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Solihull Cordon 1999

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Summary

The following is a summary of the information contained in this report. Estimates of persons have only been calculated for the inbound and outbound morning peak and off-peak periods. The estimates are calculated using manual surveys. The extent of these surveys defines the extent of information available. For details on methodology and a breakdown of the time periods, see the main report.

0730-0930 inbound

total vehicles	16,331
estimated pedal cycles	62
estimated bus	350
estimated light vehicles	15,590
estimated goods vehicles	329
estimated persons (all vehicles)	21,119

0730-0930 outbound

total vehicles	11,009
estimated pedal cycles	59
estimated bus	412
estimated light vehicles	10,300
estimated goods vehicles	237
estimated persons (all vehicles)	13,665

1000-1200 inbound

total vehicles	9,137
estimated pedal cycles	59
estimated bus	350
estimated light vehicles	8,295
estimated goods vehicles	432
estimated persons (all vehicles)	11,745

1000-1200 outbound

total vehicles	8,679
estimated pedal cycles	30
estimated bus	290
estimated light vehicles	7,789
estimated goods vehicles	301
estimated persons (all vehicles)	12,126

1 Introduction

This report is being undertaken as part of the Local Transport Plan monitoring process. The purpose of the report is to give an indication of the level of vehicular activity in the town centre, to indicate existing and future levels of transport demand and to monitor the effects of transport policy. The surveys and analysis have been undertaken by the **jdt**.

2 Methodology

Counts of vehicles crossing a cordon around Solihull Town Centre are undertaken every two years using Automatic Traffic Counters (ATC'S) installed on all major and most minor roads crossing the cordon. The counts record vehicles continuously, by direction, for a seven day period. The location of the sites is shown in figure 11.

Three sites are also surveyed manually by Solihull M.B.C. staff. This data is used to estimate the modal split of the automatic data and also to estimate the number of people travelling into the town centre by vehicle.

A complimentary bus cordon survey is undertaken by CENTRO, into which this report feeds.

Results of the 1999 Solihull Cordon Survey are presented on the following pages. Where appropriate, comparisons with 1997 and 1995 data have been made.

3 Background

Collection of the data took place in the week beginning Monday 20th September. The count on New Road was repeated in the week commencing 8th November due to unrepresentative data collected during the survey week. The survey was carried out over a neutral week, avoiding school holidays and the pre-Christmas peak. In future the intention will be to keep to the same week each year. The exact position of the automatic counts can be seen in Appendix 1. Again, the intention will be to use the same sites for this monitoring purpose each time the cordon survey is carried out.

4 Results

In Table 1 the figures for the number of vehicles crossing the cordon line in the morning peak period are presented. Traditionally, the morning peak period has been considered as being 07.30-09.30. The figures show virtually no change during this time period compared with 1997.

Table 1 Number of vehicles crossing the cordon in the Morning Peak Period (07.30 - 09.30)

	1995	1997	1999
Inbound Total	15,717	16,606	16,331
Outbound Total	10,158	10,875	11,009

Table 2 shows the number of vehicles crossing the cordon line in the traditional off-peak morning period (10.00-12.00). Again, the figures show no change compared with the data collected two years ago.

Table 2 Number of vehicles crossing the cordon in the Morning Off-Peak Period (10.00-12.00)

	1995	1997	1999
Inbound Total	9,118	9,152	9,137
Outbound Total	8,603	8,563	8,679

The figures in Table 3 show that in 1999 around 20.5% of traffic flowing into the town centre on a typical weekday is crossing the cordon line between the hours of 7.30a.m. and 9.30a.m. This corresponds to the figure outbound in the evening peak period (4p.m. to 6p.m.), which is 19%. The off-peak time period considered (1000-1200) shows 11.5% of the daily traffic travelling into the town centre. A similar percentage is evident in the outbound direction for this time period. Around 83% of an average day's traffic is crossing the cordon during the main 12hr day. The figures in this table show that, in general, the numbers of vehicles counted in 1999 were about the same as in 1997. Whilst the net figure over 24 hours might be expected to be zero, the figures are an average of the flow characteristics over five weekdays and the net figure is within the expected level of accuracy of automatic counts.

Table 3 Total Vehicles by Time Period on an Average Weekday

	07.30 - 09.30	10.00 - 12.00	16.00 - 18.00	07.00 – 1900 (12 hour)	00.00 –24.00 (24 hour)
1995					
Inbound	15,717	9,118	11,883	66,104	80,108
% of 24 hr	19.6	11.4	14.8	82.5	100
Outbound	10,158	8,603	15,145	64,465	79,567
% of 24 hr	12.8	10.8	19.0	81.0	100
NET	5,559	515	-3,262	1,639	541
1997					
Inbound	16,606	9,152	11,712	66,847	80,404
% of 24 hr	20.6	11.4	14.6	83.1	100
Outbound	10,875	8,563	15,474	65,075	79,256
% of 24 hr	13.7	10.8	19.5	82.1	100
NET	5,731	589	-3,762	1,772	1,148
1999					
Inbound	16,331	9,137	11,511	66,327	79,628
% of 24hr	20.5	11.5	14.4	83.3	100
Outbound	11,009	8,679	15,166	65,824	79,919
% of 24hr	13.8	10.8	19.0	82.3	100
NET	5,322	458	-3,655	503	291

Figure 1 Inbound Morning Peak Period: Vehicle Volumes by Quarter Hour - Average Weekday

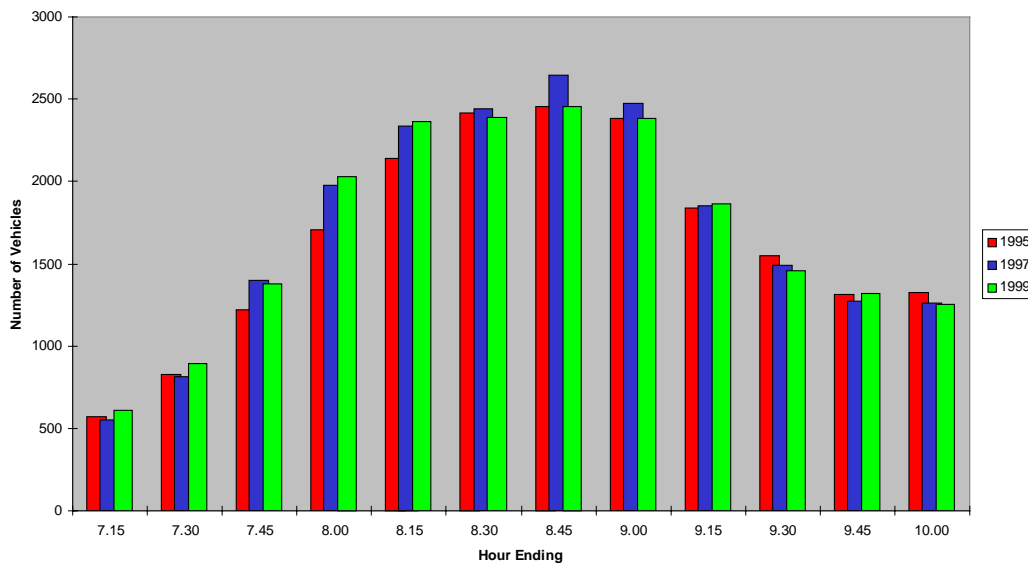


Figure 1 and Figure 2 show the two main peak periods by quarter hour. The morning figures are given from 7a.m. until 10a.m. and the evening from 4p.m. to 7p.m. These time periods are wider than those presented in previous tables. This allows a check on the traditional time periods as peak spreading may be seen on these graphs. Figure 1 shows fluctuating changes in traffic between 1997 and 1999. Similarly, in the outbound direction, (Figure 2) some time periods show increases compared with 1997 while others show decreases.

Figure 2 Outbound Evening Peak Period: Vehicle Volumes by Quarter Hour – Average Weekday

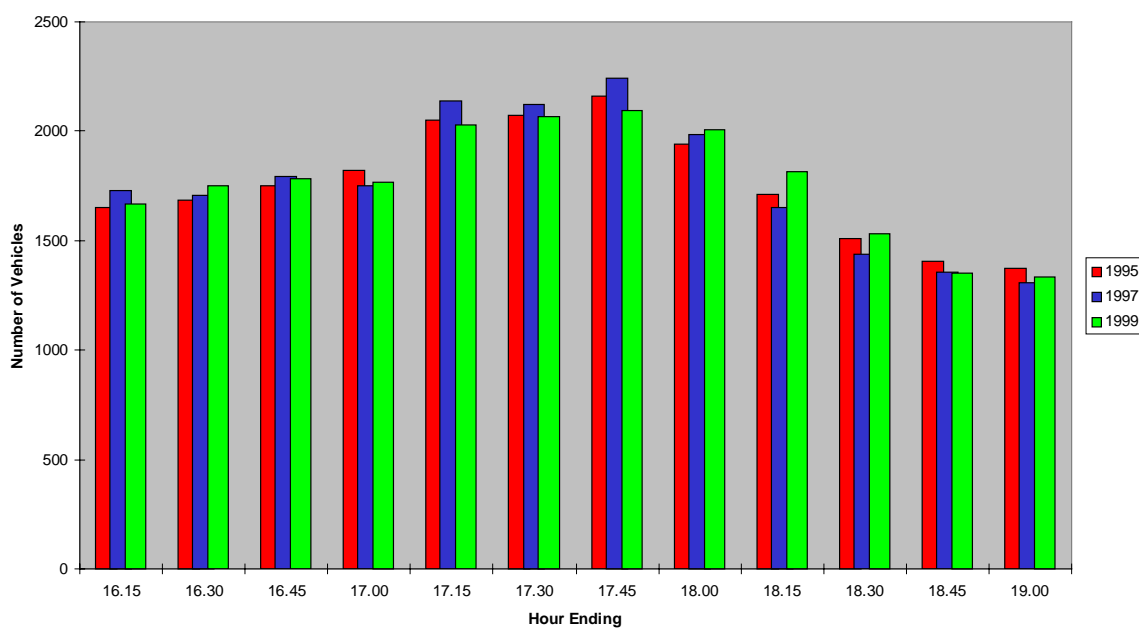


Figure 3 Inbound levels of vehicles, by hour – Average Weekday

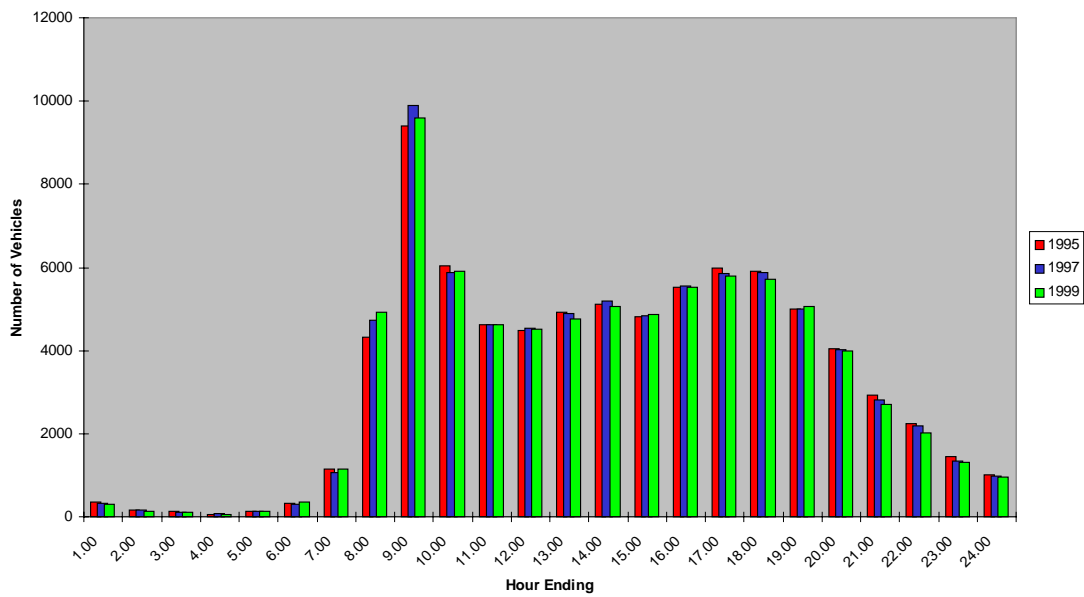
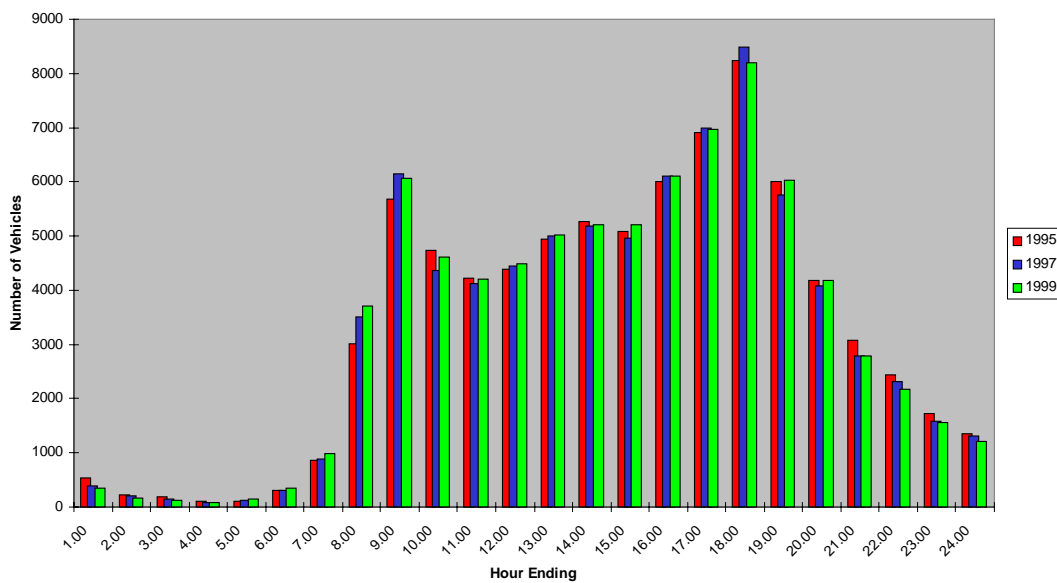


Figure 4 Outbound levels of vehicles, by hour – Average Weekday



4.1 Daily and Hourly Variations

The figures in Table 4 give the proportions that each day contributes to an average weekday (Mon-Fri) for each of the traditional time periods. These figures can be used to factor a count taken on any particular day to an average weekday. The figures also show which days have the heaviest flows during each time period.

Table 4 Variations in traffic flow, by time of day 1999

	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Sun.
Inbound							
07.30 - 09.30	1.066	1.002	1.000	0.950	0.983	0.403	0.157
10.00 - 12.00	1.015	0.950	1.012	0.966	1.057	1.290	0.783
16.00 - 18.00	0.987	0.991	0.984	1.020	1.020	0.732	0.508
07.00 - 19.00	1.011	0.983	0.993	0.983	1.030	0.838	0.517
00.00 - 24.00	0.987	0.981	0.988	0.995	1.048	0.855	0.554
Outbound							
07.30 - 09.30	1.035	1.013	0.976	0.991	0.985	0.452	0.208
10.00 - 12.00	1.013	0.966	0.986	0.966	1.069	1.204	0.837
16.00 - 18.00	0.990	0.990	0.978	1.021	1.021	0.705	0.394
07.00 - 19.00	1.005	0.991	0.981	0.991	1.033	0.840	0.528
00.00 - 24.00	0.987	0.989	0.981	0.998	1.046	0.854	0.566

Figure 5 and Figure 6 show the gain in vehicles to the cordon by hour and the total accumulation of vehicles to the cordon. The figures used in these graphs are given in Table 5.

Table 5 Net loss / gain and accumulation in vehicles crossing the cordon, by hour – Average Weekday

Hour ending	Inbound	Outbound	Net	Cum
1.00	310	347	-37	-37
2.00	148	166	-18	-55
3.00	102	126	-24	-79
4.00	68	74	-6	-85
5.00	140	135	5	-80
6.00	360	342	18	-62
7.00	1154	983	171	109
8.00	4912	3709	1203	1312
9.00	9596	6075	3521	4833
10.00	5903	4617	1286	6119
11.00	4621	4198	423	6542
12.00	4516	4481	35	6577
13.00	4751	5014	-263	6314
14.00	5056	5213	-157	6157
15.00	4868	5216	-348	5809
16.00	5527	6101	-574	5235
17.00	5806	6968	-1162	4073
18.00	5705	8198	-2493	1580
19.00	5066	6034	-968	612
20.00	3998	4182	-184	428
21.00	2712	2796	-84	344
22.00	2022	2178	-156	188
23.00	1318	1553	-235	-47
24.00	969	1213	-244	-291

Figure 5 Net loss / gain in vehicles crossing the cordon, by hour – Average Weekday

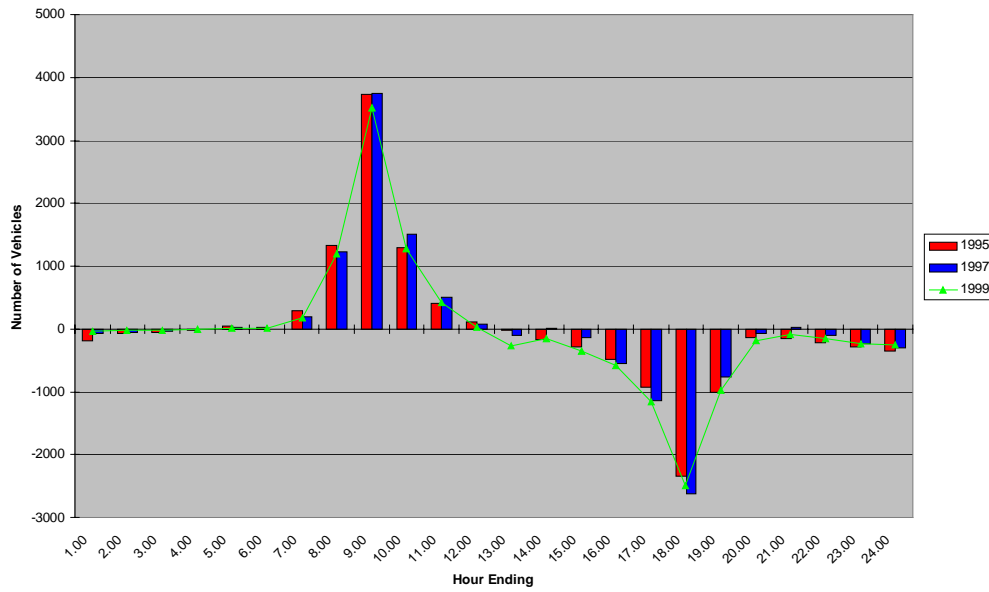
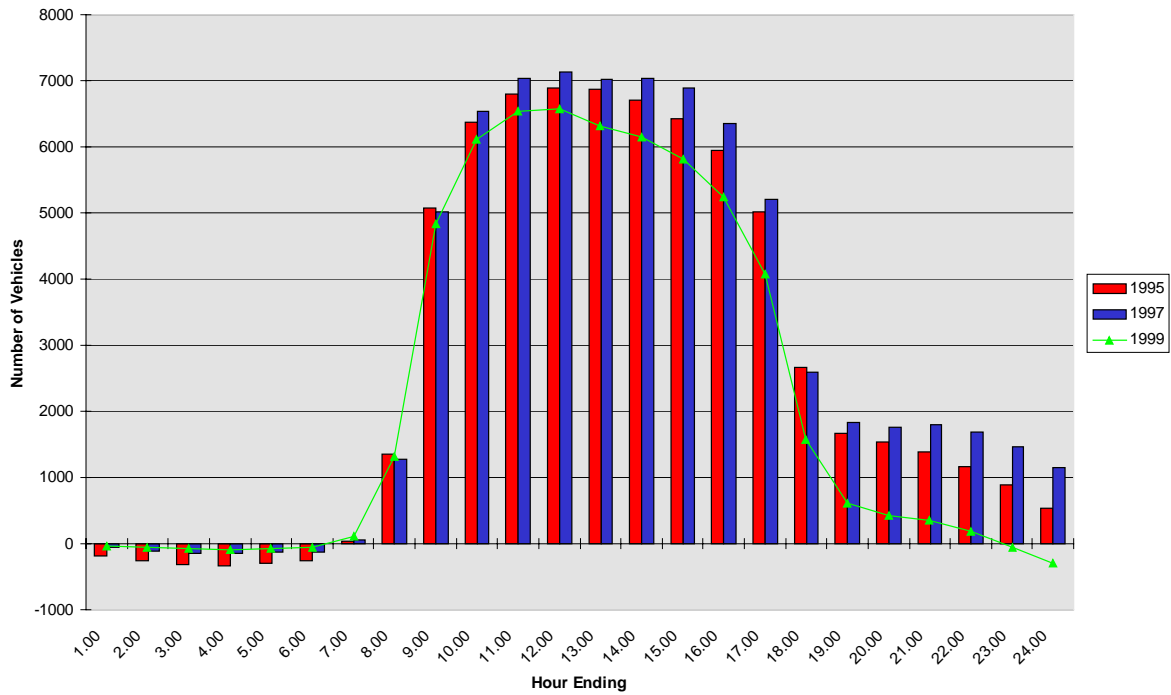


Figure 6 Net accumulation of vehicles, by hour – Average Weekday



4.2 Patterns of Travel

The figures in Table 6 show the number of vehicles travelling into and out of the town centre by each individual site on an average weekday. By examining these figures, some patterns of travel may be evident. For example, people may prefer to use a particular road inbound in the morning, but choose a different route for their outward evening journey.

Table 6 Net loss / gain in vehicles on an average weekday, by site

Site	Location	Inbound 1999	Outbound 1999	Net loss / gain 1999
SO01	Lode Lane	12,611	13,051	-440
SO02	Warwick Rd (North)	12,544	13,654	-1,110
SO03	New Road	8,397	8,130	267
SO04	Church Hill Road	6,189	5,733	456
SO05	Monkspath Hall Rd	8,684	8,661	23
SO06	Blossomfield Road	11,302	11,370	-68
SO07	Streetsbrook Road	11,099	11,311	-212
SO08	Ashleigh Road	2,866	1,837	1,029
SO09	Warwick Rd (South)	5,937	6,175	-238

4.3 Mode of travel

The three manual surveys give us an indication of mode of travel data.

Table 7 summarises the data recorded at the two manual sites. For the purpose of this table, 'light vehicles' includes motorcycles, cars, taxis and light vans less than 1.5T. The Heavy goods category includes all vehicles over 1.5T. These are the usual categories for light and heavy vehicles.

In Table 7 the percentage each vehicle category contributes to the total vehicles in that ¼ hour is given in brackets. In Table 8 these percentages are multiplied by the number of vehicles counted by the automatic counters, giving an estimate of the number of vehicles of that type crossing the cordon line in that ¼ hour.

Table 7 Summary of Inbound mode of transport data from manual surveys

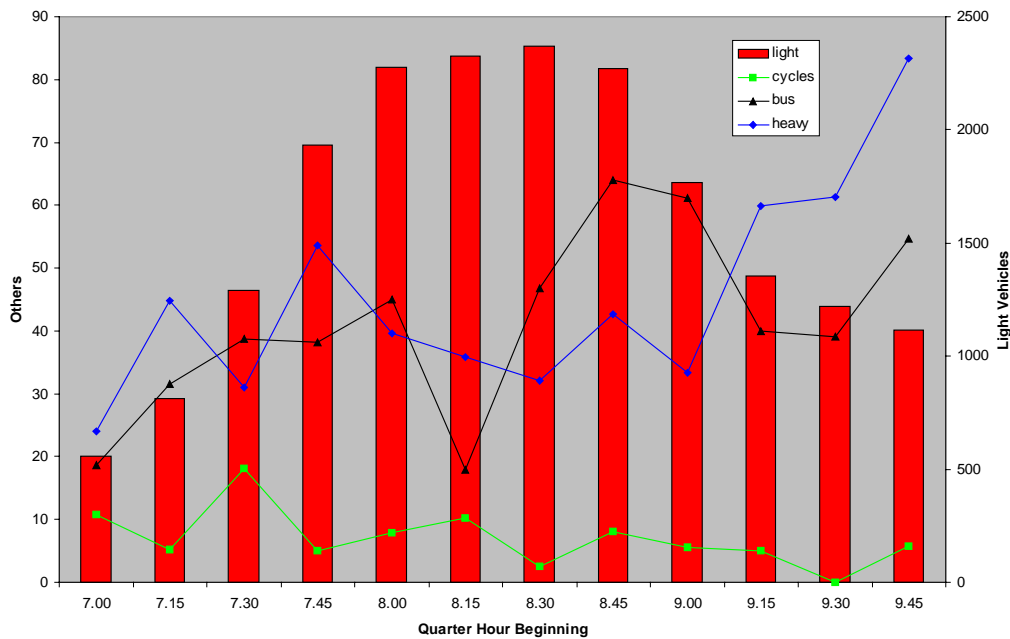
TIME STARTING	TOTAL VEH	PEDAL CYC	BUS & COACH	Light Vehs	Heavy Vehs	% pedal cycle	% bus	% light	% goods
07.00	228	4	7	208	9	1.75	3.07	91.23	3.95
07.15	339	2	12	308	17	0.59	3.54	90.86	5.01
07.30	533	7	15	499	12	1.31	2.81	93.62	2.25
07.45	796	2	15	758	21	0.25	1.88	95.23	2.64
08.00	895	3	17	860	15	0.34	1.90	96.09	1.68
08.15	932	4	7	907	14	0.43	0.75	97.32	1.50
08.30	995	1	19	962	13	0.10	1.91	96.68	1.31
08.45	894	3	24	851	16	0.34	2.68	95.19	1.79
09.00	671	2	22	635	12	0.30	3.28	94.63	1.79
09.15	585	2	16	543	24	0.34	2.74	92.82	4.10
09.30	473	0	14	437	22	0.0	2.96	92.39	4.65
09.45	437	2	19	387	29	0.46	4.35	88.56	6.64
Total	7778	32	187	7355	204	0.41	2.40	94.56	2.62

Table 8 Estimated Inbound mode of transport figures

TIME STARTING	number of automatic vehs	estimated ped cyc	estimated bus	estimated light	Estimated Heavy
07.00	610	11	19	556	24
07.15	893	5	32	811	45
07.30	1378	18	39	1290	31
07.45	2031	5	38	1934	54
08.00	2366	8	45	2273	40
08.15	2391	10	18	2327	36
08.30	2453	2	47	2372	32
08.45	2386	8	64	2271	43
09.00	1867	6	61	1767	33
09.15	1459	5	40	1354	60
09.30	1320	0	39	1220	61
09.45	1257	6	55	1113	83
Total	20411	84	496	19289	542

The figures in Table 7 and Table 8 are represented in Figure 7. As the numbers for Light Vehicles are so much higher than the other categories, the light vehicles are read from the right hand axis and all the other categories form the left-hand axis.

Figure 7 Estimated Inbound mode of transport figures



The summary for outbound modes from the manual data can be found in Table 9 with the estimated outbound in Table 10 and the graph representing these figures in Figure 8. The figures collected in the manual surveys can be found in Appendix 2.

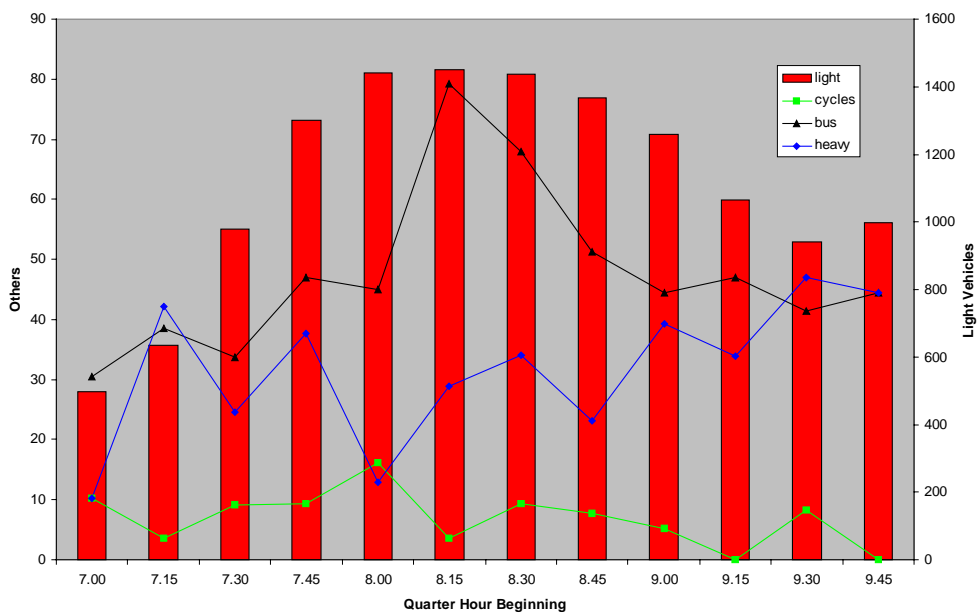
Table 9 Summary of Outbound mode of transport data from manual surveys

TIME STARTING	TOTAL VEH	PEDAL CYC	BUS & COACH	Light Vehs	Heavy Vehs	% pedal cycle	% bus	% light	% goods
07.00	162	3	9	147	3	1.85	5.56	90.74	1.85
07.15	205	1	11	181	12	0.49	5.37	88.29	5.85
07.30	341	3	11	319	8	0.88	3.23	93.55	2.35
07.45	445	3	15	415	12	0.67	3.37	93.26	2.70
08.00	471	5	14	448	4	1.06	2.97	95.12	0.85
08.15	433	1	22	402	8	0.23	5.08	92.84	1.85
08.30	501	3	22	465	11	0.60	4.39	92.81	2.20
08.45	565	3	20	533	9	0.53	3.54	94.34	1.59
09.00	515	2	17	481	15	0.39	3.30	93.40	2.91
09.15	439	0	18	408	13	0.0	4.10	92.94	2.96
09.30	376	3	15	341	17	0.80	3.99	90.69	4.52
09.45	416	0	17	382	17	0.0	4.09	91.83	4.09
Total	4869	27	191	4522	129	0.55	3.92	92.87	2.65

Table 10 Estimated Outbound mode of transport figures

TIME STARTING	No. auto vehs.	estimated ped cyc	estimated bus	estimated light	estimated goods
07.00	548	10	30	497	10
07.15	720	4	39	636	42
07.30	1045	9	34	978	25
07.45	1396	9	47	1302	38
08.00	1515	16	45	1441	13
08.15	1561	4	79	1449	29
08.30	1548	9	68	1437	34
08.45	1451	8	51	1369	23
09.00	1349	5	45	1260	39
09.15	1144	0	47	1063	34
09.30	1038	8	41	941	47
09.45	1086	0	44	997	44
Total	14401	82	570	13370	377

Figure 8 Estimated Outbound mode of transport figures



4.4 Occupancy Levels

Figures 9 and 10 show the estimated numbers of persons crossing the cordon calculated from the occupancy counts at the two manual sites and the number of vehicles counted automatically per time period

Figure 9 Estimates of persons Inbound Morning Peak Period

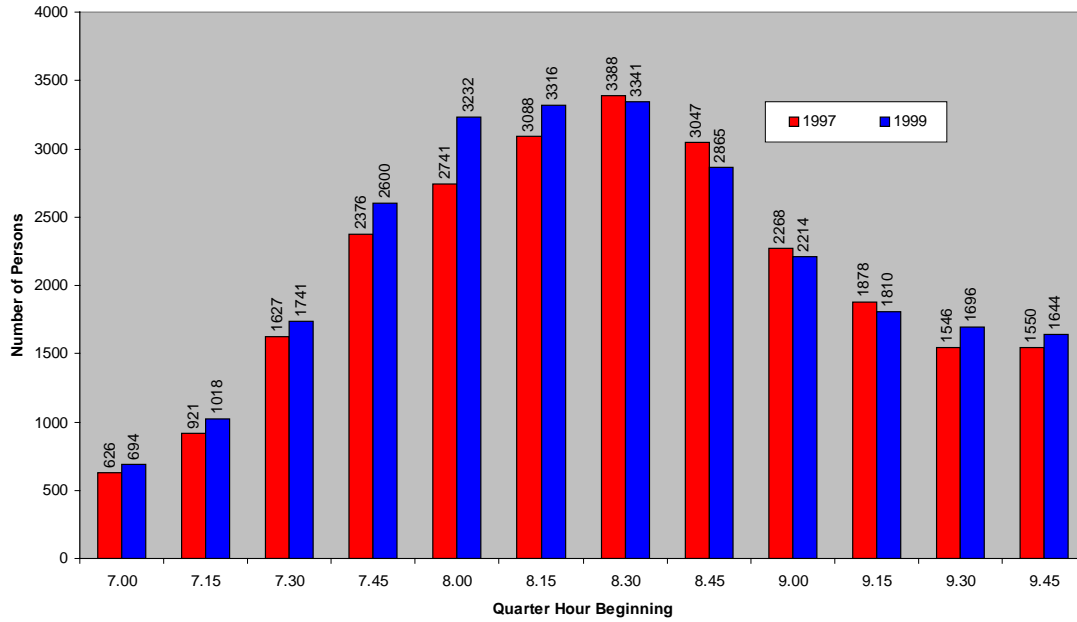
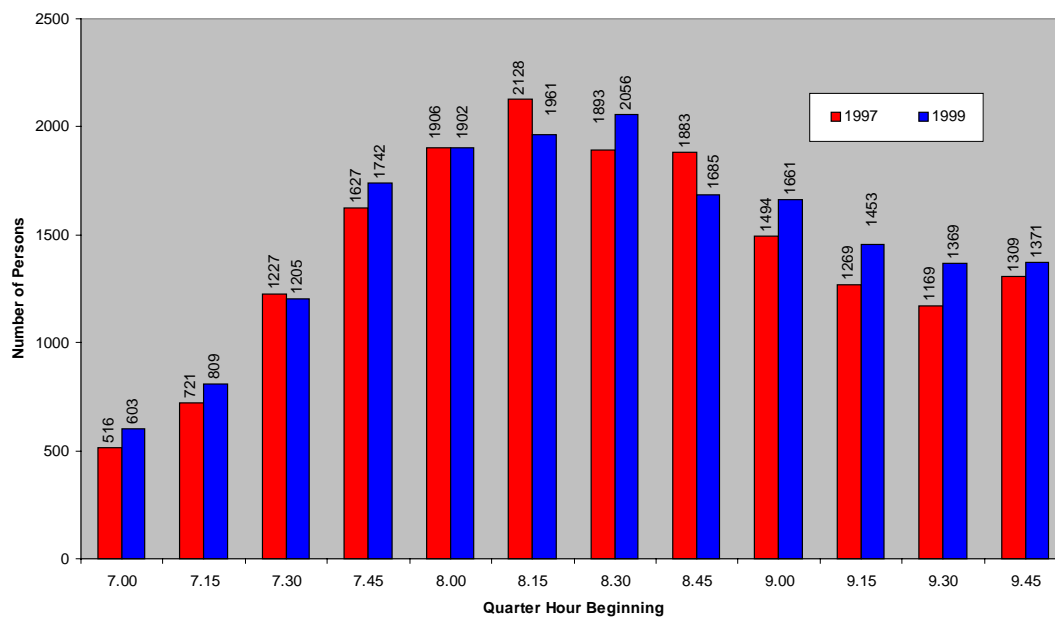


Figure 10 Estimates of persons Outbound Morning Peak Period



5 Appendix 1 Position of Cordon Sites

Table 11 Automatic count sites

Site	Location	Exact Position
SO01	Lode Lane	Between Warwick Road and Keresley Close
SO02	Warwick Rd (North)	Between George Road and Union Road
SO03	New Road	Between Warwick Rd and Malvern Park Rd
SO04	Church Hill Road	Between Whitefields Road and Princes Way
SO05	Monkspath Hall Rd	Between Whitefields Rd and Princes Way
SO06	Blossomfield Road	Between Dorchester Rd and Station App.
SO07	Streetsbrook Road	Between Station App. and Broad Oaks Rd
SO08	Ashleigh Road	Between Streetsbrook Rd and The Crescent
SO09	Warwick Rd (South)	Between Lode Lane and Manor Rd

Table 12 Manual Count sites

R1902	Blossomfield Rd	Near Station Approach
N1470	Monkspath Hall Rd	North of Whitefields Road
R2276	Lode Lane	Outside Hospital

Appendix 2 Solihull Modal Split Results 1997/1999

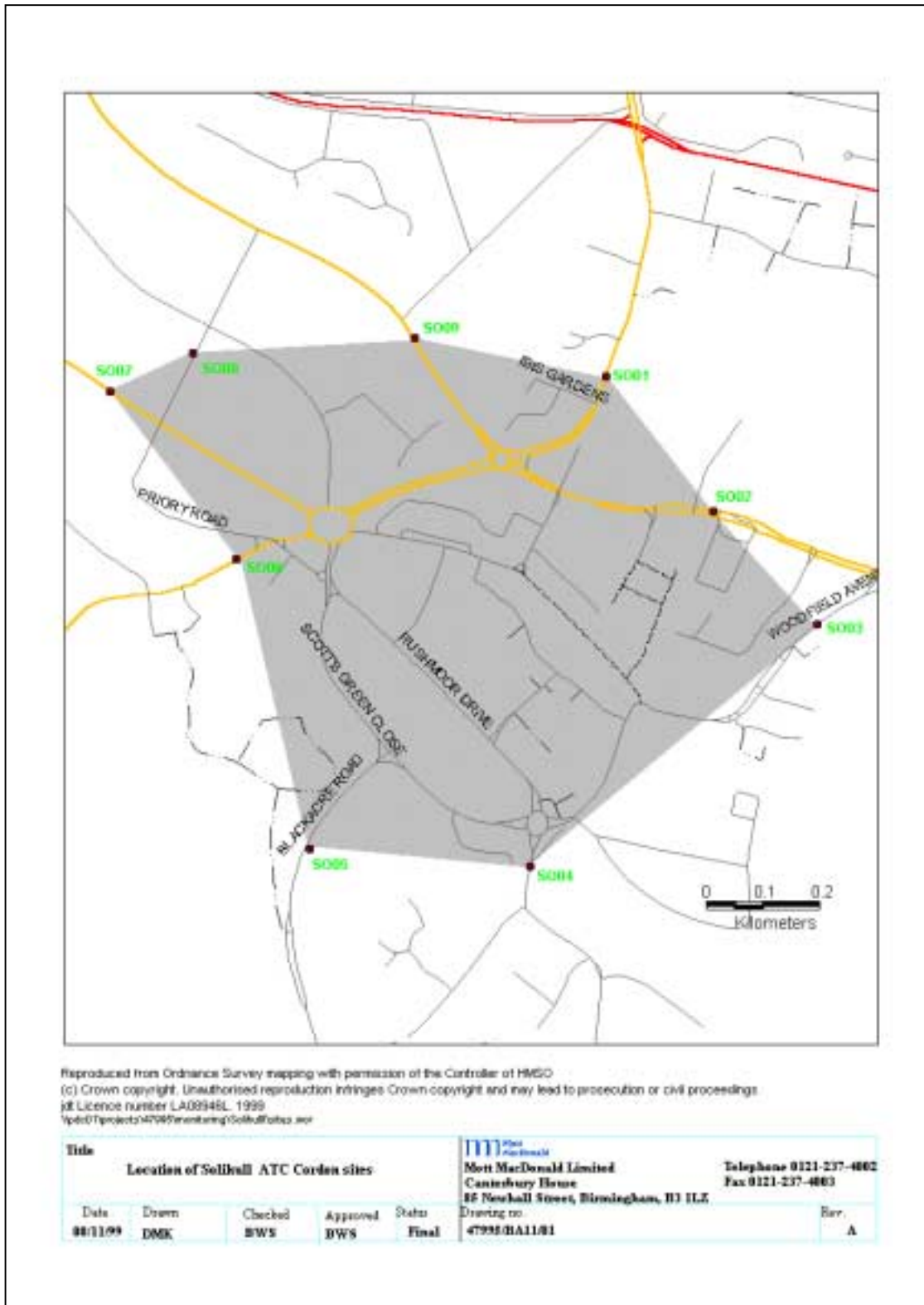
Table 13 Inbound Modal Share Figures

	0730-0930		1000-1200		0700-1230	
	1997	1999	1997	1999	1997	1999
Bus Trips	3.264	3.354	2.471	2.506	7.227	7.285
Estimated Car	19.036	19.552	10.428	10.491	36.923	37.346
Train Trips	250	319	112	126	406	525
Total Trips	22.550	23.225	13.011	13.123	44.556	45.156
Bus Modal Share	14.5%	14.4%	19.0%	19.1%	16.2%	16.1%
Car Modal Share	84.4%	84.2%	80.1%	79.9%	82.9%	82.7%
Train Modal Share	1.1%	1.4%	0.9%	1.0%	0.9%	1.2%

Table 14 Outbound Modal Share Figures

	0730-0930		1000-1200		0700-1230	
	1997	1999	1997	1999	1997	1999
Bus Trips	2.233	1.910	1.624	1.573	4.823	4.471
Estimated Car	12.083	12.427	9.778	10.195	28.035	29.164
Train Trips	442	659	140	207	772	1,010
Total Trips	14.758	14.996	11.542	11.975	33.630	34.645
Bus Modal Share	15.1%	12.7%	14.1%	13.1%	14.3%	12.9%
Car Modal Share	81.9%	82.9%	84.7%	85.1%	83.4%	84.2%
Train Modal Share	3.0%	4.4%	1.2%	1.7%	2.3%	2.9%

Figure 11 Location of Solihull ATC Cordon Sites



Appendix 3 Estimates of Vehicle Type from Passage Count Data

Inbound

Time Ending	Total Vehs	pedal cycle	Bus & Coaches	Light Vehs	Heavy Vehs	%pedal cycle	%bus	%light	%heavy	No. of Auto Vehs	pedal cycle	estimated bus	estimated light	estimated heavy
08.00	1766	38	35	1677	22	2.15%	1.98%	94.96%	1.25%	4735	102	94	4496	59
09.00	3598	26	95	3449	34	0.72%	2.64%	95.86%	0.94%	9895	72	261	9485	94
10.00	2197	10	68	2059	63	0.46%	3.10%	93.72%	2.87%	5878	27	182	5509	169
11.00	1523	14	57	1399	59	0.92%	3.74%	91.86%	3.87%	4617	42	173	4241	179
12.00	1587	13	70	1450	54	0.82%	4.41%	91.37%	3.40%	4535	37	200	4144	154
07.15	213	9	6	195	5	4.23%	2.82%	91.55%	2.35%	551	23	16	504	13
07.30	337	7	11	319	1	2.08%	3.26%	94.66%	0.30%	811	17	26	768	2
07.45	510	10	10	484	8	1.96%	1.96%	94.90%	1.57%	1398	27	27	1327	22
08.00	706	12	8	679	8	1.70%	1.13%	96.18%	1.13%	1975	34	22	1899	22
08.15	790	7	19	749	16	0.89%	2.41%	94.81%	2.03%	2339	21	56	2218	47
08.30	885	4	23	854	4	0.45%	2.60%	96.50%	0.45%	2439	11	63	2354	11
08.45	1008	7	30	966	5	0.69%	2.98%	95.83%	0.50%	2645	18	79	2535	13
09.00	915	8	23	880	9	0.87%	2.51%	96.17%	0.98%	2472	22	62	2377	24
09.15	767	1	16	733	17	0.13%	2.09%	95.57%	2.22%	1850	2	39	1768	41
09.30	597	2	18	559	18	0.34%	3.02%	93.63%	3.02%	1492	5	45	1397	45
09.45	442	4	21	402	5	0.90%	4.75%	90.95%	1.13%	1276	12	61	1161	14
10.00	391	3	13	365	9	0.77%	3.32%	93.35%	2.30%	1260	10	42	1176	29
Tot 7.30-9.30	6178	51	147	5904	85	0.83%	2.38%	95.56%	1.38%	16610	140	394	15875	226
total	7561	74	198	7185	105	0.98%	2.62%	95.03%	1.39%	20508	201	537	19488	285

Outbound

Time Ending	Total Vehs	pedal cycle	Bus & Coaches	Light Vehs	Heavy Vehs	%pedal cycle	%bus	%light	%heavy	No. of Auto Vehs	pedal cycles	estimated bus	estimated light	estimated heavy
08.00	903	13	45	802	43	1.44%	4.98%	88.82%	4.76%	3508	51	175	3116	167
09.00	2036	15	78	1906	37	0.74%	3.83%	93.61%	1.82%	6152	45	236	5759	112
10.00	1877	13	74	1735	55	0.69%	3.94%	92.43%	2.93%	4373	30	172	4042	128
11.00	1599	11	61	1454	73	0.69%	3.81%	90.93%	2.93%	4112	28	157	3739	120
12.00	1711	5	64	1588	54	0.29%	3.74%	92.81%	3.16%	4451	13	166	4131	140
07.15	109	3	9	89	8	2.75%	8.26%	81.65%	7.34%	477	13	39	389	35
07.30	167	1	9	150	7	0.60%	5.39%	89.82%	4.19%	650	4	35	584	27
07.45	223	6	15	196	6	2.69%	6.73%	87.89%	2.69%	1020	27	69	897	27
08.00	404	3	12	367	22	0.74%	2.97%	90.84%	5.45%	1361	10	40	1236	74
08.15	468	1	19	434	14	0.21%	4.06%	92.74%	2.99%	1536	3	62	1424	46
08.30	513	0	20	488	5	0.00%	3.90%	95.13%	0.97%	1612	0	63	1533	16
08.45	510	4	22	477	7	0.78%	4.31%	93.53%	1.37%	1500	12	65	1403	21
09.00	545	10	17	507	11	1.83%	3.12%	93.03%	2.02%	1504	28	47	1399	30
09.15	571	2	19	535	15	0.35%	3.33%	93.70%	2.63%	1283	4	43	1202	34
09.30	437	1	20	401	15	0.23%	4.58%	91.76%	3.43%	1063	2	49	975	36
09.45	412	6	15	378	13	1.46%	3.64%	91.75%	3.16%	990	14	36	908	31
10.00	457	4	20	421	12	0.88%	4.38%	92.12%	2.63%	1037	9	45	955	27
Tot 7.30-9.30	3671	27	144	3405	95	0.74%	3.92%	92.75%	2.59%	10879	80	427	10091	282
total	4816	41	197	4443	135	0.85%	4.09%	92.25%	2.80%	14033	119	574	12946	393

6 Appendix 4 Estimates of Persons from Occupancy data

Inbound

all vehicle categories

TIME ending	Number of vehicles with shown number of occupants					TOTAL VEH	TOTAL OCC	AVERAGE OCC	A	B	C	D	E	F	G
	1	2	3	4	5				Auto Vehs	Est Buses	Est P/c	B+C	(A-D)	ExAve Occ	F+C Est People
7.15	137	15	5	1	0	158	186	1.18	551	16	23	39	512	603	626
7.30	167	26	3	1	0	197	232	1.18	811	26	17	43	768	904	921
7.45	305	49	5	2	1	362	431	1.19	1398	27	27	55	1343	1599	1627
8.00	442	93	11	2	0	548	669	1.22	1975	22	34	56	1919	2343	2376
8.15	581	117	12	1	0	711	855	1.20	2339	56	21	77	2262	2720	2741
8.30	588	164	23	6	2	783	1019	1.30	2439	63	11	74	2365	3077	3088
8.45	499	131	28	8	1	667	882	1.32	2645	79	18	97	2548	3369	3388
9.00	494	134	15	0	2	645	817	1.27	2472	62	22	84	2388	3025	3047
9.15	471	119	14	2	0	606	759	1.25	1850	39	2	41	1809	2266	2268
9.30	313	90	11	3	1	418	543	1.30	1492	45	5	50	1442	1873	1878
9.45	310	91	11	0	0	412	525	1.27	1276	61	12	72	1204	1534	1546
10.00	341	102	7	0	2	452	576	1.27	1260	42	10	52	1208	1540	1550
10.15	284	91	6	2	1	384	497	1.29							
10.30	233	116	16	4	1	370	534	1.44							
10.45	270	98	10	4	0	382	512	1.34							
11.00	272	100	20	6	1	399	561	1.41							
11.15	277	120	8	1	2	408	555	1.36							
11.30	276	121	13	6	0	416	581	1.40							
11.45	262	108	15	3	2	390	545	1.40							
12.00	324	124	18	4	0	470	642	1.37							
12.15	309	138	18	3	0	468	651	1.39							
12.30	335	133	15	5	3	491	681	1.39							

outbound

all vehicle categories

Number of vehicles with shown number of occupants

TIME ending						TOTAL VEH	TOTAL OCC	AVERAGE OCC	A	B	C	D	E	F	G
	1	2	3	4	5				Auto Vehs	Est Buses	Est P/C	(B+C)	A-D	ExAve Occ	F+C Est People
7.15	146	24	2	0	1	173	205	1.18	477	39	13	53	424	503	516
7.30	182	27	5	0	0	214	251	1.17	650	35	4	39	611	717	721
7.45	288	79	11	3	1	382	496	1.30	1020	69	27	96	924	1200	1227
8.00	468	102	13	3	0	586	723	1.23	1361	40	10	51	1310	1617	1627
8.15	462	109	26	4	1	602	779	1.29	1536	62	3	66	1470	1903	1906
8.30	479	145	33	9	3	669	919	1.37	1612	63	0	63	1549	2128	2128
8.45	488	127	24	10	1	650	859	1.32	1500	65	12	76	1424	1881	1893
9.00	464	99	25	7	2	597	775	1.30	1504	47	28	75	1429	1856	1883
9.15	492	91	13	2	0	598	721	1.21	1283	43	4	47	1236	1490	1494
9.30	332	90	6	2	0	430	538	1.25	1063	49	2	51	1012	1266	1269
9.45	283	70	6	0	0	359	441	1.23	990	36	14	50	940	1154	1169
10.00	267	91	10	3	0	371	491	1.32	1037	45	9	54	983	1300	1309
10.15	240	64	12	4	2	322	430	1.34							
10.30	252	94	8	4	1	359	485	1.35							
10.45	285	97	9	5	1	397	531	1.34							
11.00	250	112	13	1	1	377	522	1.38							
11.15	272	88	7	1	1	369	478	1.30							
11.30	250	95	14	1	2	362	496	1.37							
11.45	273	104	12	4	0	393	533	1.36							
12.00	293	101	7	7	0	408	544	1.33							
12.15	281	131	15	3	0	430	600	1.40							
12.30	286	115	6	4	3	414	565	1.36							