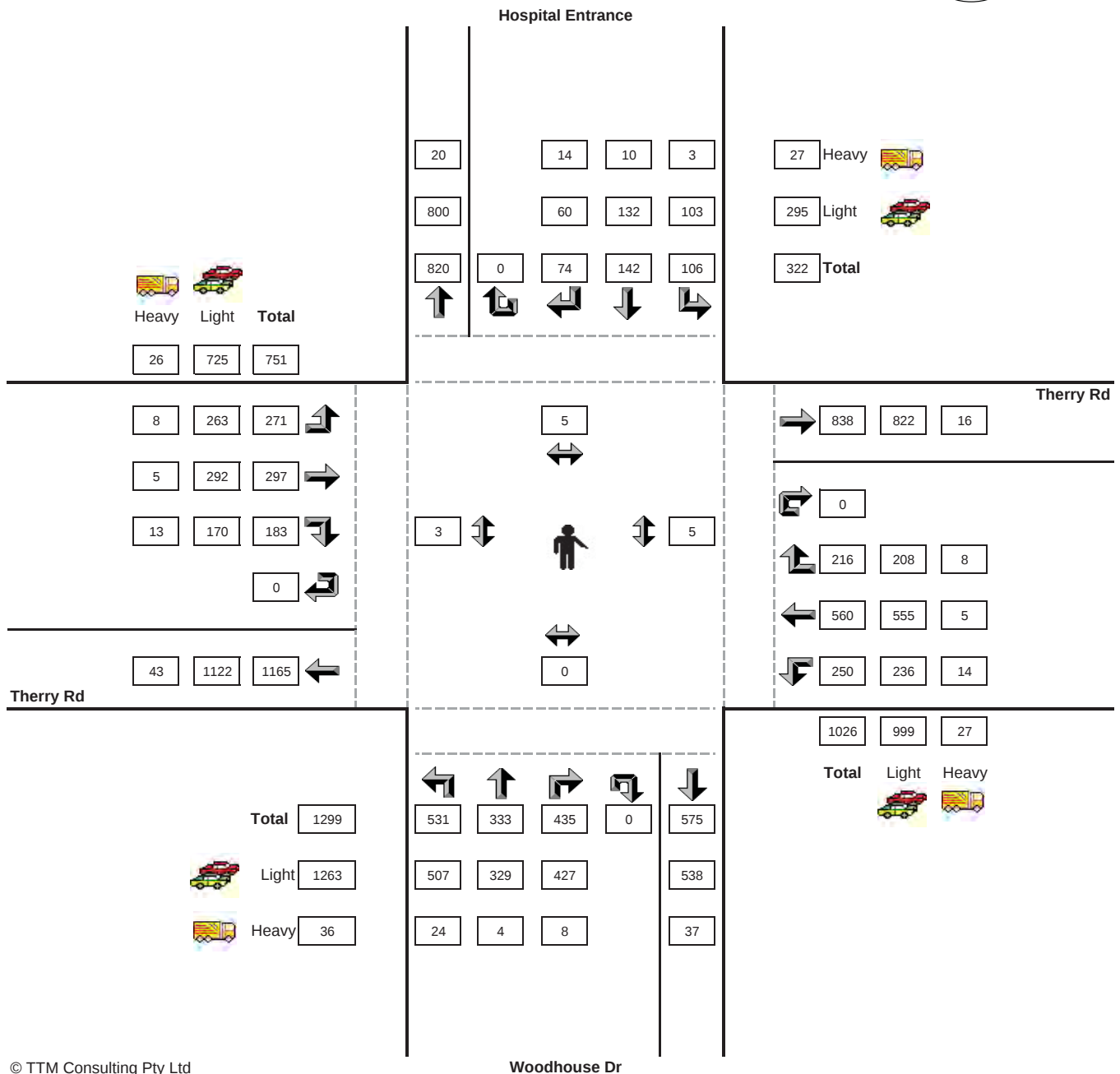


TTM Reference: 80711
 Location: Therry Rd / Woodhouse Dr
 Suburb: Campbelltown
 Date: Thursday 28-10-10
 Survey Period: 0700-0900
 Weather: Early morning showers / Fine PM



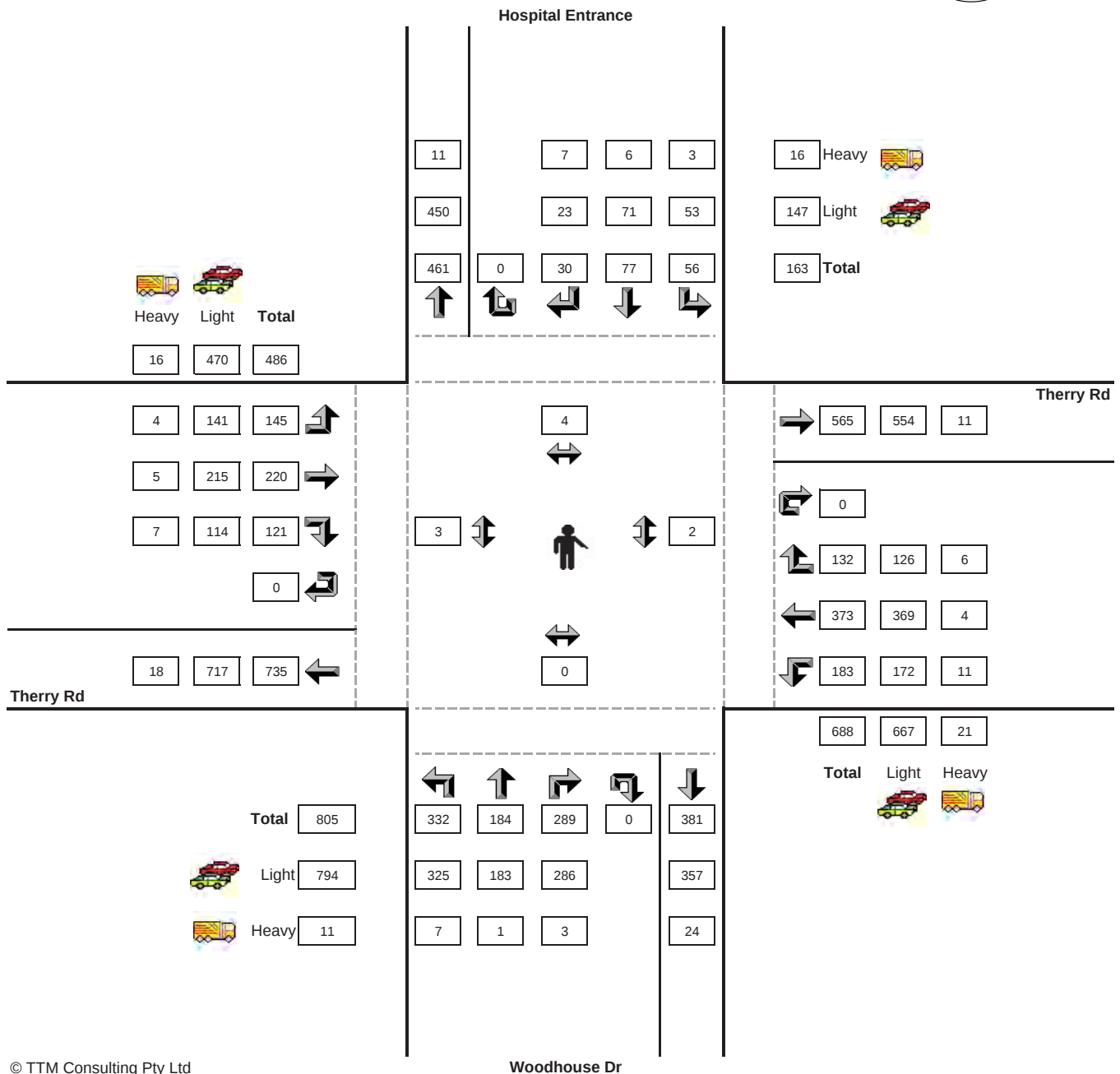
www.ttmgroup.com.au

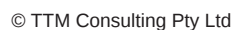


TTM Reference: 80711
 Location: Therry Rd / Woodhouse Dr
 Suburb: Campbelltown
 Date: Thursday 28-10-10
 AM Peak 0800-0900
 Weather: Early morning showers / Fine PM



www.ttmgroup.com.au





Manual Count Data

TTM Reference: **80711**
Location: **Roundabout north of Therry Rd/Woodhouse Dr Intersection**
Suburb: **Campbelltown**
Date: **Thursday 28-10-10**
Duration: **0700-0900 & 1500-1800**
Weather: **Early morning showers / Fine PM**
Notes:



Peak Hours

AM Peak Hour: **0745-0845**
PM Peak Hour: **1630-1730**

Links

Graphical Reports

- [AM Full Graphical Report](#)
- [AM Peak Hour Graphical Report](#)
- [PM Full Graphical Report](#)
- [PM Peak Hour Graphical Report](#)

Tabular Report

- [Tabulated Data](#)

Image

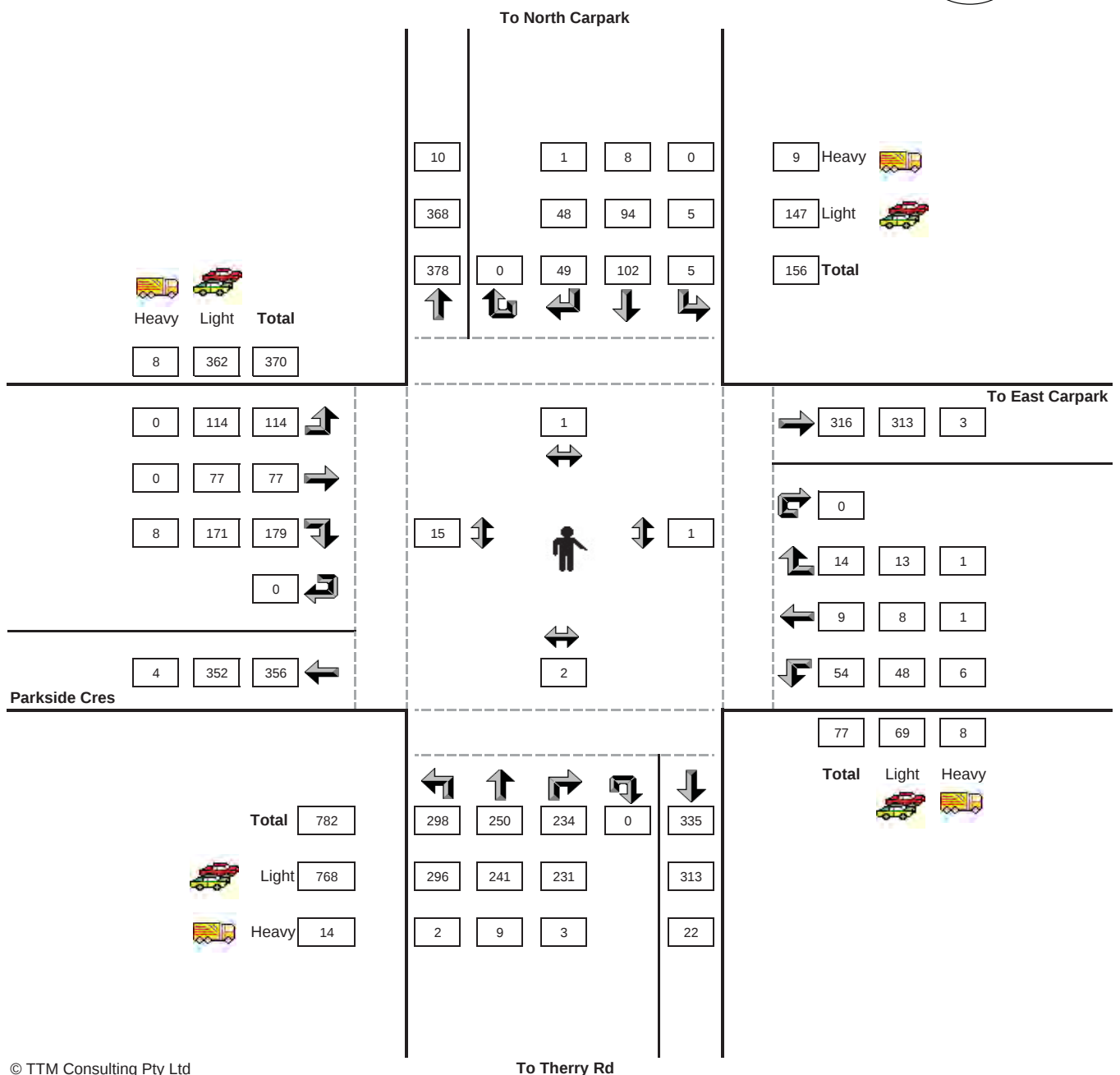


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TTM Reference: 80711
 Location: Roundabout north of Therry Rd/Woodhouse Dr Intersection
 Suburb: Campbelltown
 Date: Thursday 28-10-10
 Survey Period: 0700-0900
 Weather: Early morning showers / Fine PM



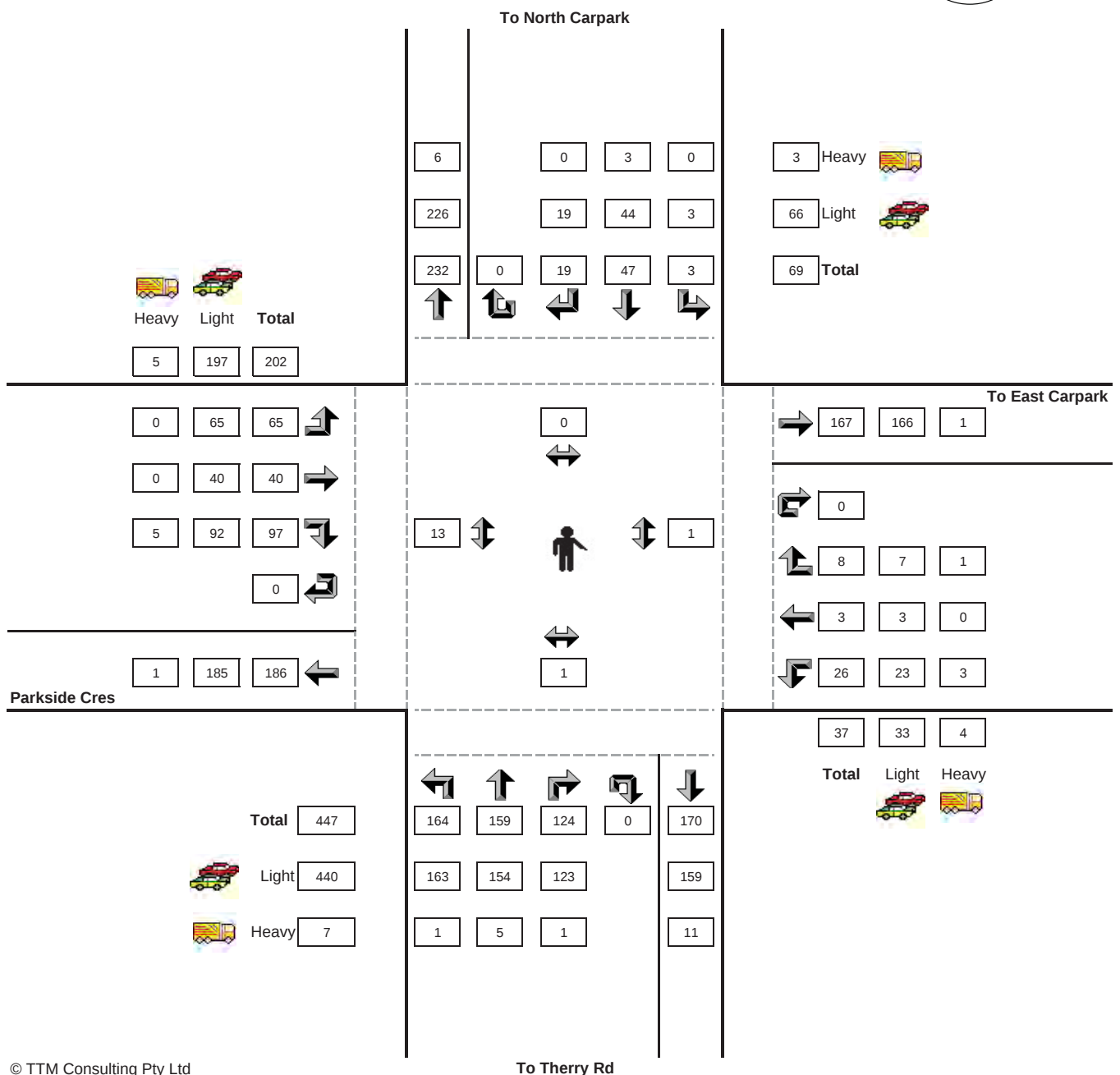
www.ttmgroup.com.au



TTM Reference: 80711
 Location: Roundabout north of Therry Rd/Woodhouse Dr Intersection
 Suburb: Campbelltown
 Date: Thursday 28-10-10
 AM Peak 0745-0845
 Weather: Early morning showers / Fine PM



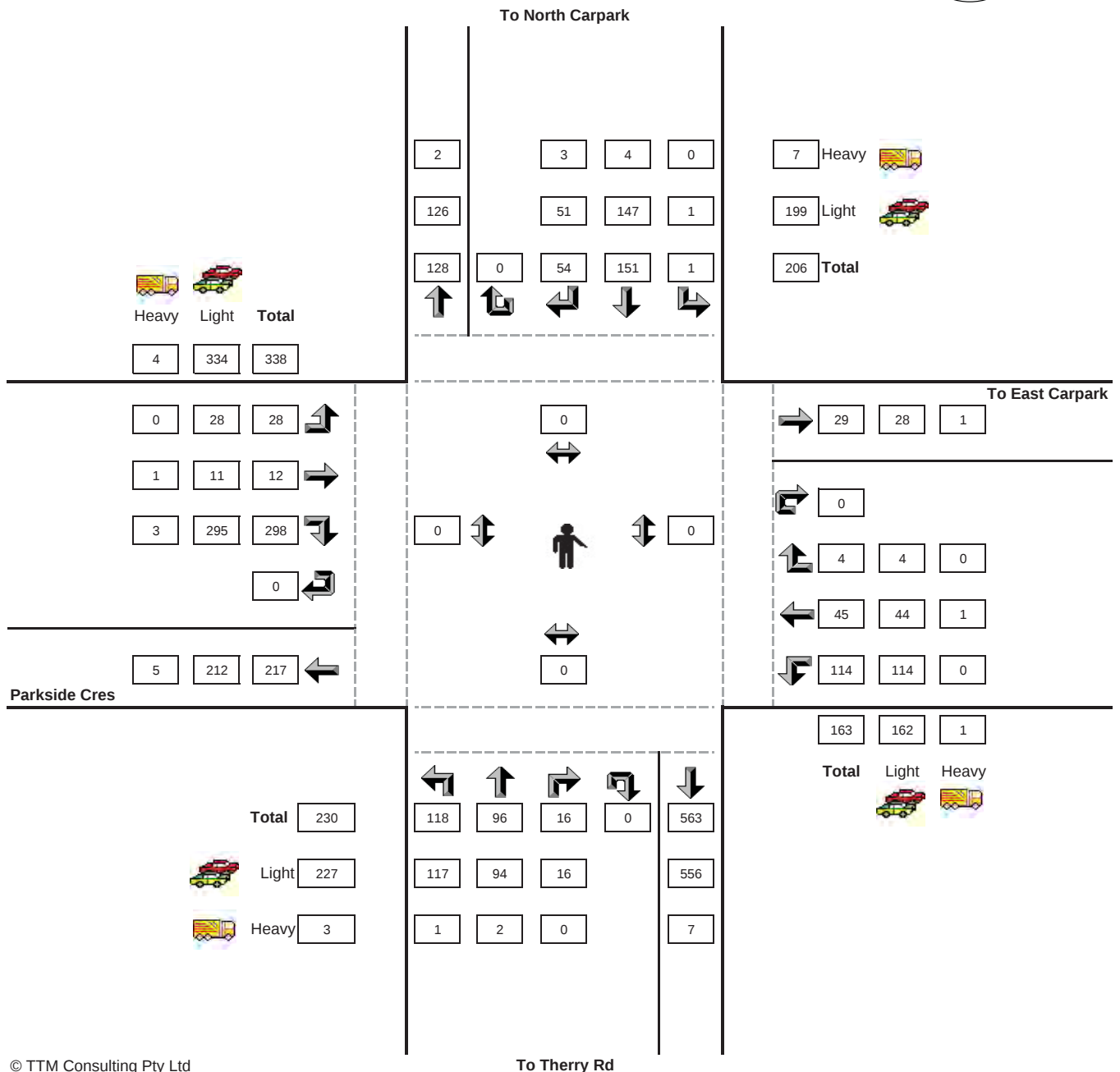
www.ttmgroup.com.au



TTM Reference: 80711
 Location: Roundabout north of Therry Rd/Woodhouse Dr Intersection
 Suburb: Campbelltown
 Date: Thursday 28-10-10
 PM Peak 1630-1730
 Weather: Early morning showers / Fine PM



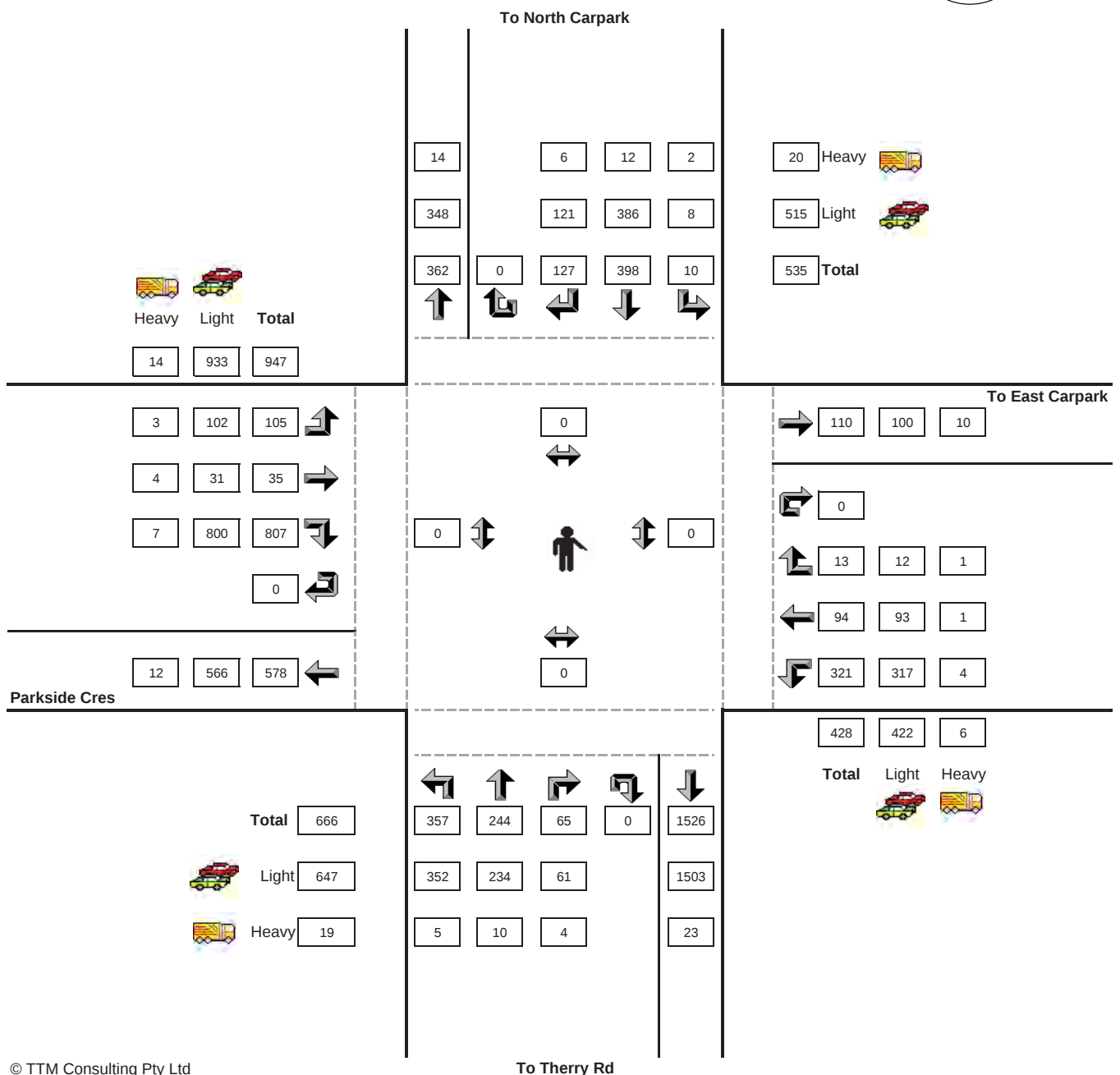
www.ttmgroup.com.au



TTM Reference: 80711
 Location: Roundabout north of Therry Rd/Woodhouse Dr Intersection
 Suburb: Campbelltown
 Date: Thursday 28-10-10
 Survey Period: 1500-1800
 Weather: Early morning showers / Fine PM



www.ttmgroup.com.au



15/12/2011 - NARELLAN RD / KELLICAR RD, CAMPBELLTOWN

9:00 <<< HOUR ENDING

Thursday

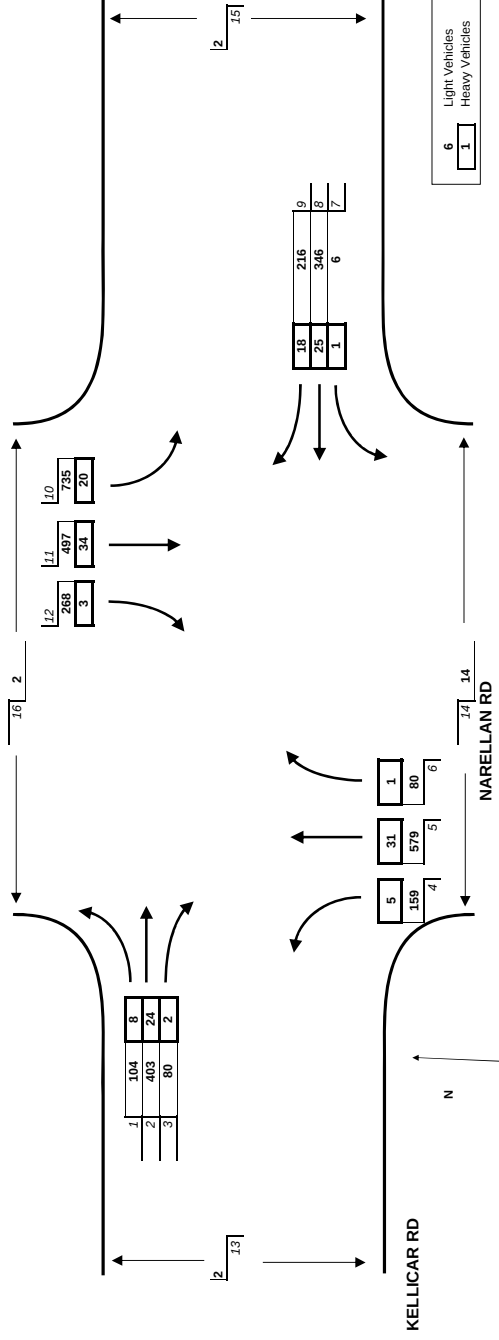
Summary:

KELLICAR RD / NARELLAN RD

3473	Total Light Vehicles
172	Total Heavy Vehicles
20	Total Pedestrians



Quality Surveys



15/12/2011 - NARELLAN RD / KELLICAR RD, CAMPBELLTOWN

Light Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	Total Vehicles 15 MIN HOUR		13	14	15	16
07:15	29	70	9	14	129	20	1	32	50	73	61	20	508			0	3	0	1
07:30	18	58	7	7	131	20	0	35	49	91	59	49	524			0	1	0	1
07:45	21	64	7	15	155	15	1	45	41	90	106	48	608			0	1	0	0
08:00	20	84	26	20	114	22	3	58	50	115	92	59	663	2303		0	4	0	0
08:15	20	96	22	23	134	18	2	59	47	165	121	72	779	2574		0	4	1	0
08:30	22	107	18	31	164	23	1	89	62	200	138	67	922	2972		1	1	0	0
08:45	35	114	11	42	158	18	2	100	44	182	112	60	878	3242		0	4	0	0
09:00	27	86	29	63	123	21	1	98	63	188	126	69	894	3473	<	1	5	1	2
Heavy Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	Total Vehicles 15 MIN HOUR					
07:15	1	3	0	0	5	0	0	0	3	6	4	12	0	34					
07:30	0	3	0	0	3	1	0	7	7	11	9	2	43						
07:45	1	6	0	0	8	0	1	6	3	10	6	0	41						
08:00	0	6	0	0	5	0	0	6	7	11	13	<	3	51	169				
08:15	1	3	1	2	7	0	0	5	7	10	<	4	1	41	176	<			
08:30	1	5	0	1	8	0	0	7	3	4	5	1	35	168					
08:45	2	10	<	1	0	8	1	0	9	2	4	11	0	48	175				
09:00	4	6	0	2	8	0	0	1	4	6	2	14	1	48	172				
All Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	Total Vehicles 15 MIN HOUR					
07:15	30	73	9	14	134	20	1	35	56	77	73	20	542						
07:30	18	61	7	7	134	21	0	42	56	102	68	51	567						
07:45	22	70	7	15	163	15	2	51	44	100	112	48	649						
08:00	20	90	26	20	119	22	3	64	57	126	105	62	714	2472					
08:15	21	99	23	25	141	18	2	64	54	175	125	73	820	2750					
08:30	23	112	18	32	172	23	1	96	65	204	143	68	957	3140					
08:45	37	124	12	42	166	19	2	109	46	186	123	60	926	3417					
09:00	31	92	29	65	131	21	2	102	69	190	140	70	942	3645	<				

Note : Arrows "<" indicate the end time for the peak hour for each turning movement.



Quality Surveys

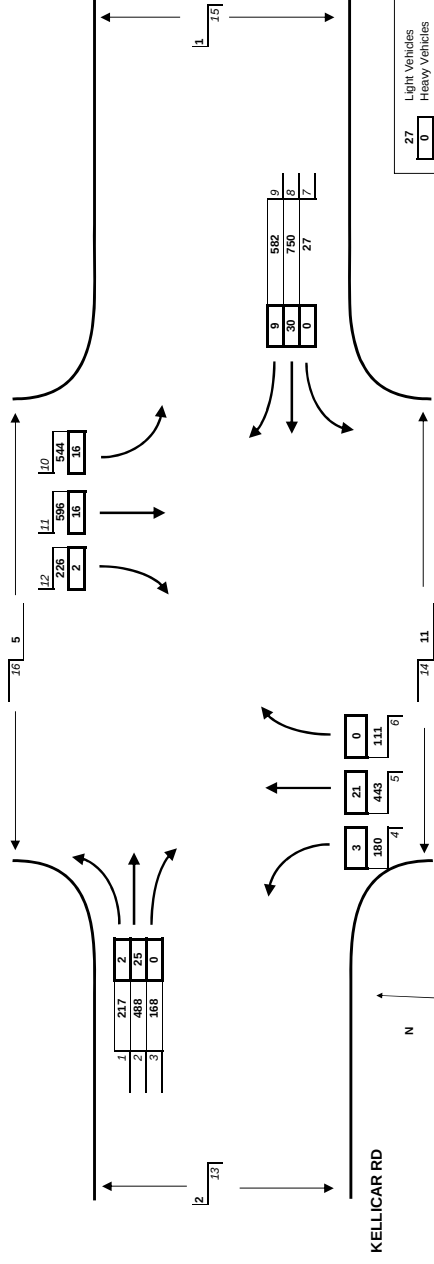
14/12/2011 - NARELLAN RD / KELLCAR RD, CAMPBELL TOWN

17:45 <<< HOUR ENDING

Wednesday

Summary:

KELLCAR RD / NARELLAN RD		
4332	Total Light Vehicles	
124	Total Heavy Vehicles	
19	Total Pedestrians	



14/12/2011 - NARELLAN RD / KELLCAR RD, CAMPBELL TOWN

Light Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		12	15 MIN HOUR	Pedestrians		13	14	15	16
15:45	53	125	36	41	148	35	5	167	112	142	142	66	1042											
16:00	50	122	28	41	122	19	5	173	138	119	124	54	995											
16:15	46	107	44	45	117	29	5	160	157	115	179	81	1080											
16:30	46	127	38	45	138	37	6	162	144	117	142	50	1052	4169										
16:45	59	145	38	30	80	28	8	217	120	106	139	76	1042	4169										
17:00	61	116	38	44	127	32	8	173	145	127	154	69	1094	4268										
17:15	51	106	40	37	117	27	7	241	150	118	148	43	1085	4273										
17:30	52	111	35	51	121	29	6	169	134	152	159	60	1079	4300										
17:45	53	155	55	48	78	23	6	187	153	147	135	54	1074	4332										
18:00	36	117	39	35	106	26	8	141	104	143	155	50	960	4196										
Heavy Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		12	15 MIN HOUR	Pedestrians		13	14	15	16
15:45	1	4	0	0	5	1	0	10	1	2	6	1	31											
16:00	0	4	2	0	7	1	0	6	4	2	7	1	37											
16:15	2	8	0	0	11	1	0	6	1	7	6	1	43											
16:30	0	9	1	1	6	1	0	7	4	2	5	0	36	147										
16:45	1	9	1	1	0	8	0	7	2	2	1	0	31	147										
16:45	1	9	1	1	0	8	0	7	2	2	5	6	1	33	143									
17:00	0	4	0	1	7	0	0	8	0	6	4	0	32	132										
17:15	0	8	0	1	5	0	0	8	0	6	5	0	27	123										
17:30	1	7	0	1	2	0	0	6	3	5	4	0	32	124										
17:45	1	6	0	0	7	0	0	9	4	0	4	1	32	124										
18:00	1	6	0	1	3	0	0	6	2	2	1	1	23	114										
All Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		12	15 MIN HOUR	Pedestrians		13	14	15	16
15:45	54	129	36	41	153	36	5	177	113	114	148	67	1073											
16:00	50	126	30	43	129	20	5	180	142	121	131	55	1032											
16:15	43	115	44	45	128	30	5	166	158	122	135	82	1123											
16:30	46	127	38	45	134	37	6	169	147	117	147	50	1086	4316										
16:45	59	145	38	30	80	28	8	217	120	106	139	76	1042	4169										
17:00	61	120	38	45	134	32	8	180	147	132	160	70	1127	4411										
17:15	51	114	40	38	122	27	7	249	150	124	152	43	1117	4405										
17:30	53	118	35	52	123	29	6	175	137	157	161	60	1106	4423										
17:45	54	161	55	48	85	23	6	176	157	147	139	55	1106	4456										
18:00	37	123	39	35	109	26	8	147	106	145	156	51	983	4312										

Note : Arrows "<" indicate the end time for the peak hour for each turning movement.

14/12/2011 - APPIN RD / THERRY RD, CAMPBELLTOWN

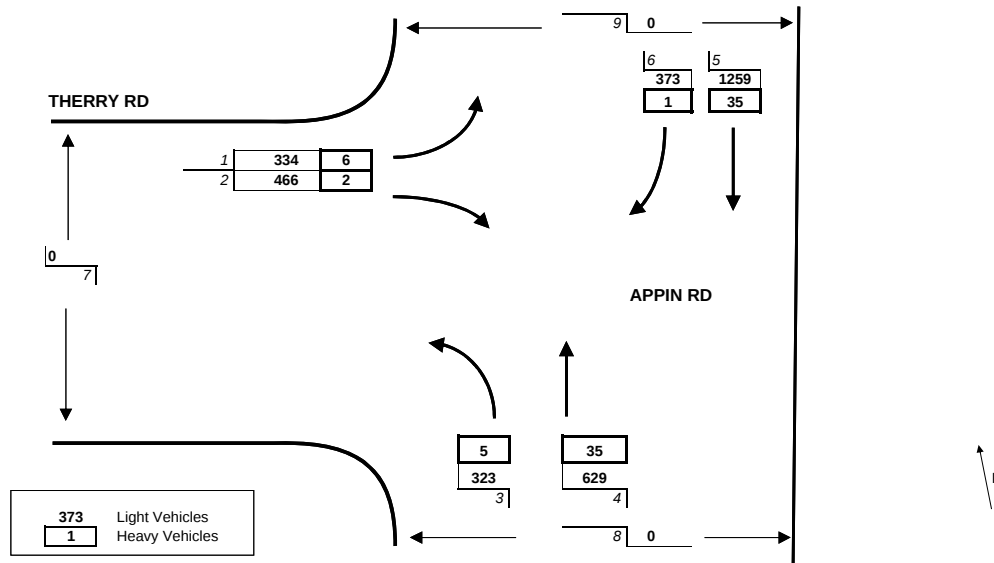
17:30 <<< HOUR ENDING

Wednesday

Summary:

APPIN RD / THERRY RD

3384 Total Light Vehicles
84 Total Heavy Vehicles
0 Total Pedestrians



14/12/2011 - APPIN RD / THERRY RD, CAMPBELLTOWN

	Light Vehicles						Total Vehicles 15 MIN HOUR	Pedestrians		
	1	2	3	4	5	6		7	8	9
15:45	85	118	85	144	263	95	790	0	0	0
16:00	91	92	107	172	242	76	780	0	0	0
16:15	94	102	84	154	274	101	809	0	0	0
16:30	80	120	84 <	160	258	97	799 3178	0	0	0
16:45	86	106	80	150	319	94	835 3223	0	0	0
17:00	95 <	126	75	162	296	86 <	840 3283	0	0	0
17:15	74	114	94	145	321	88	836 3310	0	0	0
17:30	79	120	74	172	323 <	105	873 3384	0	0	0
17:45	92	133 <	70	177	288	81	841 3390 <	0	0	0
18:00	78	102	92	169 <	266	91	798 3348	0	0	0

	Heavy Vehicles						Total Vehicles 15 MIN HOUR			
	1	2	3	4	5	6				
15:45	0	0	2	7	14	1	24			
16:00	0	0	2	19	7	0	28			
16:15	0	1	1	10	12	1	25			
16:30	0	0	2	10	6 <	2 <	20 97 <			
16:45	3	0	1	11 <	8	0	23 96			
17:00	0	0	1	8	9	0	18 86			
17:15	1	1	2	7	9	0	20 81			
17:30	2 <	1	1	9	9	1	23 84			
17:45	0	1	2	7	5	1	16 77			
18:00	0	1 <	3 <	5	6	1	16 75			

	All Vehicles						Total Vehicles 15 MIN HOUR			
	1	2	3	4	5	6				
15:45	85	118	87	151	277	96	814			
16:00	91	92	109	191	249	76	808			
16:15	94	103	85	164	286	102	834			
16:30	80	120	86 <	170	264	99	819 3275			
16:45	89	106	81	161	327	94	858 3319			
17:00	95 <	126	76	170	305	86 <	858 3369			
17:15	75	115	96	152	330	88	856 3391			
17:30	81	121	75	181	332 <	106	896 3468 <			
17:45	92	134 <	72	184	293	82	857 3467			
18:00	78	103	95	174 <	272	92	814 3423			

Note : Arrows "<" indicate the end time for the peak hour for each turning movement.

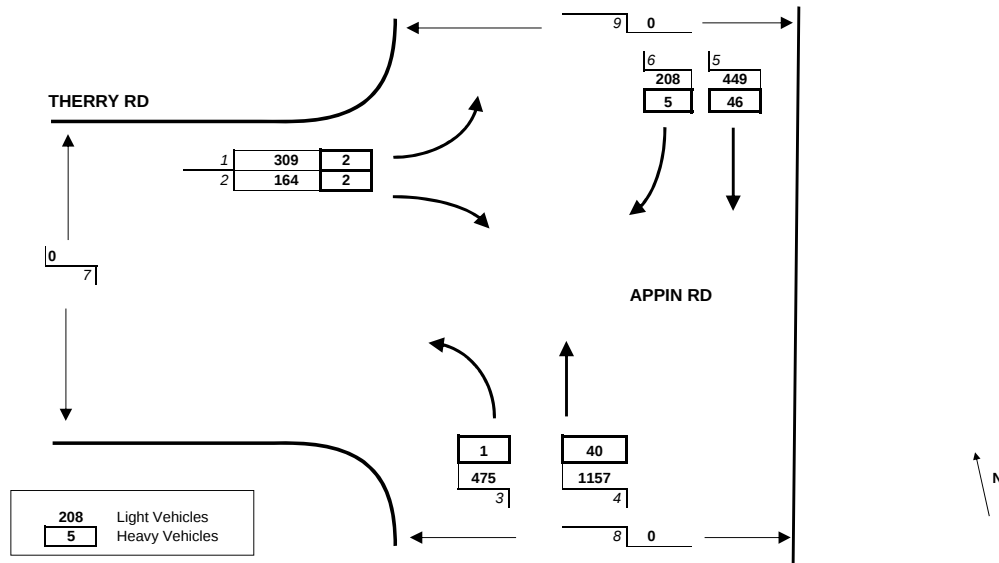
15/12/2011 - APPIN RD / THERRY RD, CAMPBELLTOWN

9:00 <<< HOUR ENDING

Thursday

Summary:

APPIN RD / THERRY RD	
2762	Total Light Vehicles
96	Total Heavy Vehicles
0	Total Pedestrians



15/12/2011 - APPIN RD / THERRY RD, CAMPBELLTOWN

	Light Vehicles						Total Vehicles	Pedestrians		
	1	2	3	4	5	6		7	8	9
	15 MIN HOUR									
07:15	57	25	62	246	86	24	500	1	0	0
07:30	53	18	66	235	92	33	497	0	0	0
07:45	52	25	75	265	91	22	530	0	0	0
08:00	60	35	97	254	109	46	601	0	0	0
08:15	67	35	81	285	104	30	602	0	0	0
08:30	67	49	116	314	133	52	731	0	0	0
08:45	90	33	149	313	107	61	753	0	0	0
09:00	85 <	47 <	129 <	245	105	65 <	676	0	0	0

	Heavy Vehicles						Total Vehicles			
	1	2	3	4	5	6				
	15 MIN HOUR									
07:15	2	0	1	12	11	3	29			
07:30	0	0	0	8	10	0	18			
07:45	0	1	0	13	12	0	26			
08:00	0 <	1 <	0 <	9 <	12	0	22	95		
08:15	1	0 <	0	10	8	3	22	88		
08:30	0	0 <	0	8	12	0	20	90		
08:45	1 <	1 <	0	11	10	0	23	87		
09:00	0 <	1 <	1 <	11	16 <	2 <	31	96 <		

	All Vehicles						Total Vehicles			
	1	2	3	4	5	6				
	15 MIN HOUR									
07:15	59	25	63	258	97	27	529			
07:30	53	18	66	243	102	33	515			
07:45	52	26	75	278	103	22	556			
08:00	60	36	97	263	121	46	623	2223		
08:15	68	35	81	295	112	33	624	2318		
08:30	67	49	116	322	145	52	751	2554		
08:45	91	34	149	324 <	117 <	61	776	2774		
09:00	85 <	48 <	130 <	256	121 <	67 <	707	2858 <		

Note : Arrows "<" indicate the end time for the peak hour for each turning movement.

15/12/2011 - GILCHRIST DVE / KELLICAR RD, CAMPBELLTOWN

9:00 <<< HOUR ENDING

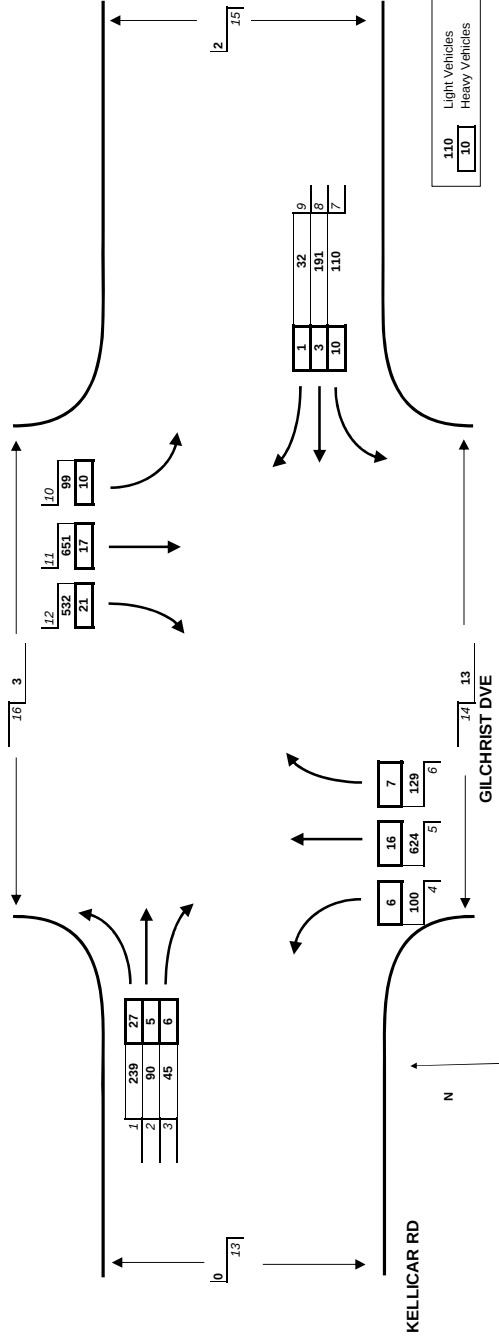
Thursday

Summary: KELLICAR RD / GILCHRIST DVE

2842	Total Light Vehicles
129	Total Heavy Vehicles
18	Total Pedestrians



Quality Surveys



15/12/2011 - GILCHRIST DVE / KELLICAR RD, CAMPBELLTOWN

Light Vehicles	Total Vehicles																Pedestrians	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	13	16
07:15	66	9	10	44	158	14	7	8	3	8	92	42	461	0	2	1	0	0
07:30	54	9	7	22	165	13	11	10	4	20	82	33	436	0	0	0	0	0
07:45	58	6	10	19	173	15	16	9	5	17	92	29	452	0	0	0	1	1
08:00	53	6	7	17	167	25	20	14	3	23	156	57	548	0	1	0	0	2
08:15	58	14	13	12	162	27	20	15	4	30	154	64	573	0	1	0	1	1
08:30	65	15	6	29	157	31	20	34	9	21	153	117	657	0	3	2	1	1
08:45	53	29	14	30	165	34	33	61	6	27	185	179	816	0	3	0	1	1
09:00	63	32	12	29	140	37	37	81	13	21	159	172	796	0	6	0	0	0
Heavy Vehicles																		
Heavy Vehicles	Total Vehicles																Pedestrians	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	13	16
07:15	2	0	0	0	5	2	4	0	0	0	9	2	24	0	2	1	0	0
07:30	5	0	0	1	4	3	5	3	0	1	4	3	29	0	0	0	0	0
07:45	2	0	0	0	5	5	4	1	0	0	0	2	19	0	0	0	1	1
08:00	2	0	1	1	7	4	4	0	0	1	2	4	26	0	1	0	0	2
08:15	4	0	1	2	5	2	3	0	0	4	6	6	33	0	1	0	1	1
08:30	7	3	1	2	1	2	2	1	1	2	2	6	30	0	3	2	1	1
08:45	5	2	1	1	6	2	3	0	0	3	4	1	28	0	3	0	1	1
09:00	11	0	3	1	4	1	2	2	0	1	5	8	38	0	6	0	0	0
All Vehicles																		
All Vehicles	Total Vehicles																Pedestrians	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	13	16
07:15	68	9	10	44	163	16	11	8	3	8	101	44	485	0	2	1	0	0
07:30	59	9	7	23	169	16	16	19	4	21	86	36	465	0	0	0	0	0
07:45	60	9	10	19	178	20	20	10	5	17	92	31	471	0	0	0	1	1
08:00	55	6	8	18	174	29	24	14	3	24	158	61	574	0	1	0	0	2
08:15	62	14	14	14	167	29	23	15	4	34	160	70	606	0	1	0	1	1
08:30	72	18	7	31	158	33	22	35	10	23	155	123	687	0	3	2	1	1
08:45	58	31	15	31	171	36	36	61	6	30	189	180	844	0	3	0	1	1
09:00	74	32	15	30	144	38	39	83	13	22	164	180	834	0	6	0	0	0

Note : Arrows "<" indicate the end time for the peak hour for each turning movement.

15/12/2011 - CENTENNIAL DVE / KELLICAR RD, CAMPBELLTOWN

9:00 <<< HOUR ENDING

Thursday

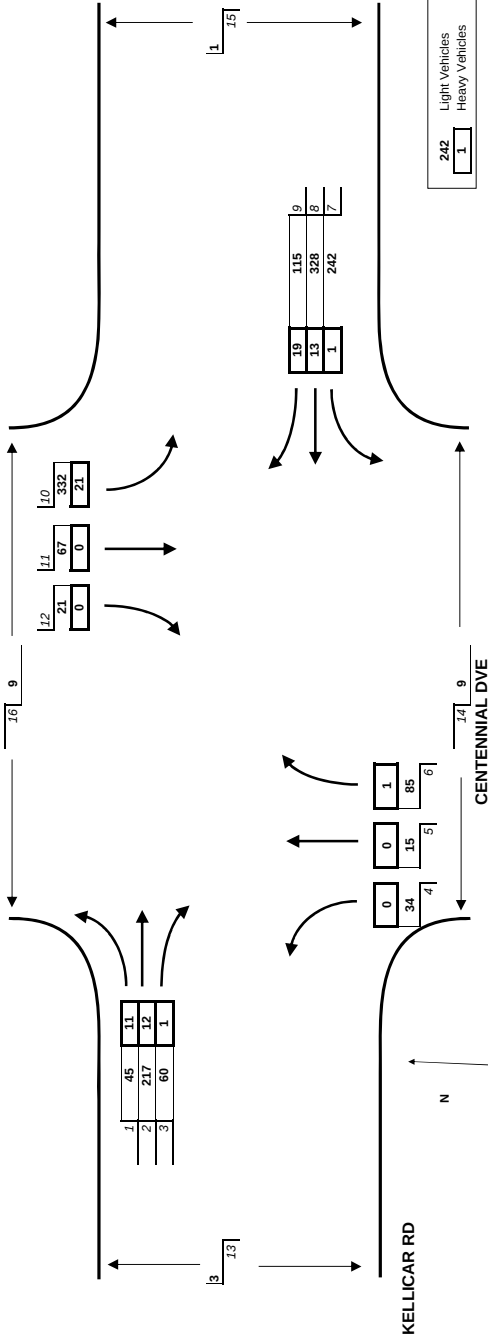
Summary:

KELLICAR RD / CENTENNIAL DVE	
1561	Total Light Vehicles
79	Total Heavy Vehicles
22	Total Pedestrians



Quality Surveys

TINDALL ST



15/12/2011 - CENTENNIAL DVE / KELLICAR RD, CAMPBELLTOWN

Light Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	Total Vehicles		Pedestrians							
07:15	9	30	7	4	6	13	28	23	18	64	10	0	212	0	212	2	1	2	1	2	1	2	
07:30	11	23	7	5	8	11	35	28	16	44	11	2	201	2	201	0	0	0	0	0	1	1	
07:45	5	27	5	6	5	12	51	34	18	58	8	2	231	8	231	0	0	0	0	0	1	1	
08:00	11	36	8	4	4	13	63	39	22	70	17	2	289	933	2	289	0	0	3	1	1	3	
08:15	8	46	15	9	4	18	63	54	25	80	13	6	341	1062	6	341	1	2	0	0	2	2	
08:30	14	44	12	5	4	23	76	55	25	86	16	5	365	1226	16	365	1	1	1	0	2	2	
08:45	11	61	18	6	4	14	46	101	32	86	15	4	398	1393	46	398	1	1	3	3	1	2	
09:00	12	66	15	14	3	30	57	118	33	80	23	6	457	1561	57	457	0	0	3	3	0	3	
Heavy Vehicles																							
		1	2	3	4	5	6	7	8	9	10	11	12	Total Vehicles									
07:15	0	3	0	0	0	0	0	0	4	0	1	0	0	0	8	0	0	0	0	0	0	0	
07:30	1	3	0	0	0	0	0	0	9	0	0	0	0	0	13	0	0	0	0	0	0	0	
07:45	0	5	0	0	0	0	0	0	4	2	3	0	0	0	14	0	0	0	0	0	0	0	
08:00	1	3	0	0	0	0	1	1	4	3	2	0	0	0	15	50	0	0	0	0	0	0	
08:15	4	1	0	0	0	0	0	0	4	3	3	0	0	0	13	57	0	0	0	0	0	0	
08:30	3	5	1	0	0	0	1	0	3	7	3	0	0	0	23	67	0	0	0	0	0	0	
08:45	3	5	0	0	0	0	0	0	3	6	6	0	0	0	23	76	0	0	0	0	0	0	
09:00	1	1	0	0	0	0	0	1	3	3	9	0	0	0	18	79	0	0	0	0	0	0	
All Vehicles																							
		1	2	3	4	5	6	7	8	9	10	11	12	Total Vehicles									
07:15	9	33	7	4	6	13	28	27	18	65	10	0	220	0	220	2	1	2	1	2	1	2	
07:30	12	26	7	5	8	11	35	37	16	44	11	2	214	2	214	0	0	0	0	0	0	0	
07:45	5	32	5	6	5	12	51	38	20	61	8	2	245	983	8	983	0	0	3	1	1	3	
08:00	12	39	8	4	4	14	64	43	25	72	17	2	304	1119	17	1119	1	2	0	0	0	2	
08:15	12	47	15	9	4	18	63	58	28	83	13	6	356	1293	28	1293	1	1	3	3	1	2	
08:30	17	49	13	5	4	24	76	58	32	89	16	5	421	1469	32	1469	1	1	3	3	1	2	
08:45	14	66	18	6	4	14	46	104	38	92	15	4	421	1469	46	1469	1	1	3	3	1	2	
09:00	13	67	15	14	3	30	58	121	36	89	23	6	475	1640	58	1640	0	0	3	3	0	3	

Note : Arrows "<" indicate the end time for the peak hour for each turning movement.

14/12/2011 - CENTENNIAL DVE / KELLICAR RD, CAMPBELL TOWN

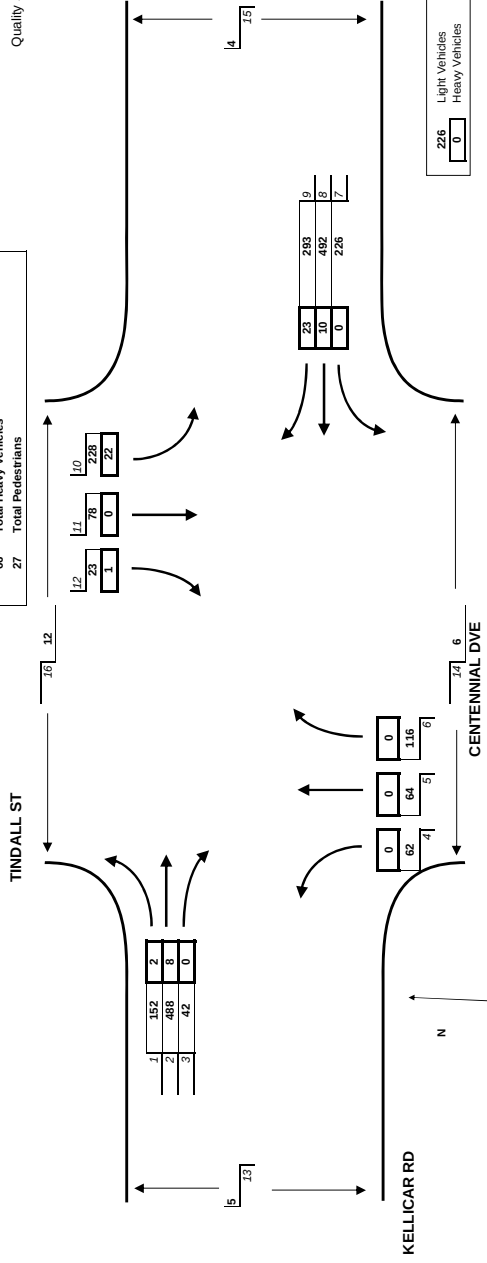
17:30 <<< HOUR ENDING

Wednesday

Summary:

KELLICAR RD / CENTENNIAL DVE	
2264	Total Light Vehicles
66	Total Heavy Vehicles
27	Total Pedestrians

Quality Surveys



14/12/2011 - CENTENNIAL DVE / KELLICAR RD, CAMPBELL TOWN

Light Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		Pedestrians	
1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	13	14	15	16	17	18
1545	35	122	9	14	9	27	59	110	58	51	11	6	511	6	511	2	2	1
1600	30	116	8	15	15	26	33	120	57	62	21	6	509	6	509	0	2	0
1615	24	136	9	11	18	25	56	135	61	62	21	4	562	21	4	562	1	3
1630	25	123	5	11	9	21	46	113	53	51	17	11	485	2067	11	485	1	1
1645	45	135	13	13	18	24	57	127	68	64	14	7	585	2141	7	585	2	0
1700	41	130	11	22	12	25	64	127	74	54	27	8	595	2227	8	595	0	1
1715	35	95	8	18	19	40	51	119	79	54	17	6	541	2206	6	541	2	4
1730	31	128	10	9	15	27	54	119	72	56	20	2	543	2264	2	543	1	1
1745	39	149	8	4	21	33	39	114	60	60	21	6	554	2233	2	554	2	2
1800	44	122	9	12	9	19	43	100	54	58	15	5	490	2128	5	490	1	0
Heavy Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		Pedestrians	
1545	0	2	0	0	0	0	0	0	3	8	3	0	0	0	0	0	0	0
1600	4	1	0	0	1	1	0	0	4	5	5	0	0	23	0	0	0	6
1615	1	3	0	0	0	0	0	1	5	7	1	0	0	19	0	0	0	4
1630	1	4	0	0	0	0	0	2	6	5	0	0	0	18	0	0	0	0
1645	0	4	0	0	0	0	0	3	5	5	0	0	0	16	0	0	0	0
1700	1	1	0	0	0	0	0	3	7	4	0	0	0	16	0	0	0	0
1715	1	1	0	0	0	0	0	2	4	7	0	0	0	15	0	0	0	0
1730	0	2	0	0	0	0	0	2	4	7	0	0	0	17	0	0	0	0
1745	1	1	0	0	0	0	0	2	7	6	5	0	0	14	0	0	0	0
1800	2	2	0	0	0	0	0	2	1	10	6	0	0	23	0	0	0	0

Heavy Vehicles

All Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		Pedestrians	
1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	13	14	15	16	17	18
1545	35	124	9	14	9	27	59	113	66	54	11	6	527	6	527	2	2	1
1600	34	117	8	15	16	27	33	124	64	67	21	6	532	6	532	0	2	0
1615	25	139	9	11	18	25	56	136	66	71	21	4	581	21	4	581	1	3
1630	26	126	5	11	9	21	46	115	59	58	18	11	505	2145	11	505	2	0
1645	45	139	13	13	18	24	57	130	73	69	14	8	603	2221	8	603	0	1
1700	42	131	11	22	12	25	64	130	81	58	27	8	611	2300	8	611	2	4
1715	36	96	8	18	19	40	51	119	79	54	17	6	541	2206	6	541	1	1
1730	31	128	10	9	15	27	54	119	72	56	20	2	543	2264	2	543	2	2
1745	39	149	8	4	21	33	39	114	60	60	21	6	554	2233	2	554	2	2
1800	44	122	9	12	9	19	43	100	54	58	15	5	490	2128	5	490	1	0

All Vehicles

All Vehicles		1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	Total Vehicles		Pedestrians	
1	2	3	4	5	6	7	8	9	10	11	12	15 MIN HOUR	13	14	15	16	17	18
1545	35	124	9	14	9	27	59	113	66	54	11	6	527	6	527	2	2	1
1600	34	117	8	15	16	27	33	124	64	67	21	6	532	6	532	0	2	0
1615	25	139	9	11	18	25	56	136	66	71	21	4	581	21	4	581	1	3
1630	26	126	5	11	9	21	46	115	59	58	18	11	505	11	505	2	0	0
1645	45	139	13	13	18	24	57	130	73	69	14	8	603	8	603	0	1	0
1700	42	131	11	22	12	25	64	130	81	58	27	8	611	2300	8	611	2	4
1715	36	96	8	18	19	40	51	119	79	54	17	6	541	2206	6	541	1	1
1730	31	128	10	9	15	27	54	119	72	56	20	2	543	2264	2	543	2	2
1745	39	149	8	4	21	33	39	114	60	60	21	6	554	2233	2	554	2	2
1800	44	124	9	12	9	19	45	101	64	64	15	5	513	2197	5	513	1	0

Note: Arrows "<" indicate the end time for the peak hour for each turning movement.

14/12/2011 - PARKSIDE CRES / CENTENNIAL DVE, CAMPBELLTOWN

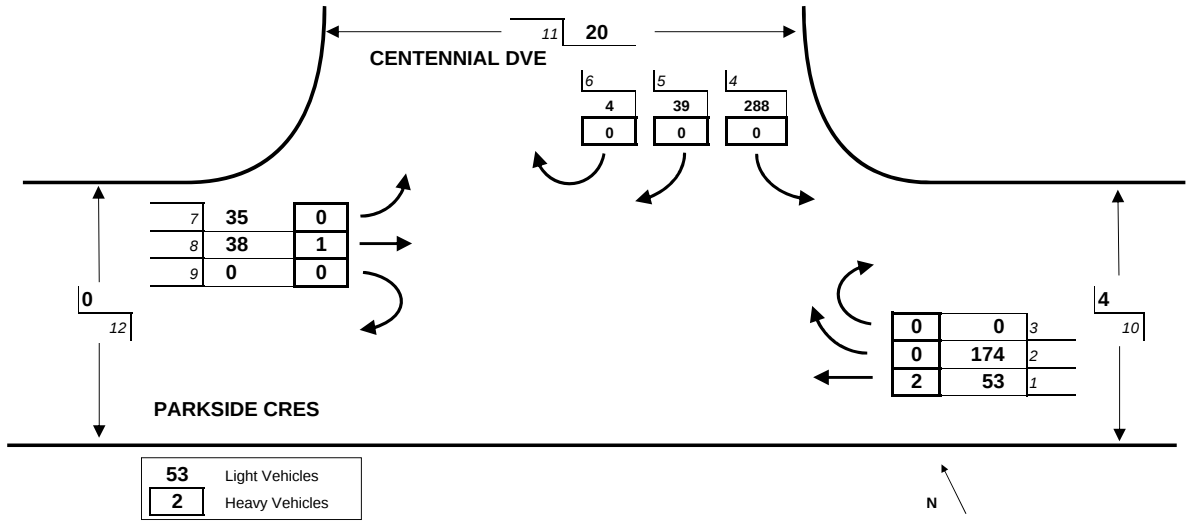
17:30 <<< HOUR ENDING

Wednesday

Summary:

PARKSIDE CRES / CENTENNIAL DVE

631 Total Light Vehicles
3 Total Heavy Vehicles
20 Total Pedestrians



14/12/2011 - PARKSIDE CRES / CENTENNIAL DVE, CAMPBELLTOWN

	Light Vehicles									Total Vehicles 15 MIN HOUR	Pedestrians		
	1	2	3	4	5	6	7	8	9		10	11	12
15:45	19	39	1	63	11	1	11	12	0	157	1	3	0
16:00	20	38	1	56	3	0	4	12	0	134	3	1	2
16:15	18	45	0	75	7	0	4	10	0	159	0	6	0
16:30	20 <	27	0 <	64	11	1	5	17 <	0	145	0 <	1	0 <
16:45	14	38	0	66	11	1	9	11	0	150	0	4	0 <
17:00	15	47	0	80	11	2 <	7	11	0	173	2	3	0
17:15	11	54	0	64	10 <	0 <	11	9	0	159	0	6	0
17:30	13	35 <	0	78 <	7	1 <	8 <	7	0	149	2 <	7 <	0
17:45	19	33	0	62	7	0	4	13	0	138	0 <	4 <	0
18:00	11	25	0	50	13	1	6	8	0	114	1	2	0

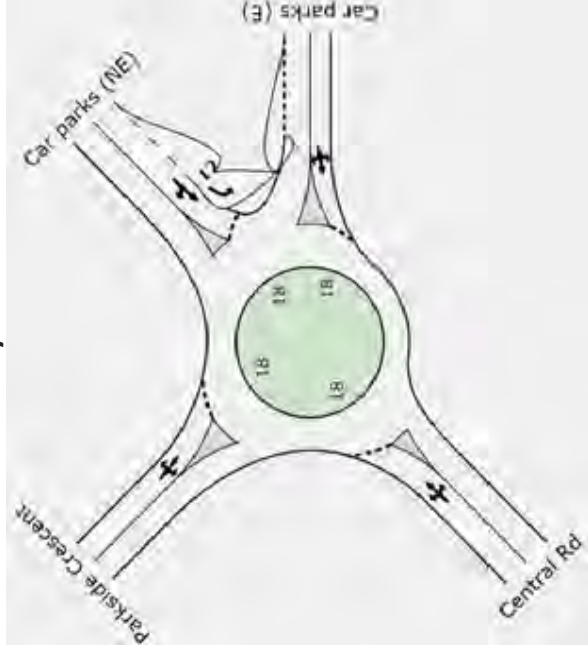
	Heavy Vehicles									Total Vehicles 15 MIN HOUR			
	1	2	3	4	5	6	7	8	9				
15:45	0	0	0	0	0	0	0	0	0	0			
16:00	1	1	0	0	0	0	1	1	0	4			
16:15	0	0	0	1	0	0	0	0	0	1			
16:30	0	0 <	0	0 <	0	0	0 <	0 <	0	0	5		
16:45	1 <	0 <	0	0 <	0	0	0 <	0 <	0	1	6 <		
17:00	0	0	0	0 <	0	0	0	0	0	0	2		
17:15	1 <	0	0	0	0	0	0	1 <	0	2	3		
17:30	0 <	0	0	0	0	0	0	0 <	0	0	3		
17:45	0	0	0	0	0	0	0	0 <	0	0	2		
18:00	0	0	0	1 <	1 <	0	0	0 <	0	2	4		

	All Vehicles									Total Vehicles 15 MIN HOUR			
	1	2	3	4	5	6	7	8	9				
15:45	19	39	1	63	11	1	11	12	0	157			
16:00	21	39	1	56	3	0	5	13	0	138			
16:15	18	45	0	76	7	0	4	10	0	160			
16:30	20 <	27	0 <	64	11	1	5	17 <	0	145	600		
16:45	15	38	0	66	11	1	9	11	0	151	594		
17:00	15	47	0	80	11	2 <	7	11	0	173	629		
17:15	12	54	0	64	10 <	0 <	11	10	0	161	630		
17:30	13	35 <	0	78 <	7	1 <	8 <	7	0	149	634 <		
17:45	19	33	0	62	7	0	4	13	0	138	621		
18:00	11	25	0	51	14	1	6	8	0	116	564		

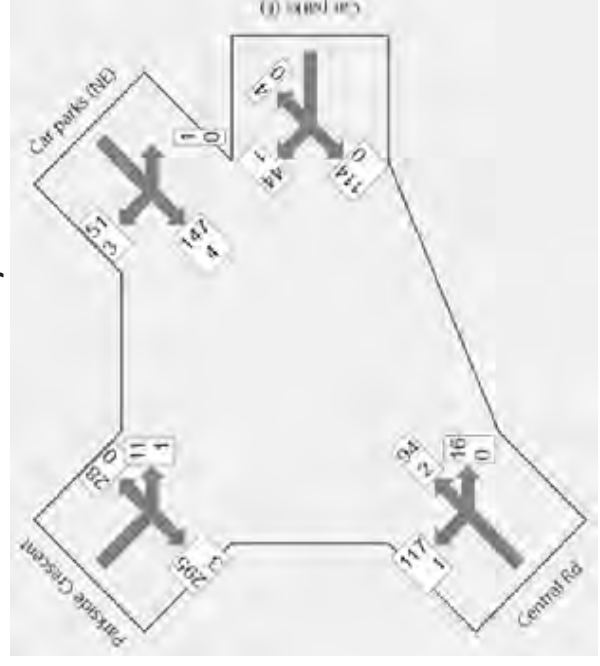
Note : Arrows "<" indicate the end time for the peak hour for each turning movement.

APPENDIX C

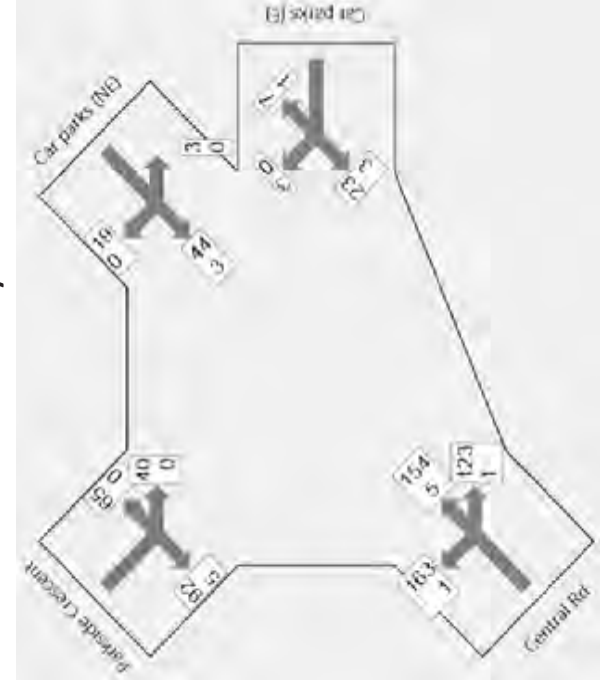
Layout



Volume Summary PM EX



Volume Summary AM EX



MOVEMENT SUMMARY

11029
Parkside Crescent - Therry Rd - Car parks AM EX
Roundabout

Site: Parkside Crescent - Central Rd - Car parks AM EX

Movement Performance - Vehicles											
Mov ID	Turn	Desired Flow veh/h	HV %	Desat W/C	Average Delay sec	Level of Service	95% Back of Queue veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East Car parks (E)											
4	L	27	11.5	0.037	8.9	LOS A	0.3	1.9	0.38	0.48	49.2
5	T	3	0.0	0.037	11.1	LOS A	0.3	1.9	0.38	0.71	46.6
6	R	3	12.5	0.037	13.4	LOS A	0.3	1.9	0.38	0.78	46.2
Approach		39	10.8	0.037	8.7	LOS A	0.3	1.9	0.38	0.69	48.0
North East Car parks (NE)											
24	L	3	0.0	0.004	8.9	LOS A	0.0	0.1	0.26	0.61	49.3
25	T	49	8.4	0.053	8.6	LOS A	0.3	2.3	0.36	0.60	49.3
26	R	20	0.0	0.053	11.9	LOS A	0.3	2.3	0.36	0.78	46.0
Approach		73	4.3	0.053	8.1	LOS A	0.3	2.3	0.36	0.69	49.3
North West Parkside Crescent											
27	L	68	0.0	0.203	8.3	LOS A	1.4	10.0	0.49	0.63	47.9
28	T	42	0.0	0.203	7.4	LOS A	1.4	10.0	0.49	0.68	48.1
29	R	102	5.2	0.203	12.9	LOS A	1.4	10.0	0.49	0.78	46.2
Approach		213	2.6	0.203	10.3	LOS A	1.4	10.0	0.49	0.68	49.5
South West Central Rd											
30	L	173	0.8	0.308	8.7	LOS A	2.2	15.5	0.14	0.63	50.0
31	T	167	3.1	0.308	5.8	LOS A	2.2	15.5	0.14	0.44	50.9
32	R	131	0.8	0.308	10.2	LOS A	2.2	15.5	0.14	0.74	47.0
Approach		471	1.6	0.308	7.4	LOS A	2.2	15.5	0.14	0.65	49.4
All Vehicles		795	2.5	0.308	8.3	LOS A	2.2	15.5	0.27	0.69	48.4

Level of Service (Ave- 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

11029
Parkside Crescent - Therry Rd - Car parks PM EX
Roundabout

Site: Parkside Crescent - Central Rd - Car parks PM EX

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Day Estm veh	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Car parks (E)											
4	L	120	0.0	0.206	9.4	LOS A	1.6	11.2	0.68	0.71	47.2
	T	47	2.2	0.206	13.9	LOS A	1.6	11.2	0.68	0.83	44.5
	R	4	0.0	0.211	16.8	LOS B	1.6	11.2	0.68	0.85	43.2
Approach		172	0.6	0.206	10.8	LOS B	1.6	11.2	0.68	0.74	46.3
North East: Car parks (NE)											
24	L	1	0.0	0.001	8.6	LOS A	0.0	0.0	0.10	0.62	50.3
	T	169	2.6	0.170	6.9	LOS A	1.1	8.2	0.45	0.57	48.7
	R	67	5.6	0.170	12.4	LOS A	1.1	8.2	0.45	0.79	45.9
Approach		217	3.4	0.170	8.3	LOS A	1.1	8.2	0.45	0.62	47.9
North West: Parkside Crescent											
27	L	29	0.0	0.278	7.2	LOS A	2.1	15.0	0.34	0.53	48.6
	T	13	3.2	0.281	6.6	LOS A	2.1	15.0	0.34	0.46	46.1
	R	314	1.0	0.278	11.8	LOS A	2.1	15.0	0.34	0.67	45.3
Approach		366	1.2	0.278	11.2	LOS A	2.1	15.0	0.34	0.65	45.6
South West: Central Rd											
30	L	124	0.8	0.187	7.0	LOS A	1.2	8.4	0.26	0.56	49.3
	T	101	2.1	0.187	6.1	LOS A	1.2	8.4	0.26	0.47	50.0
	R	17	0.0	0.187	10.6	LOS A	1.2	8.4	0.26	0.74	46.8
Approach		242	1.3	0.187	6.9	LOS A	1.2	8.4	0.26	0.54	49.4
All Vehicles		966	1.6	0.278	9.4	LOS A	2.1	15.0	0.40	0.63	47.1

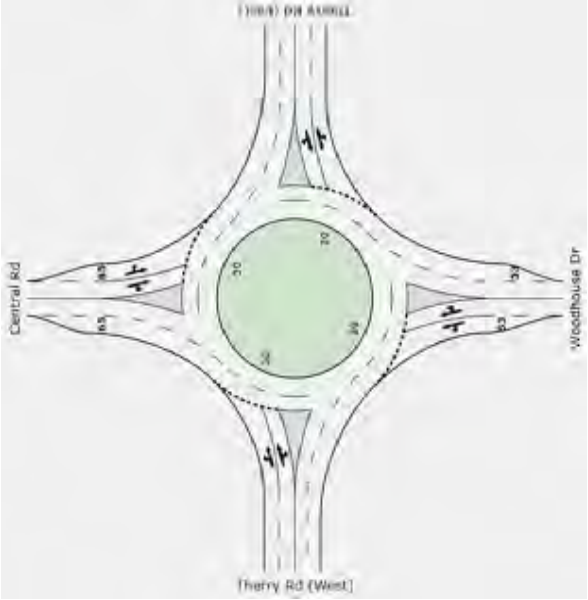
Level of Service (Aver. Int. Delay): LOS A. Based on average delay for all vehicle movements. LOS Method: Delay (RTA NSW).

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

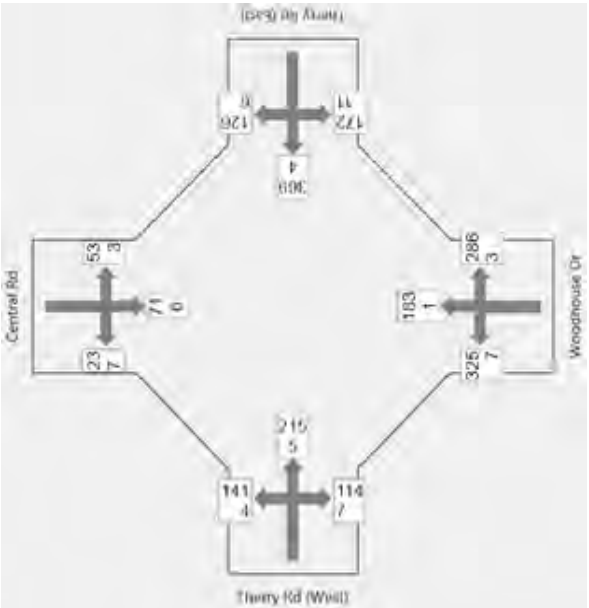
Approach LOS values are based on the worst delay for any vehicle movement.

Roundabout Capacity Model: SIDRA Standard.

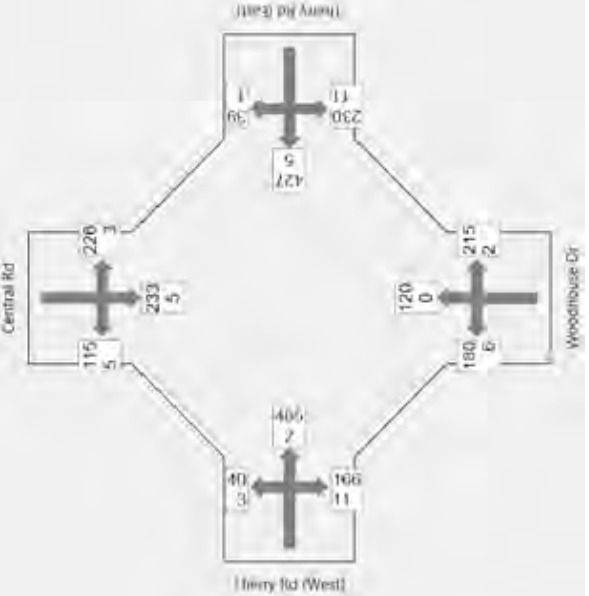
Layout



Volume Summary AM EX



Volume Summary PM EX



MOVEMENT SUMMARY

11029
Therry Rd - Woodhouse Dr AM EX
Roundabout

Site: Therry Rd - Woodhouse Dr AM EX

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	Ht %	Deg. Sum w/c	Average Delay sec	Level of Service	Queue Back of Queue Vehicles msh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Woodhouse Dr											
1	L	349	2.1	0.377	7.9	LOS A	2.3	16.9	0.60	0.69	48.1
2	T	164	0.6	0.446	8.4	LOS A	3.1	22.0	0.61	0.69	47.9
3	R	304	1.0	0.446	13.2	LOS A	3.1	22.0	0.61	0.67	46.3
Approach		847	1.4	0.446	9.6	LOS A	3.1	22.0	0.60	0.73	46.9
East: Therry Rd (East)											
4	L	193	3.0	0.296	6.7	LOS A	2.1	15.2	0.43	0.68	49.4
5	T	363	1.1	0.297	6.6	LOS A	2.1	16.2	0.44	0.48	49.7
6	R	139	4.6	0.296	12.6	LOS A	2.1	14.8	0.44	0.73	46.1
Approach		724	3.1	0.297	7.2	LOS A	2.1	16.2	0.44	0.57	48.8
North: Central Rd											
7	L	69	5.4	0.074	8.2	LOS A	0.4	3.0	0.66	0.67	48.3
8	T	81	7.8	0.119	8.6	LOS A	0.7	5.5	0.66	0.69	48.7
9	R	32	23.2	0.119	13.8	LOS A	0.7	5.5	0.66	0.67	46.6
Approach		172	9.8	0.119	8.6	LOS A	0.7	5.5	0.66	0.67	48.0
West: Therry Rd (West)											
10	L	163	2.8	0.294	8.7	LOS A	2.4	17.1	0.71	0.75	47.6
11	T	232	2.3	0.294	7.8	LOS A	2.4	17.1	0.72	0.71	47.4
12	R	127	5.8	0.294	16.0	LOS B	2.2	16.3	0.72	0.67	44.2
Approach		512	3.3	0.294	9.9	LOS B	2.4	17.1	0.72	0.76	46.6
All Vehicles		2265	3.0	0.446	8.7	LOS A	3.1	22.0	0.57	0.68	47.5

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

11/02/29

Therry Rd - Woodhouse Dr PM EX
Roundabout

Site: Therry Rd - Woodhouse Dr PM EX

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Dep. Satm v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles/veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Woodhouse Dr											
1	L	168	3.2	0.237	8.1	LOS A	1.4	10.3	0.60	0.70	48.0
2	T	128	0.0	0.339	6.4	LOS A	2.3	16.3	0.62	0.68	47.7
3	R	228	0.6	0.339	13.2	LOS A	2.3	16.3	0.82	0.85	45.1
Approach		561	1.6	0.339	9.8	LOS A	2.3	16.3	0.62	0.74	46.7
East: Therry Rd (East)											
4	L	254	4.8	0.399	8.6	LOS A	3.3	24.0	0.71	0.74	47.7
5	T	465	1.2	0.399	7.6	LOS A	3.3	24.0	0.71	0.69	47.8
6	R	42	2.6	0.401	14.6	LOS B	3.2	22.4	0.71	0.91	45.1
Approach		751	2.4	0.399	8.3	LOS B	3.3	24.0	0.71	0.72	47.6
North: Central Rd											
7	L	241	1.3	0.330	9.0	LOS A	2.0	14.1	0.69	0.79	47.5
8	T	261	2.1	0.403	7.4	LOS A	2.8	20.3	0.71	0.63	47.6
9	R	126	4.2	0.404	14.2	LOS A	2.8	20.3	0.71	0.98	45.1
Approach		618	2.2	0.403	9.4	LOS A	2.8	20.3	0.70	0.79	47.0
West: Therry Rd (West)											
10	L	45	7.0	0.351	7.6	LOS A	2.8	19.9	0.60	0.65	48.6
11	T	513	0.4	0.351	6.3	LOS A	2.8	19.9	0.60	0.63	48.6
12	R	186	6.2	0.352	13.6	LOS A	2.7	19.5	0.61	0.81	45.4
Approach		744	2.3	0.351	8.2	LOS A	2.8	19.9	0.60	0.64	47.7
All Vehicles		2863	2.1	0.403	8.8	LOS A	3.3	24.0	0.68	0.72	47.3

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.

Processed: 29 Jun 2011 10:34:36

SIDRA INTERSECTION 5.0.6.1510

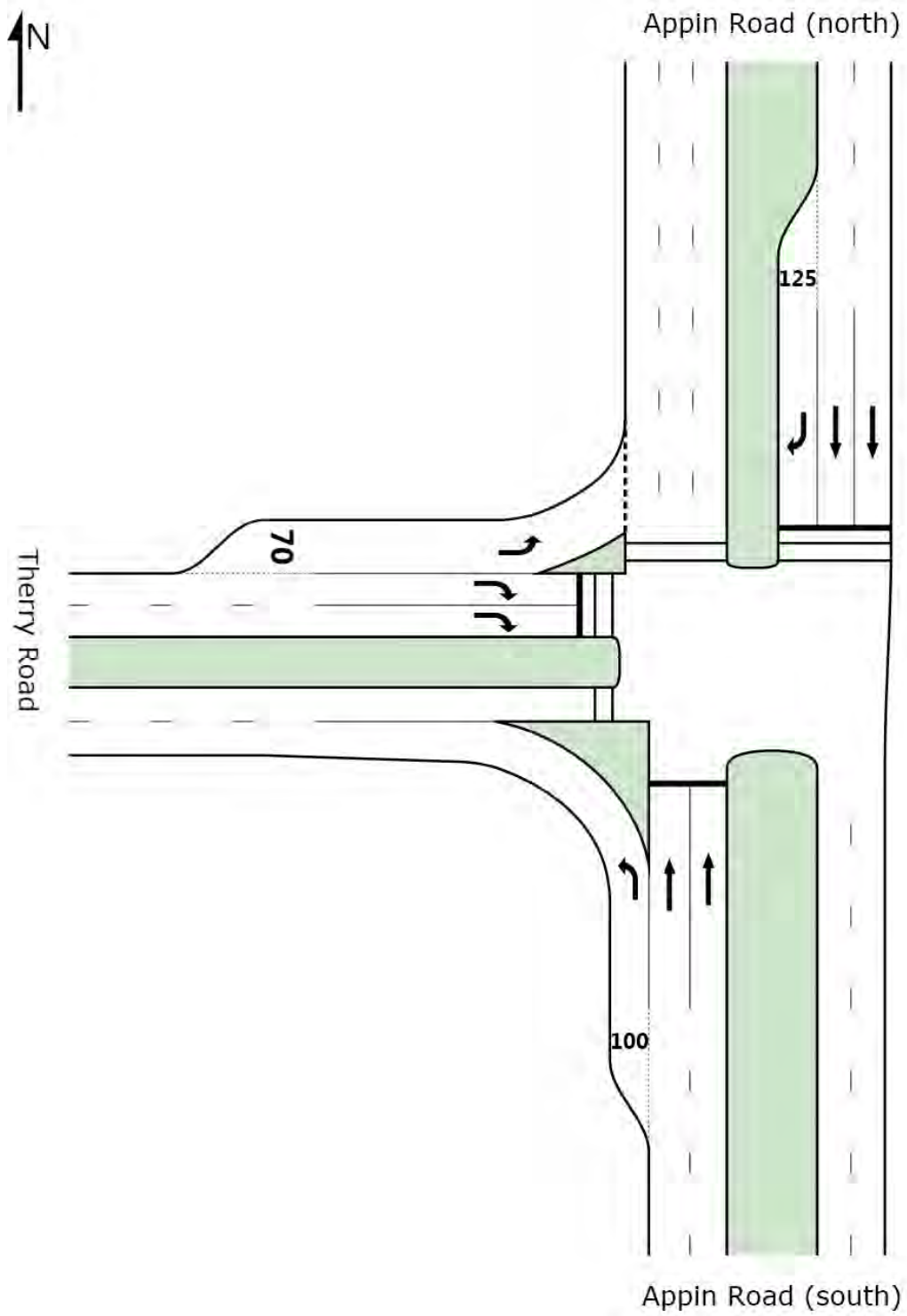
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INTERSECTION



MOVEMENT SUMMARY

Site: AM Peak - Existing

AM - Existing Therry Road/Appin Road

Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Appin Road (south)											
3	L	501	0.2	0.263	7.6	X	X	X	X	0.60	49.7
4	T	1260	3.3	0.783	26.7	LOS B	25.4	182.5	0.93	0.87	32.9
Approach		1761	2.5	0.783	21.2	LOS B	25.4	182.5	0.67	0.79	36.4
North: Appin Road (north)											
5	T	521	9.3	0.247	10.5	LOS A	5.7	43.2	0.54	0.46	44.8
6	R	224	2.3	0.794	51.4	LOS D	10.2	72.7	1.00	1.04	25.1
Approach		745	7.2	0.794	22.8	LOS B	10.2	72.7	0.68	0.63	36.2
West: Therry Road											
1	L	327	0.6	0.521	15.7	LOS B	6.7	47.3	0.57	0.75	42.0
2	R	175	1.2	0.160	32.9	LOS C	2.8	20.0	0.77	0.75	31.6
Approach		502	0.8	0.521	21.6	LOS B	6.7	47.3	0.64	0.75	37.7
All Vehicles		3008	3.4	0.794	21.7	LOS B	25.4	182.5	0.67	0.75	36.6

X: Not applicable for Continuous movement.

MOVEMENT SUMMARY

Site: AM Peak - Predicted

AM - WITH DEVELOPMENT Therry Road/Appin Road

Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Appin Road (south)											
3	L	575	0.2	0.302	7.6	X	X	X	X	0.60	49.7
4	T	1260	3.3	0.748	25.7	LOS B	26.0	187.4	0.90	0.81	33.4
Approach		1835	2.4	0.748	20.0	LOS B	26.0	187.4	0.62	0.75	37.3
North: Appin Road (north)											
5	T	521	9.3	0.229	9.4	LOS A	5.7	42.9	0.48	0.41	46.0
6	R	256	2.1	0.750	51.2	LOS D	12.1	86.2	1.00	1.04	25.1
Approach		777	6.9	0.750	23.1	LOS B	12.1	86.2	0.65	0.62	36.0
West: Therry Road											
1	L	340	0.6	0.601	15.9	LOS B	7.5	52.9	0.55	0.75	41.8
2	R	206	1.0	0.209	38.4	LOS C	3.9	27.6	0.81	0.77	29.3
Approach		546	0.8	0.601	24.4	LOS B	7.5	52.9	0.65	0.75	36.1
All Vehicles		3158	3.2	0.750	21.6	LOS B	26.0	187.4	0.63	0.72	36.8

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: PM Peak - Existing

PM - EXISTING Therry Road/Appin Road
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec					
						veh	m		per veh	km/h
South: Appin Road (south)										
3	L	345	1.5	0.183	7.6	X	X	X	0.60	49.8
4	T	699	5.3	0.623	33.4	LOS C	15.0	110.1	0.92	29.9
Approach		1044	4.0	0.623	24.9	LOS B	15.0	110.1	0.62	0.73
North: Appin Road (north)										
5	T	1362	2.7	0.575	12.5	LOS A	19.8	141.5	0.65	0.59
6	R	394	0.3	0.614	36.0	LOS C	14.3	100.4	0.89	0.97
Approach		1756	2.2	0.614	17.7	LOS B	19.8	141.5	0.70	0.67
West: Therry Road										
1	L	358	1.8	0.442	10.9	LOS A	4.7	33.1	0.36	0.70
2	R	493	0.4	0.498	41.3	LOS C	10.2	72.0	0.89	0.82
Approach		851	1.0	0.498	28.5	LOS C	10.2	72.0	0.67	0.77
All Vehicles		3651	2.4	0.623	22.3	LOS B	19.8	141.5	0.67	0.71

X: Not applicable for Continuous movement.

Project: P:\2010\1015\101547\Reports\TTW\Therry & Appin Road.sip
8001173, TTW PTY, SINGLE

MOVEMENT SUMMARY

Site: PM Peak - Predicted

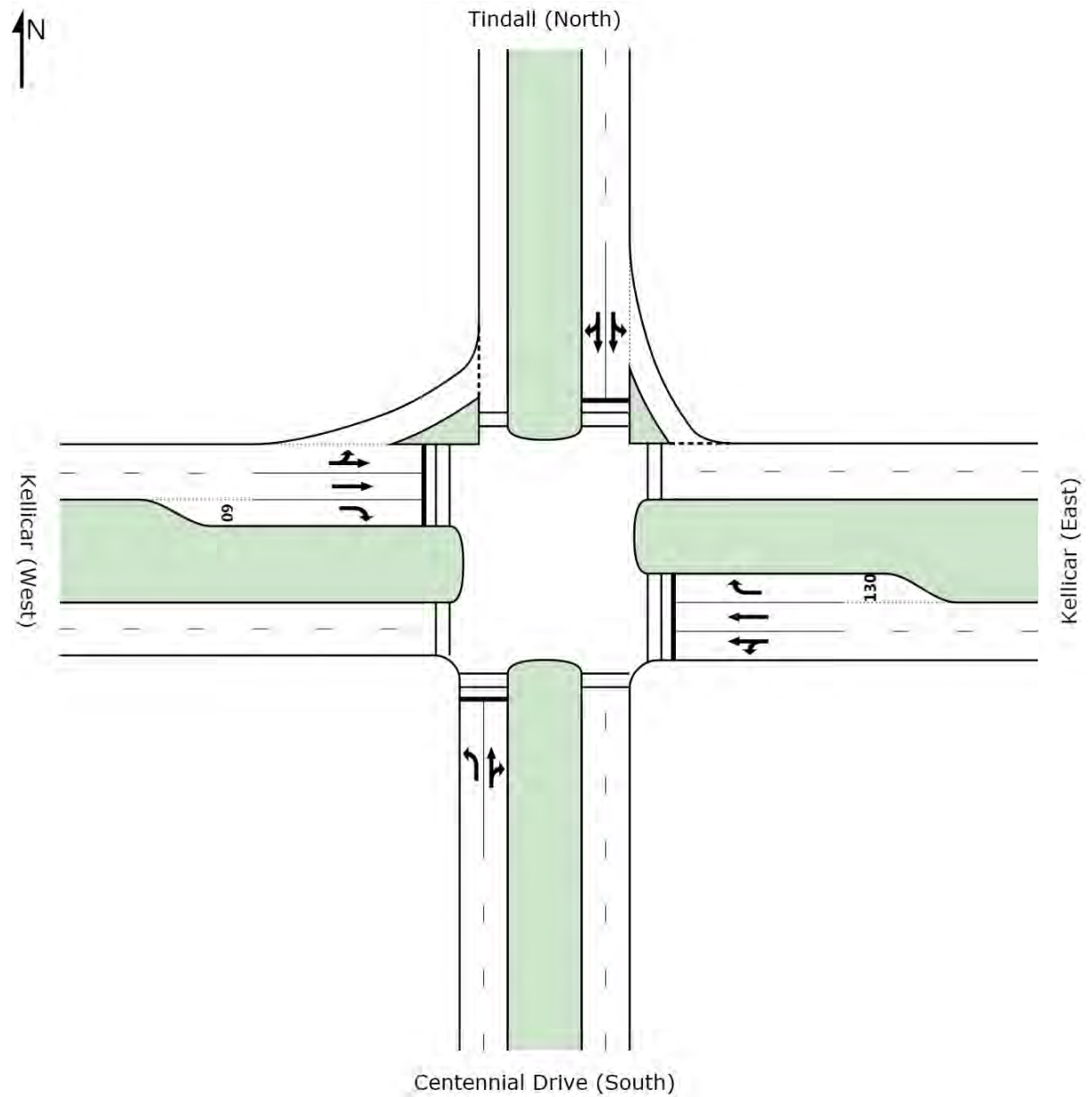
PM- WITH DEVELOPMENT Therry Road/Appin Road
Signals - Fixed Time Cycle Time = 100 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec					
						veh	m		per veh	km/h
South: Appin Road (south)										
3	L	377	1.4	0.200	7.6	X	X	X	0.60	49.8
4	T	699	5.3	0.623	33.4	LOS C	15.0	110.1	0.92	0.79
Approach		1076	3.9	0.623	24.4	LOS B	15.0	110.1	0.60	0.73
North: Appin Road (north)										
5	T	1362	2.7	0.575	12.5	LOS A	19.8	141.5	0.65	0.59
6	R	406	0.3	0.634	36.4	LOS C	14.8	103.7	0.90	0.98
Approach		1768	2.1	0.634	17.9	LOS B	19.8	141.5	0.71	0.68
West: Therry Road										
1	L	389	1.6	0.480	10.9	LOS A	5.2	36.9	0.37	0.70
2	R	566	0.4	0.572	42.2	LOS C	12.1	84.8	0.92	0.83
Approach		956	0.9	0.572	29.4	LOS C	12.1	84.8	0.70	0.78
All Vehicles		3800	2.3	0.634	22.7	LOS B	19.8	141.5	0.67	0.72

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.



MOVEMENT SUMMARY

Site: AM - Existing TCS

AM - EXISTING Kellicar, Cenntennial & Tindall, Campbelltown TCS 3787

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Centennial Drive (South)											
1	L	36	0.0	0.049	27.5	LOS B	1.3	9.0	0.57	0.70	30.1
2	T	16	0.0	0.381	53.8	LOS D	6.4	45.4	0.92	0.74	20.7
3	R	91	1.2	0.381	61.5	LOS E	6.4	45.4	0.92	0.79	22.5
Approach		142	0.7	0.381	52.1	LOS D	6.4	45.4	0.83	0.76	23.8
East: Kellicar (East)											
4	L	256	0.4	0.379	47.8	LOS D	17.0	119.6	0.96	0.86	23.3
5	T	359	3.8	0.379	41.2	LOS C	20.2	146.1	0.96	0.84	24.1
6	R	141	14.2	0.372	65.4	LOS E	9.2	72.4	1.00	0.82	19.6
Approach		756	4.6	0.379	48.0	LOS D	20.2	146.1	0.97	0.84	22.9
North: Tindall (North)											
7	L	372	5.9	0.283	7.4	LOS A	3.4	25.0	0.22	0.64	42.5
8	T	71	0.0	0.253	49.3	LOS D	5.3	36.9	0.87	0.70	22.0
9	R	22	0.0	0.253	56.9	LOS E	5.3	36.9	0.87	0.79	23.9
Approach		464	4.8	0.283	16.2	LOS B	5.3	36.9	0.35	0.65	36.1
West: Kellicar (West)											
10	L	59	19.6	0.178	37.8	LOS C	8.0	61.4	0.92	0.82	26.9
11	T	241	5.2	0.178	34.9	LOS C	8.9	64.7	0.92	0.76	26.0
12	R	64	1.6	0.322	62.0	LOS E	4.1	29.1	0.98	0.76	20.2
Approach		364	6.9	0.322	40.2	LOS C	8.9	64.7	0.93	0.77	24.8
All Vehicles		1726	4.8	0.381	38.1	LOS C	20.2	146.1	0.78	0.77	25.9

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue Pedestrian	Back of Queue Distance	Prop. Queued	Effective Stop Rate
		ped/h	sec		ped	m		per ped
P1	Across S approach	9	29.6	LOS C	0.0	0.0	0.65	0.65
P3	Across E approach	1	62.2	LOS F	0.0	0.0	0.94	0.94
P5	Across N approach	9	29.6	LOS C	0.0	0.0	0.65	0.65
P7	Across W approach	3	62.2	LOS F	0.0	0.0	0.94	0.94
All Pedestrians		22	35.5	LOS D			0.70	0.70

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: PM - Existing TCS

PM - EXISTING Kellicar, Cenntennial & Tindall, Campbelltown TCS 3787

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		vehicles	Distance		per veh	km/h
South: Centennial Drive (South)											
1	L	65	0.0	0.064	15.4	LOS B	1.6	10.9	0.38	0.68	36.5
2	T	67	0.0	0.668	57.8	LOS E	12.3	86.1	0.98	0.83	19.9
3	R	122	0.0	0.668	65.5	LOS E	12.3	86.1	0.98	0.84	21.7
Approach		255	0.0	0.668	50.6	LOS D	12.3	86.1	0.83	0.80	23.6
East: Kellicar (East)											
4	L	238	0.0	0.772	70.9	LOS F	24.2	170.7	1.00	0.88	18.6
5	T	528	2.0	0.772	63.9	LOS E	27.6	196.4	1.00	0.88	19.0
6	R	333	7.3	0.772	53.1	LOS D	21.1	156.9	0.98	0.87	22.2
Approach		1099	3.2	0.772	62.1	LOS E	27.6	196.4	0.99	0.88	19.8
North: Tindall (North)											
7	L	263	8.8	0.246	13.8	LOS A	9.2	69.1	0.62	0.75	37.8
8	T	82	0.0	0.246	27.9	LOS B	9.2	69.1	0.66	0.53	28.6
9	R	25	4.2	0.246	46.1	LOS D	3.6	25.4	0.69	0.76	27.0
Approach		371	6.5	0.246	19.1	LOS B	9.2	69.1	0.63	0.70	34.4
West: Kellicar (West)											
10	L	162	1.3	0.648	60.0	LOS E	21.7	154.0	1.00	0.86	20.8
11	T	522	1.6	0.648	58.2	LOS E	22.1	157.2	1.00	0.86	20.0
12	R	44	0.0	0.202	43.4	LOS D	2.6	17.9	0.91	0.73	24.6
Approach		728	1.4	0.648	57.7	LOS E	22.1	157.2	0.99	0.85	20.5
All Vehicles		2453	2.8	0.772	53.1	LOS D	27.6	196.4	0.92	0.84	21.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue Pedestrian	Distance	Prop. Queued	Effective Stop Rate
		ped/h	sec		ped	m		per ped
P1	Across S approach	6	48.9	LOS E	0.0	0.0	0.84	0.84
P3	Across E approach	4	64.1	LOS F	0.0	0.0	0.96	0.96
P5	Across N approach	13	48.9	LOS E	0.0	0.0	0.84	0.84
P7	Across W approach	5	64.1	LOS F	0.0	0.0	0.96	0.96
All Pedestrians		28	53.8	LOS E			0.87	0.87

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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INTERSECTION

Project: P:\2010\1015\101547\Reports\TTW\Kellicar & Tindall.sip
8001173, TTW PTY, SINGLE

MOVEMENT SUMMARY

Site: AM - Predicted TCS

AM - PREDICTED Kellicar, Cenntennial & Tindall, Campbelltown TCS 3787

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		vehicles	Distance		per veh	km/h
South: Centennial Drive (South)											
1	L	37	0.0	0.050	26.9	LOS B	1.3	9.2	0.56	0.70	30.3
2	T	17	0.0	0.387	52.2	LOS D	6.9	48.3	0.91	0.74	21.1
3	R	98	1.1	0.387	59.9	LOS E	6.9	48.3	0.91	0.80	22.9
Approach		152	0.7	0.387	51.0	LOS D	6.9	48.3	0.82	0.77	24.1
East: Kellicar (East)											
4	L	271	0.4	0.395	48.8	LOS D	17.4	122.6	0.97	0.86	23.0
5	T	359	3.8	0.395	42.1	LOS C	20.9	150.8	0.97	0.84	23.9
6	R	141	14.2	0.384	66.2	LOS E	9.3	72.6	1.00	0.82	19.5
Approach		771	4.5	0.395	48.9	LOS D	20.9	150.8	0.97	0.84	22.6
North: Tindall (North)											
7	L	372	5.9	0.285	7.4	LOS A	3.4	25.0	0.22	0.64	42.5
8	T	74	0.0	0.244	47.5	LOS D	5.3	37.4	0.86	0.69	22.5
9	R	22	0.0	0.244	55.1	LOS D	5.3	37.4	0.86	0.79	24.4
Approach		467	4.7	0.285	16.0	LOS B	5.3	37.4	0.35	0.65	36.2
West: Kellicar (West)											
10	L	59	19.6	0.181	38.4	LOS C	8.1	61.7	0.92	0.82	26.7
11	T	241	5.2	0.181	35.5	LOS C	8.9	64.9	0.93	0.76	25.8
12	R	67	1.6	0.338	62.9	LOS E	4.3	30.6	0.98	0.77	20.0
Approach		367	6.9	0.338	41.0	LOS C	8.9	64.9	0.94	0.77	24.6
All Vehicles		1757	4.7	0.395	38.7	LOS C	20.9	150.8	0.79	0.77	25.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue Pedestrian	Distance	Prop. Queued	Effective Stop Rate
		ped/h	sec		ped	m		per ped
P1	Across S approach	9	30.2	LOS D	0.0	0.0	0.66	0.66
P3	Across E approach	1	60.4	LOS F	0.0	0.0	0.93	0.93
P5	Across N approach	9	30.2	LOS D	0.0	0.0	0.66	0.66
P7	Across W approach	3	60.4	LOS F	0.0	0.0	0.93	0.93
All Pedestrians		22	35.7	LOS D			0.71	0.71

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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SIDRA INTERSECTION 5.1.8.2059

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INTERSECTION

Project: P:\2010\1015\101547\Reports\TTW\Kellicar & Tindall.sip
8001173, TTW PTY, SINGLE

MOVEMENT SUMMARY

Site: PM - Pridicted TCS

PM - PREDICTED Kellicar, Cenntennial & Tindall, Campbelltown TCS 3787

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Centennial Drive (South)											
1	L	68	0.0	0.068	15.8	LOS B	1.7	11.7	0.39	0.69	36.2
2	T	71	0.0	0.736	60.5	LOS E	14.0	97.9	1.00	0.88	19.4
3	R	137	0.0	0.736	68.1	LOS E	14.0	97.9	1.00	0.88	21.2
Approach		276	0.0	0.736	53.2	LOS D	14.0	97.9	0.85	0.83	23.0
East: Kellicar (East)											
4	L	245	0.0	0.761	69.9	LOS E	24.3	170.9	1.00	0.88	18.8
5	T	528	2.0	0.761	63.0	LOS E	27.7	197.4	1.00	0.88	19.2
6	R	333	7.3	0.774	53.8	LOS D	21.2	157.5	0.98	0.87	22.0
Approach		1106	3.1	0.774	61.8	LOS E	27.7	197.4	0.99	0.88	19.8
North: Tindall (North)											
7	L	263	8.8	0.249	13.8	LOS A	9.2	69.1	0.62	0.75	37.8
8	T	83	0.0	0.249	27.9	LOS B	9.2	69.1	0.67	0.53	28.6
9	R	25	4.2	0.249	46.1	LOS D	3.6	25.7	0.69	0.76	27.0
Approach		372	6.5	0.249	19.1	LOS B	9.2	69.1	0.63	0.70	34.4
West: Kellicar (West)											
10	L	162	1.3	0.632	59.2	LOS E	21.6	153.3	1.00	0.86	21.0
11	T	522	1.6	0.632	57.4	LOS E	22.1	156.7	1.00	0.86	20.2
12	R	45	0.0	0.208	44.0	LOS D	2.6	18.4	0.91	0.73	24.4
Approach		729	1.4	0.632	57.0	LOS E	22.1	156.7	0.99	0.85	20.6
All Vehicles		2483	2.8	0.774	53.0	LOS D	27.7	197.4	0.92	0.84	21.8

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow	Average Delay	Level of Service	Average Back of Queue Pedestrian	Distance	Prop. Queued	Effective Stop Rate
		ped/h	sec		ped	m		per ped
P1	Across S approach	6	48.1	LOS E	0.0	0.0	0.83	0.83
P3	Across E approach	4	64.1	LOS F	0.0	0.0	0.96	0.96
P5	Across N approach	13	48.1	LOS E	0.0	0.0	0.83	0.83
P7	Across W approach	5	64.1	LOS F	0.0	0.0	0.96	0.96
All Pedestrians		28	53.2	LOS E			0.87	0.87

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

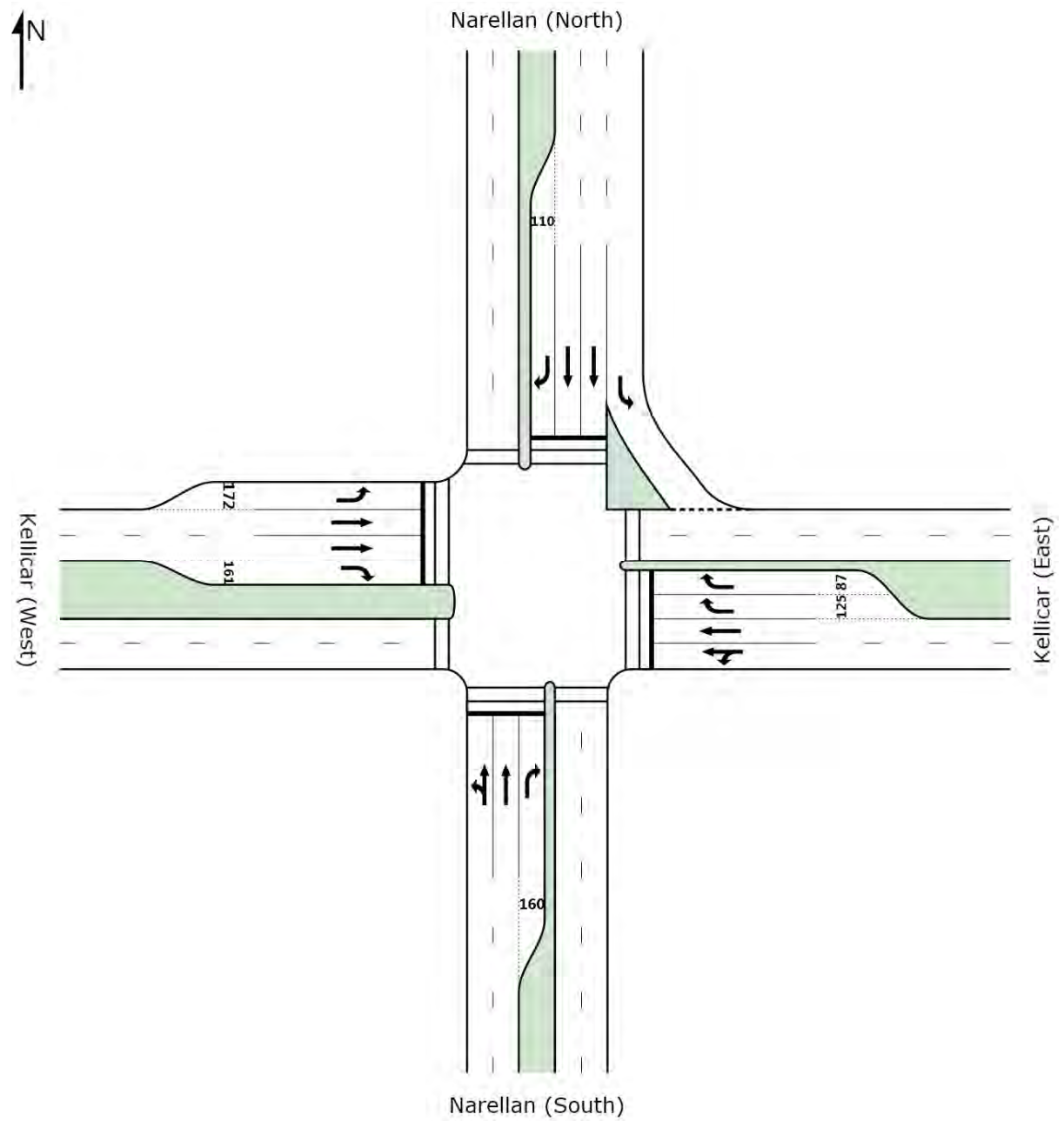
Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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INTERSECTION

Project: P:\2010\1015\101547\Reports\TTW\Kellicar & Tindall.sip
8001173, TTW PTY, SINGLE



MOVEMENT SUMMARY

Site: AM - Existing TCS3231

AM - Existing Kellicar Road & Narellan Road, Campbelltown

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Narellan (South)											
1	L	173	3.0	0.616	62.1	LOS E	26.4	191.3	1.00	0.88	22.7
2	T	642	5.1	0.616	54.4	LOS D	26.4	191.3	1.00	0.88	23.0
3	R	85	1.2	0.145	32.0	LOS C	3.6	25.8	0.92	0.78	32.0
Approach		900	4.3	0.616	53.8	LOS D	26.4	191.3	0.99	0.87	23.5
East: Kellicar (East)											
4	L	7	14.3	0.541	71.8	LOS F	13.3	98.8	1.00	0.83	21.1
5	T	391	6.7	0.541	63.4	LOS E	13.3	98.8	1.00	0.83	21.1
6	R	246	7.7	0.625	79.5	LOS F	8.6	63.9	1.00	0.80	18.9
Approach		644	7.2	0.625	69.6	LOS E	13.3	98.8	1.00	0.82	20.2
North: Narellan (North)											
7	L	795	2.6	0.604	17.3	LOS B	31.6	226.5	0.76	0.83	40.8
8	T	559	6.4	0.429	40.7	LOS C	16.1	118.9	0.91	0.78	27.2
9	R	285	1.1	0.552	32.3	LOS C	10.7	75.7	0.95	0.84	31.9
Approach		1639	3.7	0.604	27.9	LOS B	31.6	226.5	0.84	0.82	33.5
West: Kellicar (West)											
10	L	118	7.1	0.238	47.9	LOS D	7.0	51.6	0.93	0.80	25.9
11	T	449	5.6	0.603	64.5	LOS E	15.1	110.4	1.00	0.84	20.9
12	R	86	2.4	0.422	77.3	LOS F	5.9	42.3	1.00	0.78	19.2
Approach		654	5.5	0.603	63.2	LOS E	15.1	110.4	0.99	0.82	21.4
All Vehicles		3837	4.7	0.625	47.0	LOS D	31.6	226.5	0.93	0.83	25.7

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: PM - Existing TCS3231

PM - Existing Kellicar Road & Narellan Road, Campbelltown

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec	veh	m		per veh	km/h
South: Narellan (South)										
1	L	193	1.6	0.846	78.8	LOS F	24.8	178.2	1.00	19.2
2	T	488	4.5	0.846	71.1	LOS F	24.8	178.2	1.00	19.5
3	R	117	0.0	0.357	47.7	LOS D	5.9	41.1	1.00	26.0
Approach		798	3.2	0.846	69.6	LOS E	24.8	178.2	1.00	20.2
East: Kellicar (East)										
4	L	28	0.0	0.857	77.2	LOS F	30.2	217.8	1.00	19.9
5	T	821	3.8	0.857	69.2	LOS E	30.2	217.8	1.00	20.0
6	R	622	1.5	0.850	76.7	LOS F	26.3	186.6	1.00	19.4
Approach		1472	2.8	0.857	72.5	LOS F	30.2	217.8	1.00	19.7
North: Narellan (North)										
7	L	589	2.9	0.445	18.4	LOS B	23.9	171.4	0.74	40.0
8	T	644	2.6	0.815	61.3	LOS E	22.4	160.5	1.00	21.6
9	R	240	0.9	0.792	50.5	LOS D	12.9	90.7	1.00	25.2
Approach		1474	2.4	0.815	42.4	LOS C	23.9	171.4	0.90	27.3
West: Kellicar (West)										
10	L	231	0.9	0.429	49.0	LOS D	13.8	97.4	0.95	25.5
11	T	540	4.9	0.546	59.0	LOS E	17.7	128.7	1.00	22.1
12	R	177	0.0	0.400	66.1	LOS E	11.5	80.3	1.00	21.3
Approach		947	3.0	0.546	57.9	LOS E	17.7	128.7	0.99	22.7
All Vehicles		4691	2.8	0.857	59.6	LOS E	30.2	217.8	0.97	22.3

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Process

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INTERSECTION

Project: P:\2010\1015\101547\Reports\TTW\Kellicar & Narellan.sip
8001173, TTW PTY, SINGLE

MOVEMENT SUMMARY

Site: AM - Future TCS3231

AM - PREDICTED Kellicar Road & Narellan Road, Campbelltown

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Narellan (South)											
1	L	173	3.0	0.661	64.7	LOS E	26.9	195.0	1.00	0.88	22.1
2	T	648	5.0	0.661	56.9	LOS E	26.9	195.0	1.00	0.88	22.4
3	R	85	1.2	0.136	31.0	LOS C	3.5	25.1	0.92	0.78	32.5
Approach		906	4.3	0.661	55.9	LOS D	26.9	195.0	0.99	0.87	23.0
East: Kellicar (East)											
4	L	7	14.3	0.561	72.6	LOS F	13.4	99.2	1.00	0.83	20.9
5	T	391	6.7	0.561	64.2	LOS E	13.4	99.2	1.00	0.83	20.9
6	R	246	7.7	0.667	80.8	LOS F	8.6	64.5	1.00	0.81	18.7
Approach		644	7.2	0.667	70.6	LOS F	13.4	99.2	1.00	0.82	20.0
North: Narellan (North)											
7	L	795	2.6	0.604	16.7	LOS B	31.1	222.8	0.75	0.83	41.2
8	T	575	6.2	0.469	43.1	LOS D	17.0	125.0	0.93	0.80	26.4
9	R	300	1.1	0.589	31.7	LOS C	11.0	77.4	0.95	0.84	32.1
Approach		1669	3.6	0.604	28.5	LOS B	31.1	222.8	0.85	0.82	33.2
West: Kellicar (West)											
10	L	125	6.7	0.250	45.6	LOS D	7.3	54.1	0.92	0.80	26.7
11	T	449	5.6	0.626	65.3	LOS E	15.1	110.9	1.00	0.84	20.7
12	R	86	2.4	0.451	78.3	LOS F	6.0	42.5	1.00	0.78	19.1
Approach		661	5.4	0.626	63.3	LOS E	15.1	110.9	0.99	0.82	21.4
All Vehicles		3881	4.7	0.667	47.8	LOS D	31.1	222.8	0.93	0.83	25.4

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Process

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INTERSECTION

Project: P:\2010\1015\101547\Reports\TTW\Kellicar & Narellan.sip
8001173, TTW PTY, SINGLE

MOVEMENT SUMMARY

Site: PM - Predicted TCS3231

PM - Predicted Kellicar Road & Narellan Road, Campbelltown

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Narellan (South)											
1	L	193	1.6	0.866	80.4	LOS F	25.7	184.4	1.00	0.92	19.0
2	T	504	4.4	0.866	72.6	LOS F	25.7	184.4	1.00	0.93	19.3
3	R	117	0.0	0.345	47.0	LOS D	5.8	40.6	1.00	0.79	26.2
Approach		814	3.1	0.866	70.8	LOS F	25.7	184.4	1.00	0.91	19.9
East: Kellicar (East)											
4	L	28	0.0	0.857	77.2	LOS F	30.2	217.8	1.00	0.93	19.9
5	T	821	3.8	0.857	69.2	LOS E	30.2	217.8	1.00	0.93	20.0
6	R	622	1.5	0.866	78.4	LOS F	26.3	186.7	1.00	0.91	19.1
Approach		1472	2.8	0.866	73.2	LOS F	30.2	217.8	1.00	0.92	19.6
North: Narellan (North)											
7	L	589	2.9	0.445	18.4	LOS B	23.9	171.2	0.74	0.82	40.0
8	T	651	2.6	0.823	61.8	LOS E	22.8	162.9	1.00	0.92	21.4
9	R	255	0.8	0.806	52.0	LOS D	14.0	98.6	1.00	0.88	24.8
Approach		1495	2.4	0.823	43.0	LOS D	23.9	171.2	0.90	0.87	27.0
West: Kellicar (West)											
10	L	245	0.9	0.453	48.8	LOS D	14.7	103.6	0.95	0.84	25.6
11	T	540	4.9	0.546	59.0	LOS E	17.7	128.7	1.00	0.85	22.1
12	R	177	0.0	0.412	66.9	LOS E	11.5	80.6	1.00	0.83	21.2
Approach		962	3.0	0.546	57.8	LOS E	17.7	128.7	0.99	0.84	22.7
All Vehicles		4742	2.8	0.866	60.2	LOS E	30.2	217.8	0.97	0.89	22.2

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

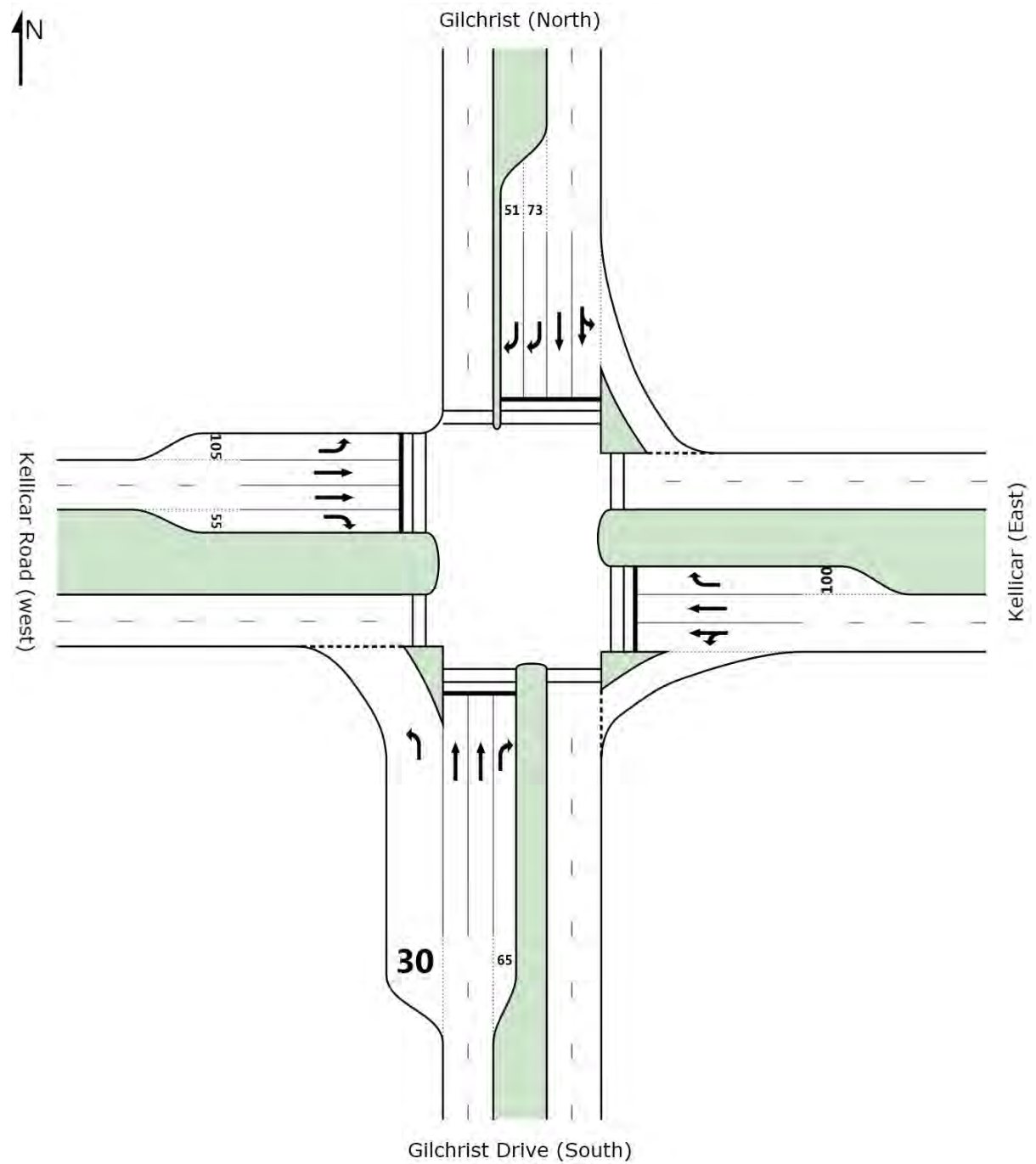
Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

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INTERSECTION

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8001173, TTW PTY, SINGLE



MOVEMENT SUMMARY

Site: AM - Existing

AM - EXISTING Killicar Road / Gilchrist Drive

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		Vehicles	Distance		per veh	km/h
South: Gilchrist Drive (South)											
1	L	112	5.7	0.672	20.5	LOS B	4.6	33.8	0.82	0.78	27.9
2	T	674	2.5	0.630	59.7	LOS E	22.1	158.1	1.00	0.86	12.8
3	R	143	5.1	0.413	29.4	LOS C	4.9	36.1	0.94	0.80	22.6
Approach		928	3.3	0.672	50.3	LOS D	22.1	158.1	0.97	0.84	14.8
East: Kellicar (East)											
4	L	126	8.3	0.365	52.5	LOS D	13.3	97.2	1.00	0.86	18.6
5	T	204	1.5	0.365	55.5	LOS D	13.3	97.2	1.00	0.83	16.4
6	R	35	3.0	0.234	59.3	LOS E	2.0	14.6	1.00	0.72	16.8
Approach		365	4.0	0.365	54.9	LOS D	13.3	97.2	1.00	0.83	17.1
North: Gilchrist (North)											
7	L	115	9.2	0.762	59.5	LOS E	26.1	189.5	1.00	0.91	23.6
8	T	703	2.5	0.762	52.2	LOS D	26.6	190.3	1.00	0.89	23.6
9	R	582	3.8	0.733	26.7	LOS B	11.3	81.7	0.85	0.83	34.8
Approach		1400	3.6	0.762	42.2	LOS C	26.6	190.3	0.94	0.87	27.2
West: Kellicar Road (west)											
10	L	280	10.2	0.774	47.4	LOS D	17.2	131.2	0.94	0.86	13.4
11	T	100	5.3	0.164	61.4	LOS E	3.3	24.0	1.00	0.76	10.4
12	R	54	11.8	0.753	88.8	LOS F	4.0	30.9	1.00	0.80	8.2
Approach		434	9.2	0.774	55.7	LOS D	17.2	131.2	0.96	0.83	11.7
All Vehicles		3127	4.3	0.774	48.0	LOS D	26.6	190.3	0.96	0.85	20.6

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model used.

Site: PM - Existing

MOVEMENT SUMMARY

PM - Existing: Killicar Road / Gilchrist Drive

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		Vehicles	Distance		per veh	km/h
South: Gilchrist Drive (South)											
1	L	150	3.9	1.000 ³	26.9	LOS B	6.8	49.2	0.90	0.78	23.9
2	T	773	1.2	0.737	62.4	LOS E	25.7	182.1	1.00	0.87	12.4
3	R	242	2.6	0.827	49.5	LOS D	11.9	85.3	0.99	0.89	15.8
Approach		1164	1.9	1.000	55.2	LOS D	25.7	182.1	0.98	0.86	13.9
East: Kellicar (East)											
4	L	355	0.9	0.813	73.9	LOS F	30.1	212.1	1.00	1.09	14.3
5	T	505	1.0	0.813	68.4	LOS E	30.1	212.1	1.00	0.97	14.2
6	R	60	0.0	0.277	51.4	LOS D	3.1	21.8	1.00	0.75	18.5
Approach		920	0.9	0.813	69.4	LOS E	30.1	212.1	1.00	1.00	14.5
North: Gilchrist (North)											
7	L	168	1.9	0.975	101.6	LOS F	44.7	316.5	1.00	1.18	16.2
8	T	867	1.2	0.975	89.6	LOS F	44.7	316.5	1.00	1.16	16.8
9	R	697	2.1	0.976	35.5	LOS C	16.7	119.1	0.95	0.86	30.5
Approach		1733	1.6	0.976	69.0	LOS E	44.7	316.5	0.98	1.04	20.4
West: Kellicar Road (west)											
10	L	392	3.0	1.000 ³	51.5	LOS D	23.9	171.4	1.00	0.87	12.5
11	T	722	0.5	0.972	92.1	LOS F	30.3	213.4	1.00	1.04	7.3
12	R	142	4.4	0.948	95.9	LOS F	11.2	81.1	1.00	0.97	7.7
Approach		1256	2.3	1.000	79.8	LOS F	30.3	213.4	1.00	0.98	8.5
All Vehicles		5073	1.7	1.000	68.6	LOS E	44.7	316.5	0.99	0.98	15.1

MOVEMENT SUMMARY

Site: AM - Predicted

AM - PREDICTED Killicar Road / Gilchrist Drive

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		Vehicles					Distance				
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Gilchrist Drive (South)											
1	L	113	5.6	0.678	20.8	LOS B	4.7	34.3	0.82	0.78	27.7
2	T	681	2.5	0.621	59.0	LOS E	22.3	159.4	1.00	0.86	12.9
3	R	144	5.1	0.416	29.5	LOS C	5.0	36.4	0.94	0.80	22.5
Approach		938	3.3	0.678	49.9	LOS D	22.3	159.4	0.97	0.84	14.9
East: Kellicar (East)											
4	L	129	8.1	0.366	51.6	LOS D	13.5	98.6	1.00	0.86	18.8
5	T	204	1.5	0.366	55.2	LOS D	13.5	98.6	1.00	0.83	16.4
6	R	35	3.0	0.234	59.3	LOS E	2.0	14.6	1.00	0.72	16.8
Approach		368	4.0	0.366	54.3	LOS D	13.5	98.6	1.00	0.83	17.2
North: Gilchrist (North)											
7	L	115	9.2	0.759	59.0	LOS E	26.5	192.2	1.00	0.91	23.7
8	T	720	2.5	0.759	51.6	LOS D	27.0	193.3	1.00	0.89	23.7
9	R	582	3.8	0.732	26.7	LOS B	11.3	81.7	0.85	0.83	34.8
Approach		1417	3.6	0.759	41.9	LOS C	27.0	193.3	0.94	0.87	27.3
West: Kellicar Road (west)											
10	L	280	10.2	0.776	48.1	LOS D	17.3	131.8	0.94	0.86	13.2
11	T	100	5.3	0.164	61.4	LOS E	3.3	24.0	1.00	0.76	10.4
12	R	55	11.5	0.767	89.0	LOS F	4.1	31.5	1.00	0.80	8.2
Approach		435	9.2	0.776	56.3	LOS D	17.3	131.8	0.96	0.83	11.6
All Vehicles		3158	4.3	0.776	47.7	LOS D	27.0	193.3	0.96	0.85	20.7

MOVEMENT SUMMARY

Site: PM - Predicted

PM - Predicted: Killicar Road / Gilchrist Drive

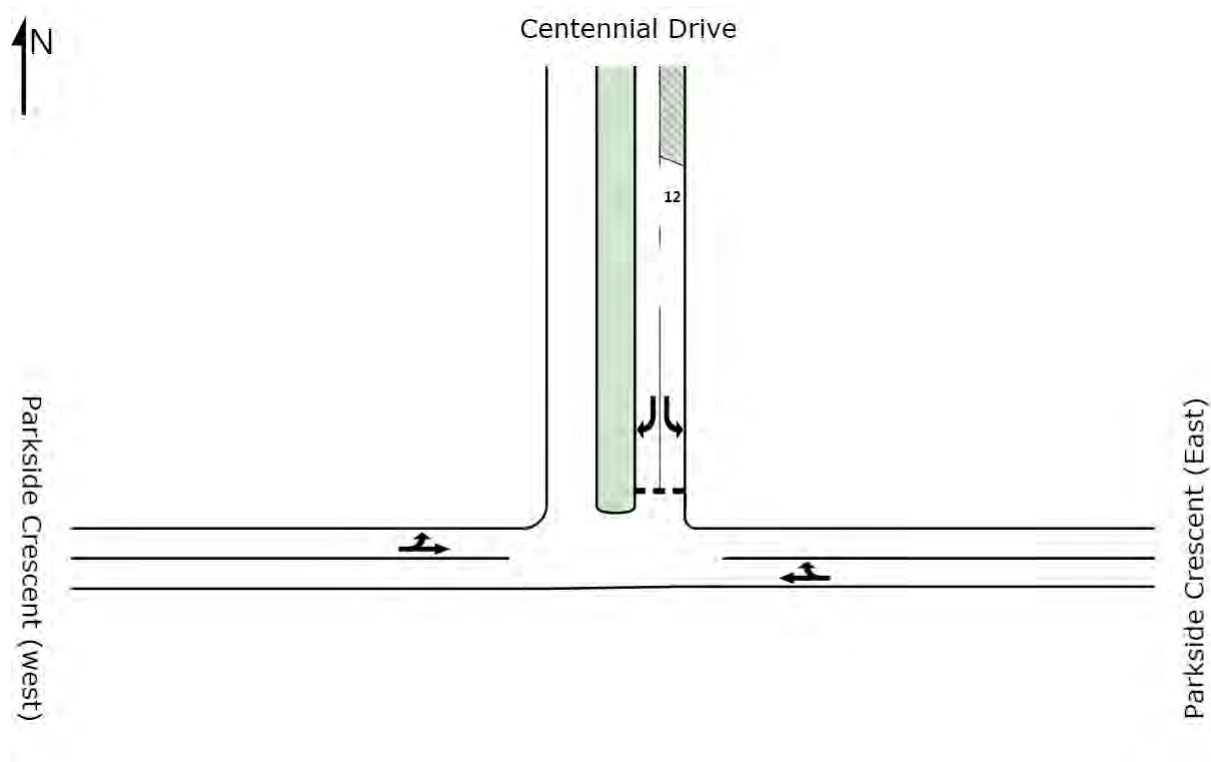
Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c			sec	veh			
South: Gilchrist Drive (South)											
1	L	147	3.9	1.000 ³	27.0	LOS B	6.8	49.2	0.89	0.78	23.9
2	T	793	1.2	0.756	63.1	LOS E	26.6	188.0	1.00	0.88	12.3
3	R	245	2.6	0.837	50.5	LOS D	12.2	87.6	0.99	0.90	15.6
Approach		1185	1.9	1.000	56.0	LOS D	26.6	188.0	0.98	0.87	13.7
East: Kellicar (East)											
4	L	356	0.9	0.814	73.6	LOS F	30.1	212.7	1.00	1.09	14.4
5	T	505	1.0	0.814	68.3	LOS E	30.1	212.7	1.00	0.97	14.2
6	R	60	0.0	0.277	51.4	LOS D	3.1	21.8	1.00	0.75	18.5
Approach		921	0.9	0.814	69.3	LOS E	30.1	212.7	1.00	1.00	14.5
North: Gilchrist (North)											
7	L	168	1.9	0.982	104.9	LOS F	45.8	324.6	1.00	1.20	15.8
8	T	875	1.2	0.982	92.9	LOS F	45.8	324.6	1.00	1.18	16.4
9	R	697	2.1	0.984	35.5	LOS C	16.7	119.1	0.96	0.86	30.5
Approach		1740	1.6	0.984	71.0	LOS F	45.8	324.6	0.98	1.05	20.0
West: Kellicar Road (west)											
10	L	392	3.0	1.000 ³	51.5	LOS D	23.9	171.4	1.00	0.87	12.5
11	T	722	0.5	0.972	92.1	LOS F	30.3	213.4	1.00	1.04	7.3
12	R	143	4.4	0.955	97.3	LOS F	11.3	82.4	1.00	0.98	7.6
Approach		1257	2.3	1.000	80.0	LOS F	30.3	213.4	1.00	0.98	8.4
All Vehicles		5103	1.7	1.000	69.4	LOS E	45.8	324.6	0.99	0.98	15.0

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement



MOVEMENT SUMMARY

Site: PM Peak - Existing

PM Existing - Centennial Drive and Parkside Crescent
Giveaway / 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		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
							Vehicles veh	Distance m			
East: Parkside Crescent (East)											
1	T	58	3.6	0.167	0.3	LOS A	0.8	5.7	0.20	0.00	55.4
2	R	183	0.0	0.167	8.5	LOS A	0.8	5.7	0.20	0.67	48.4
Approach		241	0.9	0.167	6.5	NA	0.8	5.7	0.20	0.51	49.9
North: Centennial Drive											
4	L	303	0.0	0.465	9.3	LOS A	1.2	8.5	0.59	0.53	46.5
5	R	420	0.0	0.737	19.9	LOS B	9.1	63.9	0.79	1.22	38.7
Approach		723	0.0	0.737	15.5	LOS B	9.1	63.9	0.70	0.93	41.6
West: Parkside Crescent (west)											
7	L	37	0.0	0.041	8.2	LOS A	0.0	0.0	0.00	0.83	49.0
8	T	41	2.6	0.041	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		78	1.4	0.041	3.9	NA	0.0	0.0	0.00	0.39	54.2
All Vehicles		1042	0.3	0.737	12.5	NA	9.1	63.9	0.53	0.79	44.1

Level of Service (LOS) Method: Delay (RTA NSW).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: PM Peak - Predicted

PM - Predicted: Centennial Drive and Parkside Crescent
 Giveaway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Parkside Crescent (East)											
1	T	58	3.6	0.183	0.3	LOS A	0.9	6.3	0.20	0.00	55.3
2	R	204	0.0	0.183	8.5	LOS A	0.9	6.3	0.20	0.66	48.3
Approach		262	0.8	0.183	6.7	NA	0.9	6.3	0.20	0.52	49.7
North: Centennial Drive											
4	L	313	0.0	0.479	9.4	LOS A	1.3	8.8	0.61	0.53	46.4
5	R	420	0.0	0.763	21.6	LOS B	9.8	68.6	0.82	1.29	37.6
Approach		733	0.0	0.763	16.3	LOS B	9.8	68.6	0.73	0.96	40.9
West: Parkside Crescent (west)											
7	L	37	0.0	0.041	8.2	LOS A	0.0	0.0	0.00	0.83	49.0
8	T	41	2.6	0.041	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		78	1.4	0.041	3.9	NA	0.0	0.0	0.00	0.39	54.2
All Vehicles		1073	0.3	0.763	13.1	NA	9.8	68.6	0.55	0.81	43.6

Level of Service (LOS) Method: Delay (RTA NSW).

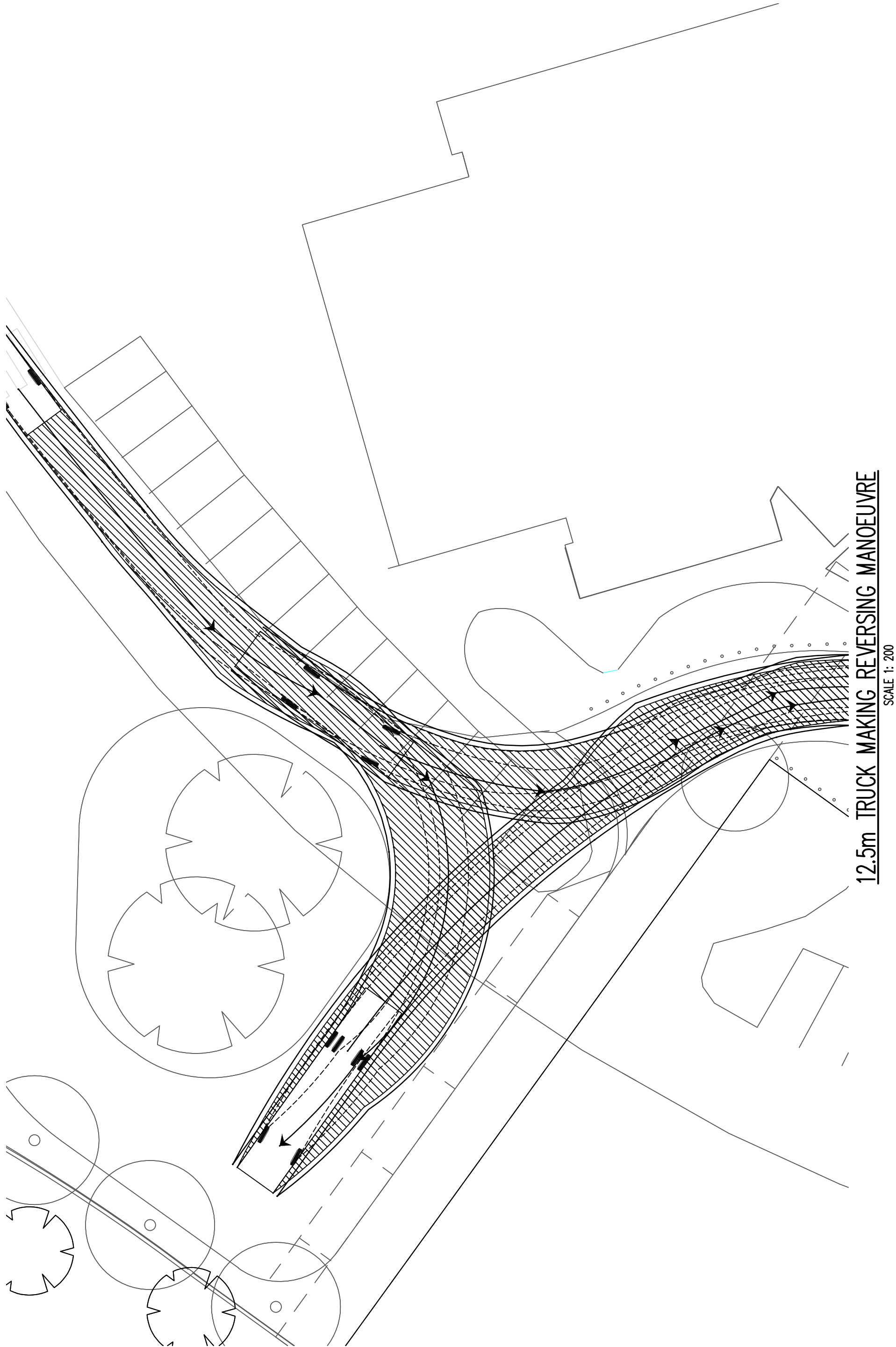
Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

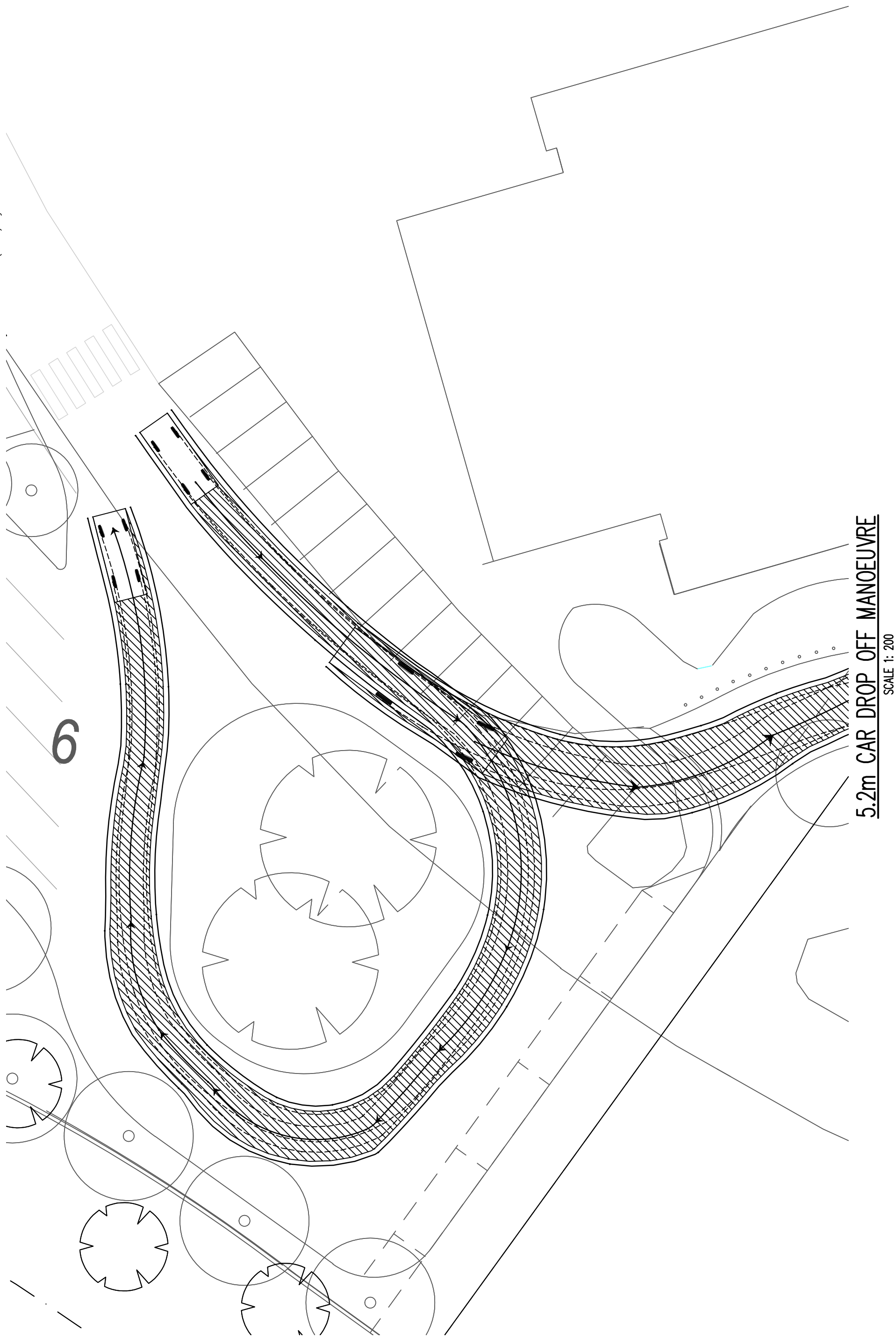
SIDRA Standard Delay Model used.

APPENDIX D



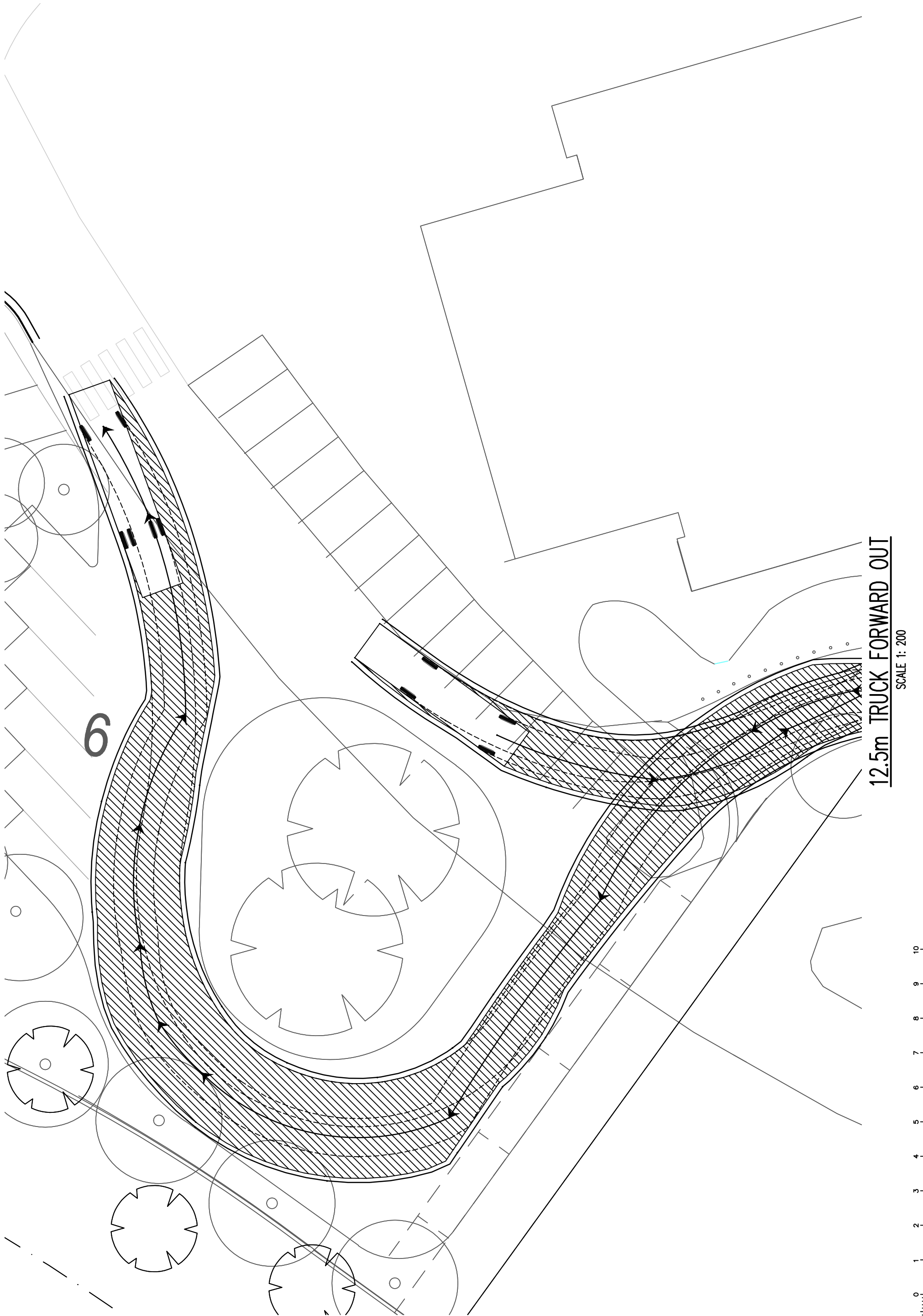
12.5m TRUCK MAKING REVERSING MANOEUVRE

SCALE 1: 200



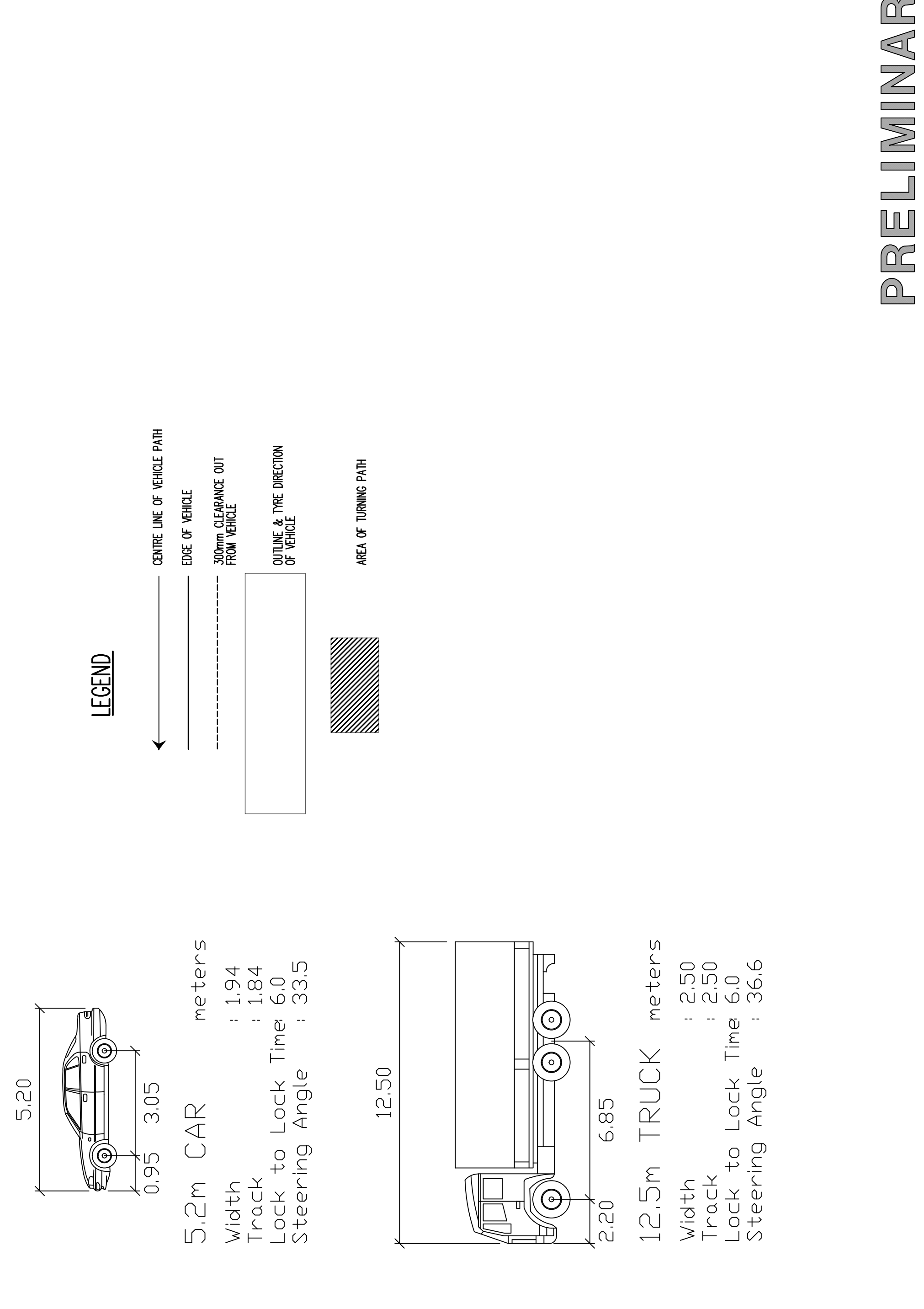
5.2m CAR DROP OFF MANOEUVRE

SCALE 1: 200



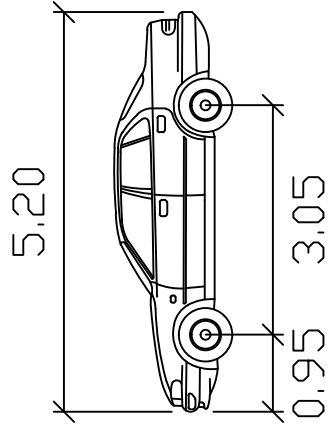
12.5m TRUCK FORWARD OUT

SCALE 1: 200

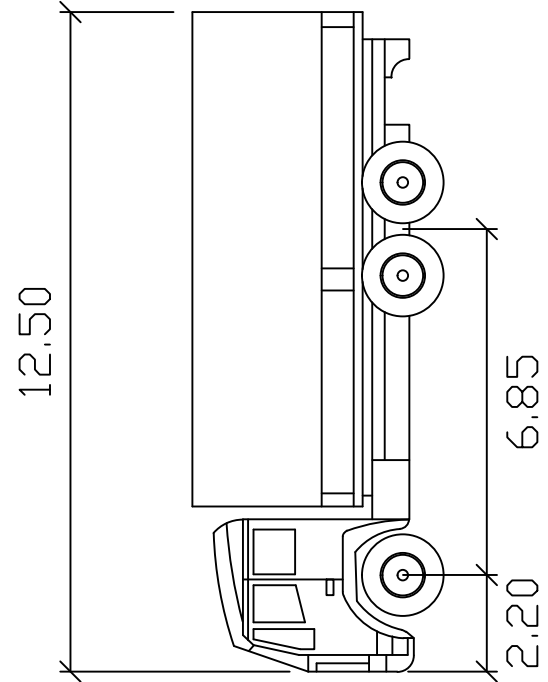


12.5m TRUCK MAKING REVERSING MANOEUVRE

SCALE 1: 200

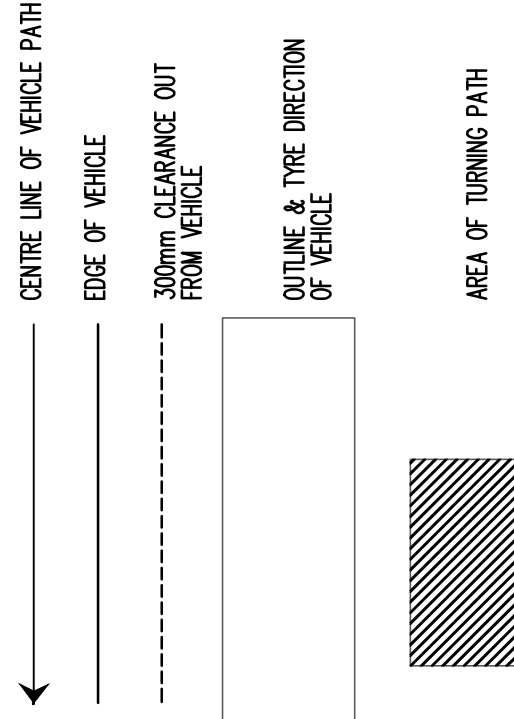


5.2m CAR meters
Width : 1.94
Track : 1.84
Lock to Lock Time: 6.0
Steering Angle : 33.5



12.5m TRUCK meters
Width : 2.50
Track : 2.50
Lock to Lock Time: 6.0
Steering Angle : 36.6

LEGEND



Filename: SK001.dwg - User: patrick - Plot File Created: Feb 23, 2012 - 2:02pm

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P3	PRELIMINARY	KH	MK	08.06.11					
P2	PRELIMINARY	KH	MK	05.06.11					
P1	PRELIMINARY	KH	MK	31.05.11					

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date

Architect
BLIGH VOLLER NIELD PTY LTD
LEVEL 6, 11-31 YORK STREET SYDNEY NSW 2000

TaylorThomsonWhiting
Consulting Engineers
48 Charles Street St Leonards NSW 2005
T: +61 2 9439 7288 F: +61 2 9439 3146 ttwesyd@ttw.com.au
Taylor Thomson Whiting (NSW) Pty Ltd ACN: 15329377

Project
CAMPBELLTOWN HOSPITAL &
MENTAL HEALTH FACILITY,
CAMPBELLTOWN

Sheet Subject
AHS DROP-OFF SUBSTATION
AND DIESEL TANK ACCESS

Scale: A1	Drawn	Authorised
1:200	MK	—
Job No	Drawing No	Revision
101547	SKC01	P3
Plot File Created:	Feb 23, 2012 - 2:02pm	

PRELIMINARY



6.4m VEHICLE – ACCESS TO PROPOSED AMBULANCE PARKING SCALE 1: 200

6.4m VEHICLE – ACCESS TO EXISTING AMBULANCE PARKING SCALE 1: 200

LEGEND

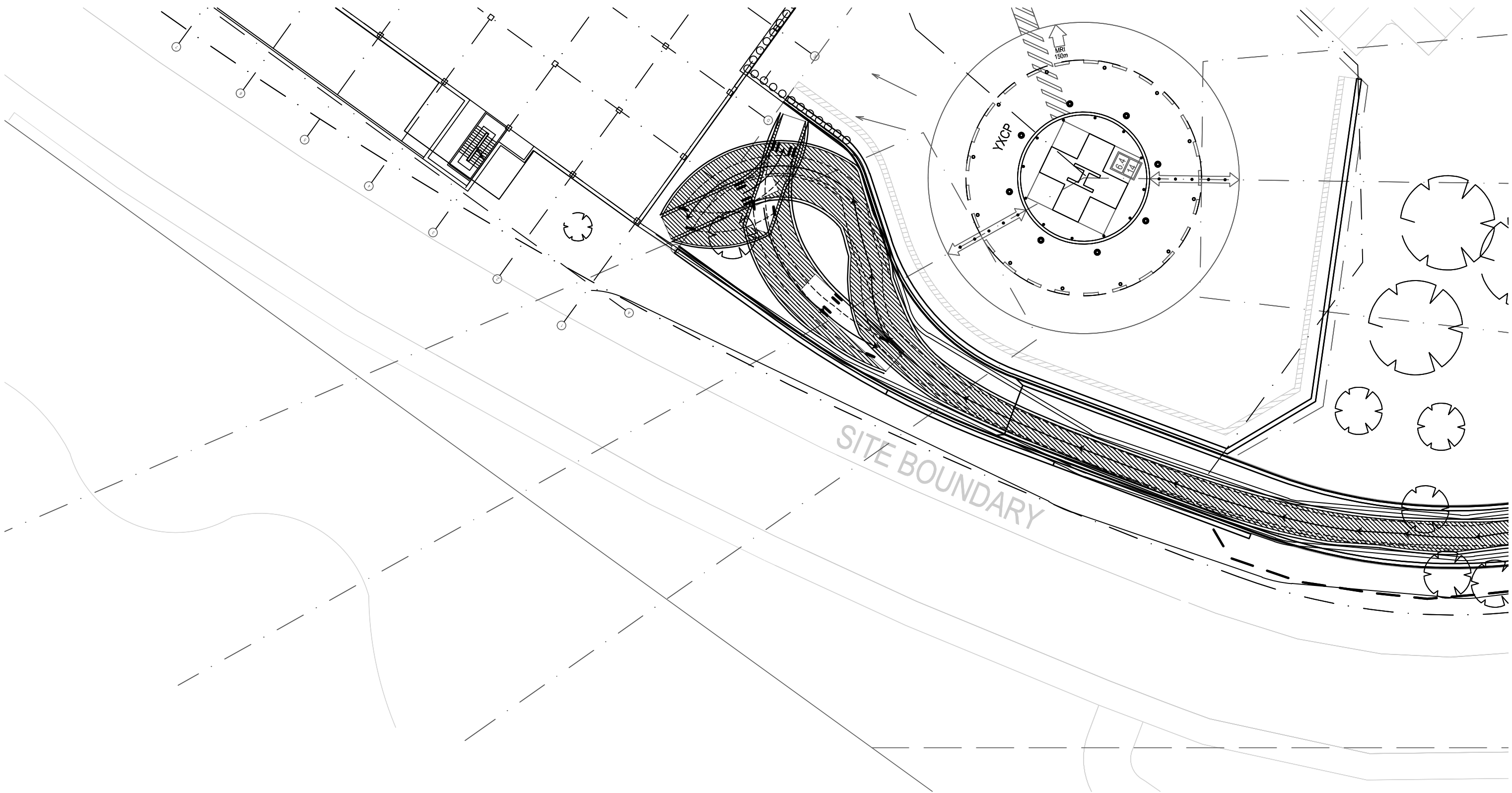
— CENTRE LINE OF VEHICLE PATH
— EDGE OF VEHICLE
- - - 3000mm CLEARANCE OUT FROM VEHICLE

OUTLINE & TYRE DIRECTION OF VEHICLE

AREA OF TURNING PATH

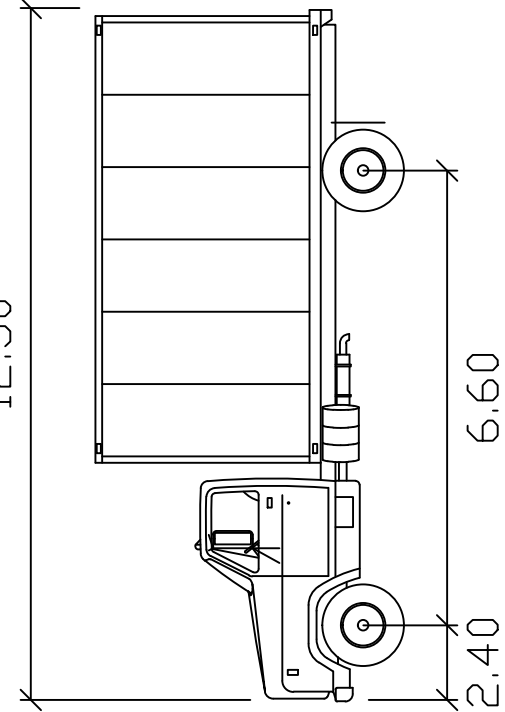
PRELIMINARY

Rev Description				Eng Draft Date				Rev Description				Eng Draft Date			
P3	PRELIMINARY			KH	MK	08.06.11									
P2	PRELIMINARY			KH	MK	06.06.11									
P1	PRELIMINARY			KH	MK	31.05.11									



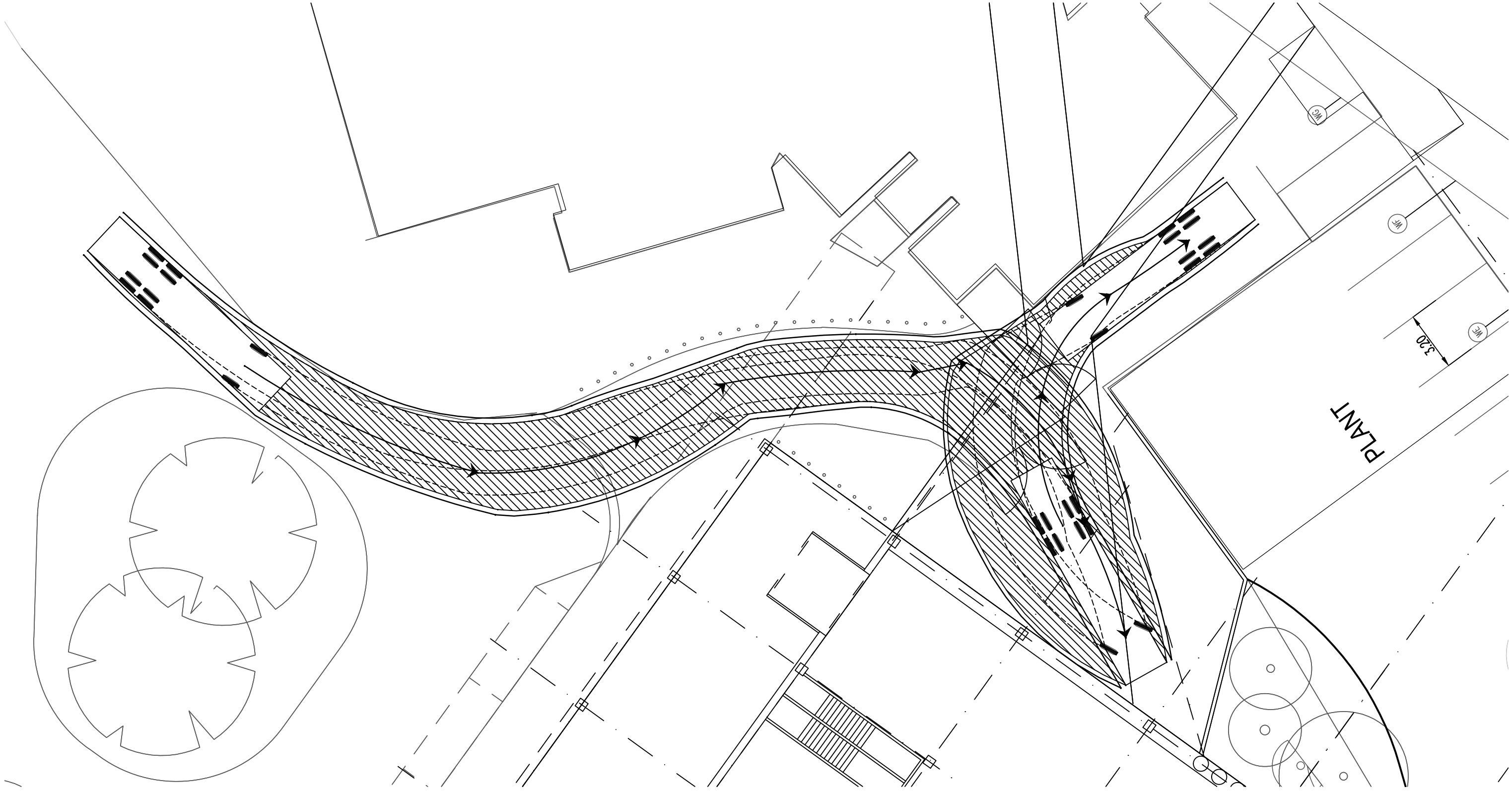
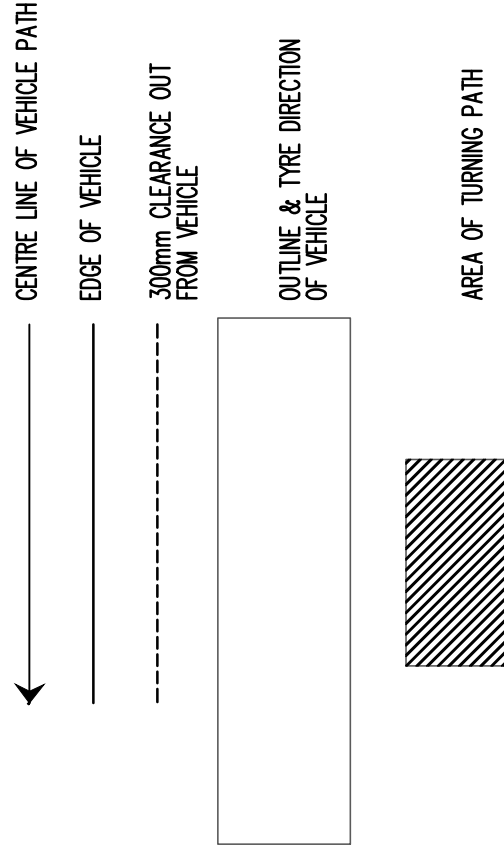
12.5m TRUCK - 3 POINT TURN INTO NEW AHS SUBSTATION

SCALE 1:250



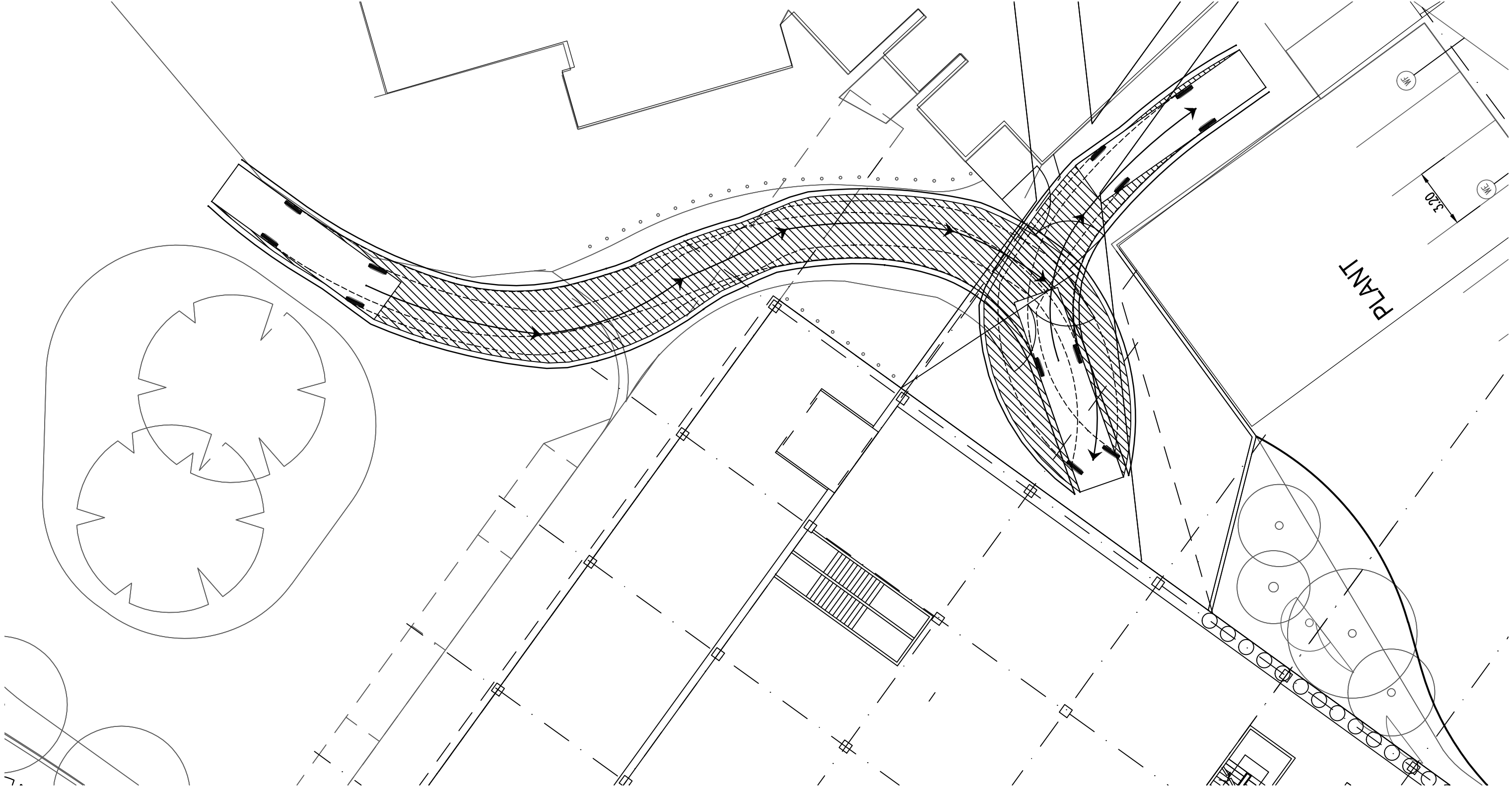
TRUCK meters
Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 35.2

LEGEND



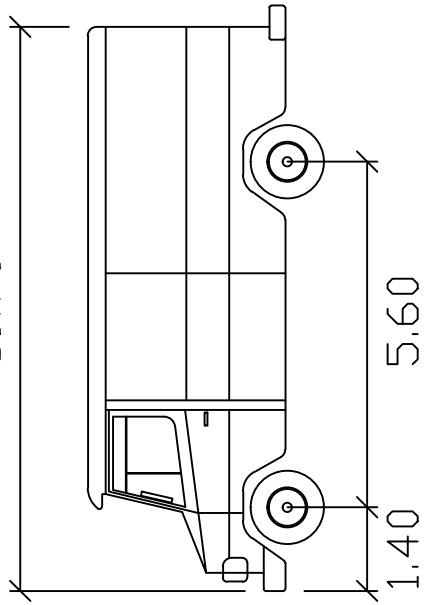
12.5m TRUCK REVERSING

SCALE 1:200



10.7m TRUCK REVERSING

SCALE 1:200



10-7MRV meters
Width : 2.45
Track : 2.40
Lock to Lock Time : 6.0
Steering Angle : 30.6

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
P4	PRELIMINARY	KH	PK	23.02.12					
P3	PRELIMINARY	KH	MK	08.06.11					
P2	PRELIMINARY	KH	MK	06.06.11					
P1	PRELIMINARY	KH	MK	30.05.11					

Architect
BLIGH VOLLER NIELD PTY LTD
LEVEL 6, 11-31 YORK STREET SYDNEY NSW 2000

TaylorThomsonWhiting
Consulting Engineers
48 Charles Street St Leonards NSW 2005
T: +61 2 9439 7288 F: +61 2 9439 3146 ttwesyd@ttw.com.au
Taylor Thomson Whiting (NSW) Pty Ltd ACN: 15359377

Project
CAMPBELLTOWN HOSPITAL & MENTAL HEALTH FACILITY, CAMPBELLTOWN

Sheet Subject
12.5m TRUCK MOVEMENTS

Scale:	AL	Drawn	Authorised
AS SHOWN	MK	—	—
Job No	Drawing No	Revision	
101547	SKC05	P4	
Plot File Created: Feb 23, 2012 - 2:07pm			

PRELIMINARY