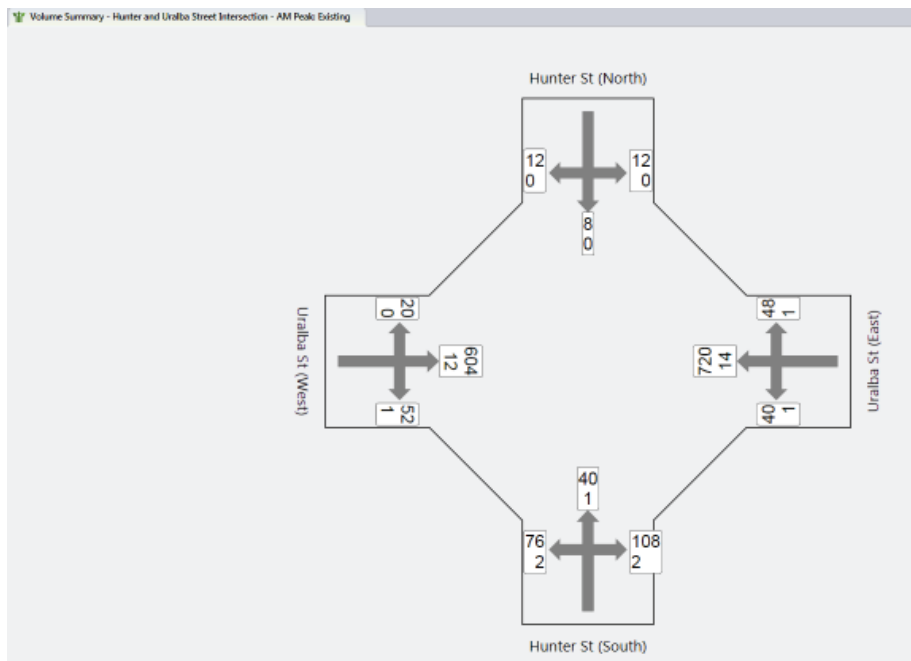


AM Peak

Existing Volumes



MOVEMENT SUMMARY

Site: Hunter and Uralba Street
Intersection - AM Peak:
Existing

Hunter and Uralba Street Intersection - AM Peak: Existing

Roundabout

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: Hunter St (South)											
1	L	78	2.6	0.339	10.9	LOS A	1.9	13.7	0.74	0.87	29.7
2	T	41	2.4	0.339	9.9	LOS A	1.9	13.7	0.74	0.83	30.2
3	R	110	1.8	0.339	14.1	LOS A	1.9	13.7	0.74	0.92	28.0
Approach		229	2.2	0.339	12.3	LOS A	1.9	13.7	0.74	0.88	28.9
East: Uralba St (East)											
4	L	41	2.4	0.600	6.2	LOS A	4.1	29.4	0.28	0.59	35.3
5	T	734	1.9	0.600	5.1	LOS A	4.1	29.4	0.28	0.47	36.2
6	R	49	2.0	0.600	9.4	LOS A	4.1	29.4	0.28	0.77	32.7
Approach		824	1.9	0.600	5.4	LOS A	4.1	29.4	0.28	0.50	36.0
North: Hunter St (North)											
7	L	12	0.0	0.053	10.3	LOS A	0.3	1.9	0.67	0.74	30.5
8	T	8	0.0	0.053	9.3	LOS A	0.3	1.9	0.67	0.69	31.0
9	R	12	0.0	0.053	13.6	LOS A	0.3	1.9	0.67	0.81	28.6
Approach		32	0.0	0.053	11.3	LOS A	0.3	1.9	0.67	0.75	29.8
West: Uralba St (West)											
10	L	20	0.0	0.562	6.7	LOS A	3.3	23.4	0.42	0.67	36.6
11	T	616	1.9	0.562	5.6	LOS A	3.3	23.4	0.42	0.56	37.1
12	R	53	1.9	0.562	9.8	LOS A	3.3	23.4	0.42	0.80	34.6
Approach		689	1.9	0.562	5.9	LOS A	3.3	23.4	0.42	0.58	36.9
All Vehicles		1774	1.9	0.600	6.6	LOS A	4.1	29.4	0.40	0.58	35.2

LANE SUMMARY

Site: Hunter and Uralba Street
Intersection - AM Peak:
Existing

Hunter and Uralba Street Intersection - AM Peak: Existing

Roundabout

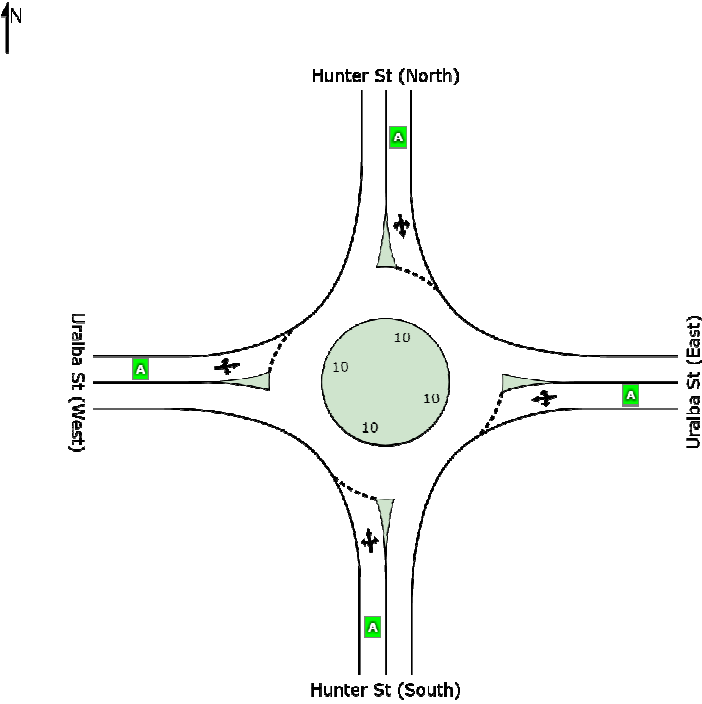
Lane Use and Performance																
	Demand Flows				HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Length	SL Type	Cap. Adj.	Prob. Block.
	L	T	R	Total							Vehicles	Distance				
	veh/h	veh/h	veh/h	veh/h							%	v/c				
South: Hunter St (South)																
Lane 1	78	41	110	229	2.2	676	0.339	100	12.3	LOS A	1.9	13.7	150	–	0.0	0.0
Approach	78	41	110	229	2.2		0.339		12.3	LOS A	1.9	13.7				
East: Uralba St (East)																
Lane 1	41	734	49	824	1.9	1374	0.600	100	5.4	LOS A	4.1	29.4	150	–	0.0	0.0
Approach	41	734	49	824	1.9		0.600		5.4	LOS A	4.1	29.4				
North: Hunter St (North)																
Lane 1	12	8	12	32	0.0	604	0.053	100	11.3	LOS A	0.3	1.9	150	–	0.0	0.0
Approach	12	8	12	32	0.0		0.053		11.3	LOS A	0.3	1.9				
West: Uralba St (West)																
Lane 1	20	616	53	689	1.9	1226	0.562	100	5.9	LOS A	3.3	23.4	200	–	0.0	0.0
Approach	20	616	53	689	1.9		0.562		5.9	LOS A	3.3	23.4				
Intersection				1774	1.9		0.600		6.6	LOS A	4.1	29.4				

LEVEL OF SERVICE SUMMARY

Site: Hunter and Uralba Street
Intersection - AM Peak:
Existing

Hunter and Uralba Street Intersection - AM Peak: Existing

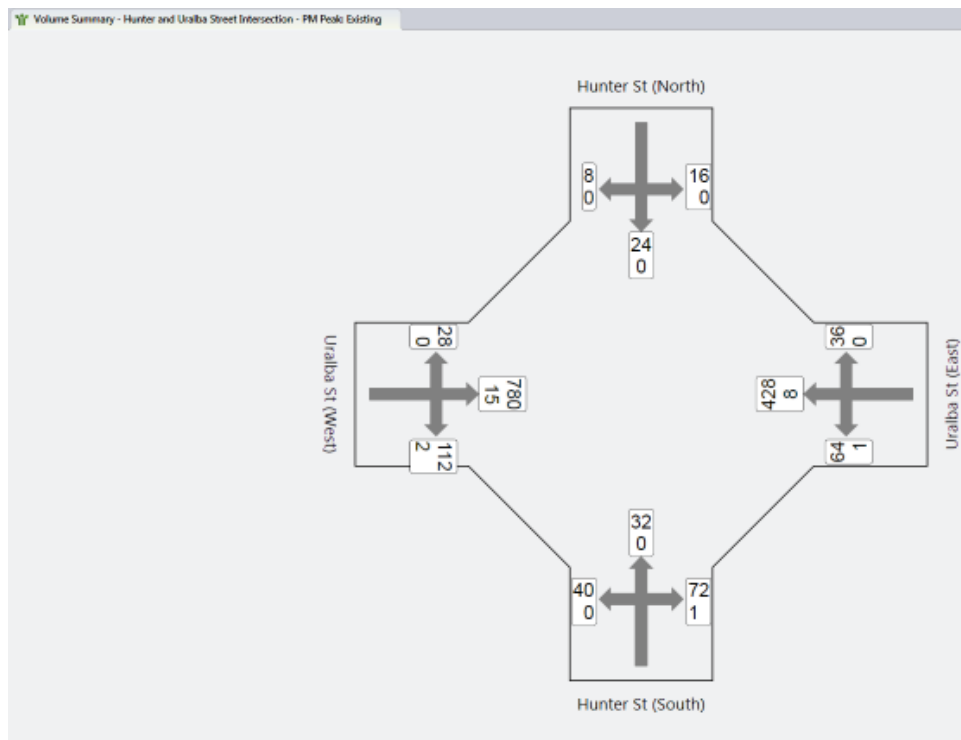
Roundabout



	South	East	North	West	Intersection
LOS	A	A	A	A	A

PM Peak

Existing Volumes



MOVEMENT SUMMARY

Site: Hunter and Uralba Street
Intersection - PM Peak:
Existing

Hunter and Uralba Street Intersection - PM Peak: Existing

Roundabout

Movement Performance - Vehicles										
Mov ID	Turn	Demand Flow	HV Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Prop. Queued	Effective Stop Rate	Average Speed	
		veh/h	%	v/c	sec	veh	m	per veh	km/h	
South: Hunter St (South)										
1	L	40	0.0	0.166	8.0	LOS A	0.8	0.52	0.69	33.4
2	T	32	0.0	0.166	7.0	LOS A	0.8	0.52	0.63	33.6
3	R	73	1.4	0.166	11.2	LOS A	0.8	0.52	0.79	30.8
Approach		145	0.7	0.166	9.4	LOS A	0.8	0.52	0.73	32.0
East: Uralba St (East)										
4	L	65	1.5	0.432	6.4	LOS A	2.3	0.32	0.62	35.0
5	T	436	1.8	0.432	5.4	LOS A	2.3	0.32	0.51	35.8
6	R	36	0.0	0.432	9.5	LOS A	2.3	0.32	0.79	32.6
Approach		537	1.7	0.432	5.8	LOS A	2.3	0.32	0.54	35.5
North: Hunter St (North)										
7	L	16	0.0	0.101	13.1	LOS A	0.6	0.78	0.84	27.8
8	T	24	0.0	0.101	12.1	LOS A	0.6	0.78	0.81	28.2
9	R	8	0.0	0.101	16.3	LOS B	0.6	0.78	0.89	26.5
Approach		48	0.0	0.101	13.1	LOS A	0.6	0.78	0.83	27.8
West: Uralba St (West)										
10	L	28	0.0	0.706	6.7	LOS A	5.2	0.43	0.63	36.5
11	T	795	1.9	0.706	5.5	LOS A	5.2	0.43	0.53	37.0
12	R	114	1.8	0.706	9.7	LOS A	5.2	0.43	0.76	34.5
Approach		937	1.8	0.706	6.1	LOS A	5.2	0.43	0.56	36.6
All Vehicles		1667	1.6	0.706	6.5	LOS A	5.2	0.41	0.58	35.6

LANE SUMMARY

Site: Hunter and Uralba Street
Intersection - PM Peak:
Existing

Hunter and Uralba Street Intersection - PM Peak: Existing

Roundabout

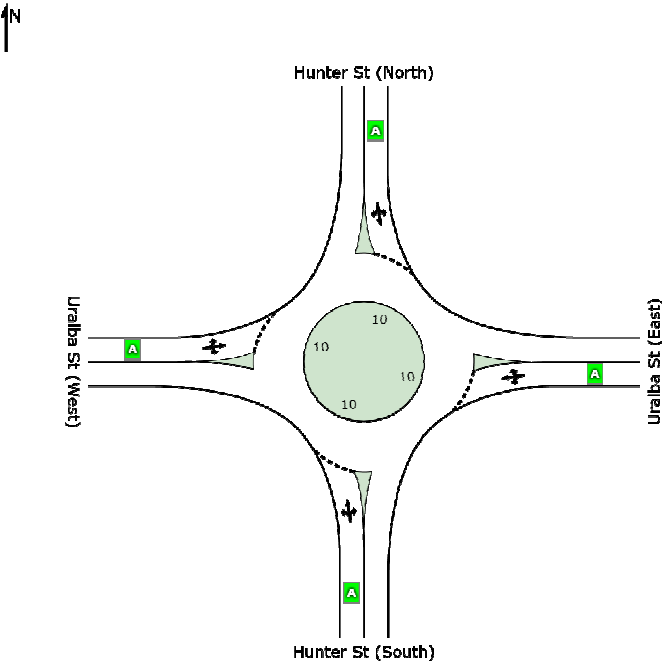
Lane Use and Performance																
	Demand Flows				HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Length	SL Type	Cap. Adj.	Prob. Block.
	L	T	R	Total							Vehicles	Distance				
	veh/h	veh/h	veh/h	veh/h							%	m				
South: Hunter St (South)																
Lane 1	40	32	73	145	0.7	871	0.166	100	9.4	LOS A	0.8	5.5	150	–	0.0	0.0
Approach	40	32	73	145	0.7		0.166		9.4	LOS A	0.8	5.5				
East: Uralba St (East)																
Lane 1	65	436	36	537	1.7	1243	0.432	100	5.8	LOS A	2.3	16.0	150	–	0.0	0.0
Approach	65	436	36	537	1.7		0.432		5.8	LOS A	2.3	16.0				
North: Hunter St (North)																
Lane 1	16	24	8	48	0.0	474	0.101	100	13.1	LOS A	0.6	3.9	150	–	0.0	0.0
Approach	16	24	8	48	0.0		0.101		13.1	LOS A	0.6	3.9				
West: Uralba St (West)																
Lane 1	28	795	114	937	1.8	1328	0.706	100	6.1	LOS A	5.2	37.2	200	–	0.0	0.0
Approach	28	795	114	937	1.8		0.706		6.1	LOS A	5.2	37.2				
Intersection				1667	1.6		0.706		6.5	LOS A	5.2	37.2				

LEVEL OF SERVICE SUMMARY

Site: Hunter and Uralba Street
Intersection - PM Peak:
Existing

Hunter and Uralba Street Intersection - PM Peak: Existing

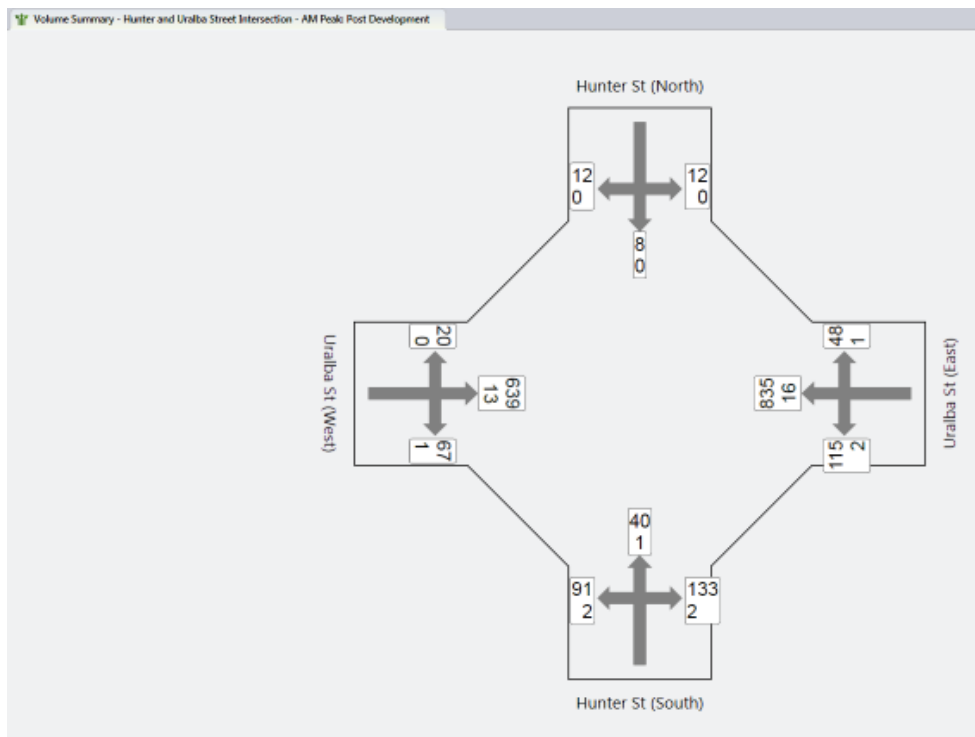
Roundabout



	South	East	North	West	Intersection
LOS	A	A	A	A	A

AM Peak – Post Development

Post Development Volumes



MOVEMENT SUMMARY

Site: Hunter and Uralba Street
Intersection - AM Peak: Post
Development

Hunter and Uralba Street Intersection - AM Peak: Post Development

Roundabout

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
		veh/h	%	v/c	sec		Vehicles	Distance		per veh
							veh	m		km/h
South: Hunter St (South)										
1	L	93	2.2	0.474	14.5	LOS B	3.5	24.5	0.87	1.01
2	T	41	2.4	0.474	13.5	LOS A	3.5	24.5	0.87	1.00
3	R	135	1.5	0.474	17.7	LOS B	3.5	24.5	0.87	1.04
Approach		269	1.9	0.474	16.0	LOS B	3.5	24.5	0.87	1.02
East: Uralba St (East)										
4	L	117	1.7	0.748	6.5	LOS A	7.3	52.0	0.44	0.58
5	T	851	1.9	0.748	5.4	LOS A	7.3	52.0	0.44	0.49
6	R	49	2.0	0.748	9.7	LOS A	7.3	52.0	0.44	0.72
Approach		1017	1.9	0.748	5.8	LOS A	7.3	52.0	0.44	0.51
North: Hunter St (North)										
7	L	12	0.0	0.059	11.1	LOS A	0.3	2.1	0.72	0.76
8	T	8	0.0	0.059	10.2	LOS A	0.3	2.1	0.72	0.73
9	R	12	0.0	0.059	14.4	LOS A	0.3	2.1	0.72	0.82
Approach		32	0.0	0.059	12.1	LOS A	0.3	2.1	0.72	0.78
West: Uralba St (West)										
10	L	20	0.0	0.618	6.9	LOS A	4.1	29.0	0.49	0.69
11	T	652	2.0	0.618	5.8	LOS A	4.1	29.0	0.49	0.58
12	R	68	1.5	0.618	10.0	LOS A	4.1	29.0	0.49	0.80
Approach		740	1.9	0.618	6.2	LOS A	4.1	29.0	0.49	0.61
All Vehicles		2058	1.8	0.748	7.4	LOS A	7.3	52.0	0.52	0.62

LANE SUMMARY

Site: Hunter and Uralba Street
Intersection - AM Peak: Post
Development

Hunter and Uralba Street Intersection - AM Peak: Post Development

Roundabout

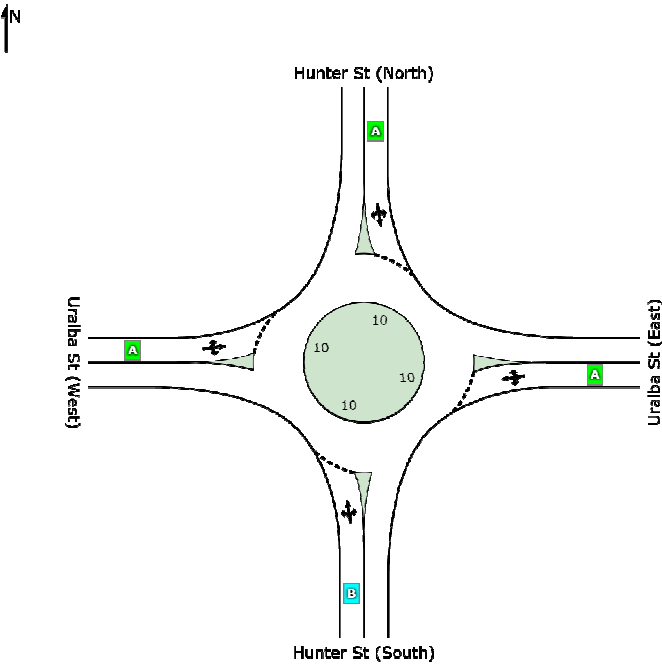
Lane Use and Performance																
	Demand Flows				HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Length	SL Type	Cap. Adj.	Prob. Block.
	L	T	R	Total							Vehicles	Distance				
	veh/h	veh/h	veh/h	veh/h							%	v/c				
South: Hunter St (South)																
Lane 1	93	41	135	269	1.9	567	0.474	100	16.0	LOS B	3.5	24.5	150	–	0.0	0.0
Approach	93	41	135	269	1.9		0.474		16.0	LOS B	3.5	24.5				
East: Uralba St (East)																
Lane 1	117	851	49	1017	1.9	1360	0.748	100	5.8	LOS A	7.3	52.0	150	–	0.0	0.0
Approach	117	851	49	1017	1.9		0.748		5.8	LOS A	7.3	52.0				
North: Hunter St (North)																
Lane 1	12	8	12	32	0.0	546	0.059	100	12.1	LOS A	0.3	2.1	150	–	0.0	0.0
Approach	12	8	12	32	0.0		0.059		12.1	LOS A	0.3	2.1				
West: Uralba St (West)																
Lane 1	20	652	68	740	1.9	1197	0.618	100	6.2	LOS A	4.1	29.0	200	–	0.0	0.0
Approach	20	652	68	740	1.9		0.618		6.2	LOS A	4.1	29.0				
Intersection				2058	1.8		0.748		7.4	LOS A	7.3	52.0				

LEVEL OF SERVICE SUMMARY

Site: Hunter and Uralba Street
Intersection - AM Peak: Post
Development

Hunter and Uralba Street Intersection - AM Peak: Post Development

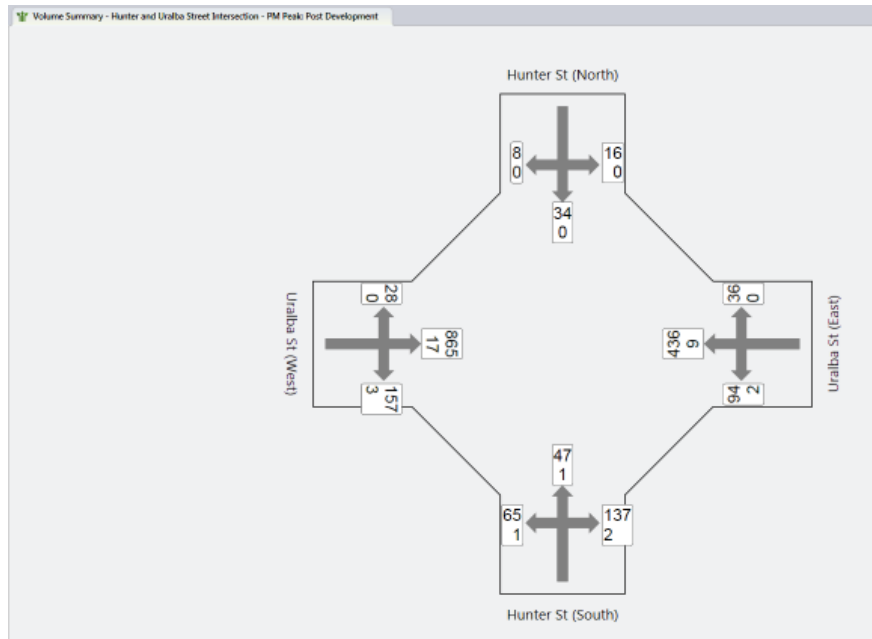
Roundabout



	South	East	North	West	Intersection
LOS	B	A	A	A	A

PM Peak – Post Development

Post Development Volumes



MOVEMENT SUMMARY

Site: Hunter and Uralba Street Intersection - PM Peak: Post Development

Hunter and Uralba Street Intersection - PM Peak: Existing

Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV Deg. Satn %	Satn 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: Hunter St (South)											
1	L	66	1.5	0.297	8.3	LOS A	1.6	11.2	0.59	0.74	32.9
2	T	48	2.1	0.297	7.3	LOS A	1.6	11.2	0.59	0.69	32.9
3	R	139	1.4	0.297	11.5	LOS A	1.6	11.2	0.59	0.82	30.5
Approach		253	1.6	0.297	9.9	LOS A	1.6	11.2	0.59	0.77	31.5
East: Uralba St (East)											
4	L	96	2.1	0.509	6.8	LOS A	3.1	22.2	0.45	0.66	34.3
5	T	445	2.0	0.509	5.8	LOS A	3.1	22.2	0.45	0.57	34.7
6	R	36	0.0	0.509	10.0	LOS A	3.1	22.2	0.45	0.79	32.4
Approach		577	1.9	0.509	6.2	LOS A	3.1	22.2	0.45	0.60	34.5
North: Hunter St (North)											
7	L	16	0.0	0.191	17.7	LOS B	1.2	8.4	0.92	0.97	24.1
8	T	34	0.0	0.191	16.7	LOS B	1.2	8.4	0.92	0.96	24.3
9	R	8	0.0	0.191	20.9	LOS B	1.2	8.4	0.92	0.98	23.4
Approach		58	0.0	0.191	17.6	LOS B	1.2	8.4	0.92	0.96	24.1
West: Uralba St (West)											
10	L	28	0.0	0.864	9.5	LOS A	12.2	86.6	0.78	0.79	34.5
11	T	882	1.9	0.864	8.4	LOS A	12.2	86.6	0.78	0.75	34.5
12	R	160	1.9	0.864	12.6	LOS A	12.2	86.6	0.78	0.84	32.3
Approach		1070	1.9	0.864	9.1	LOS A	12.2	86.6	0.78	0.76	34.1
All Vehicles		1958	1.8	0.864	8.6	LOS A	12.2	86.6	0.66	0.72	33.5

LANE SUMMARY

Site: Hunter and Uralba Street
Intersection - PM Peak: Post
Development

Hunter and Uralba Street Intersection - PM Peak: Existing

Roundabout

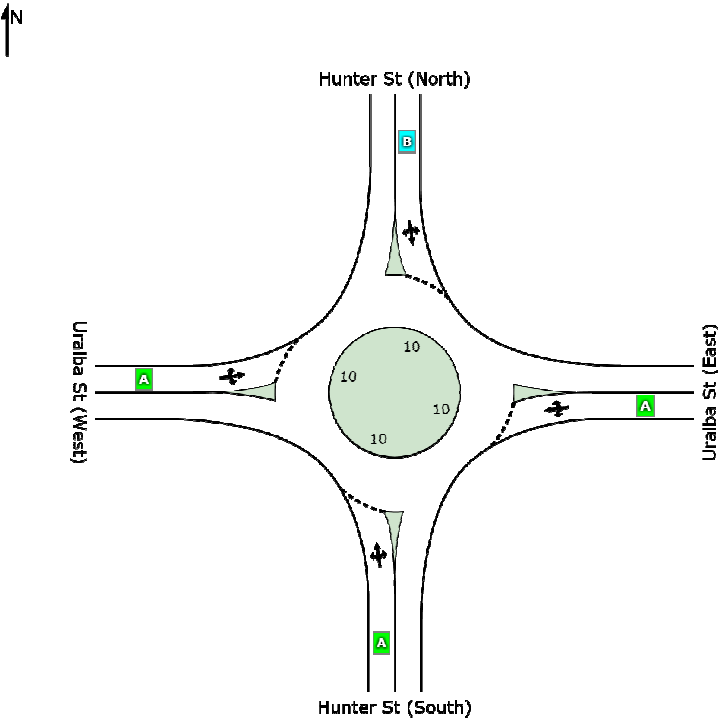
Lane Use and Performance																
	Demand Flows				HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Length	SL Type	Cap. Adj.	Prob. Block.
	L	T	R	Total							Vehicles	Distance				
	veh/h	veh/h	veh/h	veh/h	%	veh/h	v/c	%	sec		veh	m	m		%	%
South: Hunter St (South)																
Lane 1	66	48	139	253	1.6	851	0.297	100	9.9	LOS A	1.6	11.2	150	–	0.0	0.0
Approach	66	48	139	253	1.6		0.297		9.9	LOS A	1.6	11.2				
East: Uralba St (East)																
Lane 1	96	445	36	577	1.9	1134	0.509	100	6.2	LOS A	3.1	22.2	150	–	0.0	0.0
Approach	96	445	36	577	1.9		0.509		6.2	LOS A	3.1	22.2				
North: Hunter St (North)																
Lane 1	16	34	8	58	0.0	303	0.191	100	17.6	LOS B	1.2	8.4	150	–	0.0	0.0
Approach	16	34	8	58	0.0		0.191		17.6	LOS B	1.2	8.4				
West: Uralba St (West)																
Lane 1	28	882	160	1070	1.9	1239	0.864	100	9.1	LOS A	12.2	86.6	200	–	0.0	0.0
Approach	28	882	160	1070	1.9		0.864		9.1	LOS A	12.2	86.6				
Intersection				1958	1.8		0.864		8.6	LOS A	12.2	86.6				

LEVEL OF SERVICE SUMMARY

Site: Hunter and Uralba Street
Intersection - PM Peak: Post
Development

Hunter and Uralba Street Intersection - PM Peak: Existing

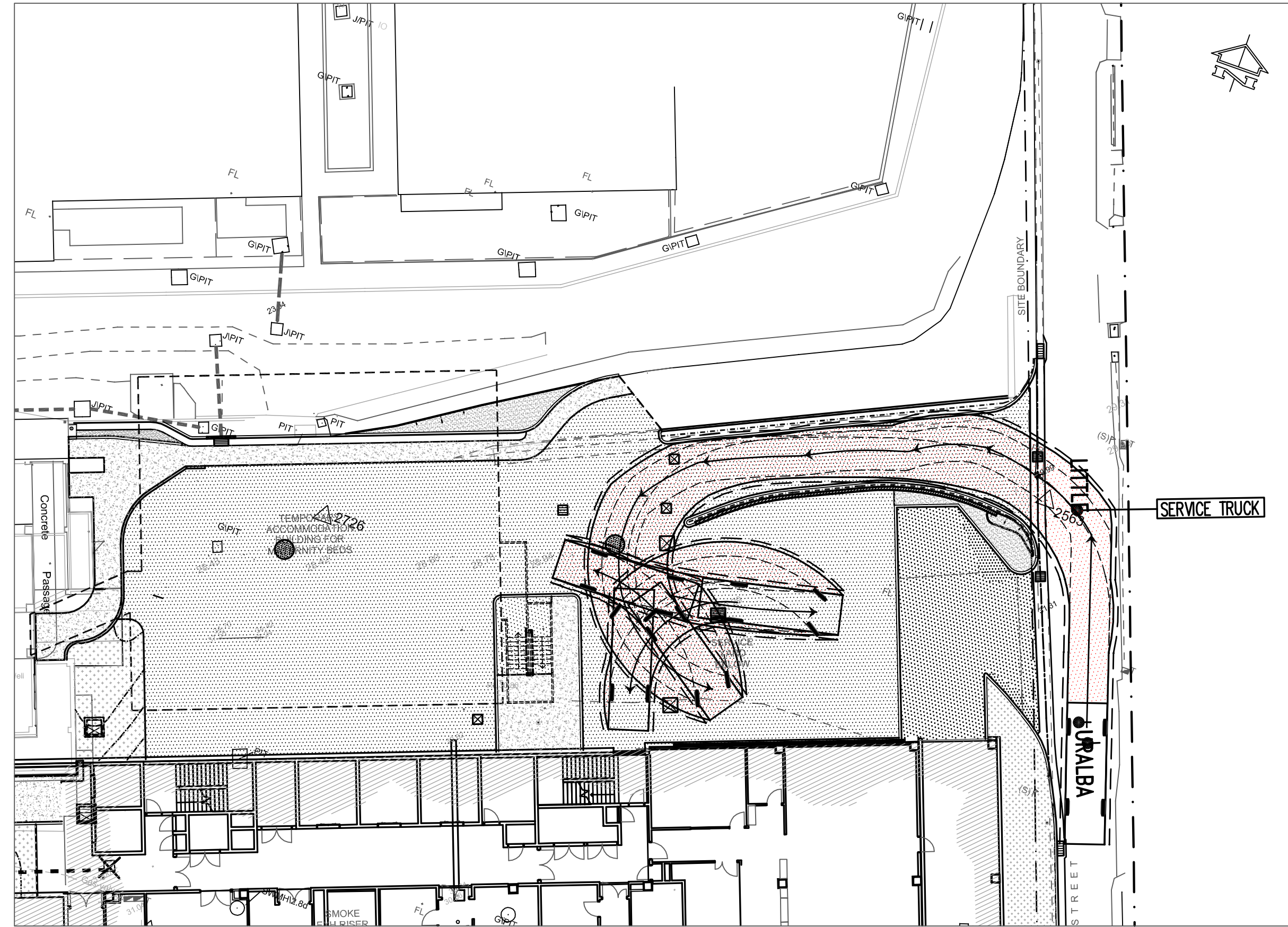
Roundabout



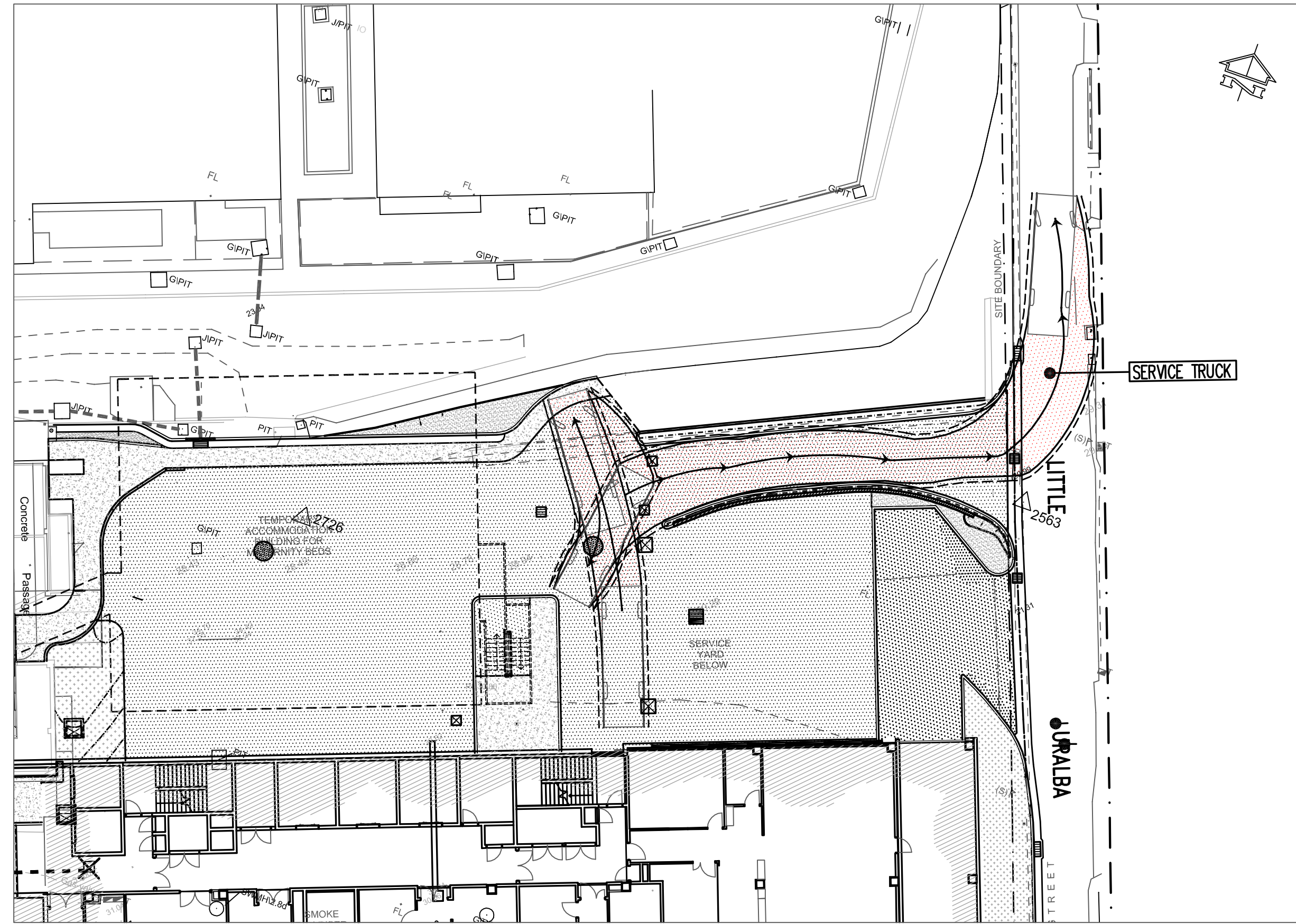
	South	East	North	West	Intersection
LOS	A	A	B	A	A

APPENDIX E

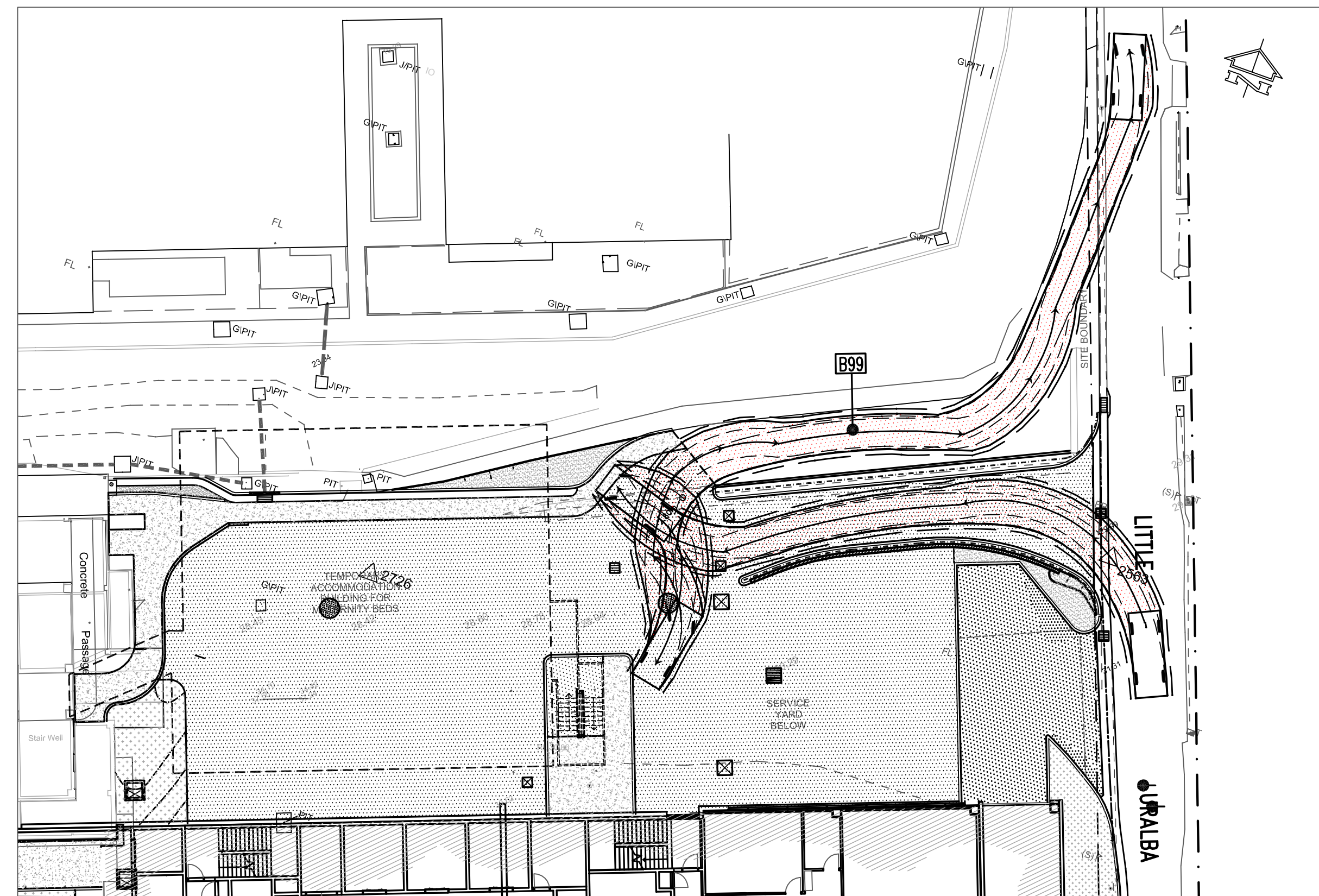
Vehicular Turning Paths



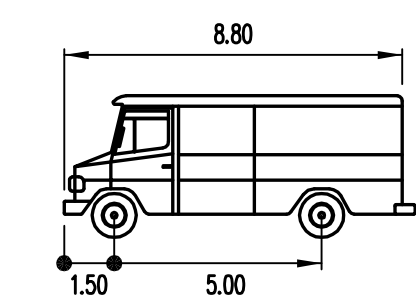
SERVICE YARD - TRUCK DRIVE IN



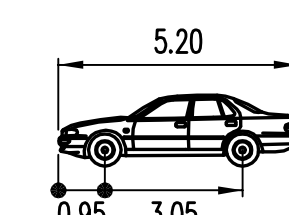
SERVICE YARD - TRUCK DRIVE OUT



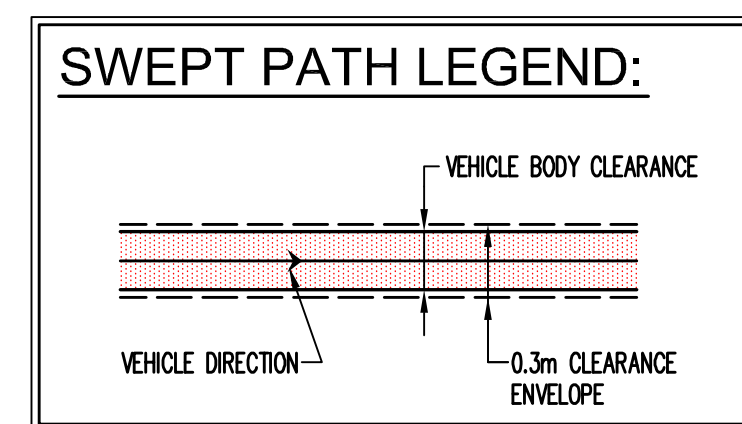
SERVICE YARD - B99 TURNING PATH



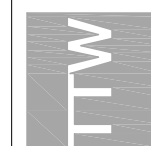
SERVICE VEHICLE	meters
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Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 38.7



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



Architect
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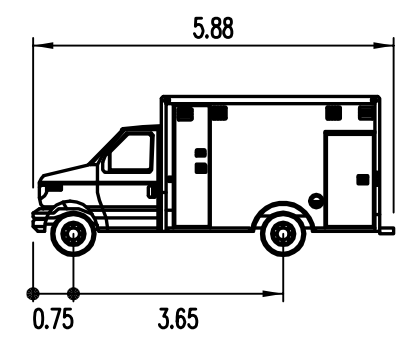
Project
LISMORE BASE HOSPITAL
REDEVELOPMENT
60 Uralba Street Lismore NSW 2480

Sheet Subject:

STAGE 3A
SERVICE YARD TURNING PATH

Scale : B1	Drawn	Authorised
1:250	WW	
Job No	Drawing No	Revision
121204	SKC081	P2
Plot File Created: Jul 26, 2013 - 4:59pm		

ISSUED FOR DA



AMBULANCE	meters
Width	: 2.42
Track	: 1.85
Lock to Lock Time	: 6.0
Steering Angle	: 32.0

[illegible]Architect
WOODS BAGOT

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Sheet Subject
STAGE 3A LEVEL 5 TURNING PATH

Scale : B1	Drawn	Authorised
1:250	WW	
Job No	Drawing No	Revision
121204	SKC082	P2
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