EG Funds Management

Summer Hill Flour Mill

Transport Management and Accessibility Plan (TMAP)

220640

Rev A | May 2011

Appendices

Arup
Arup Pty Ltd ABN 18 000 966 165

Arup
Level 10 201 Kent Street
Sydney NSW 2000
www.arup.com

Job number 220640

ARUP

Appendix A

Intersection Survey Data

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob. 0418 239019

Client : ARUP
Job No/Name : 3141 LEWISHAM Traffic Counts
Day/Date : Wednesday 9th June 2010

Lights

	NORTH			WEST			SOUTH			EAST			
	Old Canterbury Rd			Longport St			Old Canterbury Rd			Railway Tce			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	17	102	0	26	215	0	21	234	0	2	120	0	737
0715 - 0730	41	129	0	22	196	0	18	267	0	3	154	0	830
0730 - 0745	28	122	0	27	195	0	12	267	0	4	163	0	818
0745 - 0800	28	161	0	29	238	1	16	269	0	7	169	0	918
0800 - 0815	44	158	0	22	220	0	20	244	0	4	181	0	893
0815 - 0830	32	147	0	46	190	0	20	244	0	2	193	0	874
0830 - 0845	33	153	0	55	259	0	13	215	0	9	189	0	926
0845 - 0900	20	131	0	50	232	0	13	230	0	11	165	0	852
Period End	243	1103	0	277	1745	1	133	1970	0	42	1334	0	6848

Heavies

	NORTH			WEST			SOUTH			EAST			
	Old Canterbury Rd			Longport St			Old Canterbury Rd			Railway Tce			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	2	1	0	0	2	0	0	1	1	1	3	0	11
0715 - 0730	2	2	0	1	1	0	0	2	1	0	3	0	12
0730 - 0745	0	1	0	0	2	0	0	0	1	1	2	0	7
0745 - 0800	2	3	0	0	0	0	0	0	1	0	3	0	9
0800 - 0815	0	1	0	0	1	0	0	0	1	2	0	0	5
0815 - 0830	1	4	0	0	0	0	1	2	2	0	0	0	10
0830 - 0845	0	2	0	0	0	0	0	2	0	1	3	0	8
0845 - 0900	4	1	0	0	0	0	3	0	1	1	0	0	10
Period End	11	15	0	1	6	0	4	7	8	6	14	0	72

Lights

	NORTH			WEST			SOUTH			EAST			
	Old Canterbury Rd			Longport St			Old Canterbury Rd			Railway Tce			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	114	514	0	104	844	1	67	1037	0	16	606	0	3303
0715 - 0815	141	570	0	100	849	1	66	1047	0	18	667	0	3459
0730 - 0830	132	588	0	124	843	1	68	1024	0	17	706	0	3503
0745 - 0845	137	619	0	152	907	1	69	972	0	22	732	0	3611
0800 - 0900	129	589	0	173	901	0	66	933	0	26	728	0	3545
PEAK HOUR	129	589	0	173	901	0	66	933	0	26	728	0	3545

Heavies

	NORTH			WEST			SOUTH			EAST			
	Old Canterbury Rd			Longport St			Old Canterbury Rd			Railway Tce			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	6	7	0	1	5	0	0	3	4	2	11	0	39
0715 - 0815	4	7	0	1	4	0	0	2	4	3	8	0	33
0730 - 0830	3	9	0	0	3	0	1	2	5	3	5	0	31
0745 - 0845	3	10	0	0	1	0	1	4	4	3	6	0	32
0800 - 0900	5	8	0	0	1	0	4	4	4	4	3	0	33
PEAK HOUR	5	8	0	0	1	0	4	4	4	4	3	0	33

Combined

	NORTH			WEST			SOUTH			EAST			
	Old Canterbury Rd			Longport St			Old Canterbury Rd			Railway Tce			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	19	103	0	26	217	0	21	235	1	3	123	0	748
0715 - 0730	43	131	0	23	197	0	18	269	1	3	157	0	842
0730 - 0745	28	123	0	27	197	0	12	267	1	5	165	0	825
0745 - 0800	30	164	0	29	238	1	16	269	1	7	172	0	927
0800 - 0815	44	159	0	22	221	0	20	244	1	6	181	0	898
0815 - 0830	33	151	0	46	190	0	21	246	2	2	193	0	884
0830 - 0845	33	155	0	55	259	0	13	217	0	10	192	0	934
0845 - 0900	24	132	0	50	232	0	16	230	1	12	165	0	862
Period End	254	1118	0	278	1751	1	137	1977	8	48	1348	0	6920

Peds

	NORTH	WEST	SOUTH	EAST	
	Old Canterbury Rd	Longport St	Old Canterbury Rd	Railway Tce	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0715	0	0	0	2	2
0715 - 0730	2	2	2	2	8
0730 - 0745	1	0	4	4	9
0745 - 0800	0	0	5	0	5
0800 - 0815	1	0	5	4	10
0815 - 0830	0	1	6	2	9
0830 - 0845	1	0	6	1	8
0845 - 0900	3	0	5	5	13
Period End	8	3	33	20	64

Combined

	NORTH			WEST			SOUTH			EAST			
	Old Canterbury Rd			Longport St			Old Canterbury Rd			Railway Tce			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	120	521	0	105	849	1	67	1040	4	18	617	0	3342
0715 - 0815	145	577	0	101	853	1	66	1049	4	21	675	0	3492
0730 - 0830	135	597	0	124	846	1	69	1026	5	20	711	0	3534
0745 - 0845	140	629	0	152	908	1	70	976	4	25	738	0	3643
0800 - 0900	134	597	0	173	902	0	70	937	4	30	731	0	3578
PEAK HOUR	134	597	0	173	902	0	70	937	4	30	731	0	3578

Peds

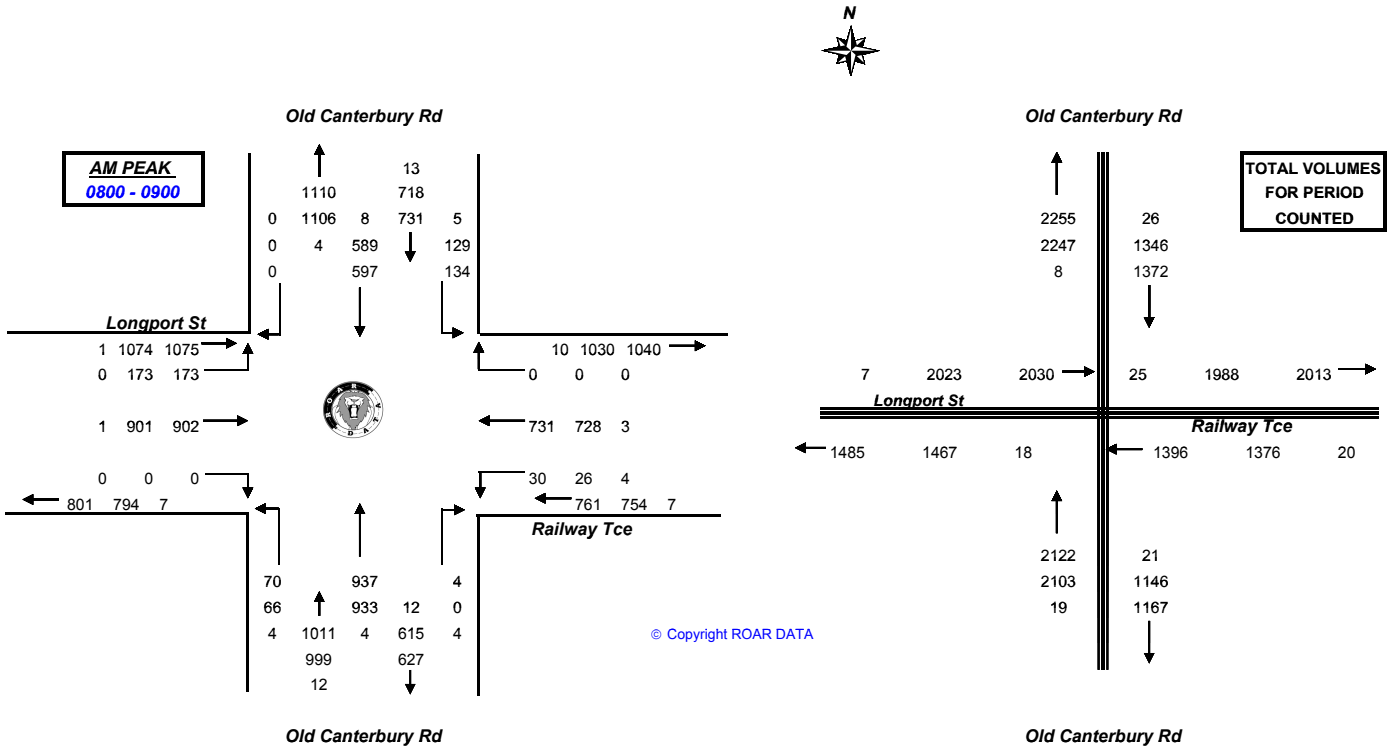
	NORTH	WEST	SOUTH	EAST	
	Old Canterbury Rd	Longport St	Old Canterbury Rd	Railway Tce	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0800	3	2	11	8	24
0715 - 0815	4	2	16	10	32
0730 - 0830	2	1	20	10	33
0745 - 0845	2	1	22	7	32
0800 - 0900	5	1	22	12	40
PEAK HR	5	1	22	12	40

R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob. 0418 239019

Client : ARUP
Job No/Name : 3141 LEWISHAM Traffic Counts
Day/Date : Wednesday 9th June 2010



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob. 0418 239019

Client : ARUP
Job No/Name : 3141 LEWISHAM Traffic Counts
Day/Date : Wednesday 9th June 2010

Lights

Time Per	NORTH Old Canterbury Rd L	T	R	WEST Longport St L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Railway Tce L	T	R	TOT
1600 - 1615	19	296	0	24	120	0	32	160	0	16	208	0	**875**
1615 - 1630	15	260	0	24	153	0	43	127	0	11	226	0	**859**
1630 - 1645	23	291	0	25	108	0	39	141	0	19	216	0	**862**
1645 - 1700	4	248	0	16	151	0	43	146	0	22	215	0	**845**
1700 - 1715	24	317	0	14	162	0	34	169	0	14	196	0	**930**
1715 - 1730	19	311	0	24	165	0	31	169	0	17	202	0	**938**
1730 - 1745	14	264	0	23	180	0	30	156	0	18	213	0	**898**
1745 - 1800	15	335	0	23	179	0	24	174	0	13	196	0	**959**
Period End	**133**	**2322**	**0**	**173**	**1218**	**0**	**276**	**1242**	**0**	**130**	**1672**	**0**	**7166**

Heavies

Time Per	NORTH Old Canterbury Rd L	T	R	WEST Longport St L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Railway Tce L	T	R	TOT
1600 - 1615	2	0	0	0	1	0	0	3	1	1	4	0	**12**
1615 - 1630	1	1	0	0	1	0	0	6	0	0	2	0	**11**
1630 - 1645	2	1	0	0	2	0	0	1	1	1	5	0	**13**
1645 - 1700	2	0	0	0	1	0	0	3	0	1	3	0	**10**
1700 - 1715	0	0	0	0	0	0	0	0	1	0	1	0	**2**
1715 - 1730	2	0	0	0	0	0	0	0	0	1	2	0	**5**
1730 - 1745	0	2	0	0	1	0	0	0	1	2	1	0	**7**
1745 - 1800	2	0	0	0	0	0	0	0	1	1	1	0	**5**
Period End	**11**	**4**	**0**	**0**	**6**	**0**	**0**	**13**	**5**	**7**	**19**	**0**	**65**

Lights

Peak Time	NORTH Old Canterbury Rd L	T	R	WEST Longport St L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Railway Tce L	T	R	TOT
1600 - 1700	61	1095	0	89	532	0	157	574	0	68	865	0	**3441**
1615 - 1715	66	1116	0	79	574	0	159	583	0	66	853	0	**3496**
1630 - 1730	70	1167	0	79	586	0	147	625	0	72	829	0	**3575**
1645 - 1745	61	1140	0	77	658	0	138	640	0	71	826	0	**3611**
1700 - 1800	72	1227	0	84	686	0	119	668	0	62	807	0	**3725**
PEAK HOUR	**72**	**1227**	**0**	**84**	**686**	**0**	**119**	**668**	**0**	**62**	**807**	**0**	**3725**

Heavies

Peak Time	NORTH Old Canterbury Rd L	T	R	WEST Longport St L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Railway Tce L	T	R	TOT
1600 - 1700	7	2	0	0	5	0	0	13	2	3	14	0	**46**
1615 - 1715	5	2	0	0	4	0	0	10	2	2	11	0	**36**
1630 - 1730	6	1	0	0	3	0	0	4	2	3	11	0	**30**
1645 - 1745	4	2	0	0	2	0	0	3	2	4	7	0	**24**
1700 - 1800	4	2	0	0	1	0	0	0	3	4	5	0	**19**
PEAK HOUR	**4**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**4**	**5**	**0**	**19**

Combined

Time Per	NORTH Old Canterbury Rd L	T	R	WEST Longport St L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Railway Tce L	T	R	TOT
1600 - 1615	21	296	0	24	121	0	32	163	1	17	212	0	**887**
1615 - 1630	16	261	0	24	154	0	43	133	0	11	228	0	**870**
1630 - 1645	25	292	0	25	110	0	39	142	1	20	221	0	**875**
1645 - 1700	6	248	0	16	152	0	43	149	0	23	218	0	**855**
1700 - 1715	24	317	0	14	162	0	34	169	1	14	197	0	**932**
1715 - 1730	21	311	0	24	165	0	31	169	0	18	204	0	**943**
1730 - 1745	14	266	0	23	181	0	30	156	1	20	214	0	**905**
1745 - 1800	17	335	0	23	179	0	24	174	1	14	197	0	**964**
Period End	**144**	**2326**	**0**	**173**	**1224**	**0**	**276**	**1255**	**5**	**137**	**1691**	**0**	**7231**

Peds

Time Per	NORTH Old Canterbury Rd UNCLASSIFIED	WEST Longport St UNCLASSIFIED	SOUTH Old Canterbury Rd UNCLASSIFIED	EAST Railway Tce UNCLASSIFIED	TOT
1600 - 1615	1	0	0	4	**5**
1615 - 1630	0	0	4	2	**6**
1630 - 1645	4	1	0	1	**6**
1645 - 1700	0	2	1	0	**3**
1700 - 1715	1	1	4	3	**9**
1715 - 1730	0	0	4	0	**4**
1730 - 1745	0	0	5	1	**6**
1745 - 1800	0	1	2	1	**4**
Period End	**6**	**5**	**20**	**12**	**43**

Combined

Peak Time	NORTH Old Canterbury Rd L	T	R	WEST Longport St L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Railway Tce L	T	R	TOT
1600 - 1700	68	1097	0	89	537	0	157	587	2	71	879	0	**3487**
1615 - 1715	71	1118	0	79	578	0	159	593	2	68	864	0	**3532**
1630 - 1730	76	1168	0	79	589	0	147	629	2	75	840	0	**3605**
1645 - 1745	65	1142	0	77	660	0	138	643	2	75	833	0	**3635**
1700 - 1800	76	1229	0	84	687	0	119	668	3	66	812	0	**3744**
PEAK HOUR	**76**	**1229**	**0**	**84**	**687**	**0**	**119**	**668**	**3**	**66**	**812**	**0**	**3744**

Peds

Peak Per	NORTH Old Canterbury Rd UNCLASSIFIED	WEST Longport St UNCLASSIFIED	SOUTH Old Canterbury Rd UNCLASSIFIED	EAST Railway Tce UNCLASSIFIED	TOT
1600 - 1700	5	3	5	7	**20**
1615 - 1715	5	4	9	6	**24**
1630 - 1730	5	4	9	4	**22**
1645 - 1745	1	3	14	4	**22**
1700 - 1800	1	2	15	5	**23**
PEAK HR	**1**	**2**	**15**	**5**	**23**

R.O.A.R DATA

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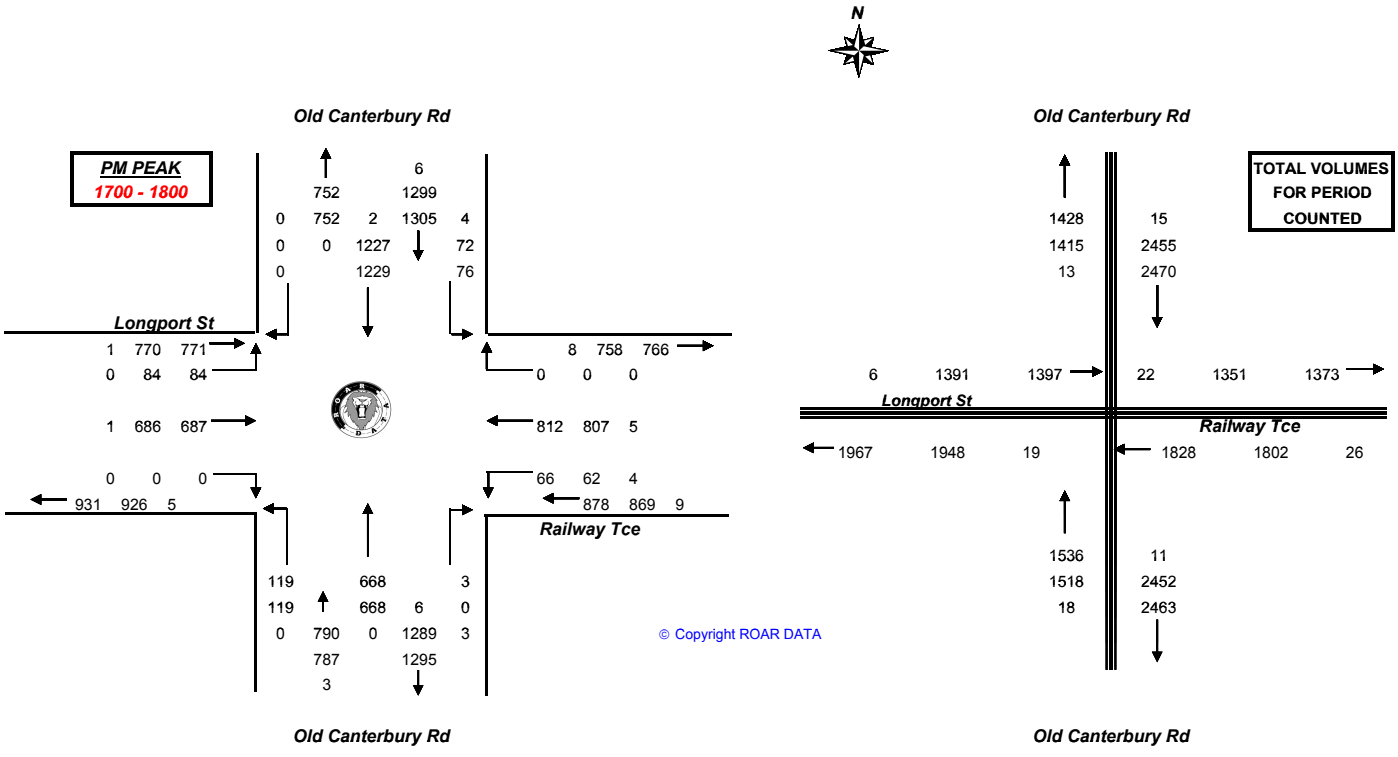


R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : ARUP

Job No/Name : 3141 LEWISHAM Traffic Counts

Day/Date : Wednesday 9th June 2010

Lights

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Time Per	T	R	L	R	L	T	TOT
0700 - 0715	229	77	17	55	27	83	**488**
0715 - 0730	232	69	15	56	48	91	**511**
0730 - 0745	214	98	18	53	33	95	**511**
0745 - 0800	217	116	27	55	46	109	**570**
0800 - 0815	231	96	35	76	56	126	**620**
0815 - 0830	239	80	51	66	43	92	**571**
0830 - 0845	171	83	50	72	52	97	**525**
0845 - 0900	206	66	25	48	32	112	**489**
Per End	**1739**	**685**	**238**	**481**	**337**	**805**	**4285**

Heavies

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Time Per	T	R	L	R	L	T	TOT
0700 - 0715	2	0	0	0	0	2	**4**
0715 - 0730	2	0	0	0	1	1	**4**
0730 - 0745	2	0	0	0	0	2	**4**
0745 - 0800	0	0	0	0	1	1	**2**
0800 - 0815	2	0	0	0	2	2	**6**
0815 - 0830	2	2	2	2	3	0	**11**
0830 - 0845	4	1	0	0	0	4	**9**
0845 - 0900	4	0	0	0	1	1	**6**
Per End	**18**	**3**	**2**	**2**	**8**	**13**	**46**

Combined

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Time Per	T	R	L	R	L	T	TOT
0700 - 0715	231	77	17	55	27	85	**492**
0715 - 0730	234	69	15	56	49	92	**515**
0730 - 0745	216	98	18	53	33	97	**515**
0745 - 0800	217	116	27	55	47	110	**572**
0800 - 0815	233	96	35	76	58	128	**626**
0815 - 0830	241	82	53	68	46	92	**582**
0830 - 0845	175	84	50	72	52	101	**534**
0845 - 0900	210	66	25	48	33	113	**495**
Per End	**1757**	**688**	**240**	**483**	**345**	**818**	**4331**

Lights

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Peak Per	T	R	L	R	L	T	TOT
0700 - 0800	892	360	77	219	154	378	**2080**
0715 - 0815	894	379	95	240	183	421	**2212**
0730 - 0830	901	390	131	250	178	422	**2272**
0745 - 0845	858	375	163	269	197	424	**2286**
0800 - 0900	847	325	161	262	183	427	**2205**
PEAK HR	**847**	**325**	**161**	**262**	**183**	**427**	**2205**

Heavies

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Peak Per	T	R	L	R	L	T	TOT
0700 - 0800	6	0	0	0	2	6	**14**
0715 - 0815	6	0	0	0	4	6	**16**
0730 - 0830	6	2	2	2	6	5	**23**
0745 - 0845	8	3	2	2	6	7	**28**
0800 - 0900	12	3	2	2	6	7	**32**
PEAK HR	**12**	**3**	**2**	**2**	**6**	**7**	**32**

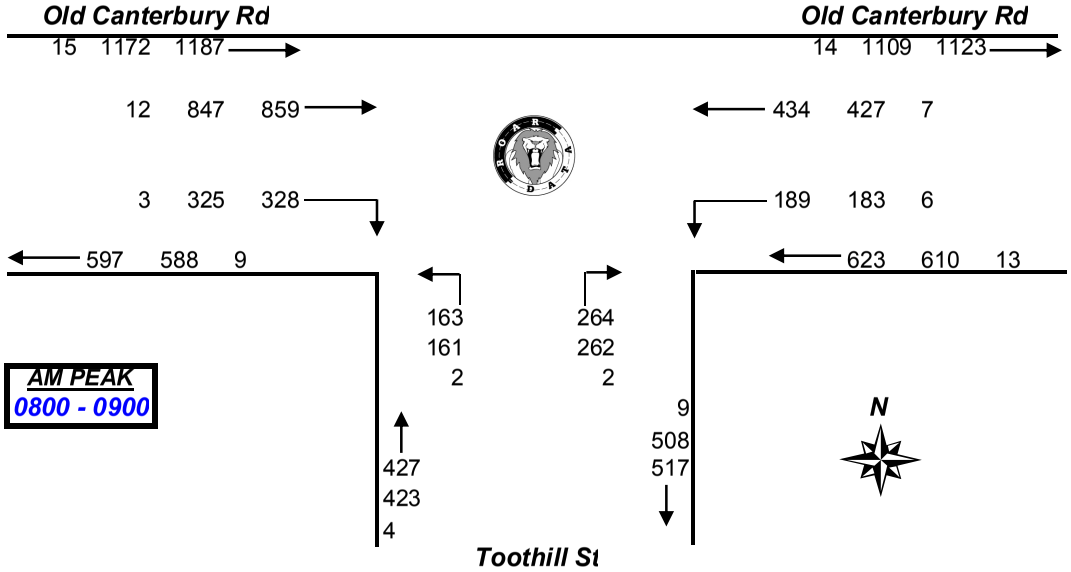
Combined

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Peak Per	T	R	L	R	L	T	TOT
0700 - 0800	898	360	77	219	156	384	**2094**
0715 - 0815	900	379	95	240	187	427	**2228**
0730 - 0830	907	392	133	252	184	427	**2295**
0745 - 0845	866	378	165	271	203	431	**2314**
0800 - 0900	859	328	163	264	189	434	**2237**
PEAK HR	**859**	**328**	**163**	**264**	**189**	**434**	**2237**

Peds

	WEST	SOUTH	EAST	
Time Per	Old	Toothill St	Old	TOT
0700 - 0715	2	2	0	**4**
0715 - 0730	6	4	0	**10**
0730 - 0745	2	1	0	**3**
0745 - 0800	1	1	0	**2**
0800 - 0815	2	0	0	**2**
0815 - 0830	6	2	0	**8**
0830 - 0845	5	0	0	**5**
0845 - 0900	5	1	0	**6**
Per End	**29**	**11**	**0**	**40**

	WEST	SOUTH	EAST	
Peak Per	Old	Toothill St	Old	TOT
0700 - 0800	11	8	0	**19**
0715 - 0815	11	6	0	**17**
0730 - 0830	11	4	0	**15**
0745 - 0845	14	3	0	**17**
0800 - 0900	18	3	0	**21**
PEAK HR	**18**	**3**	**0**	**21**



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : ARUP
Job No/Name : 3141 LEWISHAM Traffic Counts
Day/Date : Wednesday 9th June 2010

Lights

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Time Per	T	R	L	R	L	T	TOT
1600 - 1615	130	34	60	56	54	265	**599**
1615 - 1630	107	34	66	82	59	223	**571**
1630 - 1645	112	43	45	52	58	250	**560**
1645 - 1700	122	61	67	75	57	230	**612**
1700 - 1715	111	54	74	66	64	276	**645**
1715 - 1730	135	49	62	76	60	266	**648**
1730 - 1745	137	42	76	82	38	252	**627**
1745 - 1800	137	45	67	55	80	282	**666**
Per End	**991**	**362**	**517**	**544**	**470**	**2044**	**4928**

Heavies

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Time Per	T	R	L	R	L	T	TOT
1600 - 1615	3	0	0	0	0	1	**4**
1615 - 1630	4	0	0	2	1	0	**7**
1630 - 1645	3	0	0	0	1	1	**5**
1645 - 1700	0	0	0	2	0	1	**3**
1700 - 1715	1	3	0	0	0	0	**4**
1715 - 1730	0	0	0	0	0	1	**1**
1730 - 1745	2	0	0	0	0	3	**5**
1745 - 1800	1	0	0	0	0	1	**2**
Per End	**14**	**3**	**0**	**4**	**2**	**8**	**31**

Combined

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Time Per	T	R	L	R	L	T	TOT
1600 - 1615	133	34	60	56	54	266	**603**
1615 - 1630	111	34	66	84	60	223	**578**
1630 - 1645	115	43	45	52	59	251	**565**
1645 - 1700	122	61	67	77	57	231	**615**
1700 - 1715	112	57	74	66	64	276	**649**
1715 - 1730	135	49	62	76	60	267	**649**
1730 - 1745	139	42	76	82	38	255	**632**
1745 - 1800	138	45	67	55	80	283	**668**
Per End	**1005**	**365**	**517**	**548**	**472**	**2052**	**4959**

Lights

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Peak Per	T	R	L	R	L	T	TOT
1600 - 1700	471	172	238	265	228	968	**2342**
1615 - 1715	452	192	252	275	238	979	**2388**
1630 - 1730	480	207	248	269	239	1022	**2465**
1645 - 1745	505	206	279	299	219	1024	**2532**
1700 - 1800	520	190	279	279	242	1076	**2586**
PEAK HR	**520**	**190**	**279**	**279**	**242**	**1076**	**2586**

Heavies

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Peak Per	T	R	L	R	L	T	TOT
1600 - 1700	10	0	0	4	2	3	**19**
1615 - 1715	8	3	0	4	2	2	**19**
1630 - 1730	4	3	0	2	1	3	**13**
1645 - 1745	3	3	0	2	0	5	**13**
1700 - 1800	4	3	0	0	0	5	**12**
PEAK HR	**4**	**3**	**3**	**0**	**0**	**5**	**12**

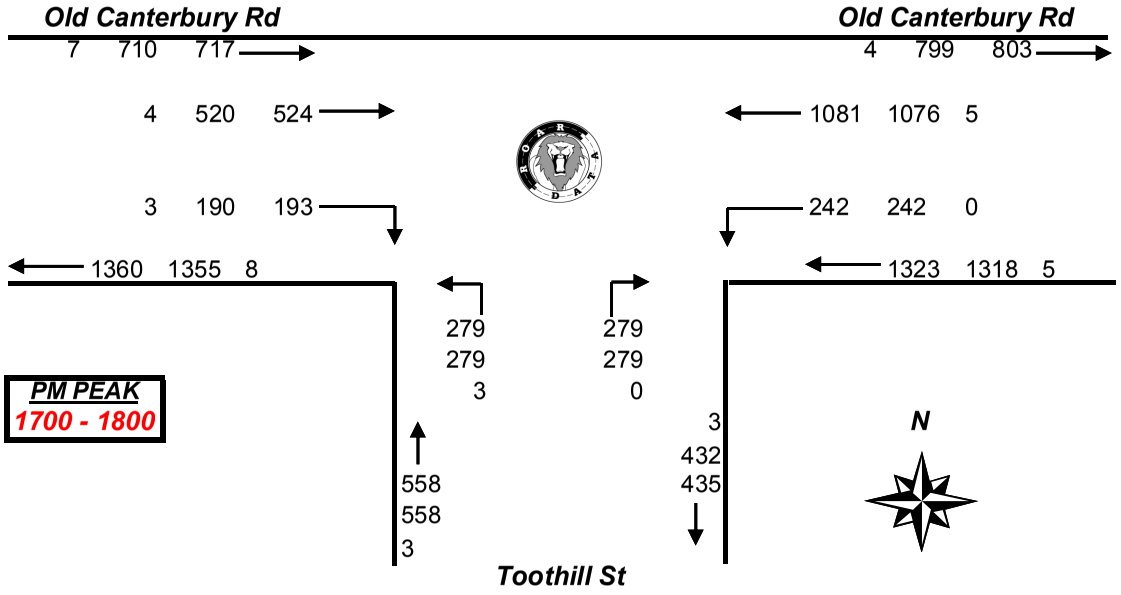
Combined

	WEST		SOUTH		EAST		
	Old		*Toothill St*		*Old*		
Peak Per	T	R	L	R	L	T	TOT
1600 - 1700	481	172	238	269	230	971	**2361**
1615 - 1715	460	195	252	279	240	981	**2407**
1630 - 1730	484	210	248	271	240	1025	**2478**
1645 - 1745	508	209	279	301	219	1029	**2545**
1700 - 1800	524	193	279	279	242	1081	**2598**
PEAK HR	**524**	**193**	**279**	**279**	**242**	**1081**	**2598**

Peds

	WEST	SOUTH	EAST	
Time Per	Old	Toothill St	Old	TOT
1600 - 1615	1	3	0	**4**
1615 - 1630	2	0	0	**2**
1630 - 1645	2	0	0	**2**
1645 - 1700	2	0	0	**2**
1700 - 1715	2	0	0	**2**
1715 - 1730	2	1	0	**3**
1730 - 1745	1	2	0	**3**
1745 - 1800	2	1	0	**3**
Per End	**14**	**7**	**0**	**21**

	WEST	SOUTH	EAST	
Peak Per	Old	Toothill St	Old	TOT
1600 - 1700	7	3	0	**10**
1615 - 1715	8	0	0	**8**
1630 - 1730	8	1	0	**9**
1645 - 1745	7	3	0	**10**
1700 - 1800	7	4	0	**11**
PEAK HR	**7**	**4**	**0**	**11**



R.O.A.R. DATA

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Client : ARUP
Job No/Name : 3141 LEWISHAM Traffic Counts
Day/Date : Wednesday 9th June 2010

Lights

	NORTH			WEST			SOUTH			EAST			
	Edward St			*Old Canterbury Rd*			*Weston St*			*Old Canterbury Rd*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	19	0	0	9	270	0	2	0	0	1	80	10	**391**
0715 - 0730	11	0	4	8	282	0	4	0	2	2	94	11	**418**
0730 - 0745	17	0	1	9	289	0	2	0	1	0	106	3	**428**
0745 - 0800	24	0	1	8	321	0	3	2	0	0	132	11	**502**
0800 - 0815	20	0	2	10	293	2	1	0	2	1	131	14	**476**
0815 - 0830	28	0	1	3	310	1	0	0	0	0	139	20	**502**
0830 - 0845	16	1	1	10	230	1	1	1	0	0	125	22	**408**
0845 - 0900	21	0	1	13	235	0	1	0	1	0	130	13	**415**
Period End	**156**	**1**	**11**	**70**	**2230**	**4**	**14**	**3**	**6**	**4**	**937**	**104**	**3540**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Edward St			*Old Canterbury Rd*			*Weston St*			*Old Canterbury Rd*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	0	0	0	3	0	0	0	0	0	2	0	**5**
0715 - 0730	0	0	0	0	2	0	0	0	0	0	0	1	**3**
0730 - 0745	0	0	1	0	2	0	0	0	0	0	2	0	**5**
0745 - 0800	0	0	0	0	0	0	0	0	0	0	1	0	**1**
0800 - 0815	0	0	0	0	2	0	0	0	0	0	2	0	**4**
0815 - 0830	0	0	0	0	6	0	0	0	0	0	2	0	**8**
0830 - 0845	0	0	0	0	2	0	0	0	0	0	2	0	**4**
0845 - 0900	0	0	0	0	3	0	0	0	0	0	1	0	**4**
Period End	**0**	**0**	**1**	**0**	**20**	**0**	**0**	**0**	**0**	**0**	**12**	**1**	**34**

Lights

	NORTH			WEST			SOUTH			EAST			
	Edward St			*Old Canterbury Rd*			*Weston St*			*Old Canterbury Rd*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	71	0	6	34	1162	0	11	2	3	3	412	35	**1739**
0715 - 0815	72	0	8	35	1185	2	10	2	5	3	463	39	**1824**
0730 - 0830	89	0	5	30	1213	3	6	2	3	1	508	48	**1908**
0745 - 0845	88	1	5	31	1154	4	5	3	2	1	527	67	**1888**
0800 - 0900	85	1	5	36	1068	4	3	1	3	1	525	69	**1801**
PEAK HOUR	**85**	**1**	**5**	**36**	**1068**	**4**	**3**	**1**	**3**	**1**	**525**	**69**	**1801**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Edward St			*Old Canterbury Rd*			*Weston St*			*Old Canterbury Rd*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	0	0	1	0	7	0	0	0	0	0	5	1	**14**
0715 - 0815	0	0	1	0	6	0	0	0	0	0	5	1	**13**
0730 - 0830	0	0	1	0	10	0	0	0	0	0	7	0	**18**
0745 - 0845	0	0	0	0	10	0	0	0	0	0	7	0	**17**
0800 - 0900	0	0	0	0	13	0	0	0	0	0	7	0	**20**
PEAK HOUR	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**20**

Combined

	NORTH			WEST			SOUTH			EAST			
	Edward St			*Old Canterbury Rd*			*Weston St*			*Old Canterbury Rd*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	19	0	0	9	273	0	2	0	0	1	82	10	**396**
0715 - 0730	11	0	4	8	284	0	4	0	2	2	94	12	**421**
0730 - 0745	17	0	2	9	291	0	2	0	1	0	108	3	**433**
0745 - 0800	24	0	1	8	321	0	3	2	0	0	133	11	**503**
0800 - 0815	20	0	2	10	295	2	1	0	2	1	133	14	**480**
0815 - 0830	28	0	1	3	316	1	0	0	0	0	141	20	**510**
0830 - 0845	16	1	1	10	232	1	1	1	0	0	127	22	**412**
0845 - 0900	21	0	1	13	238	0	1	0	1	0	131	13	**419**
Period End	**156**	**1**	**12**	**70**	**2250**	**4**	**14**	**3**	**6**	**4**	**949**	**105**	**3574**

Peds

	NORTH	WEST	SOUTH	EAST	
	Edward St	*Old Canterbury Rd*	*Weston St*	*Old Canterbury Rd*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0715	0	1	2	0	**3**
0715 - 0730	2	1	2	0	**5**
0730 - 0745	0	0	2	0	**2**
0745 - 0800	0	0	2	0	**2**
0800 - 0815	0	1	0	0	**1**
0815 - 0830	1	0	2	0	**3**
0830 - 0845	3	0	1	0	**4**
0845 - 0900	0	0	0	0	**0**
Period End	**6**	**3**	**11**	**0**	**20**

Combined

	NORTH			WEST			SOUTH			EAST			
	Edward St			*Old Canterbury Rd*			*Weston St*			*Old Canterbury Rd*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	71	0	7	34	1169	0	11	2	3	3	417	36	**1753**
0715 - 0815	72	0	9	35	1191	2	10	2	5	3	468	40	**1837**
0730 - 0830	89	0	6	30	1223	3	6	2	3	1	515	48	**1926**
0745 - 0845	88	1	5	31	1164	4	5	3	2	1	534	67	**1905**
0800 - 0900	85	1	5	36	1081	4	3	1	3	1	532	69	**1821**
PEAK HOUR	**85**	**1**	**5**	**36**	**1081**	**4**	**3**	**1**	**3**	**1**	**532**	**69**	**1821**

Peds

	NORTH	WEST	SOUTH	EAST	
	Edward St	*Old Canterbury Rd*	*Weston St*	*Old Canterbury Rd*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0800	2	2	8	0	**12**
0715 - 0815	2	2	6	0	**10**
0730 - 0830	1	1	6	0	**8**
0745 - 0845	4	1	5	0	**10**
0800 - 0900	4	1	3	0	**8**
PEAK HR	**4**	**1**	**3**	**0**	**8**

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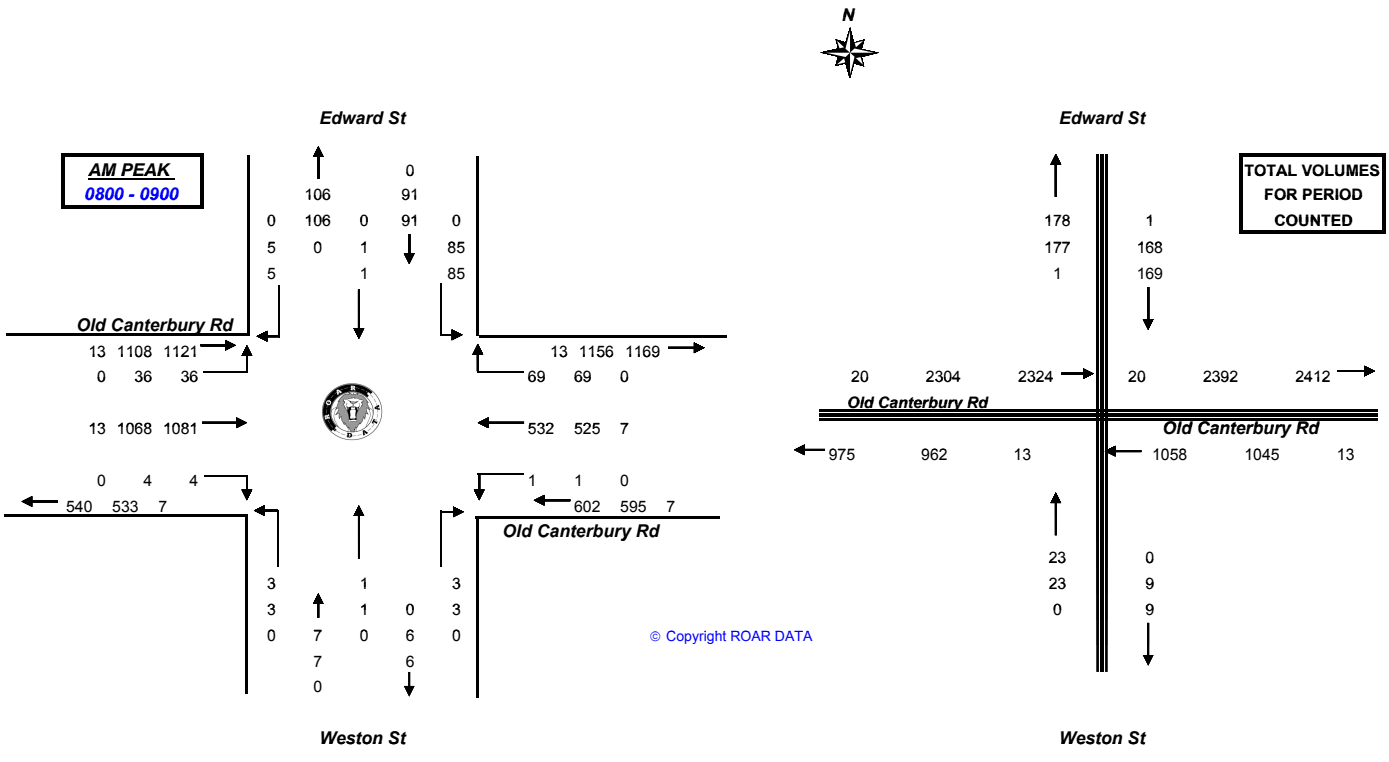

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Lights

Time Per	NORTH Edward St L	T	R	WEST Old Canterbury Rd L	T	R	SOUTH Weston St L	T	R	EAST Old Canterbury Rd L	T	R	TOT
1600 - 1615	14	0	1	3	154	1	0	1	0	5	279	22	**480**
1615 - 1630	8	0	2	5	121	0	0	0	0	1	258	17	**412**
1630 - 1645	12	0	2	4	140	1	0	0	0	2	271	21	**453**
1645 - 1700	21	0	4	3	171	2	2	0	0	5	286	24	**518**
1700 - 1715	17	1	4	5	148	1	0	0	0	3	309	24	**512**
1715 - 1730	22	0	2	9	169	0	1	0	0	6	300	33	**542**
1730 - 1745	21	0	2	11	159	1	2	0	1	3	283	33	**516**
1745 - 1800	24	0	5	8	157	4	3	0	1	1	294	25	**522**
Period End	**139**	**1**	**22**	**48**	**1219**	**10**	**8**	**1**	**2**	**26**	**2280**	**199**	**3955**

Heavies

Time Per	NORTH Edward St L	T	R	WEST Old Canterbury Rd L	T	R	SOUTH Weston St L	T	R	EAST Old Canterbury Rd L	T	R	TOT
1600 - 1615	0	0	0	0	3	0	0	0	0	0	1	0	**4**
1615 - 1630	0	0	0	0	4	0	0	0	0	0	0	0	**4**
1630 - 1645	0	0	0	0	2	0	0	0	0	0	1	0	**3**
1645 - 1700	0	0	0	0	1	0	0	0	0	0	1	0	**2**
1700 - 1715	0	0	0	0	4	0	0	0	0	0	0	0	**4**
1715 - 1730	0	0	0	0	0	0	0	0	0	0	1	0	**1**
1730 - 1745	0	0	0	0	2	0	0	0	0	0	2	0	**4**
1745 - 1800	0	0	0	0	0	0	0	0	0	0	3	0	**3**
Period End	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**25**

Lights

Peak Time	NORTH Edward St L	T	R	WEST Old Canterbury Rd L	T	R	SOUTH Weston St L	T	R	EAST Old Canterbury Rd L	T	R	TOT
1600 - 1700	55	0	9	15	586	4	2	1	0	13	1094	84	**1863**
1615 - 1715	58	1	12	17	580	4	2	0	0	11	1124	86	**1895**
1630 - 1730	72	1	12	21	628	4	3	0	0	16	1166	102	**2025**
1645 - 1745	81	1	12	28	647	4	5	0	1	17	1178	114	**2088**
1700 - 1800	84	1	13	33	633	6	6	0	2	13	1186	115	**2092**
PEAK HOUR	**84**	**1**	**13**	**33**	**633**	**6**	**6**	**0**	**2**	**13**	**1186**	**115**	**2092**

Heavies

Peak Time	NORTH Edward St L	T	R	WEST Old Canterbury Rd L	T	R	SOUTH Weston St L	T	R	EAST Old Canterbury Rd L	T	R	TOT
1600 - 1700	0	0	0	0	10	0	0	0	0	0	3	0	**13**
1615 - 1715	0	0	0	0	11	0	0	0	0	0	2	0	**13**
1630 - 1730	0	0	0	0	7	0	0	0	0	0	3	0	**10**
1645 - 1745	0	0	0	0	7	0	0	0	0	0	4	0	**11**
1700 - 1800	0	0	0	0	6	0	0	0	0	0	6	0	**12**
PEAK HOUR	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**12**

Combined

Time Per	NORTH Edward St L	T	R	WEST Old Canterbury Rd L	T	R	SOUTH Weston St L	T	R	EAST Old Canterbury Rd L	T	R	TOT
1600 - 1615	14	0	1	3	157	1	0	1	0	5	280	22	**484**
1615 - 1630	8	0	2	5	125	0	0	0	0	1	258	17	**416**
1630 - 1645	12	0	2	4	142	1	0	0	0	2	272	21	**456**
1645 - 1700	21	0	4	3	172	2	2	0	0	5	287	24	**520**
1700 - 1715	17	1	4	5	152	1	0	0	0	3	309	24	**516**
1715 - 1730	22	0	2	9	169	0	1	0	0	6	301	33	**543**
1730 - 1745	21	0	2	11	161	1	2	0	1	3	285	33	**520**
1745 - 1800	24	0	5	8	157	4	3	0	1	1	297	25	**525**
Period End	**139**	**1**	**22**	**48**	**1235**	**10**	**8**	**1**	**2**	**26**	**2289**	**199**	**3980**

Peds

Time Per	NORTH Edward St UNCLASSIFIED	WEST Old Canterbury Rd UNCLASSIFIED	SOUTH Weston St UNCLASSIFIED	EAST Old Canterbury Rd UNCLASSIFIED	TOT
1600 - 1615	1	0	6	0	**7**
1615 - 1630	3	1	3	0	**7**
1630 - 1645	0	0	1	0	**1**
1645 - 1700	1	0	5	0	**6**
1700 - 1715	4	1	1	0	**6**
1715 - 1730	1	0	0	0	**1**
1730 - 1745	0	1	2	0	**3**
1745 - 1800	1	0	2	0	**3**
Period End	**11**	**3**	**20**	**0**	**34**

Combined

Peak Time	NORTH Edward St L	T	R	WEST Old Canterbury Rd L	T	R	SOUTH Weston St L	T	R	EAST Old Canterbury Rd L	T	R	TOT
1600 - 1700	55	0	9	15	596	4	2	1	0	13	1097	84	**1876**
1615 - 1715	58	1	12	17	591	4	2	0	0	11	1126	86	**1908**
1630 - 1730	72	1	12	21	635	4	3	0	0	16	1169	102	**2035**
1645 - 1745	81	1	12	28	654	4	5	0	1	17	1182	114	**2099**
1700 - 1800	84	1	13	33	639	6	6	0	2	13	1192	115	**2104**
PEAK HOUR	**84**	**1**	**13**	**33**	**639**	**6**	**6**	**0**	**2**	**13**	**1192**	**115**	**2104**

Peds

Peak Per	NORTH Edward St UNCLASSIFIED	WEST Old Canterbury Rd UNCLASSIFIED	SOUTH Weston St UNCLASSIFIED	EAST Old Canterbury Rd UNCLASSIFIED	TOT
1600 - 1700	5	1	15	0	**21**
1615 - 1715	8	2	10	0	**20**
1630 - 1730	6	1	7	0	**14**
1645 - 1745	6	2	8	0	**16**
1700 - 1800	6	2	5	0	**13**
PEAK HR	**6**	**2**	**5**	**0**	**13**

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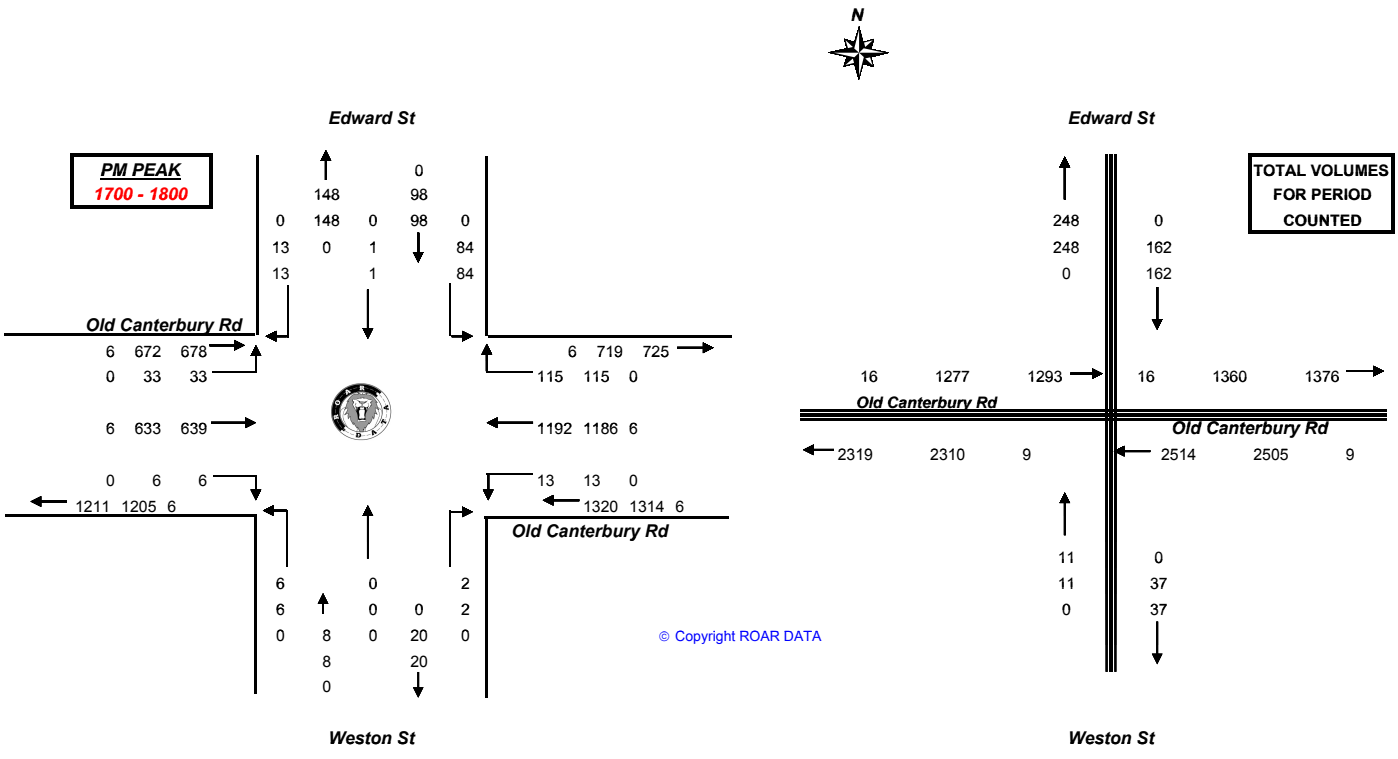

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Lights

	NORTH			WEST			SOUTH			EAST			
	Chapman St			*Smith St*			*Edward St*			*Smith St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	1	0	1	83	13	7	0	14	2	12	0	**133**
0715 - 0730	0	0	0	0	94	9	9	0	8	6	17	0	**143**
0730 - 0745	0	1	0	0	86	10	8	1	6	5	12	0	**129**
0745 - 0800	0	0	0	0	89	17	11	0	9	3	18	0	**147**
0800 - 0815	0	0	0	1	95	8	15	0	6	8	10	0	**143**
0815 - 0830	1	0	0	1	95	23	12	0	4	3	23	0	**162**
0830 - 0845	1	0	0	0	68	13	20	2	16	2	25	0	**147**
0845 - 0900	0	0	1	0	74	22	7	1	17	7	17	0	**146**
Period End	**2**	**2**	**1**	**3**	**684**	**115**	**89**	**4**	**80**	**36**	**134**	**0**	**1150**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Chapman St			*Smith St*			*Edward St*			*Smith St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0715 - 0730	0	0	0	0	0	1	1	0	0	0	0	0	**2**
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0830 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0845 - 0900	0	0	0	0	0	0	0	0	0	0	1	0	**1**
Period End	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**3**

Lights

	NORTH			WEST			SOUTH			EAST			
	Chapman St			*Smith St*			*Edward St*			*Smith St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	0	2	0	1	352	49	35	1	37	16	59	0	**552**
0715 - 0815	0	1	0	1	364	44	43	1	29	22	57	0	**562**
0730 - 0830	1	1	0	2	365	58	46	1	25	19	63	0	**581**
0745 - 0845	2	0	0	2	347	61	58	2	35	16	76	0	**599**
0800 - 0900	2	0	1	2	332	66	54	3	43	20	75	0	**598**
PEAK HOUR	**2**	**0**	**1**	**2**	**332**	**66**	**54**	**3**	**43**	**20**	**75**	**0**	**598**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Chapman St			*Smith St*			*Edward St*			*Smith St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	0	0	0	0	0	1	1	0	0	0	0	0	**2**
0715 - 0815	0	0	0	0	0	1	1	0	0	0	0	0	**2**
0730 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0745 - 0845	0	0	0	0	0	0	0	0	0	0	0	0	**0**
0800 - 0900	0	0	0	0	0	0	0	0	0	0	1	0	**1**
PEAK HOUR	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**

Combined

	NORTH			WEST			SOUTH			EAST			
	Chapman St			*Smith St*			*Edward St*			*Smith St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	1	0	1	83	13	7	0	14	2	12	0	**133**
0715 - 0730	0	0	0	0	94	10	10	0	8	6	17	0	**145**
0730 - 0745	0	1	0	0	86	10	8	1	6	5	12	0	**129**
0745 - 0800	0	0	0	0	89	17	11	0	9	3	18	0	**147**
0800 - 0815	0	0	0	1	95	8	15	0	6	8	10	0	**143**
0815 - 0830	1	0	0	1	95	23	12	0	4	3	23	0	**162**
0830 - 0845	1	0	0	0	68	13	20	2	16	2	25	0	**147**
0845 - 0900	0	0	1	0	74	22	7	1	17	7	18	0	**147**
Period End	**2**	**2**	**1**	**3**	**684**	**116**	**90**	**4**	**80**	**36**	**135**	**0**	**1153**

Peds

	NORTH	WEST	SOUTH	EAST	
	Chapman St	*Smith St*	*Edward St*	*Smith St*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0715	2	0	0	1	**3**
0715 - 0730	0	1	0	1	**2**
0730 - 0745	2	1	3	1	**7**
0745 - 0800	1	2	4	0	**7**
0800 - 0815	0	0	1	0	**1**
0815 - 0830	0	0	2	1	**3**
0830 - 0845	1	0	3	0	**4**
0845 - 0900	0	0	0	1	**1**
Period End	**6**	**4**	**13**	**5**	**28**

Combined

	NORTH			WEST			SOUTH			EAST			
	Chapman St			*Smith St*			*Edward St*			*Smith St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	0	2	0	1	352	50	36	1	37	16	59	0	**554**
0715 - 0815	0	1	0	1	364	45	44	1	29	22	57	0	**564**
0730 - 0830	1	1	0	2	365	58	46	1	25	19	63	0	**581**
0745 - 0845	2	0	0	2	347	61	58	2	35	16	76	0	**599**
0800 - 0900	2	0	1	2	332	66	54	3	43	20	76	0	**599**
PEAK HOUR	**2**	**0**	**1**	**2**	**332**	**66**	**54**	**3**	**43**	**20**	**76**	**0**	**599**

Peds

	NORTH	WEST	SOUTH	EAST	
	Chapman St	*Smith St*	*Edward St*	*Smith St*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0800	5	4	7	3	**19**
0715 - 0815	3	4	8	2	**17**
0730 - 0830	3	3	10	2	**18**
0745 - 0845	2	2	10	1	**15**
0800 - 0900	1	0	6	2	**9**
PEAK HR	**1**	**0**	**6**	**2**	**9**

R.O.A.R DATA

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Client : ARUP
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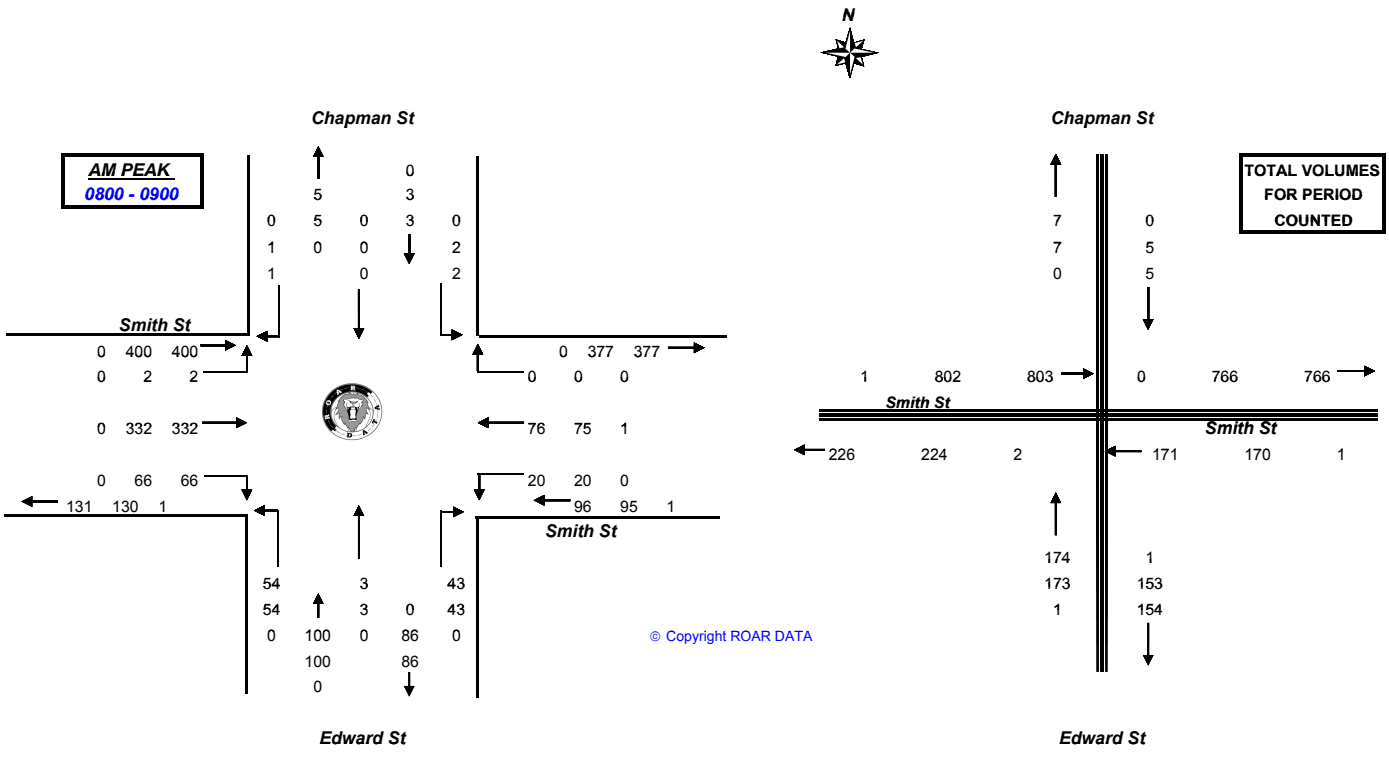

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Client : ARUP
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Lights

	NORTH Chapman St			WEST Smith St			SOUTH Edward St			EAST Smith St			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1615	0	0	0	1	33	11	22	0	10	2	50	0	**129**
1615 - 1630	0	0	0	0	42	7	17	0	9	10	39	1	**125**
1630 - 1645	0	0	1	1	39	7	17	1	6	9	37	0	**118**
1645 - 1700	0	0	0	2	25	9	21	1	4	15	32	0	**109**
1700 - 1715	0	0	0	2	41	10	16	2	8	14	35	0	**128**
1715 - 1730	0	0	0	2	44	11	28	0	7	12	53	1	**158**
1730 - 1745	0	0	0	1	52	11	20	1	17	13	43	0	**158**
1745 - 1800	0	0	0	0	41	13	21	0	17	13	43	0	**148**
Period End	**0**	**0**	**1**	**9**	**317**	**79**	**162**	**5**	**78**	**88**	**332**	**2**	**1073**

Heavies

	NORTH Chapman St			WEST Smith St			SOUTH Edward St			EAST Smith St			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1615	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1615 - 1630	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1630 - 1645	0	0	0	0	0	0	0	0	0	0	1	0	**1**
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1715 - 1730	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1745 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Period End	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**

Lights

	NORTH Chapman St			WEST Smith St			SOUTH Edward St			EAST Smith St			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1700	0	0	1	4	139	34	77	2	29	36	158	1	**481**
1615 - 1715	0	0	1	5	147	33	71	4	27	48	143	1	**480**
1630 - 1730	0	0	1	7	149	37	82	4	25	50	157	1	**513**
1645 - 1745	0	0	0	7	162	41	85	4	36	54	163	1	**553**
1700 - 1800	0	0	0	5	178	45	85	3	49	52	174	1	**592**
PEAK HOUR	**0**	**0**	**0**	**5**	**178**	**45**	**85**	**3**	**49**	**52**	**174**	**1**	**592**

Heavies

	NORTH Chapman St			WEST Smith St			SOUTH Edward St			EAST Smith St			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1700	0	0	0	0	0	0	0	0	0	0	1	0	**1**
1615 - 1715	0	0	0	0	0	0	0	0	0	0	1	0	**1**
1630 - 1730	0	0	0	0	0	0	0	0	0	0	1	0	**1**
1645 - 1745	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1700 - 1800	0	0	0	0	0	0	0	0	0	0	0	0	**0**
PEAK HOUR	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Combined

	NORTH Chapman St			WEST Smith St			SOUTH Edward St			EAST Smith St			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1615	0	0	0	1	33	11	22	0	10	2	50	0	**129**
1615 - 1630	0	0	0	0	42	7	17	0	9	10	39	1	**125**
1630 - 1645	0	0	1	1	39	7	17	1	6	9	38	0	**119**
1645 - 1700	0	0	0	2	25	9	21	1	4	15	32	0	**109**
1700 - 1715	0	0	0	2	41	10	16	2	8	14	35	0	**128**
1715 - 1730	0	0	0	2	44	11	28	0	7	12	53	1	**158**
1730 - 1745	0	0	0	1	52	11	20	1	17	13	43	0	**158**
1745 - 1800	0	0	0	0	41	13	21	0	17	13	43	0	**148**
Period End	**0**	**0**	**1**	**9**	**317**	**79**	**162**	**5**	**78**	**88**	**333**	**2**	**1074**

Peds

	NORTH Chapman St	WEST Smith St	SOUTH Edward St	EAST Smith St	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1600 - 1615	2	0	1	0	**3**
1615 - 1630	0	0	1	1	**2**
1630 - 1645	0	0	3	1	**4**
1645 - 1700	0	0	0	3	**3**
1700 - 1715	0	0	2	2	**4**
1715 - 1730	0	0	0	0	**0**
1730 - 1745	0	0	0	0	**0**
1745 - 1800	0	0	0	1	**1**
Period End	**2**	**0**	**7**	**8**	**17**

Combined

	NORTH Chapman St			WEST Smith St			SOUTH Edward St			EAST Smith St			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1700	0	0	1	4	139	34	77	2	29	36	159	1	**482**
1615 - 1715	0	0	1	5	147	33	71	4	27	48	144	1	**481**
1630 - 1730	0	0	1	7	149	37	82	4	25	50	158	1	**514**
1645 - 1745	0	0	0	7	162	41	85	4	36	54	163	1	**553**
1700 - 1800	0	0	0	5	178	45	85	3	49	52	174	1	**592**
PEAK HOUR	**0**	**0**	**0**	**5**	**178**	**45**	**85**	**3**	**49**	**52**	**174**	**1**	**592**

Peds

	NORTH Chapman St	WEST Smith St	SOUTH Edward St	EAST Smith St	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1600 - 1700	2	0	5	5	**12**
1615 - 1715	0	0	6	7	**13**
1630 - 1730	0	0	5	6	**11**
1645 - 1745	0	0	2	5	**7**
1700 - 1800	0	0	2	3	**5**
PEAK HR	**0**	**0**	**2**	**3**	**5**

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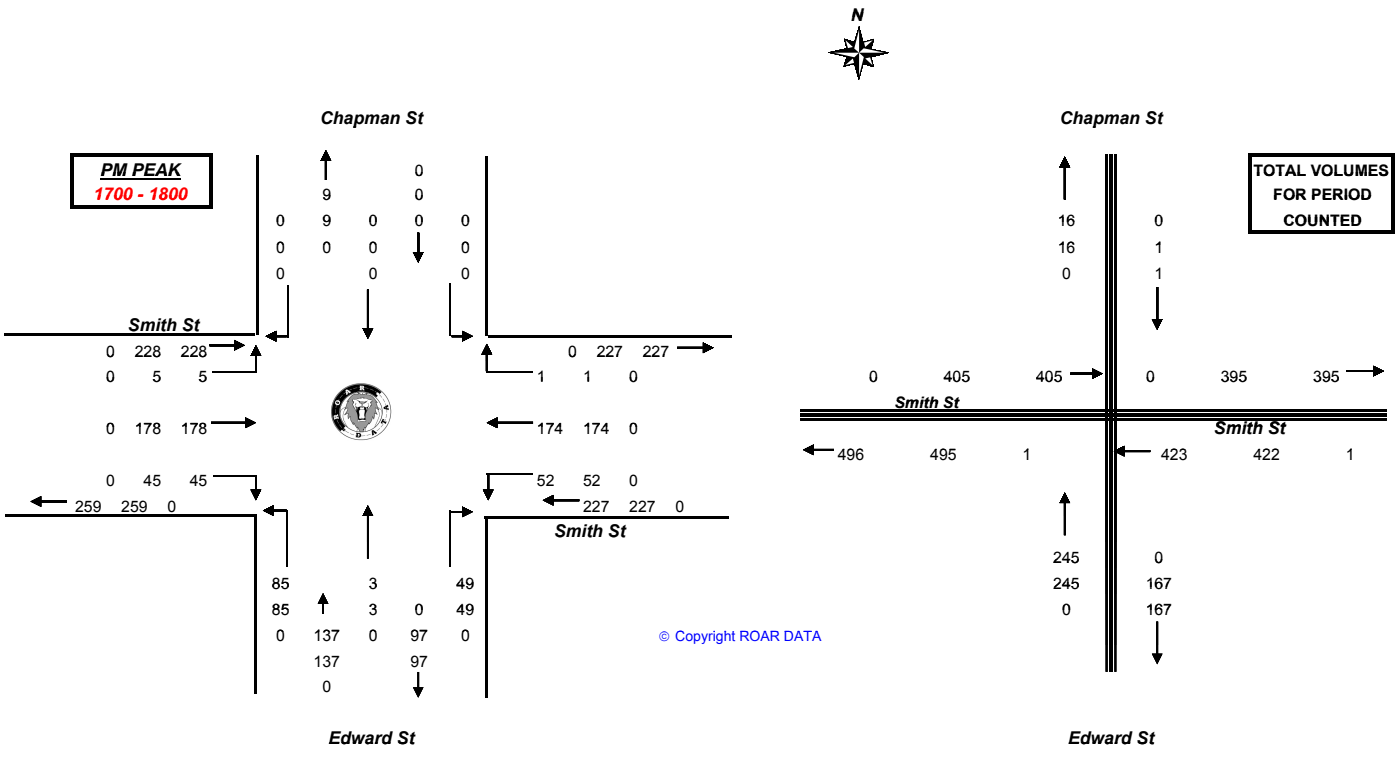

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Lights

	NORTH			WEST			SOUTH			EAST			
	Grosvenor Cr			*Carlton Cr*			*Smith St*			*Longport St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	74	5	5	6	123	1	0	26	68	8	44	85	**445**
0715 - 0730	88	9	1	4	66	0	0	19	68	10	58	123	**446**
0730 - 0745	68	4	1	0	64	1	0	12	61	12	67	81	**371**
0745 - 0800	100	5	0	1	68	1	0	14	87	13	72	125	**486**
0800 - 0815	103	3	0	6	59	1	1	13	59	7	68	116	**436**
0815 - 0830	77	4	2	2	70	0	0	10	80	17	76	115	**453**
0830 - 0845	109	6	3	3	102	0	1	19	79	22	75	116	**535**
0845 - 0900	98	13	1	8	99	0	1	19	63	13	86	72	**473**
Period End	**717**	**49**	**13**	**30**	**651**	**4**	**3**	**132**	**565**	**102**	**546**	**833**	**3645**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Grosvenor Cr			*Carlton Cr*			*Smith St*			*Longport St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	0	0	0	2	0	0	0	0	0	3	0	**5**
0715 - 0730	0	0	0	0	2	0	0	0	0	0	2	0	**4**
0730 - 0745	0	0	0	0	1	0	0	0	0	0	2	0	**3**
0745 - 0800	0	0	0	0	0	0	0	0	0	0	3	0	**3**
0800 - 0815	0	0	0	0	1	0	0	0	0	0	0	0	**1**
0815 - 0830	0	0	0	0	0	0	0	0	0	0	1	0	**1**
0830 - 0845	0	0	0	0	0	0	0	0	0	0	2	0	**2**
0845 - 0900	0	0	0	0	0	0	0	0	0	0	3	0	**3**
Period End	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**22**

Lights

	NORTH			WEST			SOUTH			EAST			
	Grosvenor Cr			*Carlton Cr*			*Smith St*			*Longport St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	330	23	7	11	321	3	0	71	284	43	241	414	**1748**
0715 - 0815	359	21	2	11	257	3	1	58	275	42	265	445	**1739**
0730 - 0830	348	16	3	9	261	3	1	49	287	49	283	437	**1746**
0745 - 0845	389	18	5	12	299	2	2	56	305	59	291	472	**1910**
0800 - 0900	387	26	6	19	330	1	3	61	281	59	305	419	**1897**
PEAK HOUR	**387**	**26**	**6**	**19**	**330**	**1**	**3**	**61**	**281**	**59**	**305**	**419**	**1897**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Grosvenor Cr			*Carlton Cr*			*Smith St*			*Longport St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	0	0	0	0	5	0	0	0	0	0	10	0	**15**
0715 - 0815	0	0	0	0	4	0	0	0	0	0	7	0	**11**
0730 - 0830	0	0	0	0	2	0	0	0	0	0	6	0	**8**
0745 - 0845	0	0	0	0	1	0	0	0	0	0	6	0	**7**
0800 - 0900	0	0	0	0	1	0	0	0	0	0	6	0	**7**
PEAK HOUR	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**7**

Combined

	NORTH			WEST			SOUTH			EAST			
	Grosvenor Cr			*Carlton Cr*			*Smith St*			*Longport St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	74	5	5	6	125	1	0	26	68	8	47	85	**450**
0715 - 0730	88	9	1	4	68	0	0	19	68	10	60	123	**450**
0730 - 0745	68	4	1	0	65	1	0	12	61	12	69	81	**374**
0745 - 0800	100	5	0	1	68	1	0	14	87	13	75	125	**489**
0800 - 0815	103	3	0	6	60	1	1	13	59	7	68	116	**437**
0815 - 0830	77	4	2	2	70	0	0	10	80	17	77	115	**454**
0830 - 0845	109	6	3	3	102	0	1	19	79	22	77	116	**537**
0845 - 0900	98	13	1	8	99	0	1	19	63	13	89	72	**476**
Period End	**717**	**49**	**13**	**30**	**657**	**4**	**3**	**132**	**565**	**102**	**562**	**833**	**3667**

Peds

	NORTH	WEST	SOUTH	EAST	
	Grosvenor Cr	*Carlton Cr*	*Smith St*	*Longport St*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0715	0	0	0	2	**2**
0715 - 0730	0	0	3	0	**3**
0730 - 0745	0	0	1	1	**2**
0745 - 0800	0	0	0	1	**1**
0800 - 0815		0	2	0	**2**
0815 - 0830	0	0	7	1	**8**
0830 - 0845	0	0	2	0	**2**
0845 - 0900	0	0	2	0	**2**
Period End	**0**	**0**	**17**	**5**	**22**

Combined

	NORTH			WEST			SOUTH			EAST			
	Grosvenor Cr			*Carlton Cr*			*Smith St*			*Longport St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	330	23	7	11	326	3	0	71	284	43	251	414	**1763**
0715 - 0815	359	21	2	11	261	3	1	58	275	42	272	445	**1750**
0730 - 0830	348	16	3	9	263	3	1	49	287	49	289	437	**1754**
0745 - 0845	389	18	5	12	300	2	2	56	305	59	297	472	**1917**
0800 - 0900	387	26	6	19	331	1	3	61	281	59	311	419	**1904**
PEAK HOUR	**387**	**26**	**6**	**19**	**331**	**1**	**3**	**61**	**281**	**59**	**311**	**419**	**1904**

Peds

	NORTH	WEST	SOUTH	EAST	
	Grosvenor Cr	*Carlton Cr*	*Smith St*	*Longport St*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0800	0	0	4	4	**8**
0715 - 0815	0	0	6	2	**8**
0730 - 0830	0	0	10	3	**13**
0745 - 0845	0	0	11	2	**13**
0800 - 0900	0	0	13	1	**14**
PEAK HR	**0**	**0**	**13**	**1**	**14**

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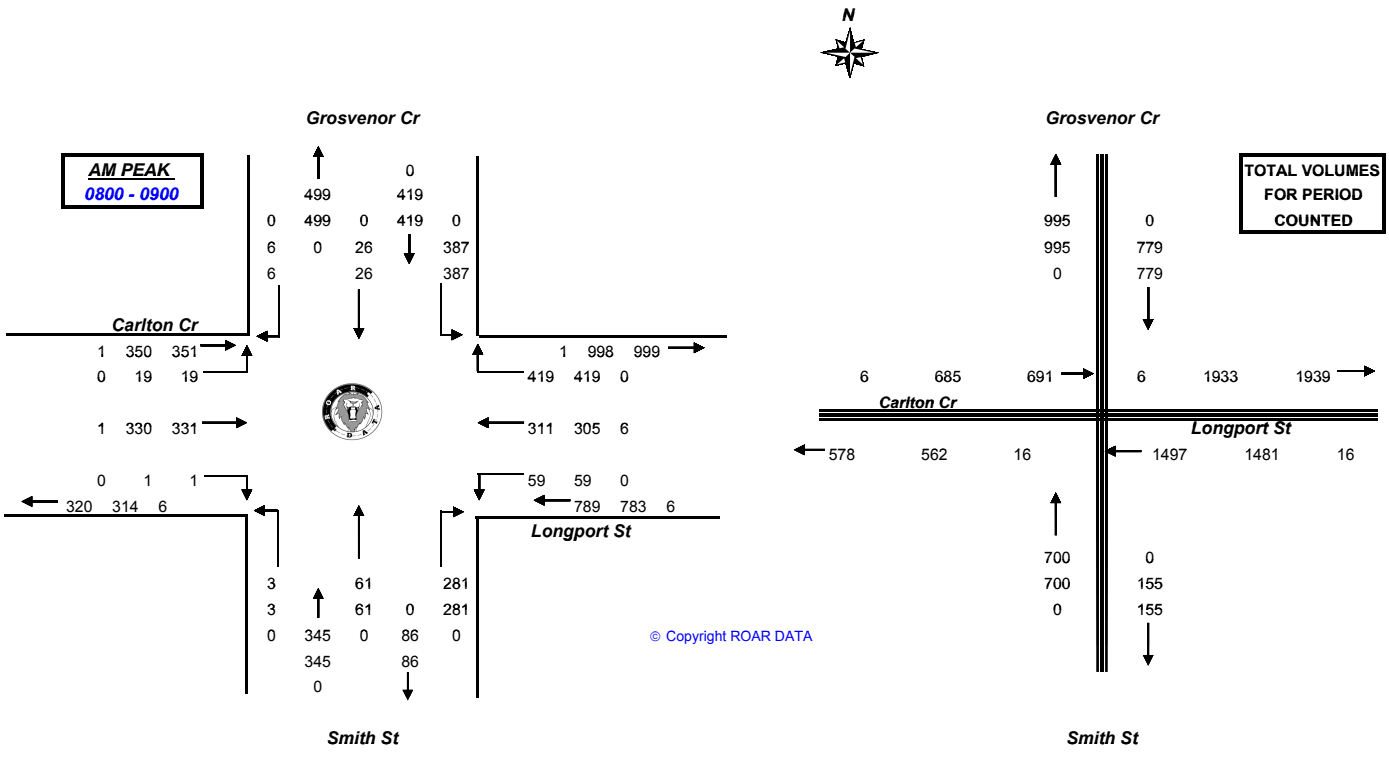

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Lights

Time Per	NORTH Grosvenor Cr L	T	R	WEST Carlton Cr L	T	R	SOUTH Smith St L	T	R	EAST Longport St L	T	R	TOT
1600 - 1615	48	21	9	14	70	3	2	10	30	24	134	88	**453**
1615 - 1630	52	19	10	23	86	3	6	13	32	27	123	91	**485**
1630 - 1645	41	11	5	13	69	3	2	16	27	28	129	100	**444**
1645 - 1700	46	17	12	14	88	7	3	9	20	23	129	99	**467**
1700 - 1715	60	23	8	15	92	2	1	18	24	24	120	100	**487**
1715 - 1730	48	27	9	22	94	7	0	17	36	30	101	90	**481**
1730 - 1745	54	29	4	16	86	7	3	21	41	22	116	100	**499**
1745 - 1800	60	22	2	6	97	5	1	21	40	23	95	101	**473**
Period End	**409**	**169**	**59**	**123**	**682**	**37**	**18**	**125**	**250**	**201**	**947**	**769**	**3789**

Heavies

Time Per	NORTH Grosvenor Cr L	T	R	WEST Carlton Cr L	T	R	SOUTH Smith St L	T	R	EAST Longport St L	T	R	TOT
1600 - 1615	0	0	0	0	0	0	0	0	0	0	3	0	**3**
1615 - 1630	0	0	0	0	1	0	1	0	0	0	3	0	**5**
1630 - 1645	0	0	0	0	2	0	0	0	0	1	4	0	**7**
1645 - 1700	0	0	0	0	1	0	0	0	0	0	2	0	**3**
1700 - 1715	0	0	0	0	0	0	0	0	0	0	1	0	**1**
1715 - 1730	0	0	0	0	0	0	0	0	0	0	2	0	**2**
1730 - 1745	0	0	0	0	1	0	0	0	0	0	1	0	**2**
1745 - 1800	0	0	0	0	0	0	0	0	0	0	1	0	**1**
Period End	**0**	**0**	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**1**	**17**	**0**	**24**

Lights

Peak Time	NORTH Grosvenor Cr L	T	R	WEST Carlton Cr L	T	R	SOUTH Smith St L	T	R	EAST Longport St L	T	R	TOT
1600 - 1700	187	68	36	64	313	16	13	48	109	102	515	378	**1849**
1615 - 1715	199	70	35	65	335	15	12	56	103	102	501	390	**1883**
1630 - 1730	195	78	34	64	343	19	6	60	107	105	479	389	**1879**
1645 - 1745	208	96	33	67	360	23	7	65	121	99	466	389	**1934**
1700 - 1800	222	101	23	59	369	21	5	77	141	99	432	391	**1940**
PEAK HOUR	**222**	**101**	**23**	**59**	**369**	**21**	**5**	**77**	**141**	**99**	**432**	**391**	**1940**

Heavies

Peak Time	NORTH Grosvenor Cr L	T	R	WEST Carlton Cr L	T	R	SOUTH Smith St L	T	R	EAST Longport St L	T	R	TOT
1600 - 1700	0	0	0	0	4	0	1	0	0	1	12	0	**18**
1615 - 1715	0	0	0	0	4	0	1	0	0	1	10	0	**16**
1630 - 1730	0	0	0	0	3	0	0	0	0	1	9	0	**13**
1645 - 1745	0	0	0	0	2	0	0	0	0	0	6	0	**8**
1700 - 1800	0	0	0	0	1	0	0	0	0	0	5	0	**6**
PEAK HOUR	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**6**

Combined

Time Per	NORTH Grosvenor Cr L	T	R	WEST Carlton Cr L	T	R	SOUTH Smith St L	T	R	EAST Longport St L	T	R	TOT
1600 - 1615	48	21	9	14	70	3	2	10	30	24	137	88	**456**
1615 - 1630	52	19	10	23	87	3	7	13	32	27	126	91	**490**
1630 - 1645	41	11	5	13	71	3	2	16	27	29	133	100	**451**
1645 - 1700	46	17	12	14	89	7	3	9	20	23	131	99	**470**
1700 - 1715	60	23	8	15	92	2	1	18	24	24	121	100	**488**
1715 - 1730	48	27	9	22	94	7	0	17	36	30	103	90	**483**
1730 - 1745	54	29	4	16	87	7	3	21	41	22	117	100	**501**
1745 - 1800	60	22	2	6	97	5	1	21	40	23	96	101	**474**
Period End	**409**	**169**	**59**	**123**	**687**	**37**	**19**	**125**	**250**	**202**	**964**	**769**	**3813**

Peds

Time Per	NORTH Grosvenor Cr UNCLASSIFIED	WEST Carlton Cr UNCLASSIFIED	SOUTH Smith St UNCLASSIFIED	EAST Longport St UNCLASSIFIED	TOT
1600 - 1615	0	0	1	1	**2**
1615 - 1630	0	0	3	1	**4**
1630 - 1645	0	0	0	1	**1**
1645 - 1700	0	1	1	0	**2**
1700 - 1715		0	0	3	**3**
1715 - 1730	0	1	4	0	**5**
1730 - 1745	0	2	1	0	**3**
1745 - 1800	0	1	4	0	**5**
Period End	**0**	**5**	**14**	**6**	**25**

Combined

Peak Time	NORTH Grosvenor Cr L	T	R	WEST Carlton Cr L	T	R	SOUTH Smith St L	T	R	EAST Longport St L	T	R	TOT
1600 - 1700	187	68	36	64	317	16	14	48	109	103	527	378	**1867**
1615 - 1715	199	70	35	65	339	15	13	56	103	103	511	390	**1899**
1630 - 1730	195	78	34	64	346	19	6	60	107	106	488	389	**1892**
1645 - 1745	208	96	33	67	362	23	7	65	121	99	472	389	**1942**
1700 - 1800	222	101	23	59	370	21	5	77	141	99	437	391	**1946**
PEAK HOUR	**222**	**101**	**23**	**59**	**370**	**21**	**5**	**77**	**141**	**99**	**437**	**391**	**1946**

Peds

Peak Per	NORTH Grosvenor Cr UNCLASSIFIED	WEST Carlton Cr UNCLASSIFIED	SOUTH Smith St UNCLASSIFIED	EAST Longport St UNCLASSIFIED	TOT
1600 - 1700	0	1	5	3	**9**
1615 - 1715	0	1	4	5	**10**
1630 - 1730	0	2	5	4	**11**
1645 - 1745	0	4	6	3	**13**
1700 - 1800	0	4	9	3	**16**
PEAK HR	**0**	**4**	**9**	**3**	**16**

R.O.A.R DATA

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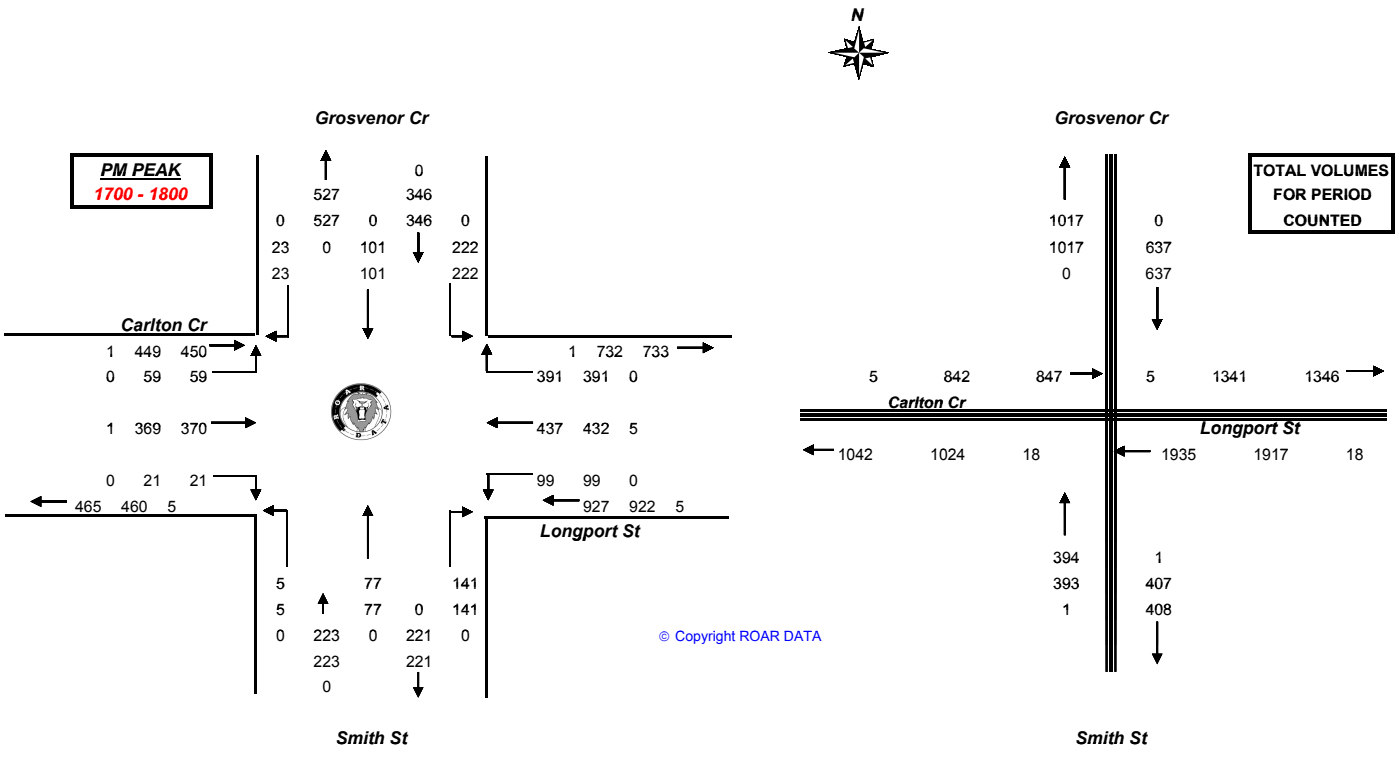
Client : ARUP
Job No/Name : 3141 LEWISHAM Traffic Counts
Day/Date : Wednesday 9th June 2010



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob. 0418 239019

Client : ARUP
Job No/Name : SUMMER HILL Traffic Counts
Day/Date : Wednesday 9th February 2011

Lights

Time Per	NORTH Nowraine St L	T	R	WEST Junction Rd L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Old Canterbury Rd L	T	R	TOT
0700 - 0715	1	0	0	0	41	0	2	0	210	73	14	0	**341**
0715 - 0730	2	0	0	0	51	0	1	0	219	80	16	0	**369**
0730 - 0745	5	0	0	1	63	0	5	0	217	84	26	0	**401**
0745 - 0800	7	0	0	1	55	0	4	0	221	97	29	0	**414**
0800 - 0815	2	0	0	2	60	0	5	2	205	103	33	0	**412**
0815 - 0830	12	0	0	1	74	0	3	0	214	103	37	0	**444**
0830 - 0845	3	0	0	0	55	0	7	0	197	88	55	0	**405**
0845 - 0900	9	0	0	0	59	0	6	1	176	90	32	0	**373**
Period End	**41**	**0**	**0**	**5**	**458**	**0**	**33**	**3**	**1659**	**718**	**242**	**0**	**3159**

Heavies

Time Per	NORTH Nowraine St L	T	R	WEST Junction Rd L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Old Canterbury Rd L	T	R	TOT
0700 - 0715	0	0	0	0	0	0	0	0	3	1	1	0	**5**
0715 - 0730	0	0	0	0	2	0	0	0	1	1	0	0	**4**
0730 - 0745	0	0	0	0	0	0	0	0	3	0	1	0	**4**
0745 - 0800	0	0	0	0	1	0	0	0	2	2	0	0	**5**
0800 - 0815	0	0	0	0	2	0	0	0	1	0	1	0	**4**
0815 - 0830	0	0	0	0	3	0	0	0	2	0	1	0	**6**
0830 - 0845	0	0	0	0	1	0	0	0	2	3	1	0	**7**
0845 - 0900	0	0	0	0	1	0	0	0	0	1	0	0	**2**
Period End	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**14**	**8**	**5**	**0**	**37**

Lights

Peak Time	NORTH Nowraine St L	T	R	WEST Junction Rd L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Old Canterbury Rd L	T	R	TOT
0700 - 0800	15	0	0	2	210	0	12	0	867	334	85	0	**1525**
0715 - 0815	16	0	0	4	229	0	15	2	862	364	104	0	**1596**
0730 - 0830	26	0	0	5	252	0	17	2	857	387	125	0	**1671**
0745 - 0845	24	0	0	4	244	0	19	2	837	391	154	0	**1675**
0800 - 0900	26	0	0	3	248	0	21	3	792	384	157	0	**1634**
PEAK HOUR	**24**	**0**	**0**	**4**	**244**	**0**	**19**	**2**	**837**	**391**	**154**	**0**	**1675**

Heavies

Peak Time	NORTH Nowraine St L	T	R	WEST Junction Rd L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Old Canterbury Rd L	T	R	TOT
0700 - 0800	0	0	0	0	3	0	0	0	9	4	2	0	**18**
0715 - 0815	0	0	0	0	5	0	0	0	7	3	2	0	**17**
0730 - 0830	0	0	0	0	6	0	0	0	8	2	3	0	**19**
0745 - 0845	0	0	0	0	7	0	0	0	7	5	3	0	**22**
0800 - 0900	0	0	0	0	7	0	0	0	5	4	3	0	**19**
PEAK HOUR	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**7**	**5**	**3**	**0**	**22**

Combined

Time Per	NORTH Nowraine St L	T	R	WEST Junction Rd L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Old Canterbury Rd L	T	R	TOT
0700 - 0715	1	0	0	0	41	0	2	0	213	74	15	0	**346**
0715 - 0730	2	0	0	0	53	0	1	0	220	81	16	0	**373**
0730 - 0745	5	0	0	1	63	0	5	0	220	84	27	0	**405**
0745 - 0800	7	0	0	1	56	0	4	0	223	99	29	0	**419**
0800 - 0815	2	0	0	2	62	0	5	2	206	103	34	0	**416**
0815 - 0830	12	0	0	1	77	0	3	0	216	103	38	0	**450**
0830 - 0845	3	0	0	0	56	0	7	0	199	91	56	0	**412**
0845 - 0900	9	0	0	0	60	0	6	1	176	91	32	0	**375**
Period End	**41**	**0**	**0**	**5**	**468**	**0**	**33**	**3**	**1673**	**726**	**247**	**0**	**3196**

Peds

Time Per	NORTH Nowraine St UNCLASSIFIED	WEST Junction Rd UNCLASSIFIED	SOUTH Old Canterbury Rd UNCLASSIFIED	EAST Old Canterbury Rd UNCLASSIFIED	TOT
0700 - 0715					**0**
0715 - 0730					**0**
0730 - 0745	*Not*	*Not*	*Not*	*Not*	**0**
0745 - 0800	*Required*	*Required*	*Required*	*Required*	**0**
0800 - 0815					**0**
0815 - 0830					**0**
0830 - 0845					**0**
0845 - 0900					**0**
Period End	**0**	**0**	**0**	**0**	**0**

Combined

Peak Time	NORTH Nowraine St L	T	R	WEST Junction Rd L	T	R	SOUTH Old Canterbury Rd L	T	R	EAST Old Canterbury Rd L	T	R	TOT
0700 - 0800	15	0	0	2	213	0	12	0	876	338	87	0	**1543**
0715 - 0815	16	0	0	4	234	0	15	2	869	367	106	0	**1613**
0730 - 0830	26	0	0	5	258	0	17	2	865	389	128	0	**1690**
0745 - 0845	24	0	0	4	251	0	19	2	844	396	157	0	**1697**
0800 - 0900	26	0	0	3	255	0	21	3	797	388	160	0	**1653**
PEAK HOUR	**24**	**0**	**0**	**4**	**251**	**0**	**19**	**2**	**844**	**396**	**157**	**0**	**1697**

Peds

Peak Per	NORTH Nowraine St UNCLASSIFIED	WEST Junction Rd UNCLASSIFIED	SOUTH Old Canterbury Rd UNCLASSIFIED	EAST Old Canterbury Rd UNCLASSIFIED	TOT
0700 - 0800	0	0	0	0	**0**
0715 - 0815	0	0	0	0	**0**
0730 - 0830	0	0	0	0	**0**
0745 - 0845	0	0	0	0	**0**
0800 - 0900	0	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**	**0**

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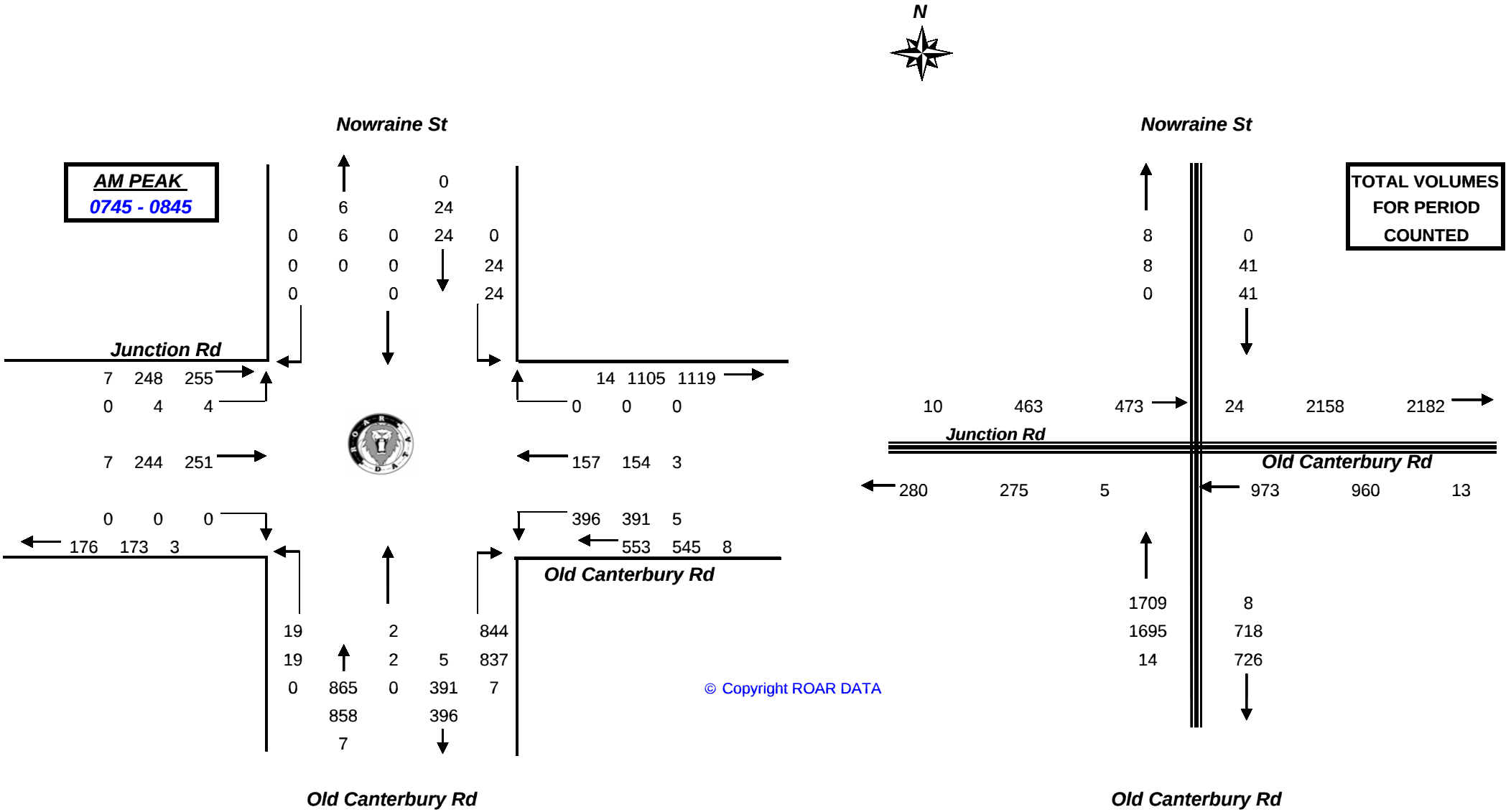
Client : ARUP
Job No/Name : SUMMER HILL Traffic Counts
Day/Date : Wednesday 9th February 2011



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Ph.88196847, Fax 88196849, Mob. 0418 239019

Client : ARUP
Job No/Name : SUMMER HILL Traffic Counts
Day/Date : Wednesday 9th February 2011

Lights

	NORTH			WEST			SOUTH			EAST			
	Nowraine St			*Junction Rd*			*Old Canterbury Rd*			*Old Canterbury Rd*			
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1645	2	0	0	0	25	0	4	1	124	140	53	0	**349**
1645 - 1700	3	0	0	0	21	0	8	1	117	140	29	0	**319**
1700 - 1715	3	0	0	0	19	0	6	0	122	137	48	0	**335**
1715 - 1730	3	0	0	1	30	0	5	1	127	139	42	0	**348**
1730 - 1745	2	0	0	0	34	0	4	0	109	165	42	0	**356**
1745 - 1800	7	0	0	1	26	0	3	0	121	120	41	0	**319**
1800 - 1815	2	0	0	1	24	0	7	0	124	102	51	0	**311**
1815 - 1830	2	0	0	0	24	0	7	0	126	140	48	0	**347**
Period End	**24**	**0**	**0**	**3**	**203**	**0**	**44**	**3**	**970**	**1083**	**354**	**0**	**2684**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Nowraine St			*Junction Rd*			*Old Canterbury Rd*			*Old Canterbury Rd*			
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1645	0	0	0	0	1	0	0	0	4	0	1	0	**6**
1645 - 1700	0	0	0	0	0	0	0	0	2	0	0	0	**2**
1700 - 1715	0	0	0	0	0	0	0	0	3	1	1	0	**5**
1715 - 1730	0	0	0	0	0	0	0	0	0	0	2	0	**2**
1730 - 1745	0	0	0	0	1	0	0	0	0	0	1	0	**2**
1745 - 1800	0	0	0	0	0	0	0	0	0	1	1	0	**2**
1800 - 1815	0	0	0	0	1	0	0	0	0	0	1	0	**2**
1815 - 1830	0	0	0	0	0	0	0	0	1	0	1	0	**2**
Period End	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**10**	**2**	**8**	**0**	**23**

Lights

	NORTH			WEST			SOUTH			EAST			
	Nowraine St			*Junction Rd*			*Old Canterbury Rd*			*Old Canterbury Rd*			
Peak Time	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1730	11	0	0	1	95	0	23	3	490	556	172	0	**1351**
1645 - 1745	11	0	0	1	104	0	23	2	475	581	161	0	**1358**
1700 - 1800	15	0	0	2	109	0	18	1	479	561	173	0	**1358**
1715 - 1815	14	0	0	3	114	0	19	1	481	526	176	0	**1334**
1730 - 1830	13	0	0	2	108	0	21	0	480	527	182	0	**1333**
PEAK HOUR	**15**	**0**	**0**	**2**	**109**	**0**	**18**	**1**	**479**	**561**	**173**	**0**	**1358**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Nowraine St			*Junction Rd*			*Old Canterbury Rd*			*Old Canterbury Rd*			
Peak Time	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1730	0	0	0	0	1	0	0	0	9	1	4	0	**15**
1645 - 1745	0	0	0	0	1	0	0	0	5	1	4	0	**11**
1700 - 1800	0	0	0	0	1	0	0	0	3	2	5	0	**11**
1715 - 1815	0	0	0	0	2	0	0	0	0	1	5	0	**8**
1730 - 1830	0	0	0	0	2	0	0	0	1	1	4	0	**8**
PEAK HOUR	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**2**	**5**	**0**	**11**

Combined

	NORTH			WEST			SOUTH			EAST			
	Nowraine St			*Junction Rd*			*Old Canterbury Rd*			*Old Canterbury Rd*			
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1645	2	0	0	0	26	0	4	1	128	140	54	0	**355**
1645 - 1700	3	0	0	0	21	0	8	1	119	140	29	0	**321**
1700 - 1715	3	0	0	0	19	0	6	0	125	138	49	0	**340**
1715 - 1730	3	0	0	1	30	0	5	1	127	139	44	0	**350**
1730 - 1745	2	0	0	0	35	0	4	0	109	165	43	0	**358**
1745 - 1800	7	0	0	1	26	0	3	0	121	121	42	0	**321**
1800 - 1815	2	0	0	1	25	0	7	0	124	102	52	0	**313**
1815 - 1830	2	0	0	0	24	0	7	0	127	140	49	0	**349**
Period End	**24**	**0**	**0**	**3**	**206**	**0**	**44**	**3**	**980**	**1085**	**362**	**0**	**2707**

Peds

	NORTH	WEST	SOUTH	EAST	
	Nowraine St	*Junction Rd*	*Old Canterbury Rd*	*Old Canterbury Rd*	
Time Per	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**TOT**
1630 - 1645					**0**
1645 - 1700					**0**
1700 - 1715	*Not*	*Not*	*Not*	*Not*	**0**
1715 - 1730	*Required*	*Required*	*Required*	*Required*	**0**
1730 - 1745					**0**
1745 - 1800					**0**
1800 - 1815					**0**
1815 - 1830					**0**
Period End	**0**	**0**	**0**	**0**	**0**

Combined

	NORTH			WEST			SOUTH			EAST			
	Nowraine St			*Junction Rd*			*Old Canterbury Rd*			*Old Canterbury Rd*			
Peak Time	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1730	11	0	0	1	96	0	23	3	499	557	176	0	**1366**
1645 - 1745	11	0	0	1	105	0	23	2	480	582	165	0	**1369**
1700 - 1800	15	0	0	2	110	0	18	1	482	563	178	0	**1369**
1715 - 1815	14	0	0	3	116	0	19	1	481	527	181	0	**1342**
1730 - 1830	13	0	0	2	110	0	21	0	481	528	186	0	**1341**
PEAK HOUR	**15**	**0**	**0**	**2**	**110**	**0**	**18**	**1**	**482**	**563**	**178**	**0**	**1369**

Peds

	NORTH	WEST	SOUTH	EAST	
	Nowraine St	*Junction Rd*	*Old Canterbury Rd*	*Old Canterbury Rd*	
Peak Per	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**TOT**
1630 - 1730	0	0	0	0	**0**
1645 - 1745	0	0	0	0	**0**
1700 - 1800	0	0	0	0	**0**
1715 - 1815	0	0	0	0	**0**
1730 - 1830	0	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**	**0**

R.O.A.R DATA
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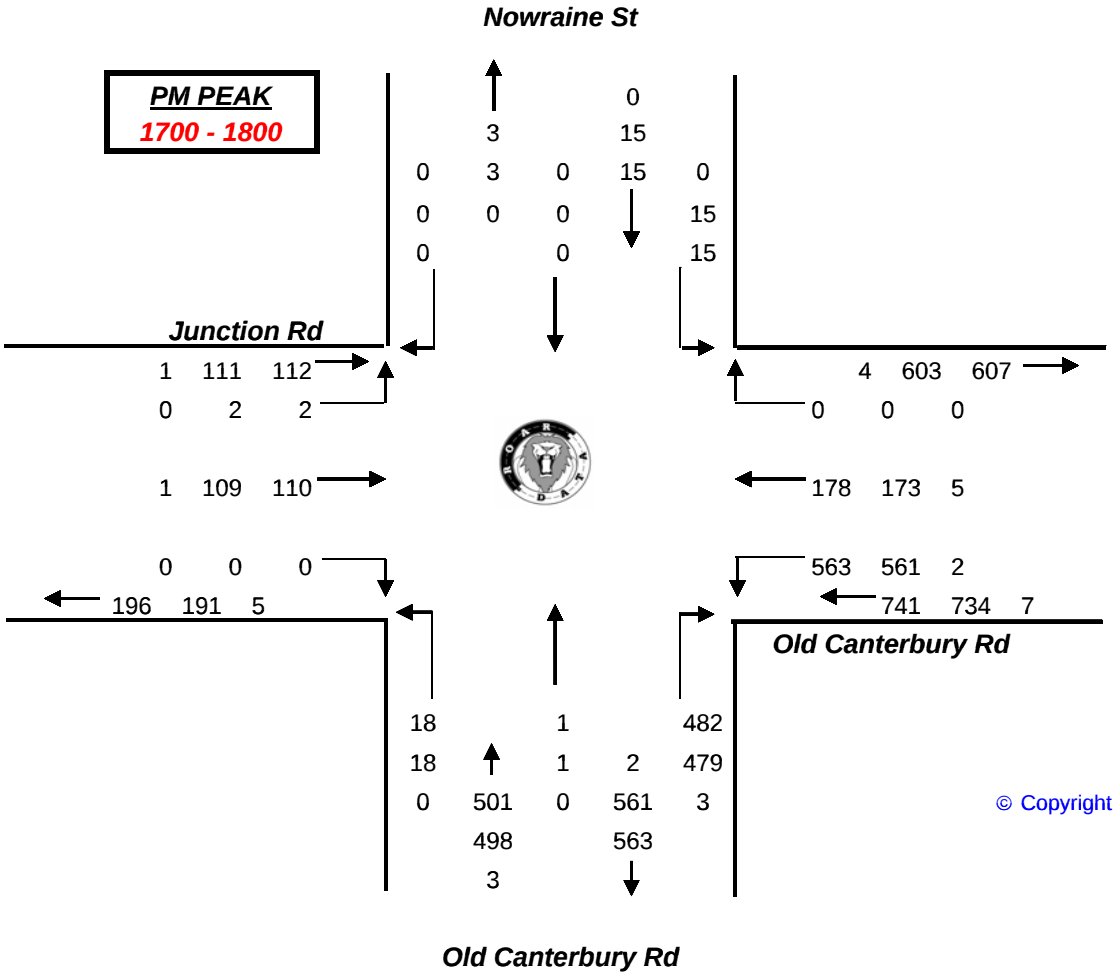
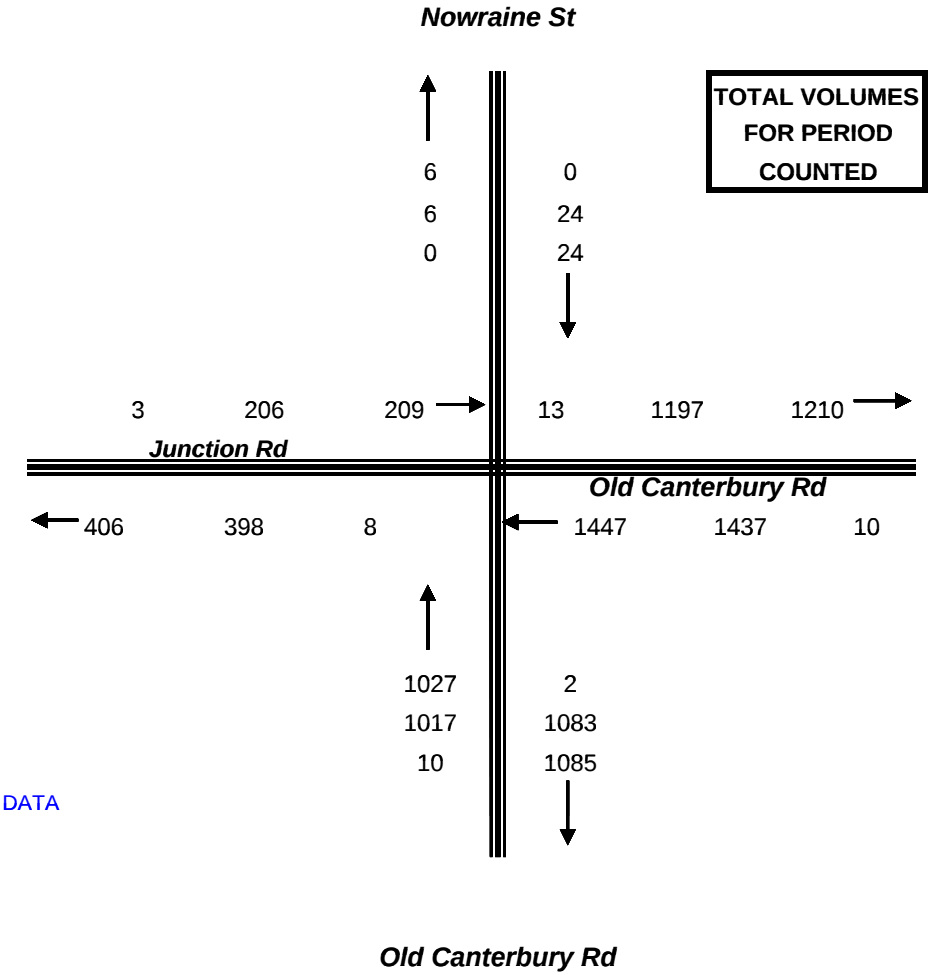
Client : ARUP
Job No/Name : SUMMER HILL Traffic Counts
Day/Date : Wednesday 9th February 2011

PM PEAK
1700 - 1800





R.O.A.R. DATA

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Ph.88196847, Fax 88196849, Mob.0418-239019

Client : ARUP

Job No/Name : SUMMER HILL Traffic Counts

Day/Date : Wednesday 9th February 2011

Lights

	NORTH		EAST		SOUTH		
	Hume Hwy		Carlton Cr		Hume Hwy		
Time Per	T	L	R	L	R	T	TOT
0700 - 0715	99	46	0	51	88	258	**542**
0715 - 0730	109	58	0	68	99	295	**629**
0730 - 0745	101	67	0	68	87	255	**578**
0745 - 0800	136	87	0	68	82	172	**545**
0800 - 0815	161	96	0	93	89	198	**637**
0815 - 0830	164	87	0	92	73	241	**657**
0830 - 0845	151	99	0	100	106	223	**679**
0845 - 0900	109	84	0	67	143	271	**674**
Per End	**1030**	**624**	**0**	**607**	**767**	**1913**	**4941**

Heavies

	NORTH		EAST		SOUTH		
	Hume Hwy		Carlton Cr		Hume Hwy		
Time Per	T	L	R	L	R	T	TOT
0700 - 0715	3	0	0	3	1	3	**10**
0715 - 0730	2	0	0	2	0	6	**10**
0730 - 0745	1	0	0	2	3	6	**12**
0745 - 0800	2	0	0	2	2	1	**7**
0800 - 0815	2	0	0	3	1	13	**19**
0815 - 0830	1	1	0	2	2	1	**7**
0830 - 0845	3	2	0	1	5	6	**17**
0845 - 0900	2	0	0	1	2	3	**8**
Per End	**16**	**3**	**0**	**16**	**16**	**39**	**90**

Combined

	NORTH		EAST		SOUTH		
	Hume Hwy		Carlton Cr		Hume Hwy		
Time Per	T	L	R	L	R	T	TOT
0700 - 0715	102	46	0	54	89	261	**552**
0715 - 0730	111	58	0	70	99	301	**639**
0730 - 0745	102	67	0	70	90	261	**590**
0745 - 0800	138	87	0	70	84	173	**552**
0800 - 0815	163	96	0	96	90	211	**656**
0815 - 0830	165	88	0	94	75	242	**664**
0830 - 0845	154	101	0	101	111	229	**696**
0845 - 0900	111	84	0	68	145	274	**682**
Per End	**1046**	**627**	**0**	**623**	**783**	**1952**	**5031**

Lights

	NORTH		EAST		SOUTH		
	Hume Hwy		Carlton Cr		Hume Hwy		
Peak Per	T	L	R	L	R	T	TOT
0700 - 0800	445	258	0	255	356	980	**2294**
0715 - 0815	507	308	0	297	357	920	**2389**
0730 - 0830	562	337	0	321	331	866	**2417**
0745 - 0845	612	369	0	353	350	834	**2518**
0800 - 0900	585	366	0	352	411	933	**2647**
PEAK HR	**585**	**366**	**0**	**352**	**411**	**933**	**2647**

Heavies

	NORTH		EAST		SOUTH		
	Hume Hwy		Carlton Cr		Hume Hwy		
Peak Per	T	L	R	L	R	T	TOT
0700 - 0800	8	0	0	9	6	16	**39**
0715 - 0815	7	0	0	9	6	26	**48**
0730 - 0830	6	1	0	9	8	21	**45**
0745 - 0845	8	3	0	8	10	21	**50**
0800 - 0900	8	3	0	7	10	23	**51**
PEAK HR	**8**	**3**	**0**	**7**	**10**	**23**	**51**

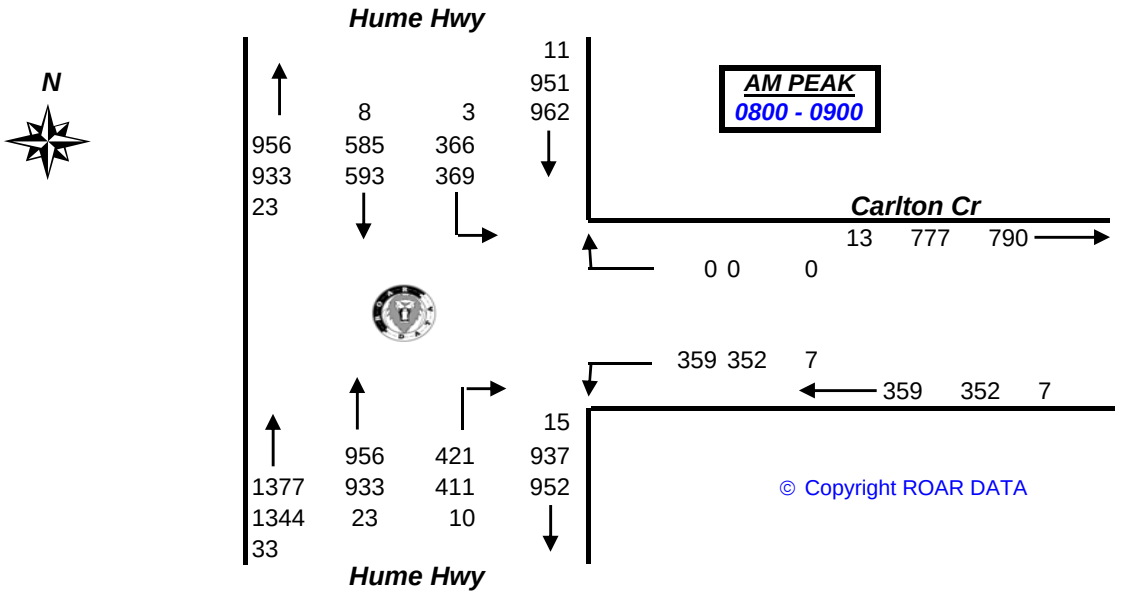
Combined

	NORTH		EAST		SOUTH		
	Hume Hwy		Carlton Cr		Hume Hwy		
Peak Per	T	L	R	L	R	T	TOT
0700 - 0800	453	258	0	264	362	996	**2333**
0715 - 0815	514	308	0	306	363	946	**2437**
0730 - 0830	568	338	0	330	339	887	**2462**
0745 - 0845	620	372	0	361	360	855	**2568**
0800 - 0900	593	369	0	359	421	956	**2698**
PEAK HR	**593**	**369**	**0**	**359**	**421**	**956**	**2698**

Peds

	NORTH	EAST	SOUTH	
Time Per	Hume Hwy	Carlton Cr	Hume Hwy	TOT
0700 - 0715				**0**
0715 - 0730		*NOT*		**0**
0730 - 0745		*REQUIRED*		**0**
0745 - 0800				**0**
0800 - 0815				**0**
0815 - 0830				**0**
0830 - 0845				**0**
0845 - 0900				**0**
Per End	**0**	**0**		**0**

	NORTH	EAST	SOUTH	
Peak Per	Hume Hwy	Carlton Cr	Hume Hwy	TOT
0700 - 0800	0	0	0	**0**
0715 - 0815	0	0	0	**0**
0730 - 0830	0	0	0	**0**
0745 - 0845	0	0	0	**0**
0800 - 0900	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : ARUP

Job No/Name : SUMMER HILL Traffic Counts

Day/Date : Wednesday 9th February 2011

Lights

Time Per	NORTH Hume Hwy T	NORTH Hume Hwy L	EAST Carlton Cr R	EAST Carlton Cr L	SOUTH Hume Hwy R	SOUTH Hume Hwy T	TOT
1630 - 1645	252	53	0	89	85	143	**622**
1645 - 1700	254	76	0	107	87	157	**681**
1700 - 1715	303	62	0	115	96	212	**788**
1715 - 1730	315	92	0	111	125	191	**834**
1730 - 1745	283	84	0	88	94	185	**734**
1745 - 1800	307	90	0	104	77	167	**745**
1800 - 1815	283	75	0	91	75	144	**668**
1815 - 1830	294	87	0	109	83	148	**721**
Per End	**2291**	**619**	**0**	**814**	**722**	**1347**	**5793**

Heavies

Time Per	NORTH Hume Hwy T	NORTH Hume Hwy L	EAST Carlton Cr R	EAST Carlton Cr L	SOUTH Hume Hwy R	SOUTH Hume Hwy T	TOT
1630 - 1645	2	0	0	5	1	2	**10**
1645 - 1700	2	0	0	0	0	5	**7**
1700 - 1715	2	0	0	1	2	1	**6**
1715 - 1730	3	0	0	0	1	2	**6**
1730 - 1745	3	1	0	1	2	3	**10**
1745 - 1800	3	0	0	0	1	2	**6**
1800 - 1815	4	0	0	0	1	1	**6**
1815 - 1830	1	0	0	2	0	0	**3**
Per End	**20**	**1**	**0**	**9**	**8**	**16**	**54**

Combined

Time Per	NORTH Hume Hwy T	NORTH Hume Hwy L	EAST Carlton Cr R	EAST Carlton Cr L	SOUTH Hume Hwy R	SOUTH Hume Hwy T	TOT
1630 - 1645	254	53	0	94	86	145	**632**
1645 - 1700	256	76	0	107	87	162	**688**
1700 - 1715	305	62	0	116	98	213	**794**
1715 - 1730	318	92	0	111	126	193	**840**
1730 - 1745	286	85	0	89	96	188	**744**
1745 - 1800	310	90	0	104	78	169	**751**
1800 - 1815	287	75	0	91	76	145	**674**
1815 - 1830	295	87	0	111	83	148	**724**
Per End	**2311**	**620**	**0**	**823**	**730**	**1363**	**5847**

Lights

Peak Per	NORTH Hume Hwy T	NORTH Hume Hwy L	EAST Carlton Cr R	EAST Carlton Cr L	SOUTH Hume Hwy R	SOUTH Hume Hwy T	TOT
1630 - 1730	1124	283	0	422	393	703	**2925**
1645 - 1745	1155	314	0	421	402	745	**3037**
1700 - 1800	1208	328	0	418	392	755	**3101**
1715 - 1815	1188	341	0	394	371	687	**2981**
1730 - 1830	1167	336	0	392	329	644	**2868**
PEAK HR	**1208**	**328**	**0**	**418**	**392**	**755**	**3101**

Heavies

Peak Per	NORTH Hume Hwy T	NORTH Hume Hwy L	EAST Carlton Cr R	EAST Carlton Cr L	SOUTH Hume Hwy R	SOUTH Hume Hwy T	TOT
1630 - 1730	9	0	0	6	4	10	**29**
1645 - 1745	10	1	0	2	5	11	**29**
1700 - 1800	11	1	0	2	6	8	**28**
1715 - 1815	13	1	0	1	5	8	**28**
1730 - 1830	11	1	0	3	4	6	**25**
PEAK HR	**11**	**1**	**0**	**2**	**6**	**8**	**28**

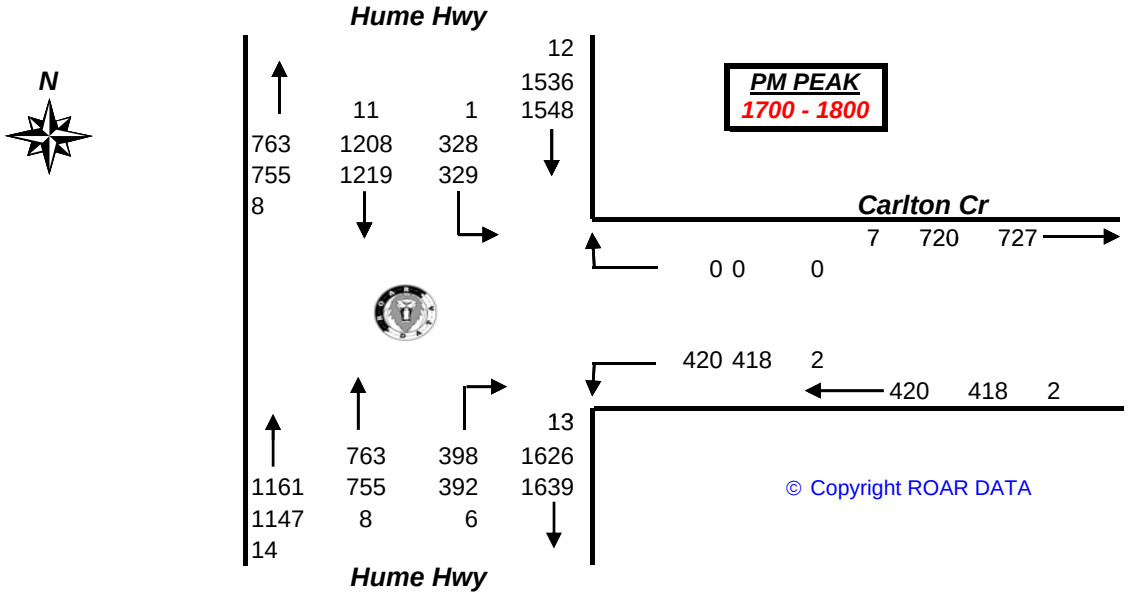
Combined

Peak Per	NORTH Hume Hwy T	NORTH Hume Hwy L	EAST Carlton Cr R	EAST Carlton Cr L	SOUTH Hume Hwy R	SOUTH Hume Hwy T	TOT
1630 - 1730	1133	283	0	428	397	713	**2954**
1645 - 1745	1165	315	0	423	407	756	**3066**
1700 - 1800	1219	329	0	420	398	763	**3129**
1715 - 1815	1201	342	0	395	376	695	**3009**
1730 - 1830	1178	337	0	395	333	650	**2893**
PEAK HR	**1219**	**329**	**0**	**420**	**398**	**763**	**3129**

Peds

Time Per	NORTH Hume Hwy	EAST Carlton Cr	SOUTH Hume Hwy	TOT
1630 - 1645				**0**
1645 - 1700		*NOT*		**0**
1700 - 1715		*REQUIRED*		**0**
1715 - 1730				**0**
1730 - 1745				**0**
1745 - 1800				**0**
1800 - 1815				**0**
1815 - 1830				**0**
Per End	**0**	**0**	**0**	**0**

Peak Per	NORTH Hume Hwy	EAST Carlton Cr	SOUTH Hume Hwy	TOT
1630 - 1730	0	0	0	**0**
1645 - 1745	0	0	0	**0**
1700 - 1800	0	0	0	**0**
1715 - 1815	0	0	0	**0**
1730 - 1830	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**



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Reliable, Original & Authentic Results

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Job No/Name : SUMMER HILL Traffic Counts
Day/Date : Wednesday 9th February 2011

Lights

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	5	73	1	19	70	41	15	237	0	9	18	7	**495**
0715 - 0730	4	110	2	27	93	55	12	279	1	6	33	4	**626**
0730 - 0745	20	118	6	16	85	55	32	211	0	13	41	2	**599**
0745 - 0800	8	141	5	7	59	61	18	137	1	8	52	0	**497**
0800 - 0815	19	164	3	10	87	98	39	156	0	9	67	1	**653**
0815 - 0830	8	151	1	14	57	66	38	219	2	11	50	4	**621**
0830 - 0845	11	175	6	16	106	102	39	249	1	14	57	4	**780**
0845 - 0900	12	93	2	10	70	80	26	168	0	14	37	1	**513**
Period End	**87**	**1025**	**26**	**119**	**627**	**558**	**219**	**1656**	**5**	**84**	**355**	**23**	**4784**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	3	0	0	0	0	0	3	0	0	0	0	**6**
0715 - 0730	0	2	0	0	0	0	0	7	0	0	0	0	**9**
0730 - 0745	0	1	0	0	0	0	1	8	0	0	0	0	**10**
0745 - 0800	0	2	1	1	0	0	0	0	0	0	0	0	**4**
0800 - 0815	0	2	0	0	0	0	1	6	0	0	0	0	**9**
0815 - 0830	0	1	0	0	0	0	0	2	0	0	0	0	**3**
0830 - 0845	0	3	0	0	0	2	1	6	0	0	0	0	**12**
0845 - 0900	0	2	0	0	0	0	0	2	0	0	0	0	**4**
Period End	**0**	**16**	**1**	**1**	**0**	**2**	**3**	**34**	**0**	**0**	**0**	**0**	**57**

Lights

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	37	442	14	69	307	212	77	864	2	36	144	13	**2217**
0715 - 0815	51	533	16	60	324	269	101	783	2	36	193	7	**2375**
0730 - 0830	55	574	15	47	288	280	127	723	3	41	210	7	**2370**
0745 - 0845	46	631	15	47	309	327	134	761	4	42	226	9	**2551**
0800 - 0900	50	583	12	50	320	346	142	792	3	48	211	10	**2567**
PEAK HOUR	**50**	**583**	**12**	**50**	**320**	**346**	**142**	**792**	**3**	**48**	**211**	**10**	**2567**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	0	8	1	1	0	0	1	18	0	0	0	0	**29**
0715 - 0815	0	7	1	1	0	0	2	21	0	0	0	0	**32**
0730 - 0830	0	6	1	1	0	0	2	16	0	0	0	0	**26**
0745 - 0845	0	8	1	1	0	2	2	14	0	0	0	0	**28**
0800 - 0900	0	8	0	0	0	2	2	16	0	0	0	0	**28**
PEAK HOUR	**0**	**8**	**0**	**0**	**0**	**2**	**2**	**16**	**0**	**0**	**0**	**0**	**28**

Combined

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	5	76	1	19	70	41	15	240	0	9	18	7	**501**
0715 - 0730	4	112	2	27	93	55	12	286	1	6	33	4	**635**
0730 - 0745	20	119	6	16	85	55	33	219	0	13	41	2	**609**
0745 - 0800	8	143	6	8	59	61	18	137	1	8	52	0	**501**
0800 - 0815	19	166	3	10	87	98	40	162	0	9	67	1	**662**
0815 - 0830	8	152	1	14	57	66	38	221	2	11	50	4	**624**
0830 - 0845	11	178	6	16	106	104	40	255	1	14	57	4	**792**
0845 - 0900	12	95	2	10	70	80	26	170	0	14	37	1	**517**
Period End	**87**	**1041**	**27**	**120**	**627**	**560**	**222**	**1690**	**5**	**84**	**355**	**23**	**4841**

Peds

	NORTH	WEST	SOUTH	EAST	
	Hume Hwy	*Elizabeth St*	*Hume Hwy*	*Grosvenor Cr*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0715					**0**
0715 - 0730					**0**
0730 - 0745	*Not*	*Not*	*Not*	*Not*	**0**
0745 - 0800	*Required*	*Required*	*Required*	*Required*	**0**
0800 - 0815					**0**
0815 - 0830					**0**
0830 - 0845					**0**
0845 - 0900					**0**
Period End	**0**	**0**	**0**	**0**	**0**

Combined

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	37	450	15	70	307	212	78	882	2	36	144	13	**2246**
0715 - 0815	51	540	17	61	324	269	103	804	2	36	193	7	**2407**
0730 - 0830	55	580	16	48	288	280	129	739	3	41	210	7	**2396**
0745 - 0845	46	639	16	48	309	329	136	775	4	42	226	9	**2579**
0800 - 0900	50	591	12	50	320	348	144	808	3	48	211	10	**2595**
PEAK HOUR	**50**	**591**	**12**	**50**	**320**	**348**	**144**	**808**	**3**	**48**	**211**	**10**	**2595**

Peds

	NORTH	WEST	SOUTH	EAST	
	Hume Hwy	*Elizabeth St*	*Hume Hwy*	*Grosvenor Cr*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0800	0	0	0	0	**0**
0715 - 0815	0	0	0	0	**0**
0730 - 0830	0	0	0	0	**0**
0745 - 0845	0	0	0	0	**0**
0800 - 0900	0	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**	**0**

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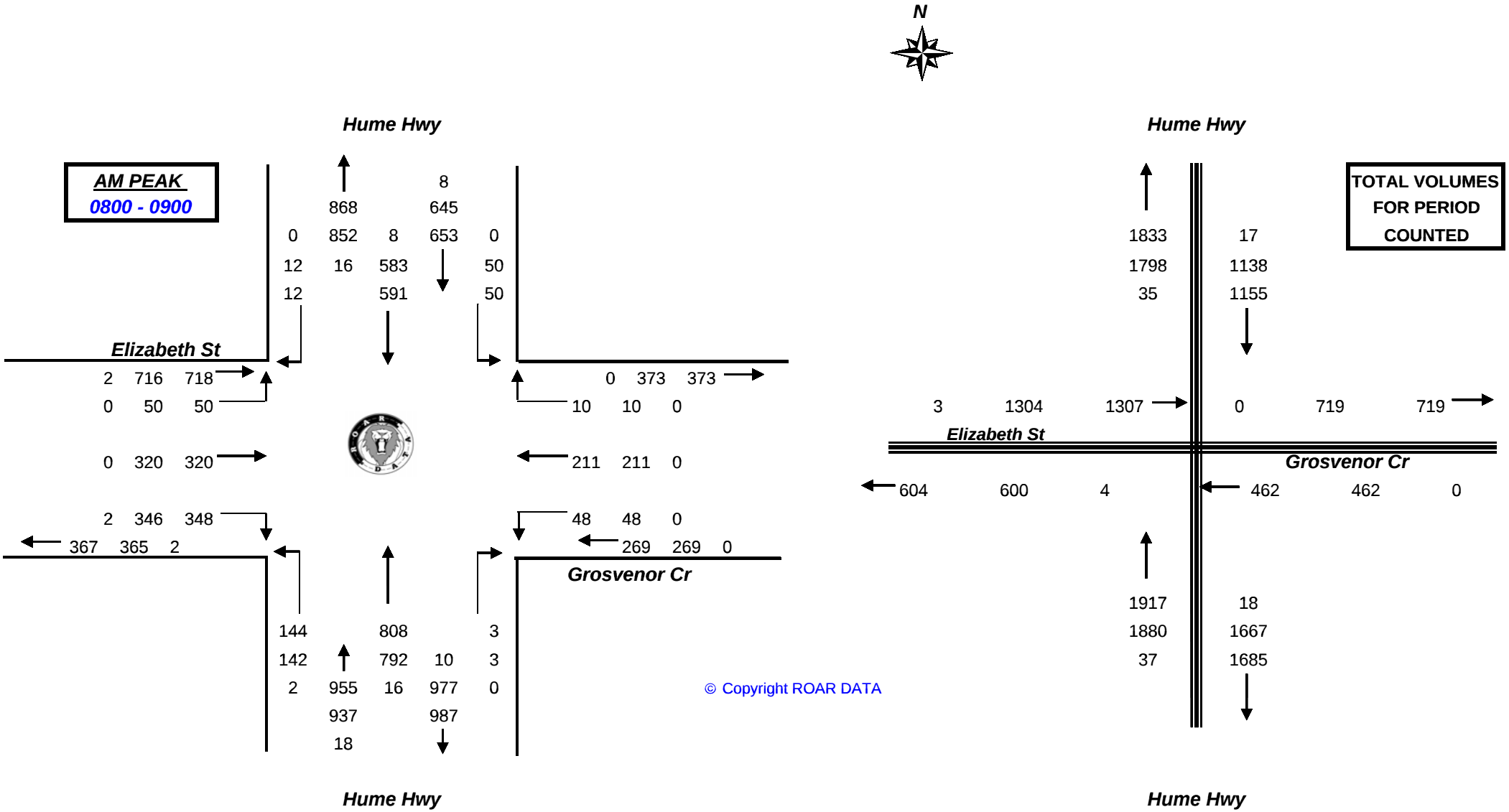

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Lights

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1645	7	251	5	11	31	35	11	146	0	16	51	4	**568**
1645 - 1700	7	277	16	14	53	53	19	137	0	17	57	3	**653**
1700 - 1715	7	317	8	14	44	60	32	197	0	14	48	2	**743**
1715 - 1730	22	306	7	11	52	47	24	142	0	8	65	5	**689**
1730 - 1745	6	337	8	18	50	57	30	151	0	12	63	10	**742**
1745 - 1800	19	306	6	12	46	54	22	157	0	10	66	5	**703**
1800 - 1815	10	315	11	5	52	54	24	123	0	12	67	6	**679**
1815 - 1830	23	323	14	11	52	57	24	125	0	9	64	6	**708**
Period End	**101**	**2432**	**75**	**96**	**380**	**417**	**186**	**1178**	**0**	**98**	**481**	**41**	**5485**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1645	0	1	0	0	0	0	1	1	0	0	0	0	**3**
1645 - 1700	0	3	0	0	0	0	0	4	0	0	0	0	**7**
1700 - 1715	0	2	0	0	0	0	0	1	0	0	0	0	**3**
1715 - 1730	0	3	0	0	0	0	0	2	0	0	0	0	**5**
1730 - 1745	0	4	0	0	0	0	0	3	0	0	0	0	**7**
1745 - 1800	0	3	0	0	0	0	0	2	0	0	0	0	**5**
1800 - 1815	0	0	0	0	0	0	0	1	0	0	0	0	**1**
1815 - 1830	0	5	0	0	0	0	0	0	0	0	0	0	**5**
Period End	**0**	**21**	**0**	**0**	**0**	**0**	**1**	**14**	**0**	**0**	**0**	**0**	**36**

Lights

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Peak Time	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1730	43	1151	36	50	180	195	86	622	0	55	221	14	**2653**
1645 - 1745	42	1237	39	57	199	217	105	627	0	51	233	20	**2827**
1700 - 1800	54	1266	29	55	192	218	108	647	0	44	242	22	**2877**
1715 - 1815	57	1264	32	46	200	212	100	573	0	42	261	26	**2813**
1730 - 1830	58	1281	39	46	200	222	100	556	0	43	260	27	**2832**
PEAK HOUR	**54**	**1266**	**29**	**55**	**192**	**218**	**108**	**647**	**0**	**44**	**242**	**22**	**2877**

Heavies

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Peak Time	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1730	0	9	0	0	0	0	1	8	0	0	0	0	**18**
1645 - 1745	0	12	0	0	0	0	0	10	0	0	0	0	**22**
1700 - 1800	0	12	0	0	0	0	0	8	0	0	0	0	**20**
1715 - 1815	0	10	0	0	0	0	0	8	0	0	0	0	**18**
1730 - 1830	0	12	0	0	0	0	0	6	0	0	0	0	**18**
PEAK HOUR	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**20**

Combined

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Time Per	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1645	7	252	5	11	31	35	12	147	0	16	51	4	**571**
1645 - 1700	7	280	16	14	53	53	19	141	0	17	57	3	**660**
1700 - 1715	7	319	8	14	44	60	32	198	0	14	48	2	**746**
1715 - 1730	22	309	7	11	52	47	24	144	0	8	65	5	**694**
1730 - 1745	6	341	8	18	50	57	30	154	0	12	63	10	**749**
1745 - 1800	19	309	6	12	46	54	22	159	0	10	66	5	**708**
1800 - 1815	10	315	11	5	52	54	24	124	0	12	67	6	**680**
1815 - 1830	23	328	14	11	52	57	24	125	0	9	64	6	**713**
Period End	**101**	**2453**	**75**	**96**	**380**	**417**	**187**	**1192**	**0**	**98**	**481**	**41**	**5521**

Peds

	NORTH	WEST	SOUTH	EAST	
	Hume Hwy	*Elizabeth St*	*Hume Hwy*	*Grosvenor Cr*	
Time Per	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**TOT**
1630 - 1645					**0**
1645 - 1700					**0**
1700 - 1715	*Not*	*Not*	*Not*	*Not*	**0**
1715 - 1730	*Required*	*Required*	*Required*	*Required*	**0**
1730 - 1745					**0**
1745 - 1800					**0**
1800 - 1815					**0**
1815 - 1830					**0**
Period End	**0**	**0**	**0**	**0**	**0**

Combined

	NORTH			WEST			SOUTH			EAST			
	Hume Hwy			*Elizabeth St*			*Hume Hwy*			*Grosvenor Cr*			
Peak Time	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**L**	**T**	**R**	**TOT**
1630 - 1730	43	1160	36	50	180	195	87	630	0	55	221	14	**2671**
1645 - 1745	42	1249	39	57	199	217	105	637	0	51	233	20	**2849**
1700 - 1800	54	1278	29	55	192	218	108	655	0	44	242	22	**2897**
1715 - 1815	57	1274	32	46	200	212	100	581	0	42	261	26	**2831**
1730 - 1830	58	1293	39	46	200	222	100	562	0	43	260	27	**2850**
PEAK HOUR	**54**	**1278**	**29**	**55**	**192**	**218**	**108**	**655**	**0**	**44**	**242**	**22**	**2897**

Peds

	NORTH	WEST	SOUTH	EAST	
	Hume Hwy	*Elizabeth St*	*Hume Hwy*	*Grosvenor Cr*	
Peak Per	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**UNCLASSIFIED**	**TOT**
1630 - 1730	0	0	0	0	**0**
1645 - 1745	0	0	0	0	**0**
1700 - 1800	0	0	0	0	**0**
1715 - 1815	0	0	0	0	**0**
1730 - 1830	0	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**	**0**

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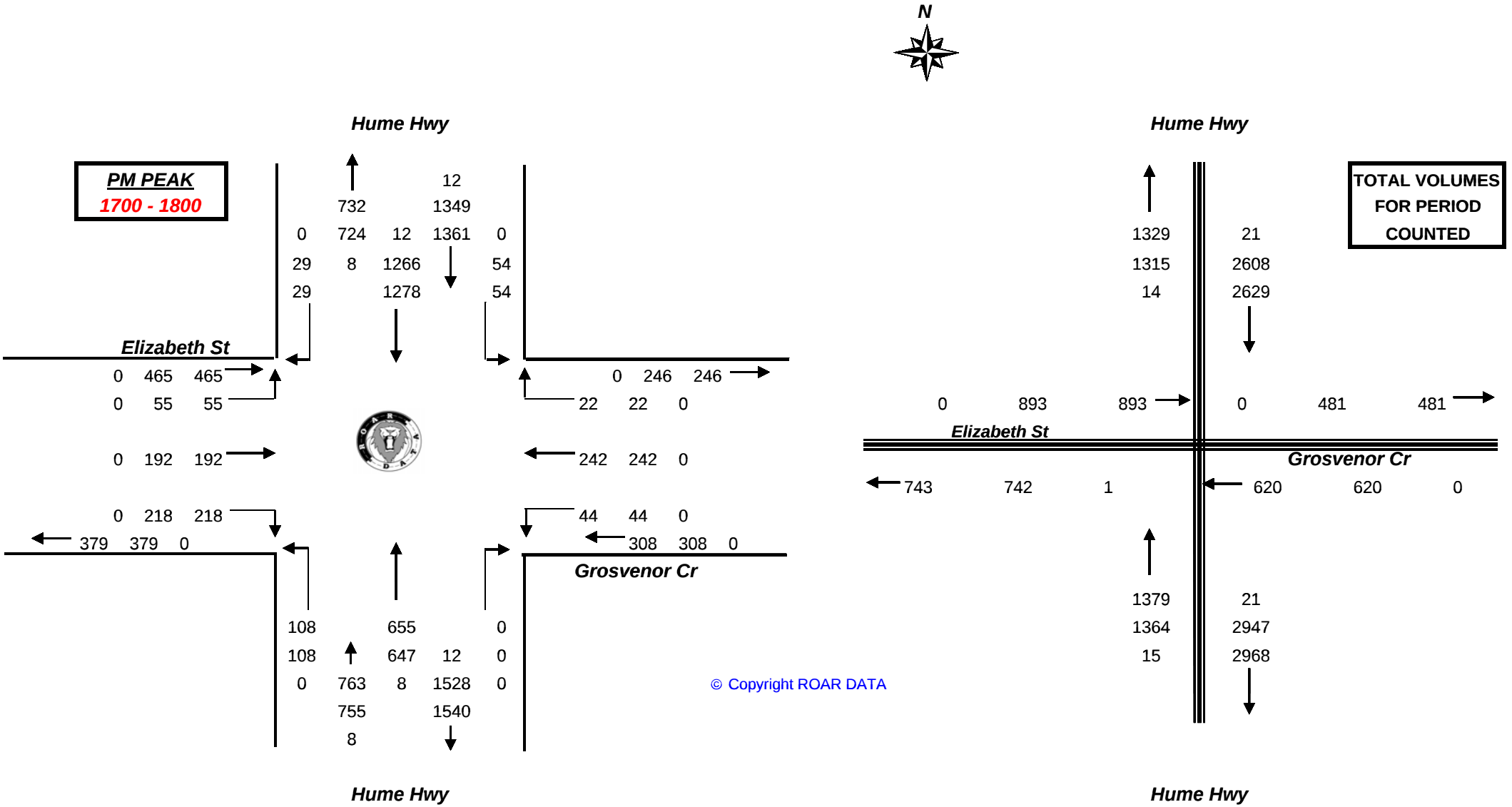

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Day/Date : Wednesday 9th February 2011

Lights

	WEST		SOUTH		EAST		
	Carlton Cr		Lackey St		Carlton Cr		
Time Per	T	R	L	R	L	T	TOT
0700 - 0715	85	28	4	8	4	50	**179**
0715 - 0730	97	42	13	6	6	61	**225**
0730 - 0745	100	28	16	4	9	64	**221**
0745 - 0800	91	40	22	5	11	69	**238**
0800 - 0815	88	33	20	9	9	81	**240**
0815 - 0830	94	33	19	19	16	83	**264**
0830 - 0845	111	42	9	11	16	88	**277**
0845 - 0900	95	57	12	5	19	76	**264**
Per End	**761**	**303**	**115**	**67**	**90**	**572**	**1908**

Heavies

	WEST		SOUTH		EAST		
	Carlton Cr		Lackey St		Carlton Cr		
Time Per	T	R	L	R	L	T	TOT
0700 - 0715	1	0	0	0	0	3	**4**
0715 - 0730	0	0	0	0	0	2	**2**
0730 - 0745	1	1	0	0	0	2	**4**
0745 - 0800	3	0	2	0	0	1	**6**
0800 - 0815	0	0	1	0	0	2	**3**
0815 - 0830	2	0	1	0	0	1	**4**
0830 - 0845	7	1	0	0	0	1	**9**
0845 - 0900	0	2	0	0	0	1	**3**
Per End	**14**	**4**	**4**	**0**	**0**	**13**	**35**

Combined

	WEST		SOUTH		EAST		
	Carlton Cr		Lackey St		Carlton Cr		
Time Per	T	R	L	R	L	T	TOT
0700 - 0715	86	28	4	8	4	53	**183**
0715 - 0730	97	42	13	6	6	63	**227**
0730 - 0745	101	29	16	4	9	66	**225**
0745 - 0800	94	40	24	5	11	70	**244**
0800 - 0815	88	33	21	9	9	83	**243**
0815 - 0830	96	33	20	19	16	84	**268**
0830 - 0845	118	43	9	11	16	89	**286**
0845 - 0900	95	59	12	5	19	77	**267**
Per End	**775**	**307**	**119**	**67**	**90**	**585**	**1943**

Lights

	WEST		SOUTH		EAST		
	Carlton Cr		Lackey St		Carlton Cr		
Peak Per	T	R	L	R	L	T	TOT
0700 - 0800	373	138	55	23	30	244	**863**
0715 - 0815	376	143	71	24	35	275	**924**
0730 - 0830	373	134	77	37	45	297	**963**
0745 - 0845	384	148	70	44	52	321	**1019**
0800 - 0900	388	165	60	44	60	328	**1045**
PEAK HR	**388**	**165**	**60**	**44**	**60**	**328**	**1045**

Heavies

	WEST		SOUTH		EAST		
	Carlton Cr		Lackey St		Carlton Cr		
Peak Per	T	R	L	R	L	T	TOT
0700 - 0800	5	1	2	0	0	8	**16**
0715 - 0815	4	1	3	0	0	7	**15**
0730 - 0830	6	1	4	0	0	6	**17**
0745 - 0845	12	1	4	0	0	5	**22**
0800 - 0900	9	3	2	0	0	5	**19**
PEAK HR	**9**	**3**	**2**	**0**	**0**	**5**	**19**

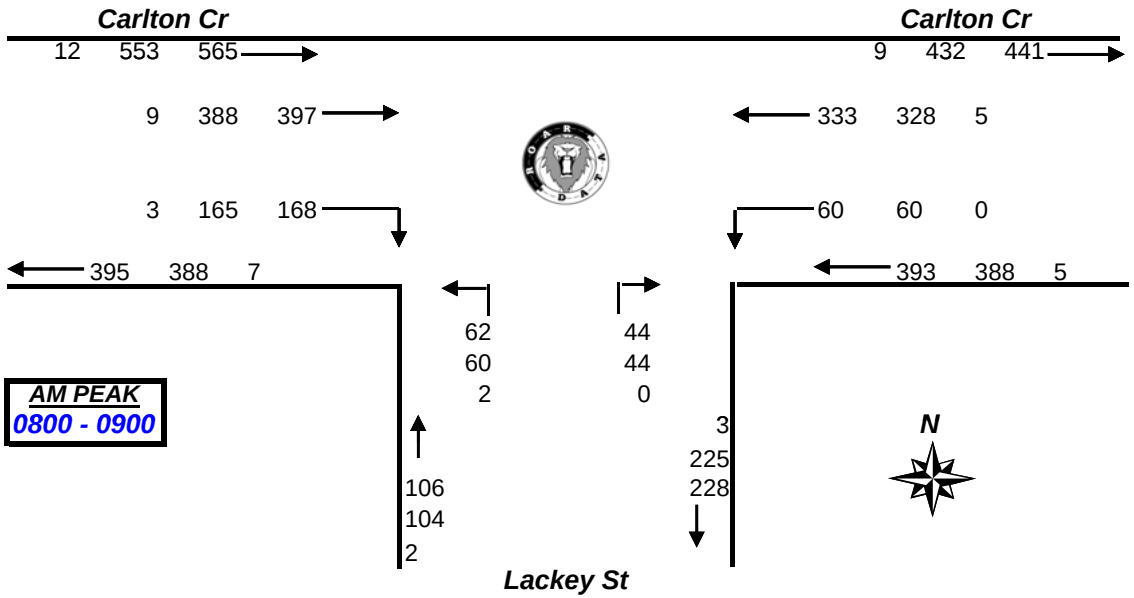
Combined

	WEST		SOUTH		EAST		
	Carlton Cr		Lackey St		Carlton Cr		
Peak Per	T	R	L	R	L	T	TOT
0700 - 0800	378	139	57	23	30	252	**879**
0715 - 0815	380	144	74	24	35	282	**939**
0730 - 0830	379	135	81	37	45	303	**980**
0745 - 0845	396	149	74	44	52	326	**1041**
0800 - 0900	397	168	62	44	60	333	**1064**
PEAK HR	**397**	**168**	**62**	**44**	**60**	**333**	**1064**

Peds

	WEST	SOUTH	EAST	
Time Per	Carlton Cr	Lackey St	Carlton Cr	TOT
0700 - 0715				**0**
0715 - 0730				**0**
0730 - 0745		*Not*		**0**
0745 - 0800		*Required*		**0**
0800 - 0815				**0**
0815 - 0830				**0**
0830 - 0845				**0**
0845 - 0900				**0**
Per End	**0**	**0**	**0**	**0**

	WEST	SOUTH	EAST	
Peak Per	Carlton Cr	Lackey St	Carlton Cr	TOT
0700 - 0800	0	0	0	**0**
0715 - 0815	0	0	0	**0**
0730 - 0830	0	0	0	**0**
0745 - 0845	0	0	0	**0**
0800 - 0900	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**



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Day/Date : Wednesday 9th February 2011

Lights

	WEST		SOUTH		EAST		
	Carlton Cr		*Lackey St*		*Carlton Cr*		
Time Per	T	R	L	R	L	T	TOT
1630 - 1645	80	30	15	23	18	108	**274**
1645 - 1700	85	27	11	20	19	89	**251**
1700 - 1715	98	21	20	18	18	117	**292**
1715 - 1730	110	18	15	23	15	105	**286**
1730 - 1745	125	32	12	24	23	112	**328**
1745 - 1800	111	20	14	24	17	108	**294**
1800 - 1815	91	27	12	15	11	106	**262**
1815 - 1830	102	31	13	17	22	94	**279**
Per End	**802**	**206**	**112**	**164**	**143**	**839**	**2266**

Heavies

	WEST		SOUTH		EAST		
	Carlton Cr		*Lackey St*		*Carlton Cr*		
Time Per	T	R	L	R	L	T	TOT
1630 - 1645	1	0	0	0	0	6	**7**
1645 - 1700	0	0	0	0	0	0	**0**
1700 - 1715	0	0	0	0	0	1	**1**
1715 - 1730	2	0	0	0	0	0	**2**
1730 - 1745	4	0	0	0	0	0	**4**
1745 - 1800	2	0	0	0	0	0	**2**
1800 - 1815	1	0	0	0	0	1	**2**
1815 - 1830	0	0	0	0	0	2	**2**
Per End	**10**	**0**	**0**	**0**	**0**	**10**	**20**

Combined

	WEST		SOUTH		EAST		
	Carlton Cr		*Lackey St*		*Carlton Cr*		
Time Per	T	R	L	R	L	T	TOT
1630 - 1645	81	30	15	23	18	114	**281**
1645 - 1700	85	27	11	20	19	89	**251**
1700 - 1715	98	21	20	18	18	118	**293**
1715 - 1730	112	18	15	23	15	105	**288**
1730 - 1745	129	32	12	24	23	112	**332**
1745 - 1800	113	20	14	24	17	108	**296**
1800 - 1815	92	27	12	15	11	107	**264**
1815 - 1830	102	31	13	17	22	96	**281**
Per End	**812**	**206**	**112**	**164**	**143**	**849**	**2286**

Lights

	WEST		SOUTH		EAST		
	Carlton Cr		*Lackey St*		*Carlton Cr*		
Peak Per	T	R	L	R	L	T	TOT
1630 - 1730	373	96	61	84	70	419	**1103**
1645 - 1745	418	98	58	85	75	423	**1157**
1700 - 1800	444	91	61	89	73	442	**1200**
1715 - 1815	437	97	53	86	66	431	**1170**
1730 - 1830	429	110	51	80	73	420	**1163**
PEAK HR	**444**	**91**	**61**	**89**	**73**	**442**	**1200**

Heavies

	WEST		SOUTH		EAST		
	Carlton Cr		*Lackey St*		*Carlton Cr*		
Peak Per	T	R	L	R	L	T	TOT
1630 - 1730	3	0	0	0	0	7	**10**
1645 - 1745	6	0	0	0	0	1	**7**
1700 - 1800	8	0	0	0	0	1	**9**
1715 - 1815	9	0	0	0	0	1	**10**
1730 - 1830	7	0	0	0	0	3	**10**
PEAK HR	**8**	**0**	**0**	**0**	**0**	**1**	**9**

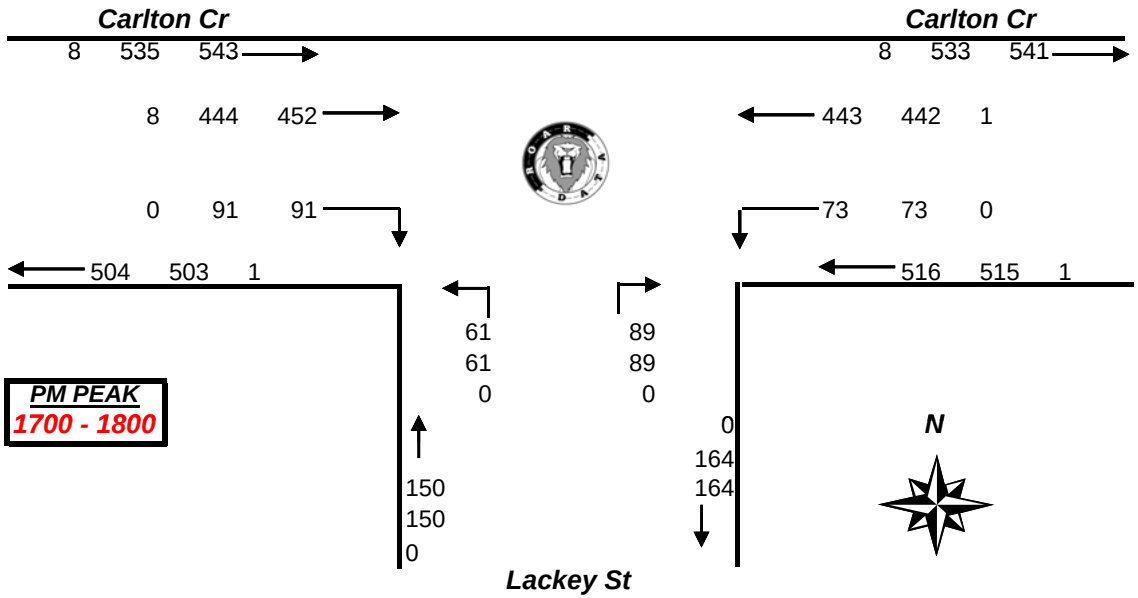
Combined

	WEST		SOUTH		EAST		
	Carlton Cr		*Lackey St*		*Carlton Cr*		
Peak Per	T	R	L	R	L	T	TOT
1630 - 1730	376	96	61	84	70	426	**1113**
1645 - 1745	424	98	58	85	75	424	**1164**
1700 - 1800	452	91	61	89	73	443	**1209**
1715 - 1815	446	97	53	86	66	432	**1180**
1730 - 1830	436	110	51	80	73	423	**1173**
PEAK HR	**452**	**91**	**61**	**89**	**73**	**443**	**1209**

Peds

	WEST	SOUTH	EAST	
Time Per	Carlton Cr	Lackey St	Carlton Cr	TOT
1630 - 1645				**0**
1645 - 1700				**0**
1700 - 1715		*Not*		**0**
1715 - 1730		*Required*		**0**
1730 - 1745				**0**
1745 - 1800				**0**
1800 - 1815				**0**
1815 - 1830				**0**
Per End	**0**	**0**	**0**	**0**

	WEST	SOUTH	EAST	
Peak Per	Carlton Cr	Lackey St	Carlton Cr	TOT
1630 - 1730	0	0	0	**0**
1645 - 1745	0	0	0	**0**
1700 - 1800	0	0	0	**0**
1715 - 1815	0	0	0	**0**
1730 - 1830	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**



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Lights

	WEST		NORTH		EAST		
	Parramatta		Tebbutt St		Parramatta		
Time Per	T	L	R	L	R	T	TOT
0700 - 0715	565	27		30			622
0715 - 0730	388	17		42			447
0730 - 0745	372	11		43			426
0745 - 0800	343	22		44			409
0800 - 0815	286	29		55			370
0815 - 0830	523	27		58			608
0830 - 0845	549	18		38			605
0845 - 0900	552	28		46			626
Per End	3578	179	0	356	0	0	4113

Heavies

	WEST		NORTH		EAST		
	Parramatta		Tebbutt St		Parramatta		
Time Per	T	L	R	L	R	T	TOT
0700 - 0715	16	4		1			21
0715 - 0730	8	0		0			8
0730 - 0745	6	2		1			9
0745 - 0800	10	0		1			11
0800 - 0815	9	1		0			10
0815 - 0830	15	1		1			17
0830 - 0845	9	2		1			12
0845 - 0900	11	4		2			17
Per End	84	14	0	7	0	0	105

Combined

	WEST		NORTH		EAST		
	Parramatta		Tebbutt St		Parramatta		
Time Per	T	L	R	L	R	T	TOT
0700 - 0715	581	31	0	31	0	0	643
0715 - 0730	396	17	0	42	0	0	455
0730 - 0745	378	13	0	44	0	0	435
0745 - 0800	353	22	0	45	0	0	420
0800 - 0815	295	30	0	55	0	0	380
0815 - 0830	538	28	0	59	0	0	625
0830 - 0845	558	20	0	39	0	0	617
0845 - 0900	563	32	0	48	0	0	643
Per End	3662	193	0	363	0	0	4218

Lights

	WEST		NORTH		EAST		
	Parramatta		Tebbutt St		Parramatta		
Peak Per	T	L	R	L	R	T	TOT
0700 - 0800	1668	77	0	159	0	0	1904
0715 - 0815	1389	79	0	184	0	0	1652
0730 - 0830	1524	89	0	200	0	0	1813
0745 - 0845	1701	96	0	195	0	0	1992
0800 - 0900	1910	102	0	197	0	0	2209
PEAK HR	1910	102	0	197	0	0	2209

Heavies

	WEST		NORTH		EAST		
	Parramatta		Tebbutt St		Parramatta		
Peak Per	T	L	R	L	R	T	TOT
0700 - 0800	40	6	0	3	0	0	49
0715 - 0815	33	3	0	2	0	0	38
0730 - 0830	40	4	0	3	0	0	47
0745 - 0845	43	4	0	3	0	0	50
0800 - 0900	44	8	0	4	0	0	56
PEAK HR	44	8	0	4	0	0	56

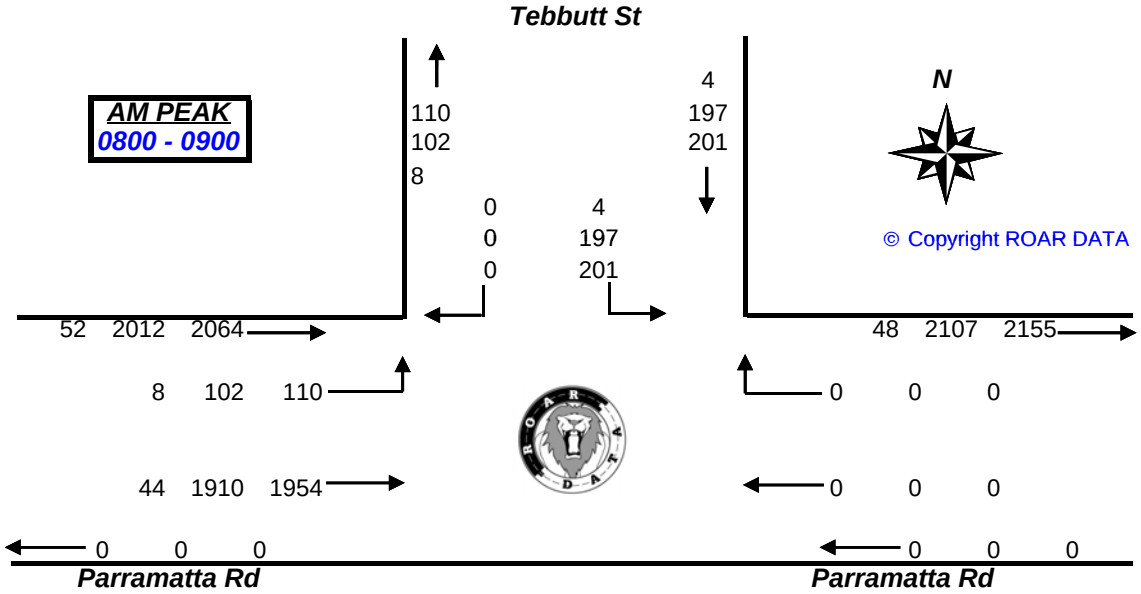
Combined

	WEST		NORTH		EAST		
	Parramatta		Tebbutt St		Parramatta		
Peak Per	T	L	R	L	R	T	TOT
0700 - 0800	1708	83	0	162	0	0	1953
0715 - 0815	1422	82	0	186	0	0	1690
0730 - 0830	1564	93	0	203	0	0	1860
0745 - 0845	1744	100	0	198	0	0	2042
0800 - 0900	1954	110	0	201	0	0	2265
PEAK HR	1954	110	0	201	0	0	2265

Peds

	WEST	NORTH	EAST	
Time Per	Parramatta	Tebbutt St	Parramatta	TOT
0700 - 0715				0
0715 - 0730		NOT		0
0730 - 0745		REQUIRED		0
0745 - 0800				0
0800 - 0815				0
0815 - 0830				0
0830 - 0845				0
0845 - 0900				0
Per End	0	0	0	0

	WEST	NORTH	EAST	
Peak Per	Parramatta	Tebbutt St	Parramatta	TOT
0700 - 0800	0	0	0	0
0715 - 0815	0	0	0	0
0730 - 0830	0	0	0	0
0745 - 0845	0	0	0	0
0800 - 0900	0	0	0	0
PEAK HR	0	0	0	0



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Lights

	WEST		NORTH		EAST		
	Parramatta		*Tebbutt St*		*Parramatta*		
Time Per	T	L	R	L	R	T	TOT
1630 - 1645	424	42		34			**500**
1645 - 1700	286	41		131			**458**
1700 - 1715	348	38		105			**491**
1715 - 1730	407	56		172			**635**
1730 - 1745	410	49		110			**569**
1745 - 1800	275	38		116			**429**
1800 - 1815	310	67		126			**503**
1815 - 1830	348	51		166			**565**
Per End	**2808**	**382**	**0**	**960**	**0**	**0**	**4150**

Heavies

	WEST		NORTH		EAST		
	Parramatta		*Tebbutt St*		*Parramatta*		
Time Per	T	L	R	L	R	T	TOT
1630 - 1645	4	4		0			**8**
1645 - 1700	7	2		6			**15**
1700 - 1715	5	0		1			**6**
1715 - 1730	1	0		1			**2**
1730 - 1745	4	1		0			**5**
1745 - 1800	2	0		0			**2**
1800 - 1815	2	2		0			**4**
1815 - 1830	1	1		0			**2**
Per End	**26**	**10**	**0**	**8**	**0**	**0**	**44**

Combined

	WEST		NORTH		EAST		
	Parramatta		*Tebbutt St*		*Parramatta*		
Time Per	T	L	R	L	R	T	TOT
1630 - 1645	428	46	0	34	0	0	**508**
1645 - 1700	293	43	0	137	0	0	**473**
1700 - 1715	353	38	0	106	0	0	**497**
1715 - 1730	408	56	0	173	0	0	**637**
1730 - 1745	414	50	0	110	0	0	**574**
1745 - 1800	277	38	0	116	0	0	**431**
1800 - 1815	312	69	0	126	0	0	**507**
1815 - 1830	349	52	0	166	0	0	**567**
Per End	**2834**	**392**	**0**	**968**	**0**	**0**	**4194**

Lights

	WEST		NORTH		EAST		
	Parramatta		*Tebbutt St*		*Parramatta*		
Peak Per	T	L	R	L	R	T	TOT
1630 - 1730	1465	177	0	442	0	0	**2084**
1645 - 1745	1451	184	0	518	0	0	**2153**
1700 - 1800	1440	181	0	503	0	0	**2124**
1715 - 1815	1402	210	0	524	0	0	**2136**
1730 - 1830	1343	205	0	518	0	0	**2066**
PEAK HR	**1451**	**184**	**0**	**518**	**0**	**0**	**2153**

Heavies

	WEST		NORTH		EAST		
	Parramatta		*Tebbutt St*		*Parramatta*		
Peak Per	T	L	R	L	R	T	TOT
1630 - 1730	17	6	0	8	0	0	**31**
1645 - 1745	17	3	0	8	0	0	**28**
1700 - 1800	12	1	0	2	0	0	**15**
1715 - 1815	9	3	0	1	0	0	**13**
1730 - 1830	9	4	0	0	0	0	**13**
PEAK HR	**17**	**3**	**0**	**8**	**0**	**0**	**28**

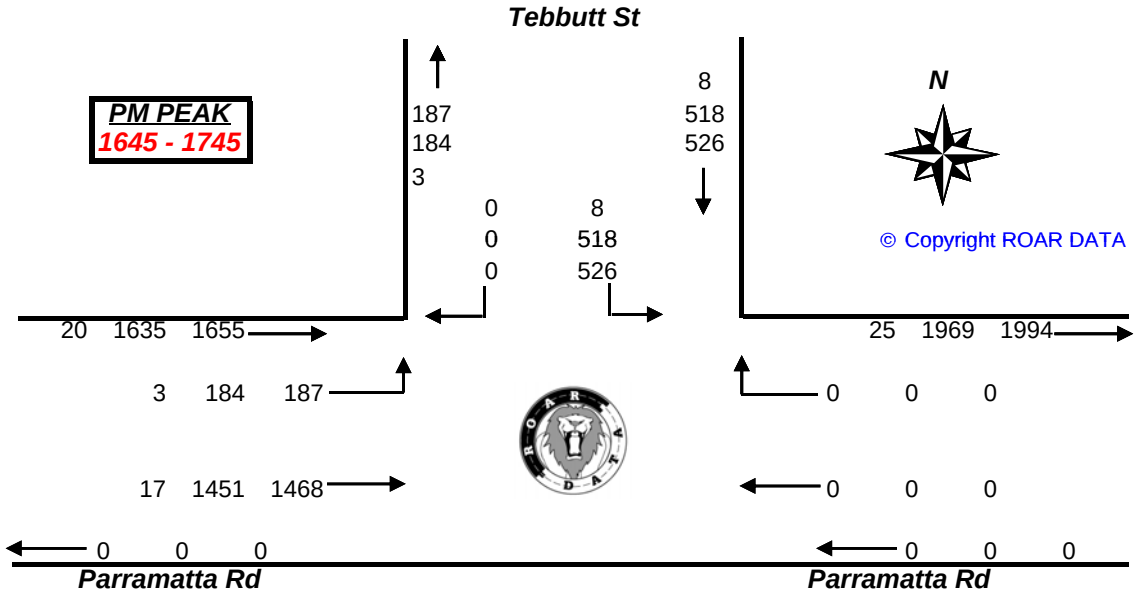
Combined

	WEST		NORTH		EAST		
	Parramatta		*Tebbutt St*		*Parramatta*		
Peak Per	T	L	R	L	R	T	TOT
1630 - 1730	1482	183	0	450	0	0	**2115**
1645 - 1745	1468	187	0	526	0	0	**2181**
1700 - 1800	1452	182	0	505	0	0	**2139**
1715 - 1815	1411	213	0	525	0	0	**2149**
1730 - 1830	1352	209	0	518	0	0	**2079**
PEAK HR	**1468**	**187**	**0**	**526**	**0**	**0**	**2181**

Peds

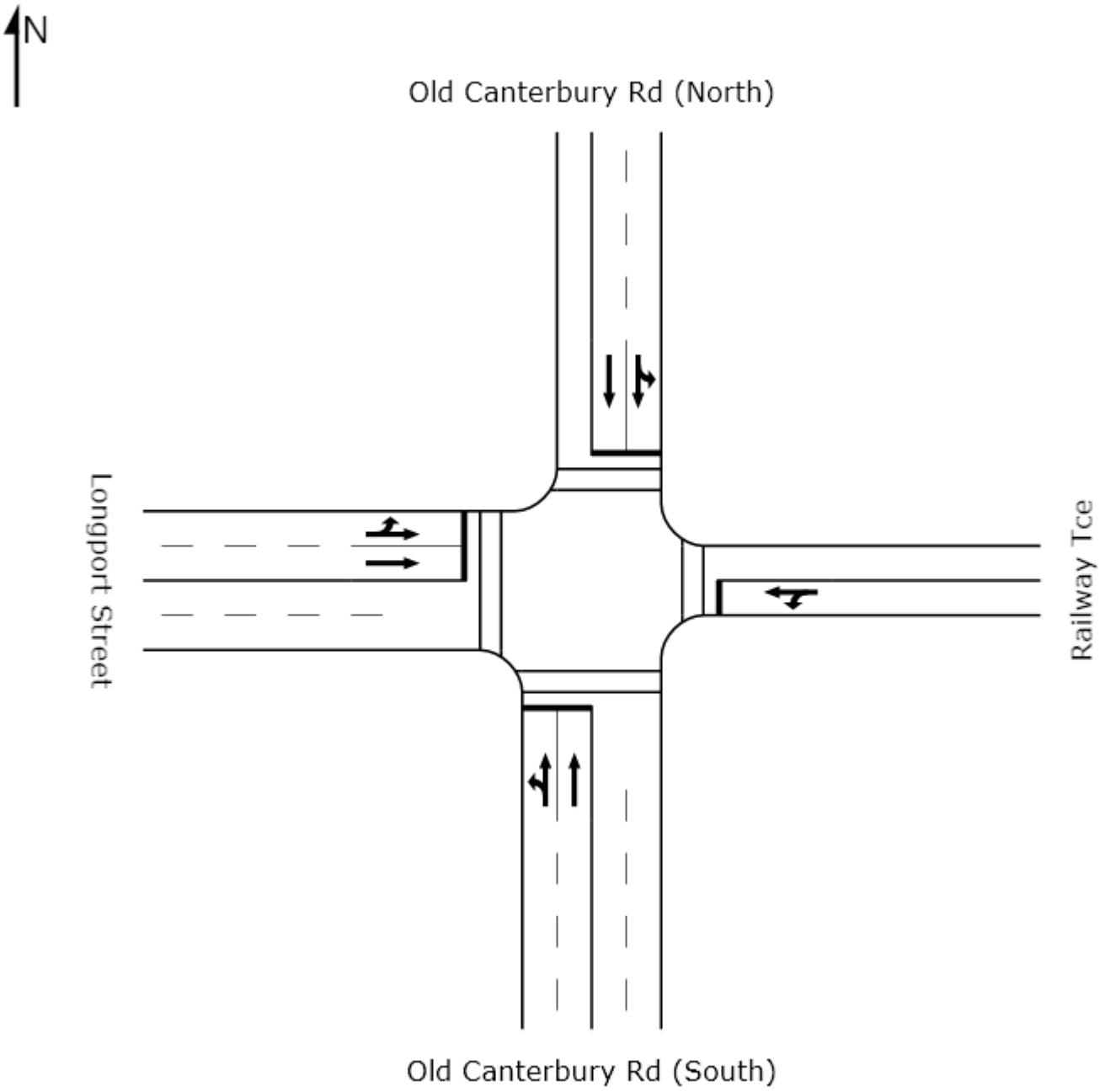
	WEST	NORTH	EAST	
Time Per	Parramatta	Tebbutt St	Parramatta	TOT
1630 - 1645				**0**
1645 - 1700		*NOT*		**0**
1700 - 1715		*REQUIRED*		**0**
1715 - 1730				**0**
1730 - 1745				**0**
1745 - 1800				**0**
1800 - 1815				**0**
1815 - 1830				**0**
Per End	**0**	**0**	**0**	**0**

	WEST	NORTH	EAST	
Peak Per	Parramatta	Tebbutt St	Parramatta	TOT
1630 - 1730	0	0	0	**0**
1645 - 1745	0	0	0	**0**
1700 - 1800	0	0	0	**0**
1715 - 1815	0	0	0	**0**
1730 - 1830	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**



Appendix B

Sidra Intersection Results


N
Old Canterbury Rd (North)
Longport Street
Railway Tce
Old Canterbury Rd (South)

MOVEMENT SUMMARY

Site: AM Existing

Railway Tce - Old Canterbury Rd
Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	70	1.4	0.196	26.9	LOS B	7.5	52.9	0.63	0.81	30.9
2	T	976	0.4	0.982	68.2	LOS E	71.5	502.1	0.96	1.15	18.4
Approach		1046	0.5	0.982	65.4	LOS E	71.5	502.1	0.94	1.12	18.9
East: Railway Tce											
4	L	25	12.0	0.866	43.6	LOS D	43.5	307.7	0.97	0.97	25.4
5	T	738	0.8	0.862	36.9	LOS C	43.5	307.7	0.97	0.94	25.4
Approach		763	1.2	0.862	37.1	LOS C	43.5	307.7	0.97	0.94	25.4
North: Old Canterbury Rd (North)											
7	L	140	2.1	0.439	29.9	LOS C	16.2	115.3	0.73	0.85	29.7
8	T	629	1.6	0.439	23.4	LOS B	16.5	117.0	0.73	0.64	30.7
Approach		769	1.7	0.439	24.6	LOS B	16.5	117.0	0.73	0.67	30.5
West: Longport Street											
10	L	152	0.0	0.199	26.9	LOS B	7.5	52.5	0.63	0.76	30.4
11	T	908	0.1	0.996	80.7	LOS F	76.4	535.4	0.99	1.25	16.5
Approach		1060	0.1	0.996	73.0	LOS F	76.4	535.4	0.94	1.18	17.7
All Vehicles		3638	0.8	0.996	53.1	LOS D	76.4	535.4	0.90	1.01	21.3

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	23.4	LOS C	0.0	0.0	0.63	0.63
P3	Across E approach	11	20.4	LOS C	0.0	0.0	0.58	0.58
P5	Across N approach	2	21.6	LOS C	0.0	0.0	0.60	0.60
P7	Across W approach	5	23.4	LOS C	0.0	0.0	0.63	0.63
All Pedestrians		41	22.5				0.61	0.61

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills +Lewisham)

Railway Tce - Old Canterbury Rd
AM (Existing + McGill+MillsTraffic)
August 2010
Signals - Fixed Time Cycle Time = 120 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	70	1.4	0.214	25.9	LOS B	8.2	57.9	0.62	0.82	31.4
2	T	1114	0.4	1.072	121.0	LOS F	106.0	744.8	0.96	1.45	12.5
Approach		1184	0.5	1.072	115.4	LOS F	106.0	744.8	0.94	1.41	13.0
East: Railway Tce											
4	L	46	12.0	0.964	73.2	LOS F	63.3	448.3	1.00	1.17	18.6
5	T	774	0.8	0.964	66.4	LOS E	63.3	448.3	1.00	1.17	18.6
Approach		820	1.4	0.964	66.8	LOS E	63.3	448.3	1.00	1.17	18.6
North: Old Canterbury Rd (North)											
7	L	140	2.1	0.445	28.7	LOS C	16.6	118.2	0.71	0.85	30.2
8	T	667	1.6	0.444	22.3	LOS B	16.9	119.8	0.71	0.63	31.3
Approach		807	1.7	0.444	23.4	LOS B	16.9	119.8	0.71	0.66	31.1
West: Longport Street											
10	L	167	0.0	0.215	28.3	LOS B	8.0	55.7	0.65	0.76	29.8
11	T	934	0.1	1.074	136.2	LOS F	99.3	696.0	1.00	1.56	11.4
Approach		1101	0.1	1.074	119.8	LOS F	99.3	696.0	0.94	1.44	12.6
All Vehicles		3912	0.8	1.074	87.5	LOS F	106.0	744.8	0.91	1.21	15.7

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	24.7	LOS C	0.1	0.1	0.64	0.64
P3	Across E approach	11	19.3	LOS B	0.0	0.0	0.57	0.57
P5	Across N approach	2	22.8	LOS C	0.0	0.0	0.62	0.62
P7	Across W approach	5	22.2	LOS C	0.0	0.0	0.61	0.61
All Pedestrians		41	22.8				0.62	0.62

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills)
Aug

Railway Tce - Old Canterbury Rd
AM (Existing + McGill+MillsTraffic)
August 2010
Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	70	1.4	0.211	26.5	LOS B	8.1	56.9	0.63	0.81	31.1
2	T	1076	0.4	1.056	111.0	LOS F	98.3	690.3	0.96	1.39	13.3
Approach		1146	0.5	1.056	105.8	LOS F	98.3	690.3	0.94	1.36	13.8
East: Railway Tce											
4	L	35	12.0	0.915	55.4	LOS D	52.7	373.0	1.00	1.05	22.2
5	T	761	0.8	0.917	48.7	LOS D	52.7	373.0	1.00	1.05	22.2
Approach		796	1.3	0.917	49.0	LOS D	52.7	373.0	1.00	1.05	22.2
North: Old Canterbury Rd (North)											
7	L	140	2.1	0.441	29.3	LOS C	16.4	116.6	0.72	0.85	29.9
8	T	647	1.6	0.441	22.8	LOS B	16.7	118.3	0.72	0.63	31.0
Approach		787	1.7	0.441	24.0	LOS B	16.7	118.3	0.72	0.67	30.8
West: Longport Street											
10	L	165	0.0	0.210	27.7	LOS B	7.8	54.9	0.64	0.76	30.1
11	T	932	0.1	1.050	117.6	LOS F	92.8	650.3	1.00	1.47	12.8
Approach		1097	0.1	1.050	104.1	LOS F	92.8	650.3	0.94	1.36	14.0
All Vehicles		3826	0.8	1.056	76.6	LOS F	98.3	690.3	0.91	1.15	17.2

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	24.1	LOS C	0.0	0.0	0.63	0.63
P3	Across E approach	11	19.8	LOS B	0.0	0.0	0.58	0.58
P5	Across N approach	2	22.2	LOS C	0.0	0.0	0.61	0.61
P7	Across W approach	5	22.8	LOS C	0.0	0.0	0.62	0.62
All Pedestrians		41	22.7				0.61	0.61

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Existing

Railway Tce - Old Canterbury Rd
Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	120	0.8	0.173	31.7	LOS C	6.3	44.3	0.69	0.76	28.4
2	T	668	0.0	0.867	43.2	LOS D	39.7	277.6	0.99	0.98	23.6
Approach		788	0.1	0.867	41.4	LOS C	39.7	277.6	0.94	0.94	24.2
East: Railway Tce											
4	L	66	6.1	0.867	38.2	LOS C	48.3	341.2	0.95	0.97	27.0
5	T	812	0.6	0.867	31.7	LOS C	48.3	341.2	0.95	0.92	27.2
Approach		878	1.0	0.867	32.2	LOS C	48.3	341.2	0.95	0.92	27.1
North: Old Canterbury Rd (North)											
7	L	76	5.3	0.859	49.0	LOS D	38.4	270.4	0.99	0.97	23.7
8	T	1229	0.2	0.860	42.3	LOS C	38.7	271.3	0.99	0.96	23.8
Approach		1305	0.5	0.860	42.7	LOS D	38.7	271.3	0.99	0.97	23.8
West: Longport Street											
10	L	84	0.0	0.126	21.7	LOS B	5.0	35.2	0.54	0.76	33.1
11	T	688	0.1	0.632	21.1	LOS B	27.1	189.6	0.75	0.68	31.9
Approach		772	0.1	0.632	21.2	LOS B	27.1	189.6	0.73	0.69	32.0
All Vehicles		3743	0.5	0.867	35.5	LOS C	48.3	341.2	0.92	0.89	26.0

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	18.7	LOS B	0.0	0.0	0.56	0.56
P3	Across E approach	11	25.4	LOS C	0.0	0.0	0.65	0.65
P5	Across N approach	2	17.1	LOS B	0.0	0.0	0.53	0.53
P7	Across W approach	5	28.7	LOS C	0.0	0.0	0.69	0.69
All Pedestrians		41	21.6				0.60	0.60

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills +Lewisham

Railway Tce - Old Canterbury Rd
PM (Existing + McGill+Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 120 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	120	0.8	0.202	35.5	LOS C	6.9	48.8	0.74	0.77	27.0
2	T	701	0.0	1.011	96.2	LOS F	61.6	431.2	1.00	1.33	14.7
Approach		821	0.1	1.011	87.4	LOS F	61.6	431.2	0.96	1.25	15.7
East: Railway Tce											
4	L	143	6.1	1.005	86.9	LOS F	96.9	685.8	1.00	1.26	16.5
5	T	950	0.6	1.005	80.4	LOS F	96.9	685.8	1.00	1.26	16.5
Approach		1093	1.3	1.005	81.2	LOS F	96.9	685.8	1.00	1.26	16.5
North: Old Canterbury Rd (North)											
7	L	76	5.3	1.010	103.0	LOS F	60.6	426.9	1.00	1.32	14.7
8	T	1293	0.2	1.009	96.4	LOS F	61.1	428.5	1.00	1.33	14.7
Approach		1369	0.4	1.009	96.7	LOS F	61.1	428.5	1.00	1.33	14.7
West: Longport Street											
10	L	94	0.0	0.122	19.1	LOS B	4.8	33.6	0.49	0.75	34.4
11	T	709	0.1	0.610	18.0	LOS B	26.2	183.8	0.70	0.64	33.6
Approach		803	0.1	0.610	18.1	LOS B	26.2	183.8	0.68	0.65	33.7
All Vehicles		4086	0.6	1.011	75.2	LOS F	96.9	685.8	0.93	1.16	17.3

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	16.0	LOS B	0.0	0.0	0.52	0.52
P3	Across E approach	11	28.7	LOS C	0.0	0.0	0.69	0.69
P5	Across N approach	2	14.5	LOS B	0.0	0.0	0.49	0.49
P7	Across W approach	5	32.3	LOS D	0.0	0.0	0.73	0.73
All Pedestrians		41	21.3				0.59	0.59

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills)
Aug

Railway Tce - Old Canterbury Rd
PM (Existing + McGill+Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

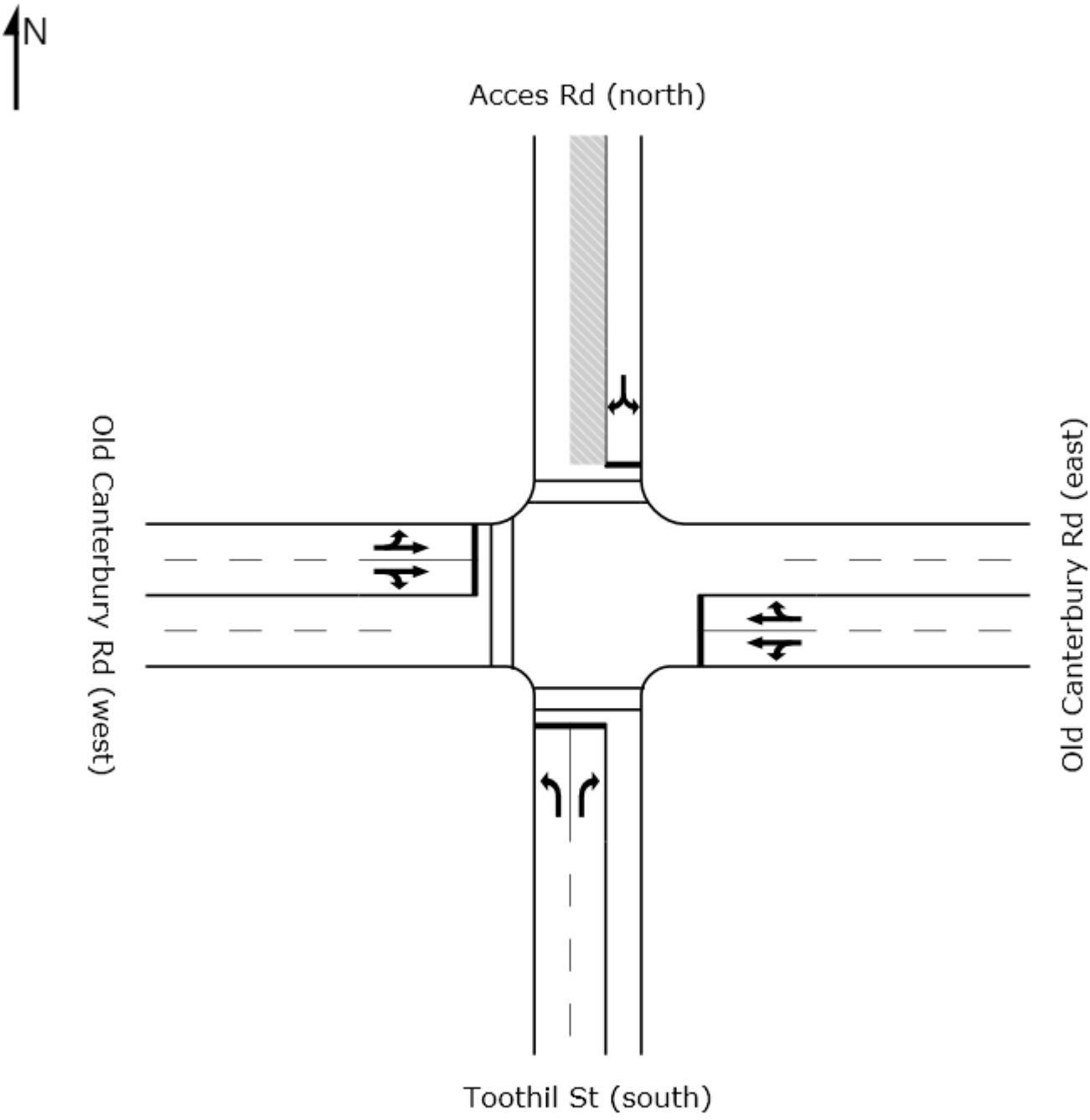
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	120	0.8	0.195	32.7	LOS C	7.0	49.1	0.70	0.77	28.1
2	T	748	0.0	0.975	74.1	LOS F	58.4	408.7	0.99	1.20	17.4
Approach		868	0.1	0.975	68.4	LOS E	58.4	408.7	0.95	1.14	18.4
East: Railway Tce											
4	L	99	6.1	0.967	68.0	LOS E	76.8	542.9	1.00	1.15	19.5
5	T	895	0.6	0.968	61.4	LOS E	76.8	542.9	1.00	1.15	19.5
Approach		994	1.2	0.968	62.1	LOS E	76.8	542.9	1.00	1.15	19.5
North: Old Canterbury Rd (North)											
7	L	76	5.3	0.922	61.7	LOS E	46.5	327.7	1.00	1.07	20.7
8	T	1293	0.2	0.921	55.0	LOS D	46.9	328.7	1.00	1.07	20.8
Approach		1369	0.4	0.921	55.4	LOS D	46.9	328.7	1.00	1.07	20.8
West: Longport Street											
10	L	92	0.0	0.128	21.2	LOS B	5.1	35.5	0.53	0.75	33.3
11	T	702	0.1	0.641	20.7	LOS B	27.7	194.1	0.75	0.68	32.1
Approach		794	0.1	0.640	20.8	LOS B	27.7	194.1	0.73	0.69	32.2
All Vehicles		4025	0.5	0.975	53.0	LOS D	76.8	542.9	0.94	1.03	21.3

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	18.2	LOS B	0.0	0.0	0.55	0.55
P3	Across E approach	11	26.0	LOS C	0.0	0.0	0.66	0.66
P5	Across N approach	2	16.5	LOS B	0.0	0.0	0.53	0.53
P7	Across W approach	5	29.4	LOS C	0.0	0.0	0.70	0.70
All Pedestrians		41	21.6				0.60	0.60

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).


N
Acces Rd (north)
Old Canterbury Rd (west)
Old Canterbury Rd (east)
Toothil St (south)

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills +Lewisham

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
Aug AM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 70 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	178	1.0	0.355	29.1	LOS C	6.6	46.5	0.85	0.79	29.4
3	R	285	1.0	0.825	41.5	LOS C	12.5	88.6	1.00	0.98	25.0
Approach		463	1.0	0.825	36.8	LOS C	12.5	88.6	0.94	0.91	26.5
East: Old Canterbury Rd (east)											
4	L	225	3.0	0.846	39.6	LOS C	15.3	109.8	0.99	0.99	26.0
5	T	465	2.0	0.846	34.1	LOS C	15.3	109.8	1.00	0.99	26.1
6	R	18	1.0	0.845	41.1	LOS C	13.6	96.9	1.00	1.00	26.1
Approach		708	2.3	0.846	36.0	LOS C	15.3	109.8	0.99	0.99	26.1
North: Acces Rd (north)											
7	L	112	1.0	0.320	29.8	LOS C	5.3	37.5	0.85	0.78	29.1
9	R	25	1.0	0.320	29.9	LOS C	5.3	37.5	0.85	0.78	29.1
Approach		137	1.0	0.320	29.8	LOS C	5.3	37.5	0.85	0.78	29.1
West: Old Canterbury Rd (west)											
10	L	20	0.0	0.855	21.1	LOS B	26.8	189.3	0.76	1.00	34.5
11	T	945	1.0	0.856	15.4	LOS B	26.8	189.3	0.77	0.80	34.9
12	R	426	1.0	0.856	38.1	LOS C	15.8	111.6	0.97	1.12	26.2
Approach		1392	1.0	0.856	22.5	LOS B	26.8	189.3	0.83	0.90	31.6
All Vehicles		2700	1.3	0.856	28.8	LOS C	26.8	189.3	0.90	0.92	28.9

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	3	25.7	LOS C	0.0	0.0	0.86	0.86
P5	Across N approach	32	24.0	LOS C	0.1	0.1	0.83	0.83
P7	Across W approach	16	26.6	LOS C	0.0	0.0	0.87	0.87
All Pedestrians		51	24.9				0.84	0.84

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills Traffic) Aug

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
Aug AM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	178	1.0	0.377	36.6	LOS C	8.2	58.0	0.87	0.79	26.6
3	R	285	1.0	0.754	44.2	LOS D	14.1	99.4	0.98	0.90	24.2
Approach		463	1.0	0.754	41.3	LOS C	14.1	99.4	0.94	0.86	25.0
East: Old Canterbury Rd (east)											
4	L	228	3.0	0.714	39.2	LOS C	15.6	111.9	0.91	0.86	26.1
5	T	487	2.0	0.714	33.2	LOS C	15.6	111.9	0.92	0.81	26.5
6	R	5	1.0	0.713	40.0	LOS C	15.2	108.4	0.92	0.89	26.4
Approach		721	2.3	0.714	35.2	LOS C	15.6	111.9	0.92	0.83	26.4
North: Acces Rd (north)											
7	L	27	1.0	0.077	34.8	LOS C	1.6	11.6	0.80	0.72	27.2
9	R	4	1.0	0.077	34.9	LOS C	1.6	11.6	0.80	0.72	27.2
Approach		32	1.0	0.077	34.8	LOS C	1.6	11.6	0.80	0.72	27.2
West: Old Canterbury Rd (west)											
10	L	8	0.0	0.766	14.0	LOS A	21.1	149.0	0.55	0.92	38.6
11	T	952	1.0	0.777	8.5	LOS A	21.1	149.0	0.56	0.52	40.0
12	R	444	1.0	0.777	34.7	LOS C	16.9	119.7	0.88	1.05	27.3
Approach		1404	1.0	0.777	16.8	LOS B	21.1	149.0	0.66	0.69	34.9
All Vehicles		2620	1.4	0.777	26.4	LOS B	21.1	149.0	0.78	0.76	30.0

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	3	28.8	LOS C	0.0	0.0	0.80	0.80
P5	Across N approach	32	27.2	LOS C	0.1	0.1	0.78	0.78
P7	Across W approach	16	32.9	LOS D	0.0	0.0	0.86	0.86
All Pedestrians		51	29.1				0.80	0.80

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills +Lewisham

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
August PM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	306	1.0	0.879	55.5	LOS D	16.8	118.7	1.00	1.01	21.4
3	R	294	0.0	0.957	71.8	LOS F	18.4	128.7	1.00	1.12	18.3
Approach		600	0.5	0.957	63.5	LOS E	18.4	128.7	1.00	1.06	19.7
East: Old Canterbury Rd (east)											
4	L	322	0.0	0.982	55.8	LOS D	62.9	440.5	1.00	1.21	21.8
5	T	1135	0.0	0.982	53.9	LOS D	62.9	440.5	1.00	1.25	20.8
6	R	124	1.0	0.982	67.3	LOS E	39.3	276.0	1.00	1.31	19.5
Approach		1581	0.1	0.982	55.3	LOS D	62.9	440.5	1.00	1.25	20.9
North: Acces Rd (north)											
7	L	65	1.0	0.817	58.2	LOS E	6.7	47.4	1.00	0.95	20.8
9	R	38	1.0	0.817	58.4	LOS E	6.7	47.4	1.00	0.95	20.8
Approach		103	1.0	0.817	58.3	LOS E	6.7	47.4	1.00	0.95	20.8
West: Old Canterbury Rd (west)											
10	L	79	0.0	0.560	9.2	LOS A	7.9	55.4	0.21	0.88	41.4
11	T	652	1.0	0.559	2.8	LOS A	7.9	55.4	0.21	0.19	46.1
12	R	242	2.0	1.051	90.0	LOS F	18.4	130.7	1.00	1.21	15.8
Approach		973	1.2	1.051	25.0	LOS B	18.4	130.7	0.41	0.50	31.0
All Vehicles		3257	0.5	1.051	47.9	LOS D	62.9	440.5	0.82	0.98	22.9

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	4	13.3	LOS B	0.0	0.0	0.54	0.54
P5	Across N approach	32	12.3	LOS B	0.0	0.0	0.52	0.52
P7	Across W approach	7	38.3	LOS D	0.0	0.0	0.92	0.92
All Pedestrians		43	16.6				0.59	0.59

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills Traffic) Aug

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
August PM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

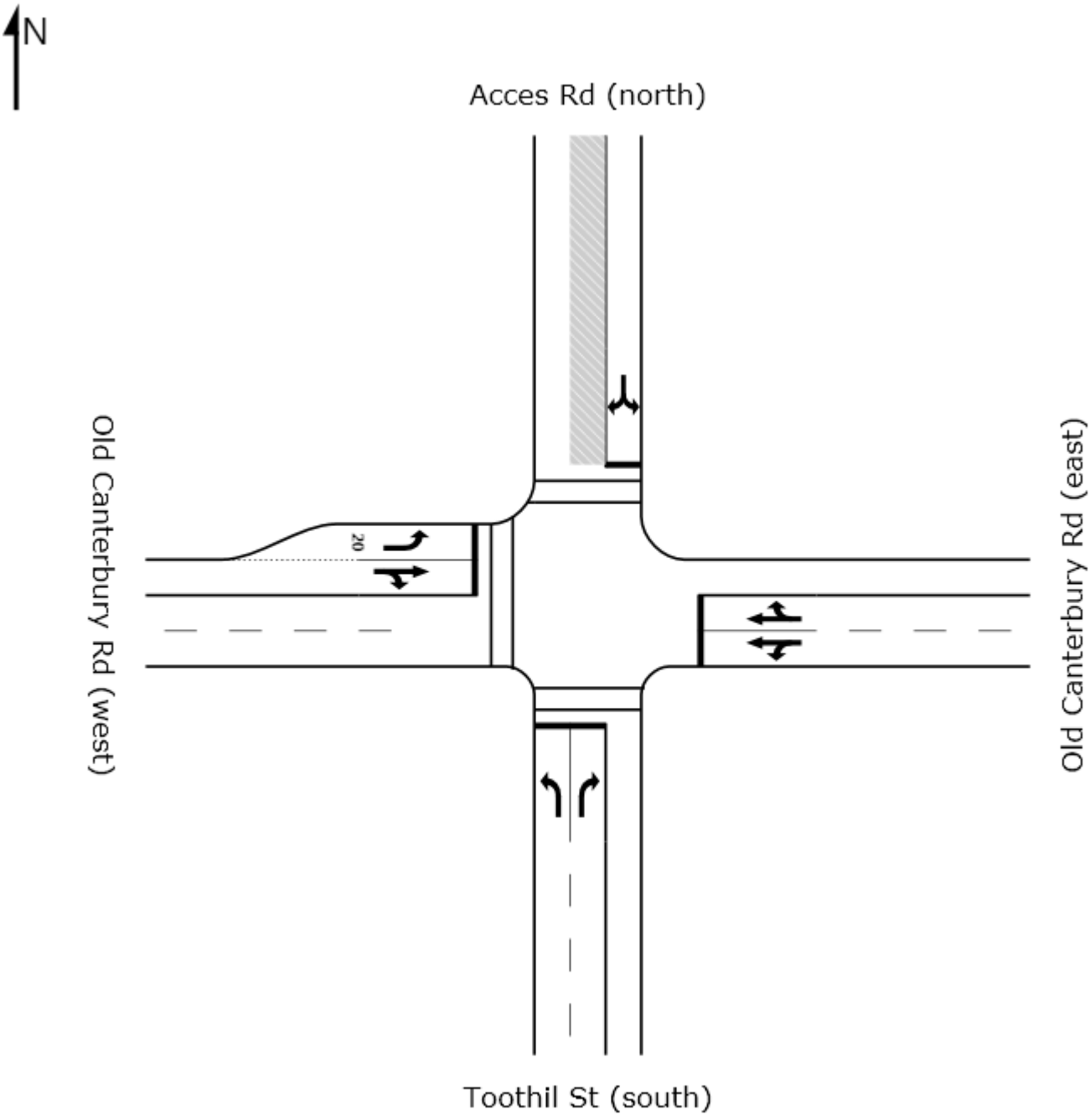
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	306	1.0	0.712	42.5	LOS C	14.4	101.7	0.98	0.87	24.7
3	R	294	0.0	0.803	47.9	LOS D	15.0	105.3	1.00	0.93	23.2
Approach		600	0.5	0.803	45.1	LOS D	15.0	105.3	0.99	0.90	23.9
East: Old Canterbury Rd (east)											
4	L	312	0.0	0.832	27.3	LOS B	28.4	198.6	0.83	0.92	30.9
5	T	1165	0.0	0.832	21.0	LOS B	28.4	198.6	0.83	0.80	31.6
6	R	16	1.0	0.840	27.7	LOS B	27.6	193.2	0.83	0.97	31.2
Approach		1493	0.0	0.832	22.4	LOS B	28.4	198.6	0.83	0.83	31.5
North: Acces Rd (north)											
7	L	25	1.0	0.087	39.3	LOS C	1.6	11.3	0.86	0.72	25.7
9	R	3	1.0	0.088	39.5	LOS C	1.6	11.3	0.86	0.72	25.6
Approach		28	1.0	0.087	39.4	LOS C	1.6	11.3	0.86	0.72	25.7
West: Old Canterbury Rd (west)											
10	L	20	0.0	0.501	11.0	LOS A	8.9	62.8	0.29	0.90	40.2
11	T	594	1.0	0.501	4.6	LOS A	8.9	62.8	0.29	0.26	44.1
12	R	237	2.0	0.836	51.3	LOS D	12.4	88.3	1.00	1.09	22.4
Approach		851	1.3	0.836	17.8	LOS B	12.4	88.3	0.49	0.51	34.6
All Vehicles		2972	0.5	0.836	25.8	LOS B	28.4	198.6	0.77	0.75	30.3

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	4	16.2	LOS B	0.0	0.0	0.60	0.60
P5	Across N approach	32	15.0	LOS B	0.0	0.0	0.58	0.58
P7	Across W approach	7	34.7	LOS D	0.0	0.0	0.88	0.88
All Pedestrians		43	18.3				0.63	0.63

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).


N
Acces Rd (north)
Old Canterbury Rd (west)
Old Canterbury Rd (east)
Toothil St (south)
20

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills +Lewisham Bus Lane

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
Aug AM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	178	1.0	0.511	42.7	LOS D	8.9	63.0	0.95	0.81	24.6
3	R	285	1.0	1.258	297.1	LOS F	39.2	276.6	1.00	1.93	6.1
Approach		463	1.0	1.258	199.4	LOS F	39.2	276.6	0.98	1.50	8.6
East: Old Canterbury Rd (east)											
4	L	225	3.0	1.228	266.4	LOS F	45.2	323.9	1.00	2.12	6.8
5	T	465	2.0	1.229	260.0	LOS F	45.2	323.9	1.00	2.16	6.8
6	R	18	1.0	1.229	266.7	LOS F	45.1	321.2	1.00	2.17	6.8
Approach		708	2.3	1.229	262.2	LOS F	45.2	323.9	1.00	2.15	6.8
North: Acces Rd (north)											
7	L	112	1.0	0.495	44.5	LOS D	7.3	51.6	0.96	0.80	24.1
9	R	25	1.0	0.494	44.7	LOS D	7.3	51.6	0.96	0.80	24.1
Approach		137	1.0	0.495	44.6	LOS D	7.3	51.6	0.96	0.80	24.1
West: Old Canterbury Rd (west)											
10	L	20	0.0	0.028	8.1	LOS A	0.1	0.9	0.10	0.62	41.8
11	T	945	1.0	1.281	275.8	LOS F	170.5	1203.6	1.00	2.36	6.4
12	R	426	1.0	1.280	282.2	LOS F	170.5	1203.6	1.00	2.36	6.4
Approach		1392	1.0	1.281	273.9	LOS F	170.5	1203.6	0.99	2.34	6.5
All Vehicles		2700	1.3	1.281	246.4	LOS F	170.5	1203.6	0.99	2.06	7.1

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	3	38.3	LOS D	0.0	0.0	0.92	0.92
P5	Across N approach	32	36.5	LOS D	0.1	0.1	0.90	0.90
P7	Across W approach	16	38.3	LOS D	0.0	0.0	0.92	0.92
All Pedestrians		51	37.1				0.91	0.91

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills +Lewisham Bus Lane

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
August PM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

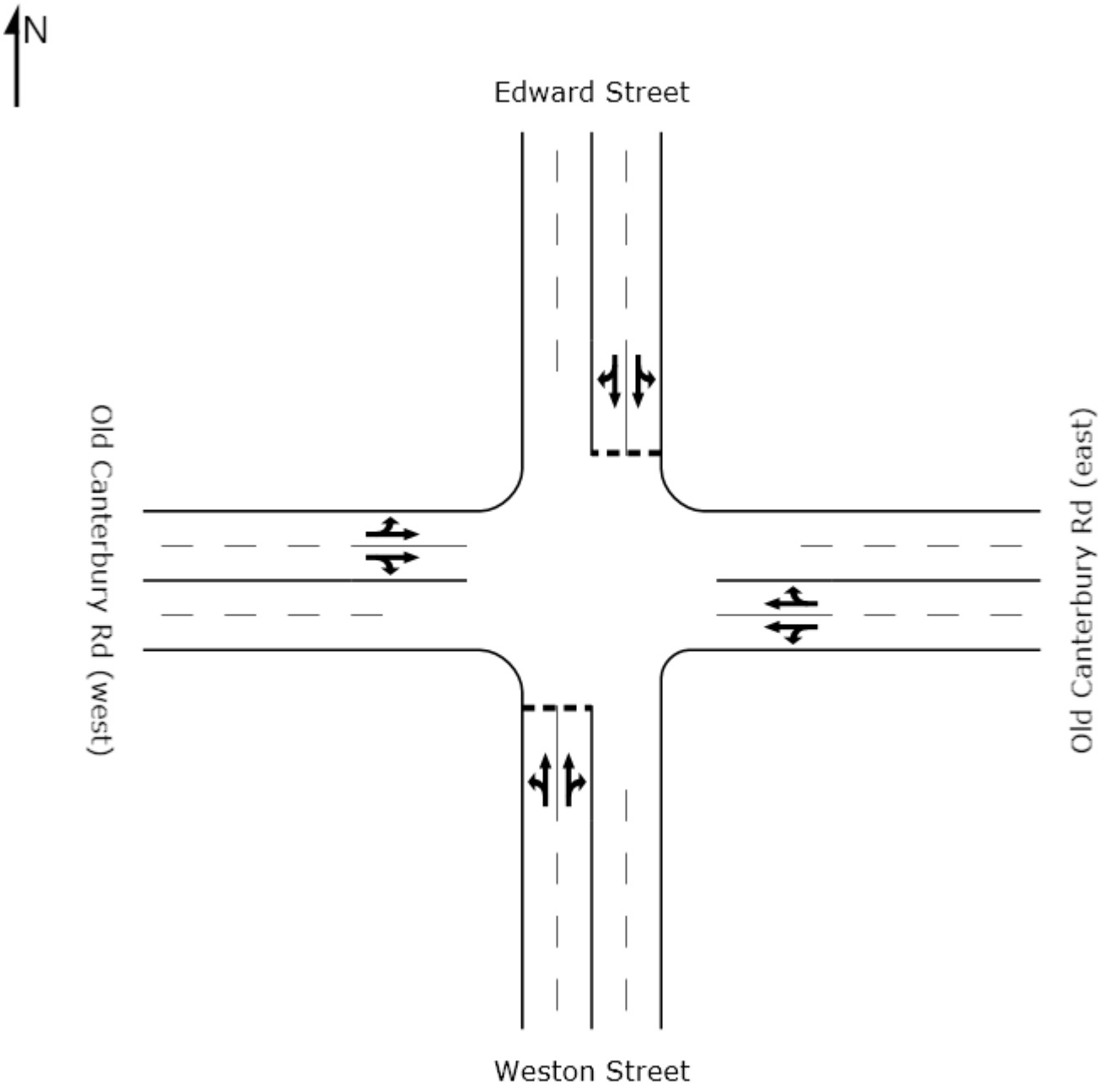
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	306	1.0	0.934	65.6	LOS E	18.4	129.7	1.00	1.10	19.4
3	R	294	0.0	1.026	105.0	LOS F	22.2	155.7	1.00	1.29	14.1
Approach		600	0.5	1.026	84.9	LOS F	22.2	155.7	1.00	1.19	16.4
East: Old Canterbury Rd (east)											
4	L	322	0.0	1.115	158.9	LOS F	82.3	575.9	1.00	1.79	10.4
5	T	1135	0.0	1.115	153.3	LOS F	82.3	575.9	1.00	1.84	10.4
6	R	124	1.0	1.116	160.8	LOS F	74.8	524.5	1.00	1.88	10.4
Approach		1581	0.1	1.115	155.1	LOS F	82.3	575.9	1.00	1.84	10.4
North: Acces Rd (north)											
7	L	65	1.0	0.821	58.4	LOS E	6.7	47.5	1.00	0.95	20.7
9	R	38	1.0	0.821	58.6	LOS E	6.7	47.5	1.00	0.95	20.7
Approach		103	1.0	0.821	58.5	LOS E	6.7	47.5	1.00	0.95	20.7
West: Old Canterbury Rd (west)											
10	L	79	0.0	0.103	7.9	LOS A	0.5	3.3	0.09	0.63	42.0
11	T	652	1.0	1.310	306.2	LOS F	124.6	881.6	1.00	2.43	5.9
12	R	242	2.0	1.311	312.6	LOS F	124.6	881.6	1.00	2.43	5.9
Approach		973	1.2	1.310	283.6	LOS F	124.6	881.6	0.93	2.29	6.3
All Vehicles		3257	0.5	1.310	177.4	LOS F	124.6	881.6	0.98	1.82	9.4

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	4	21.4	LOS C	0.0	0.0	0.69	0.69
P5	Across N approach	32	20.0	LOS B	0.1	0.1	0.67	0.67
P7	Across W approach	7	39.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		43	23.3				0.71	0.71

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).


N
Edward Street
Old Canterbury Rd (west)
Old Canterbury Rd (east)
Weston Street

MOVEMENT SUMMARY

Site: AM Existing

Old Canterbury Rd - Edward St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.088	40.8	LOS C	0.3	2.1	0.85	0.86	25.3
2	T	2	0.0	0.088	39.5	LOS C	0.3	2.1	0.85	0.92	25.4
3	R	3	0.0	0.211	244.6	LOS F	0.7	4.6	0.99	1.00	7.2
Approach		12	0.0	0.209	96.1	LOS F	0.7	4.6	0.89	0.91	15.1
East: Old Canterbury Rd (east)											
4	L	1	0.0	0.263	6.4	LOS A	0.0	0.0	0.00	0.92	43.3
5	T	542	1.4	0.237	2.7	LOS A	2.6	18.1	0.16	0.00	46.2
6	R	51	0.0	0.237	24.0	LOS B	2.6	18.1	1.00	1.04	32.7
Approach		594	1.2	0.237	4.6	LOS B	2.6	18.1	0.23	0.09	44.6
North: Edward Street											
7	L	94	0.0	0.498	32.6	LOS C	2.3	16.3	0.91	1.06	28.0
8	T	1	0.0	0.132	59.2	LOS E	0.4	3.1	0.94	0.97	20.4
9	R	6	16.7	0.132	60.9	LOS E	0.4	3.1	0.94	0.98	20.4
Approach		101	1.0	0.497	34.6	LOS E	2.3	16.3	0.92	1.06	27.3
West: Old Canterbury Rd (west)											
10	L	32	0.0	0.343	6.4	LOS A	0.0	0.0	0.00	0.90	43.3
11	T	1287	0.8	0.342	2.3	LOS A	5.8	40.5	0.39	0.00	45.4
12	R	3	0.0	0.351	10.8	LOS A	5.8	40.5	0.77	1.00	41.6
Approach		1322	0.8	0.342	2.4	LOS A	5.8	40.5	0.38	0.02	45.3
All Vehicles		2028	0.9	0.497	5.2	NA	5.8	40.5	0.37	0.10	43.2

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

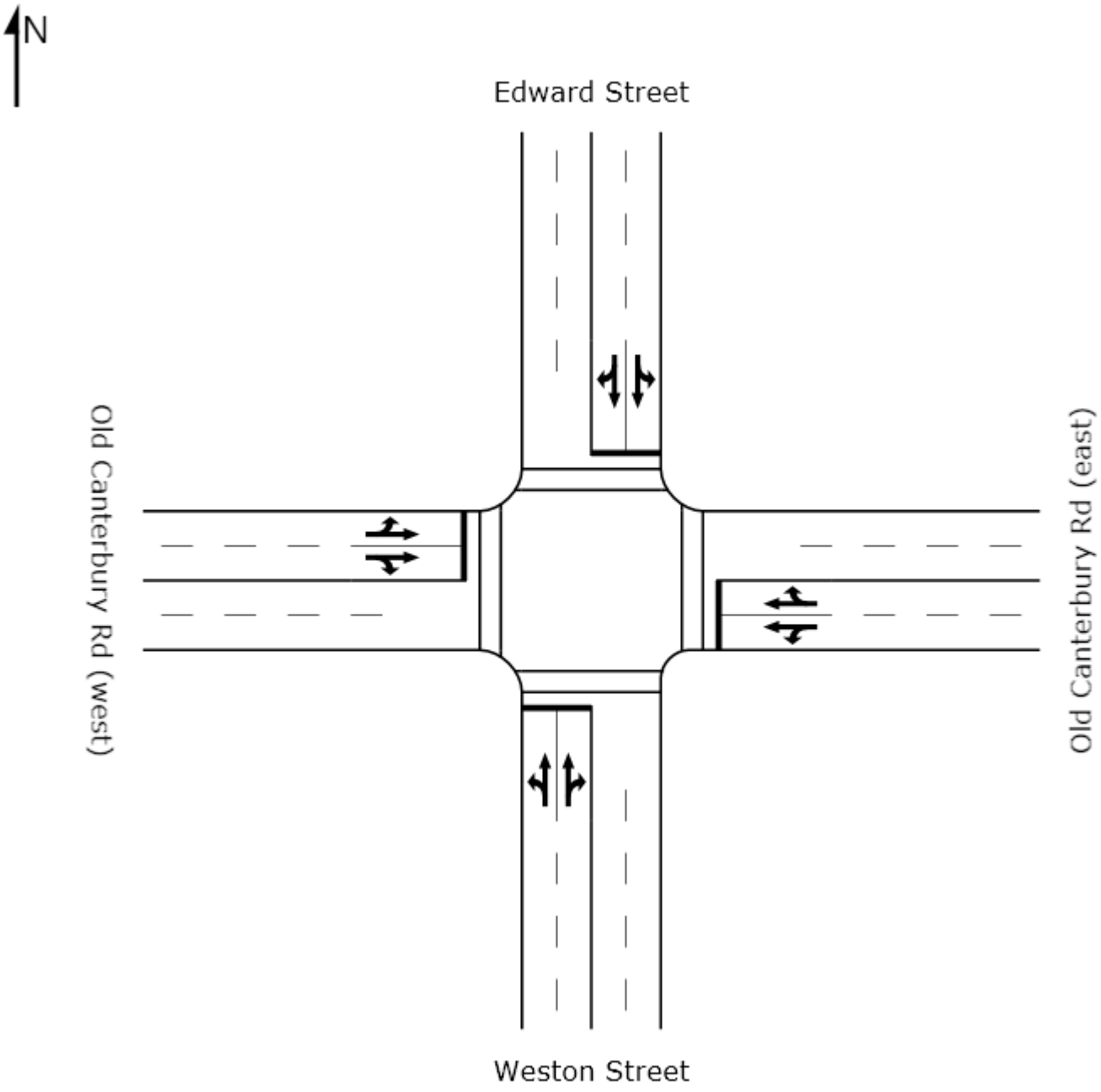
Site: PM Existing

Old Canterbury Rd - Edward St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.094	48.8	LOS D	0.3	2.2	0.93	0.97	23.0
2	T	1	0.0	0.096	47.5	LOS D	0.3	2.2	0.93	0.96	23.1
3	R	2	0.0	0.234	407.2	LOS F	0.7	5.0	0.99	1.00	4.6
Approach		9	0.0	0.232	128.3	LOS F	0.7	5.0	0.94	0.98	12.2
East: Old Canterbury Rd (east)											
4	L	14	0.0	0.415	6.4	LOS A	0.0	0.0	0.00	0.91	43.3
5	T	1255	0.5	0.417	2.8	LOS A	7.4	52.0	0.33	0.00	45.5
6	R	121	0.0	0.417	14.2	LOS A	7.4	52.0	0.91	1.12	38.9
Approach		1389	0.5	0.417	3.9	LOS A	7.4	52.0	0.38	0.11	44.8
North: Edward Street											
7	L	88	0.0	0.183	13.6	LOS A	0.8	5.5	0.62	0.85	37.6
8	T	1	0.0	0.175	19.7	LOS B	0.8	5.5	0.68	0.83	33.6
9	R	14	0.0	0.182	49.2	LOS D	0.6	4.0	0.93	0.98	22.9
Approach		103	0.0	0.183	18.4	LOS D	0.8	5.5	0.66	0.87	34.6
West: Old Canterbury Rd (west)											
10	L	35	0.0	0.194	6.4	LOS A	0.0	0.0	0.00	0.88	43.3
11	T	673	0.9	0.194	7.8	LOS A	5.7	40.0	0.49	0.00	40.8
12	R	6	0.0	0.191	22.3	LOS B	5.7	40.0	1.00	1.01	34.2
Approach		714	0.9	0.194	7.9	LOS B	5.7	40.0	0.47	0.05	40.8
All Vehicles		2216	0.6	0.417	6.4	NA	7.4	52.0	0.43	0.13	42.4

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.


N
Edward Street
Old Canterbury Rd (west)
Old Canterbury Rd (east)
Weston Street

MOVEMENT SUMMARY

Old Canterbury Rd - Edward St
AM (Existing + McGill +Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 50 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.011	18.9	LOS B	0.2	1.2	0.70	0.65	34.4
2	T	2	0.0	0.011	13.3	LOS A	0.2	1.2	0.72	0.48	35.4
3	R	3	0.0	0.011	19.8	LOS B	0.1	1.0	0.72	0.67	34.3
Approach		12	0.0	0.011	18.1	LOS B	0.2	1.2	0.71	0.63	34.5
East: Old Canterbury Rd (east)											
4	L	1	0.0	0.598	17.9	LOS B	10.8	76.2	0.80	0.88	36.5
5	T	585	1.4	0.572	13.2	LOS A	10.8	76.2	0.82	0.71	36.1
6	R	66	0.0	0.571	27.6	LOS B	5.4	38.2	0.95	0.83	30.8
Approach		653	1.2	0.572	14.7	LOS B	10.8	76.2	0.84	0.72	35.5
North: Edward Street											
7	L	113	0.0	0.190	20.0	LOS B	3.0	20.9	0.76	0.75	33.7
8	T	1	0.0	0.066	13.0	LOS A	0.9	6.7	0.72	0.54	35.2
9	R	33	5.3	0.066	19.6	LOS B	0.9	6.7	0.72	0.71	34.1
Approach		146	1.2	0.190	19.9	LOS B	3.0	20.9	0.75	0.74	33.8
West: Old Canterbury Rd (west)											
10	L	37	0.0	0.797	23.5	LOS B	18.0	126.6	0.93	1.01	33.4
11	T	1318	0.8	0.801	17.1	LOS B	18.0	126.6	0.93	0.94	33.7
12	R	3	0.0	0.797	23.6	LOS B	17.9	125.8	0.93	1.01	33.4
Approach		1358	0.8	0.801	17.3	LOS B	18.0	126.6	0.93	0.95	33.7
All Vehicles		2168	0.9	0.801	16.7	LOS B	18.0	126.6	0.89	0.86	34.2

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	21	14.4	LOS B	0.0	0.0	0.76	0.76
P3	Across E approach	21	19.4	LOS B	0.0	0.0	0.88	0.88
P5	Across N approach	21	14.4	LOS B	0.0	0.0	0.76	0.76
P7	Across W approach	21	19.4	LOS B	0.0	0.0	0.88	0.88
All Pedestrians		84	16.9				0.82	0.82

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Old Canterbury Rd - Edward St
AM (Existing + McGill +Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 50 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.011	18.9	LOS B	0.2	1.2	0.70	0.65	34.4
2	T	2	0.0	0.011	13.3	LOS A	0.2	1.2	0.72	0.48	35.4
3	R	3	0.0	0.011	19.8	LOS B	0.1	1.0	0.72	0.67	34.3
Approach		12	0.0	0.011	18.1	LOS B	0.2	1.2	0.71	0.63	34.5
East: Old Canterbury Rd (east)											
4	L	1	0.0	0.598	17.8	LOS B	10.4	74.0	0.79	0.88	36.5
5	T	561	1.4	0.556	13.0	LOS A	10.4	74.0	0.82	0.70	36.3
6	R	66	0.0	0.557	27.5	LOS B	5.1	35.9	0.95	0.82	30.8
Approach		628	1.2	0.556	14.5	LOS B	10.4	74.0	0.83	0.72	35.6
North: Edward Street											
7	L	113	0.0	0.190	20.0	LOS B	3.0	20.9	0.76	0.75	33.7
8	T	1	0.0	0.066	13.0	LOS A	0.9	6.7	0.72	0.54	35.2
9	R	33	5.3	0.066	19.6	LOS B	0.9	6.7	0.72	0.71	34.1
Approach		146	1.2	0.190	19.9	LOS B	3.0	20.9	0.75	0.74	33.8
West: Old Canterbury Rd (west)											
10	L	37	0.0	0.797	23.1	LOS B	17.6	124.2	0.92	1.00	33.6
11	T	1306	0.8	0.794	16.7	LOS B	17.6	124.2	0.92	0.93	33.9
12	R	3	0.0	0.797	23.2	LOS B	17.5	123.5	0.92	1.00	33.6
Approach		1346	0.8	0.794	16.9	LOS B	17.6	124.2	0.92	0.93	33.9
All Vehicles		2133	0.9	0.794	16.4	LOS B	17.6	124.2	0.88	0.85	34.4

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	21	14.4	LOS B	0.0	0.0	0.76	0.76
P3	Across E approach	21	19.4	LOS B	0.0	0.0	0.88	0.88
P5	Across N approach	21	14.4	LOS B	0.0	0.0	0.76	0.76
P7	Across W approach	21	19.4	LOS B	0.0	0.0	0.88	0.88
All Pedestrians		84	16.9				0.82	0.82

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing + McGill+Mills)
Lewisham

Old Canterbury Rd - Edward St
PM (Existing + McGill + Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 60 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.013	23.9	LOS B	0.2	1.5	0.76	0.65	31.7
2	T	1	0.0	0.008	18.4	LOS B	0.1	0.8	0.77	0.50	32.4
3	R	2	0.0	0.008	24.8	LOS B	0.1	0.8	0.77	0.65	31.7
Approach		9	0.0	0.013	23.5	LOS B	0.2	1.5	0.76	0.64	31.8
East: Old Canterbury Rd (east)											
4	L	14	0.0	0.885	31.4	LOS C	32.4	228.2	0.96	1.12	29.7
5	T	1293	0.6	0.890	27.0	LOS B	32.4	228.2	0.97	1.11	28.9
6	R	156	0.0	0.889	38.2	LOS C	21.4	150.6	0.98	1.19	26.8
Approach		1462	0.5	0.890	28.3	LOS B	32.4	228.2	0.97	1.12	28.6
North: Edward Street											
7	L	106	0.0	0.215	25.3	LOS B	3.6	25.0	0.82	0.76	31.1
8	T	1	0.0	0.074	18.1	LOS B	1.1	7.9	0.78	0.57	32.2
9	R	31	3.4	0.074	24.6	LOS B	1.1	7.9	0.78	0.71	31.4
Approach		138	0.8	0.215	25.1	LOS B	3.6	25.0	0.81	0.75	31.1
West: Old Canterbury Rd (west)											
10	L	44	0.0	0.419	15.5	LOS B	9.3	65.9	0.64	0.87	37.6
11	T	771	1.5	0.419	9.7	LOS A	9.3	65.9	0.66	0.57	38.9
12	R	6	0.0	0.420	16.7	LOS B	9.0	64.0	0.67	0.88	37.0
Approach		821	1.4	0.419	10.1	LOS A	9.3	65.9	0.66	0.59	38.8
All Vehicles		2431	0.8	0.890	21.9	LOS B	32.4	228.2	0.85	0.92	31.6

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	21	12.0	LOS B	0.0	0.0	0.63	0.63
P3	Across E approach	21	24.3	LOS C	0.0	0.0	0.90	0.90
P5	Across N approach	21	12.0	LOS B	0.0	0.0	0.63	0.63
P7	Across W approach	21	24.3	LOS C	0.0	0.0	0.90	0.90
All Pedestrians		84	18.2				0.77	0.77

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Old Canterbury Rd - Edward St
PM (Existing + McGill + Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 60 seconds (Practical Cycle Time)

Movement Performance - Vehicles

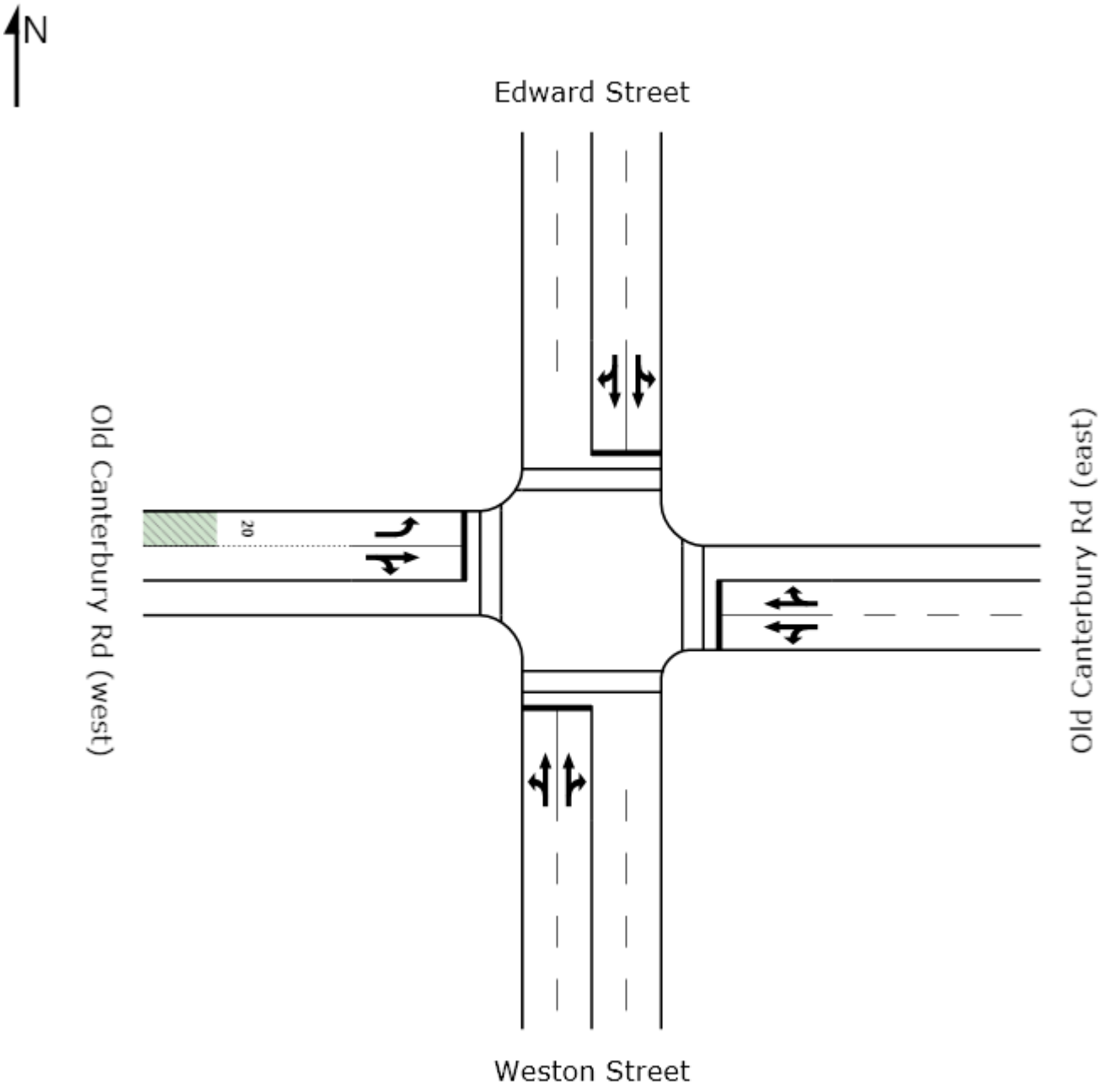
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.013	23.9	LOS B	0.2	1.5	0.76	0.65	31.7
2	T	1	0.0	0.008	18.4	LOS B	0.1	0.8	0.77	0.50	32.4
3	R	2	0.0	0.008	24.8	LOS B	0.1	0.8	0.77	0.65	31.7
Approach		9	0.0	0.013	23.5	LOS B	0.2	1.5	0.76	0.64	31.8
East: Old Canterbury Rd (east)											
4	L	14	0.0	0.855	27.6	LOS B	28.9	203.2	0.93	1.07	31.4
5	T	1269	0.6	0.863	22.9	LOS B	28.9	203.2	0.94	1.03	30.7
6	R	156	0.0	0.864	33.3	LOS C	20.0	140.9	0.96	1.12	28.5
Approach		1439	0.5	0.863	24.1	LOS B	28.9	203.2	0.94	1.04	30.4
North: Edward Street											
7	L	106	0.0	0.215	25.3	LOS B	3.6	25.0	0.82	0.76	31.1
8	T	1	0.0	0.074	18.1	LOS B	1.1	7.9	0.78	0.57	32.2
9	R	31	3.4	0.074	24.6	LOS B	1.1	7.9	0.78	0.71	31.4
Approach		138	0.8	0.215	25.1	LOS B	3.6	25.0	0.81	0.75	31.1
West: Old Canterbury Rd (west)											
10	L	44	0.0	0.393	15.4	LOS B	8.7	61.5	0.63	0.87	37.7
11	T	720	1.5	0.392	9.5	LOS A	8.7	61.5	0.65	0.56	39.0
12	R	6	0.0	0.394	16.6	LOS B	8.5	60.0	0.66	0.88	37.1
Approach		771	1.4	0.392	9.9	LOS A	8.7	61.5	0.65	0.58	38.9
All Vehicles		2357	0.8	0.863	19.5	LOS B	28.9	203.2	0.84	0.87	32.8

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	21	12.0	LOS B	0.0	0.0	0.63	0.63
P3	Across E approach	21	24.3	LOS C	0.0	0.0	0.90	0.90
P5	Across N approach	21	12.0	LOS B	0.0	0.0	0.63	0.63
P7	Across W approach	21	24.3	LOS C	0.0	0.0	0.90	0.90
All Pedestrians		84	18.2				0.77	0.77

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).


N
Edward Street
Old Canterbury Rd (west)
20
Old Canterbury Rd (east)
Weston Street

MOVEMENT SUMMARY

Site: AM (Existing + McGill+Mills
Lewisham Bus Lane

Old Canterbury Rd - Edward St
AM (Existing + McGill +Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 110 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.034	53.2	LOS D	0.6	4.0	0.91	0.67	22.0
2	T	2	0.0	0.034	49.4	LOS D	0.6	4.0	0.93	0.61	21.5
3	R	3	0.0	0.034	59.2	LOS E	0.3	2.3	0.95	0.65	20.7
Approach		12	0.0	0.034	54.1	LOS D	0.6	4.0	0.92	0.65	21.6
East: Old Canterbury Rd (east)											
4	L	1	0.0	0.170	9.8	LOS A	4.7	33.3	0.28	0.90	41.1
5	T	585	1.4	0.831	25.5	LOS B	23.3	164.5	0.68	0.66	29.8
6	R	66	0.0	0.832	48.3	LOS D	23.3	164.5	0.97	1.00	23.8
Approach		653	1.2	0.832	27.8	LOS B	23.3	164.5	0.71	0.70	29.1
North: Edward Street											
7	L	113	0.0	0.513	57.3	LOS E	7.5	52.8	0.98	0.79	21.0
8	T	1	0.0	0.178	48.6	LOS D	2.5	18.3	0.94	0.69	21.6
9	R	33	5.3	0.177	55.2	LOS D	2.5	18.3	0.94	0.73	21.5
Approach		146	1.2	0.513	56.7	LOS E	7.5	52.8	0.97	0.77	21.1
West: Old Canterbury Rd (west)											
10	L	37	0.0	0.113	9.4	LOS A	0.7	4.9	0.24	0.64	40.7
11	T	1318	0.8	0.886	13.2	LOS A	54.5	384.0	0.79	0.77	36.3
12	R	3	0.0	0.891	19.8	LOS B	54.5	384.0	0.79	0.98	35.4
Approach		1358	0.8	0.886	13.1	LOS A	54.5	384.0	0.77	0.77	36.4
All Vehicles		2168	0.9	0.886	20.7	LOS B	54.5	384.0	0.77	0.75	32.3

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	21	5.6	LOS A	0.0	0.0	0.32	0.32
P3	Across E approach	21	49.2	LOS E	0.1	0.1	0.95	0.95
P5	Across N approach	21	5.6	LOS A	0.0	0.0	0.32	0.32
P7	Across W approach	21	49.2	LOS E	0.1	0.1	0.95	0.95
All Pedestrians		84	27.4				0.63	0.63

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Old Canterbury Rd - Edward St
PM (Existing + McGill + Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 60 seconds (Practical Cycle Time)

Movement Performance - Vehicles

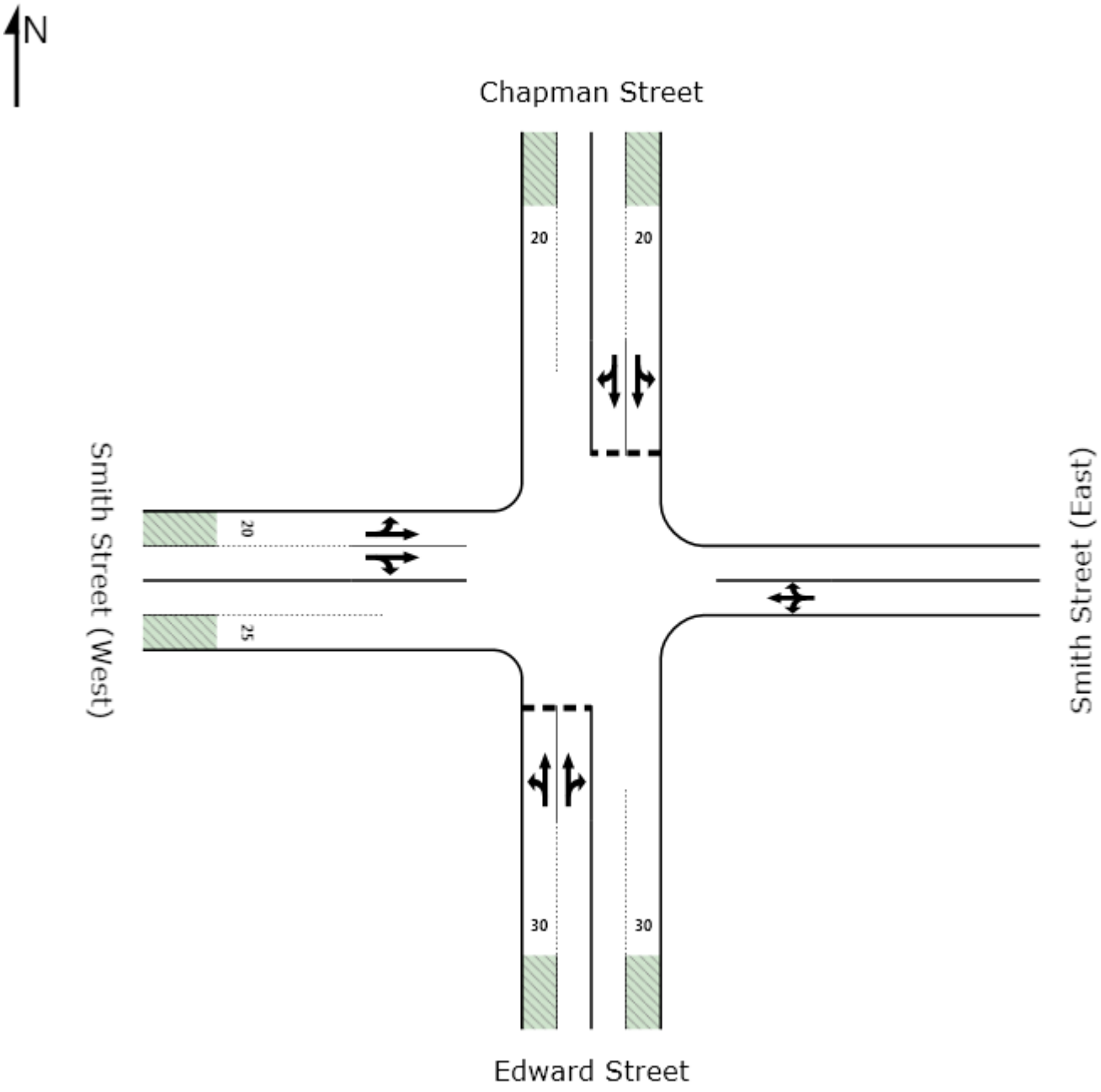
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Weston Street											
1	L	6	0.0	0.013	23.9	LOS B	0.2	1.5	0.76	0.65	31.7
2	T	1	0.0	0.008	18.4	LOS B	0.1	0.8	0.77	0.50	32.4
3	R	2	0.0	0.008	24.8	LOS B	0.1	0.8	0.77	0.65	31.7
Approach		9	0.0	0.013	23.5	LOS B	0.2	1.5	0.76	0.64	31.8
East: Old Canterbury Rd (east)											
4	L	14	0.0	1.069	109.6	LOS F	79.4	558.3	1.00	2.05	14.0
5	T	1293	0.6	1.061	104.5	LOS F	79.4	558.3	1.00	2.01	13.9
6	R	156	0.0	1.061	117.8	LOS F	26.3	184.3	1.00	1.83	13.2
Approach		1462	0.5	1.061	106.0	LOS F	79.4	558.3	1.00	1.99	13.8
North: Edward Street											
7	L	106	0.0	0.215	25.3	LOS B	3.6	25.0	0.82	0.76	31.1
8	T	1	0.0	0.074	18.1	LOS B	1.1	7.9	0.78	0.57	32.2
9	R	31	3.4	0.074	24.6	LOS B	1.1	7.9	0.78	0.71	31.4
Approach		138	0.8	0.215	25.1	LOS B	3.6	25.0	0.81	0.75	31.1
West: Old Canterbury Rd (west)											
10	L	44	0.0	0.152	13.6	LOS A	1.0	6.7	0.50	0.68	37.7
11	T	771	1.5	0.802	16.6	LOS B	22.1	157.0	0.89	0.89	34.1
12	R	6	0.0	0.799	23.0	LOS B	22.1	157.0	0.89	0.99	33.7
Approach		821	1.4	0.802	16.5	LOS B	22.1	157.0	0.87	0.87	34.3
All Vehicles		2431	0.8	1.061	70.8	LOS F	79.4	558.3	0.94	1.54	18.0

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	21	12.0	LOS B	0.0	0.0	0.63	0.63
P3	Across E approach	21	21.7	LOS C	0.0	0.0	0.85	0.85
P5	Across N approach	21	12.0	LOS B	0.0	0.0	0.63	0.63
P7	Across W approach	21	24.3	LOS C	0.0	0.0	0.90	0.90
All Pedestrians		84	17.5				0.75	0.75

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).


N
Chapman Street
20
20
Smith Street (West)
20
25
Smith Street (East)
30
30
Edward Street

MOVEMENT SUMMARY

Site: AM Existing

Edward St - Smth St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Edward Street											
1	L	57	0.0	0.064	8.6	LOS A	0.2	1.7	0.19	0.62	48.1
2	T	3	0.0	0.117	13.6	LOS A	0.5	3.8	0.59	0.78	43.2
3	R	45	0.0	0.118	15.0	LOS B	0.5	3.8	0.59	0.86	42.5
Approach		105	0.0	0.118	11.5	LOS B	0.5	3.8	0.37	0.73	45.4
East: Smith Street (East)											
4	L	21	0.0	0.054	9.7	LOS A	0.5	3.5	0.50	0.47	48.7
5	T	80	1.3	0.054	1.5	LOS A	0.5	3.5	0.50	0.00	50.7
6	R	1	0.0	0.053	9.8	LOS A	0.5	3.5	0.50	0.84	48.8
Approach		102	1.0	0.054	3.3	LOS A	0.5	3.5	0.50	0.11	50.3
North: Chapman Street											
7	L	2	0.0	0.003	9.9	LOS A	0.0	0.1	0.40	0.62	47.2
8	T	1	0.0	0.005	12.9	LOS A	0.0	0.2	0.57	0.64	44.0
9	R	1	0.0	0.005	14.1	LOS A	0.0	0.2	0.57	0.72	43.3
Approach		4	0.0	0.005	11.7	LOS A	0.0	0.2	0.48	0.65	45.4
West: Smith Street (West)											
10	L	2	0.0	0.039	8.2	LOS A	0.0	0.0	0.00	1.07	49.0
11	T	349	0.0	0.194	0.4	LOS A	1.5	10.7	0.20	0.00	56.0
12	R	69	0.0	0.195	8.7	LOS A	1.5	10.7	0.25	0.84	48.9
Approach		421	0.0	0.195	1.8	LOS A	1.5	10.7	0.21	0.14	54.6
All Vehicles		633	0.2	0.195	3.7	NA	1.5	10.7	0.28	0.24	52.1

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: PM Existing

Edward St - Smth St
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

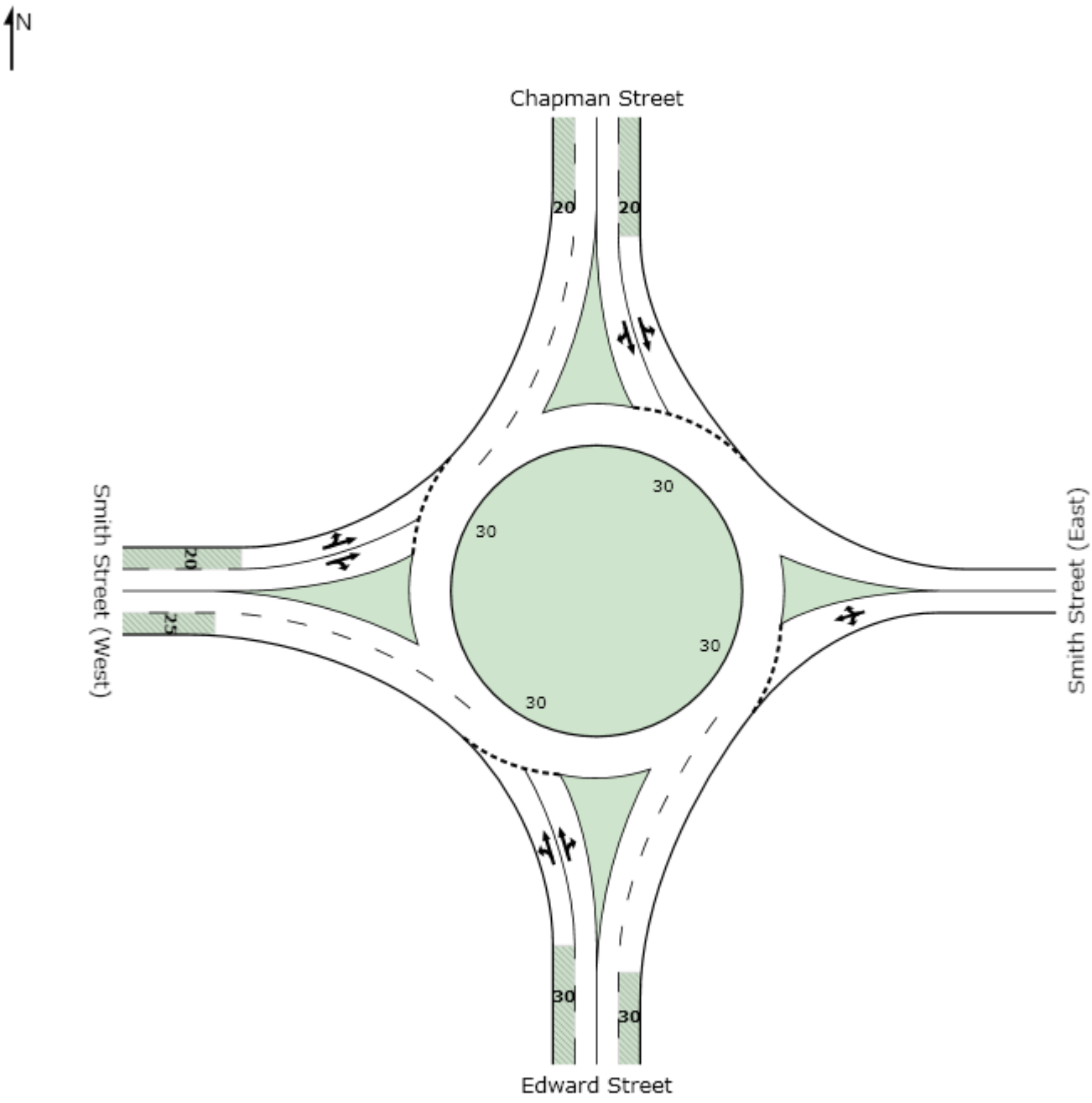
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Edward Street											
1	L	89	0.0	0.104	9.3	LOS A	0.4	3.0	0.32	0.66	47.5
2	T	3	0.0	0.121	12.5	LOS A	0.6	4.0	0.56	0.75	44.1
3	R	52	0.0	0.120	13.9	LOS A	0.6	4.0	0.56	0.83	43.4
Approach		144	0.0	0.120	11.0	LOS A	0.6	4.0	0.41	0.72	45.9
East: Smith Street (East)											
4	L	55	0.0	0.125	9.0	LOS A	1.1	7.5	0.39	0.57	48.7
5	T	184	0.6	0.125	0.8	LOS A	1.1	7.5	0.39	0.00	52.5
6	R	1	0.0	0.132	9.1	LOS A	1.1	7.5	0.39	0.83	48.7
Approach		240	0.4	0.125	2.7	LOS A	1.1	7.5	0.39	0.13	51.6
North: Chapman Street											
7	L	2	0.0	0.003	9.0	LOS A	0.0	0.1	0.28	0.60	47.7
8	T	1	0.0	0.005	12.2	LOS A	0.0	0.1	0.55	0.62	44.7
9	R	1	0.0	0.005	13.4	LOS A	0.0	0.1	0.55	0.70	44.0
Approach		4	0.0	0.005	10.9	LOS A	0.0	0.1	0.42	0.63	46.0
West: Smith Street (West)											
10	L	5	0.0	0.023	8.2	LOS A	0.0	0.0	0.00	1.01	49.0
11	T	187	0.0	0.117	0.9	LOS A	0.9	6.3	0.30	0.00	54.1
12	R	47	0.0	0.117	9.3	LOS A	0.9	6.3	0.38	0.83	48.7
Approach		240	0.0	0.117	2.7	LOS A	0.9	6.3	0.31	0.19	52.9
All Vehicles		628	0.2	0.125	4.7	NA	1.1	7.5	0.36	0.29	50.6

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

SIDRA INTERSECTION


N
Chapman Street
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20
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Smith Street (West)
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25
4
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Smith Street (East)
4
4
4
30
30
Edward Street

MOVEMENT SUMMARY

Site: AM (Existing + Mills) Aug

Edward St - Smth St-Chapman
AM (Existing+Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Edward Street											
1	L	64	0.0	0.065	4.1	LOS A	0.3	2.3	0.29	0.39	44.4
2	T	3	0.0	0.042	2.7	LOS A	0.3	2.1	0.27	0.26	44.8
3	R	65	0.0	0.042	9.1	LOS A	0.3	2.1	0.27	0.59	41.0
Approach		133	0.0	0.065	6.5	LOS A	0.3	2.3	0.28	0.48	42.6
East: Smith Street (East)											
4	L	42	0.0	0.113	3.7	LOS A	0.8	6.0	0.26	0.38	44.8
5	T	95	1.2	0.113	2.7	LOS A	0.8	6.0	0.26	0.29	45.4
6	R	23	0.0	0.113	11.1	LOS A	0.8	6.0	0.26	0.87	40.9
Approach		160	0.7	0.113	4.2	LOS A	0.8	6.0	0.26	0.40	44.5
North: Chapman Street											
7	L	2	0.0	0.003	5.4	LOS A	0.0	0.1	0.58	0.42	42.9
8	T	1	0.0	0.002	4.8	LOS A	0.0	0.1	0.60	0.39	42.8
9	R	1	0.0	0.002	11.2	LOS A	0.0	0.1	0.60	0.63	40.6
Approach		4	0.0	0.003	6.7	LOS A	0.0	0.1	0.59	0.46	42.2
West: Smith Street (West)											
10	L	2	0.0	0.058	4.1	LOS A	0.2	1.7	0.27	0.42	44.8
11	T	349	0.0	0.232	2.7	LOS A	1.9	13.5	0.27	0.29	45.4
12	R	83	0.0	0.232	9.1	LOS A	1.9	13.5	0.27	0.79	41.8
Approach		435	0.0	0.232	3.9	LOS A	1.9	13.5	0.27	0.39	44.6
All Vehicles		732	0.2	0.232	4.5	LOS A	1.9	13.5	0.27	0.41	44.2

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: AM (Existing + Mills) Lewisham

Edward St - Smth St-Chapman
AM (Existing+Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Edward Street											
1	L	64	0.0	0.065	4.1	LOS A	0.3	2.3	0.29	0.39	44.4
2	T	3	0.0	0.042	2.7	LOS A	0.3	2.1	0.27	0.26	44.8
3	R	65	0.0	0.042	9.1	LOS A	0.3	2.1	0.27	0.59	41.0
Approach		133	0.0	0.065	6.5	LOS A	0.3	2.3	0.28	0.48	42.6
East: Smith Street (East)											
4	L	42	0.0	0.113	3.7	LOS A	0.8	6.0	0.26	0.38	44.8
5	T	95	1.2	0.113	2.7	LOS A	0.8	6.0	0.26	0.29	45.4
6	R	23	0.0	0.113	11.1	LOS A	0.8	6.0	0.26	0.87	40.9
Approach		160	0.7	0.113	4.2	LOS A	0.8	6.0	0.26	0.40	44.5
North: Chapman Street											
7	L	2	0.0	0.003	5.4	LOS A	0.0	0.1	0.58	0.42	42.9
8	T	1	0.0	0.002	4.8	LOS A	0.0	0.1	0.60	0.39	42.8
9	R	1	0.0	0.002	11.2	LOS A	0.0	0.1	0.60	0.63	40.6
Approach		4	0.0	0.003	6.7	LOS A	0.0	0.1	0.59	0.46	42.2
West: Smith Street (West)											
10	L	2	0.0	0.058	4.1	LOS A	0.2	1.7	0.27	0.42	44.8
11	T	349	0.0	0.232	2.7	LOS A	1.9	13.5	0.27	0.29	45.4
12	R	83	0.0	0.232	9.1	LOS A	1.9	13.5	0.27	0.79	41.8
Approach		435	0.0	0.232	3.9	LOS A	1.9	13.5	0.27	0.39	44.6
All Vehicles		732	0.2	0.232	4.5	LOS A	1.9	13.5	0.27	0.41	44.2

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: PM (Existing+Mills) Aug

Edward St - Smth St-Chapman
PM (Existing+Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Edward Street											
1	L	94	0.0	0.083	6.2	LOS A	0.5	3.2	0.38	0.49	49.5
2	T	3	0.0	0.056	5.4	LOS A	0.4	2.8	0.41	0.41	49.3
3	R	66	0.0	0.056	12.2	LOS A	0.4	2.8	0.41	0.64	45.1
Approach		163	0.0	0.083	8.7	LOS A	0.5	3.2	0.39	0.55	47.5
East: Smith Street (East)											
4	L	81	0.0	0.206	5.8	LOS A	1.7	11.7	0.30	0.48	50.4
5	T	191	0.5	0.206	4.9	LOS A	1.7	11.7	0.30	0.40	51.0
6	R	23	0.0	0.207	14.0	LOS A	1.7	11.7	0.30	0.87	45.3
Approach		295	0.4	0.206	5.8	LOS A	1.7	11.7	0.30	0.46	50.3
North: Chapman Street											
7	L	2	0.0	0.002	6.7	LOS A	0.0	0.1	0.48	0.45	48.9
8	T	1	0.0	0.002	6.0	LOS A	0.0	0.1	0.50	0.40	49.0
9	R	1	0.0	0.002	12.8	LOS A	0.0	0.1	0.50	0.64	45.8
Approach		4	0.0	0.002	8.1	LOS A	0.0	0.1	0.49	0.49	48.0
West: Smith Street (West)											
10	L	5	0.0	0.039	6.0	LOS A	0.2	1.1	0.27	0.49	50.5
11	T	187	0.0	0.155	4.7	LOS A	1.2	8.6	0.26	0.38	51.2
12	R	95	0.0	0.155	11.6	LOS A	1.2	8.6	0.26	0.76	46.4
Approach		287	0.0	0.155	7.0	LOS A	1.2	8.6	0.26	0.51	49.4
All Vehicles		749	0.1	0.206	6.9	LOS A	1.7	11.7	0.31	0.50	49.3

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

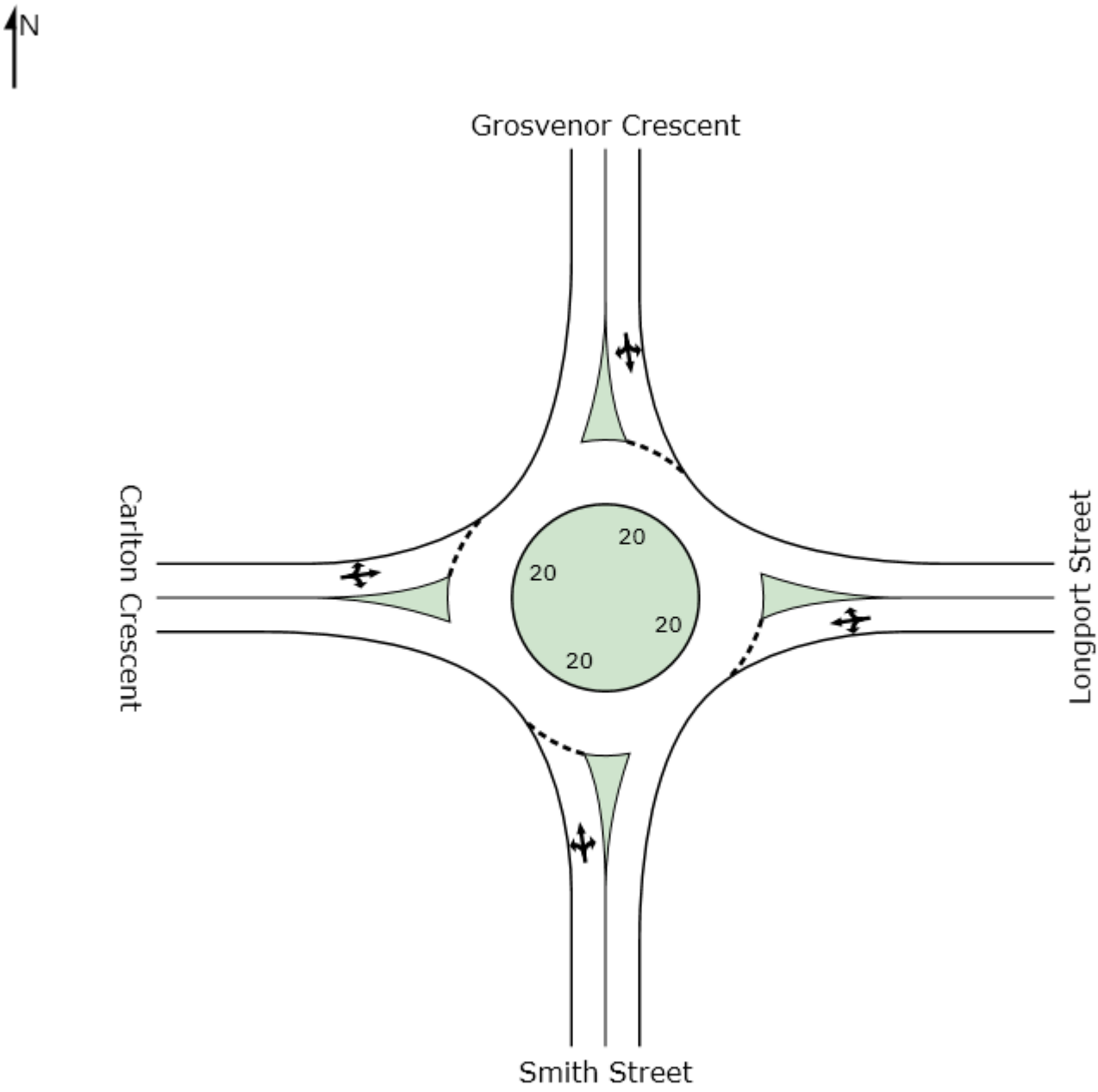
Site: PM (Existing+Mills) Lewisham

Edward St - Smth St-Chapman
PM (Existing+Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Edward Street											
1	L	94	0.0	0.083	6.2	LOS A	0.5	3.2	0.38	0.49	49.5
2	T	3	0.0	0.056	5.4	LOS A	0.4	2.8	0.41	0.41	49.3
3	R	66	0.0	0.056	12.2	LOS A	0.4	2.8	0.41	0.64	45.1
Approach		163	0.0	0.083	8.7	LOS A	0.5	3.2	0.39	0.55	47.5
East: Smith Street (East)											
4	L	81	0.0	0.206	5.8	LOS A	1.7	11.7	0.30	0.48	50.4
5	T	191	0.5	0.206	4.9	LOS A	1.7	11.7	0.30	0.40	51.0
6	R	23	0.0	0.207	14.0	LOS A	1.7	11.7	0.30	0.87	45.3
Approach		295	0.4	0.206	5.8	LOS A	1.7	11.7	0.30	0.46	50.3
North: Chapman Street											
7	L	2	0.0	0.002	6.7	LOS A	0.0	0.1	0.48	0.45	48.9
8	T	1	0.0	0.002	6.0	LOS A	0.0	0.1	0.50	0.40	49.0
9	R	1	0.0	0.002	12.8	LOS A	0.0	0.1	0.50	0.64	45.8
Approach		4	0.0	0.002	8.1	LOS A	0.0	0.1	0.49	0.49	48.0
West: Smith Street (West)											
10	L	5	0.0	0.039	6.0	LOS A	0.2	1.1	0.27	0.49	50.5
11	T	187	0.0	0.155	4.7	LOS A	1.2	8.6	0.26	0.38	51.2
12	R	95	0.0	0.155	11.6	LOS A	1.2	8.6	0.26	0.76	46.4
Approach		287	0.0	0.155	7.0	LOS A	1.2	8.6	0.26	0.51	49.4
All Vehicles		749	0.1	0.206	6.9	LOS A	1.7	11.7	0.31	0.50	49.3

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS A. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.


N
Grosvenor Crescent
Carlton Crescent
Longport Street
Smith Street
20
20
20
20

MOVEMENT SUMMARY

Site: AM Existing

Smith St - Longport St
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	2	0.0	0.526	15.2	LOS B	5.6	39.4	0.88	1.01	41.7
2	T	59	0.0	0.531	14.3	LOS A	5.6	39.4	0.88	1.00	41.9
3	R	321	0.0	0.529	20.1	LOS B	5.6	39.4	0.88	1.04	39.5
Approach		382	0.0	0.529	19.2	LOS B	5.6	39.4	0.88	1.03	39.9
East: Longport Street											
4	L	62	0.0	0.540	6.4	LOS A	6.7	47.4	0.22	0.48	49.8
5	T	313	2.0	0.540	5.6	LOS A	6.7	47.4	0.22	0.40	50.5
6	R	497	0.0	0.540	11.3	LOS A	6.7	47.4	0.22	0.70	46.0
Approach		872	0.7	0.540	8.9	LOS A	6.7	47.4	0.22	0.58	47.7
North: Grosvenor Crescent											
7	L	409	0.0	0.542	12.6	LOS A	5.8	40.5	0.86	0.94	44.5
8	T	19	0.0	0.541	11.7	LOS A	5.8	40.5	0.86	0.93	44.8
9	R	5	0.0	0.526	17.5	LOS B	5.8	40.5	0.86	0.98	41.9
Approach		434	0.0	0.541	12.6	LOS B	5.8	40.5	0.86	0.94	44.5
West: Carlton Crescent											
10	L	13	0.0	0.505	16.1	LOS B	5.5	38.5	0.93	1.04	42.2
11	T	316	0.3	0.515	15.2	LOS B	5.5	38.5	0.93	1.03	42.4
12	R	2	0.0	0.526	20.9	LOS B	5.5	38.5	0.93	1.07	40.0
Approach		331	0.3	0.515	15.2	LOS B	5.5	38.5	0.93	1.03	42.3
All Vehicles		2018	0.4	0.541	12.7	LOS A	6.7	47.4	0.60	0.82	44.4

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills +Lewisham

Smith St - Longport St-Grosvenor Cr-Carlton
AM (Existing+McGill + Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	2	0.0	0.702	20.4	LOS B	8.4	59.0	0.97	1.17	37.9
2	T	68	0.0	0.645	19.5	LOS B	8.4	59.0	0.97	1.17	38.0
3	R	353	0.0	0.645	25.3	LOS B	8.4	59.0	0.97	1.18	36.3
Approach		423	0.0	0.645	24.3	LOS B	8.4	59.0	0.97	1.18	36.6
East: Longport Street											
4	L	79	0.0	0.607	6.5	LOS A	8.1	56.8	0.27	0.48	49.4
5	T	346	2.0	0.608	5.7	LOS A	8.1	56.8	0.27	0.41	50.0
6	R	542	0.0	0.608	11.4	LOS A	8.1	56.8	0.27	0.68	45.8
Approach		967	0.7	0.608	9.0	LOS A	8.1	56.8	0.27	0.57	47.5
North: Grosvenor Crescent											
7	L	409	0.0	0.578	14.2	LOS A	6.6	46.3	0.90	1.01	43.2
8	T	19	0.0	0.574	13.3	LOS A	6.6	46.3	0.90	1.00	43.3
9	R	5	0.0	0.585	19.0	LOS B	6.6	46.3	0.90	1.04	40.8
Approach		434	0.0	0.578	14.2	LOS B	6.6	46.3	0.90	1.01	43.1
West: Carlton Crescent											
10	L	13	0.0	0.602	20.5	LOS B	7.2	50.2	0.99	1.14	38.8
11	T	316	0.3	0.592	19.6	LOS B	7.2	50.2	0.99	1.14	38.9
12	R	11	0.0	0.585	25.4	LOS B	7.2	50.2	0.99	1.15	37.1
Approach		339	0.3	0.593	19.9	LOS B	7.2	50.2	0.99	1.14	38.9
All Vehicles		2163	0.4	0.645	14.7	LOS B	8.4	59.0	0.65	0.86	42.6

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills)
Aug

Smith St - Longport St-Grosvenor Cr-Carlton
AM (Existing+McGill + Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	2	0.0	0.702	17.8	LOS B	7.4	51.8	0.93	1.11	39.8
2	T	68	0.0	0.605	16.9	LOS B	7.4	51.8	0.93	1.10	39.9
3	R	353	0.0	0.608	22.6	LOS B	7.4	51.8	0.93	1.12	37.9
Approach		423	0.0	0.608	21.7	LOS B	7.4	51.8	0.93	1.12	38.2
East: Longport Street											
4	L	79	0.0	0.576	6.5	LOS A	7.2	50.9	0.26	0.48	49.5
5	T	322	2.0	0.575	5.7	LOS A	7.2	50.9	0.26	0.41	50.1
6	R	513	0.0	0.575	11.4	LOS A	7.2	50.9	0.26	0.69	45.8
Approach		914	0.7	0.576	9.0	LOS A	7.2	50.9	0.26	0.57	47.5
North: Grosvenor Crescent											
7	L	409	0.0	0.573	14.0	LOS A	6.5	45.5	0.90	1.00	43.3
8	T	19	0.0	0.574	13.1	LOS A	6.5	45.5	0.90	0.99	43.5
9	R	5	0.0	0.585	18.8	LOS B	6.5	45.5	0.90	1.03	40.9
Approach		434	0.0	0.573	14.0	LOS B	6.5	45.5	0.90	1.00	43.3
West: Carlton Crescent											
10	L	13	0.0	0.574	19.0	LOS B	6.7	46.8	0.97	1.12	39.9
11	T	316	0.3	0.572	18.1	LOS B	6.7	46.8	0.97	1.11	40.1
12	R	11	0.0	0.585	23.8	LOS B	6.7	46.8	0.97	1.13	38.1
Approach		339	0.3	0.572	18.3	LOS B	6.7	46.8	0.97	1.11	40.0
All Vehicles		2109	0.4	0.608	14.1	LOS A	7.4	51.8	0.64	0.86	43.2

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: PM Existing

Smith St - Longport St
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	5	0.0	0.439	14.2	LOS A	4.1	28.8	0.95	0.98	42.8
2	T	81	0.0	0.422	13.3	LOS A	4.1	28.8	0.95	0.97	43.0
3	R	148	0.0	0.423	19.0	LOS B	4.1	28.8	0.95	0.99	40.5
Approach		235	0.0	0.423	16.9	LOS B	4.1	28.8	0.95	0.98	41.4
East: Longport Street											
4	L	104	0.0	0.739	7.9	LOS A	10.7	75.2	0.71	0.60	46.9
5	T	460	1.1	0.740	7.0	LOS A	10.7	75.2	0.71	0.57	46.8
6	R	412	0.0	0.740	12.7	LOS A	10.7	75.2	0.71	0.69	45.1
Approach		976	0.5	0.740	9.5	LOS A	10.7	75.2	0.71	0.62	46.1
North: Grosvenor Crescent											
7	L	234	0.0	0.436	10.1	LOS A	3.9	27.5	0.79	0.82	46.7
8	T	106	0.0	0.436	9.2	LOS A	3.9	27.5	0.79	0.80	46.5
9	R	24	0.0	0.432	15.0	LOS B	3.9	27.5	0.79	0.89	44.0
Approach		364	0.0	0.436	10.2	LOS B	3.9	27.5	0.79	0.82	46.4
West: Carlton Crescent											
10	L	62	0.0	0.591	13.6	LOS A	6.9	48.3	0.88	0.99	44.2
11	T	389	0.3	0.592	12.7	LOS A	6.9	48.3	0.88	0.98	44.3
12	R	22	0.0	0.597	18.4	LOS B	6.9	48.3	0.88	1.03	41.6
Approach		474	0.2	0.592	13.1	LOS B	6.9	48.3	0.88	0.98	44.2
All Vehicles		2048	0.3	0.740	11.3	LOS A	10.7	75.2	0.79	0.78	45.1

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills +Lewisham

Smith St - Longport St-Grosvenor Cr-Carlton
PM (Existing+McGill+Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	5	0.0	0.526	16.9	LOS B	5.6	39.4	1.00	1.07	40.6
2	T	86	0.0	0.514	16.0	LOS B	5.6	39.4	1.00	1.07	40.7
3	R	166	0.0	0.513	21.8	LOS B	5.6	39.4	1.00	1.07	38.7
Approach		258	0.0	0.514	19.8	LOS B	5.6	39.4	1.00	1.07	39.3
East: Longport Street											
4	L	159	0.0	0.815	9.2	LOS A	14.7	103.1	0.85	0.66	46.2
5	T	475	1.1	0.816	8.3	LOS A	14.7	103.1	0.85	0.64	45.9
6	R	426	0.0	0.817	14.1	LOS A	14.7	103.1	0.85	0.70	44.6
Approach		1060	0.5	0.816	10.8	LOS A	14.7	103.1	0.85	0.67	45.4
North: Grosvenor Crescent											
7	L	234	0.0	0.460	10.9	LOS A	4.4	30.7	0.83	0.87	46.2
8	T	106	0.0	0.460	10.0	LOS A	4.4	30.7	0.83	0.85	46.2
9	R	24	0.0	0.457	15.8	LOS B	4.4	30.7	0.83	0.92	43.3
Approach		364	0.0	0.460	11.0	LOS B	4.4	30.7	0.83	0.87	46.0
West: Carlton Crescent											
10	L	62	0.0	0.647	15.5	LOS B	8.3	58.4	0.94	1.07	42.5
11	T	389	0.3	0.647	14.6	LOS B	8.3	58.4	0.94	1.06	42.6
12	R	39	0.0	0.649	20.3	LOS B	8.3	58.4	0.94	1.09	40.3
Approach		491	0.2	0.647	15.2	LOS B	8.3	58.4	0.94	1.06	42.4
All Vehicles		2173	0.3	0.816	12.9	LOS A	14.7	103.1	0.88	0.84	44.0

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.

MOVEMENT SUMMARY

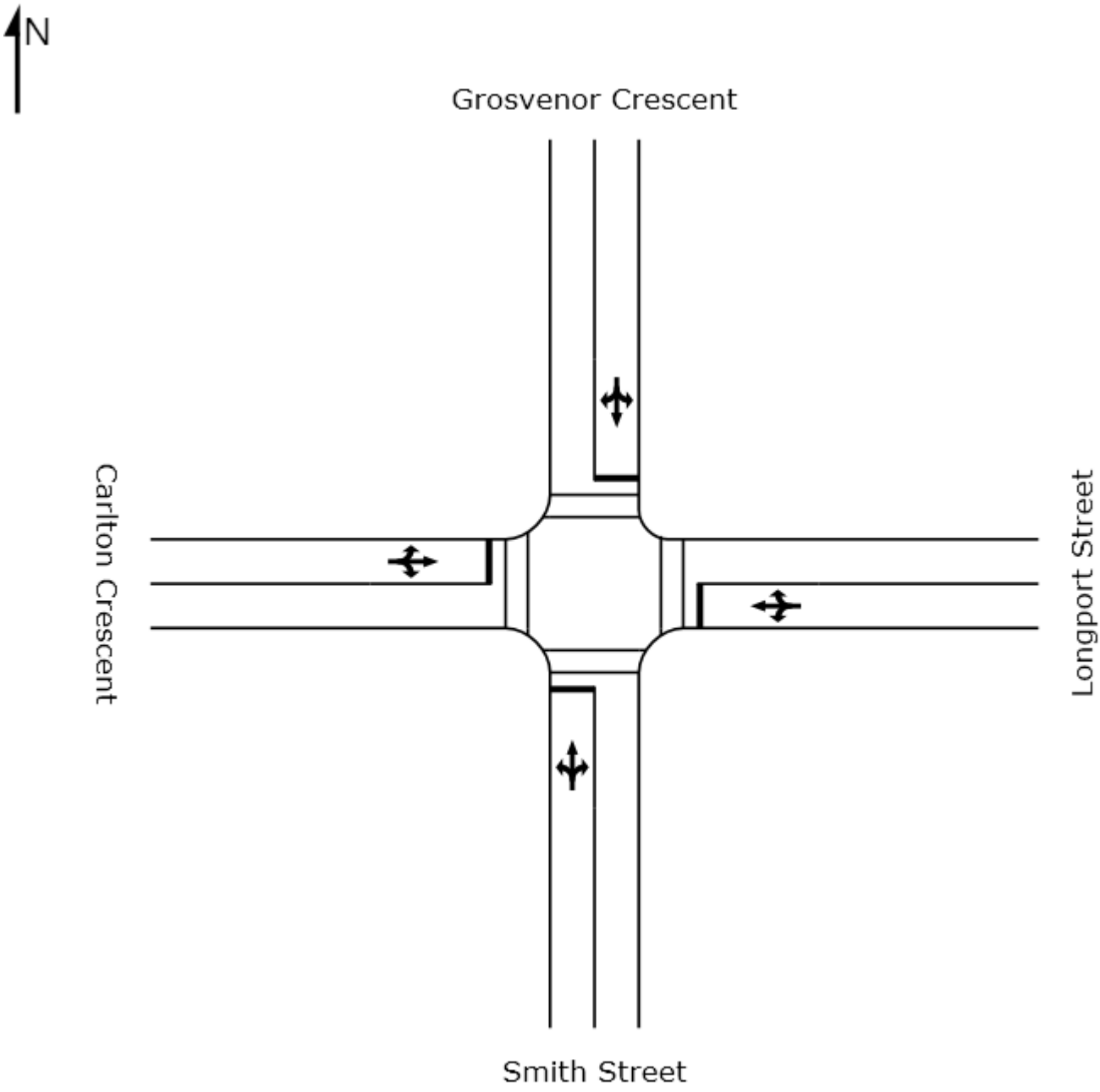
Site: PM (Existing+McGill+Mills)
Aug

Smith St - Longport St-Grosvenor Cr-Carlton
PM (Existing+McGill+Mills Traffic)
August 2010
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	5	0.0	0.478	16.0	LOS B	5.3	37.1	0.99	1.05	41.3
2	T	86	0.0	0.496	15.1	LOS B	5.3	37.1	0.99	1.05	41.4
3	R	166	0.0	0.495	20.9	LOS B	5.3	37.1	0.99	1.05	39.2
Approach		258	0.0	0.495	18.9	LOS B	5.3	37.1	0.99	1.05	40.0
East: Longport Street											
4	L	159	0.0	0.803	8.9	LOS A	13.8	96.8	0.82	0.65	46.3
5	T	467	1.1	0.803	8.1	LOS A	13.8	96.8	0.82	0.63	46.1
6	R	416	0.0	0.803	13.8	LOS A	13.8	96.8	0.82	0.70	44.8
Approach		1042	0.5	0.803	10.5	LOS A	13.8	96.8	0.82	0.66	45.6
North: Grosvenor Crescent											
7	L	234	0.0	0.455	10.8	LOS A	4.3	30.0	0.82	0.86	46.4
8	T	106	0.0	0.454	9.9	LOS A	4.3	30.0	0.82	0.84	46.3
9	R	24	0.0	0.457	15.6	LOS B	4.3	30.0	0.82	0.91	43.4
Approach		364	0.0	0.455	10.8	LOS B	4.3	30.0	0.82	0.86	46.2
West: Carlton Crescent											
10	L	62	0.0	0.640	15.0	LOS B	8.0	56.4	0.93	1.05	42.9
11	T	389	0.3	0.637	14.2	LOS A	8.0	56.4	0.93	1.04	43.0
12	R	39	0.0	0.638	19.9	LOS B	8.0	56.4	0.93	1.08	40.6
Approach		491	0.2	0.638	14.7	LOS B	8.0	56.4	0.93	1.05	42.8
All Vehicles		2155	0.3	0.803	12.5	LOS A	13.8	96.8	0.87	0.83	44.3

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.
Roundabout Capacity Model: SIDRA Standard.


N
Grosvenor Crescent
Carlton Crescent
Longport Street
Smith Street

MOVEMENT SUMMARY

Site: AM (Existing+McGill+Mills +Lewisham - Conversion

Smith St - Longport St-Grosvenor Cr-Carlton
AM (Existing+McGill + Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	2	0.0	1.754	703.5	LOS F	108.1	757.0	1.00	2.09	2.9
2	T	68	0.0	1.661	695.3	LOS F	108.1	757.0	1.00	2.09	3.0
3	R	353	0.0	1.667	703.6	LOS F	108.1	757.0	1.00	2.09	2.9
Approach		423	0.0	1.668	702.3	LOS F	108.1	757.0	1.00	2.09	2.9
East: Longport Street											
4	L	79	0.0	1.745	752.4	LOS F	255.0	1796.0	1.00	2.39	2.8
5	T	346	2.0	1.734	744.2	LOS F	255.0	1796.0	1.00	2.39	2.8
6	R	542	0.0	1.737	752.6	LOS F	255.0	1796.0	1.00	2.39	2.8
Approach		967	0.7	1.736	749.6	LOS F	255.0	1796.0	1.00	2.39	2.8
North: Grosvenor Crescent											
7	L	409	0.0	0.569	45.3	LOS D	24.9	174.5	0.83	0.85	26.7
8	T	19	0.0	0.571	37.1	LOS C	24.9	174.5	0.83	0.74	27.3
9	R	5	0.0	0.564	45.4	LOS D	24.9	174.5	0.83	0.85	26.7
Approach		434	0.0	0.569	44.9	LOS D	24.9	174.5	0.83	0.84	26.8
West: Carlton Crescent											
10	L	13	0.0	0.374	30.8	LOS C	15.8	111.0	0.64	0.94	33.7
11	T	316	0.3	0.374	22.6	LOS B	15.8	111.0	0.64	0.56	35.5
12	R	11	0.0	0.374	31.0	LOS C	15.8	111.0	0.64	0.96	33.7
Approach		339	0.3	0.374	23.2	LOS B	15.8	111.0	0.64	0.59	35.4
All Vehicles		2163	0.4	1.736	485.2	LOS F	255.0	1796.0	0.91	1.74	4.2

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	20.3	LOS C	0.1	0.1	0.52	0.52
P3	Across E approach	53	30.7	LOS D	0.1	0.1	0.64	0.64
P5	Across N approach	53	20.3	LOS C	0.1	0.1	0.52	0.52
P7	Across W approach	53	30.7	LOS D	0.1	0.1	0.64	0.64
All Pedestrians		212	25.5				0.58	0.58

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM (Existing+McGill+Mills +Lewisham - Conversion

Smith St - Longport St-Grosvenor Cr-Carlton
PM (Existing+McGill+Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

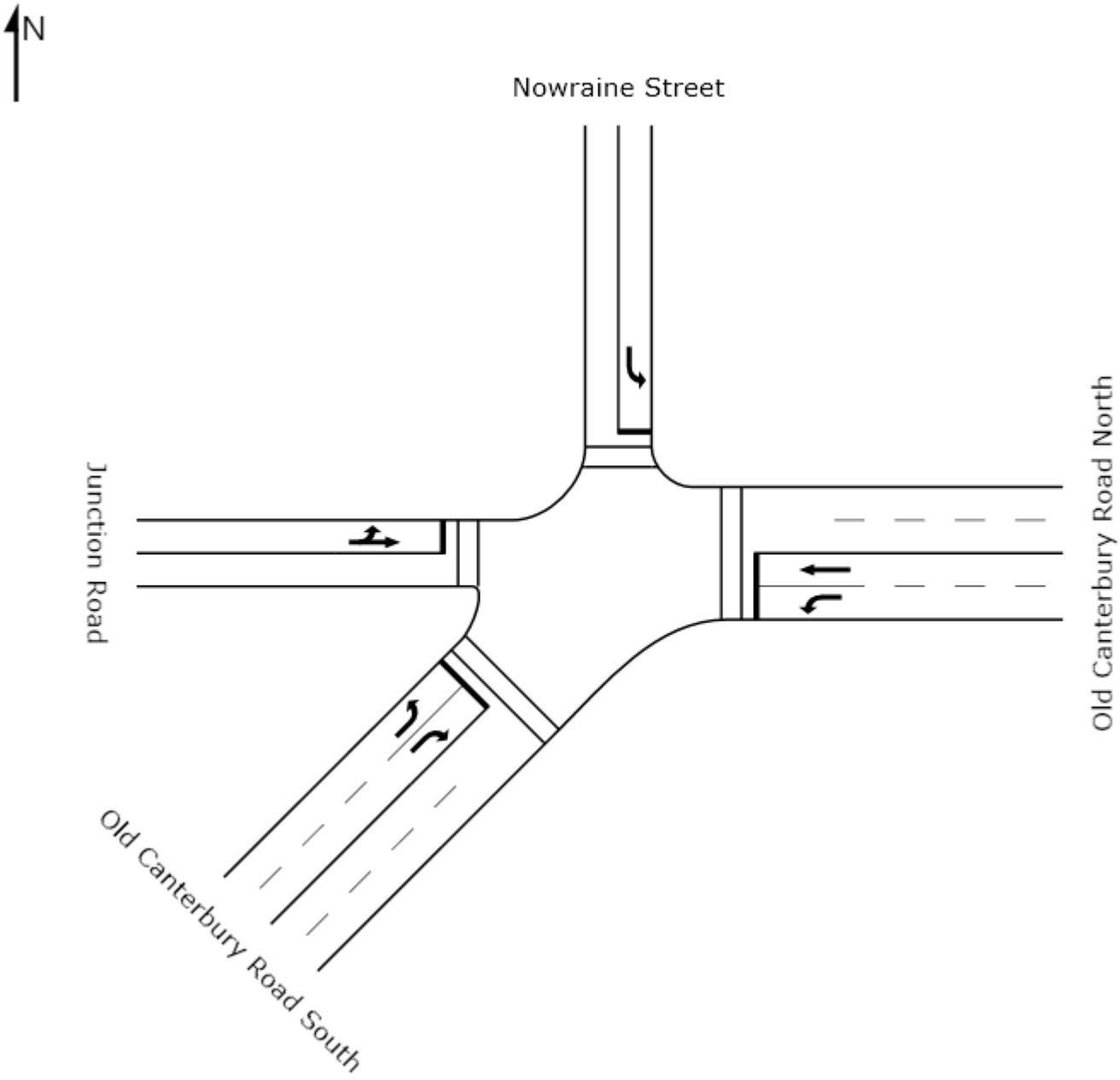
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Smith Street											
1	L	5	0.0	1.794	899.7	LOS F	72.3	506.4	1.00	2.34	2.3
2	T	86	0.0	1.882	891.5	LOS F	72.3	506.4	1.00	2.34	2.3
3	R	166	0.0	1.878	899.9	LOS F	72.3	506.4	1.00	2.34	2.3
Approach		258	0.0	1.878	897.1	LOS F	72.3	506.4	1.00	2.34	2.3
East: Longport Street											
4	L	159	0.0	1.857	868.0	LOS F	300.0	2109.3	1.00	2.65	2.4
5	T	475	1.1	1.863	859.8	LOS F	300.0	2109.3	1.00	2.65	2.4
6	R	426	0.0	1.863	868.1	LOS F	300.0	2109.3	1.00	2.65	2.4
Approach		1060	0.5	1.863	864.4	LOS F	300.0	2109.3	1.00	2.65	2.4
North: Grosvenor Crescent											
7	L	234	0.0	0.785	65.5	LOS E	26.1	182.5	0.99	0.89	21.6
8	T	106	0.0	0.785	57.3	LOS E	26.1	182.5	0.99	0.89	21.7
9	R	24	0.0	0.785	65.7	LOS E	26.1	182.5	0.99	0.89	21.6
Approach		364	0.0	0.785	63.1	LOS E	26.1	182.5	0.99	0.89	21.7
West: Carlton Crescent											
10	L	62	0.0	0.679	25.4	LOS B	22.9	160.6	0.67	0.93	36.6
11	T	389	0.3	0.678	17.3	LOS B	22.9	160.6	0.67	0.62	38.5
12	R	39	0.0	0.679	25.6	LOS B	22.9	160.6	0.67	0.95	36.6
Approach		491	0.2	0.678	19.0	LOS B	22.9	160.6	0.67	0.68	38.1
All Vehicles		2173	0.3	1.878	543.1	LOS F	300.0	2109.3	0.93	1.87	3.7

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	11.2	LOS B	0.1	0.1	0.39	0.39
P3	Across E approach	53	44.9	LOS E	0.2	0.2	0.77	0.77
P5	Across N approach	53	11.2	LOS B	0.1	0.1	0.39	0.39
P7	Across W approach	53	44.9	LOS E	0.2	0.2	0.77	0.77
All Pedestrians		212	28.0				0.58	0.58

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).


N
Nowraine Street
Junction Road
Old Canterbury Road North
Old Canterbury Road South

MOVEMENT SUMMARY

Site: AM Existing

Old Canterburt Road - Junction Road - Nowraine Street
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Old Canterbury Road North											
4	L	417	1.0	0.278	11.0	LOS A	8.8	62.4	0.26	0.70	46.0
5	T	165	2.0	0.358	52.0	LOS D	11.7	83.0	0.88	0.74	23.4
Approach		582	1.3	0.358	22.7	LOS B	11.7	83.0	0.44	0.71	36.4
North: Nowraine Street											
7	L	25	0.0	0.340	87.6	LOS F	2.8	19.8	1.00	0.71	16.7
Approach		25	0.0	0.340	87.6	LOS F	2.8	19.8	1.00	0.71	16.7
West: Junction Road											
10	L	4	0.0	0.877	83.3	LOS F	22.2	159.0	1.00	1.02	17.1
11	T	264	2.9	0.877	76.9	LOS F	22.2	159.0	1.00	1.02	17.6
Approach		268	2.9	0.877	77.0	LOS F	22.2	159.0	1.00	1.02	17.5
South West: Old Canterbury Road South											
30	L	22	0.0	0.022	25.4	LOS B	1.1	8.0	0.49	0.70	34.4
32	R	888	1.0	0.903	50.0	LOS D	64.3	454.2	0.98	0.96	25.2
Approach		911	1.0	0.903	49.4	LOS D	64.3	454.2	0.97	0.95	25.3
All Vehicles		1786	1.3	0.903	45.4	LOS D	64.3	454.2	0.80	0.88	25.9

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	69.1	LOS F	0.2	0.2	0.96	0.96
P5	Across N approach	53	64.4	LOS F	0.2	0.2	0.93	0.93
P7	Across W approach	53	64.4	LOS F	0.2	0.2	0.93	0.93
P15	Across SW approach	53	69.1	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		212	66.8				0.94	0.94

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS F. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM, McGill Lewisham Towers Devs

Old Canterburt Road - Junction Road - Nowraine Street
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Old Canterbury Road North											
4	L	449	1.0	0.300	11.1	LOS A	9.6	67.7	0.27	0.70	45.9
5	T	165	2.0	0.368	52.9	LOS D	11.7	83.6	0.89	0.74	23.2
Approach		615	1.3	0.368	22.3	LOS B	11.7	83.6	0.43	0.71	36.6
North: Nowraine Street											
7	L	25	0.0	0.340	87.6	LOS F	2.8	19.8	1.00	0.71	16.7
Approach		25	0.0	0.340	87.6	LOS F	2.8	19.8	1.00	0.71	16.7
West: Junction Road											
10	L	4	0.0	0.915	90.3	LOS F	23.2	166.4	1.00	1.08	16.1
11	T	264	2.9	0.915	83.9	LOS F	23.2	166.4	1.00	1.08	16.6
Approach		268	2.9	0.915	84.0	LOS F	23.2	166.4	1.00	1.08	16.6
South West: Old Canterbury Road South											
30	L	22	0.0	0.022	24.9	LOS B	1.1	7.9	0.49	0.70	34.7
32	R	927	1.0	0.931	57.8	LOS E	73.5	518.7	1.00	0.99	23.1
Approach		949	1.0	0.931	57.1	LOS E	73.5	518.7	0.99	0.98	23.2
All Vehicles		1858	1.3	0.931	49.9	LOS D	73.5	518.7	0.81	0.90	24.6

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	69.1	LOS F	0.2	0.2	0.96	0.96
P5	Across N approach	53	64.4	LOS F	0.2	0.2	0.93	0.93
P7	Across W approach	53	64.4	LOS F	0.2	0.2	0.93	0.93
P15	Across SW approach	53	69.1	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		212	66.8				0.94	0.94

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS F. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM, McGill Devs

Old Canterburt Road - Junction Road - Nowraine Street
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Old Canterbury Road North											
4	L	462	1.0	0.308	11.1	LOS A	9.9	69.7	0.27	0.70	45.9
5	T	165	2.0	0.368	52.9	LOS D	11.7	83.6	0.89	0.74	23.2
Approach		627	1.3	0.368	22.1	LOS B	11.7	83.6	0.43	0.71	36.7
North: Nowraine Street											
7	L	25	0.0	0.340	87.6	LOS F	2.8	19.8	1.00	0.71	16.7
Approach		25	0.0	0.340	87.6	LOS F	2.8	19.8	1.00	0.71	16.7
West: Junction Road											
10	L	4	0.0	0.915	90.3	LOS F	23.2	166.4	1.00	1.08	16.1
11	T	264	2.9	0.915	83.9	LOS F	23.2	166.4	1.00	1.08	16.6
Approach		268	2.9	0.915	84.0	LOS F	23.2	166.4	1.00	1.08	16.6
South West: Old Canterbury Road South											
30	L	22	0.0	0.022	24.9	LOS B	1.1	7.9	0.49	0.70	34.7
32	R	913	1.0	0.917	52.9	LOS D	68.7	485.0	0.99	0.97	24.4
Approach		935	1.0	0.917	52.2	LOS D	68.7	485.0	0.98	0.96	24.5
All Vehicles		1856	1.3	0.917	47.1	LOS D	68.7	485.0	0.80	0.89	25.4

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	69.1	LOS F	0.2	0.2	0.96	0.96
P5	Across N approach	53	64.4	LOS F	0.2	0.2	0.93	0.93
P7	Across W approach	53	64.4	LOS F	0.2	0.2	0.93	0.93
P15	Across SW approach	53	69.1	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		212	66.8				0.94	0.94

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS F. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Existing

Old Canterburt Road - Junction Road - Nowraine Street
Signals - Fixed Time Cycle Time = 80 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Old Canterbury Road North											
4	L	277	0.3	0.230	13.6	LOS A	5.9	41.4	0.44	0.73	43.6
5	T	187	0.3	0.428	30.5	LOS C	8.1	56.9	0.90	0.75	31.0
Approach		464	0.3	0.428	20.4	LOS B	8.1	56.9	0.63	0.74	37.6
North: Nowraine Street											
7	L	16	0.0	0.113	46.6	LOS D	1.0	6.7	0.96	0.69	24.4
Approach		16	0.0	0.113	46.6	LOS D	1.0	6.7	0.96	0.69	24.4
West: Junction Road											
10	L	2	0.0	0.802	52.2	LOS D	6.8	47.8	1.00	0.94	22.9
11	T	116	1.0	0.812	45.8	LOS D	6.8	47.8	1.00	0.94	23.4
Approach		118	1.0	0.812	45.9	LOS D	6.8	47.8	1.00	0.94	23.4
South West: Old Canterbury Road South											
30	L	19	0.0	0.029	26.5	LOS B	0.8	5.3	0.68	0.70	33.7
32	R	507	0.6	0.784	35.7	LOS C	20.2	142.2	0.96	0.91	30.2
Approach		526	0.6	0.784	35.4	LOS C	20.2	142.2	0.95	0.90	30.3
All Vehicles		1124	0.5	0.812	30.5	LOS C	20.2	142.2	0.82	0.84	31.7

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	34.2	LOS D	0.1	0.1	0.93	0.93
P5	Across N approach	53	29.8	LOS C	0.1	0.1	0.86	0.86
P7	Across W approach	53	29.8	LOS C	0.1	0.1	0.86	0.86
P15	Across SW approach	53	34.2	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		212	32.0				0.89	0.89

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM, McGill Devs Lewisham

Old Canterburt Road - Junction Road - Nowraine Street
Signals - Fixed Time Cycle Time = 80 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Old Canterbury Road North											
4	L	346	0.3	0.288	13.9	LOS A	7.4	52.0	0.46	0.74	43.3
5	T	187	0.3	0.428	30.5	LOS C	8.1	56.9	0.90	0.75	31.0
Approach		534	0.3	0.428	19.7	LOS B	8.1	56.9	0.62	0.75	38.1
North: Nowraine Street											
7	L	16	0.0	0.113	46.6	LOS D	1.0	6.7	0.96	0.69	24.4
Approach		16	0.0	0.113	46.6	LOS D	1.0	6.7	0.96	0.69	24.4
West: Junction Road											
10	L	2	0.0	0.802	52.2	LOS D	6.8	47.8	1.00	0.94	22.9
11	T	116	1.0	0.812	45.8	LOS D	6.8	47.8	1.00	0.94	23.4
Approach		118	1.0	0.812	45.9	LOS D	6.8	47.8	1.00	0.94	23.4
South West: Old Canterbury Road South											
30	L	19	0.0	0.029	26.5	LOS B	0.8	5.3	0.68	0.70	33.7
32	R	615	0.6	0.950	60.7	LOS E	34.0	239.3	1.00	1.11	22.4
Approach		634	0.6	0.950	59.7	LOS E	34.0	239.3	0.99	1.10	22.6
All Vehicles		1301	0.5	0.950	41.9	LOS C	34.0	239.3	0.84	0.94	27.2

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	34.2	LOS D	0.1	0.1	0.93	0.93
P5	Across N approach	53	29.8	LOS C	0.1	0.1	0.86	0.86
P7	Across W approach	53	29.8	LOS C	0.1	0.1	0.86	0.86
P15	Across SW approach	53	34.2	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		212	32.0				0.89	0.89

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM, McGill

Old Canterburt Road - Junction Road - Nowraine Street
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

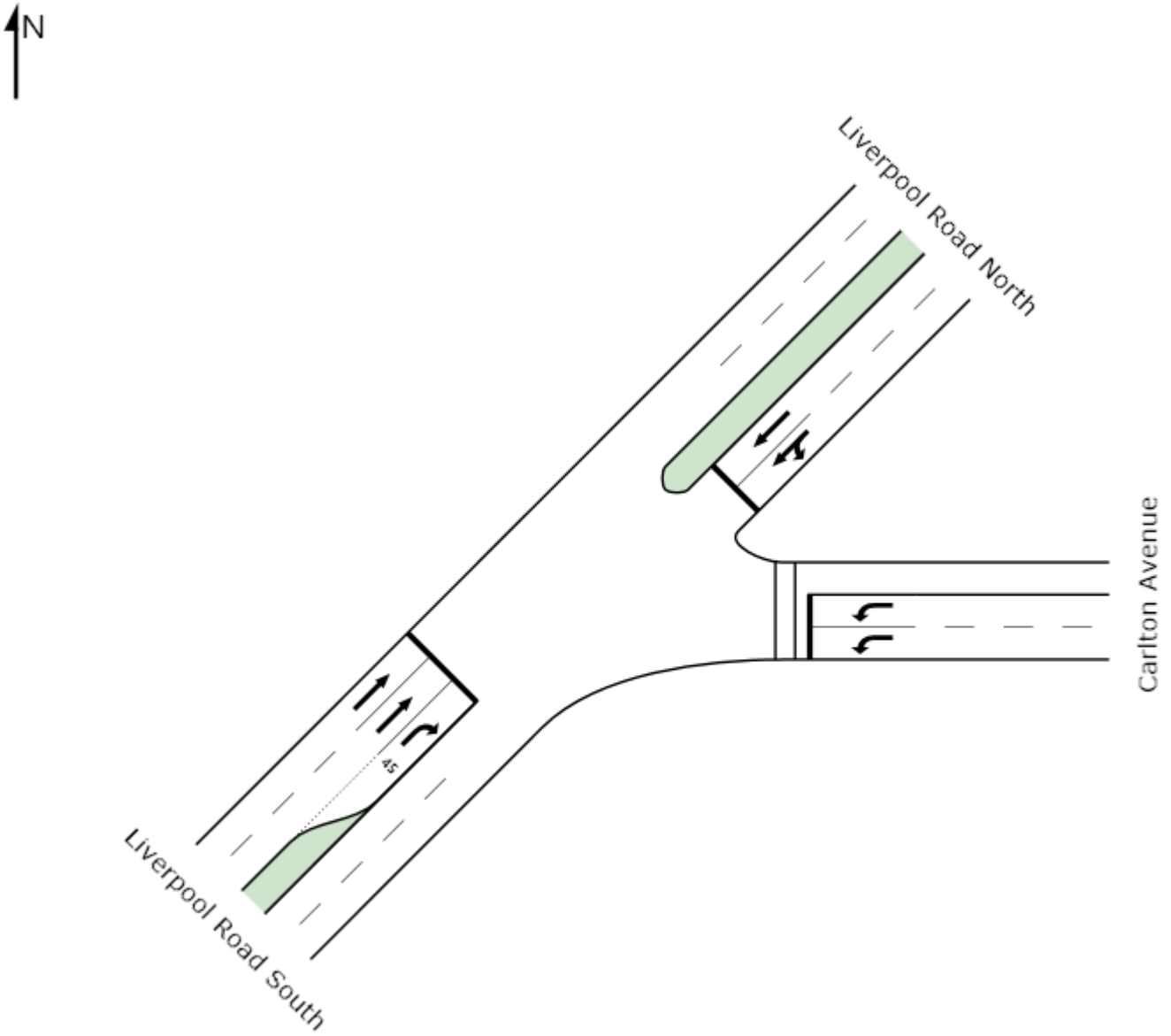
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Old Canterbury Road North											
4	L	315	0.3	0.247	13.0	LOS A	6.7	46.9	0.40	0.73	44.1
5	T	187	0.3	0.456	35.2	LOS C	9.0	63.4	0.92	0.76	28.9
Approach		502	0.3	0.456	21.3	LOS B	9.0	63.4	0.59	0.74	37.0
North: Nowraine Street											
7	L	16	0.0	0.128	52.3	LOS D	1.1	7.5	0.97	0.69	23.0
Approach		16	0.0	0.128	52.3	LOS D	1.1	7.5	0.97	0.69	23.0
West: Junction Road											
10	L	2	0.0	0.773	56.1	LOS D	7.3	51.6	1.00	0.91	22.0
11	T	116	1.0	0.783	49.7	LOS D	7.3	51.6	1.00	0.91	22.5
Approach		118	1.0	0.783	49.8	LOS D	7.3	51.6	1.00	0.91	22.5
South West: Old Canterbury Road South											
30	L	19	0.0	0.025	25.0	LOS B	0.8	5.3	0.62	0.70	34.6
32	R	582	0.6	0.766	33.5	LOS C	23.5	165.6	0.92	0.89	31.2
Approach		601	0.6	0.766	33.2	LOS C	23.5	165.6	0.91	0.88	31.2
All Vehicles		1237	0.5	0.783	30.2	LOS C	23.5	165.6	0.79	0.82	31.9

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	39.2	LOS D	0.1	0.1	0.93	0.93
P5	Across N approach	53	34.7	LOS D	0.1	0.1	0.88	0.88
P7	Across W approach	53	34.7	LOS D	0.1	0.1	0.88	0.88
P15	Across SW approach	53	39.2	LOS D	0.1	0.1	0.93	0.93
All Pedestrians		212	36.9				0.91	0.91

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).


N
Liverpool Road North
Carlton Avenue
45
Liverpool Road South

MOVEMENT SUMMARY

Site: AM Existing

Liverpool Road - Carlton Av
Signals - Fixed Time Cycle Time = 30 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlton Avenue											
4	L	378	2.0	0.516	18.2	LOS B	3.9	27.6	0.94	0.79	34.8
Approach		378	2.0	0.516	18.2	LOS B	3.9	27.6	0.94	0.79	34.8
North East: Liverpool Road North											
24	L	388	0.8	0.666	18.3	LOS B	8.3	58.8	0.87	0.89	40.6
25	T	624	1.3	0.666	9.1	LOS A	8.6	60.5	0.87	0.79	44.5
Approach		1013	1.1	0.666	12.6	LOS A	8.6	60.5	0.87	0.83	42.9
South West: Liverpool Road South											
31	T	1006	1.9	0.435	1.9	LOS A	3.2	22.9	0.58	0.32	50.4
32	R	443	2.4	0.666	12.6	LOS A	6.0	43.2	0.88	0.85	44.4
Approach		1449	2.0	0.666	5.2	LOS A	6.0	43.2	0.67	0.49	48.4
All Vehicles		2840	1.7	0.666	9.6	LOS A	8.6	60.5	0.78	0.65	44.2

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	8.1	LOS A	0.0	0.0	0.73	0.73
P4	Across E approach	53	6.7	LOS A	0.0	0.0	0.67	0.67
All Pedestrians		106	7.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS A. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM McGill Lewisham Towers

Liverpool Road - Carlton Av
Signals - Fixed Time Cycle Time = 30 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlton Avenue											
4	L	412	2.0	0.562	18.5	LOS B	4.3	30.3	0.95	0.82	34.6
Approach		412	2.0	0.562	18.5	LOS B	4.3	30.3	0.95	0.82	34.6
North East: Liverpool Road North											
24	L	397	0.8	0.672	18.4	LOS B	8.4	59.5	0.87	0.90	40.5
25	T	624	1.3	0.672	9.2	LOS A	8.7	61.3	0.87	0.80	44.4
Approach		1021	1.1	0.672	12.8	LOS A	8.7	61.3	0.87	0.84	42.8
South West: Liverpool Road South											
31	T	1006	1.9	0.435	1.9	LOS A	3.2	22.9	0.58	0.32	50.4
32	R	443	2.4	0.667	12.6	LOS A	6.1	43.3	0.88	0.85	44.4
Approach		1449	2.0	0.667	5.2	LOS A	6.1	43.3	0.67	0.49	48.4
All Vehicles		2882	1.7	0.672	9.8	LOS A	8.7	61.3	0.78	0.66	43.9

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	8.1	LOS A	0.0	0.0	0.73	0.73
P4	Across E approach	53	6.7	LOS A	0.0	0.0	0.67	0.67
All Pedestrians		106	7.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS A. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM McGill

Liverpool Road - Carlton Av
Signals - Fixed Time Cycle Time = 30 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlton Avenue											
4	L	387	2.0	0.529	18.2	LOS B	4.0	28.3	0.94	0.80	34.7
Approach		387	2.0	0.529	18.2	LOS B	4.0	28.3	0.94	0.80	34.7
North East: Liverpool Road North											
24	L	397	0.8	0.672	18.4	LOS B	8.4	59.5	0.87	0.90	40.5
25	T	624	1.3	0.672	9.2	LOS A	8.7	61.3	0.87	0.80	44.4
Approach		1021	1.1	0.672	12.8	LOS A	8.7	61.3	0.87	0.84	42.8
South West: Liverpool Road South											
31	T	1006	1.9	0.435	1.9	LOS A	3.2	22.9	0.58	0.32	50.4
32	R	443	2.4	0.667	12.6	LOS A	6.1	43.3	0.88	0.85	44.4
Approach		1449	2.0	0.667	5.2	LOS A	6.1	43.3	0.67	0.49	48.4
All Vehicles		2858	1.7	0.672	9.7	LOS A	8.7	61.3	0.78	0.65	44.1

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	8.1	LOS A	0.0	0.0	0.73	0.73
P4	Across E approach	53	6.7	LOS A	0.0	0.0	0.67	0.67
All Pedestrians		106	7.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS A. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM

Liverpool Road - Carlton Av
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlton Avenue											
4	L	442	0.5	0.796	27.7	LOS B	6.6	46.2	1.00	0.99	29.9
Approach		442	0.5	0.796	27.7	LOS B	6.6	46.2	1.00	0.99	29.9
North East: Liverpool Road North											
24	L	346	0.3	0.772	19.5	LOS B	15.8	110.9	0.84	0.98	40.6
25	T	1283	0.9	0.771	10.3	LOS A	16.0	112.7	0.84	0.83	43.4
Approach		1629	0.8	0.772	12.3	LOS A	16.0	112.7	0.84	0.87	42.8
South West: Liverpool Road South											
31	T	803	1.1	0.296	1.3	LOS A	2.4	17.2	0.40	0.23	52.9
32	R	419	1.5	0.785	20.7	LOS B	9.4	66.9	0.98	0.98	38.2
Approach		1222	1.2	0.785	7.9	LOS A	9.4	66.9	0.60	0.48	46.8
All Vehicles		3294	0.9	0.796	12.7	LOS A	16.0	112.7	0.77	0.74	41.8

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	6.1	LOS A	0.0	0.0	0.55	0.55
P4	Across E approach	53	5.0	LOS A	0.0	0.0	0.50	0.50
All Pedestrians		106	5.5				0.53	0.53

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS A. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM McGill Lewisham Towers

Liverpool Road - Carlton Av
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlton Avenue											
4	L	461	0.5	0.830	28.9	LOS C	7.0	49.2	1.00	1.04	29.4
Approach		461	0.5	0.830	28.9	LOS C	7.0	49.2	1.00	1.04	29.4
North East: Liverpool Road North											
24	L	411	0.3	0.803	21.1	LOS B	17.4	122.5	0.87	1.01	39.4
25	T	1283	0.9	0.803	11.9	LOS A	17.7	124.7	0.87	0.89	42.0
Approach		1694	0.8	0.803	14.1	LOS A	17.7	124.7	0.87	0.92	41.3
South West: Liverpool Road South											
31	T	803	1.1	0.296	1.3	LOS A	2.4	17.2	0.40	0.23	52.9
32	R	419	1.5	0.801	21.9	LOS B	9.6	67.7	0.98	1.00	37.4
Approach		1222	1.2	0.800	8.4	LOS A	9.6	67.7	0.60	0.49	46.4
All Vehicles		3377	0.9	0.830	14.1	LOS A	17.7	124.7	0.79	0.78	40.8

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	6.1	LOS A	0.0	0.0	0.55	0.55
P4	Across E approach	53	5.0	LOS A	0.0	0.0	0.50	0.50
All Pedestrians		106	5.5				0.53	0.53

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS A. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM McGill

Liverpool Road - Carlton Av
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

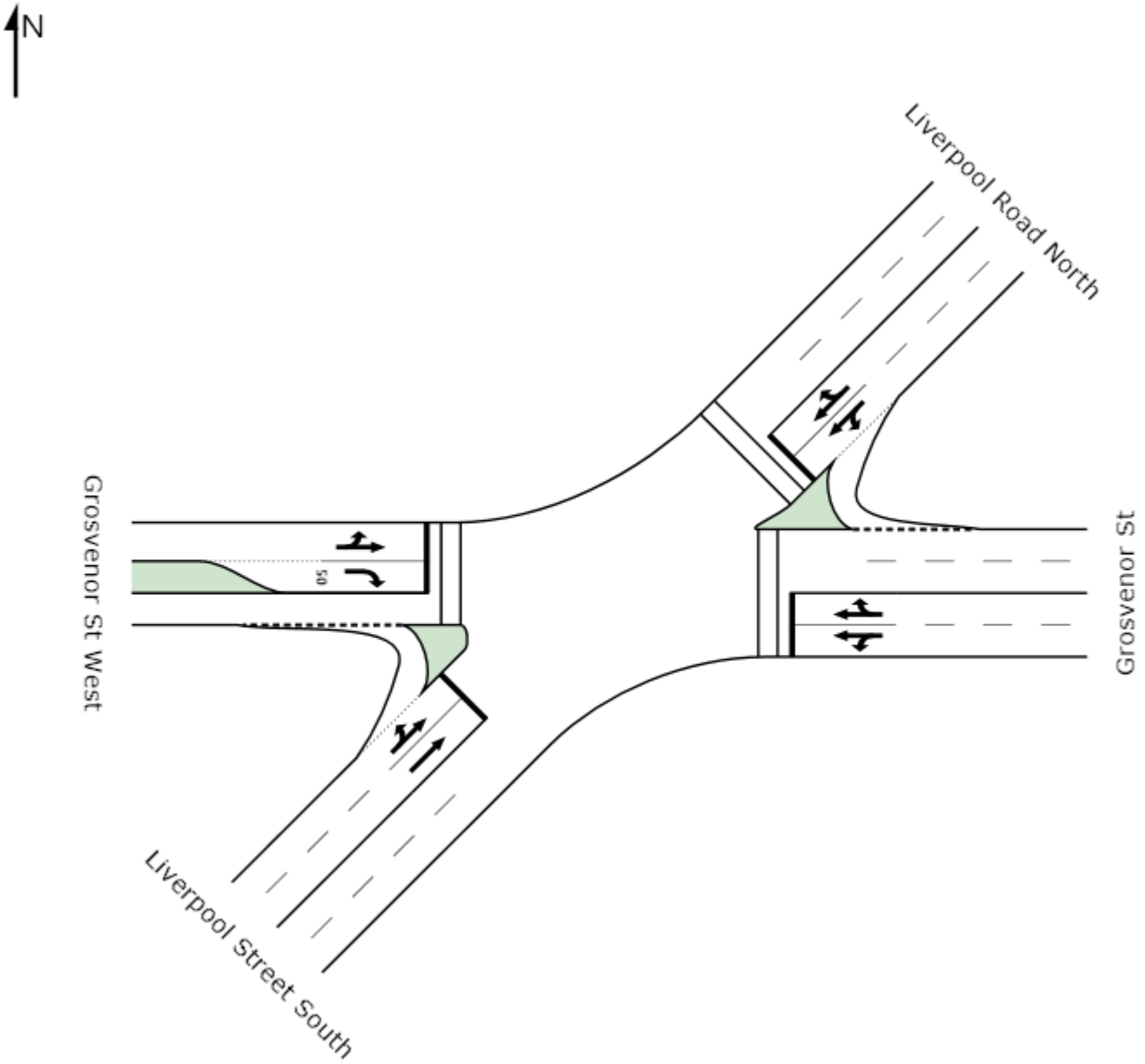
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Carlton Avenue											
4	L	449	0.5	0.809	28.1	LOS B	6.7	47.4	1.00	1.01	29.8
Approach		449	0.5	0.810	28.1	LOS B	6.7	47.4	1.00	1.01	29.8
North East: Liverpool Road North											
24	L	411	0.3	0.803	21.1	LOS B	17.4	122.5	0.87	1.01	39.4
25	T	1283	0.9	0.803	11.9	LOS A	17.7	124.7	0.87	0.89	42.0
Approach		1694	0.8	0.803	14.1	LOS A	17.7	124.7	0.87	0.92	41.3
South West: Liverpool Road South											
31	T	803	1.1	0.296	1.3	LOS A	2.4	17.2	0.40	0.23	52.9
32	R	419	1.5	0.801	21.9	LOS B	9.6	67.7	0.98	1.00	37.4
Approach		1222	1.2	0.800	8.4	LOS A	9.6	67.7	0.60	0.49	46.4
All Vehicles		3365	0.9	0.810	13.9	LOS A	17.7	124.7	0.79	0.78	40.9

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	6.1	LOS A	0.0	0.0	0.55	0.55
P4	Across E approach	53	5.0	LOS A	0.0	0.0	0.50	0.50
All Pedestrians		106	5.5				0.53	0.53

Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS A. LOS Method for individual pedestrian movements: Delay (HCM).


N
Liverpool Road North
Grosvenor St West
Grosvenor St
Liverpool Street South
50

MOVEMENT SUMMARY

Site: AM Existing

Liverpool Street - Grosvenor Street Intersection
Signals - Fixed Time Cycle Time = 60 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Grosvenor St											
4	L	51	0.0	0.204	33.8	LOS C	2.1	14.7	0.93	0.74	31.0
5	T	222	0.0	0.897	39.5	LOS C	10.2	71.1	1.00	1.08	27.1
6	R	11	0.0	0.897	47.5	LOS D	10.2	71.1	1.00	1.08	27.5
Approach		283	0.0	0.897	38.8	LOS C	10.2	71.1	0.99	1.02	27.8
North East: Liverpool Road North											
24	L	53	0.0	0.628	33.7	LOS C	11.3	79.7	0.90	0.91	32.9
25	T	622	1.4	0.629	23.3	LOS B	11.3	79.7	0.92	0.81	34.5
26	R	13	0.0	0.628	27.8	LOS B	10.1	71.6	0.93	0.85	34.8
Approach		687	1.2	0.629	24.2	LOS B	11.3	79.7	0.92	0.82	34.4
West: Grosvenor St West											
10	L	53	0.0	0.728	29.5	LOS C	12.8	89.6	0.97	0.91	30.2
11	T	337	0.0	0.728	23.8	LOS B	12.8	89.6	0.97	0.89	30.2
12	R	366	0.6	0.903	36.0	LOS C	13.1	92.5	0.97	0.94	26.8
Approach		756	0.3	0.903	30.1	LOS C	13.1	92.5	0.97	0.92	28.5
South West: Liverpool Street South											
30	L	152	1.4	0.879	37.9	LOS C	18.0	128.2	1.00	1.09	29.9
31	T	851	2.0	0.879	30.9	LOS C	19.0	135.2	1.00	1.09	30.6
Approach		1002	1.9	0.879	31.9	LOS C	19.0	135.2	1.00	1.09	30.5
All Vehicles		2728	1.1	0.903	30.2	LOS C	19.0	135.2	0.97	0.97	30.5

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	22.5	LOS C	0.1	0.1	0.87	0.87
P11	Across NE approach	53	24.3	LOS C	0.1	0.1	0.90	0.90
P7	Across W approach	53	20.8	LOS C	0.1	0.1	0.83	0.83
All Pedestrians		159	22.6				0.87	0.87

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM McGill Lewisham

Liverpool Street - Grosvenor Street Intersection
Signals - Fixed Time Cycle Time = 100 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Grosvenor St											
4	L	51	0.0	0.183	48.3	LOS D	3.2	22.7	0.91	0.75	25.7
5	T	258	0.0	0.917	62.0	LOS E	17.0	119.0	1.00	1.09	20.9
6	R	11	0.0	0.923	70.0	LOS E	17.0	119.0	1.00	1.09	21.5
Approach		319	0.0	0.917	60.1	LOS E	17.0	119.0	0.99	1.03	21.6
North East: Liverpool Road North											
24	L	53	0.0	0.693	49.1	LOS D	18.0	127.3	0.94	0.91	26.9
25	T	631	1.4	0.694	39.7	LOS C	18.0	127.3	0.96	0.85	27.3
26	R	13	0.0	0.694	45.2	LOS D	15.2	107.9	0.97	0.86	27.0
Approach		696	1.2	0.694	40.5	LOS C	18.0	127.3	0.96	0.85	27.3
West: Grosvenor St West											
10	L	53	0.0	0.577	32.2	LOS C	18.1	126.6	0.85	0.85	28.8
11	T	385	0.0	0.578	26.5	LOS B	18.1	126.6	0.85	0.74	29.1
12	R	318	0.6	1.000[3]	38.5	LOS C	13.1	92.5	0.99	0.84	26.0
Approach		756	0.3	1.000	31.9	LOS C	18.1	126.6	0.91	0.79	27.7
South West: Liverpool Street South											
30	L	152	1.4	0.914	59.8	LOS E	28.9	205.3	1.00	1.11	22.8
31	T	851	2.0	0.916	52.8	LOS D	30.5	217.0	1.00	1.11	23.4
Approach		1002	1.9	0.916	53.9	LOS D	30.5	217.0	1.00	1.11	23.3
All Vehicles		2773	1.1	1.000	45.3	LOS D	30.5	217.0	0.96	0.95	25.1

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	32.8	LOS D	0.1	0.1	0.81	0.81
P11	Across NE approach	53	25.9	LOS C	0.1	0.1	0.72	0.72
P7	Across W approach	53	31.2	LOS D	0.1	0.1	0.79	0.79
All Pedestrians		159	30.0				0.77	0.77

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM McGill

Liverpool Street - Grosvenor Street Intersection
Signals - Fixed Time Cycle Time = 100 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Grosvenor St											
4	L	51	0.0	0.194	49.4	LOS D	3.2	22.7	0.92	0.74	25.3
5	T	234	0.0	0.896	59.2	LOS E	15.3	107.0	1.00	1.05	21.5
6	R	11	0.0	0.895	67.2	LOS E	15.3	107.0	1.00	1.05	22.1
Approach		295	0.0	0.896	57.8	LOS E	15.3	107.0	0.99	1.00	22.2
North East: Liverpool Road North											
24	L	53	0.0	0.693	48.4	LOS D	18.0	127.3	0.94	0.91	27.1
25	T	631	1.4	0.694	39.3	LOS C	18.0	127.3	0.96	0.85	27.5
26	R	13	0.0	0.694	45.2	LOS D	15.2	107.9	0.97	0.86	27.0
Approach		696	1.2	0.694	40.1	LOS C	18.0	127.3	0.96	0.85	27.4
West: Grosvenor St West											
10	L	53	0.0	0.558	31.2	LOS C	17.6	123.3	0.83	0.85	29.2
11	T	381	0.0	0.557	25.5	LOS B	17.6	123.3	0.83	0.73	29.5
12	R	322	0.6	1.000[3]	38.0	LOS C	13.1	92.5	0.99	0.85	26.1
Approach		756	0.3	1.000	31.2	LOS C	17.6	123.3	0.90	0.79	27.9
South West: Liverpool Street South											
30	L	152	1.4	0.914	59.8	LOS E	28.9	205.3	1.00	1.11	22.8
31	T	851	2.0	0.916	52.8	LOS D	30.5	217.0	1.00	1.11	23.4
Approach		1002	1.9	0.916	53.9	LOS D	30.5	217.0	1.00	1.11	23.3
All Vehicles		2748	1.1	1.000	44.6	LOS D	30.5	217.0	0.96	0.94	25.3

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	32.8	LOS D	0.1	0.1	0.81	0.81
P11	Across NE approach	53	25.2	LOS C	0.1	0.1	0.71	0.71
P7	Across W approach	53	31.2	LOS D	0.1	0.1	0.79	0.79
All Pedestrians		159	29.7				0.77	0.77

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Existing

Liverpool Street - Grosvenor Street Intersection
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Grosvenor St											
4	L	46	0.0	0.168	42.8	LOS D	2.9	20.6	0.89	0.75	27.6
5	T	255	0.0	0.840	47.2	LOS D	14.6	102.0	1.00	0.98	24.5
6	R	23	0.0	0.842	55.5	LOS D	14.6	102.0	1.00	0.98	25.0
Approach		324	0.0	0.840	47.2	LOS D	14.6	102.0	0.98	0.94	25.0
North East: Liverpool Road North											
24	L	57	0.0	0.856	48.2	LOS D	34.8	245.5	0.96	1.03	27.2
25	T	1345	0.9	0.852	35.7	LOS C	34.8	245.5	0.96	0.98	28.8
26	R	31	0.0	0.853	37.7	LOS C	31.0	218.8	0.97	1.00	29.8
Approach		1433	0.9	0.852	36.2	LOS C	34.8	245.5	0.96	0.98	28.8
West: Grosvenor St West											
10	L	58	0.0	0.732	46.1	LOS D	13.0	91.2	1.00	0.89	24.2
11	T	202	0.0	0.732	40.4	LOS C	13.0	91.2	1.00	0.89	24.2
12	R	229	0.0	0.859	54.6	LOS D	12.7	88.9	0.99	0.97	21.6
Approach		489	0.0	0.859	47.7	LOS D	13.0	91.2	1.00	0.93	22.9
South West: Liverpool Street South											
30	L	114	1.4	0.470	25.2	LOS B	12.6	88.9	0.73	0.91	35.9
31	T	689	1.2	0.470	17.8	LOS B	14.0	99.3	0.74	0.65	38.2
Approach		803	1.2	0.470	18.8	LOS B	14.0	99.3	0.74	0.69	37.9
All Vehicles		3049	0.7	0.859	34.7	LOS C	34.8	245.5	0.91	0.89	29.0

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	19.3	LOS B	0.1	0.1	0.66	0.66
P11	Across NE approach	53	39.2	LOS D	0.1	0.1	0.93	0.93
P7	Across W approach	53	18.1	LOS B	0.1	0.1	0.63	0.63
All Pedestrians		159	25.5				0.74	0.74

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM McGill Lewisham

Liverpool Street - Grosvenor Street Intersection
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Grosvenor St											
4	L	65	0.0	0.211	43.2	LOS D	3.6	25.5	0.90	0.75	27.3
5	T	260	0.0	0.875	50.5	LOS D	15.6	109.1	1.00	1.03	23.6
6	R	23	0.0	0.874	58.5	LOS E	15.6	109.1	1.00	1.03	24.1
Approach		348	0.0	0.875	49.7	LOS D	15.6	109.1	0.98	0.98	24.3
North East: Liverpool Road North											
24	L	57	0.0	0.886	54.1	LOS D	39.5	278.3	0.98	1.08	25.5
25	T	1409	0.9	0.889	41.3	LOS C	39.5	278.3	0.99	1.06	26.8
26	R	31	0.0	0.892	43.1	LOS D	35.4	249.4	0.99	1.07	27.7
Approach		1497	0.9	0.889	41.8	LOS C	39.5	278.3	0.99	1.06	26.8
West: Grosvenor St West											
10	L	58	0.0	0.732	46.1	LOS D	13.0	91.2	1.00	0.89	24.2
11	T	202	0.0	0.732	40.4	LOS C	13.0	91.2	1.00	0.89	24.2
12	R	229	0.0	0.859	54.6	LOS D	12.7	88.9	0.99	0.97	21.6
Approach		489	0.0	0.859	47.7	LOS D	13.0	91.2	1.00	0.93	22.9
South West: Liverpool Street South											
30	L	114	1.4	0.470	25.2	LOS B	12.6	88.9	0.73	0.91	35.9
31	T	689	1.2	0.470	17.8	LOS B	14.0	99.3	0.74	0.65	38.2
Approach		803	1.2	0.470	18.8	LOS B	14.0	99.3	0.74	0.69	37.9
All Vehicles		3138	0.7	0.889	37.7	LOS C	39.5	278.3	0.92	0.94	27.9

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	19.3	LOS B	0.1	0.1	0.66	0.66
P11	Across NE approach	53	39.2	LOS D	0.1	0.1	0.93	0.93
P7	Across W approach	53	18.1	LOS B	0.1	0.1	0.63	0.63
All Pedestrians		159	25.5				0.74	0.74

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM McGill

Liverpool Street - Grosvenor Street Intersection
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

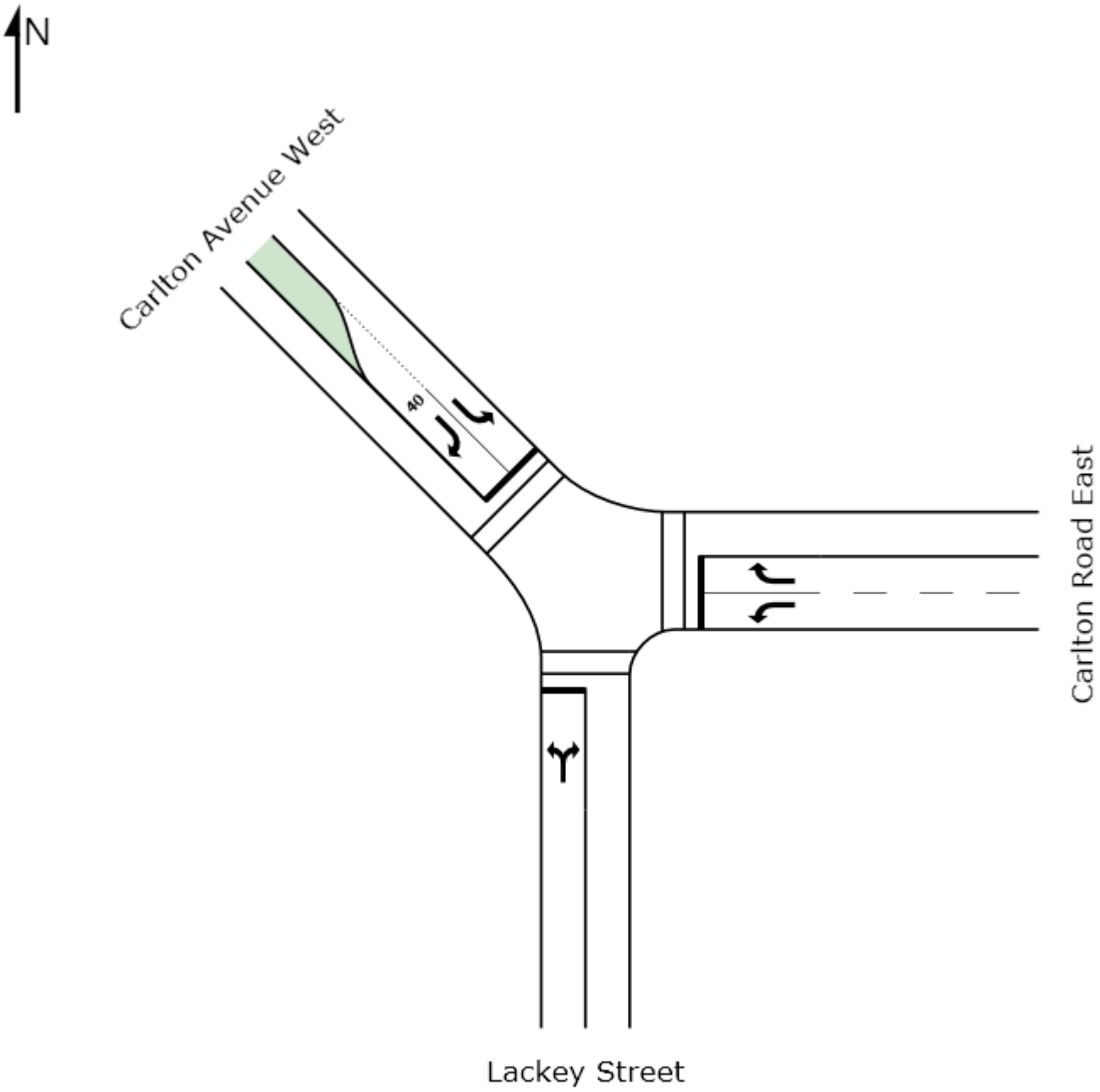
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Grosvenor St											
4	L	46	0.0	0.171	42.9	LOS D	3.0	21.0	0.89	0.75	27.6
5	T	260	0.0	0.854	48.2	LOS D	14.9	104.6	1.00	0.99	24.2
6	R	23	0.0	0.852	56.5	LOS E	14.9	104.6	1.00	1.00	24.7
Approach		329	0.0	0.854	48.0	LOS D	14.9	104.6	0.98	0.96	24.7
North East: Liverpool Road North											
24	L	57	0.0	0.886	54.1	LOS D	39.5	278.3	0.98	1.08	25.5
25	T	1409	0.9	0.889	41.3	LOS C	39.5	278.3	0.99	1.06	26.8
26	R	31	0.0	0.892	43.1	LOS D	35.4	249.4	0.99	1.07	27.7
Approach		1497	0.9	0.889	41.8	LOS C	39.5	278.3	0.99	1.06	26.8
West: Grosvenor St West											
10	L	58	0.0	0.732	46.1	LOS D	13.0	91.2	1.00	0.89	24.2
11	T	202	0.0	0.732	40.4	LOS C	13.0	91.2	1.00	0.89	24.2
12	R	229	0.0	0.859	54.6	LOS D	12.7	88.9	0.99	0.97	21.6
Approach		489	0.0	0.859	47.7	LOS D	13.0	91.2	1.00	0.93	22.9
South West: Liverpool Street South											
30	L	114	1.4	0.470	25.2	LOS B	12.6	88.9	0.73	0.91	35.9
31	T	689	1.2	0.470	17.8	LOS B	14.0	99.3	0.74	0.65	38.2
Approach		803	1.2	0.470	18.8	LOS B	14.0	99.3	0.74	0.69	37.9
All Vehicles		3119	0.7	0.889	37.5	LOS C	39.5	278.3	0.92	0.93	28.0

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P3	Across E approach	53	19.3	LOS B	0.1	0.1	0.66	0.66
P11	Across NE approach	53	39.2	LOS D	0.1	0.1	0.93	0.93
P7	Across W approach	53	18.1	LOS B	0.1	0.1	0.63	0.63
All Pedestrians		159	25.5				0.74	0.74

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).


N
Carlton Avenue West
40
Carlton Road East
Lackey Street

MOVEMENT SUMMARY

Site: AM

Carlton Avenue - Lackey Street
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Lackey Street											
1	L	65	3.2	0.168	15.1	LOS B	2.3	16.5	0.72	0.73	31.5
3	R	46	0.0	0.168	15.3	LOS B	2.3	16.5	0.72	0.73	31.4
Approach		112	1.9	0.168	15.2	LOS B	2.3	16.5	0.72	0.73	31.4
East: Carlton Road East											
4	L	63	0.0	0.097	15.3	LOS B	1.3	9.2	0.70	0.71	35.7
6	R	351	1.5	0.545	17.7	LOS B	7.4	52.4	0.85	0.81	35.0
Approach		414	1.3	0.545	17.3	LOS B	7.4	52.4	0.83	0.79	35.1
North West: Carlton Avenue West											
27	L	418	2.3	0.653	19.0	LOS B	9.1	65.2	0.90	0.86	34.3
29	R	177	1.8	0.375	16.1	LOS B	3.8	27.1	0.78	0.76	35.2
Approach		595	2.1	0.653	18.1	LOS B	9.1	65.2	0.86	0.83	34.5
All Vehicles		1120	1.8	0.653	17.5	LOS B	9.1	65.2	0.84	0.80	34.4

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	12.8	LOS B	0.0	0.0	0.80	0.80
P3	Across E approach	53	14.5	LOS B	0.1	0.1	0.85	0.85
P13	Across NW approach	53	13.6	LOS B	0.0	0.0	0.83	0.83
All Pedestrians		159	13.6				0.83	0.83

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM McGill Lewisham

Carlton Avenue - Lackey Street
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Lackey Street											
1	L	65	3.2	0.168	15.1	LOS B	2.3	16.5	0.72	0.73	31.5
3	R	46	0.0	0.168	15.3	LOS B	2.3	16.5	0.72	0.73	31.4
Approach		112	1.9	0.168	15.2	LOS B	2.3	16.5	0.72	0.73	31.4
East: Carlton Road East											
4	L	63	0.0	0.097	15.3	LOS B	1.3	9.2	0.70	0.71	35.7
6	R	384	1.5	0.598	18.0	LOS B	8.2	57.8	0.87	0.82	34.8
Approach		447	1.3	0.597	17.6	LOS B	8.2	57.8	0.85	0.80	35.0
North West: Carlton Avenue West											
27	L	426	2.3	0.666	19.2	LOS B	9.4	67.0	0.90	0.86	34.1
29	R	177	1.8	0.375	16.1	LOS B	3.8	27.1	0.78	0.76	35.2
Approach		603	2.1	0.667	18.3	LOS B	9.4	67.0	0.87	0.83	34.4
All Vehicles		1162	1.8	0.667	17.7	LOS B	9.4	67.0	0.85	0.81	34.3

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	12.8	LOS B	0.0	0.0	0.80	0.80
P3	Across E approach	53	14.5	LOS B	0.1	0.1	0.85	0.85
P13	Across NW approach	53	13.6	LOS B	0.0	0.0	0.83	0.83
All Pedestrians		159	13.6				0.83	0.83

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM SHFM McGill

Carlton Avenue - Lackey Street
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Lackey Street											
1	L	65	3.2	0.168	15.1	LOS B	2.3	16.5	0.72	0.73	31.5
3	R	46	0.0	0.168	15.3	LOS B	2.3	16.5	0.72	0.73	31.4
Approach		112	1.9	0.168	15.2	LOS B	2.3	16.5	0.72	0.73	31.4
East: Carlton Road East											
4	L	63	0.0	0.097	15.3	LOS B	1.3	9.2	0.70	0.71	35.7
6	R	360	1.5	0.560	17.7	LOS B	7.6	53.9	0.86	0.81	35.0
Approach		423	1.3	0.560	17.4	LOS B	7.6	53.9	0.83	0.80	35.1
North West: Carlton Avenue West											
27	L	426	2.3	0.666	19.2	LOS B	9.4	67.0	0.90	0.86	34.1
29	R	177	1.8	0.375	16.1	LOS B	3.8	27.1	0.78	0.76	35.2
Approach		603	2.1	0.667	18.3	LOS B	9.4	67.0	0.87	0.83	34.4
All Vehicles		1138	1.8	0.667	17.6	LOS B	9.4	67.0	0.84	0.81	34.3

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	12.8	LOS B	0.0	0.0	0.80	0.80
P3	Across E approach	53	14.5	LOS B	0.1	0.1	0.85	0.85
P13	Across NW approach	53	13.6	LOS B	0.0	0.0	0.83	0.83
All Pedestrians		159	13.6				0.83	0.83

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM

Carlton Avenue - Lackey Street
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Lackey Street											
1	L	64	0.0	0.235	15.3	LOS B	3.3	22.9	0.74	0.74	31.3
3	R	94	0.0	0.234	15.6	LOS B	3.3	22.9	0.74	0.75	31.2
Approach		158	0.0	0.234	15.5	LOS B	3.3	22.9	0.74	0.75	31.3
East: Carlton Road East											
4	L	77	0.0	0.118	15.4	LOS B	1.6	11.2	0.71	0.72	35.6
6	R	466	0.2	0.719	20.1	LOS B	10.6	74.2	0.92	0.90	33.6
Approach		543	0.2	0.719	19.4	LOS B	10.6	74.2	0.89	0.88	33.9
North West: Carlton Avenue West											
27	L	476	1.8	0.741	20.9	LOS B	11.0	78.3	0.93	0.92	33.2
29	R	96	0.0	0.202	16.1	LOS B	2.1	14.8	0.75	0.73	35.1
Approach		572	1.5	0.741	20.1	LOS B	11.0	78.3	0.90	0.89	33.5
All Vehicles		1273	0.7	0.741	19.3	LOS B	11.0	78.3	0.88	0.87	33.4

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	12.8	LOS B	0.0	0.0	0.80	0.80
P3	Across E approach	53	14.5	LOS B	0.1	0.1	0.85	0.85
P13	Across NW approach	53	13.6	LOS B	0.0	0.0	0.83	0.83
All Pedestrians		159	13.6				0.83	0.83

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM McGill Lewisham

Carlton Avenue - Lackey Street
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Lackey Street											
1	L	64	0.0	0.235	15.3	LOS B	3.3	22.9	0.74	0.74	31.3
3	R	94	0.0	0.234	15.6	LOS B	3.3	22.9	0.74	0.75	31.2
Approach		158	0.0	0.234	15.5	LOS B	3.3	22.9	0.74	0.75	31.3
East: Carlton Road East											
4	L	77	0.0	0.118	15.4	LOS B	1.6	11.2	0.71	0.72	35.6
6	R	485	0.2	0.748	20.9	LOS B	11.3	79.0	0.94	0.93	33.2
Approach		562	0.2	0.748	20.2	LOS B	11.3	79.0	0.91	0.90	33.5
North West: Carlton Avenue West											
27	L	493	1.8	0.767	21.8	LOS B	11.7	82.9	0.95	0.95	32.7
29	R	143	0.0	0.303	16.5	LOS B	3.2	22.2	0.78	0.75	34.9
Approach		636	1.4	0.767	20.6	LOS B	11.7	82.9	0.91	0.90	33.2
All Vehicles		1356	0.7	0.767	19.8	LOS B	11.7	82.9	0.89	0.88	33.1

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	12.8	LOS B	0.0	0.0	0.80	0.80
P3	Across E approach	53	14.5	LOS B	0.1	0.1	0.85	0.85
P13	Across NW approach	53	13.6	LOS B	0.0	0.0	0.83	0.83
All Pedestrians		159	13.6				0.83	0.83

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM SHFM McGill

Carlton Avenue - Lackey Street
Signals - Fixed Time Cycle Time = 40 seconds (Practical Cycle Time)

Movement Performance - Vehicles

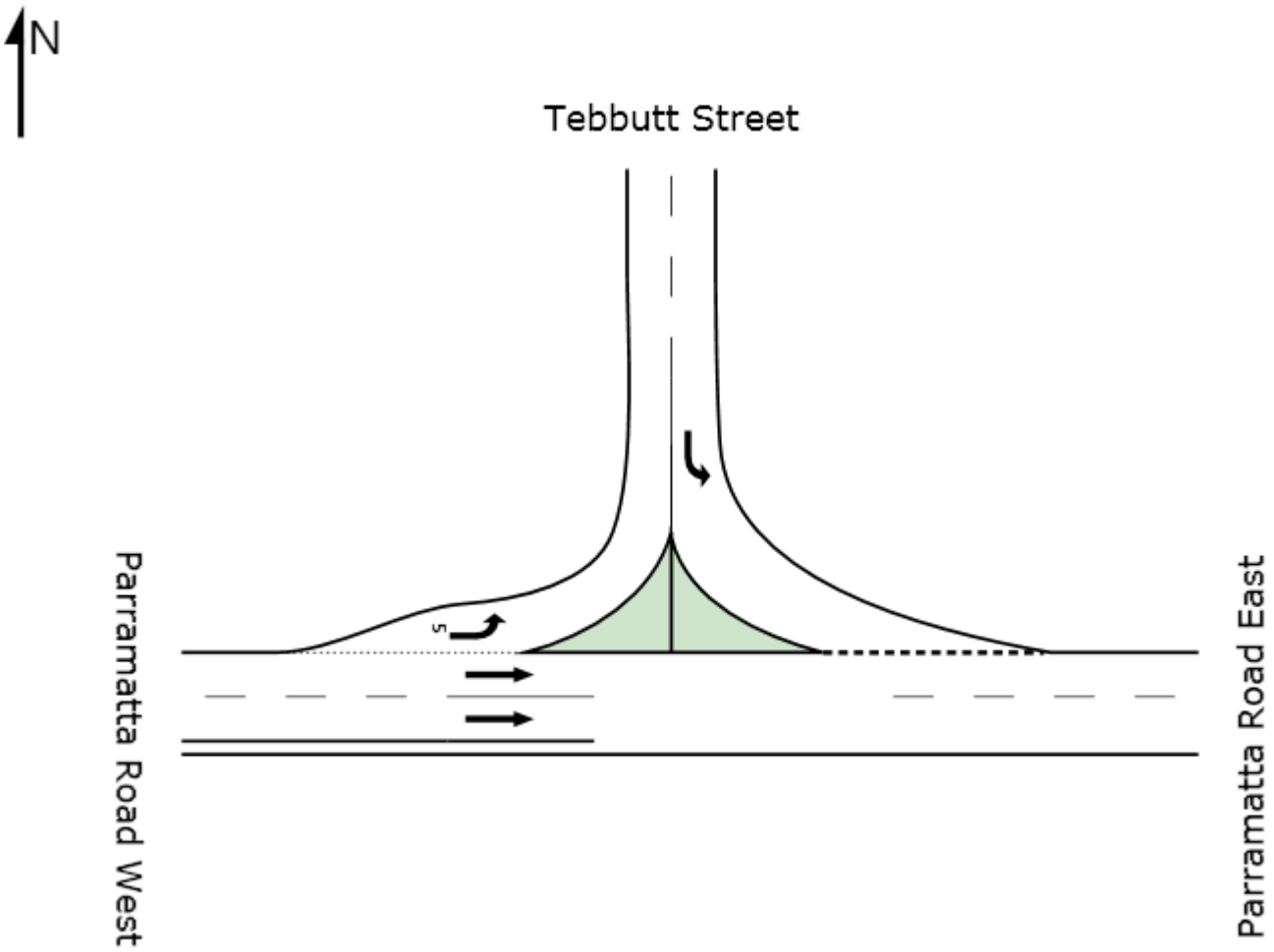
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Lackey Street											
1	L	64	0.0	0.235	15.3	LOS B	3.3	22.9	0.74	0.74	31.3
3	R	94	0.0	0.234	15.6	LOS B	3.3	22.9	0.74	0.75	31.2
Approach		158	0.0	0.234	15.5	LOS B	3.3	22.9	0.74	0.75	31.3
East: Carlton Road East											
4	L	77	0.0	0.118	15.4	LOS B	1.6	11.2	0.71	0.72	35.6
6	R	474	0.2	0.730	20.4	LOS B	10.8	76.0	0.93	0.91	33.5
Approach		551	0.2	0.730	19.7	LOS B	10.8	76.0	0.90	0.88	33.7
North West: Carlton Avenue West											
27	L	493	1.8	0.767	21.8	LOS B	11.7	82.9	0.95	0.95	32.7
29	R	143	0.0	0.303	16.5	LOS B	3.2	22.2	0.78	0.75	34.9
Approach		636	1.4	0.767	20.6	LOS B	11.7	82.9	0.91	0.90	33.2
All Vehicles		1344	0.7	0.767	19.6	LOS B	11.7	82.9	0.89	0.88	33.2

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS B. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	12.8	LOS B	0.0	0.0	0.80	0.80
P3	Across E approach	53	14.5	LOS B	0.1	0.1	0.85	0.85
P13	Across NW approach	53	13.6	LOS B	0.0	0.0	0.83	0.83
All Pedestrians		159	13.6				0.83	0.83

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS B. LOS Method for individual pedestrian movements: Delay (HCM).


N
Tebbutt Street
Parramatta Road West
Parramatta Road East

MOVEMENT SUMMARY

Site: AM - Existing B

Parramatta Road - Old Cantubury Road - Tebbutt Street
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
North: Tebbutt Street											
7	L	212	2.0	2.227	1174.1	LOS F	80.7	574.9	1.00	5.14	1.8
Approach		212	2.0	2.228	1174.1	LOS F	80.7	574.9	1.00	5.14	1.8
West: Parramatta Road West											
10	L	116	7.0	0.065	7.7	NA[9]	NA[9]	NA[9]	NA[9]	0.60	49.8
11	T	2057	2.2	0.535	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		2173	2.5	0.535	0.4	LOS A	0.0	0.0	0.00	0.03	59.3
All Vehicles		2384	2.4	2.228	104.6	NA	80.7	574.9	0.09	0.49	15.4

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

9 Continuous movement

MOVEMENT SUMMARY

Site: AM SHFM McGill Lewisham B

Parramatta Road - Old Cantubury Road - Tebbutt Street
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
North: Tebbutt Street											
7	L	243	2.0	2.560	1470.6	LOS F	101.1	719.6	1.00	5.55	1.5
Approach		243	2.0	2.561	1470.6	LOS F	101.1	719.6	1.00	5.55	1.5
West: Parramatta Road West											
10	L	116	7.0	0.065	7.7	NA[9]	NA[9]	NA[9]	NA[9]	0.60	49.8
11	T	2057	2.2	0.535	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		2173	2.5	0.535	0.4	LOS A	0.0	0.0	0.00	0.03	59.3
All Vehicles		2416	2.4	2.561	148.4	NA	101.1	719.6	0.10	0.59	11.7

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

9 Continuous movement

MOVEMENT SUMMARY

Site: AM SHFM McGill B

Parramatta Road - Old Cantubury Road - Tebbutt Street
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
North: Tebbutt Street											
7	L	242	2.0	2.548	1460.7	LOS F	100.4	714.7	1.00	5.54	1.5
Approach		242	2.0	2.550	1460.7	LOS F	100.4	714.7	1.00	5.54	1.5
West: Parramatta Road West											
10	L	116	7.0	0.065	7.7	NA[9]	NA[9]	NA[9]	NA[9]	0.60	49.8
11	T	2057	2.2	0.535	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		2173	2.5	0.535	0.4	LOS A	0.0	0.0	0.00	0.03	59.3
All Vehicles		2415	2.4	2.550	146.8	NA	100.4	714.7	0.10	0.58	11.8

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

9 Continuous movement

MOVEMENT SUMMARY

Site: PM - Existing b

Parramatta Road - Old Cantubury Road - Tebbutt Street
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
North: Tebbutt Street											
7	L	554	1.5	2.215	1123.1	LOS F	198.9	1410.2	1.00	10.39	1.9
Approach		554	1.5	2.214	1123.1	LOS F	198.9	1410.2	1.00	10.39	1.9
West: Parramatta Road West											
10	L	197	1.6	0.107	7.6	NA[9]	NA[9]	NA[9]	NA[9]	0.60	49.8
11	T	1545	1.2	0.399	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1742	1.2	0.399	0.9	LOS A	0.0	0.0	0.00	0.07	58.6
All Vehicles		2296	1.3	2.214	271.5	NA	198.9	1410.2	0.24	2.56	7.0

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

9 Continuous movement

MOVEMENT SUMMARY

Site: PM SHFM McGill Lewisham B

Parramatta Road - Old Cantubury Road - Tebbutt Street
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
North: Tebbutt Street											
7	L	601	1.5	2.404	1292.9	LOS F	229.0	1623.7	1.00	10.98	1.6
Approach		601	1.5	2.403	1292.9	LOS F	229.0	1623.7	1.00	10.98	1.6
West: Parramatta Road West											
10	L	197	1.6	0.107	7.6	NA[9]	NA[9]	NA[9]	NA[9]	0.60	49.8
11	T	1545	1.2	0.399	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1742	1.2	0.399	0.9	LOS A	0.0	0.0	0.00	0.07	58.6
All Vehicles		2343	1.3	2.403	332.3	NA	229.0	1623.7	0.26	2.87	5.9

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.

Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).

Approach LOS values are based on the worst delay for any vehicle movement.

9 Continuous movement

SIDRA INTERSECTION

MOVEMENT SUMMARY

Site: PM SHFM McGill B

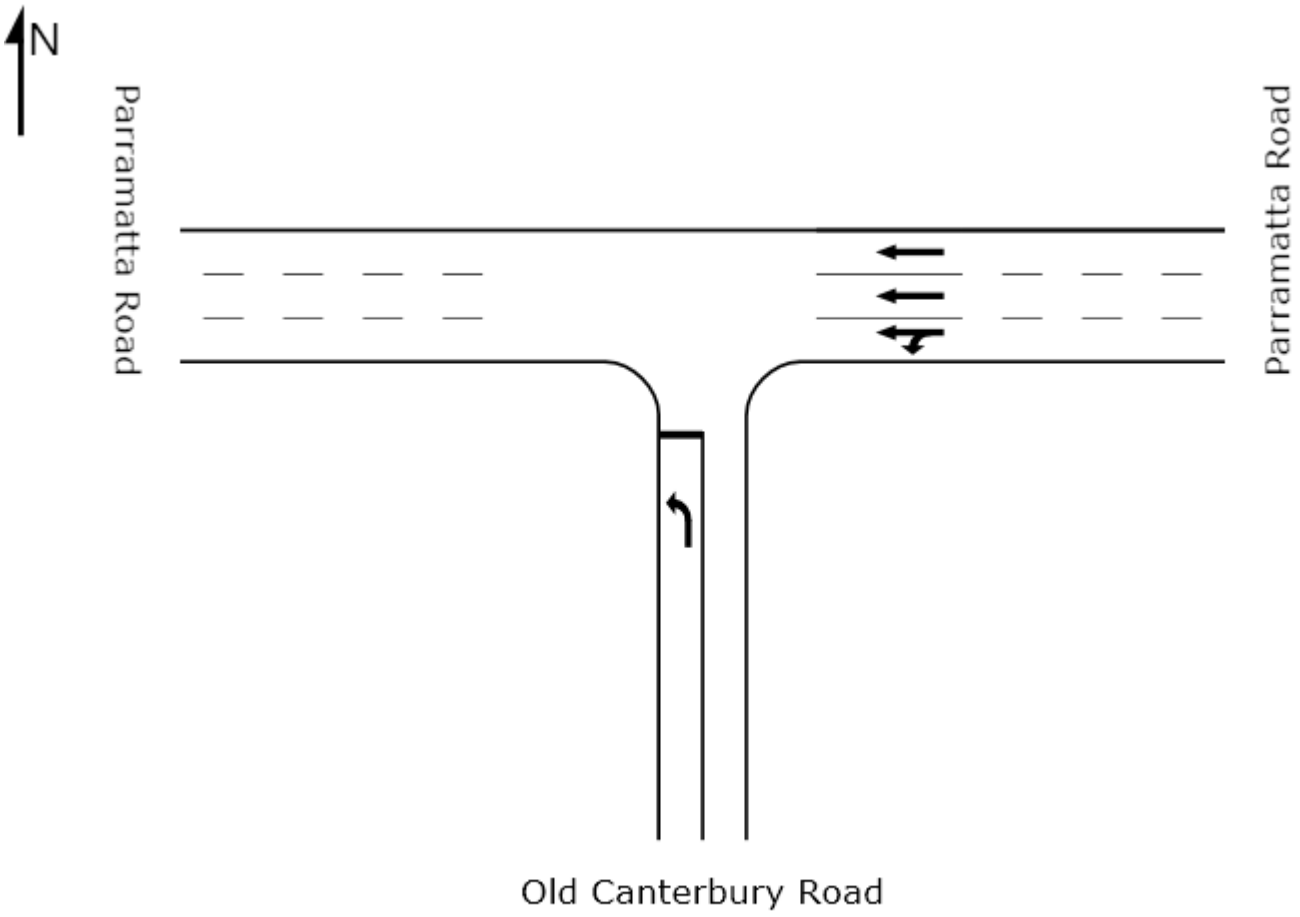
Parramatta Road - Old Cantubury Road - Tebbutt Street
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
North: Tebbutt Street											
7	L	578	1.5	2.312	1209.9	LOS F	214.3	1519.3	1.00	10.70	1.8
Approach		578	1.5	2.311	1209.9	LOS F	214.3	1519.3	1.00	10.70	1.8
West: Parramatta Road West											
10	L	197	1.6	0.107	7.6	NA[9]	NA[9]	NA[9]	NA[9]	0.60	49.8
11	T	1545	1.2	0.399	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1742	1.2	0.399	0.9	LOS A	0.0	0.0	0.00	0.07	58.6
All Vehicles		2320	1.3	2.311	302.0	NA	214.3	1519.3	0.25	2.72	6.4

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

9 Continuous movement


N
Parramatta Road
Parramatta Road
Old Canterbury Road

MOVEMENT SUMMARY

Site: AM as per Traffix Report

Parramatta Road, Old Canterbury Road
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Road											
1	L	120	2.0	0.543	35.1	LOS C	2.9	20.4	0.91	1.11	31.4
Approach		120	2.0	0.543	35.1	LOS C	2.9	20.4	0.91	1.11	31.4
East: Parramatta Road											
4	L	27	3.0	0.281	8.3	LOS A	0.0	0.0	0.00	1.06	49.0
5	T	1588	3.0	0.282	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1615	3.0	0.282	0.1	LOS A	0.0	0.0	0.00	0.02	59.8
All Vehicles		1735	2.9	0.543	2.6	NA	2.9	20.4	0.06	0.09	56.3

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: AM Mills McGill Lewisham

Parramatta Road, Old Canterbury Road
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Road											
1	L	120	2.0	0.561	36.5	LOS C	3.0	21.2	0.91	1.12	30.8
Approach		120	2.0	0.561	36.5	LOS C	3.0	21.2	0.91	1.12	30.8
East: Parramatta Road											
4	L	76	3.0	0.291	8.3	LOS A	0.0	0.0	0.00	1.00	49.0
5	T	1588	3.0	0.291	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1664	3.0	0.291	0.4	LOS A	0.0	0.0	0.00	0.05	59.4
All Vehicles		1784	2.9	0.561	2.8	NA	3.0	21.2	0.06	0.12	55.9

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: AM Mills McGill

Parramatta Road, Old Canterbury Road
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Road											
1	L	120	2.0	0.548	35.6	LOS C	2.9	20.7	0.91	1.11	31.1
Approach		120	2.0	0.549	35.6	LOS C	2.9	20.7	0.91	1.11	31.1
East: Parramatta Road											
4	L	45	3.0	0.285	8.3	LOS A	0.0	0.0	0.00	1.04	49.0
5	T	1588	3.0	0.285	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		1633	3.0	0.285	0.2	LOS A	0.0	0.0	0.00	0.03	59.6
All Vehicles		1753	2.9	0.549	2.6	NA	2.9	20.7	0.06	0.10	56.1

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS C. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: PM as per Traffix Report

Parramatta Road, Old Canterbury Road
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Road											
1	L	78	2.0	0.963	160.3	LOS F	6.7	48.0	1.00	1.39	11.2
Approach		78	2.0	0.959	160.3	LOS F	6.7	48.0	1.00	1.39	11.2
East: Parramatta Road											
4	L	37	3.0	0.402	8.3	LOS A	0.0	0.0	0.00	1.06	49.0
5	T	2262	3.0	0.401	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		2299	3.0	0.401	0.1	LOS A	0.0	0.0	0.00	0.02	59.8
All Vehicles		2377	3.0	0.959	5.4	NA	6.7	48.0	0.03	0.06	52.4

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

Site: PM Mills McGill Lewisham

Parramatta Road, Old Canterbury Road
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Road											
1	L	78	2.0	1.013	190.6	LOS F	8.2	58.3	1.00	1.48	9.7
Approach		78	2.0	1.010	190.6	LOS F	8.2	58.3	1.00	1.48	9.7
East: Parramatta Road											
4	L	101	3.0	0.412	8.3	LOS A	0.0	0.0	0.00	1.01	49.0
5	T	2262	3.0	0.413	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		2363	3.0	0.413	0.4	LOS A	0.0	0.0	0.00	0.04	59.4
All Vehicles		2441	3.0	1.010	6.4	NA	8.2	58.3	0.03	0.09	51.1

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.

MOVEMENT SUMMARY

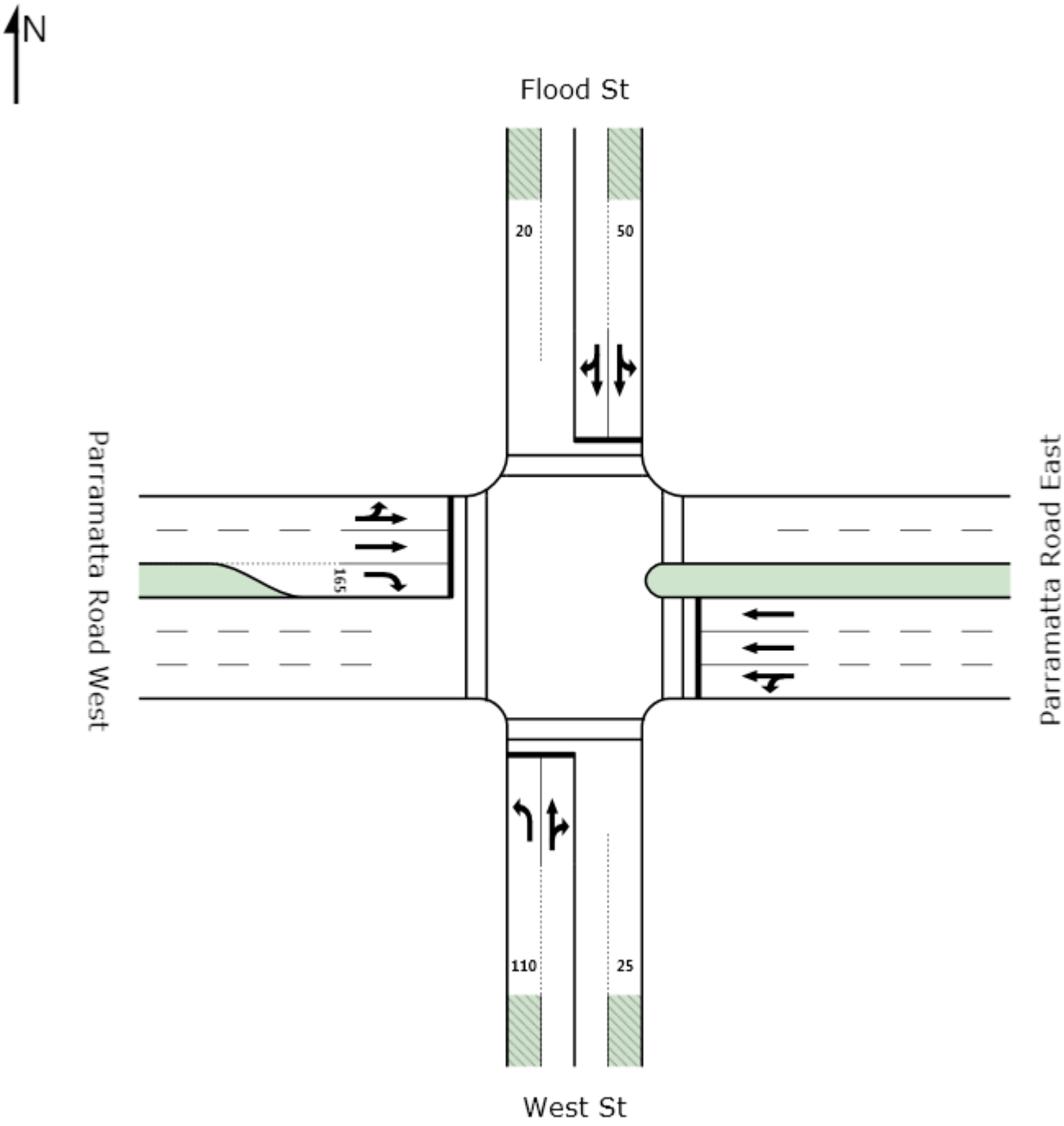
Site: PM Mills McGill

Parramatta Road, Old Canterbury Road
Stop (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Road											
1	L	78	2.0	0.975	167.3	LOS F	7.1	50.3	1.00	1.41	10.8
Approach		78	2.0	0.971	167.3	LOS F	7.1	50.3	1.00	1.41	10.8
East: Parramatta Road											
4	L	53	3.0	0.405	8.3	LOS A	0.0	0.0	0.00	1.05	49.0
5	T	2262	3.0	0.404	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		2315	3.0	0.404	0.2	LOS A	0.0	0.0	0.00	0.02	59.7
All Vehicles		2393	3.0	0.971	5.6	NA	7.1	50.3	0.03	0.07	52.0

LOS (Aver. Int. Delay): NA. The average intersection delay is not a good LOS measure for two-way sign control due to zero delays associated with major road movements.
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on the worst delay for any vehicle movement.


N
Flood St
20
50
Parramatta Road West
165
Parramatta Road East
110
25
West St

MOVEMENT SUMMARY

Site: AM Existing - 3Phase

Parramatta Road - Flood St - West St Intersection
Signals - Fixed Time Cycle Time = 145 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: West St											
1	L	196	1.5	0.339	24.3	LOS B	8.3	58.6	0.52	0.76	35.9
2	T	209	1.5	0.561	55.8	LOS D	15.0	108.0	0.95	0.79	22.8
3	R	4	100.0	0.565	66.4	LOS E	15.0	108.0	0.95	0.85	24.9
Approach		409	2.5	0.561	40.8	LOS C	15.0	108.0	0.74	0.78	27.7
East: Parramatta Road East											
4	L	26	1.5	0.754	52.5	LOS D	31.9	226.3	0.95	0.90	25.7
5	T	1509	1.5	0.754	44.2	LOS D	32.0	226.8	0.95	0.84	26.0
Approach		1535	1.5	0.754	44.4	LOS D	32.0	226.8	0.95	0.84	26.0
North: Flood St											
7	L	37	1.5	0.205	58.0	LOS E	3.2	22.4	0.84	0.73	23.1
8	T	129	1.5	0.807	71.3	LOS F	14.9	105.8	1.00	0.93	19.4
9	R	54	1.5	0.806	79.5	LOS F	14.9	105.8	1.00	0.93	19.3
Approach		220	1.5	0.807	71.1	LOS F	14.9	105.8	0.97	0.89	19.9
West: Parramatta Road West											
10	L	59	1.5	0.856	24.5	LOS B	59.5	421.6	0.81	0.97	37.9
11	T	2281	1.5	0.854	16.3	LOS B	59.6	422.7	0.81	0.76	39.3
12	R	434	1.5	0.786	57.3	LOS E	28.5	201.8	0.96	0.88	23.3
Approach		2774	1.5	0.854	22.8	LOS B	59.6	422.7	0.83	0.79	35.4
All Vehicles		4938	1.6	0.854	33.2	LOS C	59.6	422.7	0.87	0.81	30.3

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	37.3	LOS D	0.2	0.2	0.72	0.72
P3	Across E approach	53	58.3	LOS E	0.2	0.2	0.90	0.90
P5	Across N approach	53	37.3	LOS D	0.2	0.2	0.72	0.72
P7	Across W approach	53	59.2	LOS E	0.2	0.2	0.90	0.90
All Pedestrians		212	48.0				0.81	0.81

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM McGills Mills - 3Phase

Parramatta Road - Flood St - West St Intersection
Signals - Fixed Time Cycle Time = 145 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: West St											
1	L	196	1.5	0.335	23.8	LOS B	8.2	57.8	0.51	0.75	36.3
2	T	209	1.5	0.581	56.9	LOS E	15.1	108.9	0.96	0.80	22.6
3	R	4	100.0	0.586	67.4	LOS E	15.1	108.9	0.96	0.85	24.7
Approach		409	2.5	0.581	41.1	LOS C	15.1	108.9	0.74	0.78	27.6
East: Parramatta Road East											
4	L	26	1.5	0.777	53.9	LOS D	32.9	233.2	0.96	0.90	25.3
5	T	1527	1.5	0.778	45.7	LOS D	33.0	233.7	0.96	0.86	25.5
Approach		1553	1.5	0.778	45.8	LOS D	33.0	233.7	0.96	0.86	25.5
North: Flood St											
7	L	37	1.5	0.214	59.0	LOS E	3.3	23.3	0.85	0.73	22.9
8	T	129	1.5	0.843	74.6	LOS F	15.2	107.8	1.00	0.95	18.8
9	R	54	1.5	0.843	83.2	LOS F	15.2	107.8	1.00	0.96	18.7
Approach		220	1.5	0.843	74.1	LOS F	15.2	107.8	0.97	0.92	19.4
West: Parramatta Road West											
10	L	59	1.5	0.857	24.0	LOS B	59.9	424.7	0.80	0.97	38.2
11	T	2310	1.5	0.856	15.8	LOS B	60.1	425.8	0.80	0.76	39.6
12	R	434	1.5	0.774	54.7	LOS D	27.7	196.2	0.94	0.87	24.0
Approach		2803	1.5	0.856	22.0	LOS B	60.1	425.8	0.82	0.78	35.9
All Vehicles		4985	1.6	0.856	33.3	LOS C	60.1	425.8	0.87	0.81	30.2

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	38.0	LOS D	0.2	0.2	0.72	0.72
P3	Across E approach	53	59.2	LOS E	0.2	0.2	0.90	0.90
P5	Across N approach	53	38.0	LOS D	0.2	0.2	0.72	0.72
P7	Across W approach	53	60.1	LOS F	0.2	0.2	0.91	0.91
All Pedestrians		212	48.8				0.82	0.82

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS F. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM McGills Mills Lewisham - 3 Phase

Parramatta Road - Flood St - West St Intersection
Signals - Fixed Time Cycle Time = 145 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: West St											
1	L	196	1.5	0.339	24.3	LOS B	8.3	58.6	0.52	0.76	35.9
2	T	209	1.5	0.581	56.9	LOS E	15.1	108.9	0.96	0.80	22.6
3	R	4	100.0	0.586	67.4	LOS E	15.1	108.9	0.96	0.85	24.7
Approach		409	2.5	0.581	41.4	LOS C	15.1	108.9	0.75	0.78	27.5
East: Parramatta Road East											
4	L	26	1.5	0.778	53.1	LOS D	33.3	236.4	0.96	0.90	25.5
5	T	1558	1.5	0.778	44.9	LOS D	33.4	236.9	0.96	0.86	25.8
Approach		1584	1.5	0.778	45.0	LOS D	33.4	236.9	0.96	0.86	25.8
North: Flood St											
7	L	37	1.5	0.214	59.0	LOS E	3.3	23.3	0.85	0.73	22.9
8	T	129	1.5	0.843	74.6	LOS F	15.2	107.8	1.00	0.95	18.8
9	R	54	1.5	0.843	83.2	LOS F	15.2	107.8	1.00	0.96	18.7
Approach		220	1.5	0.843	74.1	LOS F	15.2	107.8	0.97	0.92	19.4
West: Parramatta Road West											
10	L	59	1.5	0.866	24.4	LOS B	62.3	441.4	0.82	0.97	38.0
11	T	2345	1.5	0.869	16.2	LOS B	62.4	442.5	0.82	0.78	39.3
12	R	434	1.5	0.780	56.0	LOS D	28.1	199.0	0.95	0.88	23.6
Approach		2838	1.5	0.869	22.4	LOS B	62.4	442.5	0.84	0.80	35.7
All Vehicles		5051	1.6	0.869	33.3	LOS C	62.4	442.5	0.88	0.82	30.2

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	37.3	LOS D	0.2	0.2	0.72	0.72
P3	Across E approach	53	59.2	LOS E	0.2	0.2	0.90	0.90
P5	Across N approach	53	37.3	LOS D	0.2	0.2	0.72	0.72
P7	Across W approach	53	60.1	LOS F	0.2	0.2	0.91	0.91
All Pedestrians		212	48.5				0.81	0.81

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS F. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Existing - 3 Phase

Parramatta Road - Flood St - West St Intersection
Signals - Fixed Time Cycle Time = 145 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: West St											
1	L	316	1.5	0.577	28.5	LOS C	13.9	98.4	0.61	0.78	33.6
2	T	251	1.5	0.514	49.0	LOS D	16.5	117.7	0.91	0.77	24.6
3	R	2	100.0	0.507	59.5	LOS E	16.5	117.7	0.91	0.88	26.7
Approach		569	1.8	0.577	37.7	LOS C	16.5	117.7	0.74	0.78	28.9
East: Parramatta Road East											
4	L	35	1.5	0.974	92.3	LOS F	67.3	477.0	1.00	1.16	17.5
5	T	2149	1.5	0.977	84.0	LOS F	67.4	478.0	1.00	1.17	17.6
Approach		2184	1.5	0.977	84.2	LOS F	67.4	478.0	1.00	1.17	17.6
North: Flood St											
7	L	31	1.5	0.244	51.3	LOS D	3.7	26.2	0.79	0.76	25.2
8	T	216	1.5	0.961	92.0	LOS F	25.3	179.7	0.98	1.11	16.4
9	R	74	1.5	0.960	104.5	LOS F	25.3	179.7	1.00	1.15	15.8
Approach		321	1.5	0.961	90.9	LOS F	25.3	179.7	0.97	1.08	16.8
West: Parramatta Road West											
10	L	57	1.5	0.635	23.7	LOS B	32.8	232.7	0.64	0.97	37.9
11	T	1543	1.5	0.633	15.5	LOS B	32.9	233.5	0.64	0.59	40.2
12	R	405	1.5	0.969	101.7	LOS F	37.1	262.8	1.00	1.05	15.8
Approach		2005	1.5	0.968	33.1	LOS C	37.1	262.8	0.71	0.69	30.6
All Vehicles		5079	1.5	0.977	59.2	LOS E	67.4	478.0	0.86	0.93	22.2

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	33.8	LOS D	0.1	0.1	0.68	0.68
P3	Across E approach	53	51.3	LOS E	0.2	0.2	0.84	0.84
P5	Across N approach	53	10.4	LOS B	0.1	0.1	0.38	0.38
P7	Across W approach	53	52.2	LOS E	0.2	0.2	0.85	0.85
All Pedestrians		212	36.9				0.69	0.69

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Mills McGill - 3 Phase

Parramatta Road - Flood St - West St Intersection
Signals - Fixed Time Cycle Time = 145 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: West St											
1	L	316	1.5	0.577	28.5	LOS C	13.9	98.4	0.61	0.78	33.6
2	T	251	1.5	0.514	49.0	LOS D	16.5	117.7	0.91	0.77	24.6
3	R	2	100.0	0.507	59.5	LOS E	16.5	117.7	0.91	0.88	26.7
Approach		569	1.8	0.577	37.7	LOS C	16.5	117.7	0.74	0.78	28.9
East: Parramatta Road East											
4	L	35	1.5	0.996	100.3	LOS F	71.3	505.5	1.00	1.20	16.4
5	T	2181	1.5	0.991	92.0	LOS F	71.4	506.5	1.00	1.21	16.5
Approach		2216	1.5	0.991	92.1	LOS F	71.4	506.5	1.00	1.21	16.5
North: Flood St											
7	L	31	1.5	0.244	51.3	LOS D	3.7	26.2	0.79	0.76	25.2
8	T	216	1.5	0.961	92.0	LOS F	25.3	179.7	0.98	1.11	16.4
9	R	74	1.5	0.960	104.5	LOS F	25.3	179.7	1.00	1.15	15.8
Approach		321	1.5	0.961	90.9	LOS F	25.3	179.7	0.97	1.08	16.8
West: Parramatta Road West											
10	L	57	1.5	0.644	23.9	LOS B	33.6	238.2	0.65	0.97	37.9
11	T	1566	1.5	0.643	15.7	LOS B	33.7	239.0	0.65	0.60	40.1
12	R	405	1.5	0.969	101.7	LOS F	37.1	262.8	1.00	1.05	15.8
Approach		2028	1.5	0.968	33.1	LOS C	37.1	262.8	0.72	0.70	30.6
All Vehicles		5134	1.5	0.991	62.7	LOS E	71.4	506.5	0.86	0.95	21.5

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	33.8	LOS D	0.1	0.1	0.68	0.68
P3	Across E approach	53	51.3	LOS E	0.2	0.2	0.84	0.84
P5	Across N approach	53	33.8	LOS D	0.1	0.1	0.68	0.68
P7	Across W approach	53	52.2	LOS E	0.2	0.2	0.85	0.85
All Pedestrians		212	42.8				0.76	0.76

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Mills McGill Lewisham - 3Phase

Parramatta Road - Flood St - West St Intersection
Signals - Fixed Time Cycle Time = 145 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

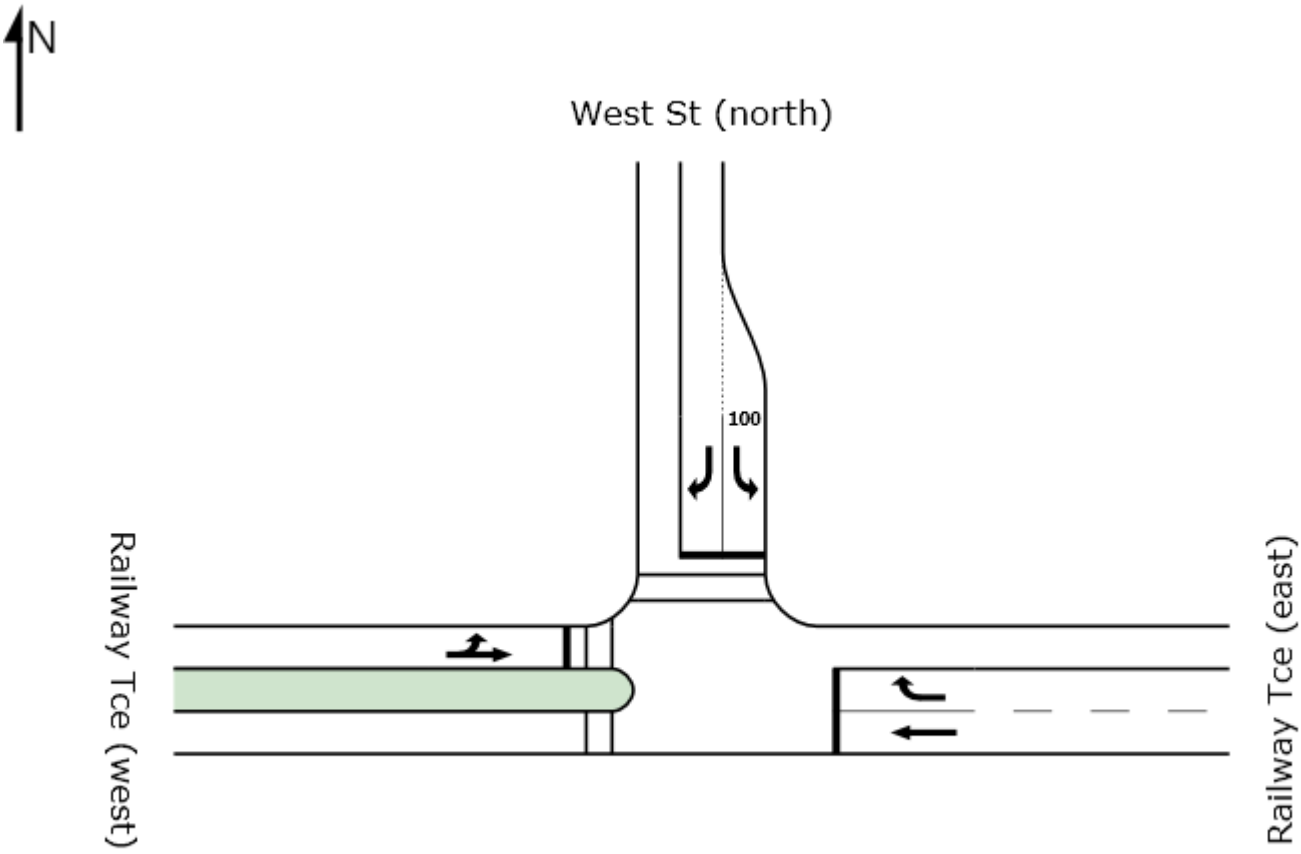
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: West St											
1	L	316	1.5	0.584	29.1	LOS C	14.1	99.7	0.62	0.79	33.3
2	T	251	1.5	0.514	49.0	LOS D	16.5	117.7	0.91	0.77	24.6
3	R	2	100.0	0.507	59.5	LOS E	16.5	117.7	0.91	0.88	26.7
Approach		569	1.8	0.583	38.0	LOS C	16.5	117.7	0.74	0.78	28.8
East: Parramatta Road East											
4	L	35	1.5	0.989	97.5	LOS F	71.4	506.6	1.00	1.19	16.8
5	T	2212	1.5	0.987	89.2	LOS F	71.6	507.6	1.00	1.19	16.9
Approach		2247	1.5	0.987	89.4	LOS F	71.6	507.6	1.00	1.19	16.9
North: Flood St											
7	L	31	1.5	0.244	51.3	LOS D	3.7	26.2	0.79	0.76	25.2
8	T	216	1.5	0.961	92.0	LOS F	25.3	179.7	0.98	1.11	16.4
9	R	74	1.5	0.960	104.5	LOS F	25.3	179.7	1.00	1.15	15.8
Approach		321	1.5	0.961	90.9	LOS F	25.3	179.7	0.97	1.08	16.8
West: Parramatta Road West											
10	L	57	1.5	0.649	24.0	LOS B	34.4	243.7	0.65	0.97	37.8
11	T	1588	1.5	0.651	15.8	LOS B	34.5	244.5	0.65	0.61	40.0
12	R	405	1.5	0.999	109.5	LOS F	38.1	270.4	1.00	1.05	15.0
Approach		2050	1.5	0.999	34.5	LOS C	38.1	270.4	0.72	0.70	30.0
All Vehicles		5187	1.5	0.999	62.2	LOS E	71.6	507.6	0.86	0.95	21.6

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	53	33.1	LOS D	0.1	0.1	0.68	0.68
P3	Across E approach	53	51.3	LOS E	0.2	0.2	0.84	0.84
P5	Across N approach	53	33.1	LOS D	0.1	0.1	0.68	0.68
P7	Across W approach	53	52.2	LOS E	0.2	0.2	0.85	0.85
All Pedestrians		212	42.4				0.76	0.76

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).


N
West St (north)
100
Railway Tce (west)
Railway Tce (east)

MOVEMENT SUMMARY

Site: AM Existing - 3Phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	678	1.5	0.462	4.7	LOS A	13.5	95.9	0.40	0.36	51.4
6	R	358	1.5	1.464	458.5	LOS F	60.8	431.4	1.00	1.88	4.4
Approach		1036	1.5	1.464	161.5	LOS F	60.8	431.4	0.61	0.89	11.0
North: West St (north)											
7	L	429	1.5	0.865	54.8	LOS D	23.7	168.1	1.00	0.96	23.9
9	R	84	1.5	0.381	53.8	LOS D	5.4	38.0	0.96	0.77	24.1
Approach		513	1.5	0.865	54.6	LOS D	23.7	168.1	0.99	0.93	23.9
West: Railway Tce (west)											
10	L	226	1.5	1.032	100.6	LOS F	104.6	741.3	1.00	1.43	16.3
11	T	979	1.5	1.033	92.4	LOS F	104.6	741.3	1.00	1.43	16.4
Approach		1205	1.5	1.033	93.9	LOS F	104.6	741.3	1.00	1.43	16.4
All Vehicles		2754	1.5	1.464	112.0	LOS F	104.6	741.3	0.85	1.13	14.5

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	10.6	LOS B	0.1	0.1	0.46	0.46
P7	Across W approach	53	44.2	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		106	27.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM Mills McGill Lewisham - 3 Phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	748	1.5	0.510	5.0	LOS A	15.4	109.2	0.42	0.39	50.9
6	R	358	1.5	1.464	458.5	LOS F	60.8	431.4	1.00	1.88	4.4
Approach		1106	1.5	1.464	151.8	LOS F	60.8	431.4	0.61	0.87	11.5
North: West St (north)											
7	L	429	1.5	0.865	54.8	LOS D	23.7	168.1	1.00	0.96	23.9
9	R	84	1.5	0.381	53.8	LOS D	5.4	38.0	0.96	0.77	24.1
Approach		513	1.5	0.865	54.6	LOS D	23.7	168.1	0.99	0.93	23.9
West: Railway Tce (west)											
10	L	226	1.5	1.059	118.7	LOS F	115.7	820.4	1.00	1.54	14.4
11	T	1008	1.5	1.057	110.5	LOS F	115.7	820.4	1.00	1.54	14.4
Approach		1234	1.5	1.057	112.0	LOS F	115.7	820.4	1.00	1.54	14.4
All Vehicles		2853	1.5	1.464	117.1	LOS F	115.7	820.4	0.85	1.17	14.1

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	10.6	LOS B	0.1	0.1	0.46	0.46
P7	Across W approach	53	44.2	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		106	27.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM Mills McGill Lewisham
Traffix Distribution - 3phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	747	1.5	0.509	5.0	LOS A	15.4	109.0	0.42	0.39	50.9
6	R	358	1.5	1.464	458.5	LOS F	60.8	431.4	1.00	1.88	4.4
Approach		1105	1.5	1.464	151.9	LOS F	60.8	431.4	0.61	0.87	11.5
North: West St (north)											
7	L	429	1.5	0.865	54.8	LOS D	23.7	168.1	1.00	0.96	23.9
9	R	84	1.5	0.381	53.8	LOS D	5.4	38.0	0.96	0.77	24.1
Approach		513	1.5	0.865	54.6	LOS D	23.7	168.1	0.99	0.93	23.9
West: Railway Tce (west)											
10	L	226	1.5	1.059	118.7	LOS F	115.7	820.4	1.00	1.54	14.4
11	T	1008	1.5	1.057	110.5	LOS F	115.7	820.4	1.00	1.54	14.4
Approach		1234	1.5	1.057	112.0	LOS F	115.7	820.4	1.00	1.54	14.4
All Vehicles		2852	1.5	1.464	117.1	LOS F	115.7	820.4	0.85	1.17	14.0

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	10.6	LOS B	0.1	0.1	0.46	0.46
P7	Across W approach	53	44.2	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		106	27.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: AM Mills McGill - 3Phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	724	1.5	0.493	4.9	LOS A	14.7	104.5	0.42	0.38	51.1
6	R	358	1.5	1.464	458.5	LOS F	60.8	431.4	1.00	1.88	4.4
Approach		1082	1.5	1.464	154.9	LOS F	60.8	431.4	0.61	0.88	11.3
North: West St (north)											
7	L	429	1.5	0.865	54.8	LOS D	23.7	168.1	1.00	0.96	23.9
9	R	84	1.5	0.381	53.8	LOS D	5.4	38.0	0.96	0.77	24.1
Approach		513	1.5	0.865	54.6	LOS D	23.7	168.1	0.99	0.93	23.9
West: Railway Tce (west)											
10	L	226	1.5	1.059	118.7	LOS F	115.7	820.4	1.00	1.54	14.4
11	T	1008	1.5	1.057	110.5	LOS F	115.7	820.4	1.00	1.54	14.4
Approach		1234	1.5	1.057	112.0	LOS F	115.7	820.4	1.00	1.54	14.4
All Vehicles		2829	1.5	1.464	118.0	LOS F	115.7	820.4	0.85	1.18	14.0

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	10.6	LOS B	0.1	0.1	0.46	0.46
P7	Across W approach	53	44.2	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		106	27.4				0.70	0.70

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Mills McGill - 3 Phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	891	1.5	0.607	5.7	LOS A	20.0	141.8	0.48	0.45	49.9
6	R	464	1.5	0.869	50.3	LOS D	20.9	148.5	1.00	1.06	25.1
Approach		1355	1.5	0.869	20.9	LOS B	20.9	148.5	0.66	0.66	37.3
North: West St (north)											
7	L	499	1.5	0.896	43.1	LOS D	23.7	168.1	0.87	0.91	27.4
9	R	171	1.5	0.776	59.4	LOS E	10.5	74.8	1.00	0.88	22.7
Approach		670	1.5	0.896	47.3	LOS D	23.7	168.1	0.90	0.91	26.0
West: Railway Tce (west)											
10	L	103	1.5	0.880	43.4	LOS D	41.1	291.6	0.98	1.02	28.6
11	T	692	1.5	0.882	35.2	LOS C	41.1	291.6	0.98	1.00	28.8
Approach		795	1.5	0.882	36.3	LOS C	41.1	291.6	0.98	1.00	28.8
All Vehicles		2820	1.5	0.896	31.5	LOS C	41.1	291.6	0.81	0.81	31.5

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	18.0	LOS B	0.1	0.1	0.60	0.60
P7	Across W approach	53	44.2	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		106	31.1				0.77	0.77

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Mills McGill Lewisham
Traffix Distrib - 3 Phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

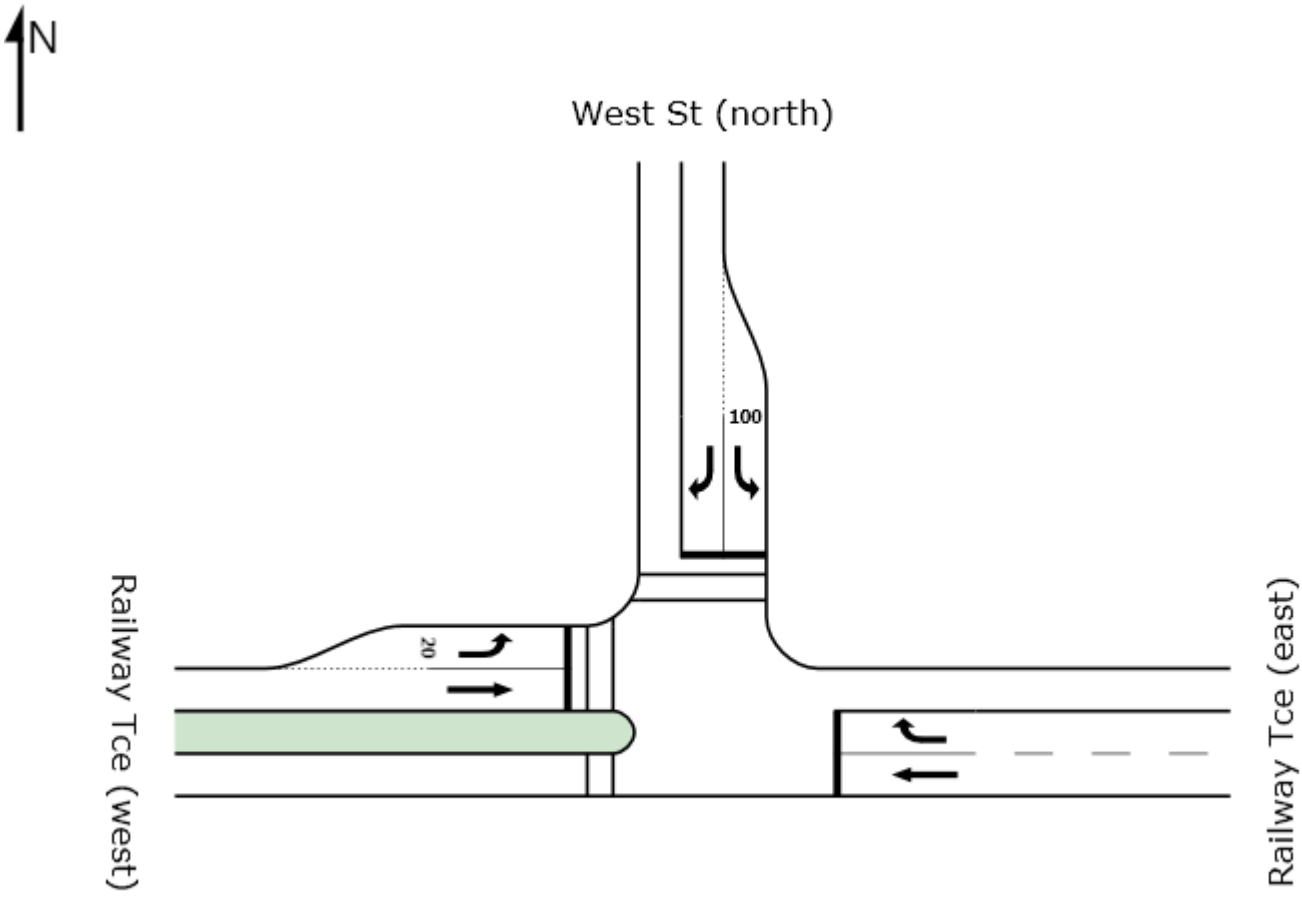
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	891	1.5	0.607	5.7	LOS A	20.0	141.8	0.48	0.45	49.9
6	R	464	1.5	0.869	50.3	LOS D	20.9	148.5	1.00	1.06	25.1
Approach		1355	1.5	0.869	20.9	LOS B	20.9	148.5	0.66	0.66	37.3
North: West St (north)											
7	L	499	1.5	0.896	43.1	LOS D	23.7	168.1	0.87	0.91	27.4
9	R	171	1.5	0.776	59.4	LOS E	10.5	74.8	1.00	0.88	22.7
Approach		670	1.5	0.896	47.3	LOS D	23.7	168.1	0.90	0.91	26.0
West: Railway Tce (west)											
10	L	103	1.5	0.880	43.4	LOS D	41.1	291.6	0.98	1.02	28.6
11	T	692	1.5	0.882	35.2	LOS C	41.1	291.6	0.98	1.00	28.8
Approach		795	1.5	0.882	36.3	LOS C	41.1	291.6	0.98	1.00	28.8
All Vehicles		2820	1.5	0.896	31.5	LOS C	41.1	291.6	0.81	0.81	31.5

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS E. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	18.0	LOS B	0.1	0.1	0.60	0.60
P7	Across W approach	53	44.2	LOS E	0.1	0.1	0.94	0.94
All Pedestrians		106	31.1				0.77	0.77

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).


N
West St (north)
100
20
Railway Tce (west)
Railway Tce (east)

MOVEMENT SUMMARY

Site: AM Mills McGill Lewisham Traffix Layout Distribution - 3phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	747	1.5	0.537	6.8	LOS A	17.5	124.4	0.49	0.45	48.6
6	R	358	1.5	1.354	365.5	LOS F	53.0	375.8	1.00	1.82	5.4
Approach		1105	1.5	1.354	123.0	LOS F	53.0	375.8	0.66	0.90	13.6
North: West St (north)											
7	L	429	1.5	0.867	52.2	LOS D	23.0	163.4	0.96	0.96	24.6
9	R	84	1.5	0.286	49.0	LOS D	5.1	36.0	0.92	0.77	25.5
Approach		513	1.5	0.867	51.7	LOS D	23.0	163.4	0.96	0.93	24.8
West: Railway Tce (west)											
10	L	199	1.5	1.000[3]	29.7	LOS C	6.1	43.5	1.00	0.81	33.0
11	T	1035	1.5	0.941	43.8	LOS D	63.0	446.3	1.00	1.13	26.0
Approach		1234	1.5	1.000	41.5	LOS C	63.0	446.3	1.00	1.08	26.9
All Vehicles		2852	1.5	1.354	74.9	LOS F	63.0	446.3	0.86	0.98	19.3

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

3 x = 1.00 due to short lane. Refer to the Lane Summary report for information about excess flow and related conditions.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	12.5	LOS B	0.1	0.1	0.50	0.50
P7	Across W approach	53	43.2	LOS E	0.1	0.1	0.93	0.93
All Pedestrians		106	27.9				0.72	0.72

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Mills McGill Lewisham
Traffix Layout Distrib - 3Phase

Railway Terrace / West Street
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

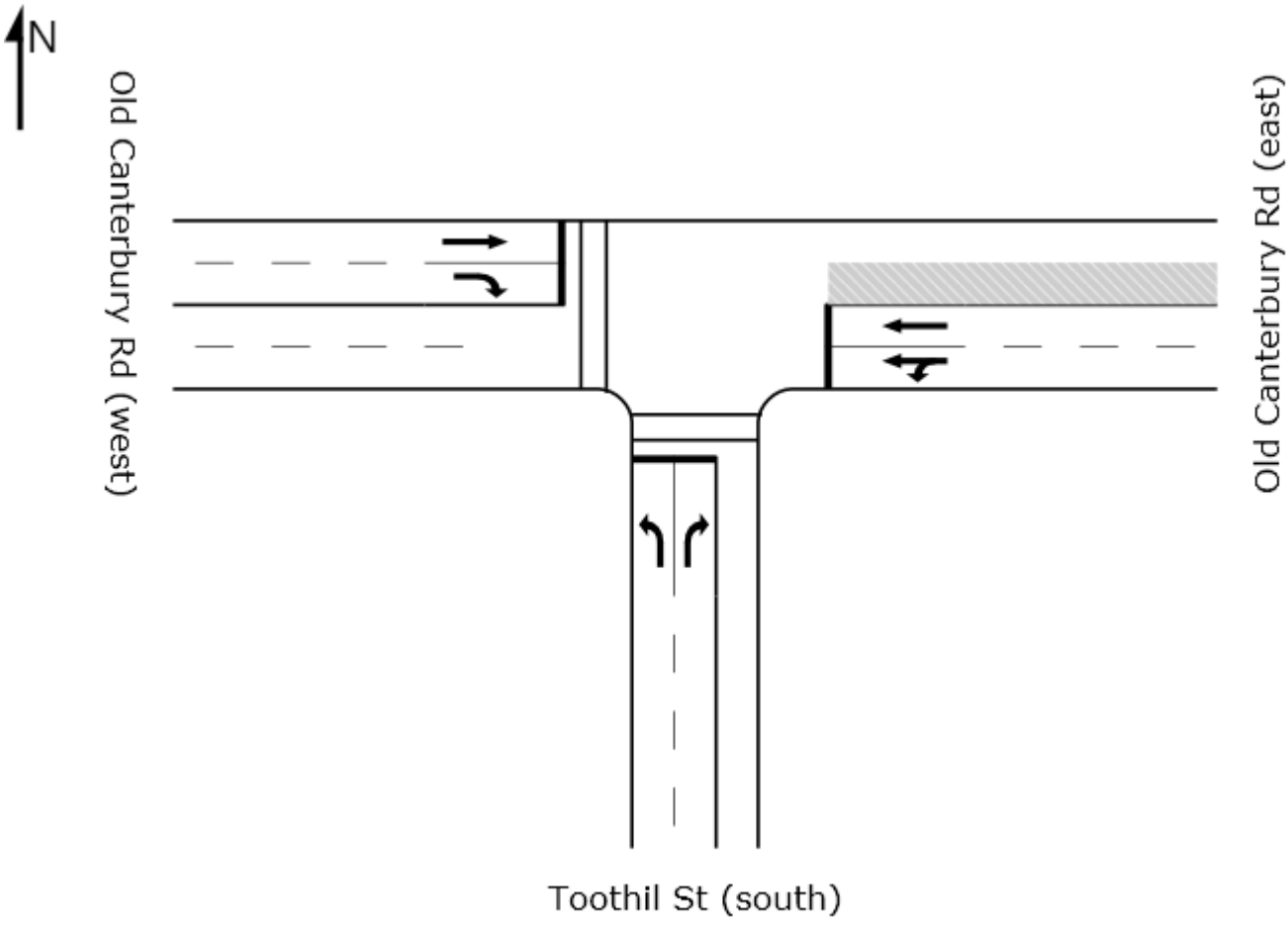
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Railway Tce (east)											
5	T	891	1.5	0.641	7.7	LOS A	23.0	163.0	0.56	0.52	47.4
6	R	464	1.5	0.845	44.2	LOS D	19.3	136.9	1.00	1.02	27.0
Approach		1355	1.5	0.845	20.2	LOS B	23.0	163.0	0.71	0.69	37.7
North: West St (north)											
7	L	499	1.5	0.852	40.6	LOS C	23.0	163.1	0.81	0.91	28.3
9	R	171	1.5	0.582	51.4	LOS D	9.7	68.6	0.98	0.81	24.8
Approach		670	1.5	0.852	43.3	LOS D	23.0	163.1	0.85	0.89	27.3
West: Railway Tce (west)											
10	L	103	1.5	0.671	31.3	LOS C	4.7	33.4	0.65	0.80	32.2
11	T	692	1.5	0.833	31.6	LOS C	32.9	232.9	0.96	0.93	30.6
Approach		795	1.5	0.833	31.6	LOS C	32.9	232.9	0.92	0.91	30.8
All Vehicles		2820	1.5	0.852	28.9	LOS C	32.9	232.9	0.80	0.80	32.7

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P5	Across N approach	53	20.5	LOS C	0.1	0.1	0.64	0.64
P7	Across W approach	53	43.2	LOS E	0.1	0.1	0.93	0.93
All Pedestrians		106	31.9				0.79	0.79

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).


N
Old Canterbury Rd (west)
Old Canterbury Rd (east)
Toothil St (south)

MOVEMENT SUMMARY

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
Aug AM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	178	1.0	0.529	37.5	LOS C	8.3	58.8	0.88	0.79	26.3
3	R	346	1.0	0.768	44.0	LOS D	16.5	116.4	0.99	0.90	24.2
Approach		524	1.0	0.768	41.8	LOS C	16.5	116.4	0.95	0.86	24.9
East: Old Canterbury Rd (east)											
4	L	277	3.0	0.706	37.0	LOS C	16.0	114.8	0.89	0.85	26.7
5	T	522	2.0	0.706	30.4	LOS C	16.5	117.8	0.89	0.78	27.6
Approach		799	2.3	0.706	32.7	LOS C	16.5	117.8	0.89	0.81	27.3
West: Old Canterbury Rd (west)											
11	T	952	1.0	0.790	7.0	LOS A	21.3	150.7	0.54	0.50	41.4
12	R	444	1.0	0.741	33.8	LOS C	15.3	108.3	0.86	1.02	27.6
Approach		1396	1.0	0.789	15.5	LOS B	21.3	150.7	0.64	0.66	35.7
All Vehicles		2719	1.4	0.789	25.6	LOS B	21.3	150.7	0.77	0.74	30.4

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS D. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	3	27.2	LOS C	0.0	0.0	0.78	0.78
P7	Across W approach	16	33.8	LOS D	0.0	0.0	0.87	0.87
All Pedestrians		19	32.8				0.85	0.85

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Feb Traffix Distrib for Lewisham

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
August PM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

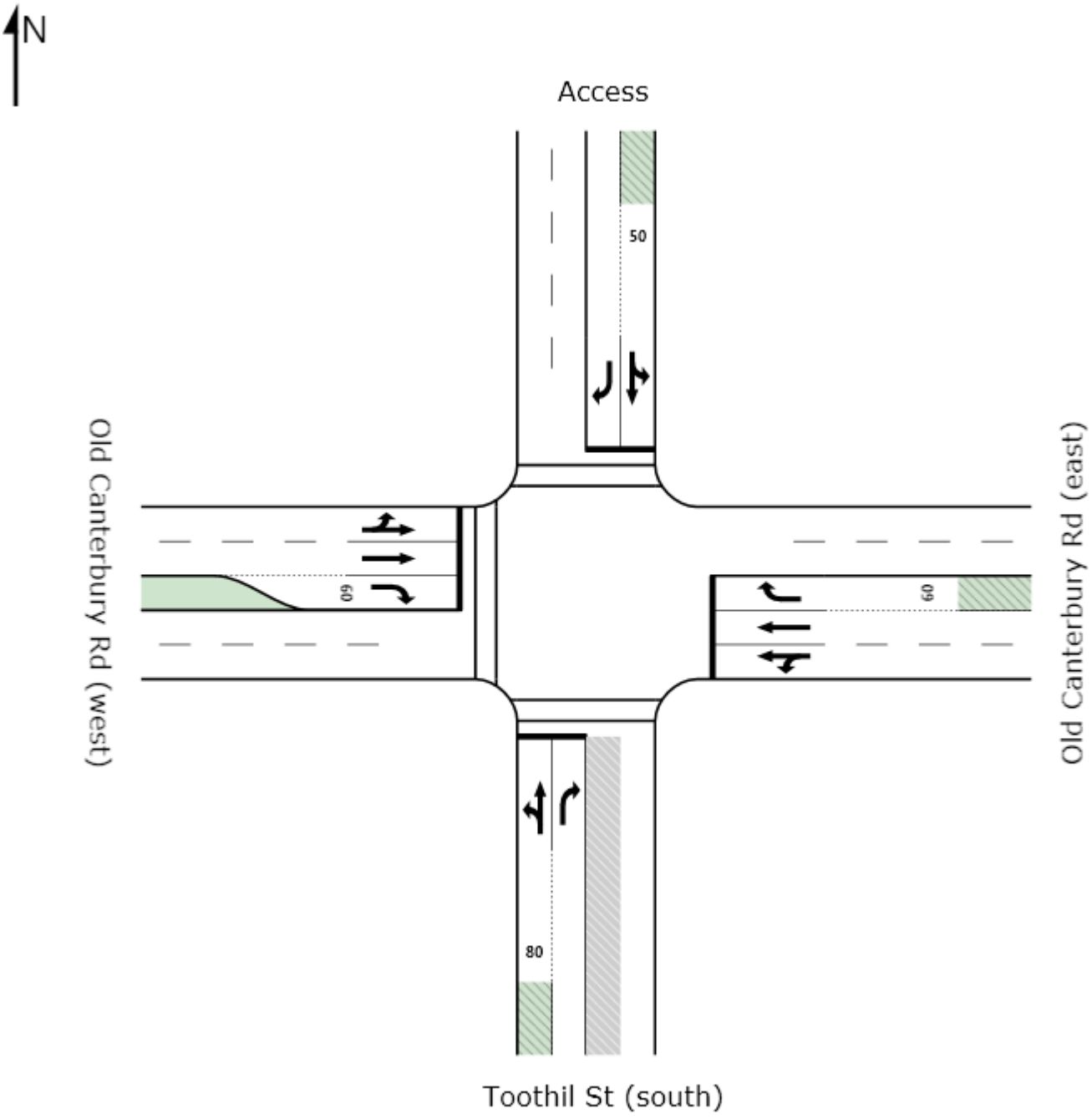
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	306	1.0	0.927	47.7	LOS D	15.2	107.6	0.98	0.91	23.3
3	R	433	0.0	0.998	89.0	LOS F	30.3	212.0	1.00	1.21	15.9
Approach		739	0.4	0.998	71.8	LOS F	30.3	212.0	0.99	1.09	18.3
East: Old Canterbury Rd (east)											
4	L	451	0.0	0.977	57.7	LOS E	54.8	383.6	1.00	1.18	21.2
5	T	1347	0.0	0.977	51.0	LOS D	56.0	391.7	1.00	1.22	21.5
Approach		1798	0.0	0.977	52.7	LOS D	56.0	391.7	1.00	1.21	21.5
West: Old Canterbury Rd (west)											
11	T	594	1.0	0.484	4.5	LOS A	8.5	59.9	0.28	0.25	44.2
12	R	237	2.0	0.945	64.5	LOS E	13.4	95.2	1.00	1.21	19.6
Approach		831	1.3	0.945	21.6	LOS B	13.4	95.2	0.49	0.53	32.5
All Vehicles		3367	0.4	0.998	49.2	LOS D	56.0	391.7	0.87	1.01	22.5

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	4	16.2	LOS B	0.0	0.0	0.60	0.60
P7	Across W approach	7	34.7	LOS D	0.0	0.0	0.88	0.88
All Pedestrians		11	28.0				0.78	0.78

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).


N
Access
50
60
60
80
Old Canterbury Rd (west)
Old Canterbury Rd (east)
Toothil St (south)

MOVEMENT SUMMARY

Site: AM Feb Traffix Distrib for Lewisham - Long Term Feb

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
Aug AM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 150 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	178	1.0	0.616	51.7	LOS D	12.2	86.2	0.84	0.79	22.3
2	T	6	0.0	0.612	45.3	LOS D	12.2	86.2	0.84	0.69	24.7
3	R	341	1.0	0.978	110.5	LOS F	34.1	240.5	1.00	1.10	13.7
Approach		525	1.0	0.978	89.8	LOS F	34.1	240.5	0.94	0.99	15.8
East: Old Canterbury Rd (east)											
4	L	277	3.0	0.334	13.0	LOS A	7.7	55.3	0.23	0.73	38.2
5	T	522	2.0	0.334	6.6	LOS A	8.0	56.8	0.23	0.21	42.4
6	R	44	0.0	0.219	20.4	LOS B	1.6	10.9	0.32	0.72	38.4
Approach		843	2.2	0.334	9.4	LOS A	8.0	56.8	0.24	0.40	40.7
North: Access											
7	L	39	0.0	0.162	50.7	LOS D	6.3	44.3	0.79	0.81	25.6
8	T	49	0.0	0.162	42.5	LOS C	6.3	44.3	0.79	0.63	26.2
9	R	39	0.0	0.144	60.1	LOS E	3.4	23.6	0.85	0.75	22.6
Approach		127	0.0	0.162	50.4	LOS D	6.3	44.3	0.81	0.72	24.8
West: Old Canterbury Rd (west)											
10	L	1	0.0	0.416	15.6	LOS B	12.3	86.8	0.28	0.91	42.7
11	T	1147	1.0	0.472	7.4	LOS A	12.3	86.8	0.28	0.25	41.6
12	R	249	1.0	0.999	28.0	LOS B	15.3	108.0	0.98	0.90	29.9
Approach		1397	1.0	1.000	11.1	LOS A	15.3	108.0	0.40	0.37	38.8
All Vehicles		2893	1.3	1.000	26.6	LOS B	34.1	240.5	0.47	0.51	30.4

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	3	12.8	LOS B	0.0	0.0	0.41	0.41
P5	Across N approach	53	12.8	LOS B	0.1	0.1	0.41	0.41
P7	Across W approach	16	48.0	LOS E	0.1	0.1	0.80	0.80
All Pedestrians		72	20.6				0.50	0.50

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS E. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Site: PM Feb Traffix Distrib for Lewisham - Long Term Feb

Old Canterbury Rd - Toothil St
(Existing + McGill+Mills Traffic) Four Way Intersection
August PM Peak (90 sec cycle time)
Signals - Fixed Time Cycle Time = 90 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

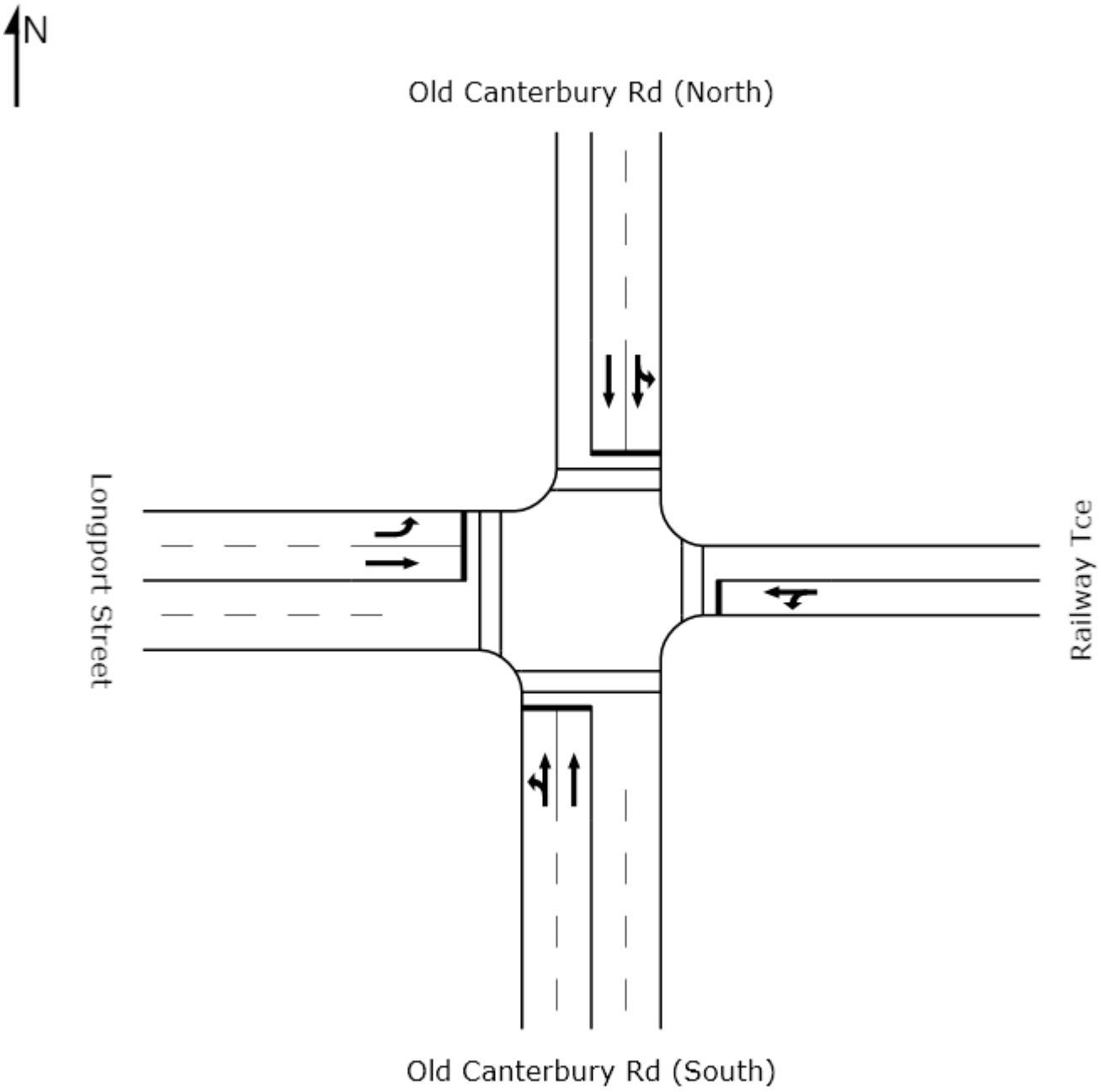
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Toothil St (south)											
1	L	306	1.0	0.695	34.5	LOS C	13.5	95.0	0.87	0.84	27.4
2	T	15	0.0	0.693	28.0	LOS B	13.5	95.0	0.87	0.76	30.7
3	R	419	0.0	1.156	209.1	LOS F	47.8	334.3	1.00	1.73	8.3
Approach		740	0.4	1.156	133.2	LOS F	47.8	334.3	0.95	1.34	11.9
East: Old Canterbury Rd (east)											
4	L	451	0.0	0.858	24.1	LOS B	32.0	224.3	0.79	0.92	32.2
5	T	1347	0.0	0.857	17.6	LOS B	32.6	228.5	0.79	0.78	33.5
6	R	177	0.0	0.512	22.7	LOS B	5.8	40.9	0.57	0.78	36.9
Approach		1975	0.0	0.857	19.5	LOS B	32.6	228.5	0.77	0.81	33.5
North: Access											
7	L	18	0.0	0.249	32.4	LOS C	6.6	46.4	0.78	0.86	33.1
8	T	138	0.0	0.249	24.2	LOS B	6.6	46.4	0.78	0.64	34.2
9	R	85	0.0	0.364	44.0	LOS D	4.7	33.2	0.91	0.78	27.1
Approach		241	0.0	0.364	31.8	LOS C	6.6	46.4	0.83	0.70	31.2
West: Old Canterbury Rd (west)											
10	L	1	0.0	0.322	16.6	LOS B	7.3	51.4	0.39	0.89	42.0
11	T	706	1.0	0.338	8.4	LOS A	7.3	51.4	0.39	0.34	40.4
12	R	124	2.0	1.137	199.2	LOS F	15.1	107.7	1.00	1.59	8.6
Approach		832	1.3	1.137	37.0	LOS C	15.1	107.7	0.48	0.53	26.0
All Vehicles		3787	0.4	1.156	46.4	LOS D	47.8	334.3	0.74	0.84	23.6

Level of Service (Aver. Int. Delay): LOS D. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	4	12.8	LOS B	0.0	0.0	0.53	0.53
P5	Across N approach	53	12.8	LOS B	0.1	0.1	0.53	0.53
P7	Across W approach	7	30.4	LOS D	0.0	0.0	0.82	0.82
All Pedestrians		64	14.7				0.56	0.56

Level of Service (Aver. Int. Delay): LOS B. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS D. LOS Method for individual pedestrian movements: Delay (HCM).


N
Old Canterbury Rd (North)
Longport Street
Railway Tce
Old Canterbury Rd (South)

MOVEMENT SUMMARY

Railway Tce - Old Canterbury Rd
AM (Existing + McGill+MillsTraffic)
August 2010
Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	70	1.4	0.219	25.4	LOS B	8.4	59.2	0.61	0.82	31.6
2	T	1161	0.4	1.095	136.8	LOS F	117.1	822.7	0.96	1.53	11.4
Approach		1231	0.5	1.095	130.4	LOS F	117.1	822.7	0.94	1.49	11.8
East: Railway Tce											
4	L	35	12.0	0.985	81.4	LOS F	66.7	471.8	1.00	1.22	17.4
5	T	784	0.8	0.980	74.7	LOS F	66.7	471.8	1.00	1.22	17.3
Approach		819	1.3	0.980	75.0	LOS F	66.7	471.8	1.00	1.22	17.3
North: Old Canterbury Rd (North)											
7	L	140	2.1	0.438	28.1	LOS B	16.5	117.0	0.70	0.85	30.5
8	T	670	1.6	0.438	21.6	LOS B	16.7	118.6	0.70	0.62	31.6
Approach		810	1.7	0.438	22.7	LOS B	16.7	118.6	0.70	0.66	31.4
West: Longport Street											
10	L	165	0.0	0.205	28.8	LOS C	7.6	53.0	0.66	0.76	29.5
11	T	932	0.1	1.104	161.6	LOS F	107.9	756.3	1.00	1.70	10.0
Approach		1097	0.1	1.104	141.7	LOS F	107.9	756.3	0.95	1.56	11.1
All Vehicles		3957	0.8	1.104	100.0	LOS F	117.1	822.7	0.91	1.28	14.4

Level of Service (Aver. Int. Delay): LOS F. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	25.4	LOS C	0.1	0.1	0.65	0.65
P3	Across E approach	11	18.7	LOS B	0.0	0.0	0.56	0.56
P5	Across N approach	2	23.4	LOS C	0.0	0.0	0.63	0.63
P7	Across W approach	5	21.6	LOS C	0.0	0.0	0.60	0.60
All Pedestrians		41	23.0				0.62	0.62

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

MOVEMENT SUMMARY

Railway Tce - Old Canterbury Rd
PM (Existing + McGill+Mills Traffic)
August 2010
Signals - Fixed Time Cycle Time = 120 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Old Canterbury Rd (South)											
1	L	120	0.8	0.196	32.0	LOS C	7.0	49.6	0.70	0.77	28.4
2	T	769	0.0	0.977	74.5	LOS F	60.2	421.4	0.99	1.20	17.4
Approach		889	0.1	0.977	68.7	LOS E	60.2	421.4	0.95	1.14	18.3
East: Railway Tce											
4	L	99	6.1	0.982	76.9	LOS F	81.6	576.6	1.00	1.20	18.0
5	T	895	0.6	0.984	70.3	LOS E	81.6	576.6	1.00	1.20	18.0
Approach		994	1.2	0.984	70.9	LOS F	81.6	576.6	1.00	1.20	18.0
North: Old Canterbury Rd (North)											
7	L	76	5.3	0.961	75.7	LOS F	56.0	394.6	1.00	1.17	18.2
8	T	1386	0.2	0.963	69.0	LOS E	56.5	395.8	1.00	1.17	18.2
Approach		1462	0.4	0.963	69.4	LOS E	56.5	395.8	1.00	1.17	18.2
West: Longport Street											
10	L	92	0.0	0.094	21.4	LOS B	3.8	26.3	0.53	0.71	33.0
11	T	702	0.1	0.686	22.5	LOS B	30.5	213.6	0.80	0.73	31.2
Approach		794	0.1	0.686	22.3	LOS B	30.5	213.6	0.77	0.73	31.4
All Vehicles		4139	0.5	0.984	60.6	LOS E	81.6	576.6	0.95	1.09	19.8

Level of Service (Aver. Int. Delay): LOS E. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).
Level of Service (Worst Movement): LOS F. LOS Method for individual vehicle movements: Delay (RTA NSW).
Approach LOS values are based on average delay for all vehicle movements.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	Across S approach	23	18.7	LOS B	0.0	0.0	0.56	0.56
P3	Across E approach	11	25.4	LOS C	0.0	0.0	0.65	0.65
P5	Across N approach	2	17.1	LOS B	0.0	0.0	0.53	0.53
P7	Across W approach	5	28.7	LOS C	0.0	0.0	0.69	0.69
All Pedestrians		41	21.6				0.60	0.60

Level of Service (Aver. Int. Delay): LOS C. Based on average delay for all pedestrian movements. LOS Method: Delay (HCM).
Level of Service (Worst Movement): LOS C. LOS Method for individual pedestrian movements: Delay (HCM).

Appendix C

Sidra Explanatory Notes

Description and Classification Methods

Glossary and descriptions are generally in accordance with the recommendations of Australian Standards AS 1348-1986.

Term	Definition
access control control of access	1. Preventing vehicles and people crossing property lines by means of barriers or regulations. 2. Arranging matters so that vehicles and people have access at predetermined locations.
amenity	That element in the layout and operation of town and country which makes for a comfortable and pleasant life rather than a mere existence. It relates also to the preservation of such characteristics of a neighbourhood as make it pleasing in appearance to both the passer-by as well as to the resident and those across the road.
assignment traffic assignment	Process of allocating trips onto existing or planned routes available on the road or public transport network. Assignment may be based on one or more factors known to influence route selection, eg travel time, distance, cost.
at-grade crossing level crossing	Crossing at the same level, such as a railway crossing which is at the same level as a road, or a normal road intersection.
base case	System that would exist without the introduction of the changes proposed in the project being analysed.
calibration	Process of determining the parameters of the mathematical travel models so that these models simulate observed travel patterns as accurately as possible.
capacity	Maximum flow of trains, vehicles, passengers or goods that can be accommodated in a transport system in a specified period.
road capacity	Maximum number of vehicles or pedestrians that can pass over a given section of a lane, road or footpath in one direction (or in both directions for a two-lane or three-lane road) during a given time period under prevailing road and traffic conditions. It is the maximum rate of flow that has a reasonable expectation of occurring. In the absence of a time modifier, capacity is an hourly volume. The capacity would not normally be exceeded without changing one or more of the conditions that prevail. In expressing capacity, it is essential to state the prevailing road and traffic conditions under which the capacity is applicable.
census collector's district (abbreviation **CCD**)	Unit of area for which each census collector is responsible for collecting information. CCDs are the smallest individual areas for which basic land use and population data are available in Australia.
central business district (abbreviation **CBD**)	Dominant area of business and commercial activity within a given area. CBDs are characterised by high density office and retail development, large numbers of pedestrians and vehicles, and a heavy demand for parking. Also known as central activities district (CAD).
centroid	Assumed point in a traffic zone that represents the origin or destination of all trips to or from the zone. Generally, the weighted centre of trip ends rather than a geometric centre of the zonal area.
commercial vehicle	Road vehicle constructed specifically to convey goods, passengers or burden in the course of trade or business.
cordon	Imaginary line drawn around a given study area at which traffic counts and interviews may be taken.
desire line	Straight line joining two centroids and showing the desired direction of travel.
distribution	Process by which the number of trips between zones is estimated. The distribution may be measured or be estimated by a growth factor process or by a synthetic model such as a gravity model.
85th Percentile	Value of variable characteristic of individuals in a population, possessed by at or below 85 per cent of that population.
elasticity	Ratio of the change in demand for a commodity to the change in price of that commodity. In transport, a high ratio is termed elastic while a low ratio is termed inelastic.
grade separation	The separation of road, rail or other traffic so that crossing movements which would otherwise conflict are effected at different elevations.
journey	Movement involving one or more trips, eg: (a) a 'journey-to-work', which could involve a direct trip to work or an intermediate stop for some other but secondary purpose; (b) an 'origin-to-origin' journey, which could involve several trips, each for a particular purpose. Home-to-home journeys have also been termed 'tours'.
model	Mathematical description of a situation which uses data on past and present conditions to make predictions about the effects of changes.
passenger car unit equivalent car unit	Measure involving the conversion of different types of vehicles into their equivalent passenger cars in terms of operating characteristics.
public transport	Service by bus, rail, taxi or other means which provides transport to the public on a regular basis for payment of a prescribed fare.
road hierarchy	Grading of roads according to increasing or decreasing importance of their traffic carrying or other function.
screenline	Imaginary line which splits a study area into two parts. Usually located along railway lines or rivers to minimise the number of crossing points.
sight distance	The distance measured along the carriageway over which objects of defined height are visible to a driver.

Term	Definition
traffic	movement between locations of persons, goods and information by means of mechanical, electrical or personal methods.
base traffic	That traffic already present on a facility, or that traffic unlikely to be affected by design changes.
by-passable traffic	That traffic which can be diverted from a particular road or area because drivers do not wish to stop on that road or in that area.
local by-passable traffic	Term normally used to refer to short distance traffic that can be diverted, usually at the expense of increased distance, not increased time.
through by-passable traffic	Term normally used to refer to longer distance traffic that can be diverted without significant time or distance penalties.
converted traffic	Component of traffic which has changed its mode of travel, eg from train to car.
diverted traffic	Component of traffic which has changed its route but not its origin, destination, or mode of travel.
generated traffic	1. Traffic created by a new or improved facility as distinct from traffic which is diverted to a facility and normal traffic increase. 2. Traffic created by changes in land use.
induced traffic	Additional traffic resulting from some improvement in a road or in traffic arrangements.
potential traffic	Total volume which would move between two terminals assuming ideal travelling conditions.
shifted traffic	Component of traffic whose desire lines have been shifted because of change of origin or destination.
suppressed traffic	Reduction in traffic volume resulting from a change in traffic arrangements.
trip	1. One-way movement from one place to another for a particular purpose (*see also* **journey**). Note: Care is required in applying this general definition. In particular, the definition of 'purpose' will affect the way in which person, vehicle or commodity movements are classified into trips. In travel surveys, the 'purpose' set often includes 'change mode' and 'serve passenger', thus making a trip correspond to a movement by only one mode. Movements for these purposes have been varyingly called 'legs', 'segments', or 'unlinked trips', in transport planning practice. For analyses, trips are often 'linked', thus making a trip embrace more than one mode and/or lower order purpose. 2. In public vehicle operations: the movement by one vehicle or unit in one direction from the start of a route to the end of it.
external trip	Trip which starts or ends outside the study area.
through trip	Trip which starts and ends outside the study area, but which passes through the study area.
internal trip`	Trip which starts and ends in the study area.
linked trip	One-way movement from one place to another for a specific purpose, involving more than one mode of travel.
trip distribution	1. The geographical distribution of trips. 2. Process by which the total number of trips is converted to individual zone-to-zone movements.
vehicle hours of travel (abbreviation **VHT**)	Total vehicle hours of travel over a road segment or number of road segments for a certain period, usually a specified year.
vehicle kilometres of travel (abbreviation **VKT**)	Total vehicle kilometres of travel over a road segment or number of road segments for a certain period, usually a specified year.
volume	Number of persons, vehicles or pedestrians passing a given point in a specified period of time.

Field surveys have been used to assess conditions. Unless specifically stated otherwise, these assessments have been transferred directly to the record sheets and not modified. Field descriptions may therefore be used as an independent estimate of conditions which can be correlated with other data.

AUSTROADS Design Vehicle Classification (AUSTROADS/SAA, 1995)

Bicycles		see Austroads Part 13	
Motorcycles		see Austroads Part 13	
Car/van - 85th percentile car,	99th percentile car	5.0 metres long	2 axles
Service vehicle		8.8 metres long	2 axles
Single unit truck/bus		12.5 metres long	3 axles
Long rigid bus		14.5 metres long	3 axles
Articulated bus		19.0 metres long	4 axles
Prime mover and semi-trailer		19.0 metres long	6 axles
Prime mover and long semi-trailer		25.0 metres long	6 axles
B-Double		25.0 metres long	9 axles
Road train		36.0 – 53.0 metres long	11-16 axles

Levels of Service

- **Level of Service A** is a condition of free flow in which individual drivers are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is extremely high, and the general level of comfort and convenience provided is excellent.
- **Level of Service B** is in the zone of stable flow and drivers still have reasonable freedom to select their desired speed and to manoeuvre within the traffic stream, although the general level of comfort and convenience is a little less than with level of service A.
- **Level of Service C** is also in the zone of stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience declines noticeably at this level.
- **Level of Service D** is close to the limit of stable flow and is approaching unstable flow. All drivers are severely restricted in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is poor, and small increases in traffic flow will generally cause operational problems.
- **Level of Service E** occurs when traffic volumes are at or close to capacity, and there is virtually no freedom to select desired speeds or to manoeuvre within the traffic stream. Flow is unstable and minor disturbances within the traffic stream will cause break-down.
- **Level of Service F** is the zone of forced flow. With it, the amount of traffic approaching the point under consideration exceeds that which can pass it. Flow break-down occurs, and queuing and delays result.

INTANAL and Levels of Service

The intersections in the immediate vicinity of the site which will experience site generated traffic have been modelled using INTANAL, version 3.13.

Level of Service: The Level of Service (LoS) for the three Control Modes is based on the average delay in seconds per vehicle.

For *Traffic Signals*, the average delay per vehicle is calculated as Delay/(All Vehicles).

0 to 14 = "A"	Good
15 to 28 = "B"	Good with minimal delays and spare capacity.
29 to 42 = "C"	Satisfactory with spare capacity.
43 to 56 = "D"	Satisfactory but operating near capacity.
57 to 70 = "E"	At capacity and incidents will cause excessive delays.
>70 = "F"	Unsatisfactory and requires additional capacity.

For *Give Way and Stop Signs*, the average delay per vehicle is selected from the movement with the highest average delay per vehicle.

0 to 14 = "A"	Good.
15 to 28 = "B"	Acceptable delays and spare capacity.
29 to 42 = "C"	Satisfactory but accident study required.
43 to 56 = "D"	Near capacity and accident study required.
57 to 70 = "E"	At capacity and requires other Control Mode.
>70 = "F"	Unsatisfactory and required other Control Mode.

For *Roundabouts*, the average delay per vehicle is selected from the movement with the highest average delay per vehicle.

0 to 14 = "A"	Good.
15 to 28 = "B"	Acceptable delays and spare capacity.
29 to 42 = "C"	Satisfactory.
43 to 56 = "D"	Near capacity.
57 to 70 = "E"	At capacity and requires other Control Mode.
>70 = "F"	Unsatisfactory and requires other Control Mode.

Degree of Saturation: The DS is another measure of the operational performance of individual intersections. As both queue length and delay increase rapidly as DS approaches 1.0, it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 residual queues can be anticipated.

Road Classification

Broad Classification

Arterial Roads	Freeways	Those roads with full access control and grade separated intersections, whose primary function is to service large traffic movements.
	Primary Arterial Roads	Those arterial roads whose main function is to form the principal avenue of communication for metropolitan traffic movement not catered for by freeways.
	Secondary Arterial Roads	Those roads which supplement the Primary Arterial Roads in providing for through traffic movement, to an individually determined limit that is sensitive to both roadway characteristics and abutting land users.
Local Roads	Collector Roads	Those non arterial or 'intermediate' roads which distribute traffic between the arterial roads and the local street system, which provide local connection between arterial roads and which provide access to abutting property. It is the collector road, which mixes the basic functions of carrying traffic – often at excessive speed – and serving as a local residential street, that is the generator of many of the problems encountered in traffic management in Local Traffic Areas.
	Local Access Streets	Those streets, not being arterials or collectors, whose main (traffic) function is to provide access to abutting property.

Source: Austroads Part 10, 1988

Classification of Residential Streets

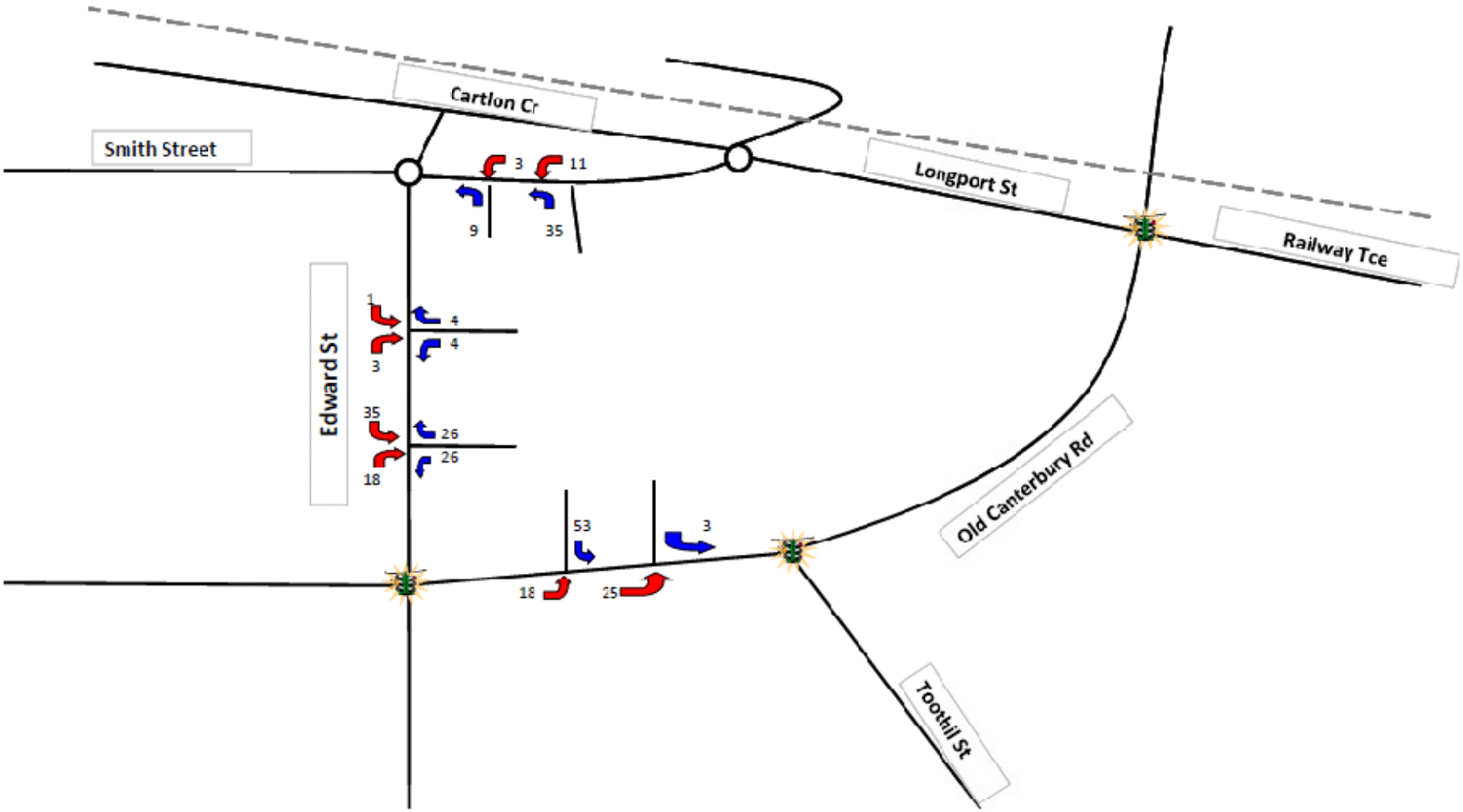
Access Street	Access Place	The lowest order of street providing access to sites without any traffic generated by sites in other streets. Target maximum speed 15 km/h. Indicative traffic volume 300 vpd.
	Local Street	Access streets are generally streets where the residential environment is dominant, traffic is subservient, speed and volume are low and pedestrians and cycle movements are facilitated. Target maximum speed 40 km/h. Indicative traffic volume <200 vpd.
Collector Streets	Minor Collector	The collector street collects traffic from access streets and carries higher volumes of traffic. A reasonable level of residential amenity and safety is maintained by restricting traffic volumes and vehicle speeds. Vehicle speeds are controlled by street alignment, intersection design and, in some cases, by speed control measures. Target maximum speed 50 km/h. Indicative traffic volume <3000 vpd.
	Major Collector	The major collector is generally short and connects the collector street with the road corridor network. Fronting development should still be encouraged, but with siting conditions which ensure acceptable amenity and safety. Target maximum speed 60 km/h. Indicative traffic volume <6000 vpd.

Source: AMCORD 1995, Element 1.3 Street Networks

Appendix D

SHFM Site Forecast Vehicle Turning Movements

Allied Mills Traffic Generation - AM Peak (8am - 9am)



Allied Mills Traffic Generation - PM Peak (4pm - 5pm)