46	10	0	10	36	5	0	175	1897
5:40 PM	7	19	6	0	3	25	4	0	8	41	7	0	12	35	4	0	171	1912
5:45 PM	10	8	12	0	2	27	6	0	5	42	6	0	6	29	6	0	159	1908
5:50 PM	8	15	1	0	4	18	12	0	8	40	7	0	5	33	6	0	157	1933
5:55 PM	6	12	4	0	0	12	4	0	12	54	5	0	2	21	5	0	137	1936
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	92	208	76	0	52	260	76	0	108	524	88	0	128	372	44	0	2028	
Heavy Trucks	0	0	0	0	0	12	0	0	4	20	0	0	0	0	0	0	36	
Pedestrians		4				32				8				8			52	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments:

Total Vehicle Summary



Clay Carney
(503) 833-2740



SE Linwood Ave & SE Harmony Rd

Wednesday, October 11, 2006

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	5	25	40	0	8	16	0	0	1	23	5	0	28	25	13	0	189	0	0	0	0
4:05 PM	3	26	47	0	4	12	2	0	2	20	5	0	33	17	6	0	177	0	0	0	0
4:10 PM	6	24	47	0	3	26	2	0	4	13	2	0	35	20	11	0	193	0	0	2	0
4:15 PM	6	18	40	0	8	29	1	0	2	20	8	0	26	22	9	0	189	1	1	1	0
4:20 PM	15	16	52	0	4	15	0	0	9	21	1	0	20	30	10	0	193	0	0	9	0
4:25 PM	1	15	29	0	8	19	0	0	2	15	1	0	18	24	6	0	138	0	1	1	0
4:30 PM	4	21	28	0	20	35	0	0	3	20	4	0	20	35	7	0	197	0	1	0	0
4:35 PM	2	27	43	0	9	14	2	0	3	18	10	0	30	26	10	0	194	0	0	0	0
4:40 PM	5	21	26	0	5	17	0	0	5	12	0	0	27	21	5	0	144	0	0	0	0
4:45 PM	2	15	16	0	15	31	2	0	2	16	7	0	22	22	12	1	162	1	1	0	1
4:50 PM	4	20	71	0	2	37	2	0	3	10	5	0	29	26	5	0	214	0	0	0	0
4:55 PM	5	22	44	0	11	29	4	0	2	22	6	0	28	35	9	0	217	0	0	0	0
5:00 PM	3	14	34	0	5	12	2	0	10	28	5	0	22	34	8	0	177	2	0	0	0
5:05 PM	6	20	39	0	13	22	3	0	1	19	4	0	26	10	4	0	167	2	0	0	0
5:10 PM	3	16	53	0	10	15	1	0	7	27	10	0	48	36	13	0	239	2	0	0	0
5:15 PM	5	37	44	0	6	37	3	0	5	16	2	0	31	26	4	0	216	1	0	1	0
5:20 PM	1	18	41	0	10	40	3	0	1	22	11	0	29	31	9	0	216	3	0	0	1
5:25 PM	3	31	63	0	10	25	2	0	3	25	7	0	27	24	15	0	235	0	0	4	1
5:30 PM	6	15	53	0	9	30	0	0	3	33	4	0	14	23	9	0	199	0	0	2	0
5:35 PM	4	18	44	0	1	21	1	0	3	21	4	0	35	23	9	0	184	2	0	0	0
5:40 PM	3	16	50	0	10	27	1	0	4	21	2	0	17	12	0	0	163	3	0	0	0
5:45 PM	7	18	35	0	12	27	1	0	0	24	9	0	22	27	14	0	196	0	3	2	0
5:50 PM	6	25	39	0	8	15	0	0	3	23	8	0	39	30	16	0	212	1	0	0	0
5:55 PM	4	27	44	0	7	24	5	0	0	19	4	0	36	19	13	0	202	0	1	0	0
Total Survey	109	505	1,022	0	198	575	37	0	78	488	124	0	662	598	217	1	4,613	18	8	22	3

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	14	75	134	0	15	54	4	0	7	56	12	0	96	62	30	0	559	0	0	2	0
4:15 PM	22	49	121	0	20	63	1	0	13	56	10	0	64	76	25	0	520	1	2	11	0
4:30 PM	11	69	97	0	34	66	2	0	11	50	14	0	77	82	22	0	535	0	1	0	0
4:45 PM	11	57	131	0	28	97	8	0	7	48	18	0	79	83	26	1	593	1	1	0	1
5:00 PM	12	50	126	0	28	49	6	0	18	74	19	0	96	80	25	0	583	6	0	0	0
5:15 PM	9	86	148	0	26	102	8	0	9	63	20	0	87	81	28	0	667	4	0	5	2
5:30 PM	13	49	147	0	20	78	2	0	10	75	10	0	66	58	18	0	546	5	0	2	0
5:45 PM	17	70	118	0	27	66	6	0	3	66	21	0	97	76	43	0	610	1	4	2	0
Total Survey	109	505	1,022	0	198	575	37	0	78	488	124	0	662	598	217	1	4,613	18	8	22	3

Peak Hour Summary

4:50 PM to 5:50 PM

By Approach	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	866	719	1,585	0	444	386	830	0	379	380	759	0	734	938	1,672	0	2,423	15	3	9	2
%HV	2.0%				2.0%				1.3%				1.5%				1.7%				
PHF	0.89				0.82				0.85				0.81				0.90				

By Movement	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	50	245	571	866	99	322	23	444	42	268	69	379	328	307	99	734	2,423
%HV	2.0%	2.0%	1.9%	2.0%	2.0%	2.2%	0.0%	2.0%	0.0%	1.5%	1.4%	1.3%	1.2%	1.0%	4.0%	1.5%	1.7%
PHF	0.89	0.71	0.89	0.89	0.85	0.79	0.64	0.82	0.58	0.84	0.75	0.85	0.76	0.81	0.75	0.81	0.90

Rolling Hour Summary

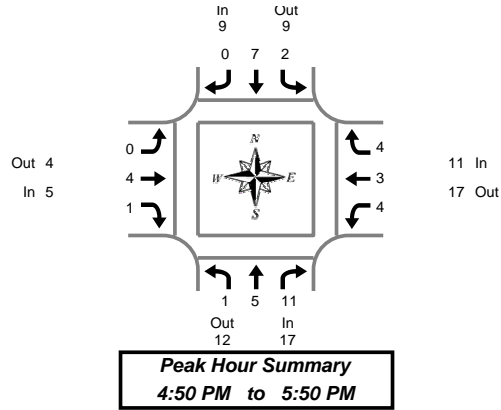
4:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	58	250	483	0	97	280	15	0	38	210	54	0	316	303	103	1	2,207	2	4	13	1
4:15 PM	56	225	475	0	110	275	17	0	49	228	61	0	316	321	98	1	2,231	8	4	11	1
4:30 PM	43	262	502	0	116	314	24	0	45	235	71	0	339	326	101	1	2,378	11	2	5	3
4:45 PM	45	242	552	0	102	326	24	0	44	260	67	0	328	302	97	1	2,389	16	1	7	3
5:00 PM	51	255	539	0	101	295	22	0	40	278	70	0	346	295	114	0	2,406	16	4	9	2

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



SE Linwood Ave & SE Harmony Rd

Wednesday, October 11, 2006

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	1	1	2	0	2	0	2	0	0	0	0	0	1	0	1	5
4:05 PM	1	4	4	9	0	1	0	1	0	0	0	0	0	0	2	2	12
4:10 PM	0	4	1	5	0	2	0	2	0	1	1	2	1	0	0	1	10
4:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
4:20 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	2	3
4:25 PM	0	0	1	1	0	2	0	2	0	0	0	0	1	0	0	1	4
4:30 PM	1	2	0	3	1	4	0	5	0	0	0	0	1	0	0	1	9
4:35 PM	0	1	0	1	0	2	0	2	0	1	0	1	2	0	0	2	6
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:45 PM	0	1	1	2	1	1	0	2	0	1	1	2	0	0	0	0	6
4:50 PM	0	1	1	2	0	3	0	3	0	0	0	0	0	0	0	0	5
4:55 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	3
5:00 PM	0	1	2	3	1	2	0	3	0	0	0	0	0	1	0	1	7
5:05 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	1	1	3
5:10 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:20 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	2	3
5:25 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	2	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:35 PM	0	1	1	2	0	1	0	1	0	0	0	0	0	0	0	0	3
5:40 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	4
5:45 PM	1	1	1	3	1	0	0	1	0	0	0	0	1	0	2	3	7
5:50 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	3	19	19	41	4	22	0	26	1	8	4	13	10	4	8	22	102

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave			Southbound SE Linwood Ave			Eastbound SE Harmony Rd			Westbound SE Harmony Rd			Interval Total				
	L	T	R	L	T	R	L	T	R	L	T	R					
4:00 PM	1	9	6	16	0	5	0	5	0	1	1	2	4	27			
4:15 PM	0	0	1	1	0	3	0	3	1	0	1	2	3	9			
4:30 PM	1	3	0	4	1	6	0	7	0	1	0	1	4	16			
4:45 PM	0	2	2	4	1	4	0	5	0	3	2	5	0	14			
5:00 PM	0	2	4	6	1	3	0	4	0	0	0	0	1	12			
5:15 PM	0	0	1	1	0	0	0	0	0	2	0	2	2	7			
5:30 PM	0	1	4	5	0	1	0	1	0	0	0	1	1	8			
5:45 PM	1	2	1	4	1	0	0	1	0	1	0	1	0	9			
Total Survey	3	19	19	41	4	22	0	26	1	8	4	13	10	4	8	22	102

Heavy Vehicle Peak Hour Summary 4:50 PM to 5:50 PM

By Approach	Northbound SE Linwood Ave			Southbound SE Linwood Ave			Eastbound SE Harmony Rd			Westbound SE Harmony Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	17	12	29	9	9	18	5	4	9	11	17	28	42
PHF	0.53			0.38			0.42			0.55			0.70

By Movement	Northbound SE Linwood Ave			Southbound SE Linwood Ave			Eastbound SE Harmony Rd			Westbound SE Harmony Rd			Total				
	L	T	R	L	T	R	L	T	R	L	T	R					
Volume	1	5	11	17	2	7	0	9	0	4	1	5	4	3	4	11	42
PHF	0.25	0.63	0.55	0.53	0.50	0.35	0.00	0.38	0.00	0.50	0.25	0.42	0.33	0.75	0.50	0.55	0.70

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound SE Linwood Ave				Southbound SE Linwood Ave				Eastbound SE Harmony Rd				Westbound SE Harmony Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	2	14	9	25	2	18	0	20	1	5	4	10	6	1	4	11	66
4:15 PM	1	7	7	15	3	16	0	19	1	4	3	8	5	1	3	9	51
4:30 PM	1	7	7	15	3	13	0	16	0	6	2	8	5	2	3	10	49
4:45 PM	0	5	11	16	2	8	0	10	0	5	2	7	3	3	2	8	41
5:00 PM	1	5	10	16	2	4	0	6	0	3	0	3	4	3	4	11	36

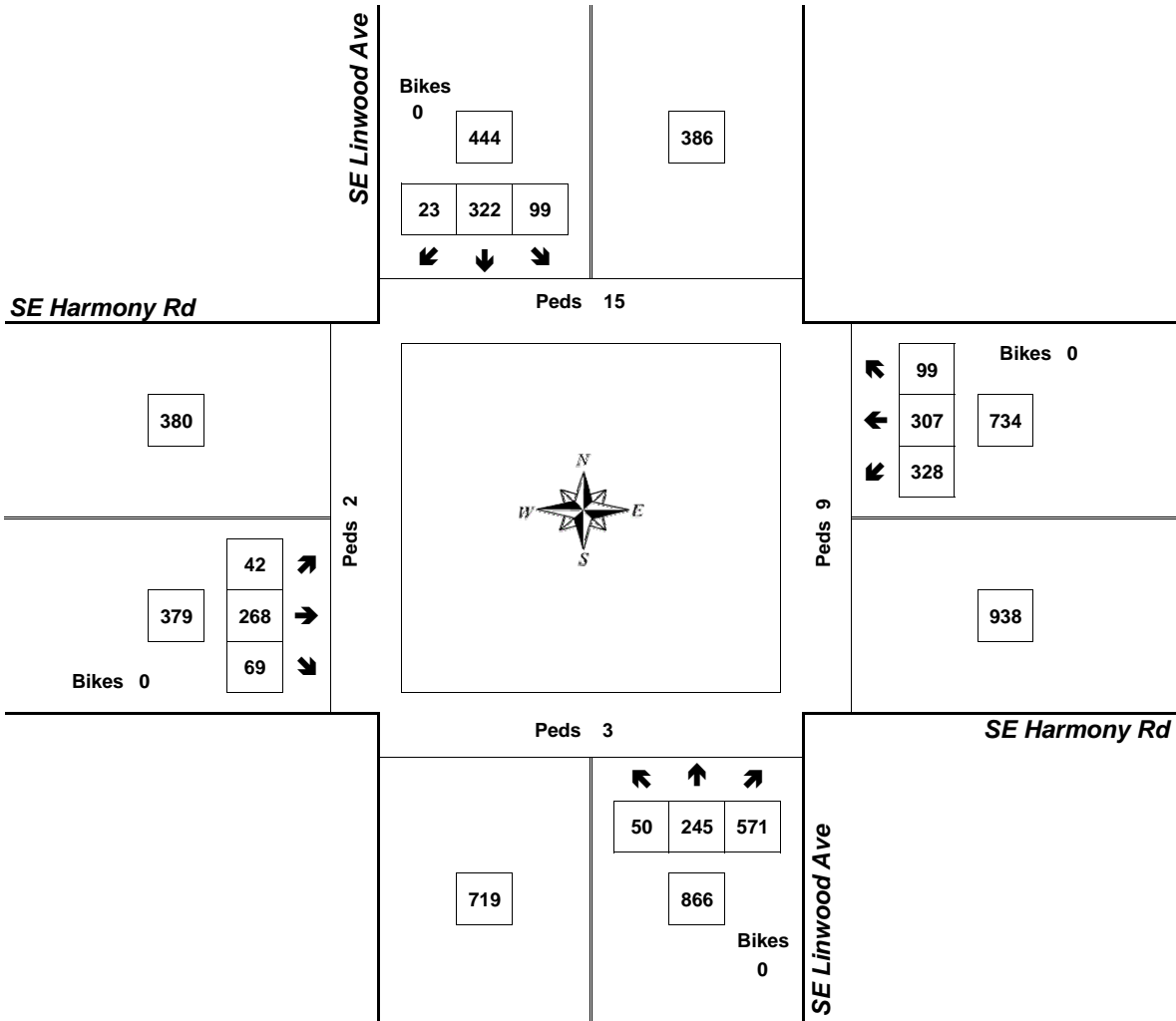
Peak Hour Summary



Clay Carney
(503) 833-2740

SE Linwood Ave & SE Harmony Rd

4:50 PM to 5:50 PM
Wednesday, October 11, 2006



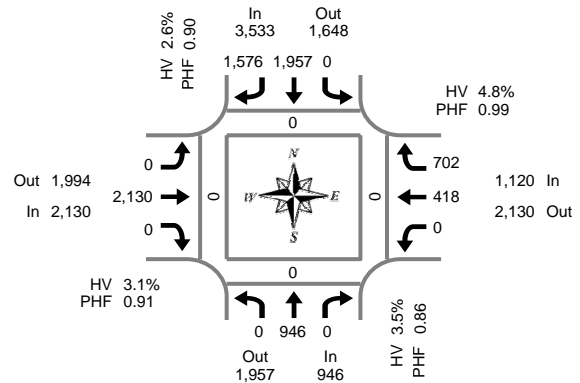
Approach	PHF	HV%	Volume
EB	0.85	1.3%	379
WB	0.81	1.5%	734
NB	0.89	2.0%	866
SB	0.82	2.0%	444
Intersection	0.90	1.7%	2,423

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
3:45 PM to 4:45 PM

Hwy 99E & Hwy 224

Wednesday, December 06, 2006
3:00 PM to 6:00 PM

15-Minute Interval Summary

3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	0	166	0	0	0	337	181	0	0	295	0	0	0	89	127	0	0	0	0	0	0
3:15 PM	0	201	0	0	0	298	248	0	0	355	0	0	0	84	144	0	0	0	0	0	0
3:30 PM	0	183	0	0	0	400	330	0	0	350	0	0	0	97	152	0	0	0	0	0	0
3:45 PM	0	274	0	0	0	448	355	0	0	511	0	0	0	116	166	0	0	0	0	0	0
4:00 PM	0	244	0	0	0	538	443	0	0	585	0	0	0	112	165	0	0	0	0	0	0
4:15 PM	0	218	0	0	0	457	390	0	0	523	0	0	0	96	184	0	0	0	0	0	0
4:30 PM	0	210	0	0	0	514	388	0	0	511	0	0	0	94	187	0	0	0	0	0	0
4:45 PM	0	198	0	0	0	439	340	0	0	483	0	0	0	102	175	0	0	0	0	0	0
5:00 PM	0	237	0	0	0	494	367	0	0	336	0	0	0	110	177	0	0	0	0	0	0
5:15 PM	0	230	0	0	0	384	314	0	0	471	0	0	0	104	216	0	0	0	0	0	0
5:30 PM	0	212	0	0	0	487	336	0	0	503	0	0	0	90	175	0	0	0	0	0	0
5:45 PM	0	236	0	0	0	442	259	0	0	409	0	0	0	96	150	0	0	0	0	0	0
Total Survey	0	2,609	0	0	0	5,238	3,951	0	0	5,332	0	0	0	1,190	2,018	0	0	0	0	0	0

Peak Hour Summary

3:45 PM to 4:45 PM

By Approach	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	946	1,957	2,903	0	3,533	1,648	5,181	0	2,130	1,994	4,124	0	1,120	2,130	3,250	0	0	0	0	0	0
%HV	3.5%				2.6%				3.1%				4.8%				3.2%				
PHF	0.86				0.90				0.91				0.99				0.93				

By Movement	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	946	0	946	0	1,957	1,576	3,533	0	2,130	0	2,130	0	418	702	1,120	7,729
%HV	0.0%	3.5%	0.0%	3.5%	0.0%	2.0%	3.4%	2.6%	0.0%	3.1%	0.0%	3.1%	0.0%	2.6%	6.1%	4.8%	3.2%
PHF	0.00	0.86	0.00	0.86	0.00	0.91	0.89	0.90	0.00	0.91	0.00	0.91	0.00	0.90	0.94	0.99	0.93

Rolling Hour Summary

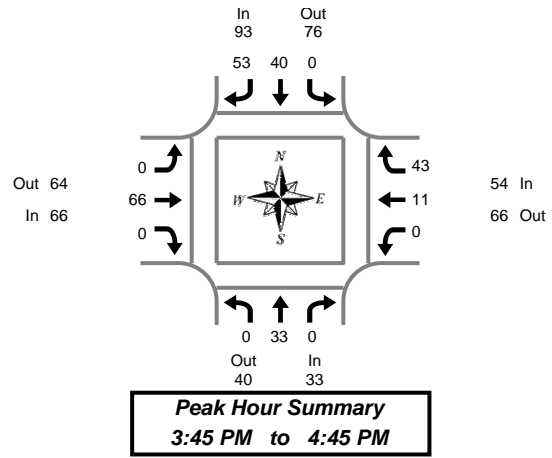
3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
3:00 PM	0	824	0	0	0	1,483	1,114	0	0	1,511	0	0	0	386	589	0	0	0	0	0	0
3:15 PM	0	902	0	0	0	1,684	1,376	0	0	1,801	0	0	0	409	627	0	0	0	0	0	0
3:30 PM	0	919	0	0	0	1,843	1,518	0	0	1,969	0	0	0	421	667	0	0	0	0	0	0
3:45 PM	0	946	0	0	0	1,957	1,576	0	0	2,130	0	0	0	418	702	0	0	0	0	0	0
4:00 PM	0	870	0	0	0	1,948	1,561	0	0	2,102	0	0	0	404	711	0	0	0	0	0	0
4:15 PM	0	863	0	0	0	1,904	1,485	0	0	1,853	0	0	0	402	723	0	0	0	0	0	0
4:30 PM	0	875	0	0	0	1,831	1,409	0	0	1,801	0	0	0	410	755	0	0	0	0	0	0
4:45 PM	0	877	0	0	0	1,804	1,357	0	0	1,793	0	0	0	406	743	0	0	0	0	0	0
5:00 PM	0	915	0	0	0	1,807	1,276	0	0	1,719	0	0	0	400	718	0	0	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 99E & Hwy 224

Wednesday, December 06, 2006
3:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	14	0	14	0	11	12	23	0	16	0	16	0	4	3	7	60
3:15 PM	0	12	0	12	0	12	20	32	0	25	0	25	0	3	9	12	81
3:30 PM	0	8	0	8	0	15	19	34	0	22	0	22	0	2	7	9	73
3:45 PM	0	11	0	11	0	13	12	25	0	18	0	18	0	5	10	15	69
4:00 PM	0	6	0	6	0	8	15	23	0	19	0	19	0	2	13	15	63
4:15 PM	0	8	0	8	0	11	15	26	0	16	0	16	0	1	11	12	62
4:30 PM	0	8	0	8	0	8	11	19	0	13	0	13	0	3	9	12	52
4:45 PM	0	9	0	9	0	7	7	14	0	10	0	10	0	2	8	10	43
5:00 PM	0	6	0	6	0	6	13	19	0	14	0	14	0	1	7	8	47
5:15 PM	0	4	0	4	0	7	7	14	0	11	0	11	0	1	5	6	35
5:30 PM	0	1	0	1	0	8	6	14	0	9	0	9	0	1	8	9	33
5:45 PM	0	3	0	3	0	16	15	31	0	17	0	17	0	2	9	11	62
Total Survey	0	90	0	90	0	122	152	274	0	190	0	190	0	27	99	126	680

Heavy Vehicle Peak Hour Summary 3:45 PM to 4:45 PM

By Approach	Northbound Hwy 99E			Southbound Hwy 99E			Eastbound Hwy 224			Westbound Hwy 224			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	33	40	73	93	76	169	66	64	130	54	66	120	246
PHF	0.24			0.26			0.25			0.32			0.28

By Movement	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	33	0	33	0	40	53	93	0	66	0	66	0	11	43	54	246
PHF	0.00	0.24	0.00	0.24	0.00	0.25	0.26	0.26	0.00	0.25	0.00	0.25	0.00	0.28	0.32	0.32	0.28

Heavy Vehicle Rolling Hour Summary 3:00 PM to 6:00 PM

Interval Start Time	Northbound Hwy 99E				Southbound Hwy 99E				Eastbound Hwy 224				Westbound Hwy 224				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
3:00 PM	0	45	0	45	0	51	63	114	0	81	0	81	0	14	29	43	283
3:15 PM	0	37	0	37	0	48	66	114	0	84	0	84	0	12	39	51	286
3:30 PM	0	33	0	33	0	47	61	108	0	75	0	75	0	10	41	51	267
3:45 PM	0	33	0	33	0	40	53	93	0	66	0	66	0	11	43	54	246
4:00 PM	0	31	0	31	0	34	48	82	0	58	0	58	0	8	41	49	220
4:15 PM	0	31	0	31	0	32	46	78	0	53	0	53	0	7	35	42	204
4:30 PM	0	27	0	27	0	28	38	66	0	48	0	48	0	7	29	36	177
4:45 PM	0	20	0	20	0	28	33	61	0	44	0	44	0	5	28	33	158
5:00 PM	0	14	0	14	0	37	41	78	0	51	0	51	0	5	29	34	177

Peak Hour Summary

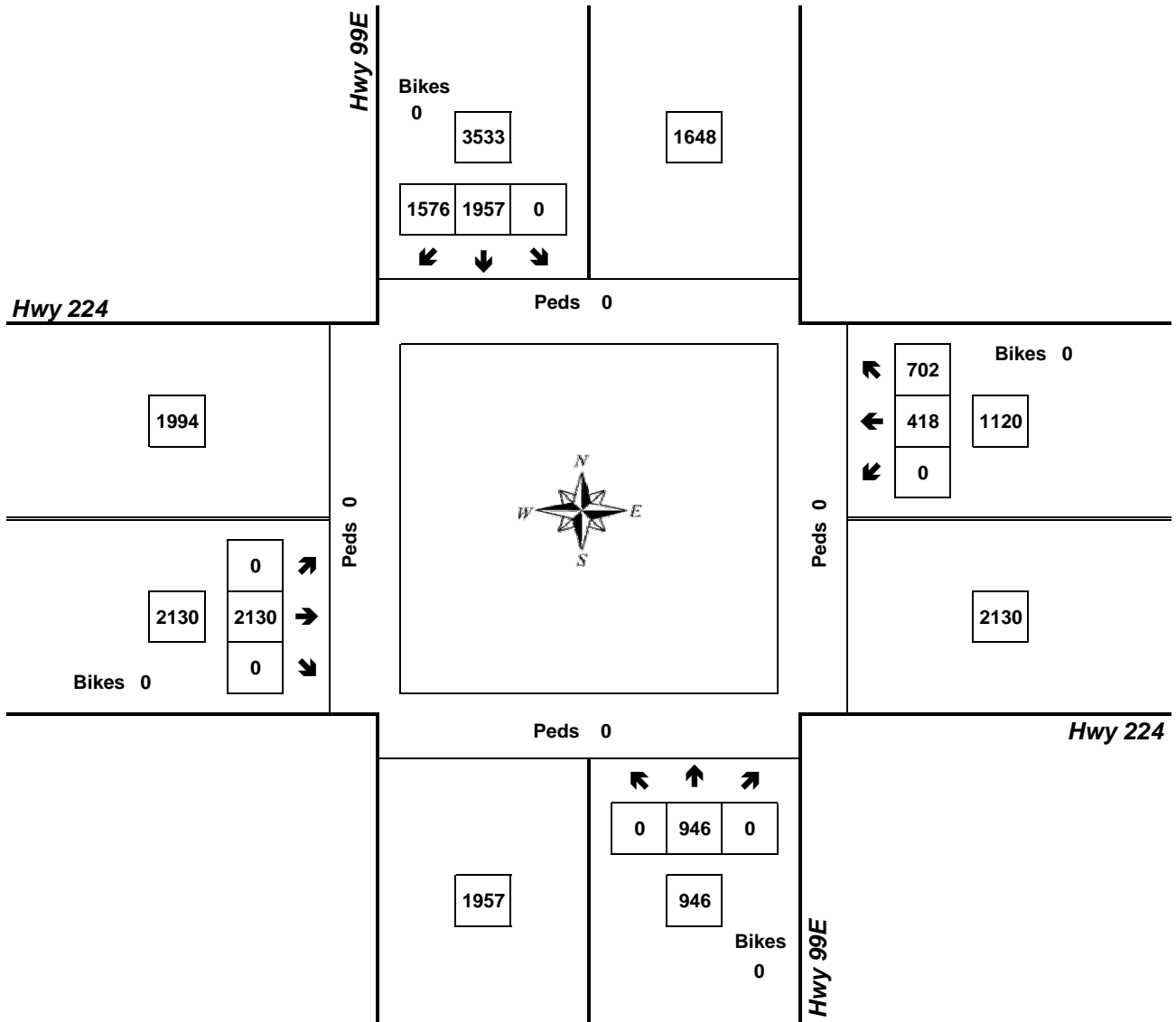


Clay Carney
(503) 833-2740

Hwy 99E & Hwy 224

3:45 PM to 4:45 PM

Wednesday, December 06, 2006



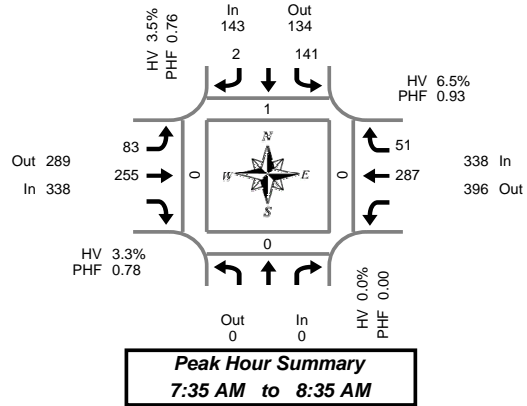
Approach	PHF	HV%	Volume
EB	0.91	3.1%	2,130
WB	0.99	4.8%	1,120
NB	0.86	3.5%	946
SB	0.90	2.6%	3,533
Intersection	0.93	3.2%	7,729

Count Period: 3:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 EB Ramps & SE Lake Rd

Wednesday, October 11, 2006

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total	Pedestrians Crosswalk				
	Bikes	L	R	Bikes	L	R	Bikes	L	T	Bikes	T	R		Bikes	North	South	East	West
7:00 AM	0	8	0	0	12	12	0	17	3	0	17	3	0	52	0	0	0	0
7:05 AM	0	5	0	0	7	8	0	10	1	0	10	1	0	31	0	0	0	0
7:10 AM	0	5	2	0	12	15	0	13	6	0	13	6	0	53	0	0	0	0
7:15 AM	0	10	0	0	7	15	0	14	2	0	14	2	0	48	0	0	0	0
7:20 AM	0	10	0	0	11	16	0	15	1	0	15	1	0	53	0	0	0	0
7:25 AM	0	8	0	0	11	15	0	28	1	0	28	1	0	63	0	0	0	0
7:30 AM	0	16	0	0	7	7	0	28	1	0	28	1	0	59	0	0	0	0
7:35 AM	0	11	0	0	4	24	0	31	7	0	31	7	0	77	0	0	0	0
7:40 AM	0	21	0	0	10	22	0	22	5	0	22	5	0	80	0	0	0	0
7:45 AM	0	13	0	0	9	35	0	21	4	0	21	4	0	82	0	0	0	0
7:50 AM	0	13	0	0	6	27	0	25	3	0	25	3	0	74	0	0	0	0
7:55 AM	0	16	0	0	3	18	0	25	4	0	25	4	0	66	0	0	0	0
8:00 AM	0	10	1	0	6	17	0	24	4	0	24	4	0	62	0	0	0	0
8:05 AM	0	5	0	0	5	12	0	26	2	0	26	2	0	50	0	0	0	0
8:10 AM	0	13	0	0	5	22	0	23	3	0	23	3	0	66	0	0	0	0
8:15 AM	0	6	1	0	9	21	0	13	5	0	13	5	0	55	1	0	0	0
8:20 AM	0	13	0	0	7	24	0	22	4	0	22	4	0	70	0	0	0	0
8:25 AM	0	9	0	0	9	22	0	28	4	0	28	4	0	72	0	0	0	0
8:30 AM	0	11	0	0	10	11	0	27	6	0	27	6	0	65	0	0	0	0
8:35 AM	0	10	0	0	7	28	0	13	2	0	13	2	0	60	0	0	0	0
8:40 AM	0	12	0	0	4	20	0	19	3	0	19	3	0	58	0	0	0	0
8:45 AM	0	9	0	0	7	24	0	30	6	0	30	6	0	76	0	0	0	0
8:50 AM	0	3	1	0	11	18	0	22	2	0	22	2	0	57	0	0	0	0
8:55 AM	0	10	3	0	6	25	0	24	2	0	24	2	0	70	0	0	0	0
Total Survey	0	247	8	0	185	458	0	520	81	0	520	81	0	1,499	1	0	0	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total	Pedestrians Crosswalk				
	Bikes	L	R	Bikes	L	R	Bikes	L	T	Bikes	T	R		Bikes	North	South	East	West
7:00 AM	0	18	2	0	31	35	0	40	10	0	40	10	0	136	0	0	0	0
7:15 AM	0	28	0	0	29	46	0	57	4	0	57	4	0	164	0	0	0	0
7:30 AM	0	48	0	0	21	53	0	81	13	0	81	13	0	216	0	0	0	0
7:45 AM	0	42	0	0	18	80	0	71	11	0	71	11	0	222	0	0	0	0
8:00 AM	0	28	1	0	16	51	0	73	9	0	73	9	0	178	0	0	0	0
8:15 AM	0	28	1	0	25	67	0	63	13	0	63	13	0	197	1	0	0	0
8:30 AM	0	33	0	0	21	59	0	59	11	0	59	11	0	183	0	0	0	0
8:45 AM	0	22	4	0	24	67	0	76	10	0	76	10	0	203	0	0	0	0
Total Survey	0	247	8	0	185	458	0	520	81	0	520	81	0	1,499	1	0	0	0

Peak Hour Summary

7:35 AM to 8:35 AM

By Approach	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total	Pedestrians Crosswalk							
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West				
Volume	0	0	0	0	143	134	277	0	338	289	627	0	338	396	734	0	819	1	0	0	0
%HV	0.0%			3.5%			3.3%			6.5%			4.6%								
PHF	0.00			0.76			0.78			0.93			0.86								

By Movement	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total				
	Total	L	R	Total	L	R	Total	L	T	Total	T	R		Total			
Volume	0	141	2	143	83	255	338	287	51	338	287	51	338	819			
%HV	NA	NA	NA	0.0%	3.5%	NA	0.0%	3.5%	3.6%	3.1%	NA	3.3%	NA	6.3%	7.8%	6.5%	4.6%
PHF		0.00	0.75	0.50	0.76	0.80	0.76	0.78	0.93	0.80	0.93	0.86					

Rolling Hour Summary

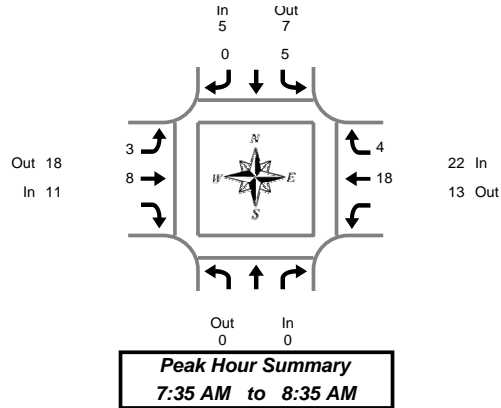
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total	Pedestrians Crosswalk				
	Bikes	L	R	Bikes	L	R	Bikes	L	T	Bikes	T	R		Bikes	North	South	East	West
7:00 AM	0	136	2	0	99	214	0	249	38	0	249	38	0	738	0	0	0	0
7:15 AM	0	146	1	0	84	230	0	282	37	0	282	37	0	780	0	0	0	0
7:30 AM	0	146	2	0	80	251	0	288	46	0	288	46	0	813	1	0	0	0
7:45 AM	0	131	2	0	80	257	0	266	44	0	266	44	0	780	1	0	0	0
8:00 AM	0	111	6	0	86	244	0	271	43	0	271	43	0	761	1	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 EB Ramps & SE Lake Rd

Wednesday, October 11, 2006

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	1	0	1	2	0	2	0	2	4	1	5	8
7:05 AM	0	0	0	0	2	0	2	0	2	1	0	1	3
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	1	0	0	0	0	0	2	0	2	3
7:20 AM	0	0	0	0	0	0	0	0	0	5	1	6	6
7:25 AM	0	1	0	1	0	1	1	1	1	4	0	4	6
7:30 AM	0	1	0	1	0	2	2	2	2	2	0	2	5
7:35 AM	0	0	0	0	0	1	1	1	1	2	0	2	3
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
7:50 AM	0	0	0	0	0	0	0	0	0	0	2	2	2
7:55 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	2
8:05 AM	0	2	0	2	0	2	2	2	2	1	0	1	5
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	1	1	1	0	0	0	1
8:20 AM	0	1	0	1	0	1	1	1	1	3	1	4	6
8:25 AM	0	0	0	0	0	0	1	1	1	5	0	5	6
8:30 AM	0	1	0	1	2	3	5	5	5	3	1	4	10
8:35 AM	0	1	0	1	2	1	3	3	3	1	0	1	5
8:40 AM	0	0	0	0	1	1	2	2	2	0	1	1	3
8:45 AM	0	0	0	0	1	1	2	2	2	0	1	1	3
8:50 AM	0	0	0	0	4	0	4	4	4	0	0	0	4
8:55 AM	0	1	0	1	1	1	2	2	2	0	0	0	3
Total Survey	0	11	0	11	16	15	31	31	31	37	8	45	87

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	1	0	1	4	0	4	0	4	5	1	6	11
7:15 AM	0	2	0	2	0	1	1	1	1	11	1	12	15
7:30 AM	0	1	0	1	0	3	3	3	3	4	0	4	8
7:45 AM	0	0	0	0	0	0	0	0	0	3	2	5	5
8:00 AM	0	3	0	3	0	2	2	2	2	2	0	2	7
8:15 AM	0	1	0	1	1	2	3	3	3	8	1	9	13
8:30 AM	0	2	0	2	5	5	10	10	10	4	2	6	18
8:45 AM	0	1	0	1	6	2	8	8	8	0	1	1	10
Total Survey	0	11	0	11	16	15	31	31	31	37	8	45	87

Heavy Vehicle Peak Hour Summary 7:35 AM to 8:35 AM

By Approach	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	5	7	12	11	18	29	22	13	35	38
PHF	0.00			0.42			0.39			0.42			0.43

By Movement	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	5	0	5	3	8	11	18	29	11	4	15	38
PHF	0.00	0.42	0.00	0.42	0.38	0.40	0.39			0.41	0.50	0.42	0.43

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 EB Ramps			Southbound Hwy 212 EB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	4	0	4	4	4	8	4	8	23	4	27	39
7:15 AM	0	6	0	6	0	6	6	6	6	20	3	23	35
7:30 AM	0	5	0	5	1	7	8	7	8	17	3	20	33
7:45 AM	0	6	0	6	6	9	15	9	15	17	5	22	43
8:00 AM	0	7	0	7	12	11	23	11	23	14	4	18	48

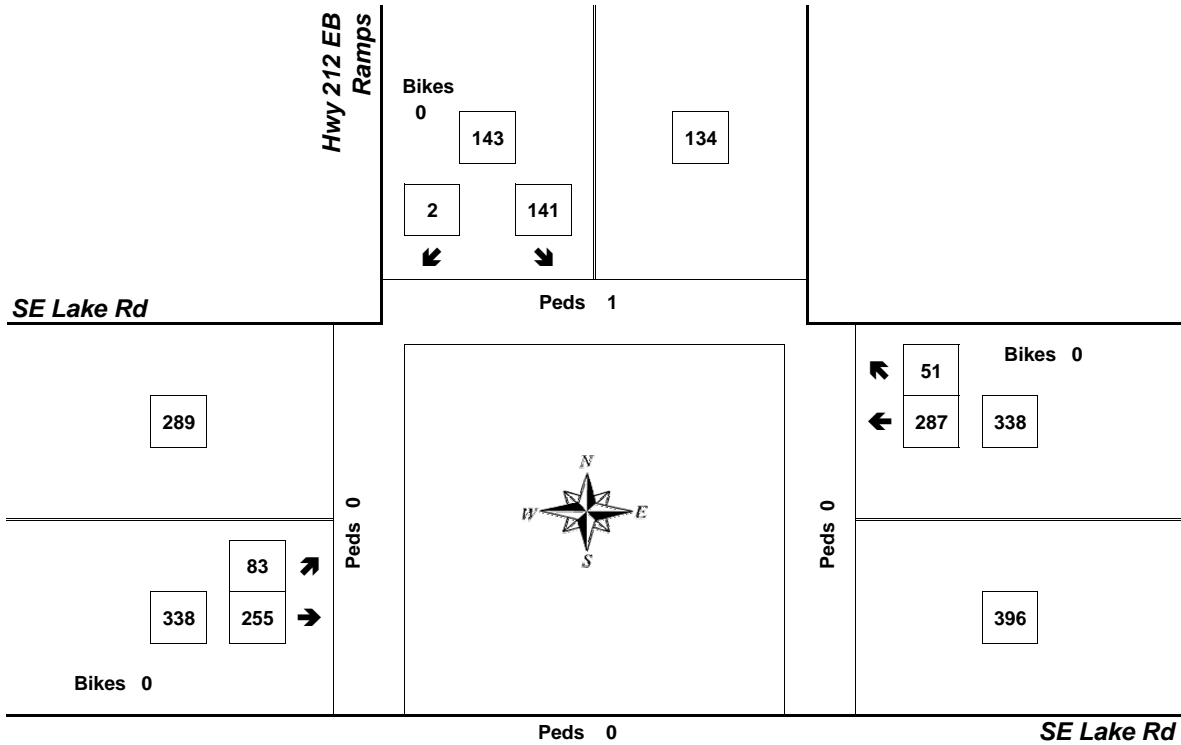
Peak Hour Summary



Clay Carney
(503) 833-2740

Hwy 212 EB Ramps & SE Lake Rd

7:35 AM to 8:35 AM
Wednesday, October 11, 2006



Bikes
0

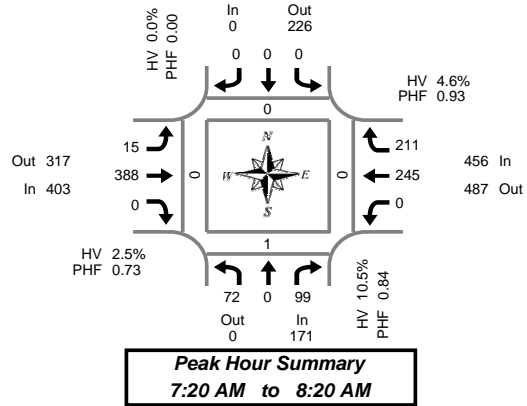
Approach	PHF	HV%	Volume
EB	0.78	3.3%	338
WB	0.93	6.5%	338
NB	0.00	0.0%	0
SB	0.76	3.5%	143
Intersection	0.86	4.6%	819

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 WB Ramps & SE Lake Rd

Wednesday, October 11, 2006

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	7	0	9	0	0	0	0	0	1	24	0	0	0	12	13	0	66	0	0	0	0
7:05 AM	1	0	10	0	0	0	0	0	1	12	0	0	0	9	23	0	56	0	0	0	0
7:10 AM	5	0	9	0	0	0	0	0	0	14	0	0	0	16	7	0	51	0	0	0	0
7:15 AM	4	0	6	0	0	0	0	0	1	30	0	0	0	10	21	0	72	0	0	0	0
7:20 AM	2	0	14	0	0	0	0	0	0	28	0	0	0	18	28	0	90	0	0	0	0
7:25 AM	5	0	8	0	0	0	0	0	2	21	0	0	0	21	16	0	73	0	0	0	0
7:30 AM	11	0	9	0	0	0	0	0	2	25	0	0	0	16	18	0	81	0	0	0	0
7:35 AM	8	0	8	0	0	0	0	0	0	34	0	0	0	28	23	1	101	0	0	0	0
7:40 AM	9	0	6	0	0	0	0	0	0	39	0	0	0	23	11	0	88	0	0	0	0
7:45 AM	4	0	7	0	0	0	0	0	1	56	0	0	0	15	14	0	97	0	0	0	0
7:50 AM	6	0	13	0	0	0	0	0	3	36	0	0	0	20	14	0	92	0	0	0	0
7:55 AM	4	0	8	0	0	0	0	0	2	40	0	0	0	24	14	0	92	0	1	0	0
8:00 AM	10	0	8	0	0	0	0	0	1	27	0	0	0	20	16	1	82	0	0	0	0
8:05 AM	8	0	8	0	0	0	0	0	2	21	0	0	0	19	18	0	76	0	0	0	0
8:10 AM	3	0	4	0	0	0	0	0	1	29	0	0	0	24	22	0	83	0	0	0	0
8:15 AM	2	0	6	0	0	0	0	0	1	32	0	0	0	17	17	0	75	0	0	0	0
8:20 AM	1	0	3	0	0	0	0	0	1	35	0	0	0	24	8	0	72	0	0	0	0
8:25 AM	6	0	7	0	0	0	0	0	1	34	0	0	0	27	14	0	89	0	0	0	0
8:30 AM	6	0	5	0	0	0	0	0	2	21	0	0	0	28	20	0	82	0	0	0	0
8:35 AM	3	0	10	0	0	0	0	0	1	35	0	0	0	19	10	0	78	0	0	0	0
8:40 AM	4	0	3	0	0	0	0	0	1	32	0	0	0	13	7	0	60	0	0	0	0
8:45 AM	8	0	5	0	0	0	0	0	2	27	0	0	0	27	6	0	75	0	0	0	0
8:50 AM	5	0	6	0	0	0	0	0	1	33	0	0	0	18	17	0	80	0	0	0	0
8:55 AM	12	0	9	0	0	0	0	0	1	27	0	0	0	14	12	0	75	0	0	0	0
Total Survey	134	0	181	0	0	0	0	0	28	712	0	0	0	462	369	2	1,886	0	1	0	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	13	0	28	0	0	0	0	0	2	50	0	0	0	37	43	0	173	0	0	0	0
7:15 AM	11	0	28	0	0	0	0	0	3	79	0	0	0	49	65	0	235	0	0	0	0
7:30 AM	28	0	23	0	0	0	0	0	2	98	0	0	0	67	52	1	270	0	0	0	0
7:45 AM	14	0	28	0	0	0	0	0	6	132	0	0	0	59	42	0	281	0	1	0	0
8:00 AM	21	0	20	0	0	0	0	0	4	77	0	0	0	63	56	1	241	0	0	0	0
8:15 AM	9	0	16	0	0	0	0	0	3	101	0	0	0	68	39	0	236	0	0	0	0
8:30 AM	13	0	18	0	0	0	0	0	4	88	0	0	0	60	37	0	220	0	0	0	0
8:45 AM	25	0	20	0	0	0	0	0	4	87	0	0	0	59	35	0	230	0	0	0	0
Total Survey	134	0	181	0	0	0	0	0	28	712	0	0	0	462	369	2	1,886	0	1	0	0

Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	171	0	171	0	0	226	226	0	403	317	720	0	456	487	943	2	1,030	0	1	0	0
%HV	10.5%				0.0%				2.5%				4.6%				4.8%				
PHF	0.84				0.00				0.73				0.93				0.90				

By Movement	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
Volume	72	0	99	171	0	0	0	0	15	388	0	403	0	245	211	456	1,030				
%HV	9.7%	0.0%	11.1%	10.5%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%	2.5%	0.0%	5.3%	3.8%	4.6%	4.8%				
PHF	0.64	0.00	0.80	0.84	0.00	0.00	0.00	0.00	0.63	0.73	0.00	0.73	0.00	0.91	0.85	0.93	0.90				

Rolling Hour Summary

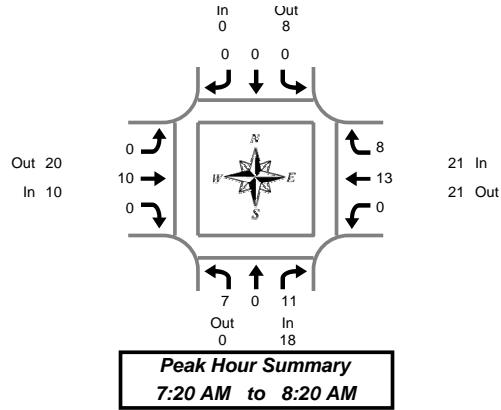
7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	66	0	107	0	0	0	0	0	13	359	0	0	0	212	202	1	959	0	1	0	0
7:15 AM	74	0	99	0	0	0	0	0	15	386	0	0	0	238	215	2	1,027	0	1	0	0
7:30 AM	72	0	87	0	0	0	0	0	15	408	0	0	0	257	189	2	1,028	0	1	0	0
7:45 AM	57	0	82	0	0	0	0	0	17	398	0	0	0	250	174	1	978	0	1	0	0
8:00 AM	68	0	74	0	0	0	0	0	15	353	0	0	0	250	167	1	927	0	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Hwy 212 WB Ramps & SE Lake Rd

Wednesday, October 11, 2006

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	3	0	0	3	0	0	0	0	0	1	0	1	0	1	0	1	5
7:05 AM	1	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:10 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	0	2
7:15 AM	1	0	1	2	0	0	0	0	0	1	0	1	0	1	1	2	5
7:20 AM	2	0	2	4	0	0	0	0	0	0	0	0	0	5	0	5	9
7:25 AM	2	0	2	4	0	0	0	0	0	2	0	2	0	1	1	2	8
7:30 AM	0	0	1	1	0	0	0	0	0	3	0	3	0	2	3	5	9
7:35 AM	2	0	1	3	0	0	0	0	0	0	0	0	0	0	1	1	4
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:55 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	1	3
8:00 AM	1	0	1	2	0	0	0	0	0	1	0	1	0	0	1	1	4
8:05 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	1	0	1	5
8:10 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	4	0	4	5
8:25 AM	1	0	1	2	0	0	0	0	0	1	0	1	0	4	1	5	8
8:30 AM	1	0	2	3	0	0	0	0	0	3	0	3	0	4	2	6	12
8:35 AM	0	0	1	1	0	0	0	0	0	3	0	3	0	1	0	1	5
8:40 AM	0	0	1	1	0	0	0	0	0	2	0	2	0	1	0	1	4
8:45 AM	0	0	1	1	0	0	0	0	0	1	0	1	0	1	1	2	4
8:50 AM	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	4
8:55 AM	0	0	1	1	0	0	0	0	0	2	0	2	0	0	2	2	5
Total Survey	14	0	29	43	0	0	0	0	0	24	0	24	0	30	15	45	112

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	4	0	5	9	0	0	0	0	0	1	0	1	0	1	0	1	11
7:15 AM	5	0	5	10	0	0	0	0	0	3	0	3	0	7	2	9	22
7:30 AM	2	0	2	4	0	0	0	0	0	3	0	3	0	2	5	7	14
7:45 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	4	0	4	6
8:00 AM	1	0	3	4	0	0	0	0	0	5	0	5	0	1	2	3	12
8:15 AM	1	0	2	3	0	0	0	0	0	1	0	1	0	8	1	9	13
8:30 AM	1	0	4	5	0	0	0	0	0	8	0	8	0	6	2	8	21
8:45 AM	0	0	6	6	0	0	0	0	0	3	0	3	0	1	3	4	13
Total Survey	14	0	29	43	0	0	0	0	0	24	0	24	0	30	15	45	112

Heavy Vehicle Peak Hour Summary

7:20 AM to 8:20 AM

By Approach	Northbound Hwy 212 WB Ramps			Southbound Hwy 212 WB Ramps			Eastbound SE Lake Rd			Westbound SE Lake Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	18	0	18	0	8	8	10	20	30	21	21	42	49
PHF	0.50			0.00			0.50			0.44			0.47

By Movement	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	7	0	11	18	0	0	0	0	0	10	0	10	0	13	8	21	49
PHF	0.44	0.00	0.55	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	0.00	0.41	0.40	0.44	0.47

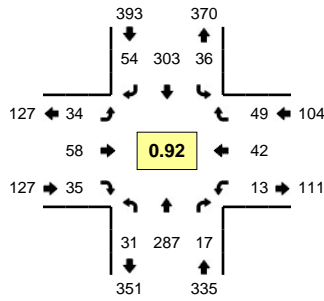
Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

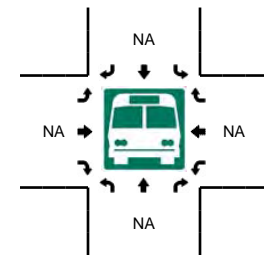
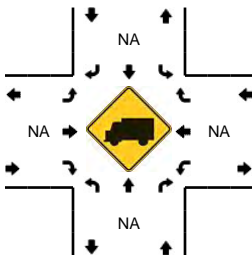
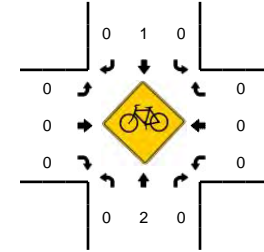
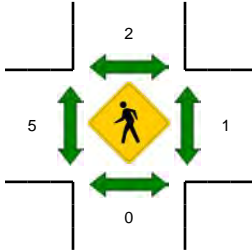
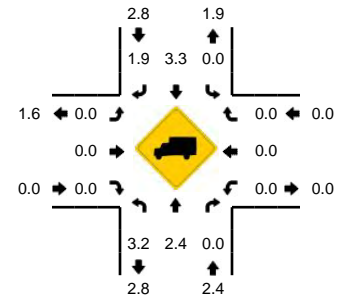
Interval Start Time	Northbound Hwy 212 WB Ramps				Southbound Hwy 212 WB Ramps				Eastbound SE Lake Rd				Westbound SE Lake Rd				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	11	0	14	25	0	0	0	0	0	7	0	7	0	14	7	21	53
7:15 AM	8	0	12	20	0	0	0	0	0	11	0	11	0	14	9	23	54
7:30 AM	4	0	9	13	0	0	0	0	0	9	0	9	0	15	8	23	45
7:45 AM	3	0	11	14	0	0	0	0	0	14	0	14	0	19	5	24	52
8:00 AM	3	0	15	18	0	0	0	0	0	17	0	17	0	16	8	24	59

LOCATION: Linwood Ave -- Monroe St
CITY/STATE: Milwaukie, OR

QC JOB #: 10776903
DATE: Tue, Jun 12 2012



Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

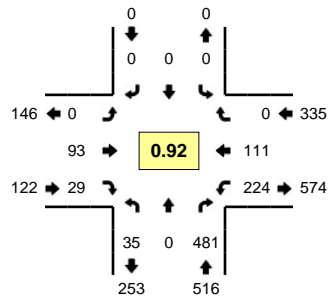


5-Min Count Period Beginning At	Linwood Ave (Northbound)				Linwood Ave (Southbound)				Monroe St (Eastbound)				Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	25	2	0	3	15	4	0	4	4	2	0	1	3	3	0	68	
4:05 PM	2	25	1	0	5	19	7	0	3	3	4	0	2	1	1	0	73	
4:10 PM	3	28	2	0	2	17	3	0	1	1	4	0	2	5	4	0	72	
4:15 PM	4	26	5	0	4	26	3	0	4	6	3	0	1	2	3	0	87	
4:20 PM	2	21	4	0	3	16	8	0	4	3	2	0	1	2	6	0	72	
4:25 PM	4	19	2	0	3	16	2	0	4	3	3	0	0	2	3	0	61	
4:30 PM	3	37	3	0	3	30	6	0	1	5	5	0	2	6	8	0	109	
4:35 PM	1	16	1	0	4	34	4	0	4	2	5	0	2	5	1	0	79	
4:40 PM	2	23	2	0	5	36	2	0	1	2	5	0	2	2	1	0	83	
4:45 PM	1	28	0	0	2	21	4	0	5	1	4	0	4	2	1	0	73	
4:50 PM	0	26	2	0	2	25	5	0	0	2	2	0	0	2	2	0	68	
4:55 PM	2	16	3	0	2	18	5	0	1	3	4	0	0	0	0	0	54	899
5:00 PM	1	27	1	0	5	20	5	0	4	5	2	0	0	1	6	0	77	908
5:05 PM	4	23	4	0	3	30	7	0	2	6	3	0	1	1	2	0	86	921
5:10 PM	1	27	1	0	0	17	2	0	1	3	6	0	2	5	2	0	67	916
5:15 PM	1	26	1	0	2	28	5	0	2	4	3	0	1	5	12	0	90	919
5:20 PM	3	37	1	0	4	25	2	0	1	3	2	0	1	4	4	0	87	934
5:25 PM	3	20	2	0	3	31	4	0	4	5	3	0	1	2	5	0	83	956
5:30 PM	4	25	3	0	5	17	7	0	4	9	2	0	0	4	3	0	83	930
5:35 PM	1	29	0	0	2	35	4	0	8	3	1	0	1	3	2	0	89	940
5:40 PM	2	12	2	0	4	33	5	0	2	3	3	0	0	2	4	0	72	929
5:45 PM	7	21	0	0	5	26	4	0	3	10	5	0	3	1	2	0	87	943
5:50 PM	1	17	2	0	2	27	5	0	1	3	0	0	2	5	3	0	68	943
5:55 PM	3	23	0	0	1	14	4	0	2	4	5	0	1	9	4	0	70	959
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	28	332	16	0	36	336	44	0	28	48	32	0	12	44	84	0	1040	
Heavy Trucks	4	12	0		0	20	0		0	0	0		0	0	0		36	
Pedestrians		0				8				4				0			12	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

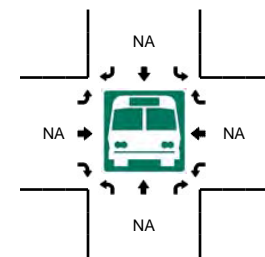
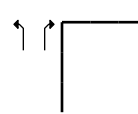
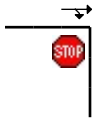
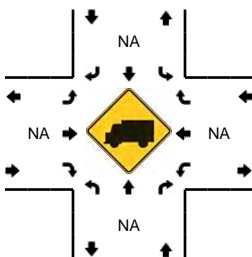
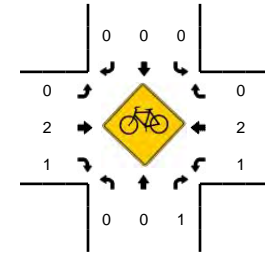
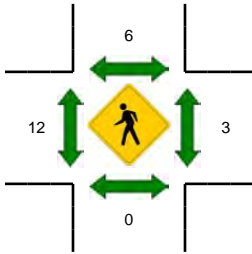
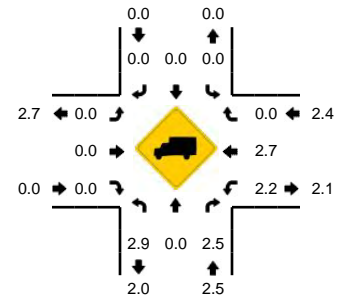
Comments:

LOCATION: 42nd Ave -- King Rd
CITY/STATE: Milwaukie, OR

QC JOB #: 10776901
DATE: Tue, Jun 12 2012



Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM



5-Min Count Period Beginning At	42nd Ave (Northbound)				42nd Ave (Southbound)				King Rd (Eastbound)				King Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	0	31	0	0	0	0	0	0	6	0	0	20	4	0	0	64	
4:05 PM	1	0	33	0	0	0	0	0	0	15	4	0	18	3	0	0	74	
4:10 PM	2	0	40	0	0	0	0	0	0	8	2	0	20	6	0	0	78	
4:15 PM	0	0	39	0	0	0	0	0	0	3	0	0	14	1	0	0	57	
4:20 PM	4	0	35	0	0	0	0	0	0	5	1	0	23	3	0	0	71	
4:25 PM	6	0	39	0	0	0	0	0	0	4	1	0	23	4	0	0	77	
4:30 PM	2	0	41	0	0	0	0	0	0	9	7	0	15	2	0	0	76	
4:35 PM	2	0	36	0	0	0	0	0	0	8	0	0	14	4	0	0	64	
4:40 PM	1	0	45	0	0	0	0	0	0	9	2	0	19	6	0	0	82	
4:45 PM	2	0	34	0	0	0	0	0	0	7	3	0	21	8	0	0	75	
4:50 PM	1	0	32	0	0	0	0	0	0	11	1	0	20	8	0	0	73	
4:55 PM	1	0	38	0	0	0	0	0	0	11	6	0	10	7	0	0	73	864
5:00 PM	4	0	27	0	0	0	0	0	0	6	3	0	16	14	0	0	70	870
5:05 PM	5	0	44	0	0	0	0	0	0	10	1	0	14	13	0	0	87	883
5:10 PM	2	0	55	0	0	0	0	0	0	7	4	0	15	5	0	0	88	893
5:15 PM	0	0	45	0	0	0	0	0	0	5	3	0	20	16	0	0	89	925
5:20 PM	4	0	35	0	0	0	0	0	0	8	0	0	30	8	0	0	85	939
5:25 PM	4	0	36	0	0	0	0	0	0	8	3	0	13	7	0	0	71	933
5:30 PM	2	0	45	0	0	0	0	0	0	7	4	0	17	9	0	0	84	941
5:35 PM	5	0	34	0	0	0	0	0	0	6	2	0	23	7	0	0	77	954
5:40 PM	5	0	38	0	0	0	0	0	0	7	1	0	22	7	0	0	80	952
5:45 PM	2	0	40	0	0	0	0	0	0	7	2	0	21	5	0	0	77	954
5:50 PM	1	0	44	0	0	0	0	0	0	11	0	0	23	13	0	0	92	973
5:55 PM	1	0	37	0	0	0	0	0	0	6	1	0	8	6	0	0	59	959
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	28	0	576	0	0	0	0	0	0	88	32	0	196	136	0	0	1056	
Heavy Trucks	0	0	8	0	0	0	0	0	0	0	0	0	0	4	0	0	12	
Pedestrians														4			4	
Bicycles	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	4	
Railroad																		
Stopped Buses																		

Comments:

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		0	1	1
12:15		0	0	0
12:30		0	0	0
12:45		0	1	1
01:00		0	0	0
01:15		0	1	1
01:30		0	1	1
01:45		0	0	0
02:00		0	0	0
02:15		0	0	0
02:30		1	1	2
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		0	1	1
03:45		0	0	0
04:00		0	1	1
04:15		0	0	0
04:30		0	1	1
04:45		0	0	0
05:00		2	2	4
05:15		0	0	0
05:30		4	0	4
05:45		1	2	3
06:00		1	1	2
06:15		2	0	2
06:30		2	2	4
06:45		5	2	7
07:00		2	3	5
07:15		7	2	9
07:30		4	7	11
07:45		5	5	10
08:00		7	16	23
08:15		6	12	18
08:30		2	4	6
08:45		1	8	9
09:00		8	10	18
09:15		4	5	9
09:30		3	4	7
09:45		1	3	4
10:00		6	9	15
10:15		2	6	8
10:30		2	4	6
10:45		6	4	10
11:00		5	6	11
11:15		4	5	9
11:30		8	3	11
11:45		2	7	9
Total		103	140	243
Percent		42.4%	57.6%	
Peak		07:15	07:30	07:30
Vol.		23	40	62
P.H.F.		0.719	0.625	0.674

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		9	4	13
12:15		8	9	17
12:30		6	6	12
12:45		3	6	9
01:00		2	7	9
01:15		2	3	5
01:30		5	9	14
01:45		9	6	15
02:00		7	8	15
02:15		6	6	12
02:30		5	6	11
02:45		5	10	15
03:00		5	3	8
03:15		4	12	16
03:30		6	13	19
03:45		6	16	22
04:00		11	10	21
04:15		1	10	11
04:30		7	8	15
04:45		4	10	14
05:00		4	17	21
05:15		6	12	18
05:30		4	4	8
05:45		8	10	18
06:00		4	8	12
06:15		9	13	22
06:30		4	12	16
06:45		6	10	16
07:00		3	7	10
07:15		2	2	4
07:30		6	4	10
07:45		3	9	12
08:00		2	5	7
08:15		0	7	7
08:30		4	3	7
08:45		2	2	4
09:00		2	5	7
09:15		3	3	6
09:30		5	3	8
09:45		1	2	3
10:00		2	1	3
10:15		0	3	3
10:30		1	5	6
10:45		0	3	3
11:00		0	0	0
11:15		0	0	0
11:30		0	0	0
11:45		0	2	2
Total		192	314	506
Percent		37.9%	62.1%	
Peak		13:30	15:15	15:15
Vol.		27	51	78
P.H.F.		0.614	0.750	0.886
Grand Total		295	454	749
Percent		39.4%	60.6%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		0	1	1
12:15		2	0	2
12:30		0	0	0
12:45		0	0	0
01:00		0	0	0
01:15		1	1	2
01:30		0	0	0
01:45		0	2	2
02:00		0	1	1
02:15		0	0	0
02:30		1	0	1
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		0	0	0
03:45		0	0	0
04:00		0	0	0
04:15		0	0	0
04:30		0	0	0
04:45		0	0	0
05:00		1	1	2
05:15		0	0	0
05:30		2	1	3
05:45		1	0	1
06:00		1	1	2
06:15		3	0	3
06:30		3	0	3
06:45		3	2	5
07:00		6	2	8
07:15		3	0	3
07:30		3	3	6
07:45		7	4	11
08:00		2	5	7
08:15		2	2	4
08:30		7	3	10
08:45		5	4	9
09:00		1	1	2
09:15		2	2	4
09:30		1	0	1
09:45		0	1	1
10:00		4	1	5
10:15		2	3	5
10:30		0	0	0
10:45		0	1	1
11:00		2	6	8
11:15		2	4	6
11:30		4	5	9
11:45		8	4	12
Total		79	61	140
Percent		56.4%	43.6%	
Peak		07:00	11:00	11:00
Vol.		19	19	35
P.H.F.		0.594	0.792	0.729

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		0	4	4
12:15		3	3	6
12:30		2	8	10
12:45		5	5	10
01:00		2	2	4
01:15		3	6	9
01:30		4	4	8
01:45		4	4	8
02:00		2	2	4
02:15		5	4	9
02:30		3	7	10
02:45		5	8	13
03:00		2	5	7
03:15		6	8	14
03:30		3	4	7
03:45		4	12	16
04:00		2	1	3
04:15		2	7	9
04:30		2	4	6
04:45		1	5	6
05:00		5	8	13
05:15		2	4	6
05:30		0	0	0
05:45		2	9	11
06:00		6	6	12
06:15		0	7	7
06:30		5	5	10
06:45		1	6	7
07:00		1	3	4
07:15		0	2	2
07:30		1	1	2
07:45		2	3	5
08:00		0	4	4
08:15		1	2	3
08:30		0	1	1
08:45		4	6	10
09:00		4	2	6
09:15		1	3	4
09:30		2	3	5
09:45		1	2	3
10:00		1	1	2
10:15		0	2	2
10:30		0	1	1
10:45		0	1	1
11:00		0	0	0
11:15		0	0	0
11:30		1	0	1
11:45		0	1	1
Total		100	186	286
Percent		35.0%	65.0%	
Peak		14:30	15:00	14:30
Vol.		16	29	44
P.H.F.		0.667	0.604	0.688
Grand Total		179	247	426
Percent		42.0%	58.0%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		0	0	0
12:15		1	1	2
12:30		0	0	0
12:45		0	0	0
01:00		0	0	0
01:15		0	0	0
01:30		1	1	2
01:45		0	0	0
02:00		1	1	2
02:15		0	0	0
02:30		1	1	2
02:45		0	0	0
03:00		1	0	1
03:15		0	0	0
03:30		0	0	0
03:45		0	0	0
04:00		0	1	1
04:15		0	0	0
04:30		0	0	0
04:45		2	0	2
05:00		0	0	0
05:15		0	0	0
05:30		1	1	2
05:45		1	1	2
06:00		0	0	0
06:15		2	2	4
06:30		2	4	6
06:45		5	3	8
07:00		2	3	5
07:15		4	3	7
07:30		5	7	12
07:45		4	7	11
08:00		5	1	6
08:15		12	10	22
08:30		8	14	22
08:45		7	6	13
09:00		4	2	6
09:15		1	2	3
09:30		2	2	4
09:45		3	3	6
10:00		2	4	6
10:15		3	1	4
10:30		5	4	9
10:45		4	4	8
11:00		2	3	5
11:15		1	1	2
11:30		5	4	9
11:45		10	7	17
Total		107	104	211
Percent		50.7%	49.3%	
Peak		08:00	07:45	08:00
Vol.		32	32	63
P.H.F.		0.667	0.571	0.716

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		2	3	5
12:15		5	5	10
12:30		5	3	8
12:45		2	1	3
01:00		4	4	8
01:15		4	5	9
01:30		2	4	6
01:45		5	4	9
02:00		2	3	5
02:15		12	10	22
02:30		6	4	10
02:45		8	6	14
03:00		2	10	12
03:15		6	8	14
03:30		9	6	15
03:45		4	1	5
04:00		9	6	15
04:15		4	8	12
04:30		6	8	14
04:45		5	8	13
05:00		6	10	16
05:15		2	6	8
05:30		4	2	6
05:45		6	4	10
06:00		4	2	6
06:15		4	5	9
06:30		2	3	5
06:45		4	2	6
07:00		3	2	5
07:15		10	12	22
07:30		1	1	2
07:45		0	2	2
08:00		2	2	4
08:15		7	3	10
08:30		1	1	2
08:45		2	2	4
09:00		3	2	5
09:15		2	3	5
09:30		3	3	6
09:45		1	0	1
10:00		1	0	1
10:15		0	0	0
10:30		0	0	0
10:45		2	1	3
11:00		1	0	1
11:15		0	1	1
11:30		3	1	4
11:45		3	1	4
Total		179	178	357
Percent		50.1%	49.9%	
Peak		14:00	16:15	14:15
Vol.		28	34	58
P.H.F.		0.583	0.708	0.659
Grand Total		286	282	568
Percent		50.4%	49.6%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		0	0	0
12:15		1	2	3
12:30		0	0	0
12:45		2	2	4
01:00		0	0	0
01:15		1	2	3
01:30		2	2	4
01:45		0	2	2
02:00		0	0	0
02:15		0	0	0
02:30		0	0	0
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		0	0	0
03:45		0	0	0
04:00		0	1	1
04:15		0	0	0
04:30		0	0	0
04:45		0	0	0
05:00		1	0	1
05:15		0	0	0
05:30		0	0	0
05:45		1	1	2
06:00		1	2	3
06:15		2	0	2
06:30		0	0	0
06:45		2	0	2
07:00		4	3	7
07:15		8	5	13
07:30		4	4	8
07:45		10	9	19
08:00		7	10	17
08:15		10	14	24
08:30		7	12	19
08:45		5	5	10
09:00		7	1	8
09:15		3	5	8
09:30		1	1	2
09:45		6	6	12
10:00		3	6	9
10:15		3	2	5
10:30		4	1	5
10:45		4	3	7
11:00		6	4	10
11:15		3	4	7
11:30		2	4	6
11:45		6	2	8
Total		116	115	231
Percent		50.2%	49.8%	
Peak		07:45	07:45	07:45
Vol.		34	45	79
P.H.F.		0.850	0.804	0.823

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		4	4	8
12:15		8	6	14
12:30		4	5	9
12:45		7	8	15
01:00		7	8	15
01:15		8	5	13
01:30		8	6	14
01:45		3	2	5
02:00		4	4	8
02:15		8	10	18
02:30		7	6	13
02:45		4	6	10
03:00		4	8	12
03:15		15	8	23
03:30		13	7	20
03:45		10	9	19
04:00		2	6	8
04:15		13	10	23
04:30		2	3	5
04:45		6	9	15
05:00		8	6	14
05:15		8	7	15
05:30		8	7	15
05:45		8	8	16
06:00		9	8	17
06:15		11	5	16
06:30		5	3	8
06:45		2	6	8
07:00		6	5	11
07:15		4	4	8
07:30		4	4	8
07:45		1	1	2
08:00		5	1	6
08:15		1	0	1
08:30		5	2	7
08:45		3	5	8
09:00		4	4	8
09:15		3	0	3
09:30		2	3	5
09:45		1	1	2
10:00		0	0	0
10:15		0	1	1
10:30		1	2	3
10:45		0	1	1
11:00		0	0	0
11:15		0	0	0
11:30		0	0	0
11:45		2	2	4
Total		238	216	454
Percent		52.4%	47.6%	
Peak		15:00	15:00	15:00
Vol.		42	32	74
P.H.F.		0.700	0.800	0.804
Grand Total		354	331	685
Percent		51.7%	48.3%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 AM		0	0	0
12:15		1	2	3
12:30		0	1	1
12:45		0	0	0
01:00		0	0	0
01:15		1	2	3
01:30		1	0	1
01:45		0	0	0
02:00		0	0	0
02:15		1	0	1
02:30		0	0	0
02:45		0	0	0
03:00		0	1	1
03:15		0	0	0
03:30		1	0	1
03:45		0	0	0
04:00		1	0	1
04:15		0	0	0
04:30		1	0	1
04:45		0	0	0
05:00		3	3	6
05:15		0	0	0
05:30		0	0	0
05:45		0	0	0
06:00		3	1	4
06:15		2	2	4
06:30		6	6	12
06:45		2	2	4
07:00		7	4	11
07:15		6	6	12
07:30		1	2	3
07:45		4	4	8
08:00		4	1	5
08:15		2	2	4
08:30		4	4	8
08:45		5	1	6
09:00		1	0	1
09:15		2	0	2
09:30		0	1	1
09:45		5	5	10
10:00		1	2	3
10:15		0	1	1
10:30		4	5	9
10:45		2	2	4
11:00		5	2	7
11:15		1	1	2
11:30		2	3	5
11:45		2	3	5
Total		81	69	150
Percent		54.0%	46.0%	
Peak		06:30	06:30	06:30
Vol.		21	18	39
P.H.F.		0.750	0.750	0.813

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 PM		1	4	5
12:15		1	2	3
12:30		6	4	10
12:45		2	4	6
01:00		5	6	11
01:15		4	2	6
01:30		2	2	4
01:45		1	2	3
02:00		6	4	10
02:15		7	6	13
02:30		5	0	5
02:45		5	2	7
03:00		4	5	9
03:15		2	3	5
03:30		6	2	8
03:45		2	4	6
04:00		7	5	12
04:15		6	4	10
04:30		2	5	7
04:45		7	7	14
05:00		5	3	8
05:15		6	7	13
05:30		3	1	4
05:45		6	7	13
06:00		4	1	5
06:15		5	1	6
06:30		5	3	8
06:45		4	3	7
07:00		2	3	5
07:15		3	1	4
07:30		5	2	7
07:45		0	3	3
08:00		1	0	1
08:15		3	2	5
08:30		1	3	4
08:45		1	2	3
09:00		2	2	4
09:15		4	4	8
09:30		4	4	8
09:45		1	0	1
10:00		2	0	2
10:15		1	1	2
10:30		2	2	4
10:45		0	0	0
11:00		2	0	2
11:15		0	0	0
11:30		1	1	2
11:45		0	1	1
Total		154	130	284
Percent		54.2%	45.8%	
Peak		14:00	16:30	16:00
Vol.		23	22	43
P.H.F.		0.821	0.786	0.768
Grand Total		235	199	434
Percent		54.1%	45.9%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 AM		0	0	0
12:15		0	0	0
12:30		0	0	0
12:45		0	0	0
01:00		0	0	0
01:15		0	0	0
01:30		0	0	0
01:45		0	0	0
02:00		0	0	0
02:15		0	0	0
02:30		0	0	0
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		0	0	0
03:45		1	1	2
04:00		0	0	0
04:15		0	0	0
04:30		0	0	0
04:45		1	1	2
05:00		1	1	2
05:15		0	0	0
05:30		0	0	0
05:45		0	0	0
06:00		0	0	0
06:15		0	0	0
06:30		1	1	2
06:45		1	1	2
07:00		3	4	7
07:15		1	2	3
07:30		3	4	7
07:45		8	11	19
08:00		3	2	5
08:15		4	4	8
08:30		0	0	0
08:45		2	2	4
09:00		4	2	6
09:15		5	2	7
09:30		2	2	4
09:45		2	4	6
10:00		2	3	5
10:15		1	1	2
10:30		2	3	5
10:45		2	2	4
11:00		2	2	4
11:15		3	2	5
11:30		2	1	3
11:45		1	1	2
Total		57	59	116
Percent		49.1%	50.9%	
Peak		07:30	07:00	07:30
Vol.		18	21	39
P.H.F.		0.563	0.477	0.513

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 PM		2	1	3
12:15		2	3	5
12:30		1	1	2
12:45		2	3	5
01:00		2	2	4
01:15		4	4	8
01:30		5	5	10
01:45		0	0	0
02:00		1	3	4
02:15		6	6	12
02:30		8	6	14
02:45		4	4	8
03:00		3	2	5
03:15		4	2	6
03:30		3	4	7
03:45		2	3	5
04:00		8	10	18
04:15		8	9	17
04:30		3	3	6
04:45		5	7	12
05:00		2	2	4
05:15		3	4	7
05:30		3	7	10
05:45		3	4	7
06:00		5	5	10
06:15		6	4	10
06:30		2	3	5
06:45		0	0	0
07:00		3	4	7
07:15		3	2	5
07:30		0	0	0
07:45		4	3	7
08:00		3	3	6
08:15		2	3	5
08:30		1	1	2
08:45		2	3	5
09:00		2	2	4
09:15		0	2	2
09:30		2	3	5
09:45		0	0	0
10:00		0	0	0
10:15		1	0	1
10:30		0	0	0
10:45		1	1	2
11:00		0	0	0
11:15		0	0	0
11:30		1	1	2
11:45		0	0	0
Total		122	135	257
Percent		47.5%	52.5%	
Peak		16:00	16:00	16:00
Vol.		24	29	53
P.H.F.		0.750	0.725	0.736
Grand Total		179	194	373
Percent		48.0%	52.0%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		2	2	4
12:15		0	0	0
12:30		0	0	0
12:45		0	1	1
01:00		1	0	1
01:15		0	1	1
01:30		0	0	0
01:45		0	1	1
02:00		0	2	2
02:15		0	0	0
02:30		0	1	1
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		1	0	1
03:45		1	1	2
04:00		0	0	0
04:15		0	0	0
04:30		0	1	1
04:45		1	1	2
05:00		0	1	1
05:15		0	0	0
05:30		4	3	7
05:45		1	0	1
06:00		2	2	4
06:15		4	4	8
06:30		1	2	3
06:45		4	2	6
07:00		10	8	18
07:15		10	8	18
07:30		46	49	95
07:45		58	67	125
08:00		64	62	126
08:15		24	28	52
08:30		42	46	88
08:45		9	16	25
09:00		8	9	17
09:15		2	4	6
09:30		9	9	18
09:45		6	8	14
10:00		5	4	9
10:15		10	14	24
10:30		12	11	23
10:45		8	10	18
11:00		10	9	19
11:15		11	10	21
11:30		10	9	19
11:45		12	21	33
Total		388	427	815
Percent		47.6%	52.4%	
Peak		07:30	07:30	07:30
Vol.		192	206	398
P.H.F.		0.750	0.769	0.790

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		11	14	25
12:15		8	10	18
12:30		3	1	4
12:45		9	10	19
01:00		14	18	32
01:15		9	12	21
01:30		14	14	28
01:45		15	16	31
02:00		20	20	40
02:15		27	51	78
02:30		16	16	32
02:45		10	11	21
03:00		12	14	26
03:15		12	19	31
03:30		26	30	56
03:45		13	23	36
04:00		12	13	25
04:15		6	9	15
04:30		8	14	22
04:45		7	8	15
05:00		8	16	24
05:15		6	12	18
05:30		5	14	19
05:45		11	17	28
06:00		4	7	11
06:15		10	17	27
06:30		7	9	16
06:45		8	14	22
07:00		5	4	9
07:15		6	5	11
07:30		5	6	11
07:45		7	6	13
08:00		8	6	14
08:15		4	7	11
08:30		6	10	16
08:45		4	7	11
09:00		5	10	15
09:15		4	6	10
09:30		6	6	12
09:45		6	9	15
10:00		1	1	2
10:15		1	0	1
10:30		2	5	7
10:45		1	1	2
11:00		0	2	2
11:15		1	3	4
11:30		3	2	5
11:45		0	1	1
Total		386	526	912
Percent		42.3%	57.7%	
Peak		13:45	13:45	13:45
Vol.		78	103	181
P.H.F.		0.722	0.505	0.580
Grand Total		774	953	1727
Percent		44.8%	55.2%	
ADT		Not Calculated		

Start Time	07-Dec-06		WB	Total
	Thu	EB		
12:00 AM		2	0	2
12:15		4	1	5
12:30		2	0	2
12:45		0	1	1
01:00		1	0	1
01:15		0	5	5
01:30		0	0	0
01:45		1	1	2
02:00		0	0	0
02:15		0	2	2
02:30		2	2	4
02:45		0	0	0
03:00		0	1	1
03:15		0	0	0
03:30		4	3	7
03:45		1	1	2
04:00		2	0	2
04:15		0	2	2
04:30		0	3	3
04:45		0	4	4
05:00		0	3	3
05:15		1	3	4
05:30		1	6	7
05:45		2	5	7
06:00		5	17	22
06:15		3	21	24
06:30		6	14	20
06:45		3	11	14
07:00		4	23	27
07:15		7	24	31
07:30		9	24	33
07:45		15	34	49
08:00		14	25	39
08:15		10	19	29
08:30		11	20	31
08:45		12	14	26
09:00		12	11	23
09:15		24	18	42
09:30		7	10	17
09:45		10	8	18
10:00		13	18	31
10:15		16	14	30
10:30		11	10	21
10:45		18	17	35
11:00		15	17	32
11:15		11	8	19
11:30		18	13	31
11:45		16	15	31
Total		293	448	741
Percent		39.5%	60.5%	
Peak		10:45	07:15	07:15
Vol.		62	107	152
P.H.F.		0.646	0.787	0.776

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 PM		17	14	31
12:15		13	13	26
12:30		20	12	32
12:45		24	30	54
01:00		17	10	27
01:15		26	16	42
01:30		21	16	37
01:45		10	14	24
02:00		30	23	53
02:15		22	26	48
02:30		22	24	46
02:45		20	12	32
03:00		32	19	51
03:15		20	24	44
03:30		35	16	51
03:45		44	23	67
04:00		27	22	49
04:15		38	18	56
04:30		32	25	57
04:45		27	20	47
05:00		37	19	56
05:15		55	24	79
05:30		38	29	67
05:45		27	22	49
06:00		37	15	52
06:15		22	21	43
06:30		26	20	46
06:45		27	24	51
07:00		14	14	28
07:15		21	11	32
07:30		18	11	29
07:45		18	10	28
08:00		16	12	28
08:15		18	6	24
08:30		14	12	26
08:45		16	10	26
09:00		21	12	33
09:15		16	9	25
09:30		13	6	19
09:45		8	1	9
10:00		10	5	15
10:15		4	2	6
10:30		6	8	14
10:45		7	2	9
11:00		3	1	4
11:15		0	4	4
11:30		2	0	2
11:45		2	1	3
Total		993	688	1681
Percent		59.1%	40.9%	
Peak		16:45	17:00	17:00
Vol.		157	94	251
P.H.F.		0.714	0.783	0.794
Grand Total		1286	1136	2422
Percent		53.1%	46.9%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		2	0	2
12:15		1	3	4
12:30		1	0	1
12:45		2	2	4
01:00		2	0	2
01:15		0	1	1
01:30		0	0	0
01:45		0	0	0
02:00		1	1	2
02:15		0	0	0
02:30		2	1	3
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		2	2	4
03:45		0	2	2
04:00		2	0	2
04:15		1	0	1
04:30		2	2	4
04:45		1	1	2
05:00		1	3	4
05:15		2	2	4
05:30		5	1	6
05:45		3	2	5
06:00		6	0	6
06:15		10	6	16
06:30		8	5	13
06:45		6	1	7
07:00		16	5	21
07:15		24	16	40
07:30		15	14	29
07:45		16	16	32
08:00		12	8	20
08:15		14	21	35
08:30		23	24	47
08:45		8	10	18
09:00		12	12	24
09:15		10	20	30
09:30		10	4	14
09:45		10	6	16
10:00		12	7	19
10:15		14	10	24
10:30		10	5	15
10:45		12	12	24
11:00		5	8	13
11:15		12	6	18
11:30		6	7	13
11:45		4	9	13
Total		305	255	560
Percent		54.5%	45.5%	
Peak		07:00	07:45	07:45
Vol.		71	69	134
P.H.F.		0.740	0.719	0.713

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		8	8	16
12:15		11	14	25
12:30		13	12	25
12:45		12	9	21
01:00		10	17	27
01:15		12	10	22
01:30		11	17	28
01:45		6	17	23
02:00		22	21	43
02:15		21	24	45
02:30		6	17	23
02:45		13	11	24
03:00		24	14	38
03:15		18	15	33
03:30		9	9	18
03:45		12	16	28
04:00		20	24	44
04:15		18	19	37
04:30		14	24	38
04:45		16	19	35
05:00		12	18	30
05:15		18	24	42
05:30		20	18	38
05:45		17	28	45
06:00		16	22	38
06:15		14	16	30
06:30		8	9	17
06:45		23	16	39
07:00		6	6	12
07:15		4	12	16
07:30		10	12	22
07:45		9	8	17
08:00		6	10	16
08:15		8	5	13
08:30		12	9	21
08:45		8	9	17
09:00		6	4	10
09:15		4	10	14
09:30		1	4	5
09:45		6	5	11
10:00		4	4	8
10:15		2	6	8
10:30		2	5	7
10:45		3	6	9
11:00		0	2	2
11:15		2	1	3
11:30		4	5	9
11:45		1	1	2
Total		502	592	1094
Percent		45.9%	54.1%	
Peak		17:15	17:15	17:15
Vol.		71	92	163
P.H.F.		0.740	0.821	0.906
Grand Total		807	847	1654
Percent		48.8%	51.2%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 AM		0	0	0
12:15		2	2	4
12:30		0	1	1
12:45		1	0	1
01:00		2	0	2
01:15		0	0	0
01:30		1	1	2
01:45		0	0	0
02:00		0	0	0
02:15		0	1	1
02:30		0	0	0
02:45		0	0	0
03:00		0	0	0
03:15		0	0	0
03:30		0	0	0
03:45		0	1	1
04:00		0	0	0
04:15		0	0	0
04:30		0	0	0
04:45		2	4	6
05:00		3	6	9
05:15		0	1	1
05:30		0	6	6
05:45		1	0	1
06:00		0	2	2
06:15		0	3	3
06:30		3	8	11
06:45		2	8	10
07:00		1	6	7
07:15		5	11	16
07:30		0	6	6
07:45		3	10	13
08:00		6	9	15
08:15		6	11	17
08:30		7	7	14
08:45		6	8	14
09:00		2	7	9
09:15		2	6	8
09:30		4	4	8
09:45		0	3	3
10:00		2	3	5
10:15		4	0	4
10:30		6	8	14
10:45		3	3	6
11:00		6	11	17
11:15		7	8	15
11:30		4	4	8
11:45		8	7	15
Total		99	176	275
Percent		36.0%	64.0%	
Peak		08:00	07:45	08:00
Vol.		25	37	60
P.H.F.		0.781	0.841	0.882

Start Time	07-Dec-06 Thu	NB	SB	Total
12:00 PM		6	12	18
12:15		4	6	10
12:30		6	6	12
12:45		3	4	7
01:00		10	4	14
01:15		2	4	6
01:30		4	6	10
01:45		9	3	12
02:00		6	11	17
02:15		8	7	15
02:30		4	11	15
02:45		10	6	16
03:00		6	11	17
03:15		7	4	11
03:30		14	13	27
03:45		4	6	10
04:00		8	2	10
04:15		10	6	16
04:30		8	9	17
04:45		7	9	16
05:00		10	6	16
05:15		5	5	10
05:30		8	6	14
05:45		4	12	16
06:00		9	8	17
06:15		10	14	24
06:30		6	4	10
06:45		6	8	14
07:00		8	13	21
07:15		10	10	20
07:30		4	6	10
07:45		14	8	22
08:00		4	6	10
08:15		6	4	10
08:30		2	1	3
08:45		8	6	14
09:00		10	8	18
09:15		4	3	7
09:30		2	4	6
09:45		6	5	11
10:00		1	2	3
10:15		4	5	9
10:30		2	2	4
10:45		3	4	7
11:00		0	1	1
11:15		0	0	0
11:30		3	1	4
11:45		5	2	7
Total		290	294	584
Percent		49.7%	50.3%	
Peak		14:45	17:30	19:00
Vol.		37	40	73
P.H.F.		0.661	0.714	0.676
Grand Total		389	470	859
Percent		45.3%	54.7%	
ADT		Not Calculated		

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 AM		1	1	2
12:15		1	2	3
12:30		0	0	0
12:45		0	3	3
01:00		0	0	0
01:15		1	0	1
01:30		0	0	0
01:45		0	0	0
02:00		2	0	2
02:15		1	0	1
02:30		0	0	0
02:45		0	1	1
03:00		0	0	0
03:15		0	1	1
03:30		0	1	1
03:45		0	0	0
04:00		4	4	8
04:15		1	0	1
04:30		2	0	2
04:45		1	2	3
05:00		5	3	8
05:15		1	1	2
05:30		2	0	2
05:45		7	0	7
06:00		6	2	8
06:15		5	2	7
06:30		13	4	17
06:45		13	10	23
07:00		8	14	22
07:15		14	15	29
07:30		28	36	64
07:45		99	98	197
08:00		57	39	96
08:15		14	10	24
08:30		7	3	10
08:45		11	8	19
09:00		7	6	13
09:15		12	13	25
09:30		10	7	17
09:45		6	7	13
10:00		6	8	14
10:15		6	8	14
10:30		11	7	18
10:45		4	5	9
11:00		8	7	15
11:15		11	10	21
11:30		10	9	19
11:45		10	11	21
Total		405	358	763
Percent		53.1%	46.9%	
Peak		07:15	07:15	07:15
Vol.		198	188	386
P.H.F.		0.500	0.480	0.490

Start Time	07-Dec-06 Thu	EB	WB	Total
12:00 PM		15	10	25
12:15		8	6	14
12:30		10	4	14
12:45		7	10	17
01:00		10	5	15
01:15		12	12	24
01:30		15	13	28
01:45		21	26	47
02:00		60	54	114
02:15		84	74	158
02:30		19	16	35
02:45		13	10	23
03:00		18	13	31
03:15		10	14	24
03:30		18	17	35
03:45		17	24	41
04:00		12	10	22
04:15		7	4	11
04:30		14	12	26
04:45		8	18	26
05:00		11	20	31
05:15		18	24	42
05:30		17	20	37
05:45		7	13	20
06:00		10	9	19
06:15		11	10	21
06:30		8	10	18
06:45		10	6	16
07:00		9	10	19
07:15		8	10	18
07:30		8	4	12
07:45		16	20	36
08:00		4	5	9
08:15		4	3	7
08:30		1	7	8
08:45		4	4	8
09:00		4	8	12
09:15		6	11	17
09:30		3	5	8
09:45		4	3	7
10:00		4	2	6
10:15		0	6	6
10:30		3	1	4
10:45		0	2	2
11:00		3	1	4
11:15		0	1	1
11:30		0	3	3
11:45		0	0	0
Total		551	570	1121
Percent		49.2%	50.8%	
Peak		13:45	13:45	13:45
Vol.		184	170	354
P.H.F.		0.548	0.574	0.560
Grand Total		956	928	1884
Percent		50.7%	49.3%	
ADT		Not Calculated		

Milwaukie TSP Update
1: Ochocho St & Hwy 99E

Existing Condition PM Peak Hour
HCM Signalized Intersection Capacity Analysis















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↑↑↑	↗		↑↑↑	↗
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00		0.91	1.00		0.91	1.00
Frbp, ped/bikes		1.00	1.00		1.00	0.99		1.00	0.98		1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.96	1.00		0.98	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		1394	1378		1525	1227		4771	1123		4818	1205
Flt Permitted		0.76	1.00		0.88	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		1099	1378		1368	1227		4771	1123		4818	1205
Volume (vph)	89	30	47	11	19	48	0	1706	15	0	3167	110
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	92	31	48	11	20	49	0	1759	15	0	3265	113
RTOR Reduction (vph)	0	0	4	0	0	43	0	0	3	0	0	21
Lane Group Flow (vph)	0	123	44	0	31	6	0	1759	12	0	3265	92
Confl. Peds. (#/hr)	1					1			1	1		
Heavy Vehicles (%)	10%	67%	11%	36%	5%	23%	0%	3%	33%	0%	2%	27%
Turn Type	Perm		Perm	Perm		Perm			Perm			Perm
Protected Phases		8			4			6			2	
Permitted Phases	8		8	4		4			6			2
Actuated Green, G (s)		13.0	13.0		13.0	13.0		96.5	96.5		96.5	96.5
Effective Green, g (s)		14.5	14.5		14.5	14.5		97.5	97.5		97.5	97.5
Actuated g/C Ratio		0.12	0.12		0.12	0.12		0.81	0.81		0.81	0.81
Clearance Time (s)		5.5	5.5		5.5	5.5		5.0	5.0		5.0	5.0
Vehicle Extension (s)		4.5	4.5		4.5	4.5		4.4	4.4		4.4	4.4
Lane Grp Cap (vph)		133	167		165	148		3876	912		3915	979
v/s Ratio Prot								0.37			c0.68	
v/s Ratio Perm		c0.11	0.03		0.02	0.00			0.01			0.08
v/c Ratio		0.92	0.27		0.19	0.04		0.45	0.01		0.83	0.09
Uniform Delay, d1		52.2	47.9		47.5	46.6		3.3	2.1		6.5	2.3
Progression Factor		1.00	1.00		1.00	1.00		0.89	0.01		1.00	1.00
Incremental Delay, d2		56.4	1.5		1.0	0.2		0.4	0.0		2.2	0.2
Delay (s)		108.6	49.4		48.4	46.8		3.3	0.1		8.8	2.5
Level of Service		F	D		D	D		A	A		A	A
Approach Delay (s)		92.0			47.4			3.3			8.6	
Approach LOS		F			D			A			A	
Intersection Summary												
HCM Average Control Delay	10.1		HCM Level of Service				B					
HCM Volume to Capacity ratio	0.85											
Actuated Cycle Length (s)	120.0		Sum of lost time (s)				8.0					
Intersection Capacity Utilization	85.2%		ICU Level of Service				E					
Analysis Period (min)	15											
c Critical Lane Group												

Milwaukie TSP Update
 2: Milport Rd. & Hwy 99E

Existing Condition PM Peak Hour
 HCM Signalized Intersection Capacity Analysis




















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.86			0.91	
Frbp, ped/bikes		1.00	0.99		1.00	1.00		1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	
Frt		1.00	0.85		1.00	0.85		1.00			1.00	
Flt Protected		0.98	1.00		0.97	1.00		1.00			1.00	
Satd. Flow (prot)		1614	1479		1746	1530		5954			4818	
Flt Permitted		0.86	1.00		0.80	1.00		1.00			1.00	
Satd. Flow (perm)		1409	1479		1444	1530		5954			4818	
Volume (vph)	27	37	62	22	15	16	0	1619	0	0	3144	0
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	28	39	65	23	16	17	0	1686	0	0	3275	0
RTOR Reduction (vph)	0	0	4	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	67	61	0	39	1	0	1686	0	0	3275	0
Conf. Peds. (#/hr)			1	1			1					1
Heavy Vehicles (%)	11%	8%	2%	0%	0%	0%	0%	4%	0%	0%	2%	75%
Turn Type	Perm		Perm	Perm		Perm						
Protected Phases		4			4			6			2	
Permitted Phases	4		4	4	4	4		6				
Actuated Green, G (s)		10.4	10.4		10.4	10.4		101.1			101.1	
Effective Green, g (s)		9.9	9.9		9.9	9.9		102.1			102.1	
Actuated g/C Ratio		0.08	0.08		0.08	0.08		0.85			0.85	
Clearance Time (s)		3.5	3.5		3.5	3.5		5.0			5.0	
Vehicle Extension (s)		2.5	2.5		2.5	2.5		4.5			4.5	
Lane Grp Cap (vph)		116	122		119	126		5066			4099	
v/s Ratio Prot								0.28			c0.68	
v/s Ratio Perm		c0.05	0.04		0.03	0.00						
v/c Ratio		0.58	0.50		0.33	0.01		0.33			0.80	
Uniform Delay, d1		53.0	52.7		51.9	50.6		1.9			4.2	
Progression Factor		1.00	1.00		1.00	1.00		1.98			0.19	
Incremental Delay, d2		5.6	2.4		1.2	0.0		0.2			0.9	
Delay (s)		58.6	55.1		53.1	50.6		3.8			1.7	
Level of Service		E	E		D	D		A			A	
Approach Delay (s)		56.9			52.3			3.8			1.7	
Approach LOS		E			D			A			A	
Intersection Summary												
HCM Average Control Delay			4.4								HCM Level of Service	A
HCM Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			120.0								Sum of lost time (s)	8.0
Intersection Capacity Utilization			84.4%								ICU Level of Service	E
Analysis Period (min)			15									
c Critical Lane Group												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗		↖	↕		↖	↕	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85	1.00	0.95		1.00	0.98		1.00	1.00	
Flt Protected		0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1751	1733	1660	1656		1840	3337		1800	3539	
Flt Permitted		0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1751	1733	1660	1656		1840	3337		1800	3539	
Volume (vph)	17	91	481	179	59	32	232	789	147	133	1678	14
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	18	95	501	186	61	33	242	822	153	139	1748	15
RTOR Reduction (vph)	0	0	16	0	16	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	113	485	186	78	0	242	965	0	139	1763	0
Confl. Peds. (#/hr)			9	9			8		4	4		8
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	4%	4%	4%	2%	2%	2%
Turn Type	Split		pt+ov	Split			Prot			Prot		
Protected Phases	8	8	8 1	4	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)		11.0	34.0	11.5	11.5		19.0	67.9		13.1	62.0	
Effective Green, g (s)		11.0	34.0	11.5	11.5		19.0	68.4		13.1	62.5	
Actuated g/C Ratio		0.09	0.28	0.10	0.10		0.16	0.57		0.11	0.52	
Clearance Time (s)		4.0		4.0	4.0		4.0	4.5		4.0	4.5	
Vehicle Extension (s)		2.5		2.5	2.5		2.5	6.0		2.3	6.0	
Lane Grp Cap (vph)		161	491	159	159		291	1902		197	1843	
v/s Ratio Prot		0.06	c0.28	c0.11	0.05		0.13	0.29		0.08	c0.50	
v/s Ratio Perm												
v/c Ratio		0.70	0.99	1.17	0.49		0.83	0.51		0.71	0.96	
Uniform Delay, d1		52.9	42.8	54.2	51.5		48.9	15.6		51.6	27.4	
Progression Factor		1.00	1.00	1.00	1.00		0.93	1.07		0.89	0.97	
Incremental Delay, d2		12.1	37.2	124.3	1.7		16.4	0.9		6.8	9.8	
Delay (s)		65.0	80.0	178.6	53.2		62.1	17.6		52.6	36.3	
Level of Service		E	E	F	D		E	B		D	D	
Approach Delay (s)		77.2			136.5			26.4			37.5	
Approach LOS		E			F			C			D	
Intersection Summary												
HCM Average Control Delay				47.1	HCM Level of Service			D				
HCM Volume to Capacity ratio				0.99								
Actuated Cycle Length (s)				120.0	Sum of lost time (s)			12.0				
Intersection Capacity Utilization				102.3%	ICU Level of Service			G				
Analysis Period (min)				15								

c Critical Lane Group



















Milwaukie TSP Update
4: Harrison St & 42nd Avenue













Existing Condition PM Peak Hour
HCM Unsignalized Intersection Capacity Analysis

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	254	69	63	27	16	7	15	189	23	7	94	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	262	71	65	28	16	7	15	195	24	7	97	115
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total (vph)	333	65	44	7	234	104	115					
Volume Left (vph)	262	0	28	0	15	7	0					
Volume Right (vph)	0	65	0	7	24	0	115					
Hadj (s)	0.43	-0.67	0.35	-0.67	-0.01	0.07	-0.67					
Departure Headway (s)	6.3	5.2	6.8	5.8	6.1	6.3	5.5					
Degree Utilization, x	0.59	0.09	0.08	0.01	0.40	0.18	0.18					
Capacity (veh/h)	549	656	479	556	551	535	603					
Control Delay (s)	16.7	7.6	9.3	7.7	13.1	9.5	8.5					
Approach Delay (s)	15.2		9.0		13.1	9.0						
Approach LOS	C		A		B	A						
Intersection Summary												
Delay			12.8									
HCM Level of Service			B									
Intersection Capacity Utilization			51.5%		ICU Level of Service					A		
Analysis Period (min)			15									























Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↕	↘	↙	↕
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		0.95		1.00	0.95
Frbp, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.96		1.00		0.95	1.00
Satd. Flow (prot)	1620		3221		1644	3353
Flt Permitted	0.96		1.00		0.95	1.00
Satd. Flow (perm)	1620		3221		1644	3353
Volume (vph)	202	74	1131	170	103	2138
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	206	76	1154	173	105	2182
RTOR Reduction (vph)	12	0	9	0	0	0
Lane Group Flow (vph)	270	0	1318	0	105	2182
Confl. Peds. (#/hr)	3	3		2	2	
Heavy Vehicles (%)	2%	3%	4%	2%	4%	2%
Turn Type					Prot	
Protected Phases			2		1	6
Permitted Phases	8					
Actuated Green, G (s)	23.9		72.5		11.6	88.1
Effective Green, g (s)	23.9		72.5		11.6	88.1
Actuated g/C Ratio	0.20		0.60		0.10	0.73
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	323		1946		159	2462
v/s Ratio Prot			0.41		0.06	c0.65
v/s Ratio Perm	c0.17					
v/c Ratio	0.84		0.68		0.66	0.89
Uniform Delay, d1	46.2		15.9		52.3	12.1
Progression Factor	1.00		1.00		0.91	0.93
Incremental Delay, d2	16.8		1.9		5.5	2.9
Delay (s)	63.0		17.8		53.3	14.2
Level of Service	E		B		D	B
Approach Delay (s)	63.0		17.8			16.0
Approach LOS	E		B			B
Intersection Summary						
HCM Average Control Delay			20.0		HCM Level of Service	C
HCM Volume to Capacity ratio			0.88			
Actuated Cycle Length (s)			120.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			85.7%		ICU Level of Service	E
Analysis Period (min)			15			
c Critical Lane Group						

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop				Stop
Volume (vph)	45	221	88	28	192	81	21	53	56	105	70	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	46	226	90	29	196	83	21	54	57	107	71	67
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	361	307	133	107	139							
Volume Left (vph)	46	29	21	107	0							
Volume Right (vph)	90	83	57	0	67							
Hadj (s)	-0.08	-0.10	-0.02	0.62	-0.16							
Departure Headway (s)	5.5	5.6	6.4	7.3	6.5							
Degree Utilization, x	0.56	0.48	0.24	0.22	0.25							
Capacity (veh/h)	614	601	483	451	504							
Control Delay (s)	15.3	13.7	11.4	11.1	10.4							
Approach Delay (s)	15.3	13.7	11.4	10.7								
Approach LOS	C	B	B	B								
Intersection Summary												
Delay			13.2									
HCM Level of Service			B									
Intersection Capacity Utilization			57.0%	ICU Level of Service	B							
Analysis Period (min)			15									

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1676	1515	1765	1488	1676	1765
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1676	1515	1765	1488	1676	1765
Volume (vph)	67	325	249	66	506	541
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	74	357	274	73	556	595
RTOR Reduction (vph)	0	109	0	44	0	0
Lane Group Flow (vph)	74	248	274	29	556	595
Confl. Peds. (#/hr)				2	2	
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	2%	1%	2%	0%	2%	2%
Turn Type	pm+ov		Perm		Prot	
Protected Phases	8	1	2		1	6
Permitted Phases	8		2			
Actuated Green, G (s)	9.0	53.3	42.6	42.6	44.3	91.4
Effective Green, g (s)	9.5	54.3	42.6	42.6	44.8	91.4
Actuated g/C Ratio	0.09	0.50	0.39	0.39	0.41	0.84
Clearance Time (s)	4.5	4.5	4.0	4.0	4.5	4.0
Vehicle Extension (s)	3.0	4.5	2.3	2.3	4.5	2.3
Lane Grp Cap (vph)	146	811	690	582	689	1481
v/s Ratio Prot	c0.04	0.13	0.16		c0.33	c0.34
v/s Ratio Perm		0.04		0.02		
v/c Ratio	0.51	0.31	0.40	0.05	0.81	0.40
Uniform Delay, d1	47.5	16.2	23.9	20.6	28.2	2.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.4	1.7	0.2	7.6	0.8
Delay (s)	50.2	16.5	25.6	20.7	35.9	2.9
Level of Service	D	B	C	C	D	A
Approach Delay (s)	22.3		24.6		18.8	
Approach LOS	C		C		B	
Intersection Summary						
HCM Average Control Delay			20.7	HCM Level of Service		C
HCM Volume to Capacity ratio			0.59			
Actuated Cycle Length (s)			108.9	Sum of lost time (s)		8.0
Intersection Capacity Utilization			61.8%	ICU Level of Service		B
Analysis Period (min)			15			
c Critical Lane Group						







Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↖	↗↗	↖	↖	↗↗	↖
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95			0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes		1.00			1.00		1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.97			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		2956			3135		1613	3288	1509	1676	3288	1336
Flt Permitted		0.94			0.71		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		2785			2253		1613	3288	1509	1676	3288	1336
Volume (vph)	8	265	79	69	282	117	64	851	68	263	1631	8
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	279	83	73	297	123	67	896	72	277	1717	8
RTOR Reduction (vph)	0	22	0	0	27	0	0	0	35	0	0	2
Lane Group Flow (vph)	0	348	0	0	466	0	67	896	37	277	1717	6
Conf. Peds. (#/hr)	3		5	5		3	1		1	1		1
Conf. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	14%	3%	4%	4%	3%	6%	4%	0%	2%	4%	13%
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1		6
Permitted Phases	4			8					2			6
Actuated Green, G (s)		24.5			24.5		7.9	60.0	60.0	19.0	71.1	71.1
Effective Green, g (s)		26.0			26.0		8.9	62.0	62.0	20.0	73.1	73.1
Actuated g/C Ratio		0.22			0.22		0.07	0.52	0.52	0.17	0.61	0.61
Clearance Time (s)		5.5			5.5		5.0	6.0	6.0	5.0	6.0	6.0
Vehicle Extension (s)		2.5			2.5		2.3	4.0	4.0	2.3	4.0	4.0
Lane Grp Cap (vph)		603			488		120	1699	780	279	2003	814
v/s Ratio Prot							0.04	0.27		c0.17	c0.52	
v/s Ratio Perm		0.12			c0.21				0.02			0.00
v/c Ratio		0.58			0.95		0.56	0.53	0.05	0.99	0.86	0.01
Uniform Delay, d1		42.1			46.4		53.7	19.3	14.4	49.9	19.2	9.2
Progression Factor		1.00			1.00		0.80	1.89	3.73	1.13	0.79	0.69
Incremental Delay, d2		1.1			29.2		3.4	1.0	0.1	47.8	4.4	0.0
Delay (s)		43.2			75.6		46.4	37.4	53.7	104.2	19.5	6.4
Level of Service		D			E		D	D	D	F	B	A
Approach Delay (s)		43.2			75.6			39.1			31.2	
Approach LOS		D			E			D			C	
Intersection Summary												
HCM Average Control Delay			40.0				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			93.4%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												














												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes		0.98			0.99		1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.91			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1576			1665		1710	3320	1530	1541	3320	1431
Flt Permitted		0.97			0.85		0.07	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1530			1432		122	3320	1530	1541	3320	1431
Volume (vph)	15	28	95	21	33	24	30	1254	3	9	1924	20
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	30	101	22	35	26	32	1334	3	10	2047	21
RTOR Reduction (vph)	0	15	0	0	15	0	0	0	1	0	0	3
Lane Group Flow (vph)	0	132	0	0	68	0	32	1334	2	10	2047	18
Conf. Peds. (#/hr)	8		4	4		8	4					4
Conf. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	0%	2%	0%	0%	4%	0%	3%	0%	11%	3%	5%
Turn Type	Perm			Perm			Perm		Perm	Prot		Perm
Protected Phases		4			8			2		1		6
Permitted Phases	4			8			2		2			6
Actuated Green, G (s)		17.2			17.2		88.4	88.4	88.4	1.4	93.8	93.8
Effective Green, g (s)		17.2			17.2		89.4	89.4	89.4	1.4	94.8	94.8
Actuated g/C Ratio		0.14			0.14		0.74	0.74	0.74	0.01	0.79	0.79
Clearance Time (s)		4.0			4.0		5.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)		3.0			2.5		5.2	5.2	5.2	2.5	5.2	5.2
Lane Grp Cap (vph)		219			205		91	2473	1140	18	2623	1130
v/s Ratio Prot								0.40		0.01	c0.62	
v/s Ratio Perm		c0.09			0.05		0.26		0.00			0.01
v/c Ratio		0.60			0.33		0.35	0.54	0.00	0.56	0.78	0.02
Uniform Delay, d1		48.2			46.2		5.3	6.5	3.9	59.0	6.9	2.7
Progression Factor		0.90			1.00		2.36	3.09	2.45	0.73	1.88	1.94
Incremental Delay, d2		4.6			0.7		8.9	0.7	0.0	17.5	1.5	0.0
Delay (s)		48.1			46.9		21.4	20.9	9.6	60.5	14.5	5.2
Level of Service		D			D		C	C	A	E	B	A
Approach Delay (s)		48.1			46.9			20.9			14.6	
Approach LOS		D			D			C			B	
Intersection Summary												
HCM Average Control Delay			19.0				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			76.0%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00		0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes		1.00	0.99		1.00		1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.85		0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3363	1495		3133		1710	3320	1510	1660	3257	1438
Flt Permitted		0.84	1.00		0.73		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		2838	1495		2329		1710	3320	1510	1660	3257	1438
Volume (vph)	17	227	82	125	234	142	237	1629	38	103	938	117
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	18	241	87	133	249	151	252	1733	40	110	998	124
RTOR Reduction (vph)	0	0	11	0	34	0	0	0	16	0	0	58
Lane Group Flow (vph)	0	259	76	0	499	0	252	1733	24	110	998	66
Conf. Peds. (#/hr)	1		7	7		1	1		1	1		1
Conf. Bikes (#/hr)						3						
Heavy Vehicles (%)	6%	1%	1%	6%	0%	4%	0%	3%	0%	3%	5%	5%
Turn Type	Perm		pm+ov	Perm			Prot		Perm	Prot		Perm
Protected Phases		4	5		8		1	6		5	2	
Permitted Phases	4		4	8				6				2
Actuated Green, G (s)		25.5	40.0		25.5		17.5	65.5	65.5	14.5	62.5	62.5
Effective Green, g (s)		26.0	41.0		26.0		18.0	67.0	67.0	15.0	64.0	64.0
Actuated g/C Ratio		0.22	0.34		0.22		0.15	0.56	0.56	0.12	0.53	0.53
Clearance Time (s)		4.5	4.5		4.5		4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)		2.5	2.3		2.5		2.3	5.0	5.0	2.3	5.0	5.0
Lane Grp Cap (vph)		615	561		505		257	1854	843	208	1737	767
v/s Ratio Prot			0.02				0.15	c0.52		0.07	c0.31	
v/s Ratio Perm		0.09	0.03		c0.21				0.02			0.05
v/c Ratio		0.42	0.14		0.99		0.98	0.93	0.03	0.53	0.57	0.09
Uniform Delay, d1		40.5	27.3		46.8		50.8	24.5	11.9	49.2	18.8	13.7
Progression Factor		1.00	1.00		1.00		0.93	0.89	0.62	1.38	1.87	5.53
Incremental Delay, d2		0.3	0.1		36.4		38.7	6.9	0.0	1.4	1.3	0.2
Delay (s)		40.9	27.3		83.2		86.0	28.7	7.4	69.2	36.4	76.0
Level of Service		D	C		F		F	C	A	E	D	E
Approach Delay (s)		37.5			83.2			35.4			43.3	
Approach LOS		D			F			D			D	
Intersection Summary												
HCM Average Control Delay			44.1				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			93.6%				ICU Level of Service		F			
Analysis Period (min)			15									
c	Critical Lane Group											



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.99	1.00
Satd. Flow (prot)	1578	1764		1706	1738			1702	1486		1697	1439
Flt Permitted	0.59	1.00		0.43	1.00			0.92	1.00		0.96	1.00
Satd. Flow (perm)	985	1764		764	1738			1575	1486		1633	1439
Volume (vph)	157	381	1	21	229	18	41	156	20	22	160	169
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	167	405	1	22	244	19	44	166	21	23	170	180
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	13	0	0	108
Lane Group Flow (vph)	167	406	0	22	256	0	0	210	8	0	193	72
Confl. Peds. (#/hr)	4		4	4		4	1		21	21		1
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	8%	2%	0%	0%	2%	6%	7%	4%	0%	0%	6%	5%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0	16.0		16.0	16.0
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0	16.0		16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40	0.40		0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	394	706		306	695			630	594		653	576
v/s Ratio Prot		c0.23			0.15							
v/s Ratio Perm	0.17			0.03				c0.13	0.01		0.12	0.05
v/c Ratio	0.42	0.58		0.07	0.37			0.33	0.01		0.30	0.12
Uniform Delay, d1	8.7	9.4		7.4	8.4			8.3	7.2		8.2	7.6
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	3.3	3.4		0.5	1.5			1.4	0.0		1.2	0.4
Delay (s)	12.0	12.7		7.9	9.9			9.7	7.3		9.3	8.0
Level of Service	B	B		A	A			A	A		A	A
Approach Delay (s)		12.5			9.8			9.5			8.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM Average Control Delay			10.5			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			40.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			64.6%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

						
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑↑	↑↑			↗
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	1219	1792	559	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1270	1867	582	0	1
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)		507				
pX, platoon unblocked					1.00	
vC, conflicting volume	2450				2794	1225
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2450				2798	1225
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	194				15	169
Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1	
Volume Total	635	635	1244	1205	1	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	582	1	
cSH	1700	1700	1700	1700	169	
Volume to Capacity	0.37	0.37	0.73	0.71	0.01	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	0.0	0.0	0.0	0.0	26.4	
Lane LOS					D	
Approach Delay (s)	0.0		0.0		26.4	
Approach LOS					D	
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			81.2%		ICU Level of Service	D
Analysis Period (min)			15			

						
Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations			 			 
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1660	1530	3353		1583	3353
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1660	1530	3353		1583	3353
Volume (vph)	276	13	2066	0	13	1102
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	303	14	2270	0	14	1211
RTOR Reduction (vph)	0	6	0	0	0	0
Lane Group Flow (vph)	303	8	2270	0	14	1211
Heavy Vehicles (%)	3%	0%	2%	0%	8%	2%
Turn Type		Prot			Prot	
Protected Phases	7	7	6		5	
Permitted Phases			6			2 7
Actuated Green, G (s)	27.4	27.4	100.1		2.9	139.4
Effective Green, g (s)	27.4	27.4	101.1		2.9	139.4
Actuated g/C Ratio	0.18	0.18	0.68		0.02	0.93
Clearance Time (s)	4.0	4.0	5.0		4.0	
Vehicle Extension (s)	2.3	2.3	8.0		2.3	
Lane Grp Cap (vph)	304	280	2266		31	3124
v/s Ratio Prot	c0.18	0.01	c0.68		0.01	
v/s Ratio Perm						c0.36
v/c Ratio	1.00	0.03	1.00		0.45	0.39
Uniform Delay, d1	61.1	50.2	24.2		72.6	0.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	50.4	0.0	19.3		6.0	0.0
Delay (s)	111.4	50.2	43.6		78.5	0.6
Level of Service	F	D	D		E	A
Approach Delay (s)	108.7		43.6			1.5
Approach LOS	F		D			A

Intersection Summary

HCM Average Control Delay	35.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	149.6	Sum of lost time (s)	18.2
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Milwaukie TSP Update
14: SE Lake Road & Oatfield Road

Existing Condition PM Peak Hour
HCM Signalized Intersection Capacity Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	0.99		1.00	0.89		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	1648		1710	1780		1710	1580		1613	1744	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1676	1648		1710	1780		1710	1580		1613	1744	
Volume (vph)	15	132	119	336	107	9	49	97	248	18	150	14
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	15	136	123	346	110	9	51	100	256	19	155	14
RTOR Reduction (vph)	0	36	0	0	3	0	0	94	0	0	3	0
Lane Group Flow (vph)	15	223	0	346	116	0	51	262	0	19	166	0
Confl. Peds. (#/hr)							1		1	1		1
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	0%	0%	0%	6%	0%	21%
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	0.7	17.5		19.3	36.1		3.7	27.5		1.4	25.2	
Effective Green, g (s)	0.7	17.5		19.3	36.1		3.7	27.5		1.4	25.2	
Actuated g/C Ratio	0.01	0.21		0.24	0.44		0.05	0.34		0.02	0.31	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	14	353		404	787		77	532		28	538	
v/s Ratio Prot	0.01	c0.14		c0.20	0.06		c0.03	c0.17		0.01	0.09	
v/s Ratio Perm												
v/c Ratio	1.07	0.63		0.86	0.15		0.66	0.49		0.68	0.31	
Uniform Delay, d1	40.5	29.2		29.9	13.6		38.4	21.5		39.9	21.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	265.6	3.7		16.2	0.1		19.4	3.2		49.7	1.5	
Delay (s)	306.1	32.8		46.0	13.7		57.7	24.8		89.6	23.1	
Level of Service	F	C		D	B		E	C		F	C	
Approach Delay (s)		47.8			37.8			28.9			29.8	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	36.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	81.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1705			1697	1515	1710	3420	1466	1613	3420	1235
Flt Permitted		0.93			0.65	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1599			1139	1515	1710	3420	1466	1613	3420	1235
Volume (vph)	19	54	36	121	61	120	40	956	77	80	1738	20
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	20	57	38	129	65	128	43	1017	82	85	1849	21
RTOR Reduction (vph)	0	14	0	0	0	103	0	0	31	0	0	5
Lane Group Flow (vph)	0	101	0	0	194	25	43	1017	51	85	1849	16
Conf. Peds. (#/hr)							1		1	1		1
Heavy Vehicles (%)	0%	0%	0%	3%	2%	1%	0%	0%	2%	6%	0%	21%
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			4	4	5	2		1	6	
Permitted Phases	4			4		4			2			6
Actuated Green, G (s)		23.4			23.4	23.4	4.3	73.0	73.0	10.1	78.8	78.8
Effective Green, g (s)		23.4			23.4	23.4	4.3	74.5	74.5	10.1	80.3	80.3
Actuated g/C Ratio		0.19			0.19	0.19	0.04	0.62	0.62	0.08	0.67	0.67
Clearance Time (s)		4.0			4.0	4.0	4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)		2.5			2.5	2.5	0.5	4.6	4.6	2.5	2.6	2.6
Lane Grp Cap (vph)		312			222	295	61	2123	910	136	2289	826
v/s Ratio Prot							c0.03	0.30		0.05	c0.54	
v/s Ratio Perm		0.06			c0.17	0.02			0.03			0.01
v/c Ratio		0.32			0.87	0.08	0.70	0.48	0.06	0.62	0.81	0.02
Uniform Delay, d1		41.5			46.9	39.5	57.2	12.3	8.9	53.1	14.3	6.7
Progression Factor		1.00			1.00	1.00	0.89	1.60	2.72	1.12	1.24	0.59
Incremental Delay, d2		0.4			29.2	0.1	22.8	0.7	0.1	3.1	0.9	0.0
Delay (s)		41.9			76.0	39.6	73.6	20.3	24.4	62.9	18.6	3.9
Level of Service		D			E	D	E	C	C	E	B	A
Approach Delay (s)		41.9			61.6			22.6			20.3	
Approach LOS		D			E			C			C	
Intersection Summary												
HCM Average Control Delay			25.5				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			81.2%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Milwaukie TSP Update
16: Hwy 224 & Freeman Street

Existing Condition PM Peak Hour
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.97			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98			0.96	1.00
Satd. Flow (prot)	1660	3196	1530	1660	3257	1404		1719			1696	1471
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.75			0.71	1.00
Satd. Flow (perm)	1660	3196	1530	1660	3257	1404		1317			1249	1471
Volume (vph)	40	1772	20	11	1029	108	24	29	14	224	34	68
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1926	22	12	1118	117	26	32	15	243	37	74
RTOR Reduction (vph)	0	0	5	0	0	47	0	8	0	0	0	56
Lane Group Flow (vph)	43	1926	17	12	1118	70	0	65	0	0	280	18
Heavy Vehicles (%)	3%	7%	0%	3%	5%	9%	0%	0%	0%	2%	0%	4%
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8			4		4
Actuated Green, G (s)	7.4	74.5	74.5	2.8	69.9	69.9		29.2			29.2	29.2
Effective Green, g (s)	7.4	76.0	76.0	2.8	71.4	71.4		29.2			29.2	29.2
Actuated g/C Ratio	0.06	0.63	0.63	0.02	0.60	0.60		0.24			0.24	0.24
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5	5.5		4.0			4.0	4.0
Vehicle Extension (s)	2.5	4.6	4.6	2.5	4.6	4.6		3.0			3.0	3.0
Lane Grp Cap (vph)	102	2024	969	39	1938	835		320			304	358
v/s Ratio Prot	0.03	c0.60		0.01	c0.34							
v/s Ratio Perm			0.01			0.05		0.05			c0.22	0.01
v/c Ratio	0.42	0.95	0.02	0.31	0.58	0.08		0.20			0.92	0.05
Uniform Delay, d1	54.2	20.3	8.2	57.6	15.0	10.4		36.1			44.3	34.8
Progression Factor	1.14	1.36	1.84	1.14	0.73	0.60		1.00			1.00	1.00
Incremental Delay, d2	1.2	7.2	0.0	3.0	1.2	0.2		0.3			31.8	0.1
Delay (s)	62.9	34.8	15.0	68.9	12.2	6.4		36.4			76.1	34.8
Level of Service	E	C	B	E	B	A		D			E	C
Approach Delay (s)		35.2			12.2			36.4			67.4	
Approach LOS		D			B			D			E	

Intersection Summary

HCM Average Control Delay	30.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	WBR2	SBL	SBR	SWL	SWR
Lane Configurations									
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0			4.0			
Lane Util. Factor	1.00	1.00	1.00			1.00			
Frt	1.00	1.00	0.97			0.99			
Flt Protected	0.95	1.00	1.00			0.95			
Satd. Flow (prot)	1555	1765	1701			1676			
Flt Permitted	0.95	1.00	1.00			0.95			
Satd. Flow (perm)	1555	1765	1701			1676			
Volume (vph)	102	363	439	0	120	188	8	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	395	477	0	130	204	9	0	0
RTOR Reduction (vph)	0	0	11	0	0	2	0	0	0
Lane Group Flow (vph)	111	395	596	0	0	211	0	0	0
Heavy Vehicles (%)	10%	2%	3%	0%	2%	2%	0%	0%	0%
Turn Type	Prot								
Protected Phases	5	2	6			4			
Permitted Phases									
Actuated Green, G (s)	8.0	38.4	26.4			13.1			
Effective Green, g (s)	8.0	39.4	27.4			13.1			
Actuated g/C Ratio	0.13	0.65	0.45			0.22			
Clearance Time (s)	4.0	5.0	5.0			4.0			
Vehicle Extension (s)	3.0	3.0	3.0			3.0			
Lane Grp Cap (vph)	206	1149	770			363			
v/s Ratio Prot	c0.07	0.22	c0.35			c0.13			
v/s Ratio Perm									
v/c Ratio	0.54	0.34	0.77			0.58			
Uniform Delay, d1	24.5	4.7	13.9			21.2			
Progression Factor	1.00	1.00	1.00			1.00			
Incremental Delay, d2	2.7	0.2	4.9			2.4			
Delay (s)	27.2	4.9	18.8			23.6			
Level of Service	C	A	B			C			
Approach Delay (s)		9.8	18.8			23.6		0.0	
Approach LOS		A	B			C		A	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Milwaukie TSP Update
 18: Harrison St & 21st Street

Existing Condition PM Peak Hour
 HCM Unsignalized Intersection Capacity Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	360	45	42	228	18	13	13	69	15	8	6
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	10	371	46	43	235	19	13	13	71	15	8	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	254			418			756	755	394	824	769	244
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	254			418			756	755	394	824	769	244
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			96			96	96	89	94	97	99
cM capacity (veh/h)	1312			1142			305	322	655	243	316	794
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	428	297	98	30								
Volume Left	10	43	13	15								
Volume Right	46	19	71	6								
cSH	1312	1142	504	307								
Volume to Capacity	0.01	0.04	0.19	0.10								
Queue Length 95th (ft)	1	3	18	8								
Control Delay (s)	0.3	1.5	13.9	18.0								
Lane LOS	A	A	B	C								
Approach Delay (s)	0.3	1.5	13.9	18.0								
Approach LOS			B	C								
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			49.8%		ICU Level of Service				A			
Analysis Period (min)			15									



Movement	WBL	WBR	NBL	NBR	SEL	SER
Lane Configurations	T		T		T	
Sign Control	Stop		Stop		Stop	
Volume (vph)	60	362	132	44	544	245
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	62	373	136	45	561	253
Direction, Lane #	WB 1	NB 1	SE 1			
Volume Total (vph)	435	181	813			
Volume Left (vph)	62	0	561			
Volume Right (vph)	373	45	0			
Hadj (s)	-0.45	-0.12	0.17			
Departure Headway (s)	5.7	6.2	5.8			
Degree Utilization, x	0.69	0.31	1.31			
Capacity (veh/h)	616	559	620			
Control Delay (s)	20.3	11.9	167.7			
Approach Delay (s)	20.3	11.9	167.7			
Approach LOS	C	B	F			
Intersection Summary						
Delay			103.1			
HCM Level of Service			F			
Intersection Capacity Utilization			95.3%	ICU Level of Service	F	
Analysis Period (min)			15			

Milwaukie TSP Update
20: Johnson Creek Blvd & SE Linwood Avenue

Existing Condition PM Peak Hour
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.97		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	1664		1660	1682		1676	1664		1613	1752	
Flt Permitted	0.22	1.00		0.08	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	377	1664		134	1682		1676	1664		1613	1752	
Volume (vph)	19	626	125	160	551	122	104	215	128	90	174	11
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	21	688	137	176	605	134	114	236	141	99	191	12
RTOR Reduction (vph)	0	10	0	0	7	0	0	19	0	0	2	0
Lane Group Flow (vph)	21	815	0	176	732	0	114	358	0	99	201	0
Confl. Peds. (#/hr)	1		7	7		1	11		2	2		11
Confl. Bikes (#/hr)			2						1			
Heavy Vehicles (%)	5%	5%	3%	3%	4%	2%	2%	1%	1%	6%	1%	9%
Turn Type	pm+pt		pm+pt		Prot		Prot					
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	58.0	56.4		68.4	62.8		9.7	25.0		7.0	22.3	
Effective Green, g (s)	58.0	56.4		68.4	62.8		9.7	25.0		7.0	22.3	
Actuated g/C Ratio	0.52	0.50		0.61	0.56		0.09	0.22		0.06	0.20	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	212	835		190	940		145	370		100	348	
v/s Ratio Prot	0.00	c0.49		c0.07	0.44		0.07	c0.21		c0.06	0.11	
v/s Ratio Perm	0.05			0.50								
v/c Ratio	0.10	0.98		0.93	0.78		0.79	0.97		0.99	0.58	
Uniform Delay, d1	16.0	27.3		29.7	19.4		50.3	43.3		52.7	40.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	25.1		44.4	4.1		23.9	39.0		86.6	6.8	
Delay (s)	16.2	52.5		74.1	23.5		74.2	82.3		139.3	47.6	
Level of Service	B	D		E	C		E	F		F	D	
Approach Delay (s)		51.6			33.2			80.4			77.6	
Approach LOS		D			C			F			E	
Intersection Summary												
HCM Average Control Delay			53.6	HCM Level of Service						D		
HCM Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			112.4	Sum of lost time (s)						16.0		
Intersection Capacity Utilization			91.1%	ICU Level of Service						F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
1112: SE Linwood Avenue & King Road

6/29/2012



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↘		↗	↘		↗	↘	
Volume (vph)	110	515	90	90	365	45	100	205	75	40	235	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.96		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1808		1787	1839		1770	1777		1805	1760	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1808		1787	1839		1770	1777		1805	1760	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	542	95	95	384	47	105	216	79	42	247	95
RTOR Reduction (vph)	0	7	0	0	5	0	0	13	0	0	15	0
Lane Group Flow (vph)	116	630	0	95	426	0	105	282	0	42	327	0
Confl. Peds. (#/hr)	17		7	7			17	5		5	5	5
Confl. Bikes (#/hr)							1					2
Heavy Vehicles (%)	2%	2%	3%	1%	1%	0%	2%	2%	1%	0%	3%	1%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	8.5	31.2		8.3	31.0		6.0	29.0		2.9	25.9	
Effective Green, g (s)	8.5	31.2		8.3	31.0		6.0	29.0		2.9	25.9	
Actuated g/C Ratio	0.10	0.36		0.09	0.35		0.07	0.33		0.03	0.30	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	172	645		170	652		122	590		60	522	
v/s Ratio Prot	c0.07	c0.35		0.05	0.23		c0.06	c0.16		0.02	c0.19	
v/s Ratio Perm												
v/c Ratio	0.67	0.98		0.56	0.65		0.86	0.48		0.70	0.63	
Uniform Delay, d1	38.1	27.7		37.8	23.7		40.3	23.2		41.8	26.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.0	29.3		3.9	2.4		42.2	2.8		30.0	5.6	
Delay (s)	48.1	57.1		41.7	26.0		82.5	25.9		71.8	32.2	
Level of Service	D	E		D	C		F	C		E	C	
Approach Delay (s)		55.7			28.9			40.8			36.5	
Approach LOS		E			C			D			D	





















Intersection Summary

HCM Average Control Delay	42.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	87.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Milwaukie TSP Update
22: Harmony & SE Linwood Avenue

Existing Condition PM Peak Hour
HCM Signalized Intersection Capacity Analysis

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	0.96			1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1710	1727		1676	1700			1750	1485	1676	1741	
Flt Permitted	0.95	1.00		0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (perm)	1710	1727		1676	1700			1750	1485	1676	1741	
Volume (vph)	42	268	69	328	307	99	50	245	571	99	322	23
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	47	298	77	364	341	110	56	272	634	110	358	26
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	227	0	2	0
Lane Group Flow (vph)	47	369	0	364	443	0	0	328	407	110	382	0
Conf. Peds. (#/hr)	5			1								7
Conf. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Prot				Split		pm+ov	Split		
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases									8			
Actuated Green, G (s)	6.2	34.1		32.4	60.3			28.1	60.5	32.5	32.5	
Effective Green, g (s)	7.2	35.1		33.4	61.3			29.1	62.5	33.5	33.5	
Actuated g/C Ratio	0.05	0.24		0.23	0.42			0.20	0.42	0.23	0.23	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	84	412		381	708			346	671	382	396	
v/s Ratio Prot	0.03	c0.21		c0.22	0.26			c0.19	0.14	0.07	c0.22	
v/s Ratio Perm									0.14			
v/c Ratio	0.56	0.90		0.96	0.63			0.95	0.61	0.29	0.97	
Uniform Delay, d1	68.4	54.2		56.1	33.9			58.3	32.8	46.9	56.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.9	21.2		34.3	1.7			34.6	1.6	0.4	36.0	
Delay (s)	76.3	75.5		90.5	35.6			92.8	34.3	47.4	92.2	
Level of Service	E	E		F	D			F	C	D	F	
Approach Delay (s)		75.5			60.1			54.3			82.2	
Approach LOS		E			E			D			F	
Intersection Summary												
HCM Average Control Delay			64.5			HCM Level of Service			E			
HCM Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			147.1			Sum of lost time (s)		16.0				
Intersection Capacity Utilization			87.8%			ICU Level of Service		E				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1111: 42nd Avenue & SE King Road

6/29/2012



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	95	30	35	485	225	115
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	103	33	38	527	245	125
Pedestrians	12			3		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			0		
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage (veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	925	319	382			
vC1, stage 1 conf vol	319					
vC2, stage 2 conf vol	606					
vCu, unblocked vol	925	319	382			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	95	97			
cM capacity (veh/h)	479	719	1160			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	136	38	527	370		
Volume Left	103	38	0	0		
Volume Right	33	0	0	125		
cSH	521	1160	1700	1700		
Volume to Capacity	0.26	0.03	0.31	0.22		
Queue Length 95th (ft)	26	3	0	0		
Control Delay (s)	14.3	8.2	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	14.3	0.6	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			39.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 1113: SE Linwood Avenue & SE Monroe Street

6/29/2012



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	35	60	35	15	45	55	35	290	20	40	315	60
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	65	38	16	49	60	38	315	22	43	342	65
Pedestrians		1			5						2	
Lane Width (ft)		12.0			12.0						12.0	
Walking Speed (ft/s)		4.0			4.0						4.0	
Percent Blockage		0			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											1218	
pX, platoon unblocked												
vC, conflicting volume	951	881	376	940	903	333	409			342		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	951	881	376	940	903	333	409			342		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	76	94	91	81	92	97			96		
cM capacity (veh/h)	178	267	674	178	259	709	1144			1223		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	141	125	375	451
Volume Left	38	16	38	43
Volume Right	38	60	22	65
cSH	275	343	1144	1223
Volume to Capacity	0.51	0.36	0.03	0.04
Queue Length 95th (ft)	68	41	3	3
Control Delay (s)	31.2	21.4	1.1	1.1
Lane LOS	D	C	A	A
Approach Delay (s)	31.2	21.4	1.1	1.1
Approach LOS	D	C		

Intersection Summary			
Average Delay		7.3	
Intersection Capacity Utilization	49.0%		ICU Level of Service A
Analysis Period (min)		15	

Milwaukee TSP Update

Future Volume Forecasts





















Scenario: 2035 PM "Low Build" (Financially Committed)

Date: 6/29/2012

N/S	E/W	#	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
McLoughlin Blvd	Ochoco St	1	0	2000	20	0	3290	220	120	40	200	10	270	160
McLoughlin Blvd	Milport Road	2	280	2020	100	0	3540	20	20	20	270	250	30	20
McLoughlin Blvd	Harrison St	3	20	1120	170	100	2290	20	20	20	20	190	20	10
42nd Avenue	Harrison St	4	20	20	20	10	20	50	240	10	20	10	20	10
McLoughlin Blvd	Washington St	5	10	1050	30	100	2200	10	0	10	10	20	10	140
Main Street	Harrison St	6	20	20	20	20	20	80	70	10	10	20	110	60
17th Avenue	Hwy 224	7	0	20	100	370	20	0	0	0	0	110	0	20
Hwy 224	Harrison St	8	60	1190	250	20	2250	180	90	200	20	310	210	20
Hwy 224	Monroe Street	9	60	1920	10	20	2770	10	20	20	160	20	30	20
Hwy 224	Oak Street	10	200	1470	20	260	2290	260	140	140	110	20	110	180
32nd Avenue	Harrison St	11	40	20	20	20	40	400	420	530	10	20	430	10
McLoughlin Blvd	22nd Ave	12	110	990	0	0	1400	780	0	0	10	0	0	0
McLoughlin Blvd	River Road	13	10	950	0	0	1680	0	310	0	130	0	0	0
Oatfield Rd	Lake Road	14	70	190	180	140	320	10	20	20	90	180	30	70
Hwy 224	37th Ave	15	70	1240	20	220	1870	50	50	90	440	290	270	380
Freeman Way	Hwy 224	16	20	30	10	510	30	140	30	2420	30	10	1450	240
Hwy 224 off/on ramp	Lake Road	17	170	0	160	110	820	10	100	240	100	0	70	120
21st Ave	Harrison St	18	20	10	30	20	10	10	10	140	20	20	150	20
32nd Avenue	Johnson Creek Blvd	19	20	130	30	540	250	0	0	70	90	40	20	360
Linwood Ave	Johnson Creek Blvd	20	140	220	50	180	310	120	140	860	230	10	820	230
Linwood Ave	King Road	21	50	420	150	20	520	20	20	100	50	230	20	20
Linwood Ave	Harmony Rd	22	50	450	1660	270	570	20	40	270	70	1460	310	280






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕	↗		↕	↗		↑↑↑	↗		↑↑↑	↗	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.91	1.00		0.91	1.00	
Frbp, ped/bikes		1.00	1.00		1.00	0.99		1.00	0.98		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85	
Flt Protected		0.96	1.00		0.98	1.00		1.00	1.00		1.00	1.00	
Satd. Flow (prot)		1396	1378		1501	1227		4771	1123		4818	1205	
Flt Permitted		0.75	1.00		0.86	1.00		1.00	1.00		1.00	1.00	
Satd. Flow (perm)		1080	1378		1310	1227		4771	1123		4818	1205	
Volume (vph)	120	40	80	20	30	80	0	1970	30	0	3750	150	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Adj. Flow (vph)	124	41	82	21	31	82	0	2031	31	0	3866	155	
RTOR Reduction (vph)	0	0	1	0	0	20	0	0	8	0	0	34	
Lane Group Flow (vph)	0	165	81	0	52	62	0	2031	23	0	3866	121	
Confl. Peds. (#/hr)	1					1			1	1			
Heavy Vehicles (%)	10%	67%	11%	36%	5%	23%	0%	3%	33%	0%	2%	27%	
Turn Type	Perm		Perm	Perm		Perm			Perm			Perm	
Protected Phases		8			4			6			2		
Permitted Phases	8		8	4		4			6			2	
Actuated Green, G (s)		21.2	21.2		21.2	21.2		88.3	88.3		88.3	88.3	
Effective Green, g (s)		22.7	22.7		22.7	22.7		89.3	89.3		89.3	89.3	
Actuated g/C Ratio		0.19	0.19		0.19	0.19		0.74	0.74		0.74	0.74	
Clearance Time (s)		5.5	5.5		5.5	5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.5	4.5		4.5	4.5		4.4	4.4		4.4	4.4	
Lane Grp Cap (vph)		204	261		248	232		3550	836		3585	897	
v/s Ratio Prot								0.43			c0.80		
v/s Ratio Perm		c0.15	0.06		0.04	0.05			0.02			0.10	
v/c Ratio		0.81	0.31		0.21	0.27		0.57	0.03		1.08	0.13	
Uniform Delay, d1		46.6	41.9		41.1	41.5		6.8	4.0		15.4	4.4	
Progression Factor		1.00	1.00		1.00	1.00		1.16	0.44		1.00	1.00	
Incremental Delay, d2		22.5	1.2		0.7	1.1		0.6	0.1		41.2	0.3	
Delay (s)		69.1	43.1		41.8	42.6		8.6	1.8		56.5	4.7	
Level of Service		E	D		D	D		A	A		E	A	
Approach Delay (s)		60.4			42.3			8.5			54.5		
Approach LOS		E			D			A			D		
Intersection Summary													
HCM Average Control Delay			39.8									HCM Level of Service	D
HCM Volume to Capacity ratio			1.02										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	8.0
Intersection Capacity Utilization			99.0%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.86			0.91	
Frbp, ped/bikes		1.00	0.99		1.00	1.00		1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	
Frt		1.00	0.85		1.00	0.85		1.00			1.00	
Flt Protected		0.98	1.00		0.97	1.00		1.00			1.00	
Satd. Flow (prot)		1624	1479		1746	1530		5954			4818	
Flt Permitted		0.87	1.00		0.64	1.00		1.00			1.00	
Satd. Flow (perm)		1443	1479		1145	1530		5954			4818	
Volume (vph)	40	80	110	30	20	40	0	1920	0	0	3850	0
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	83	115	31	21	42	0	2000	0	0	4010	0
RTOR Reduction (vph)	0	0	1	0	0	36	0	0	0	0	0	0
Lane Group Flow (vph)	0	125	114	0	52	6	0	2000	0	0	4010	0
Confl. Peds. (#/hr)			1	1			1					1
Heavy Vehicles (%)	11%	8%	2%	0%	0%	0%	0%	4%	0%	0%	2%	75%
Turn Type	Perm		Perm	Perm		Perm						
Protected Phases		4			4			6			2	
Permitted Phases	4		4	4	4	4		6				
Actuated Green, G (s)		13.4	13.4		13.4	13.4		98.1			98.1	
Effective Green, g (s)		12.9	12.9		12.9	12.9		99.1			99.1	
Actuated g/C Ratio		0.11	0.11		0.11	0.11		0.83			0.83	
Clearance Time (s)		3.5	3.5		3.5	3.5		5.0			5.0	
Vehicle Extension (s)		2.5	2.5		2.5	2.5		4.5			4.5	
Lane Grp Cap (vph)		155	159		123	164		4917			3979	
v/s Ratio Prot								0.34			c0.83	
v/s Ratio Perm		c0.09	0.08		0.05	0.00						
v/c Ratio		0.81	0.72		0.42	0.04		0.41			1.01	
Uniform Delay, d1		52.3	51.8		50.1	48.0		2.7			10.5	
Progression Factor		1.00	1.00		1.00	1.00		2.90			0.57	
Incremental Delay, d2		24.8	13.4		1.7	0.1		0.2			6.4	
Delay (s)		77.2	65.2		51.8	48.1		8.1			12.4	
Level of Service		E	E		D	D		A			B	
Approach Delay (s)		71.4			50.1			8.1			12.4	
Approach LOS		E			D			A			B	
Intersection Summary												
HCM Average Control Delay			13.8					HCM Level of Service			B	
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			120.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			101.0%					ICU Level of Service			G	
Analysis Period (min)			15									
c Critical Lane Group												













	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement												
Lane Configurations		↖	↗	↖	↗		↖	↖↗		↖	↖↗	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85	1.00	0.95		1.00	0.98		1.00	1.00	
Flt Protected		0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1583	1733	1676	1478		1840	3337		1800	3539	
Flt Permitted		0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1583	1733	1676	1478		1840	3337		1800	3539	
Volume (vph)	20	130	580	200	100	50	250	1100	160	180	1990	30
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	21	135	604	208	104	52	260	1146	167	188	2073	31
RTOR Reduction (vph)	0	0	10	0	15	0	0	9	0	0	1	0
Lane Group Flow (vph)	0	156	594	208	141	0	260	1304	0	188	2103	0
Confl. Peds. (#/hr)			9	9			8		4	4		8
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	0%	15%	1%	2%	17%	13%	2%	4%	0%	3%	4%	7%
Turn Type	Split		pt+ov	Split			Prot			Prot		
Protected Phases	8	8	8 1	4	4		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)		14.0	35.0	12.0	12.0		17.0	63.1		14.4	60.5	
Effective Green, g (s)		14.0	35.0	12.0	12.0		17.0	63.6		14.4	61.0	
Actuated g/C Ratio		0.12	0.29	0.10	0.10		0.14	0.53		0.12	0.51	
Clearance Time (s)		4.0		4.0	4.0		4.0	4.5		4.0	4.5	
Vehicle Extension (s)		2.5		2.5	2.5		2.5	6.0		2.3	6.0	
Lane Grp Cap (vph)		185	505	168	148		261	1769		216	1799	
v/s Ratio Prot		0.10	c0.34	c0.12	0.10		0.14	c0.39		0.10	c0.59	
v/s Ratio Perm												
v/c Ratio		0.84	1.18	1.24	0.95		1.00	0.74		0.87	1.17	
Uniform Delay, d1		51.9	42.5	54.0	53.7		51.5	21.7		51.9	29.5	
Progression Factor		1.00	1.00	1.00	1.00		0.98	0.87		0.85	1.07	
Incremental Delay, d2		27.6	98.5	147.6	59.0		45.5	2.0		12.1	78.3	
Delay (s)		79.5	141.0	201.6	112.7		95.8	21.0		56.3	109.9	
Level of Service		E	F	F	F		F	C		E	F	
Approach Delay (s)		128.4			163.5			33.4			105.5	
Approach LOS		F			F			C			F	
Intersection Summary												
HCM Average Control Delay		90.5		HCM Level of Service				F				
HCM Volume to Capacity ratio		1.21										
Actuated Cycle Length (s)		120.0		Sum of lost time (s)				16.0				
Intersection Capacity Utilization		119.6%		ICU Level of Service				H				
Analysis Period (min)		15										













c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	420	110	80	40	20	20	20	230	40	20	120	210
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	433	113	82	41	21	21	21	237	41	21	124	216
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total (vph)	546	82	62	21	299	144	216					
Volume Left (vph)	433	0	41	0	21	21	0					
Volume Right (vph)	0	82	0	21	41	0	216					
Hadj (s)	0.43	-0.67	0.37	-0.67	-0.03	0.11	-0.67					
Departure Headway (s)	7.2	6.1	8.2	7.2	7.2	7.5	6.7					
Degree Utilization, x	1.10	0.14	0.14	0.04	0.60	0.30	0.40					
Capacity (veh/h)	491	574	407	461	482	469	524					
Control Delay (s)	95.4	8.9	11.4	9.3	20.5	12.4	13.0					
Approach Delay (s)	84.1		10.9		20.5	12.8						
Approach LOS	F		B		C	B						
Intersection Summary												
Delay			47.0									
HCM Level of Service			E									
Intersection Capacity Utilization			67.2%		ICU Level of Service						C	
Analysis Period (min)			15									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00		1.00	0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt		0.93		1.00	0.86		1.00	0.98		1.00	1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1646		1665	1485		1676	3224		1644	3351	
Flt Permitted		1.00		0.74	1.00		0.05	1.00		0.95	1.00	
Satd. Flow (perm)		1646		1305	1485		93	3224		1644	3351	
Volume (vph)	0	10	10	250	10	100	10	1350	190	110	2730	10
Peak-hour factor, PHF	0.97	0.97	0.97	0.98	0.97	0.98	0.97	0.98	0.98	0.98	0.98	0.97
Adj. Flow (vph)	0	10	10	255	10	102	10	1378	194	112	2786	10
RTOR Reduction (vph)	0	5	0	0	83	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	15	0	255	29	0	10	1563	0	112	2796	0
Confl. Peds. (#/hr)				3		3			2	2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	4%	2%	4%	2%	2%
Turn Type	Perm			Perm			Perm			Prot		
Protected Phases	4			8			2			1 6		
Permitted Phases	4			8			2					
Actuated Green, G (s)	22.0			22.0			75.5			10.5 90.0		
Effective Green, g (s)	22.0			22.0			75.5			10.5 90.0		
Actuated g/C Ratio	0.18			0.18			0.63			0.09 0.75		
Clearance Time (s)	4.0			4.0			4.0			4.0 4.0		
Vehicle Extension (s)	3.0			3.0			3.0			3.0 3.0		
Lane Grp Cap (vph)	302			239			272			59 2028		
v/s Ratio Prot	0.01			0.02			0.48			0.07 c0.83		
v/s Ratio Perm	c0.20			0.11								
v/c Ratio	0.05			1.07			0.11			0.17 0.77		
Uniform Delay, d1	40.4			49.0			40.8			9.2 16.0		
Progression Factor	1.00			1.00			1.00			1.00 1.00		
Incremental Delay, d2	0.1			77.1			0.2			6.1 2.9		
Delay (s)	40.5			126.1			41.0			15.4 18.9		
Level of Service	D			F			D			B B		
Approach Delay (s)	40.5			100.1			18.9			56.8 62.3		
Approach LOS	D			F			B			E E		
Intersection Summary												
HCM Average Control Delay	50.9			HCM Level of Service			D					
HCM Volume to Capacity ratio	1.10											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)			8.0					
Intersection Capacity Utilization	114.6%			ICU Level of Service			H					
Analysis Period (min)	15											
c Critical Lane Group												













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	Stop
Volume (vph)	50	280	140	80	200	110	60	90	70	130	100	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	51	286	143	82	204	112	61	92	71	133	102	92
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	480	398	224	133	194							
Volume Left (vph)	51	82	61	133	0							
Volume Right (vph)	143	112	71	0	92							
Hadj (s)	-0.11	-0.06	0.11	0.62	-0.15							
Departure Headway (s)	7.1	7.4	8.5	9.1	8.3							
Degree Utilization, x	0.95	0.82	0.53	0.34	0.45							
Capacity (veh/h)	496	459	401	382	409							
Control Delay (s)	55.7	36.1	20.8	15.5	16.7							
Approach Delay (s)	55.7	36.1	20.8	16.2								
Approach LOS	F	E	C	C								
Intersection Summary												
Delay			35.7									
HCM Level of Service			E									
Intersection Capacity Utilization			74.6%	ICU Level of Service	D							
Analysis Period (min)			15									





















						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1676	1515	1765	1488	1676	1765
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1676	1515	1765	1488	1676	1765
Volume (vph)	80	370	350	80	550	650
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	88	407	385	88	604	714
RTOR Reduction (vph)	0	53	0	39	0	0
Lane Group Flow (vph)	88	354	385	49	604	714
Confl. Peds. (#/hr)				2	2	
Confl. Bikes (#/hr)				1		
Heavy Vehicles (%)	2%	1%	2%	0%	2%	2%
Turn Type	pm+ov		Perm		Prot	
Protected Phases	8	1	2		1	6
Permitted Phases	8		2			
Actuated Green, G (s)	9.6	56.5	40.0	40.0	46.9	91.4
Effective Green, g (s)	10.1	57.5	40.0	40.0	47.4	91.4
Actuated g/C Ratio	0.09	0.53	0.37	0.37	0.43	0.83
Clearance Time (s)	4.5	4.5	4.0	4.0	4.5	4.0
Vehicle Extension (s)	3.0	4.5	2.3	2.3	4.5	2.3
Lane Grp Cap (vph)	155	851	645	544	726	1473
v/s Ratio Prot	c0.05	0.18	c0.22		c0.36	0.40
v/s Ratio Perm		0.05		0.03		
v/c Ratio	0.57	0.42	0.60	0.09	0.83	0.48
Uniform Delay, d1	47.6	15.8	28.2	22.8	27.5	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.7	0.6	4.0	0.3	8.8	1.1
Delay (s)	52.3	16.4	32.2	23.1	36.3	3.7
Level of Service	D	B	C	C	D	A
Approach Delay (s)	22.8		30.6		18.6	
Approach LOS	C		C		B	
Intersection Summary						
HCM Average Control Delay			22.0	HCM Level of Service		C
HCM Volume to Capacity ratio			0.71			
Actuated Cycle Length (s)			109.5	Sum of lost time (s)		12.0
Intersection Capacity Utilization			69.9%	ICU Level of Service		C
Analysis Period (min)			15			
c Critical Lane Group						

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔↔			↔↔		↗	↕↕	↗	↗	↗	↕↕	↗
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95			0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00
Frbp, ped/bikes		1.00			1.00		1.00	1.00	0.99	1.00	1.00	0.99	1.00
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.97			0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		1.00			0.99		0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)		2967			3140		1613	3288	1509	1676	3288	1336	1336
Flt Permitted		0.80			0.62		0.95	1.00	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)		2384			1965		1613	3288	1509	1676	3288	1336	1336
Volume (vph)	20	350	90	80	330	130	100	1050	80	350	2050	20	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	368	95	84	347	137	105	1105	84	368	2158	21	
RTOR Reduction (vph)	0	18	0	0	25	0	0	0	39	0	0	5	
Lane Group Flow (vph)	0	466	0	0	543	0	105	1105	45	368	2158	16	
Confl. Peds. (#/hr)	3		5	5		3	1		1	1		1	
Confl. Bikes (#/hr)						1							
Heavy Vehicles (%)	0%	14%	3%	4%	4%	3%	6%	4%	0%	2%	4%	13%	
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm	
Protected Phases		4			8		5	2		1	6		
Permitted Phases	4			8					2			6	
Actuated Green, G (s)		24.5			24.5		11.5	60.0	60.0	19.0	67.5	67.5	
Effective Green, g (s)		26.0			26.0		12.5	62.0	62.0	20.0	69.5	69.5	
Actuated g/C Ratio		0.22			0.22		0.10	0.52	0.52	0.17	0.58	0.58	
Clearance Time (s)		5.5			5.5		5.0	6.0	6.0	5.0	6.0	6.0	
Vehicle Extension (s)		2.5			2.5		2.3	4.0	4.0	2.3	4.0	4.0	
Lane Grp Cap (vph)		517			426		168	1699	780	279	1904	774	
v/s Ratio Prot							0.07	0.34		c0.22	c0.66		
v/s Ratio Perm		0.20			c0.28				0.03			0.01	
v/c Ratio		0.90			1.27		0.62	0.65	0.06	1.32	1.13	0.02	
Uniform Delay, d1		45.8			47.0		51.5	21.1	14.4	50.0	25.2	10.8	
Progression Factor		1.00			1.00		0.74	1.84	3.53	1.11	0.82	0.80	
Incremental Delay, d2		18.8			140.7		5.0	1.7	0.1	160.3	65.2	0.0	
Delay (s)		64.5			187.7		43.3	40.6	51.1	215.7	86.1	8.6	
Level of Service		E			F		D	D	D	F	F	A	
Approach Delay (s)		64.5			187.7			41.5			104.1		
Approach LOS		E			F			D			F		
Intersection Summary													
HCM Average Control Delay			93.4				HCM Level of Service			F			
HCM Volume to Capacity ratio			1.18										
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			8.0			
Intersection Capacity Utilization			112.4%				ICU Level of Service			H			
Analysis Period (min)			15										
c Critical Lane Group													



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕	↗	↗	↕	↗
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes		0.98			0.99		1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.90			0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1560			1641		1710	3320	1530	1541	3320	1413
Flt Permitted		0.97			0.58		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1521			962		1710	3320	1530	1541	3320	1413
Volume (vph)	20	40	180	40	40	50	40	1160	10	20	2170	30
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	21	43	191	43	43	53	43	1234	11	21	2309	32
RTOR Reduction (vph)	0	54	0	0	21	0	0	0	3	0	0	6
Lane Group Flow (vph)	0	201	0	0	118	0	43	1234	8	21	2309	26
Confl. Peds. (#/hr)	8		4	4		8	4					4
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	0%	2%	0%	0%	4%	0%	3%	0%	11%	3%	5%
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		20.5			20.5		6.4	83.7	83.7	2.8	80.1	80.1
Effective Green, g (s)		20.5			20.5		6.4	84.7	84.7	2.8	81.1	81.1
Actuated g/C Ratio		0.17			0.17		0.05	0.71	0.71	0.02	0.68	0.68
Clearance Time (s)		4.0			4.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)		3.0			2.5		3.0	5.2	5.2	2.5	5.2	5.2
Lane Grp Cap (vph)		260			164		91	2343	1080	36	2244	955
v/s Ratio Prot							c0.03	c0.37		0.01	c0.70	
v/s Ratio Perm		c0.13			0.12				0.01			0.02
v/c Ratio		0.77			0.72		0.47	0.53	0.01	0.58	1.03	0.03
Uniform Delay, d1		47.5			47.0		55.2	8.3	5.2	58.0	19.5	6.4
Progression Factor		1.00			1.00		0.87	2.40	1.66	0.71	1.58	2.10
Incremental Delay, d2		13.3			13.6		2.6	0.6	0.0	1.8	15.2	0.0
Delay (s)		60.9			60.7		50.4	20.4	8.7	43.2	45.9	13.5
Level of Service		E			E		D	C	A	D	D	B
Approach Delay (s)		60.9			60.7			21.3			45.5	
Approach LOS		E			E			C			D	
Intersection Summary												
HCM Average Control Delay			39.3				HCM Level of Service				D	
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)				16.0	
Intersection Capacity Utilization			90.8%				ICU Level of Service				E	
Analysis Period (min)			15									
c Critical Lane Group												

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↔↔	↗		↔↔	↗	↗	↔↔	↗		↔↔	↗
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes		1.00	0.99		1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3369	1493		3304	1448	1710	3320	1510	1660	3257	1438
Flt Permitted		0.91	1.00		0.62	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		3085	1493		2085	1448	1710	3320	1510	1660	3257	1438
Volume (vph)	20	380	100	140	320	160	310	2020	60	200	1030	130
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	21	404	106	149	340	170	330	2149	64	213	1096	138
RTOR Reduction (vph)	0	0	3	0	0	127	0	0	20	0	0	78
Lane Group Flow (vph)	0	425	103	0	489	43	330	2149	44	213	1096	60
Confl. Peds. (#/hr)	1		7	7		1	1		1	1		1
Confl. Bikes (#/hr)						3						
Heavy Vehicles (%)	6%	1%	1%	6%	0%	4%	0%	3%	0%	3%	5%	5%
Turn Type	Perm		pm+ov	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4	5		8		1	6		5	2	
Permitted Phases	4		4	8		8		6				2
Actuated Green, G (s)		29.7	41.2		29.7	29.7	25.3	64.3	64.3	11.5	50.5	50.5
Effective Green, g (s)		30.2	42.2		30.2	30.2	25.8	65.8	65.8	12.0	52.0	52.0
Actuated g/C Ratio		0.25	0.35		0.25	0.25	0.22	0.55	0.55	0.10	0.43	0.43
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5	5.5	5.5	4.5	5.5	5.5
Vehicle Extension (s)		2.5	2.3		2.5	2.5	2.3	5.0	5.0	2.3	5.0	5.0
Lane Grp Cap (vph)		776	575		525	364	368	1820	828	166	1411	623
v/s Ratio Prot			0.02				0.19	c0.65		c0.13	0.34	
v/s Ratio Perm		0.14	0.05		c0.23	0.03			0.03			0.04
v/c Ratio		0.55	0.18		0.94dl	0.12	0.90	1.18	0.05	1.28	0.78	0.10
Uniform Delay, d1		39.0	26.9		43.9	34.6	45.8	27.1	12.6	54.0	29.0	20.1
Progression Factor		1.00	1.00		1.00	1.00	0.91	0.70	0.22	1.09	1.13	2.77
Incremental Delay, d2		0.6	0.1		23.5	0.1	7.0	82.8	0.0	157.0	3.2	0.2
Delay (s)		39.6	27.0		67.4	34.7	48.6	101.7	2.8	216.0	36.0	56.0
Level of Service		D	C		E	C	D	F	A	F	D	E
Approach Delay (s)		37.1			59.0			92.4			64.4	
Approach LOS		D			E			F			E	
Intersection Summary												
HCM Average Control Delay			74.6				HCM Level of Service			E		
HCM Volume to Capacity ratio			1.12									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			112.4%				ICU Level of Service			H		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												














												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.93		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00		0.99	1.00
Satd. Flow (prot)	1583	1760		1710	1724			1706	1425		1694	1438
Flt Permitted	0.95	1.00		0.95	1.00			0.91	1.00		0.93	1.00
Satd. Flow (perm)	1583	1760		1710	1724			1571	1425		1591	1438
Volume (vph)	170	580	10	30	250	30	50	230	60	30	190	240
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	181	617	11	32	266	32	53	245	64	32	202	255
RTOR Reduction (vph)	0	1	0	0	6	0	0	0	31	0	0	156
Lane Group Flow (vph)	181	627	0	32	292	0	0	298	33	0	234	99
Confl. Peds. (#/hr)	4		4	4		4	1		21	21		1
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	8%	2%	0%	0%	2%	6%	7%	4%	0%	0%	6%	5%
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2				6
Permitted Phases							2		2	6		6
Actuated Green, G (s)	10.8	30.8		2.0	22.0			28.2	28.2		28.2	28.2
Effective Green, g (s)	10.8	30.8		2.0	22.0			28.2	28.2		28.2	28.2
Actuated g/C Ratio	0.15	0.42		0.03	0.30			0.39	0.39		0.39	0.39
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	234	743		47	520			607	550		615	556
v/s Ratio Prot	c0.11	c0.36		0.02	0.17							
v/s Ratio Perm								c0.19	0.02		0.15	0.07
v/c Ratio	0.77	0.84		0.68	0.56			0.49	0.06		0.38	0.18
Uniform Delay, d1	29.9	18.9		35.2	21.5			17.0	14.1		16.1	14.8
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	14.7	8.7		33.6	1.4			2.8	0.2		1.8	0.7
Delay (s)	44.6	27.7		68.8	22.8			19.8	14.3		17.9	15.5
Level of Service	D	C		E	C			B	B		B	B
Approach Delay (s)		31.4			27.3			18.8			16.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM Average Control Delay			24.8			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			73.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			78.6%			ICU Level of Service				D		
Analysis Period (min)			15									
c	Critical Lane Group											



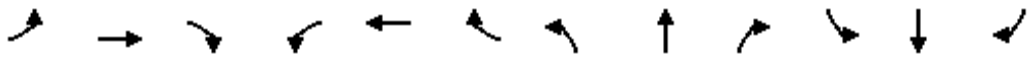
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑↑	↑↑			↗
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	1550	2350	640	0	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	1615	2448	667	0	10
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)		507				
pX, platoon unblocked					0.96	
vC, conflicting volume	3116				3590	1558
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3116				3649	1558
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	90
cM capacity (veh/h)	105				4	100

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1
Volume Total	807	807	1632	1483	10
Volume Left	0	0	0	0	0
Volume Right	0	0	0	667	10
cSH	1700	1700	1700	1700	100
Volume to Capacity	0.47	0.47	0.96	0.87	0.10
Queue Length 95th (ft)	0	0	0	0	8
Control Delay (s)	0.0	0.0	0.0	0.0	45.0
Lane LOS					E
Approach Delay (s)	0.0		0.0		45.0
Approach LOS					E

Intersection Summary					
Average Delay			0.1		
Intersection Capacity Utilization		100.2%		ICU Level of Service	G
Analysis Period (min)			15		

						
Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations			 			 
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1660	1530	3353		1583	3353
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1660	1530	3353		1583	3353
Volume (vph)	300	60	2360	0	20	1250
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	330	66	2593	0	22	1374
RTOR Reduction (vph)	0	23	0	0	0	0
Lane Group Flow (vph)	330	43	2593	0	22	1374
Heavy Vehicles (%)	3%	0%	2%	0%	8%	2%
Turn Type		Prot			Prot	
Protected Phases	7	7	6		5	
Permitted Phases			6			2 7
Actuated Green, G (s)	28.1	28.1	97.4		4.7	139.2
Effective Green, g (s)	28.1	28.1	98.4		4.7	139.2
Actuated g/C Ratio	0.19	0.19	0.66		0.03	0.93
Clearance Time (s)	4.0	4.0	5.0		4.0	
Vehicle Extension (s)	2.3	2.3	8.0		2.3	
Lane Grp Cap (vph)	312	288	2208		50	3124
v/s Ratio Prot	c0.20	0.03	c0.77		0.01	
v/s Ratio Perm						c0.41
v/c Ratio	1.06	0.15	1.17		0.44	0.44
Uniform Delay, d1	60.6	50.7	25.5		71.1	0.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	67.0	0.1	83.6		3.6	0.1
Delay (s)	127.6	50.8	109.1		74.6	0.6
Level of Service	F	D	F		E	A
Approach Delay (s)	114.8		109.1			1.8
Approach LOS	F		F			A
Intersection Summary						
HCM Average Control Delay			75.5		HCM Level of Service	E
HCM Volume to Capacity ratio			1.13			
Actuated Cycle Length (s)			149.4		Sum of lost time (s)	18.2
Intersection Capacity Utilization			93.1%		ICU Level of Service	F
Analysis Period (min)			15			
c Critical Lane Group						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	0.90		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1676	1669		1710	1755		1710	1585		1613	1738	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1676	1669		1710	1755		1710	1585		1613	1738	
Volume (vph)	30	230	160	360	150	30	80	120	280	50	200	20
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	31	237	165	371	155	31	82	124	289	52	206	21
RTOR Reduction (vph)	0	27	0	0	8	0	0	92	0	0	4	0
Lane Group Flow (vph)	31	375	0	371	178	0	82	321	0	52	223	0
Confl. Peds. (#/hr)							1		1	1		1
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	0%	0%	0%	6%	0%	21%
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	3.4	22.9		20.5	40.0		5.3	25.4		3.0	23.1	
Effective Green, g (s)	3.4	22.9		20.5	40.0		5.3	25.4		3.0	23.1	
Actuated g/C Ratio	0.04	0.26		0.23	0.46		0.06	0.29		0.03	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	65	435		399	800		103	459		55	457	
v/s Ratio Prot	0.02	c0.22		c0.22	0.10		c0.05	c0.20		0.03	0.13	
v/s Ratio Perm												
v/c Ratio	0.48	0.86		0.93	0.22		0.80	0.70		0.95	0.49	
Uniform Delay, d1	41.3	30.9		32.9	14.5		40.7	27.8		42.3	27.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.4	15.9		27.7	0.1		33.3	8.6		100.6	3.7	
Delay (s)	46.8	46.8		60.7	14.6		74.1	36.4		142.9	31.1	
Level of Service	D	D		E	B		E	D		F	C	
Approach Delay (s)		46.8			45.3			42.6			51.9	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM Average Control Delay			46.0			HCM Level of Service				D		
HCM Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			87.8			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			85.7%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↔	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Frbp, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.98	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.96			1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected		0.99			0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)		1711			1699	1515	1710	3420	1466	1613	3420	1235	
Flt Permitted		0.77			0.65	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)		1340			1142	1515	1710	3420	1466	1613	3420	1235	
Volume (vph)	30	70	40	180	100	150	50	1180	90	130	2100	30	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	32	74	43	191	106	160	53	1255	96	138	2234	32	
RTOR Reduction (vph)	0	12	0	0	0	117	0	0	47	0	0	7	
Lane Group Flow (vph)	0	137	0	0	297	43	53	1255	49	138	2234	25	
Confl. Peds. (#/hr)							1		1	1		1	
Heavy Vehicles (%)	0%	0%	0%	3%	2%	1%	0%	0%	2%	6%	0%	21%	
Turn Type	Perm			Perm		Perm	Prot		Perm	Prot		Perm	
Protected Phases		4			4		5	2		1		6	
Permitted Phases	4			4		4			2			6	
Actuated Green, G (s)		32.1			32.1	32.1	4.5	60.2	60.2	14.2	69.9	69.9	
Effective Green, g (s)		32.1			32.1	32.1	4.5	61.7	61.7	14.2	71.4	71.4	
Actuated g/C Ratio		0.27			0.27	0.27	0.04	0.51	0.51	0.12	0.60	0.60	
Clearance Time (s)		4.0			4.0	4.0	4.0	5.5	5.5	4.0	5.5	5.5	
Vehicle Extension (s)		2.5			2.5	2.5	0.5	4.6	4.6	2.5	2.6	2.6	
Lane Grp Cap (vph)		358			305	405	64	1758	754	191	2035	735	
v/s Ratio Prot							0.03	c0.37		0.09	c0.65		
v/s Ratio Perm		0.10			c0.26	0.03			0.03			0.02	
v/c Ratio		0.38			0.97	0.11	0.83	0.71	0.07	0.72	1.10	0.03	
Uniform Delay, d1		35.9			43.5	33.1	57.4	22.4	14.7	51.0	24.3	10.0	
Progression Factor		1.00			1.00	1.00	0.67	1.57	3.68	1.11	1.26	0.75	
Incremental Delay, d2		0.5			44.1	0.1	43.5	1.9	0.1	1.2	44.9	0.0	
Delay (s)		36.3			87.6	33.2	82.1	37.1	54.1	57.8	75.4	7.6	
Level of Service		D			F	C	F	D	D	E	E	A	
Approach Delay (s)		36.3			68.6			39.9			73.5		
Approach LOS		D			E			D			E		
Intersection Summary													
HCM Average Control Delay			61.1									HCM Level of Service	E
HCM Volume to Capacity ratio			1.05										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	12.0
Intersection Capacity Utilization			97.3%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.96			1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98			0.96	1.00
Satd. Flow (prot)	1660	3196	1530	1660	3257	1404		1702			1696	1471
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.62			0.64	1.00
Satd. Flow (perm)	1660	3196	1530	1660	3257	1404		1079			1139	1471
Volume (vph)	60	2210	50	30	1200	120	40	40	30	250	40	80
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	2402	54	33	1304	130	43	43	33	272	43	87
RTOR Reduction (vph)	0	0	12	0	0	50	0	12	0	0	0	64
Lane Group Flow (vph)	65	2402	42	33	1304	80	0	107	0	0	315	23
Heavy Vehicles (%)	3%	7%	0%	3%	5%	9%	0%	0%	0%	2%	0%	4%
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases			2			6	8			4		4
Actuated Green, G (s)	9.2	71.8	71.8	2.7	65.3	65.3		32.0			32.0	32.0
Effective Green, g (s)	9.2	73.3	73.3	2.7	66.8	66.8		32.0			32.0	32.0
Actuated g/C Ratio	0.08	0.61	0.61	0.02	0.56	0.56		0.27			0.27	0.27
Clearance Time (s)	4.0	5.5	5.5	4.0	5.5	5.5		4.0			4.0	4.0
Vehicle Extension (s)	2.5	4.6	4.6	2.5	4.6	4.6		3.0			3.0	3.0
Lane Grp Cap (vph)	127	1952	935	37	1813	782		288			304	392
v/s Ratio Prot	0.04	c0.75		0.02	c0.40							
v/s Ratio Perm			0.03			0.06		0.10			c0.28	0.02
v/c Ratio	0.51	1.23	0.04	0.89	0.72	0.10		0.37			1.04	0.06
Uniform Delay, d1	53.2	23.4	9.3	58.5	19.7	12.5		35.8			44.0	32.8
Progression Factor	1.27	1.64	2.02	1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.2	104.2	0.0	104.7	2.5	0.3		0.8			61.3	0.1
Delay (s)	68.0	142.4	18.9	163.2	22.2	12.8		36.6			105.3	32.8
Level of Service	E	F	B	F	C	B		D			F	C
Approach Delay (s)		137.9			24.5			36.6			89.6	
Approach LOS		F			C			D			F	
Intersection Summary												
HCM Average Control Delay			94.0				HCM Level of Service				F	
HCM Volume to Capacity ratio			1.17									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			94.7%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												



















Movement	EBL	EBT	WBT	WBR	WBR2	SBL	SBR	SWL	SWR
Lane Configurations									
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0			4.0			
Lane Util. Factor	1.00	1.00	1.00			1.00			
Frt	1.00	1.00	0.97			0.99			
Flt Protected	0.95	1.00	1.00			0.96			
Satd. Flow (prot)	1555	1765	1704			1672			
Flt Permitted	0.95	1.00	1.00			0.96			
Satd. Flow (perm)	1555	1765	1704			1672			
Volume (vph)	150	480	600	0	150	240	20	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	522	652	0	163	261	22	0	0
RTOR Reduction (vph)	0	0	9	0	0	3	0	0	0
Lane Group Flow (vph)	163	522	806	0	0	280	0	0	0
Heavy Vehicles (%)	10%	2%	3%	0%	2%	2%	0%	0%	0%
Turn Type	Prot								
Protected Phases	5	2	6			4			
Permitted Phases									
Actuated Green, G (s)	13.0	57.9	40.9			16.6			
Effective Green, g (s)	13.0	58.9	41.9			16.6			
Actuated g/C Ratio	0.16	0.71	0.50			0.20			
Clearance Time (s)	4.0	5.0	5.0			4.0			
Vehicle Extension (s)	3.0	3.0	3.0			3.0			
Lane Grp Cap (vph)	242	1245	855			332			
v/s Ratio Prot	c0.10	0.30	c0.47			c0.17			
v/s Ratio Perm									
v/c Ratio	0.67	0.42	0.94			0.84			
Uniform Delay, d1	33.2	5.1	19.7			32.2			
Progression Factor	1.00	1.00	1.00			1.00			
Incremental Delay, d2	7.2	0.2	18.2			17.4			
Delay (s)	40.4	5.4	37.9			49.6			
Level of Service	D	A	D			D			
Approach Delay (s)		13.7	37.9			49.6		0.0	
Approach LOS		B	D			D		A	

Intersection Summary

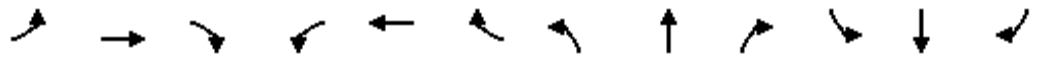
HCM Average Control Delay	30.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	83.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	400	60	70	350	30	30	20	80	20	10	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	21	412	62	72	361	31	31	21	82	21	10	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	392			474			1021	1021	443	1098	1036	376
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	392			474			1021	1021	443	1098	1036	376
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			93			84	90	87	86	95	98
cM capacity (veh/h)	1167			1088			191	217	614	143	212	670
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	495	464	134	41								
Volume Left	21	72	31	21								
Volume Right	62	31	82	10								
cSH	1167	1088	342	198								
Volume to Capacity	0.02	0.07	0.39	0.21								
Queue Length 95th (ft)	1	5	45	19								
Control Delay (s)	0.5	2.0	22.1	27.9								
Lane LOS	A	A	C	D								
Approach Delay (s)	0.5	2.0	22.1	27.9								
Approach LOS			C	D								
Intersection Summary												
Average Delay			4.7									
Intersection Capacity Utilization			67.1%		ICU Level of Service				C			
Analysis Period (min)			15									



Movement	WBL	WBR	NBL	NBR	SEL	SER
Lane Configurations	W		W		W	
Sign Control	Stop		Stop		Stop	
Volume (vph)	80	390	160	100	650	390
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	82	402	165	103	670	402
Direction, Lane #	WB 1	NB 1	SE 1			
Volume Total (vph)	485	268	1072			
Volume Left (vph)	82	0	670			
Volume Right (vph)	402	103	0			
Hadj (s)	-0.43	-0.20	0.16			
Departure Headway (s)	5.9	6.3	6.2			
Degree Utilization, x	0.80	0.47	1.84			
Capacity (veh/h)	598	539	587			
Control Delay (s)	28.1	14.9	401.0			
Approach Delay (s)	28.1	14.9	401.0			
Approach LOS	D	B	F			
Intersection Summary						
Delay			245.2			
HCM Level of Service			F			
Intersection Capacity Utilization		119.1%		ICU Level of Service		H
Analysis Period (min)			15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.97		1.00	0.95		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1629	1660		1660	1681		1676	1666		1613	1699	
Flt Permitted	0.13	1.00		0.06	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	229	1660		104	1681		1676	1666		1613	1699	
Volume (vph)	80	660	140	200	620	140	120	260	150	90	260	50
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	88	725	154	220	681	154	132	286	165	99	286	55
RTOR Reduction (vph)	0	10	0	0	6	0	0	16	0	0	5	0
Lane Group Flow (vph)	88	869	0	220	829	0	132	435	0	99	336	0
Confl. Peds. (#/hr)	1		7	7		1	11		2	2		11
Confl. Bikes (#/hr)			2						1			
Heavy Vehicles (%)	5%	5%	3%	3%	4%	2%	2%	1%	1%	6%	1%	9%
Turn Type	pm+pt		pm+pt				Prot		Prot			
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		8									
Actuated Green, G (s)	67.0	63.0		79.0	71.0		11.0	31.0		8.0	28.0	
Effective Green, g (s)	67.0	63.0		79.0	71.0		11.0	31.0		8.0	28.0	
Actuated g/C Ratio	0.52	0.48		0.61	0.55		0.08	0.24		0.06	0.22	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	161	804		207	918		142	397		99	366	
v/s Ratio Prot	0.02	0.52		c0.10	0.49		c0.08	c0.26		0.06	0.20	
v/s Ratio Perm	0.26		c0.55									
v/c Ratio	0.55	1.08		1.06	0.90		0.93	1.10		1.00	0.92	
Uniform Delay, d1	23.0	33.5		43.8	26.4		59.1	49.5		61.0	49.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	55.7		80.1	12.0		54.0	73.5		90.5	30.0	
Delay (s)	26.8	89.2		123.9	38.4		113.1	123.0		151.5	79.9	
Level of Service	C	F		F	D		F	F		F	E	
Approach Delay (s)		83.6			56.2			120.8			96.0	
Approach LOS		F			E			F			F	

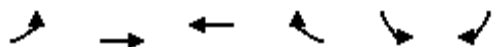
Intersection Summary			
HCM Average Control Delay	83.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1693	1709		1676	1708		1644	1652		1710	1676	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1693	1709		1676	1708		1644	1652		1710	1676	
Volume (vph)	180	480	80	220	340	50	90	310	120	80	420	80
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	505	84	232	358	53	95	326	126	84	442	84
RTOR Reduction (vph)	0	5	0	0	5	0	0	11	0	0	5	0
Lane Group Flow (vph)	189	584	0	232	406	0	95	441	0	84	521	0
Confl. Peds. (#/hr)	4		12	12		4	5		6	6		5
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	1%	2%	3%	2%	3%	2%	4%	4%	1%	0%	4%	5%
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	16.0	41.0		17.0	42.0		7.0	40.0		6.0	39.0	
Effective Green, g (s)	16.0	41.0		17.0	42.0		7.0	40.0		6.0	39.0	
Actuated g/C Ratio	0.13	0.34		0.14	0.35		0.06	0.33		0.05	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	226	584		237	598		96	551		86	545	
v/s Ratio Prot	0.11	c0.34		c0.14	0.24		c0.06	0.27		0.05	c0.31	
v/s Ratio Perm												
v/c Ratio	0.84	1.00		0.98	0.68		0.99	0.80		0.98	0.96	
Uniform Delay, d1	50.7	39.5		51.3	33.3		56.5	36.4		56.9	39.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	22.7	36.8		51.9	3.1		87.6	11.6		88.5	28.9	
Delay (s)	73.4	76.3		103.2	36.3		144.1	47.9		145.4	68.6	
Level of Service	E	E		F	D		F	D		F	E	
Approach Delay (s)		75.6			60.5			64.6			79.2	
Approach LOS		E			E			E			E	
Intersection Summary												
HCM Average Control Delay			70.3			HCM Level of Service			E			
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			92.0%			ICU Level of Service			F			
Analysis Period (min)			15									

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑↑	↑↑	↘	↙↘	↘
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1676	3353	3353	1500	3252	1500
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1676	3353	3353	1500	3252	1500
Volume (vph)	380	650	420	610	710	460
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	422	722	467	678	789	511
RTOR Reduction (vph)	0	0	0	523	0	339
Lane Group Flow (vph)	422	722	467	155	789	172
Confl. Bikes (#/hr)		1				
Turn Type	Prot			Perm		Prot
Protected Phases	6	1 6	5		8	8
Permitted Phases		1		5		
Actuated Green, G (s)	28.0	53.5	20.5	20.5	30.7	30.7
Effective Green, g (s)	29.0	54.5	21.5	21.5	31.7	31.7
Actuated g/C Ratio	0.31	0.58	0.23	0.23	0.34	0.34
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	516	1940	765	342	1094	505
v/s Ratio Prot	c0.25	0.22	c0.14		c0.24	0.11
v/s Ratio Perm				0.10		
v/c Ratio	0.82	0.37	0.61	0.45	0.72	0.34
Uniform Delay, d1	30.2	10.7	32.6	31.3	27.4	23.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.7	0.1	1.4	1.0	2.4	0.4
Delay (s)	39.9	10.8	34.0	32.2	29.8	23.8
Level of Service	D	B	C	C	C	C
Approach Delay (s)		21.5	33.0		27.4	
Approach LOS		C	C		C	

Intersection Summary

HCM Average Control Delay	27.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	94.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

**Milwaukie Transportation System Plan 2006 PM Peak Hour Traffic Counts
Peak Hour Traffic Signal Warrant Analysis**

No.	Intersection	Urban (1) or Rural (2)*	Major Street Lanes (1 or 2)	Minor Street Lanes (1 or 2)	Major Volume	Minor TH and LT Volume	Minor RT Volume	RT Reduction	Minor Volume	Warrant Volume	Warrant Met?
1	SE 42nd Avenue @ SE Harrison Street	1	1	1	440	366	70	1.00	366	446	No
2	SE Harrison Street @ SE Main Street	1	1	1	655	175	66	1.00	175	349	No
4	SE Mcloughlin Boulevard @ SE 22nd Avenue	1	1	1	3570	0	1	1.00	0	100	No
5	SE 21st street @ SE Harrison Street	1	1	1	703	49	75	1.00	49	327	No
6	SE 32nd Avenue @ SE Johnson Creek Boulevard	1	1	1	966	60	362	0.13	375	216	Yes

**Milwaukie Transportation System Plan 2030 PM Peak Hour Traffic Forecasts
Peak Hour Traffic Signal Warrant Analysis**

No.	Intersection	Urban (1) or Rural (2)*	Major Street Lanes (1 or 2)	Minor Street Lanes (1 or 2)	Major Volume	Minor TH and LT Volume	Minor RT Volume	RT Reduction	Minor Volume	Warrant Volume	Warrant Met?
1	SE 42nd Avenue @ SE Harrison Street	1	1	1	640	530	80	0.00	610	353	Yes
2	SE Harrison Street @ SE Main Street	1	1	1	860	230	90	1.00	230	256	No
4	SE Mcloughlin Boulevard @ SE 22nd Avenue	1	1	1	4540	0	10	1.00	0	100	No
5	SE 21st street @ SE Harrison Street	1	1	1	930	50	80	1.00	50	227	No
6	SE 32nd Avenue @ SE Johnson Creek Boulevard	1	1	1	1510	160	100	1.00	160	100	Yes



Oregon Department of Transportation

2012 - All SPIS Sites - By Hwy, MP

Region

1

Rte.	Rdwy	BMP	EMP	ADT	Crsh	Fatal	A	B	C	PDO	City	County	Connection in Group	Percentile	SPIS
081 PACIFIC HIGHWAY EAST															
OR-99E	1	4.41	4.50	42,300	14			1	6	7		MULTNOMAH		70	29.50
OR-99E	1	4.42	4.51	42,300	13			1	6	6		MULTNOMAH		70	28.79
OR-99E	1	4.43	4.52	42,300	11			1	6	4		MULTNOMAH		65	27.27
OR-99E	1	4.44	4.53	42,300	11			1	6	4		MULTNOMAH	081BP CONN. (TACOMA	65	27.27
OR-99E	1	4.45	4.54	42,300	3				1	2		MULTNOMAH			9.66
OR-99E	1	4.66	4.75	42,300	3			1	2			CLACKAMAS		70	27.66
OR-99E	1	4.67	4.76	42,300	4			1	2	1		CLACKAMAS		70	29.19
OR-99E	1	4.68	4.77	42,300	6			1	3	2		CLACKAMAS		80	33.16
OR-99E	1	4.69	4.78	42,300	14			1	1	5	7	CLACKAMAS		90	44.50
OR-99E	1	4.70	4.79	42,300	14			1	1	4	8	CLACKAMAS		90	43.00
OR-99E	1	4.71	4.80	42,300	14			1	1	3	9	CLACKAMAS		85	41.50
OR-99E	1	4.72	4.81	42,300	14			1	1	3	9	CLACKAMAS		85	41.50
OR-99E	1	4.73	4.82	42,300	14			1	1	3	9	CLACKAMAS		85	41.50
OR-99E	1	4.74	4.83	42,300	15			1	1	3	10	CLACKAMAS		85	42.19
OR-99E	1	4.75	4.84	42,300	15			1	1	3	10	CLACKAMAS		85	42.19
OR-99E	1	4.76	4.85	42,300	14				1	3	10	CLACKAMAS		60	25.00
OR-99E	1	4.77	4.86	42,300	13			1	3	9		CLACKAMAS		60	24.29
OR-99E	1	4.78	4.87	42,300	11			1	2	8		CLACKAMAS	ACCESS (DECREASING R	50	21.27
OR-99E	1	4.78	4.87	42,300	11			1	2	8		CLACKAMAS	OCHOCO ST.	50	21.27
OR-99E	1	4.79	4.88	51,100	4					4		CLACKAMAS			9.52
OR-99E	1	4.80	4.89	51,100	3					3		CLACKAMAS			8.04
OR-99E	1	4.91	5.00	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.92	5.01	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.93	5.02	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.94	5.03	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.95	5.04	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.96	5.05	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.97	5.06	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.98	5.07	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	4.99	5.08	51,100	3			1	2			CLACKAMAS			9.54
OR-99E	1	5.08	5.17	51,100	3			1	2			CLACKAMAS		15	12.54
OR-99E	1	5.09	5.18	51,100	5			1	3	1		CLACKAMAS		35	16.79
OR-99E	1	5.10	5.19	51,100	7			1	5	1		CLACKAMAS		55	21.95
OR-99E	1	5.11	5.20	51,100	20	1		2	10	7		CLACKAMAS		95	56.67
OR-99E	1	5.12	5.21	51,100	20	1		2	10	7		CLACKAMAS		95	56.67
OR-99E	1	5.13	5.22	51,100	22	1		2	11	8		CLACKAMAS		95	59.28
OR-99E	1	5.14	5.23	51,100	23	1		2	12	8		CLACKAMAS		95	61.31
OR-99E	1	5.15	5.24	51,100	23	1		2	12	8		CLACKAMAS		95	61.31
OR-99E	1	5.16	5.25	51,100	23	1		2	12	8		CLACKAMAS		95	61.31
OR-99E	1	5.17	5.26	51,100	22	1		2	11	8		CLACKAMAS		95	59.28



Oregon Department of Transportation

2012 - All SPIS Sites - By Hwy, MP

Region

1

Rte.	Rdwy	BMP	EMP	ADT	Crsh	Fatal	A	B	C	PDO	City	County	Connection in Group	Percentile	SPIS
081 PACIFIC HIGHWAY EAST															
OR-99E	1	5.18	5.27	51,100	21	1	2	10	8			CLACKAMAS		95	57.23
OR-99E	1	5.19	5.28	51,100	19	1	2	9	7			CLACKAMAS		95	54.61
OR-99E	1	5.20	5.29	51,100	17	1	2	7	7			CLACKAMAS	ACCESS (DECREASING R	90	50.42
OR-99E	1	5.20	5.29	51,100	17	1	2	7	7			CLACKAMAS	SE MILPORT RD.	90	50.42
OR-99E	1	5.21	5.30	39,200	3			2	1			CLACKAMAS		5	11.22
OR-99E	1	5.22	5.31	39,200	3			2	1			CLACKAMAS		5	11.22
OR-99E	1	5.62	5.71	25,100	4		1	2	1			CLACKAMAS		25	14.82
OR-99E	1	5.63	5.72	25,100	23		2	13	8			CLACKAMAS		90	49.48
OR-99E	1	5.64	5.73	25,100	25		3	13	9			CLACKAMAS		90	52.18
OR-99E	1	5.65	5.74	25,100	25		3	13	9			CLACKAMAS		90	52.18
OR-99E	1	5.66	5.75	25,100	25		3	13	9			CLACKAMAS		90	52.18
OR-99E	1	5.67	5.76	25,100	26		4	13	9			CLACKAMAS		95	54.25
OR-99E	1	5.68	5.77	25,100	27		4	13	10			CLACKAMAS		95	54.83
OR-99E	1	5.69	5.78	25,100	28		4	13	11			CLACKAMAS		95	55.40
OR-99E	1	5.70	5.79	25,100	28		4	13	11			CLACKAMAS		95	55.40
OR-99E	1	5.71	5.80	25,100	29		3	13	13			CLACKAMAS		95	54.44
OR-99E	1	5.72	5.81	32,500	27		3	11	13			CLACKAMAS	HWY. 081 M.P. (2)5.72	90	48.89
OR-99E	1	5.72	5.81	32,500	27		3	11	13			CLACKAMAS	17TH AVE.	90	48.89
OR-99E	1	5.73	5.82	32,500	8		2		6			CLACKAMAS		40	17.72
OR-99E	1	5.74	5.83	32,500	7		1		6			CLACKAMAS		30	15.19
OR-99E	1	5.75	5.84	32,500	7		1		6			CLACKAMAS		30	15.19
OR-99E	1	5.76	5.85	32,500	8		1		7			CLACKAMAS		35	16.22
OR-99E	1	5.77	5.86	32,500	7				7			CLACKAMAS	JACKSON ST.	20	13.69
OR-99E	1	5.78	5.87	32,500	5				5			CLACKAMAS		5	11.34
OR-99E	1	5.79	5.88	32,500	4				4			CLACKAMAS			9.97
OR-99E	1	5.80	5.89	32,500	4				4			CLACKAMAS			9.97
OR-99E	1	5.81	5.90	32,500	5			2	3			CLACKAMAS		25	14.34
OR-99E	1	5.82	5.91	32,500	6			2	4			CLACKAMAS		30	15.57
OR-99E	1	5.83	5.92	32,500	6			2	4			CLACKAMAS	SE MONROE ST.	30	15.57
OR-99E	1	5.84	5.93	32,500	9		1		4	4		CLACKAMAS		85	38.18
OR-99E	1	5.85	5.94	32,500	10		1	1	4	4		CLACKAMAS		85	40.60
OR-99E	1	5.86	5.95	32,500	9		1	1	4	3		CLACKAMAS		85	39.68
OR-99E	1	5.87	5.96	32,500	10		1	1	4	4		CLACKAMAS		85	40.60
OR-99E	1	5.88	5.97	32,500	11		1	1	4	5		CLACKAMAS	SE JEFFERSON ST.	85	41.45
OR-99E	1	5.88	5.97	32,500	11		1	1	4	5		CLACKAMAS	ROAD (BOAT LANDING)	85	41.45
OR-99E	1	5.89	5.98	32,500	11		1	1	4	5		CLACKAMAS		85	41.45
OR-99E	1	5.90	5.99	32,500	11		1	1	4	5		CLACKAMAS		85	41.45
OR-99E	1	5.91	6.00	32,500	9		1	1	3	4		CLACKAMAS		85	38.18
OR-99E	1	5.92	6.01	32,500	9		1	1	4	3		CLACKAMAS		85	39.68
OR-99E	1	5.93	6.02	32,500	9		1	1	4	3		CLACKAMAS	WASHINGTON ST.	85	39.68



Oregon Department of Transportation

2012 - All SPIS Sites - By Hwy, MP

Region

1

Rte.	Rdwy	BMP	EMP	ADT	Crsh	Fatal	A	B	C	PDO	City	County	Connection in Group	Percentile	SPIS
081 PACIFIC HIGHWAY EAST															
OR-99E	1	5.94	6.03	32,500	5			1	2	2		CLACKAMAS		30	15.84
OR-99E	1	5.95	6.04	32,500	4				2	2		CLACKAMAS		15	12.97
OR-99E	1	5.96	6.05	32,500	4				2	2		CLACKAMAS		15	12.97
OR-99E	1	5.97	6.06	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.12	6.21	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.13	6.22	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.14	6.23	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.15	6.24	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.16	6.25	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.17	6.26	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.18	6.27	32,500	3				2	1		CLACKAMAS		5	11.38
OR-99E	1	6.21	6.30	32,500	4				3	1		CLACKAMAS	22ND AVE.	25	14.47
OR-99E	1	6.22	6.31	32,500	6				5	1		CLACKAMAS		45	20.07
OR-99E	1	6.23	6.32	32,500	7				6	1		CLACKAMAS		55	22.69
OR-99E	1	6.24	6.33	32,500	8				6	2		CLACKAMAS		60	23.72
OR-99E	1	6.25	6.34	32,500	8				6	2		CLACKAMAS		60	23.72
OR-99E	1	6.26	6.35	32,500	8				6	2		CLACKAMAS		60	23.72
OR-99E	1	6.27	6.36	32,500	8				6	2		CLACKAMAS		60	23.72
OR-99E	1	6.28	6.37	32,500	8				6	2		CLACKAMAS		60	23.72
OR-99E	1	6.29	6.38	32,500	8				6	2		CLACKAMAS		60	23.72
OR-99E	1	6.30	6.39	32,500	8				6	2		CLACKAMAS	BLUE BIRD ST.	60	23.72
OR-99E	1	6.30	6.39	32,500	8				6	2		CLACKAMAS	RIVER RD. (2ND RT.)	60	23.72
OR-99E	1	6.31	6.40	27,100	5				4	1		CLACKAMAS	LEG (FROM RIVER RD.)	40	17.63
OR-99E	1	6.45	6.54	27,100	3				2	1		CLACKAMAS		10	11.57
OR-99E	1	6.46	6.55	27,100	3				2	1		CLACKAMAS		10	11.57
OR-99E	1	6.66	6.75	27,100	3					3		CLACKAMAS			8.57
OR-99E	1	6.67	6.76	27,100	3					3		CLACKAMAS			8.57
OR-99E	1	6.68	6.77	27,100	3					3		CLACKAMAS			8.57
OR-99E	1	6.69	6.78	27,100	3					3		CLACKAMAS			8.57
OR-99E	1	6.70	6.79	27,100	3					3		CLACKAMAS			8.57
OR-99E	1	6.71	6.80	27,100	3					3		CLACKAMAS			8.57
OR-99E	1	6.72	6.81	27,100	5				2	3		CLACKAMAS		25	14.63
OR-99E	1	6.73	6.82	27,100	5				3	2		CLACKAMAS		35	16.13
OR-99E	1	6.74	6.83	27,100	5				3	2		CLACKAMAS		35	16.13
OR-99E	1	6.75	6.84	27,100	5				3	2		CLACKAMAS		35	16.13
OR-99E	1	6.76	6.85	27,100	5				4	1		CLACKAMAS		40	17.63
OR-99E	1	6.77	6.86	27,100	5				4	1		CLACKAMAS		40	17.63
OR-99E	1	6.78	6.87	27,100	10				7	3		CLACKAMAS		70	27.61
OR-99E	1	6.79	6.88	27,100	12				8	4		CLACKAMAS		75	30.86



Oregon Department of Transportation

2012 - All SPIS Sites - By Hwy, MP

Region

1

Rte.	Rdwy	BMP	EMP	ADT	Crsh	Fatal	A	B	C	PDO	City	County	Connection in Group	Percentile	SPIS
161 WOODBURN-ESTACADA															
OR-211	I	33.35	33.44	6,300	3				1	2		CLACKAMAS	S CADONAU RD.	15	13.25
OR-211	I	33.36	33.45	6,300	3				1	2		CLACKAMAS		15	13.25
OR-211	I	33.37	33.46	6,300	3				1	2		CLACKAMAS		15	13.25
OR-211	I	33.39	33.48	6,300	3					3		CLACKAMAS		10	11.75
OR-211	I	33.40	33.49	6,300	9			2	3	4		CLACKAMAS		75	30.51
171 CLACKAMAS															
	I	0.02	0.11	7,800	3					3		CLACKAMAS	LEG (FROM 17TH AVE.)	5	11.03
	I	0.03	0.12	7,800	3					3		CLACKAMAS		5	11.03
	I	0.04	0.13	7,800	3					3		CLACKAMAS		5	11.03
	I	0.05	0.14	7,800	5				1	4		CLACKAMAS		35	16.80
	I	0.06	0.15	7,800	5				1	4		CLACKAMAS		35	16.80
	I	0.07	0.16	7,800	5				1	4		CLACKAMAS		35	16.80
	I	0.08	0.17	7,800	5				1	4		CLACKAMAS		35	16.80
OR-224	I	0.09	0.18	7,800	5				1	4		CLACKAMAS		35	16.80
OR-224	I	0.10	0.19	7,800	4				1	3		CLACKAMAS		25	14.81
OR-224	I	0.11	0.20	7,800	3				1	2		CLACKAMAS		15	12.53
OR-224	I	0.58	0.67	24,800	3				1	2		CLACKAMAS			10.17
OR-224	I	0.59	0.68	24,800	25			5	10	10		CLACKAMAS		90	50.75
OR-224	I	0.60	0.69	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.61	0.70	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.62	0.71	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.63	0.72	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.64	0.73	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.65	0.74	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.66	0.75	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.67	0.76	24,800	26			5	11	10		CLACKAMAS		90	52.82
OR-224	I	0.68	0.77	24,800	24			6	10	8		CLACKAMAS	171AB CONN. (SE HARRI	90	51.65
OR-224	I	0.69	0.78	24,500	10			2	6	2		CLACKAMAS		70	29.43
OR-224	I	0.70	0.79	24,500	9			2	5	2		CLACKAMAS		65	26.95
OR-224	I	0.71	0.80	24,500	9			2	5	2		CLACKAMAS		65	26.95
OR-224	I	0.72	0.81	24,500	9			2	5	2		CLACKAMAS		65	26.95
OR-224	I	0.73	0.82	24,500	9			2	5	2		CLACKAMAS		65	26.95
OR-224	I	0.74	0.83	24,500	10			3	5	2		CLACKAMAS		70	29.43
OR-224	I	0.75	0.84	24,500	10			3	5	2		CLACKAMAS		70	29.43
OR-224	I	0.76	0.85	24,500	10			3	5	2		CLACKAMAS		70	29.43
OR-224	I	0.77	0.86	24,500	10			3	5	2		CLACKAMAS		70	29.43
OR-224	I	0.78	0.87	24,500	9			2	5	2		CLACKAMAS	171AC CONN. (SE MONROE	65	26.95
OR-224	I	0.82	0.91	25,100	3			1	1	1		CLACKAMAS		10	11.66
OR-224	I	0.83	0.92	25,100	6			1	3	2		CLACKAMAS		45	19.07
OR-224	I	0.84	0.93	25,100	19			2	5	12		CLACKAMAS		80	34.92



Rte.	Rdwy	BMP	EMP	ADT	Crsh	Fatal	A	B	C	PDO	City	County	Connection in Group	Percentile	SPIS
171 CLACKAMAS															
OR-224	1	0.85	0.94	25,100	20		2	5	13			CLACKAMAS		80	35.57
OR-224	1	0.86	0.95	25,100	21		2	5	14			CLACKAMAS		80	36.22
OR-224	1	0.87	0.96	25,100	21		2	5	14			CLACKAMAS		80	36.22
OR-224	1	0.88	0.97	25,100	21		2	5	14			CLACKAMAS		80	36.22
OR-224	1	0.89	0.98	25,100	21		2	4	15			CLACKAMAS		80	34.72
OR-224	1	0.90	0.99	25,100	21		2	4	15			CLACKAMAS		80	34.72
OR-224	1	0.91	1.00	25,100	21		2	4	15			CLACKAMAS		80	34.72
OR-224	1	0.92	1.01	25,100	21		2	4	15			CLACKAMAS		80	34.72
OR-224	1	0.93	1.02	25,100	18		2	2	14			CLACKAMAS	171AD CONN. (OAK ST.)	70	29.73
OR-224	1	0.94	1.03	25,700	4					4		CLACKAMAS			10.29
OR-224	1	0.95	1.04	25,700	3					3		CLACKAMAS			8.63
OR-224	1	1.23	1.32	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.24	1.33	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.25	1.34	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.26	1.35	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.27	1.36	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.28	1.37	25,700	8		2	2	4			CLACKAMAS	LEG (FROM 171AE CONN.)	50	21.29
OR-224	1	1.29	1.38	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.30	1.39	25,700	8		2	2	4			CLACKAMAS		50	21.29
OR-224	1	1.31	1.40	25,700	7		2	2	3			CLACKAMAS		45	20.20
OR-224	1	1.32	1.41	25,700	7		2	2	3			CLACKAMAS	171AE CONN. (SE EDISON)	45	20.20
OR-224	1	1.80	1.89	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.81	1.90	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.82	1.91	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.83	1.92	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.84	1.93	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.85	1.94	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.86	1.95	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.87	1.96	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.88	1.97	25,700	8		2	3	3			CLACKAMAS		55	22.79
OR-224	1	1.89	1.98	25,700	7		2	3	2			CLACKAMAS	SE FREEMAN WAY	55	21.70
OR-224	1	2.63	2.72	27,300	6			4	2			CLACKAMAS		45	18.90
OR-224	1	2.64	2.73	27,300	7			4	3			CLACKAMAS		45	20.06
OR-224	1	2.65	2.74	27,300	7			4	3			CLACKAMAS		45	20.06
OR-224	1	2.66	2.75	27,300	8	1		4	3			CLACKAMAS		85	37.63
OR-224	1	2.67	2.76	27,300	8	1		4	3			CLACKAMAS		85	37.63
OR-224	1	2.68	2.77	27,300	9	1		4	4			CLACKAMAS		85	38.63
OR-224	1	2.69	2.78	27,300	10	1		4	5			CLACKAMAS	171AI CONN. M.P. 3C2.69	85	39.59
OR-224	1	2.70	2.79	26,900	9	1		4	4			CLACKAMAS		85	38.68
OR-224	1	2.71	2.80	26,900	9	1		4	4			CLACKAMAS		85	38.68



Oregon Department of Transportation

2012 - All SPIS Sites - By Hwy, MP

Region

1

Rte.	Rdwy	BMP	EMP	ADT	Crsh	Fatal	A	B	C	PDO	City	County	Connection in Group	Percentile	SPIS
171 CLACKAMAS															
OR-224	1	2.72	2.81	26,900	9		1		4	4		CLACKAMAS	RUSK RD.	85	38.68
OR-224	1	2.73	2.82	26,900	5		1			4		CLACKAMAS		70	28.14
OR-224	1	2.74	2.83	26,900	4		1			3		CLACKAMAS		65	26.72
OR-224	1	2.75	2.84	26,900	4		1			3		CLACKAMAS		65	26.72
OR-224	1	2.76	2.85	26,900	3					3		CLACKAMAS			8.58
OR-224	1	2.77	2.86	26,900	3					3		CLACKAMAS			8.58
OR-224	1	3.06	3.15	26,900	3					3		CLACKAMAS		15	13.08
OR-224	1	3.07	3.16	26,900	4				3	1		CLACKAMAS		25	14.72
OR-224	1	3.08	3.17	26,900	4				3	1		CLACKAMAS		25	14.72
OR-224	1	3.09	3.18	26,900	4				3	1		CLACKAMAS		25	14.72
OR-224	1	3.10	3.19	26,900	9				6	3		CLACKAMAS		65	25.18
OR-224	1	3.11	3.20	26,900	25		1	2	9	13		CLACKAMAS		95	60.79
OR-224	1	3.12	3.21	26,900	31		2	2	10	17		CLACKAMAS		95	75.91
OR-224	1	3.13	3.22	26,900	32		2	2	11	17		CLACKAMAS		95	76.26
OR-224	1	3.14	3.23	26,900	34		2	2	12	18		CLACKAMAS		95	76.95
OR-224	1	3.15	3.24	26,900	34		2	2	12	18		CLACKAMAS		95	76.95
OR-224	1	3.16	3.25	26,900	33		2	2	11	18		CLACKAMAS		95	76.61
OR-224	1	3.17	3.26	26,900	32		2	2	11	17		CLACKAMAS		95	76.26
OR-224	1	3.18	3.27	26,900	32		2	2	11	17		CLACKAMAS		95	76.26
OR-224	1	3.19	3.28	26,900	32		2	2	11	17		CLACKAMAS		95	76.26
OR-224	1	3.20	3.29	26,900	28		2	2	9	15		CLACKAMAS	LAKE RD.	95	74.81
OR-224	1	3.21	3.30	29,200	11		1		5	5		CLACKAMAS		85	41.76
OR-224	1	3.22	3.31	29,200	5				4	1		CLACKAMAS		40	17.51
OR-224	1	3.23	3.32	29,200	6				4	2		CLACKAMAS		45	18.77
OR-224	1	3.24	3.33	29,200	9				7	2		CLACKAMAS		65	26.45
OR-224	1	3.25	3.34	29,200	9				7	2		CLACKAMAS		65	26.45
OR-224	1	3.26	3.35	29,200	10				7	3		CLACKAMAS		70	27.39
OR-224	1	3.27	3.36	29,200	10				7	3		CLACKAMAS		70	27.39
OR-224	1	3.28	3.37	29,200	10				7	3		CLACKAMAS		70	27.39
OR-224	1	3.29	3.38	29,200	10				7	3		CLACKAMAS		70	27.39
OR-224	1	3.30	3.39	29,200	8				5	3		CLACKAMAS		55	22.46
OR-224	1	3.31	3.40	29,200	8				5	3		CLACKAMAS		55	22.46
OR-224	1	3.32	3.41	29,200	8				5	3		CLACKAMAS		55	22.46
OR-224	1	3.33	3.42	29,200	6				4	2		CLACKAMAS	PHEASANT CT.	45	18.77
OR-224	1	3.60	3.69	35,100	4		1		1	2		CLACKAMAS		70	27.88
OR-224	1	3.61	3.70	35,100	6		1		2	3		CLACKAMAS		75	31.94
OR-224	1	3.62	3.71	35,100	10		1	1	3	5		CLACKAMAS		85	38.90
OR-224	1	3.63	3.72	35,100	10		1	1	3	5		CLACKAMAS		85	38.90
OR-224	1	3.64	3.73	35,100	30		2	3	12	13		CLACKAMAS		95	74.05
OR-224	1	3.65	3.74	35,100	32		2	3	13	14		CLACKAMAS		95	74.70
OR-224	1	3.66	3.75	35,100	37		2	4	15	16		CLACKAMAS		95	76.24

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

All crashes in Milwaukie
 1-1-2003 through available 2006 2006 data could change

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2006														
ANGLE	0	5	11	16	0	10	0	12	4	13	3	16	0	0
BACKING	0	1	1	2	0	1	0	2	0	2	0	0	0	0
FIXED / OTHER OBJECT	0	4	8	12	0	4	1	5	7	4	8	0	0	7
MISCELLANEOUS	0	1	0	1	0	1	0	0	0	1	0	0	0	0
PEDESTRIAN	0	1	0	1	0	1	0	0	1	1	0	1	0	0
REAR-END	0	12	18	30	0	18	0	20	10	22	8	4	5	0
SIDESWIPE - OVERTAKING	0	1	4	5	0	1	0	3	2	3	2	0	0	1
TURNING MOVEMENTS	0	11	17	28	0	17	2	20	8	23	5	17	0	2
2006 TOTAL	0	36	59	95	0	53	3	62	32	69	26	38	5	10
YEAR: 2005														
ANGLE	0	20	4	24	0	28	1	22	2	20	4	21	0	1
BACKING	0	0	4	4	0	0	0	2	2	3	1	0	0	1
FIXED / OTHER OBJECT	0	8	6	14	0	9	0	8	6	6	8	1	0	9
HEAD-ON	0	3	0	3	0	6	0	2	1	1	1	0	0	1
PEDESTRIAN	0	3	0	3	0	3	0	2	0	1	1	1	1	0
REAR-END	0	36	36	72	0	56	1	59	13	56	16	13	6	3
SIDESWIPE - MEETING	0	0	2	2	0	0	0	1	1	1	1	0	0	0
SIDESWIPE - OVERTAKING	0	3	2	5	0	5	0	4	1	3	2	0	0	0
TURNING MOVEMENTS	0	10	19	29	0	13	0	20	8	18	11	17	0	0
2005 TOTAL	0	83	73	156	0	120	2	120	34	109	45	53	7	15
YEAR: 2004														
ANGLE	0	11	13	24	0	18	0	22	2	20	4	21	0	0
BACKING	0	3	3	6	0	4	1	2	4	4	2	0	2	0
FIXED / OTHER OBJECT	0	4	9	13	0	4	0	9	4	6	7	2	1	10
HEAD-ON	0	1	1	2	0	1	0	1	1	1	1	0	0	0
MISCELLANEOUS	0	1	1	2	0	2	0	2	0	1	1	0	0	0
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	35	34	69	0	47	0	49	20	56	13	6	20	0
SIDESWIPE - MEETING	0	1	1	2	0	1	0	0	2	2	0	0	0	0
SIDESWIPE - OVERTAKING	0	2	4	6	0	2	0	6	0	6	0	0	1	0
TURNING MOVEMENTS	0	16	14	30	0	21	0	22	8	19	11	19	2	0
2004 TOTAL	0	75	80	155	0	101	1	114	41	116	39	49	26	10
YEAR: 2003														
ANGLE	0	18	25	43	0	29	0	34	9	38	5	32	1	1
BACKING	0	2	9	11	0	2	0	9	2	8	3	0	2	1
FIXED / OTHER OBJECT	0	6	8	14	0	7	0	10	4	5	9	1	0	14
HEAD-ON	0	1	1	2	0	2	0	2	0	2	0	0	0	1
NON-COLLISION	0	1	0	1	0	1	1	1	0	1	0	0	0	0
PARKING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	0	0	1
PEDESTRIAN	0	3	0	3	0	3	0	1	2	0	3	1	2	0
REAR-END	0	35	34	69	0	48	4	42	26	60	9	26	12	0
SIDESWIPE - MEETING	0	0	2	2	0	0	0	2	0	1	1	0	0	0
SIDESWIPE - OVERTAKING	0	5	12	17	0	8	4	15	2	15	1	0	1	2
TURNING MOVEMENTS	0	10	18	28	0	13	2	19	9	24	4	19	0	1
2003 TOTAL	0	81	110	191	0	113	11	136	54	155	35	79	18	21

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

All crashes in Milwaukie
 1-1-2003 through available 2006 2006 data could change

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
FINAL TOTAL	0	275	322	597	0	387	17	432	161	449	145	219	56	56

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McLoughlin Blvd (Route 99E, Hwy 81 at SE Ochoco Street in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
ANGLE	0	0	1	1	0	0	1	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2005 TOTAL	0	1	1	2	0	1	1	2	0	2	0	2	0	0
YEAR: 2004														
ANGLE	0	1	0	1	0	3	0	1	0	1	0	1	0	0
2004 TOTAL	0	1	0	1	0	3	0	1	0	1	0	1	0	0
YEAR: 2003														
REAR-END	0	2	0	2	0	4	0	1	1	2	0	2	0	0
2003 TOTAL	0	2	0	2	0	4	0	1	1	2	0	2	0	0
FINAL TOTAL	0	4	1	5	0	8	1	4	1	5	0	5	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McLoughlin Blvd (Route 99E, Hwy 81) at SE Milport Road in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2004														
ANGLE	0	2	1	3	0	5	0	3	0	2	1	3	0	0
2004 TOTAL	0	2	1	3	0	5	0	3	0	2	1	3	0	0
YEAR: 2003														
ANGLE	0	1	1	2	0	3	0	1	1	1	1	2	0	0
REAR-END	0	1	1	2	0	1	0	0	1	2	0	2	0	0
TURNING MOVEMENTS	0	0	2	2	0	0	1	2	0	1	1	2	0	0
2003 TOTAL	0	2	4	6	0	4	1	3	2	4	2	6	0	0
FINAL TOTAL	0	4	5	9	0	9	1	6	2	6	3	9	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McLoughlin Blvd (Route 99E, Hwy 81) at SE Monroe Street in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
----------------	------------------	--------------------------	----------------------------	------------------	------------------	-------------------	--------	-------------	-------------	-----	------	-------------------	------------------------------	--------------

YEAR:

TOTAL

FINAL TOTAL

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McLoughlin Blvd (Route 99E, Hwy 81) at SE Washington Street in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
FIXED / OTHER OBJECT	0	0	1	1	0	0	0	1	0	1	0	1	0	1
2005 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	1
YEAR: 2003														
REAR-END	0	1	0	1	0	1	0	0	1	1	0	1	0	0
2003 TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0
FINAL TOTAL	0	1	1	2	0	1	0	1	1	2	0	2	0	1

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

McLoughlin Blvd (Route 99E, Hwy 81) at SE River Road in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
REAR-END	0	0	2	2	0	0	0	0	2	2	0	2	0	0
2005 TOTAL	0	0	2	2	0	0	0	0	2	2	0	2	0	0
YEAR: 2004														
ANGLE	0	0	1	1	0	0	0	1	0	0	1	1	0	0
FIXED / OTHER OBJECT	0	0	1	1	0	0	0	1	0	1	0	1	0	1
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2004 TOTAL	0	0	3	3	0	0	0	3	0	2	1	3	0	1
FINAL TOTAL	0	0	5	5	0	0	0	3	2	4	1	5	0	1

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE 17th Avenue in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2004														
REAR-END	0	1	0	1	0	3	0	1	0	1	0	1	0	0
2004 TOTAL	0	1	0	1	0	3	0	1	0	1	0	1	0	0
YEAR: 2003														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2003 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
FINAL TOTAL	0	1	1	2	0	3	0	2	0	2	0	2	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE Harrison Street in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
ANGLE	0	0	1	1	0	0	0	0	1	0	1	1	0	0
REAR-END	0	0	1	1	0	0	0	0	1	0	1	1	0	0
TURNING MOVEMENTS	0	3	1	4	0	4	0	4	0	2	2	4	0	0
2005 TOTAL	0	3	3	6	0	4	0	4	2	2	4	6	0	0
YEAR: 2003														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	0	2	2	0	0	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	0	1	1	0	0
2003 TOTAL	0	1	3	4	0	1	0	3	1	3	1	4	0	0
FINAL TOTAL	0	4	6	10	0	5	0	7	3	5	5	10	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE Monroe Street in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
ANGLE	0	2	0	2	0	3	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
2005 TOTAL	0	2	1	3	0	3	0	3	0	2	1	3	0	0
YEAR: 2003														
REAR-END	0	0	1	1	0	0	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2003 TOTAL	0	0	2	2	0	0	0	1	1	2	0	2	0	0
FINAL TOTAL	0	2	3	5	0	3	0	4	1	4	1	5	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE 37th Avenue and SE Edison Street in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2004														
ANGLE	0	1	0	1	0	2	0	1	0	1	0	1	0	0
2004 TOTAL	0	1	0	1	0	2	0	1	0	1	0	1	0	0
FINAL TOTAL	0	1	0	1	0	2	0	1	0	1	0	1	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE Freeman Way in Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
REAR-END	0	1	0	1	0	2	0	1	0	1	0	1	0	0
2005 TOTAL	0	1	0	1	0	2	0	1	0	1	0	1	0	0
YEAR: 2003														
REAR-END	0	2	1	3	0	3	2	2	1	3	0	3	0	0
2003 TOTAL	0	2	1	3	0	3	2	2	1	3	0	3	0	0
FINAL TOTAL	0	3	1	4	0	5	2	3	1	4	0	4	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
 CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE Harmony Road in/near Milwaukie
 1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
TURNING MOVEMENTS	0	0	1	1	0	0	1	1	0	1	0	1	0	0
2005 TOTAL	0	0	1	1	0	0	1	1	0	1	0	1	0	0
FINAL TOTAL	0	0	1	1	0	0	1	1	0	1	0	1	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Clackamas Hwy (Route 224, Hwy 171) at SE Lake Road in/near Milwaukie
1-1-2003 through 12-31-2005

COLLISION TYPE	FATAL CRASHES	NON- FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2005														
ANGLE	0	1	0	1	0	1	0	0	1	1	0	1	0	0
REAR-END	0	1	1	2	0	3	0	2	0	1	1	2	0	0
TURNING MOVEMENTS	1	0	2	3	1	1	0	3	0	1	2	3	0	0
2005 TOTAL	1	2	3	6	1	5	0	5	1	3	3	6	0	0
YEAR: 2004														
ANGLE	0	1	1	2	0	3	0	2	0	2	0	2	0	0
2004 TOTAL	0	1	1	2	0	3	0	2	0	2	0	2	0	0
YEAR: 2003														
ANGLE	0	3	0	3	0	4	0	2	1	2	1	3	0	0
REAR-END	0	1	3	4	0	3	0	3	1	3	1	4	0	0
2003 TOTAL	0	4	3	7	0	7	0	5	2	5	2	7	0	0
FINAL TOTAL	1	7	7	15	1	15	0	12	3	10	5	15	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

