

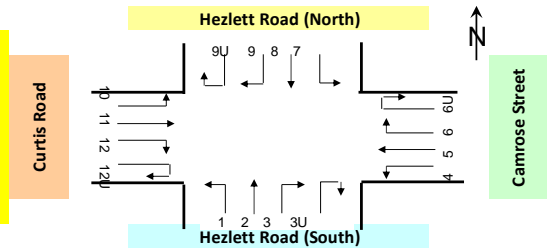
Appendices

Appendix A – Traffic Survey Outputs

2017 AM Peak

Job No. 2126108
Client : GHD
Suburb : North Kellyville Public School
Location : 1. Curtis Road/ Hezlett Road

Day/Date : Tues 18th July 2017
Weather : Fine
Description : Classified Intersection Count
 : 15 mins Data



Classifications	Class 1	Class 2
	Lights	Heavies

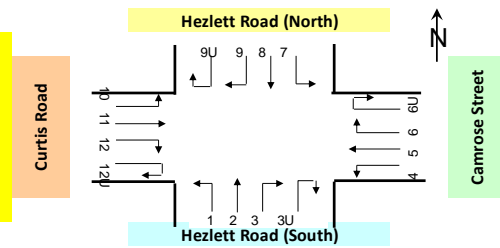
Approach	Hezlett Road (South)												
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Pedestrians
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
8:00 am - 8:15 am	9	2	11	65	6	71	2	0	2	0	0	0	
Approach	Hezlett Road (North)												
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Pedestrians
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
8:15 am - 8:30 am	9	1	10	87	8	95	1	1	2	0	0	0	

Approach	Camrose Street												
Direction	Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)			Pedestrians
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
8:45 am - 9:00 am	2	0	2	0	0	0	2	0	2	0	0	0	
Approach	Curtis Road												
Direction	Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)			Pedestrians
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
8:30 am - 8:45 am	3	2	5	1	0	1	9	0	9	0	0	0	

2017 PM Peak

Job No. 2126108
Client : GHD
Suburb : North Kellyville Public School
Location : 1. Curtis Road/ Hezlett Road

Day/Date : Wed 19th July 2017
Weather : Fine
Description : Classified Intersection Count
 : 15 mins Data



	Class 1	Class 2
Classifications	Lights	Heavies

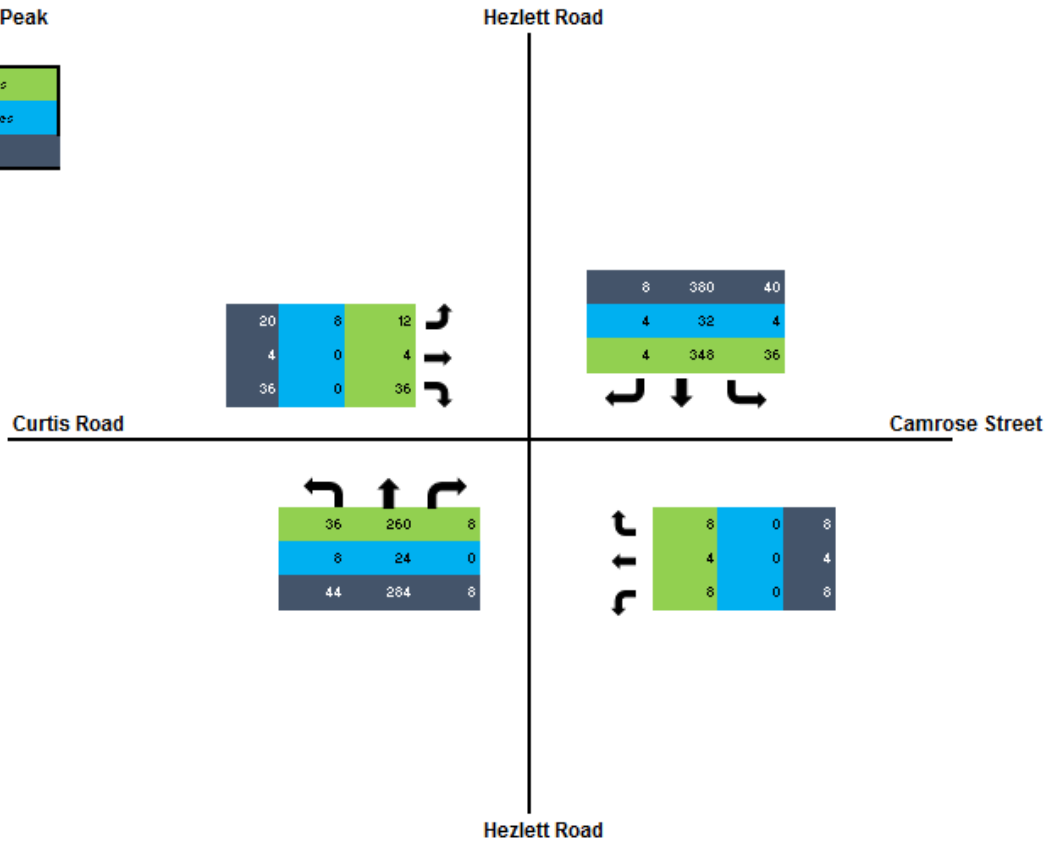
Approach	Hezlett Road (South)												
Direction	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Pedestrian
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
3:00 pm - 3:15 pm	9	0	9	95	7	102	1	0	1	0	0	0	
Approach	Hezlett Road (North)												
Direction	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 9U (U Turn)			Pedestrian
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
3:15 pm - 3:30 pm	3	0	3	86	4	90	2	0	2	0		0	

Approach	Camrose Street												
Direction	Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)			Pedestrian
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
3:45 pm - 4:00 pm	2	0	2	1	0	1	4	0	4	0	0	0	
Approach	Curtis Road												
Direction	Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)			Pedestrian
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
3:30 pm - 3:45 pm	0	0	0	1	0	1	19	0	19	0	0	0	

Appendix B – Existing and Forecast Traffic Volumes

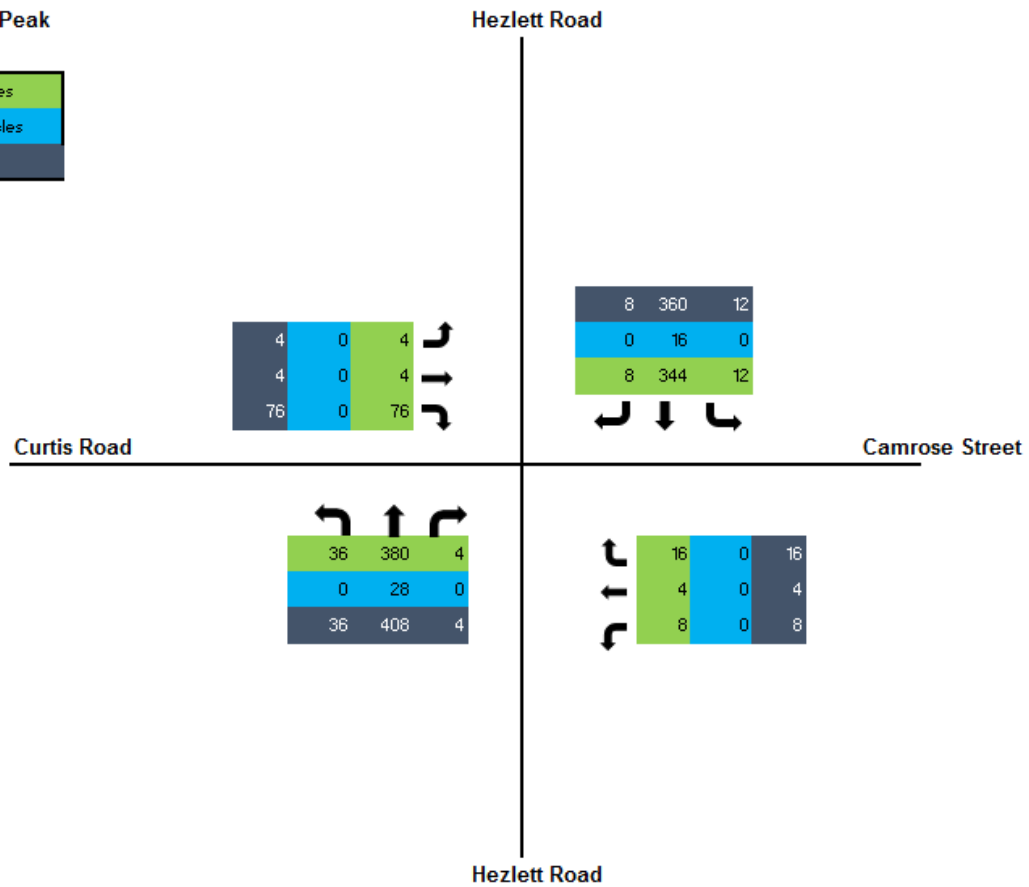
2017 AM Peak

Light Vehicles	
Heavy Vehicles	
Total	

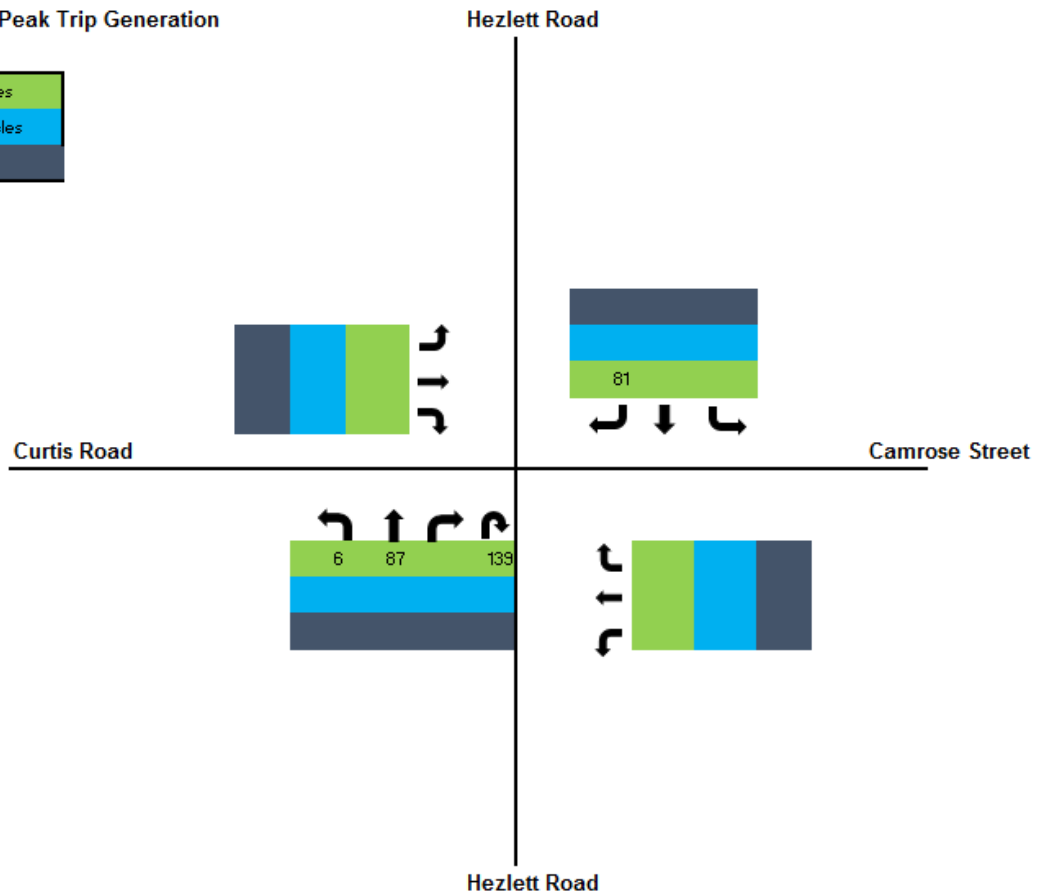
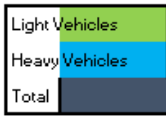


2017 PM Peak

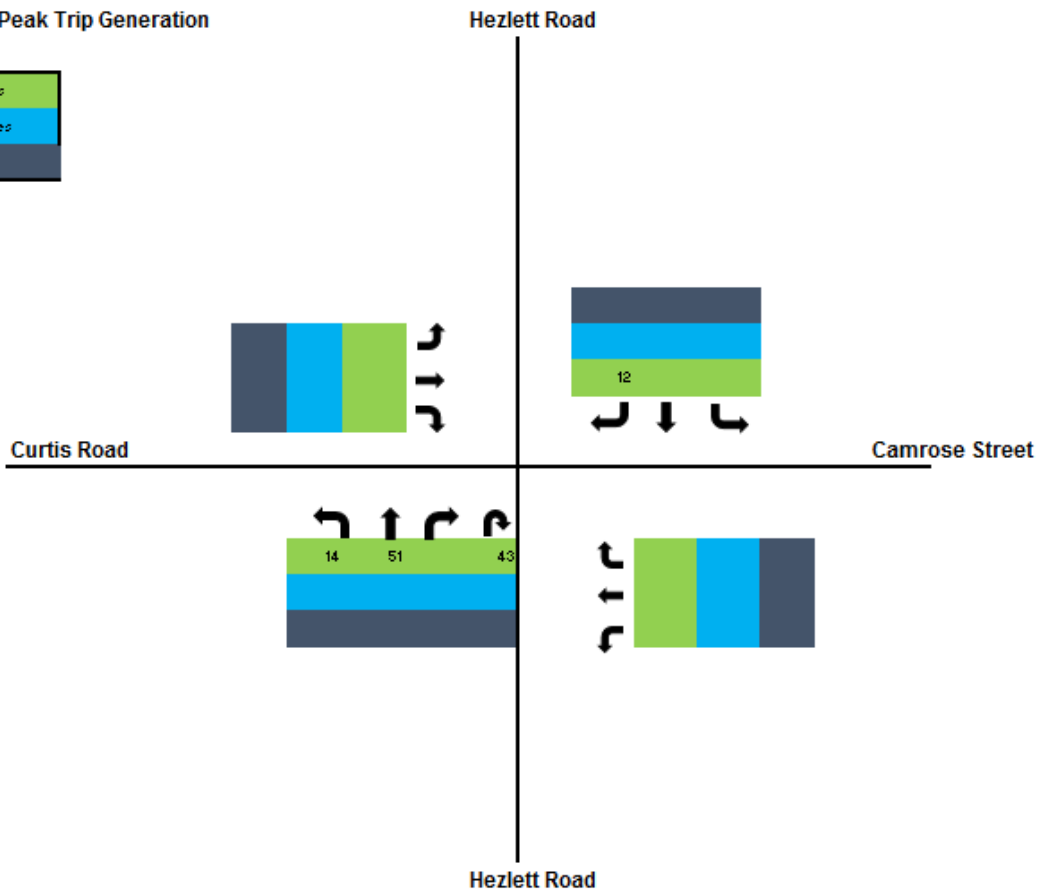
Light Vehicles	
Heavy Vehicles	
Total	



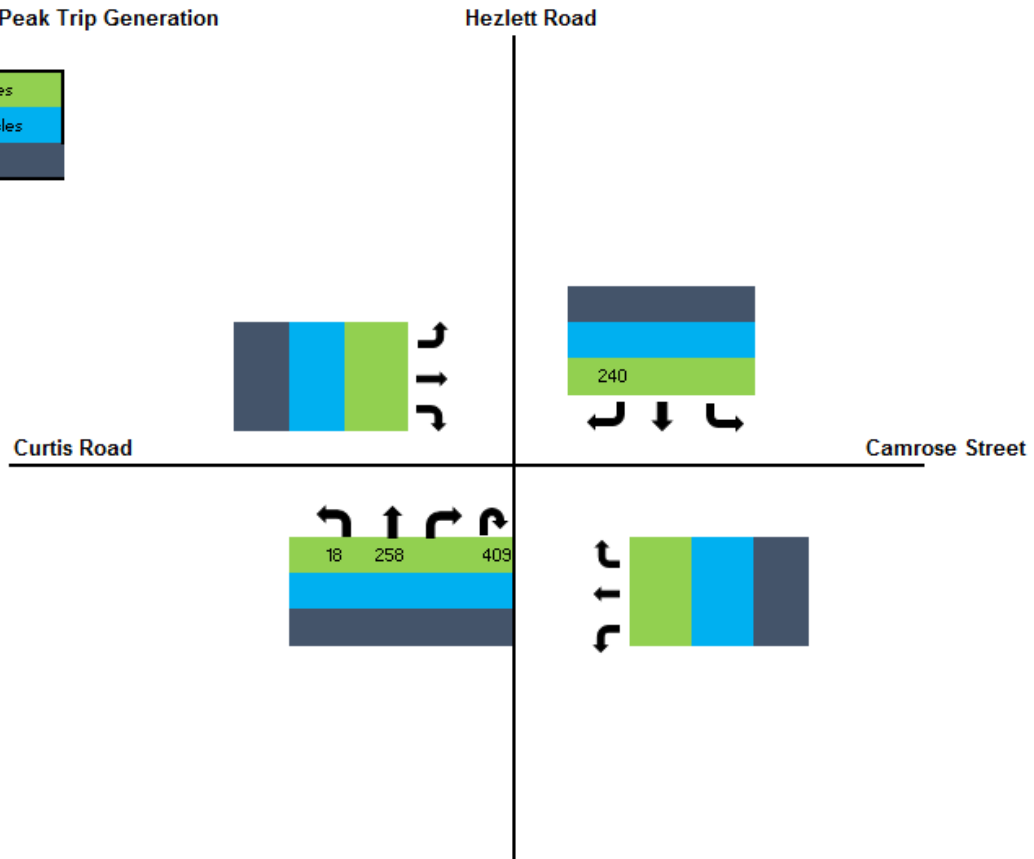
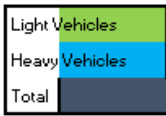
2020 AM Peak Trip Generation



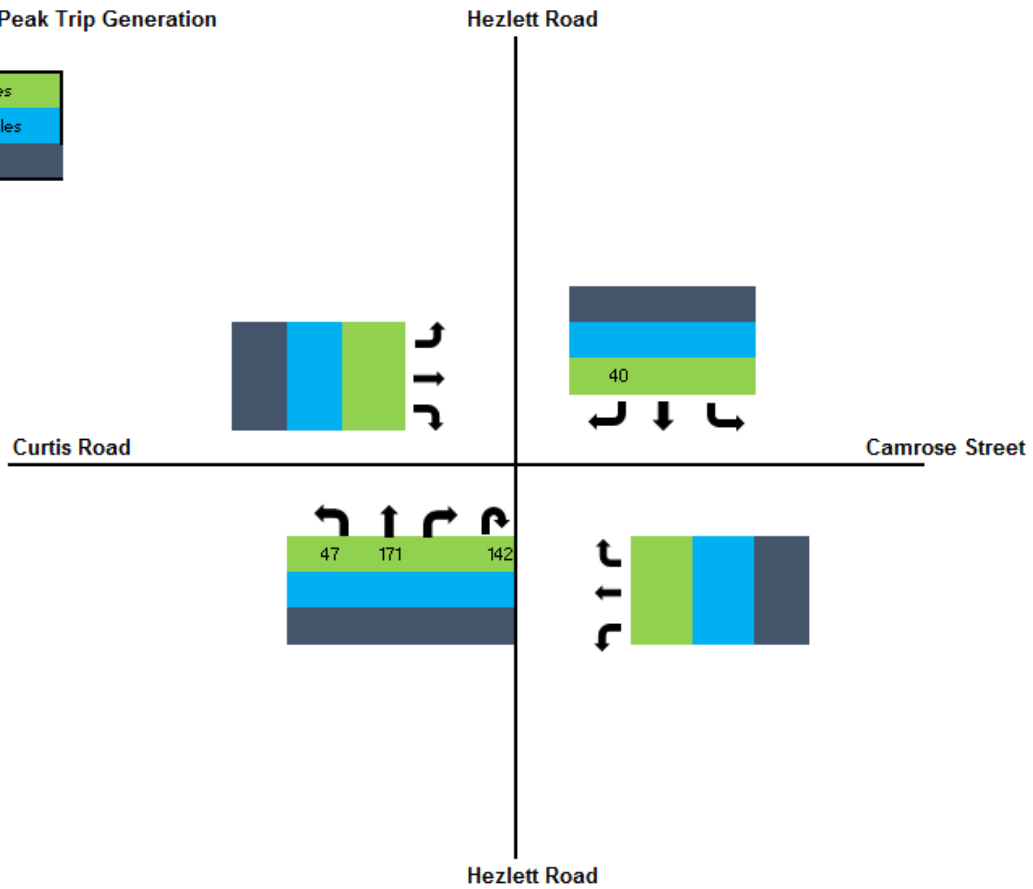
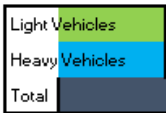
2020 PM Peak Trip Generation



2030 AM Peak Trip Generation

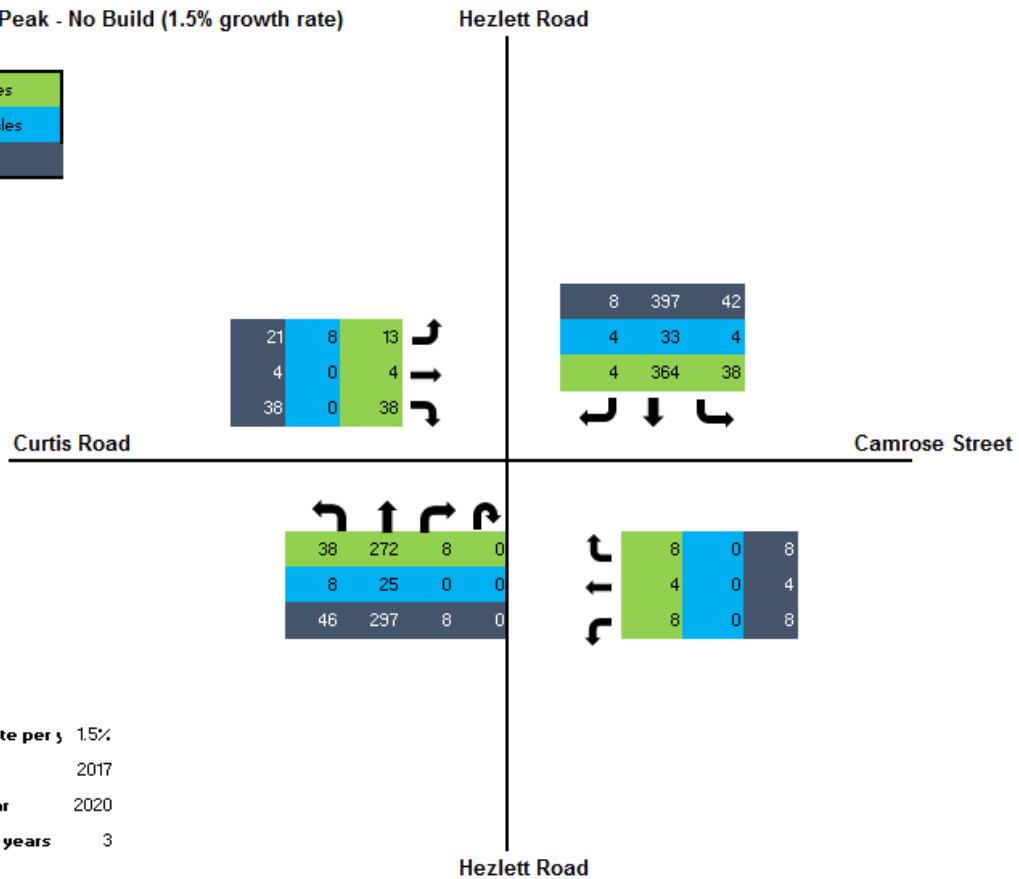


2030 PM Peak Trip Generation



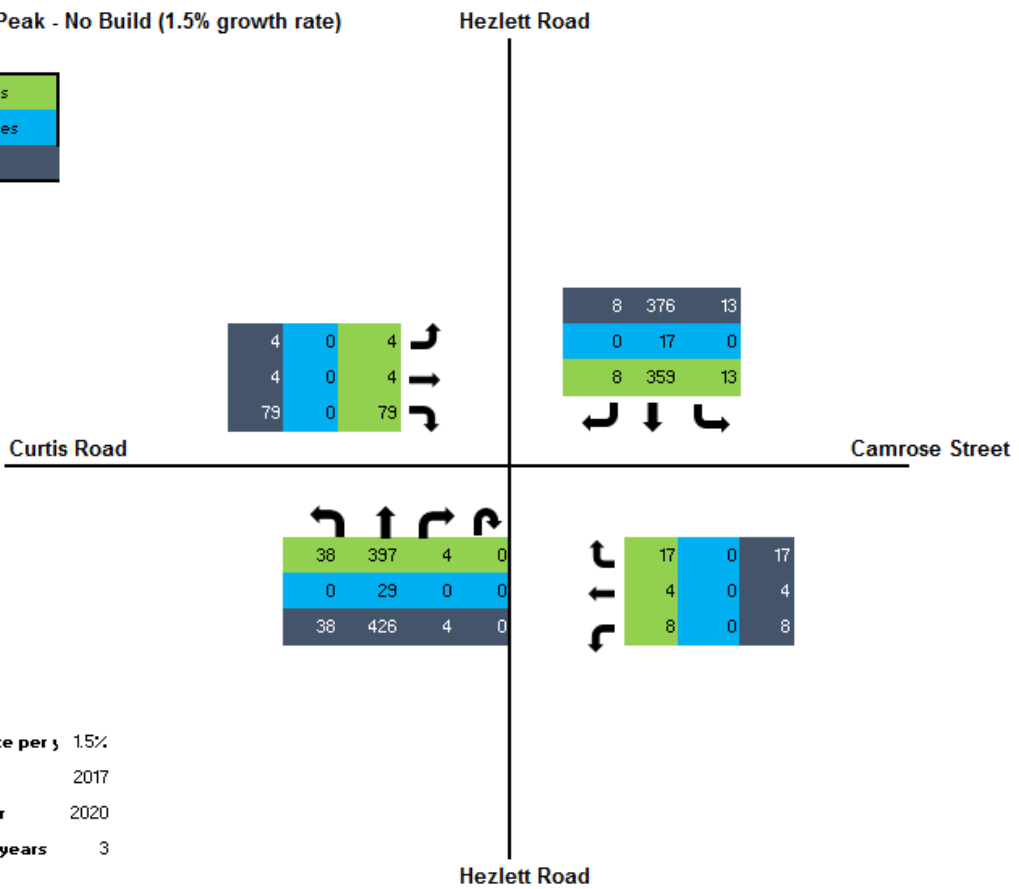
2020 AM Peak - No Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



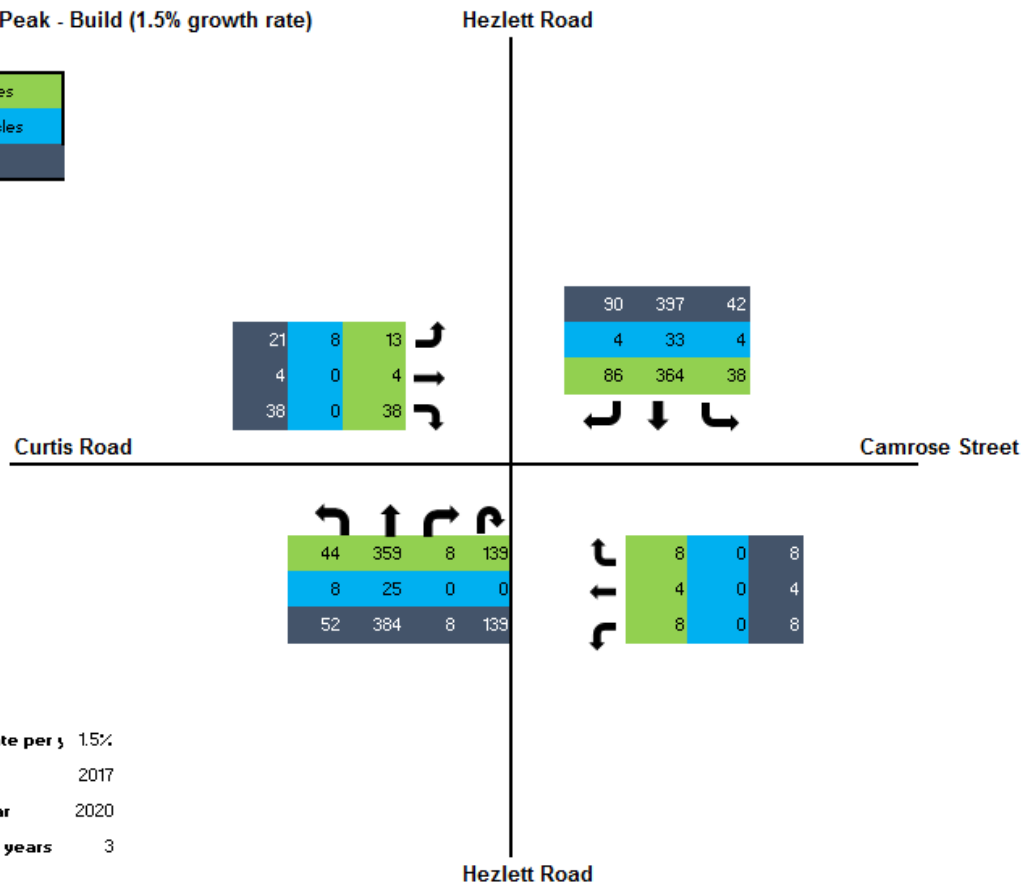
2020 PM Peak - No Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



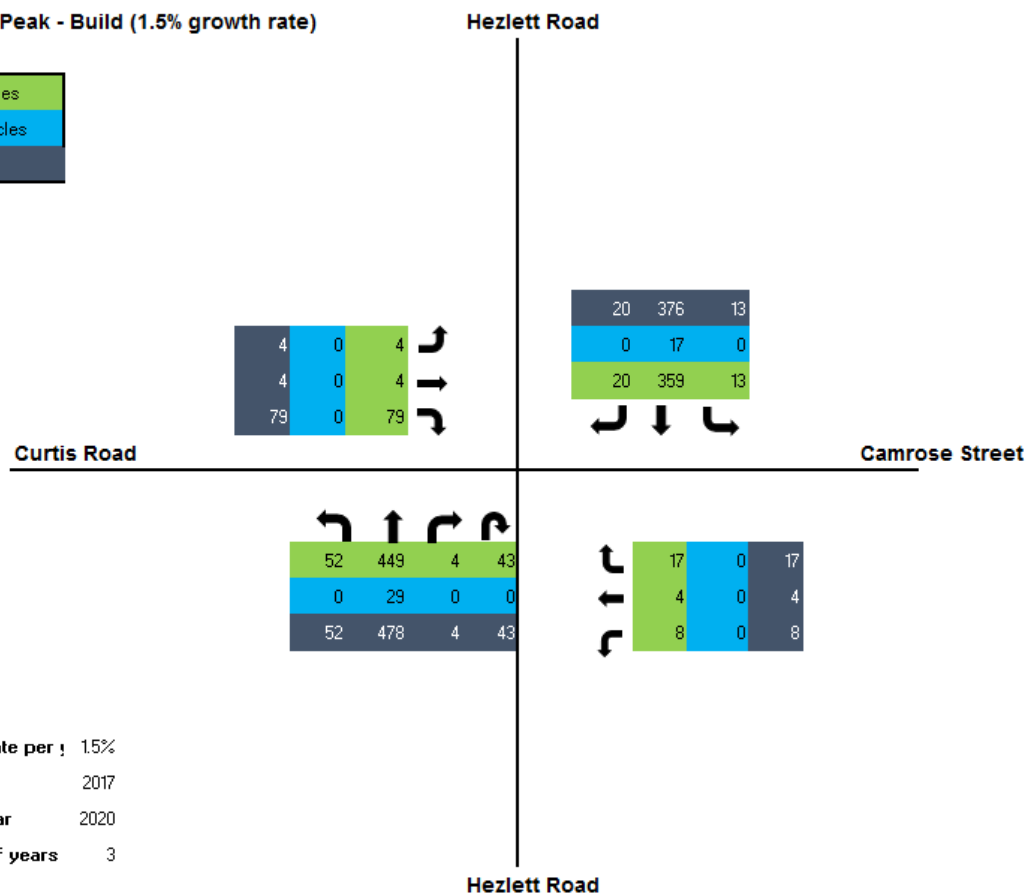
2020 AM Peak - Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



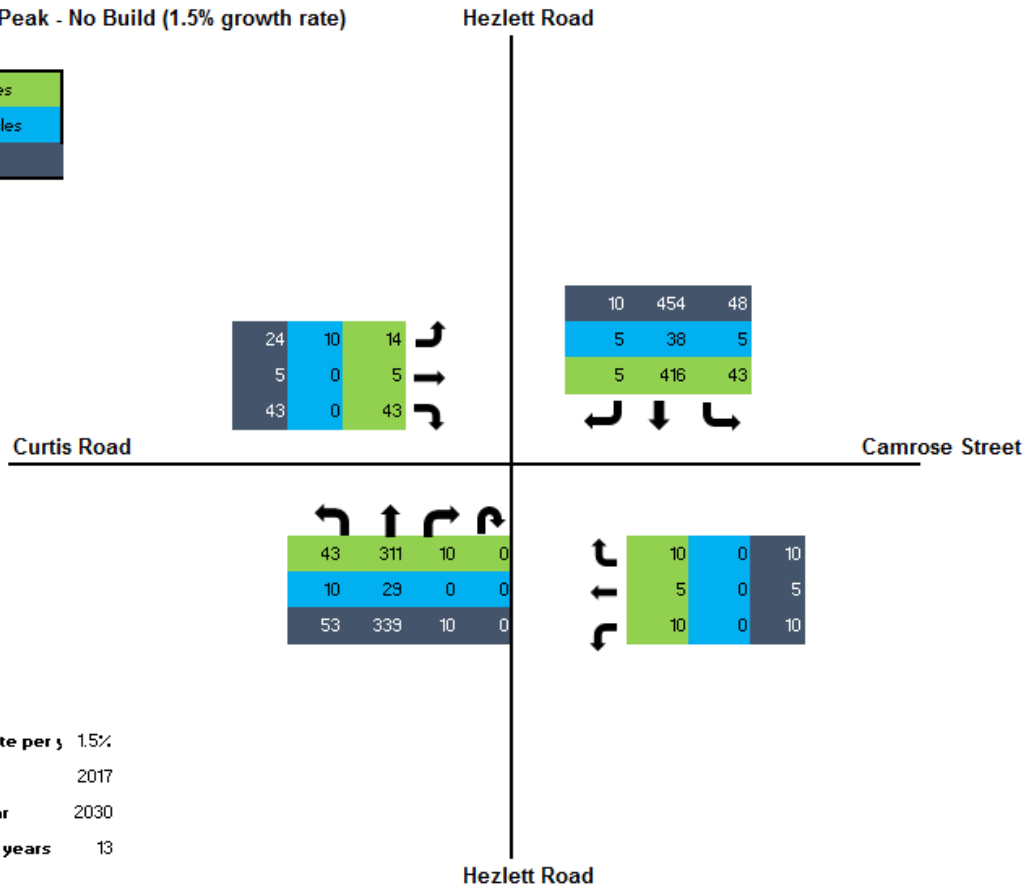
2020 PM Peak - Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



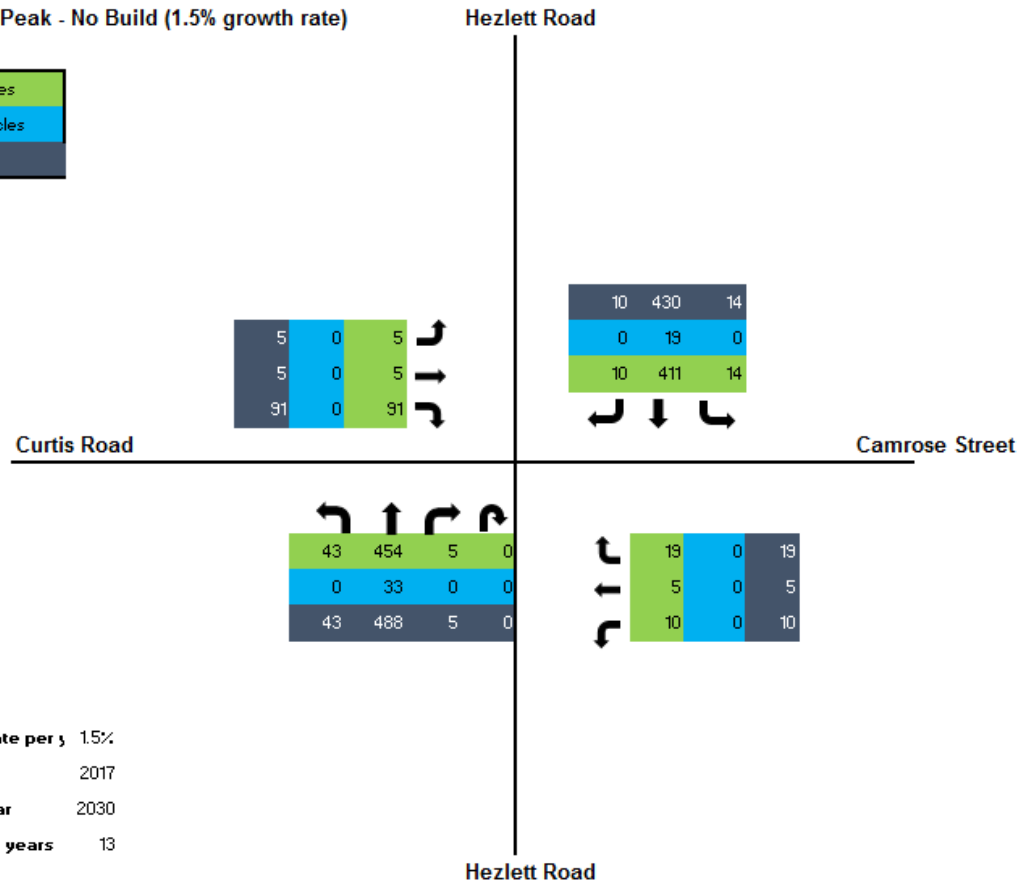
2030 AM Peak - No Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



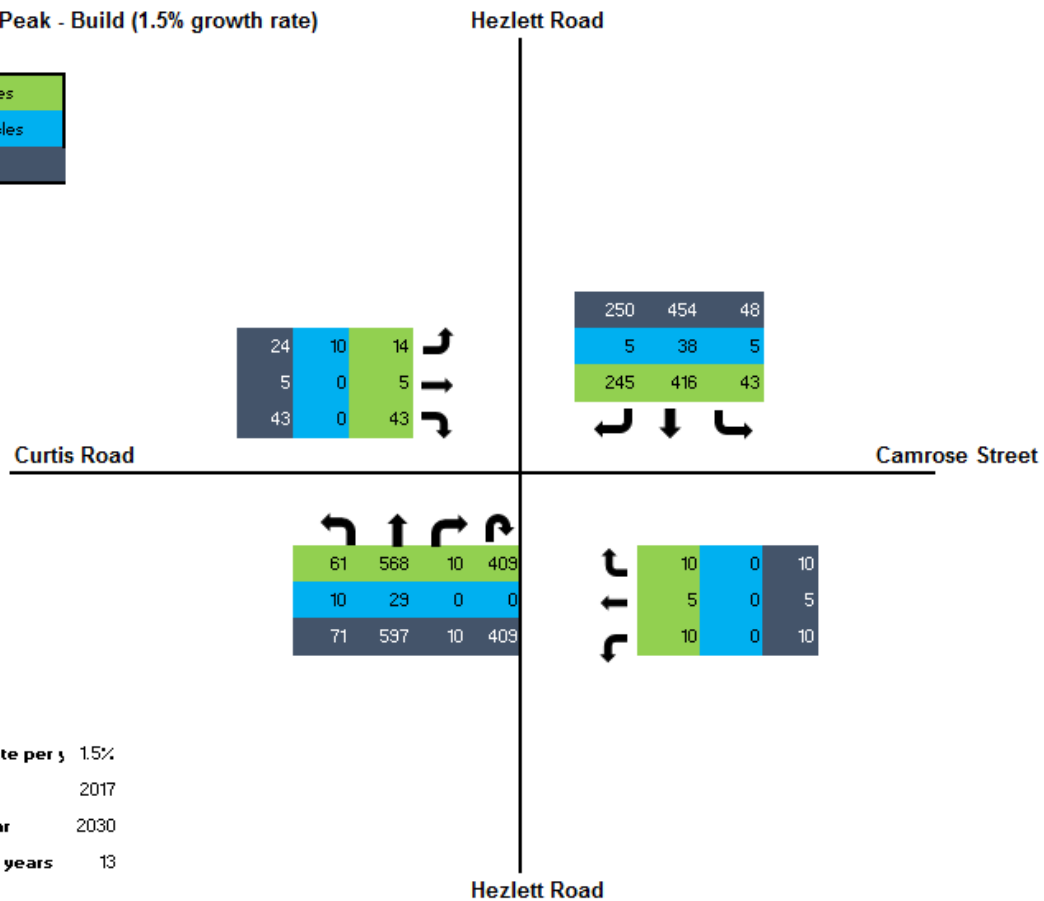
2030 PM Peak - No Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



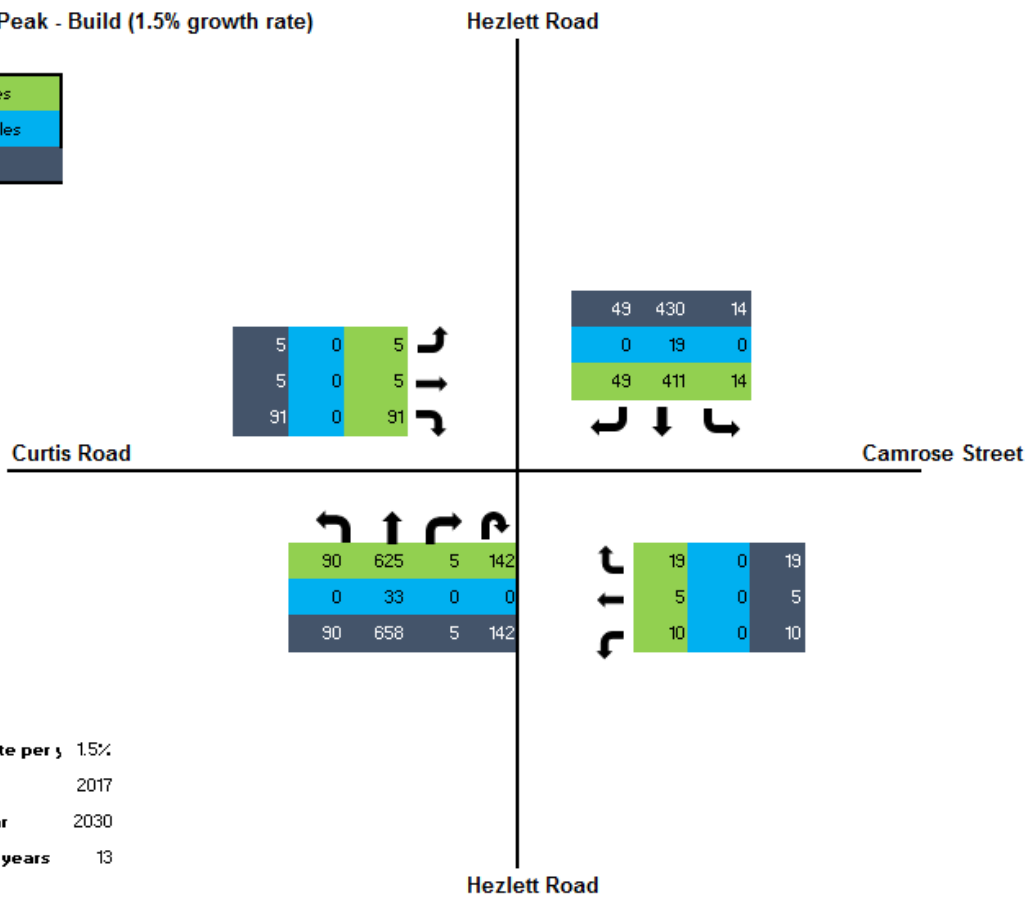
2030 AM Peak - Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



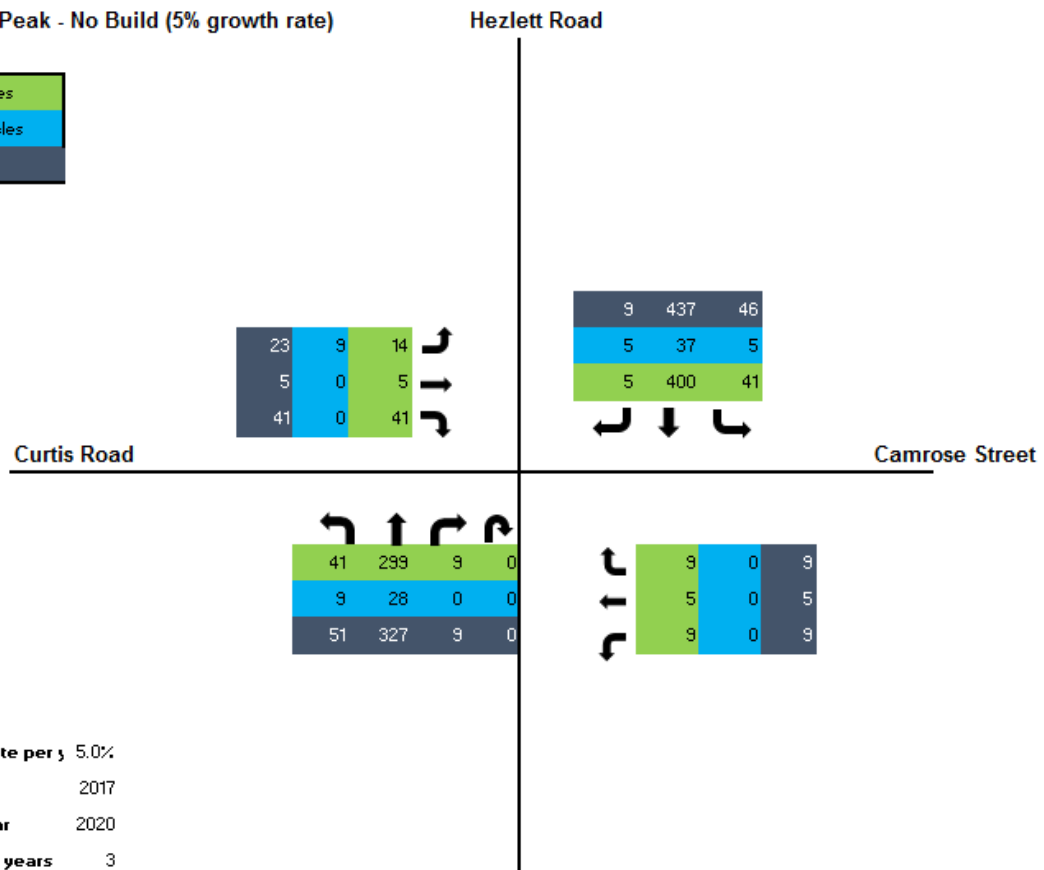
2030 PM Peak - Build (1.5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



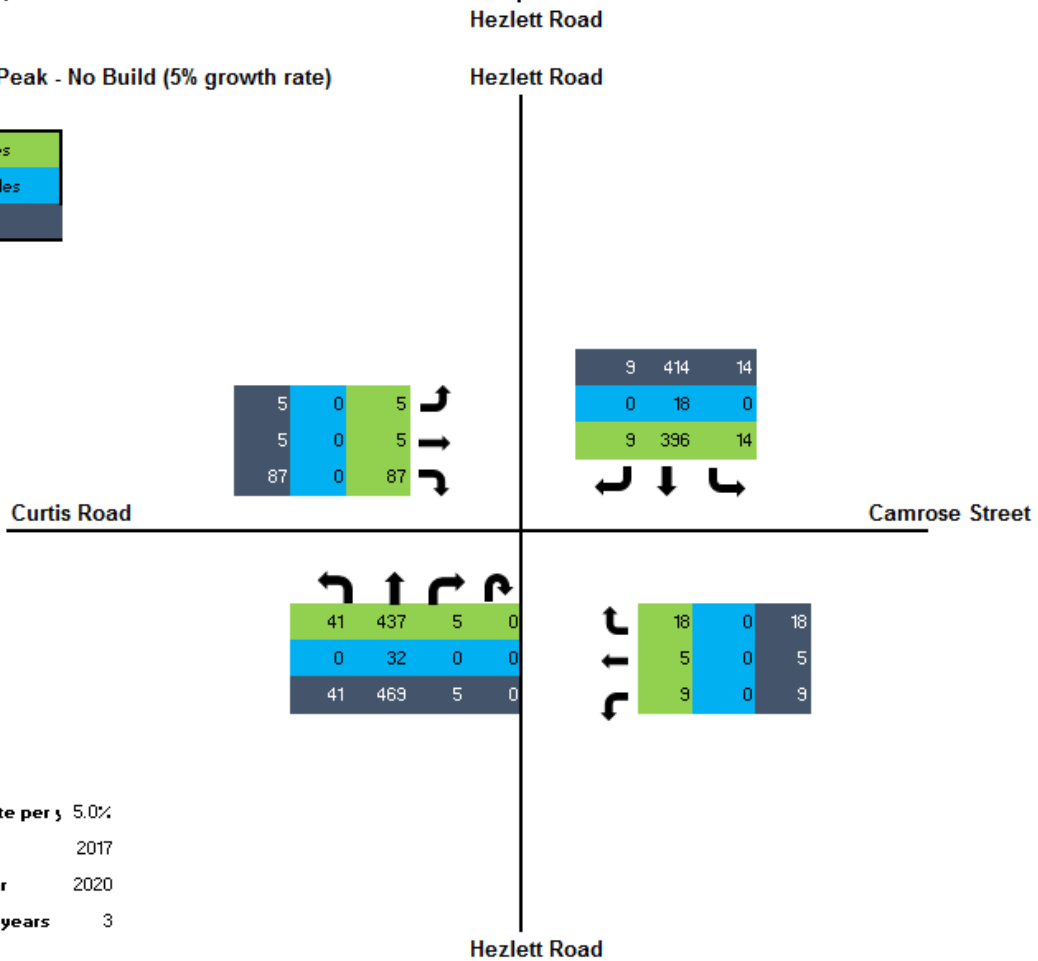
2020 AM Peak - No Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



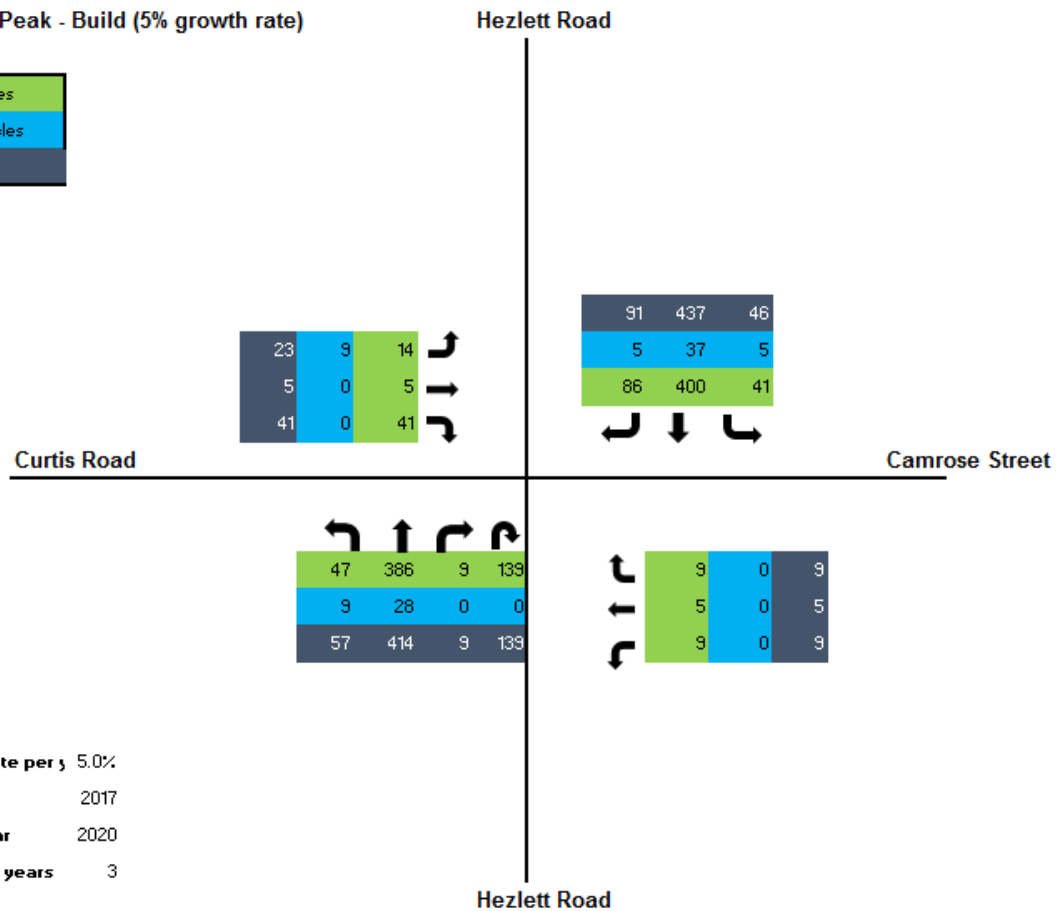
2020 PM Peak - No Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



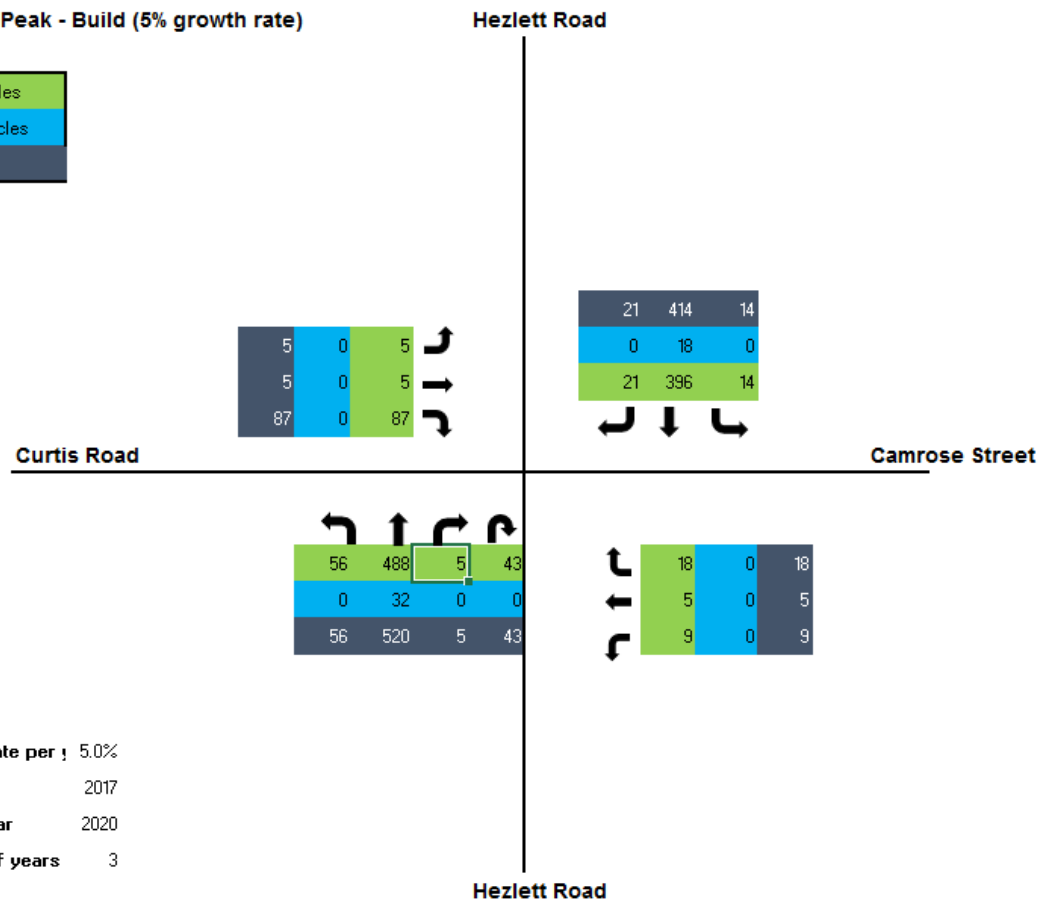
2020 AM Peak - Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



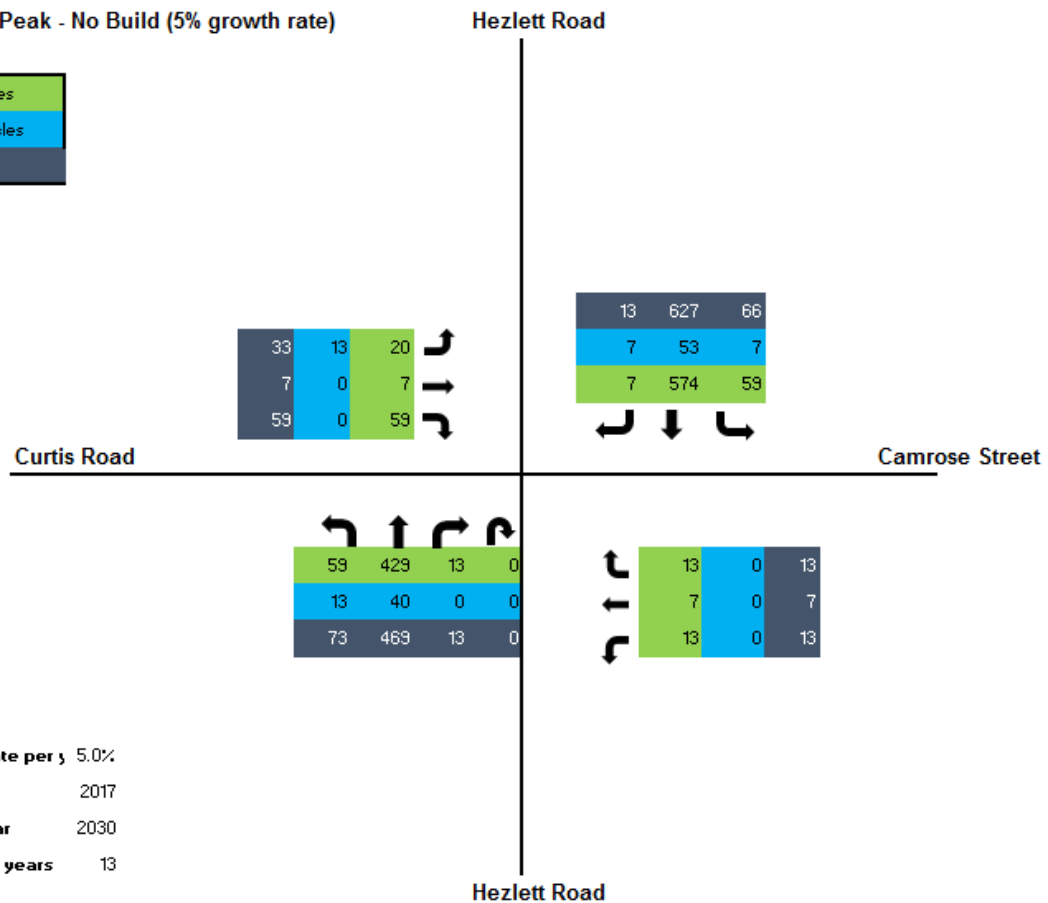
2020 PM Peak - Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



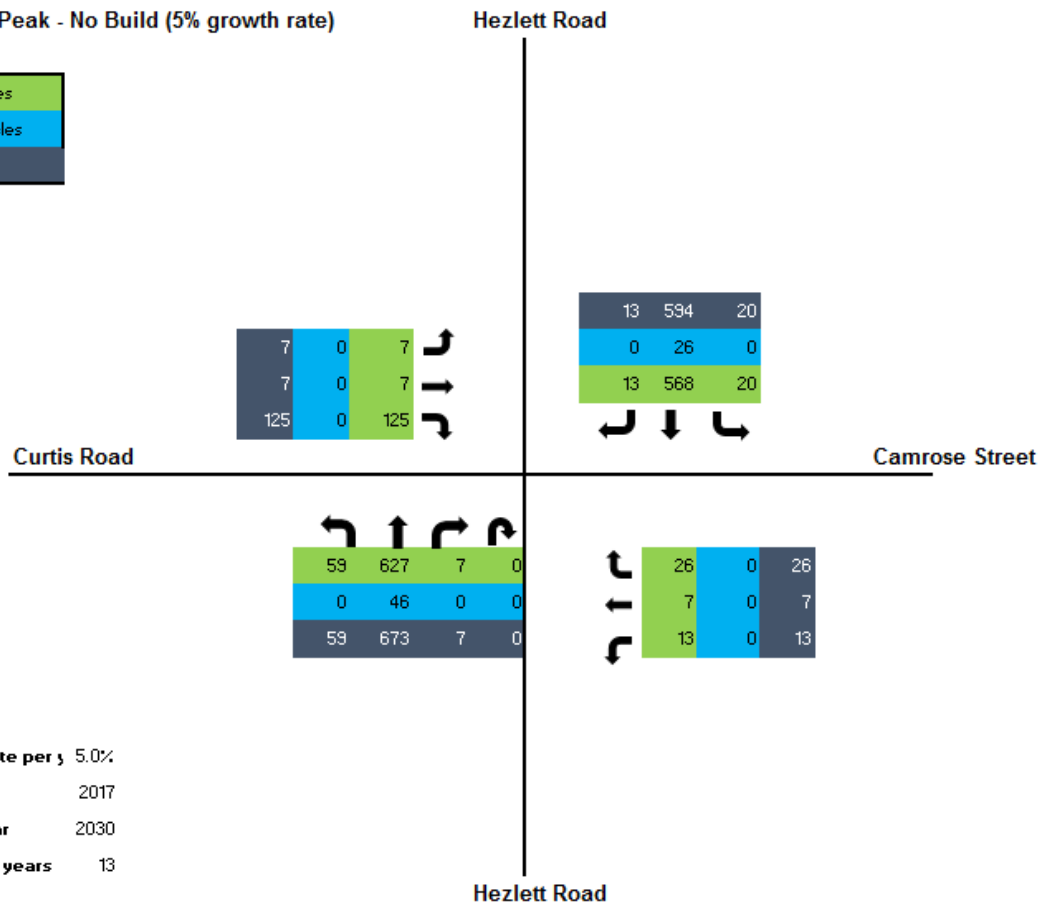
2030 AM Peak - No Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



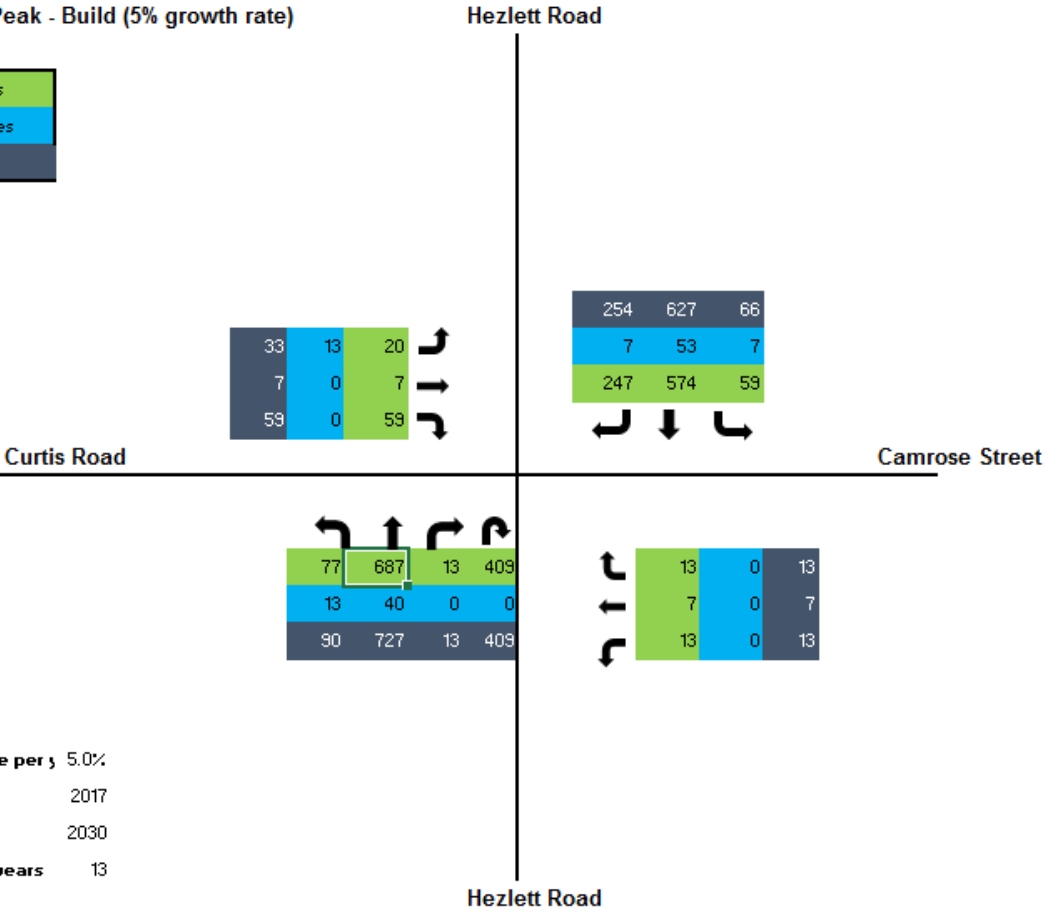
2030 PM Peak - No Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



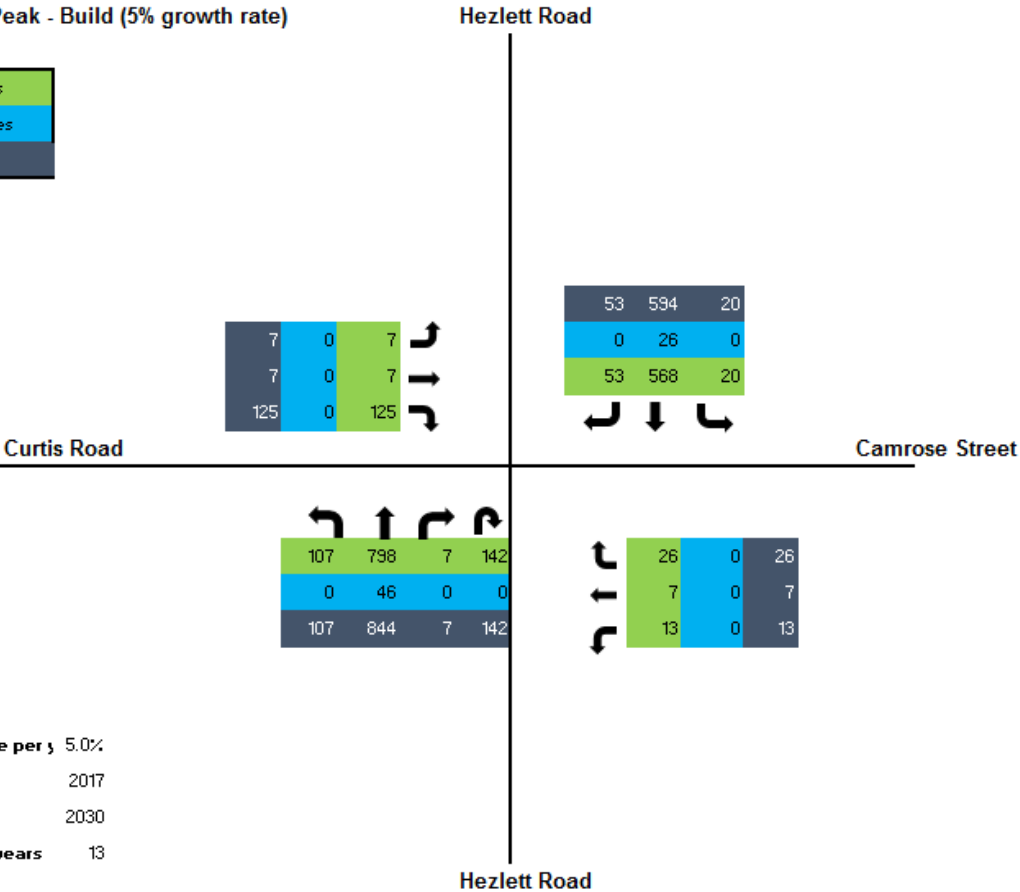
2030 AM Peak - Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



2030 PM Peak - Build (5% growth rate)

Light Vehicles	
Heavy Vehicles	
Total	



Appendix C – Internet Questionnaire

1. How many of your children attend Beaumont Public School

- ☐ 1 Child
- ☐ 2 Children
- ☐ 3 Children
- ☐ 4 or more Children

2. What are the ages of your child/children?

Child 1	<input type="text"/>
Child 2	<input type="text"/>
Child 3	<input type="text"/>
Child 4	<input type="text"/>

3. How far did your child/children travel to school today?

- ☐ 0 km – 1 km
- ☐ 1 km – 2 km
- ☐ 2 km – 3 km
- ☐ 3 km – 4 km
- ☐ Greater than 4 km.

4. Which mode of transport did your child/children use to travel to school this morning?

- ☐ a.) Private vehicle - dropped off outside school gates
- ☐ b.) Private vehicle – parked and then walked to school grounds
- ☐ c.) School Bus
- ☐ d.) Public Bus
- ☐ e.) Walked to school
- ☐ f.) Cycled to school

Other (please specify)

5. Did you accompany your child/children to school today?

- ☐ a.) Yes
- ☐ b.) No

6. If Yes, is your child's/children's trip to school part of another journey i.e. to work or shopping?

- ☐ a.) Yes
- ☐ b.) No
- ☐ c.) N/A

7. Which mode of transport did your child/children use to travel from school this afternoon?

- ☐ a.) Private vehicle – picked up outside school gates
- ☐ b.) Private vehicle - parked and then walked from school grounds
- ☐ c.) School Bus
- ☐ d.) Public Bus
- ☐ e.) Walked from school
- ☐ f.) Cycled from school

Other (please specify)

8. Do you accompany your child/children from school today?

- ☐ a.) Yes
- ☐ b.) No

9. If Yes, is your child's/children's trip from school part of another journey i.e. from work or shopping?

- ☐ a.) Yes
- ☐ b.) No
- ☐ c.) N/A

Appendix D – Manual Travel Mode Surveys

Client	GHD
Location	Beaumont Hills School
Date	Thu, 08st June 2017
Survey Time	08:00-09:30 & 14:30-16:00 (2.5 hours)
Description	Mode of travel school Survey



Location

- Yellow Line - Ped
- Blue Line - Vehicle
- Green Line - Bus

Location Beaumont Hills School
Date Thu, 08st June 2017
Survey Time 08:00-09:30 & 14:30-16:00 (2.5 hours)
Description Mode of travel school Survey

[15mins interval]

Time Period	Vehicle Drop Off Zone																												
	A														B														
	Vehicles Drop off							Vehicles Pick up							Vehicles Drop off							Vehicles Pick up							
	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	
8:00 to 8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0
8:15 to 8:30	2	0	0	0	0	0	2	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7	0	0	0	0	0	0	0
8:30 to 8:45	2	2	0	0	1	0	5	0	0	0	0	0	0	0	23	10	1	0	0	0	0	34	0	0	0	0	0	0	0
8:45 to 9:00	1	9	2	1	0	1	14	0	0	0	0	0	0	0	31	19	3	0	0	0	0	53	0	0	0	0	0	0	0
9:00 to 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0
9:15 to 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Totals	5	11	2	1	1	1	21	0	0	0	0	0	0	0	68	31	4	0	0	0	0	103	0	0	0	0	0	0	0
14:30 to 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 to 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 to 15:15	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	0	28	17	2	0	0	0	47
15:15 to 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0
15:30 to 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 to 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	29	20	2	0	0	0	51	0

[Hourly Summary]

Vehicle Drop Off Zone																													
Time Period	A														B														
	Vehicles Drop off							Vehicles Pick up							Vehicles Drop off							Vehicles Pick up							
	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	
8:00 to 9:00	5	11	2	1	1	1	21	0	0	0	0	0	0	0	62	31	4	0	0	0	97	0	0	0	0	0	0	0	
8:15 to 9:15	5	11	2	1	1	1	21	0	0	0	0	0	0	0	64	31	4	0	0	0	99	0	0	0	0	0	0	0	
8:30 to 9:30	3	11	2	1	1	1	19	0	0	0	0	0	0	0	60	29	4	0	0	0	93	0	0	0	0	0	0	0	
Totals	5	11	2	1	1	1	21	0	0	0	0	0	0	0	68	31	4	0	0	0	103	0	0	0	0	0	0	0	
14:30 to 15:30	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	29	20	2	0	0	0	51	
14:45 to 15:45	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	29	20	2	0	0	0	51	
15:00 to 16:00	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	29	20	2	0	0	0	51	
Totals	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	29	20	2	0	0	0	51	

[Peak Hour Summary]

Time Period		Vehicle Drop Off Zone																											
		A														B													
		Vehicles Drop off							Vehicles Pick up							Vehicles Drop off							Vehicles Pick up						
1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total		
AM	8:15 to 9:15	5	11	2	1	1	1	21	0	0	0	0	0	0	64	31	4	0	0	0	99	0	0	0	0	0	0	0	
PM	14:30 to 15:30	0	0	0	0	0	0	0	3	2	2	1	0	0	8	0	0	0	0	0	0	0	29	20	2	0	0	51	

Vehicle entry continued:

Client GHD
Location Beaumont Hills School
Date Thu, 08st June 2017
Survey Time 08:00-09:30 & 14:30-16:00 (2.5 hours)
Description Mode of travel school Survey



C - ON STREET													C - CAR PARK													Grand Total		
Vehicles Drop off							Vehicles Pick up						Vehicles Drop off							Vehicles Pick up								
1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	0	0	0	0	0	0	10
3	0	0	0	0	0	3	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	0	0	0	0	0	0	18
3	0	3	0	0	0	6	0	0	0	0	0	0	0	18	10	2	1	0	0	0	31	0	0	0	0	0	0	76
3	6	1	1	0	0	17	0	0	0	0	0	0	0	27	13	2	2	0	0	0	44	0	0	0	0	0	0	128
2	1	0	0	0	0	3	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17	7	4	1	0	0	29	0	0	0	0	0	0	0	57	26	4	3	0	0	0	90	0	0	0	0	0	0	243
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3
0	0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	17	10	3	2	0	0	32
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	0	22	13	3	2	0	0	40
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	0	22	13	3	2	0	0	112

Vehicle Entry							Grand Total
Time Period	D			E			
	Entering School	Leaving School	Total	Entering School	Leaving School	Total	
8:00 to 8:15	12	0	12	8	10	18	30
8:15 to 8:30	5	1	6	6	5	11	17
8:30 to 8:45	5	1	6	31	22	53	59
8:45 to 9:00	3	2	5	44	39	83	88
9:00 to 9:15	1	4	5	2	13	15	20
9:15 to 9:30	0	0	0	0	1	1	1
Totals	26	8	34	91	90	181	215
14:30 to 14:45	1	1	2	10	1	11	13
14:45 to 15:00	2	1	3	13	3	16	19
15:00 to 15:15	0	5	5	18	32	50	55
15:15 to 15:30	1	3	4	1	3	4	8
15:30 to 15:45	0	10	10	0	0	0	10
15:45 to 16:00	1	2	3	0	1	1	4
Totals	5	22	27	42	40	82	109

C													C													Grand Total		
Vehicles Drop off						Vehicles Pick up						Vehicles Drop off						Vehicles Pick up										
1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5		6	Total
15	6	4	1	0	0	26	0	0	0	0	0	0	0	56	25	4	3	0	0	88	0	0	0	0	0	0	0	232
17	7	4	1	0	0	29	0	0	0	0	0	0	0	51	25	4	3	0	0	83	0	0	0	0	0	0	0	232
14	7	4	1	0	0	26	0	0	0	0	0	0	0	46	24	4	3	0	0	77	0	0	0	0	0	0	0	215
17	7	4	1	0	0	29	0	0	0	0	0	0	0	57	26	4	3	0	0	90	0	0	0	0	0	0	0	232
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	21	13	3	2	0	0	39	111
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	20	13	3	2	0	0	38	110
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	19	12	3	2	0	0	36	108
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	22	13	3	2	0	0	40	111

Vehicle Entry								Grand Total
Time Period	D			E				
	Entering School	Leaving School	Total	Entering School	Leaving School	Total		
8:00 to 9:00	25	4	29	83	76	165	194	
8:15 to 9:15	14	8	22	83	79	162	184	
8:30 to 9:30	3	7	16	77	75	152	168	
Totals	26	8	34	91	90	181	215	
14:30 to 15:30	4	10	14	42	39	81	95	
14:45 to 15:45	3	19	22	32	38	70	92	
15:00 to 16:00	2	20	22	19	36	55	77	
Totals	5	22	27	42	40	82	109	

																										Grand Total		
C													C															
Vehicles Drop off							Vehicles Pick up						Vehicles Drop off							Vehicles Pick up								
1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5		6	Total
17	7	4	1	0	0	29	0	0	0	0	0	0	0	51	25	4	3	0	0	83	0	0	0	0	0	0	0	232
0	0	0	0	0	0	0	7	4	2	0	0	0	13	0	0	0	0	0	0	0	21	13	3	2	0	0	39	111

Vehicle Entry							Grand Total
Time Period	D			E			
	Entering School	Leaving School	Total	Entering School	Leaving School	Total	
8:00 to 9:00	25	4	29	83	76	165	194
14:30 to 15:30	4	10	14	42	39	81	95

Client GHD
Location Beaumont Hills School
Date Thu, 08st June 2017
Survey Time 08:00-09:30 & 14:30-16:00 (2.5 hours)
Description Mode of travel school Survey



A (Bus drop off Zone)			
Arrival time	Drop off	Pick up	Departure time
8:03:00	0	0	8:03:00
8:26:00	1	0	8:27:00
8:33:00	1	0	8:34:00
8:34:00	16	0	8:36:00
8:37:00	2	0	8:37:00
8:47:00	1	0	8:47:00
8:58:00	3	0	8:59:00
9:04:00	0	0	9:04:00
AM Totals	24	0	AM Totals
14:42:00	0	0	14:42:00
14:45:00	0	0	14:45:00
15:02:00	0	4	15:10:00
15:04:00	0	16	15:10:00
15:10:00	0	10	15:13:00
15:15:00	0	11	15:16:00
15:16:00	0	1	15:17:00
15:16:00	0	7	15:18:00
15:17:00	0	4	15:17:00
15:22:00	0	14	15:24:00
PM Totals	24	67	PM Totals

B (Bus drop off Zone)			
Arrival time	Drop off	Pick up	Departure time
8:07:08	0	0	8:07:20
8:43:50	0	0	8:44:06
9:03:30	0	0	9:03:41
AM Totals	0	0	AM Totals
14:33:15	0	0	14:33:30
15:16:05	0	1	15:16:28
PM Totals	0	1	PM Totals



Peak Hour Summary

Appendix E – SIDRA Outputs

2017 AM Peak

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Existing_2017_AM Peak (School)]

Hezlett and Curtis - Existing_2017_AM Peak (School)
8am - 9am
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	MOv	Total veh/h	Demand Flows HV %	Deq. 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: Hezlett Road - South											
1	L2	46	18.2	0.195	6.0	LOS A	0.1	0.7	0.04	0.09	54.9
2	T1	299	8.5	0.195	0.1	LOS A	0.1	0.7	0.04	0.09	59.4
3	R2	8	0.0	0.195	7.1	LOS A	0.1	0.7	0.04	0.09	57.7
Approach		354	9.5	0.195	1.0	NA	0.1	0.7	0.04	0.09	58.7
East: Cambrose Street - East											
4	L2	8	0.0	0.021	6.0	LOS A	0.1	0.5	0.41	0.62	53.6
5	T1	4	0.0	0.021	5.0	LOS A	0.1	0.5	0.41	0.62	44.6
6	R2	8	0.0	0.021	6.3	LOS A	0.1	0.5	0.41	0.62	49.0
Approach		21	0.0	0.021	5.9	LOS A	0.1	0.5	0.41	0.62	50.5
North: Hezlett Road - North											
7	L2	42	10.0	0.249	6.1	LOS A	0.1	1.1	0.04	0.06	56.0
8	T1	400	8.4	0.249	0.1	LOS A	0.1	1.1	0.04	0.06	59.6
9	R2	8	50.0	0.249	8.1	LOS A	0.1	1.1	0.04	0.06	52.0
Approach		451	9.3	0.249	0.8	NA	0.1	1.1	0.04	0.06	59.3
West: Curtis Road - West											
10	L2	21	40.0	0.065	6.5	LOS A	0.2	1.6	0.40	0.67	48.3
11	T1	4	0.0	0.065	5.1	LOS A	0.2	1.6	0.40	0.67	44.4
12	R2	38	0.0	0.065	6.3	LOS A	0.2	1.6	0.40	0.67	52.0
Approach		63	13.3	0.065	6.3	LOS A	0.2	1.6	0.40	0.67	50.7
All Vehicles		888	9.5	0.249	1.4	NA	0.2	1.6	0.08	0.13	58.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2017 PM Peak

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Existing_2017_PM Peak (School)]

Hezlett and Curtis - Existing_2017_PM Peak (School)
3pm - 4pm
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	MOv	Total veh/h	Demand Flows HV %	Deq. 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: Hezlett Road - South											
1	L2	38	0.0	0.253	5.7	LOS A	0.1	0.4	0.02	0.05	55.3
2	T1	429	6.9	0.253	0.0	LOS A	0.1	0.4	0.02	0.05	59.7
3	R2	4	0.0	0.253	7.0	LOS A	0.1	0.4	0.02	0.05	58.0
Approach		472	6.3	0.253	0.5	NA	0.1	0.4	0.02	0.05	59.2
East: Cambrose Street - East											
4	L2	8	0.0	0.030	5.9	LOS A	0.1	0.6	0.42	0.64	53.5
5	T1	4	0.0	0.030	5.2	LOS A	0.1	0.6	0.42	0.64	44.4
6	R2	17	0.0	0.030	6.5	LOS A	0.1	0.6	0.42	0.64	48.8
Approach		29	0.0	0.030	6.1	LOS A	0.1	0.6	0.42	0.64	50.0
North: Hezlett Road - North											
7	L2	13	0.0	0.212	6.3	LOS A	0.1	0.7	0.04	0.03	56.9
8	T1	379	4.4	0.212	0.1	LOS A	0.1	0.7	0.04	0.03	59.7
9	R2	8	0.0	0.212	7.2	LOS A	0.1	0.7	0.04	0.03	53.0
Approach		400	4.2	0.212	0.4	NA	0.1	0.7	0.04	0.03	59.6
West: Curtis Road - West											
10	L2	4	0.0	0.096	6.3	LOS A	0.3	1.9	0.46	0.74	49.2
11	T1	4	0.0	0.096	5.3	LOS A	0.3	1.9	0.46	0.74	44.1
12	R2	80	0.0	0.096	6.7	LOS A	0.3	1.9	0.46	0.74	51.8
Approach		88	0.0	0.096	6.6	LOS A	0.3	1.9	0.46	0.74	51.6
All Vehicles		989	4.7	0.253	1.2	NA	0.3	1.9	0.08	0.12	58.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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 is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 AM Peak – No Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_AM Peak (School) - No Build]

Hezlett and Curtis - Future_2020_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Dep. 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: Hezlett Road - South											
1	L2	48	17.4	0.066	2.2	LOS A	0.4	2.9	0.14	0.28	39.5
2	T1	313	8.4	0.185	1.4	LOS A	1.2	8.9	0.13	0.21	40.2
3	R2	8	0.0	0.185	5.6	LOS A	1.2	8.9	0.13	0.20	40.6
3u	U	1	0.0	0.185	7.0	LOS A	1.2	8.9	0.13	0.20	47.8
Approach		371	9.4	0.185	1.6	LOS A	1.2	8.9	0.13	0.22	40.2
East: Cambrose Street - East											
4	L2	8	0.0	0.020	2.7	LOS A	0.1	0.4	0.33	0.48	38.8
5	T1	4	0.0	0.020	2.3	LOS A	0.1	0.4	0.33	0.48	39.1
6	R2	8	0.0	0.020	6.5	LOS A	0.1	0.4	0.33	0.48	39.5
Approach		21	0.0	0.020	4.1	LOS A	0.1	0.4	0.33	0.48	39.1
North: Hezlett Road - North											
7	L2	44	9.5	0.089	2.5	LOS A	0.5	3.8	0.24	0.29	38.6
8	T1	418	8.3	0.248	1.6	LOS A	1.7	12.9	0.22	0.23	40.1
9	R2	8	50.0	0.248	6.1	LOS A	1.7	12.9	0.22	0.22	40.2
Approach		471	9.2	0.248	1.8	LOS A	1.7	12.9	0.23	0.24	40.0
West: Curtis Road - West											
10	L2	22	38.1	0.066	2.9	LOS A	0.2	1.4	0.28	0.52	38.5
11	T1	4	0.0	0.066	2.0	LOS A	0.2	1.4	0.28	0.52	38.6
12	R2	40	0.0	0.066	6.2	LOS A	0.2	1.4	0.28	0.52	39.6
Approach		66	12.7	0.066	4.8	LOS A	0.2	1.4	0.28	0.52	39.3
All Vehicles		928	9.3	0.248	2.0	LOS A	1.7	12.9	0.19	0.25	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 PM Peak – No Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_PM Peak (School) - No Build]

Hezlett and Curtis - Future_2020_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Dep. 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: Hezlett Road - South											
1	L2	40	0.0	0.087	2.2	LOS A	0.5	3.6	0.17	0.25	39.6
2	T1	448	6.8	0.245	1.5	LOS A	1.7	12.6	0.16	0.21	40.2
3	R2	4	0.0	0.245	5.6	LOS A	1.7	12.6	0.16	0.20	40.5
3u	U	1	0.0	0.245	7.1	LOS A	1.7	12.6	0.16	0.20	47.8
Approach		494	6.2	0.245	1.6	LOS A	1.7	12.6	0.16	0.21	40.1
East: Cambrose Street - East											
4	L2	8	0.0	0.030	2.7	LOS A	0.1	0.6	0.34	0.53	38.6
5	T1	4	0.0	0.030	2.3	LOS A	0.1	0.6	0.34	0.53	38.7
6	R2	16	0.0	0.030	6.5	LOS A	0.1	0.6	0.34	0.53	39.1
Approach		31	0.0	0.030	4.9	LOS A	0.1	0.6	0.34	0.53	38.8
North: Hezlett Road - North											
7	L2	14	0.0	0.082	2.8	LOS A	0.5	3.4	0.32	0.29	38.4
8	T1	396	4.5	0.229	1.8	LOS A	1.6	11.4	0.30	0.26	40.0
9	R2	8	0.0	0.229	5.9	LOS A	1.6	11.4	0.30	0.25	40.2
Approach		418	4.3	0.229	1.9	LOS A	1.6	11.4	0.30	0.26	39.9
West: Curtis Road - West											
10	L2	4	0.0	0.089	2.8	LOS A	0.3	1.8	0.34	0.61	38.2
11	T1	4	0.0	0.089	2.4	LOS A	0.3	1.8	0.34	0.61	38.0
12	R2	83	0.0	0.089	6.5	LOS A	0.3	1.8	0.34	0.61	39.4
Approach		92	0.0	0.089	6.2	LOS A	0.3	1.8	0.34	0.61	39.3
All Vehicles		1034	4.7	0.245	2.2	LOS A	1.7	12.6	0.24	0.28	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 AM Peak – Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_AM Peak (School) - Build]

Hezlett and Curtis - Future_2020_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	55	15.4	0.122	3.2	LOS A	0.7	5.6	0.37	0.36	39.3
2	T1	404	6.5	0.344	2.9	LOS A	2.7	19.7	0.37	0.44	42.4
3	R2	8	0.0	0.344	7.2	LOS A	2.7	19.7	0.37	0.45	44.3
3u	U	146	0.0	0.344	8.9	LOS A	2.7	19.7	0.37	0.45	50.5
Approach		614	5.7	0.344	4.4	LOS A	2.7	19.7	0.37	0.44	44.2
East: Cambrose Street - East											
4	L2	8	0.0	0.024	3.5	LOS A	0.1	0.6	0.47	0.55	38.6
5	T1	4	0.0	0.024	3.1	LOS A	0.1	0.6	0.47	0.55	38.7
6	R2	8	0.0	0.024	7.2	LOS A	0.1	0.6	0.47	0.55	39.1
Approach		21	0.0	0.024	4.9	LOS A	0.1	0.6	0.47	0.55	38.8
North: Hezlett Road - North											
7	L2	44	9.5	0.125	4.0	LOS A	0.7	5.3	0.47	0.43	37.9
8	T1	418	8.3	0.347	2.6	LOS A	2.6	19.1	0.48	0.41	39.6
9	R2	95	4.4	0.347	6.7	LOS A	2.6	19.1	0.49	0.41	39.6
Approach		557	7.8	0.347	3.4	LOS A	2.6	19.1	0.48	0.41	39.5
West: Curtis Road - West											
10	L2	22	38.1	0.075	3.7	LOS A	0.2	1.9	0.41	0.60	38.3
11	T1	4	0.0	0.075	2.7	LOS A	0.2	1.9	0.41	0.60	38.3
12	R2	40	0.0	0.075	6.8	LOS A	0.2	1.9	0.41	0.60	39.5
Approach		66	12.7	0.075	5.5	LOS A	0.2	1.9	0.41	0.60	39.1
All Vehicles		1258	8.9	0.347	4.0	LOS A	2.7	19.7	0.43	0.44	41.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 PM Peak – Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_PM Peak (School) - Build]

Hezlett and Curtis - Future_2020_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	55	0.0	0.109	2.3	LOS A	0.6	4.5	0.21	0.27	39.5
2	T1	503	6.1	0.305	1.8	LOS A	2.2	16.3	0.20	0.29	41.0
3	R2	4	0.0	0.305	6.1	LOS A	2.2	16.3	0.20	0.29	41.8
3u	U	45	0.0	0.305	7.6	LOS A	2.2	16.3	0.20	0.29	48.7
Approach		607	5.0	0.305	2.3	LOS A	2.2	16.3	0.20	0.28	41.5
East: Cambrose Street - East											
4	L2	8	0.0	0.031	2.9	LOS A	0.1	0.7	0.37	0.55	38.5
5	T1	4	0.0	0.031	2.5	LOS A	0.1	0.7	0.37	0.55	38.6
6	R2	18	0.0	0.031	6.6	LOS A	0.1	0.7	0.37	0.55	39.0
Approach		31	0.0	0.031	5.0	LOS A	0.1	0.7	0.37	0.55	38.8
North: Hezlett Road - North											
7	L2	14	0.0	0.089	3.2	LOS A	0.5	3.6	0.38	0.34	38.2
8	T1	396	4.5	0.247	2.1	LOS A	1.7	12.1	0.37	0.31	39.8
9	R2	21	0.0	0.247	6.2	LOS A	1.7	12.1	0.37	0.30	40.0
Approach		431	4.2	0.247	2.3	LOS A	1.7	12.1	0.37	0.31	39.8
West: Curtis Road - West											
10	L2	4	0.0	0.094	3.2	LOS A	0.3	2.1	0.39	0.64	38.1
11	T1	4	0.0	0.094	2.7	LOS A	0.3	2.1	0.39	0.64	37.9
12	R2	83	0.0	0.094	6.9	LOS A	0.3	2.1	0.39	0.64	39.3
Approach		92	0.0	0.094	6.5	LOS A	0.3	2.1	0.39	0.64	39.2
All Vehicles		1160	4.2	0.305	2.7	LOS A	2.2	16.3	0.28	0.33	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 AM Peak – No Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_AM Peak (School) - No Build]

Hezlett and Curtis - Future_2030_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	56	18.9	0.077	2.3	LOS A	0.4	3.4	0.17	0.29	39.5
2	T1	358	8.5	0.215	1.5	LOS A	1.4	10.7	0.15	0.21	40.2
3	R2	11	0.0	0.215	5.6	LOS A	1.4	10.7	0.15	0.21	40.5
3u	U	1	0.0	0.215	7.1	LOS A	1.4	10.7	0.15	0.21	47.8
Approach		425	9.7	0.215	1.7	LOS A	1.4	10.7	0.15	0.22	40.1
East: Cambrose Street - East											
4	L2	11	0.0	0.027	2.9	LOS A	0.1	0.6	0.37	0.50	38.8
5	T1	5	0.0	0.027	2.5	LOS A	0.1	0.6	0.37	0.50	39.0
6	R2	11	0.0	0.027	6.7	LOS A	0.1	0.6	0.37	0.50	39.4
Approach		26	0.0	0.027	4.3	LOS A	0.1	0.6	0.37	0.50	39.0
North: Hezlett Road - North											
7	L2	51	10.4	0.103	2.6	LOS A	0.6	4.5	0.26	0.30	38.5
8	T1	478	8.4	0.287	1.7	LOS A	2.1	15.6	0.25	0.24	40.0
9	R2	11	50.0	0.287	6.2	LOS A	2.1	15.6	0.25	0.23	40.2
Approach		539	9.4	0.287	1.8	LOS A	2.1	15.6	0.25	0.24	40.0
West: Curtis Road - West											
10	L2	25	41.7	0.077	3.1	LOS A	0.2	1.7	0.31	0.54	38.4
11	T1	5	0.0	0.077	2.2	LOS A	0.2	1.7	0.31	0.54	38.5
12	R2	45	0.0	0.077	6.3	LOS A	0.2	1.7	0.31	0.54	39.6
Approach		76	13.9	0.077	5.0	LOS A	0.2	1.7	0.31	0.54	39.2
All Vehicles		1066	9.6	0.287	2.1	LOS A	2.1	15.6	0.22	0.26	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 PM Peak – No Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_PM Peak (School) - No Build]

Hezlett and Curtis - Future_2030_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	45	0.0	0.100	2.2	LOS A	0.6	4.3	0.19	0.26	39.5
2	T1	513	6.8	0.282	1.5	LOS A	2.1	15.2	0.18	0.22	40.1
3	R2	5	0.0	0.282	5.7	LOS A	2.1	15.2	0.18	0.21	40.5
3u	U	1	0.0	0.282	7.1	LOS A	2.1	15.2	0.18	0.21	47.7
Approach		564	6.2	0.282	1.6	LOS A	2.1	15.2	0.18	0.22	40.1
East: Cambrose Street - East											
4	L2	11	0.0	0.036	2.9	LOS A	0.1	0.8	0.38	0.55	38.6
5	T1	5	0.0	0.036	2.5	LOS A	0.1	0.8	0.38	0.55	38.7
6	R2	20	0.0	0.036	6.7	LOS A	0.1	0.8	0.38	0.55	39.1
Approach		36	0.0	0.036	5.0	LOS A	0.1	0.8	0.38	0.55	38.8
North: Hezlett Road - North											
7	L2	15	0.0	0.096	2.9	LOS A	0.6	4.0	0.35	0.31	38.3
8	T1	453	4.4	0.266	1.9	LOS A	1.9	13.7	0.34	0.27	39.9
9	R2	11	0.0	0.266	6.0	LOS A	1.9	13.7	0.34	0.27	40.1
Approach		478	4.2	0.266	2.1	LOS A	1.9	13.7	0.34	0.27	39.9
West: Curtis Road - West											
10	L2	5	0.0	0.107	3.1	LOS A	0.3	2.4	0.38	0.64	38.1
11	T1	5	0.0	0.107	2.6	LOS A	0.3	2.4	0.38	0.64	38.0
12	R2	96	0.0	0.107	6.8	LOS A	0.3	2.4	0.38	0.64	39.3
Approach		106	0.0	0.107	6.4	LOS A	0.3	2.4	0.38	0.64	39.2
All Vehicles		1184	4.6	0.282	2.3	LOS A	2.1	15.2	0.27	0.29	39.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 AM Peak – Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_AM Peak (School) - Build]

Hezlett and Curtis - Future_2030_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Dep. 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: Hezlett Road - South											
1	L2	75	14.1	0.277	5.3	LOS A	1.9	14.0	0.65	0.59	38.9
2	T1	628	4.9	0.777	7.2	LOS A	12.7	91.1	0.89	0.78	42.4
3	R2	11	0.0	0.777	12.1	LOS A	12.7	91.1	0.95	0.83	44.8
3u	U	431	0.0	0.777	13.9	LOS A	12.7	91.1	0.95	0.83	50.9
Approach		1144	3.6	0.777	9.6	LOS A	12.7	91.1	0.90	0.78	45.5
East: Cambrose Street - East											
4	L2	11	0.0	0.050	7.0	LOS A	0.3	1.8	0.75	0.76	37.6
5	T1	5	0.0	0.050	6.5	LOS A	0.3	1.8	0.75	0.76	37.1
6	R2	11	0.0	0.050	10.7	LOS A	0.3	1.8	0.75	0.76	37.3
Approach		26	0.0	0.050	8.4	LOS A	0.3	1.8	0.75	0.76	37.4
North: Hezlett Road - North											
7	L2	51	10.4	0.246	7.1	LOS A	1.6	11.9	0.76	0.73	36.4
8	T1	478	8.4	0.685	8.0	LOS A	8.9	65.6	0.93	0.95	38.4
9	R2	263	2.0	0.685	12.4	LOS A	8.9	65.6	0.97	1.00	37.9
Approach		792	6.4	0.685	9.4	LOS A	8.9	65.6	0.93	0.95	38.2
West: Curtis Road - West											
10	L2	25	41.7	0.148	6.8	LOS A	0.7	5.6	0.74	0.84	37.5
11	T1	5	0.0	0.148	5.1	LOS A	0.7	5.6	0.74	0.84	37.0
12	R2	45	0.0	0.148	9.3	LOS A	0.7	5.6	0.74	0.84	38.9
Approach		76	13.9	0.148	8.2	LOS A	0.7	5.6	0.74	0.84	38.4
All Vehicles		2038	5.0	0.777	9.5	LOS A	12.7	91.1	0.90	0.85	42.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 PM Peak – Build (1.5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_PM Peak (School) - Build]

Hezlett and Curtis - Future_2030_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Dep. 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: Hezlett Road - South											
1	L2	95	0.0	0.175	2.7	LOS A	1.1	7.8	0.31	0.32	39.4
2	T1	693	5.0	0.491	2.5	LOS A	4.6	33.5	0.35	0.38	41.7
3	R2	5	0.0	0.491	6.8	LOS A	4.6	33.5	0.36	0.39	43.0
3u	U	149	0.0	0.491	8.4	LOS A	4.6	33.5	0.36	0.39	49.6
Approach		942	3.7	0.491	3.4	LOS A	4.6	33.5	0.35	0.38	42.8
East: Cambrose Street - East											
4	L2	11	0.0	0.041	3.6	LOS A	0.2	1.1	0.48	0.61	38.4
5	T1	5	0.0	0.041	3.2	LOS A	0.2	1.1	0.48	0.61	38.4
6	R2	20	0.0	0.041	7.4	LOS A	0.2	1.1	0.48	0.61	38.7
Approach		36	0.0	0.041	5.6	LOS A	0.2	1.1	0.48	0.61	38.5
North: Hezlett Road - North											
7	L2	15	0.0	0.120	4.2	LOS A	0.7	4.8	0.51	0.45	37.7
8	T1	463	4.4	0.333	3.0	LOS A	2.4	17.2	0.52	0.43	39.6
9	R2	52	0.0	0.333	6.9	LOS A	2.4	17.2	0.53	0.42	39.6
Approach		519	3.9	0.333	3.4	LOS A	2.4	17.2	0.52	0.43	39.5
West: Curtis Road - West											
10	L2	5	0.0	0.134	4.5	LOS A	0.5	3.8	0.56	0.75	37.7
11	T1	5	0.0	0.134	4.1	LOS A	0.5	3.8	0.56	0.75	37.4
12	R2	96	0.0	0.134	8.2	LOS A	0.5	3.8	0.56	0.75	39.0
Approach		106	0.0	0.134	7.6	LOS A	0.5	3.8	0.56	0.75	39.0
All Vehicles		1603	3.4	0.491	3.8	LOS A	4.6	33.5	0.42	0.42	41.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 AM Peak – No Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_AM Peak (School) - No Build]

Hezlett and Curtis - Future_2020_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	53	18.0	0.073	2.3	LOS A	0.4	3.3	0.16	0.28	39.5
2	T1	344	8.6	0.206	1.5	LOS A	1.3	10.1	0.14	0.21	40.2
3	R2	9	0.0	0.206	5.6	LOS A	1.3	10.1	0.14	0.21	40.5
3u	U	1	0.0	0.206	7.1	LOS A	1.3	10.1	0.14	0.21	47.8
Approach		407	9.6	0.206	1.7	LOS A	1.3	10.1	0.15	0.22	40.1
East: Cambrose Street - East											
4	L2	9	0.0	0.024	2.9	LOS A	0.1	0.5	0.36	0.49	38.8
5	T1	5	0.0	0.024	2.4	LOS A	0.1	0.5	0.36	0.49	39.1
6	R2	9	0.0	0.024	6.6	LOS A	0.1	0.5	0.36	0.49	39.5
Approach		24	0.0	0.024	4.2	LOS A	0.1	0.5	0.36	0.49	39.0
North: Hezlett Road - North											
7	L2	48	10.9	0.099	2.6	LOS A	0.6	4.3	0.25	0.29	38.6
8	T1	460	8.5	0.275	1.6	LOS A	2.0	14.8	0.24	0.24	40.0
9	R2	11	50.0	0.275	6.2	LOS A	2.0	14.8	0.24	0.23	40.2
Approach		519	9.5	0.275	1.6	LOS A	2.0	14.8	0.24	0.24	40.0
West: Curtis Road - West											
10	L2	24	39.1	0.073	3.0	LOS A	0.2	1.6	0.30	0.53	38.5
11	T1	5	0.0	0.073	2.1	LOS A	0.2	1.6	0.30	0.53	38.6
12	R2	43	0.0	0.073	6.3	LOS A	0.2	1.6	0.30	0.53	39.6
Approach		73	13.0	0.073	4.9	LOS A	0.2	1.6	0.30	0.53	39.3
All Vehicles		1023	9.6	0.275	2.0	LOS A	2.0	14.8	0.21	0.26	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 PM Peak – No Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_PM Peak (School) - No Build]

Hezlett and Curtis - Future_2020_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	43	0.0	0.096	2.2	LOS A	0.6	4.1	0.18	0.26	39.5
2	T1	494	6.8	0.271	1.5	LOS A	1.9	14.4	0.18	0.21	40.2
3	R2	5	0.0	0.271	5.6	LOS A	1.9	14.4	0.17	0.21	40.5
3u	U	1	0.0	0.271	7.1	LOS A	1.9	14.4	0.17	0.21	47.8
Approach		543	6.2	0.271	1.6	LOS A	1.9	14.4	0.18	0.22	40.1
East: Cambrose Street - East											
4	L2	9	0.0	0.034	2.9	LOS A	0.1	0.7	0.37	0.54	38.6
5	T1	5	0.0	0.034	2.4	LOS A	0.1	0.7	0.37	0.54	38.7
6	R2	19	0.0	0.034	6.6	LOS A	0.1	0.7	0.37	0.54	39.1
Approach		34	0.0	0.034	4.9	LOS A	0.1	0.7	0.37	0.54	38.8
North: Hezlett Road - North											
7	L2	15	0.0	0.092	2.9	LOS A	0.5	3.8	0.34	0.30	38.3
8	T1	436	4.3	0.255	1.9	LOS A	1.8	13.0	0.33	0.27	39.9
9	R2	9	0.0	0.255	6.0	LOS A	1.8	13.0	0.33	0.26	40.1
Approach		460	4.1	0.255	2.0	LOS A	1.8	13.0	0.33	0.27	39.9
West: Curtis Road - West											
10	L2	5	0.0	0.102	3.0	LOS A	0.3	2.2	0.37	0.63	38.1
11	T1	5	0.0	0.102	2.5	LOS A	0.3	2.2	0.37	0.63	38.0
12	R2	92	0.0	0.102	6.7	LOS A	0.3	2.2	0.37	0.63	39.3
Approach		102	0.0	0.102	6.3	LOS A	0.3	2.2	0.37	0.63	39.3
All Vehicles		1139	4.6	0.271	2.3	LOS A	1.9	14.4	0.26	0.29	39.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 AM Peak – Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_AM Peak (School) - Build]

Hezlett and Curtis - Future_2020_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. 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: Hezlett Road - South											
1	L2	59	16.1	0.131	3.2	LOS A	0.8	6.0	0.38	0.36	39.3
2	T1	436	6.8	0.367	2.9	LOS A	3.0	21.5	0.39	0.44	42.3
3	R2	9	0.0	0.367	7.2	LOS A	3.0	21.5	0.39	0.45	44.1
3u	U	146	0.0	0.367	8.9	LOS A	3.0	21.5	0.39	0.45	50.4
Approach		651	6.0	0.367	4.3	LOS A	3.0	21.5	0.39	0.43	43.9
East: Cambrose Street - East											
4	L2	9	0.0	0.028	3.7	LOS A	0.1	0.7	0.49	0.57	38.5
5	T1	5	0.0	0.028	3.3	LOS A	0.1	0.7	0.49	0.57	38.7
6	R2	9	0.0	0.028	7.4	LOS A	0.1	0.7	0.49	0.57	39.0
Approach		24	0.0	0.028	5.1	LOS A	0.1	0.7	0.49	0.57	38.7
North: Hezlett Road - North											
7	L2	48	10.9	0.136	4.1	LOS A	0.8	5.9	0.48	0.44	37.8
8	T1	460	8.5	0.379	2.7	LOS A	2.9	21.5	0.50	0.42	39.6
9	R2	96	5.5	0.379	6.8	LOS A	2.9	21.5	0.51	0.41	39.6
Approach		604	8.2	0.379	3.5	LOS A	2.9	21.5	0.50	0.42	39.5
West: Curtis Road - West											
10	L2	24	39.1	0.085	3.9	LOS A	0.3	2.2	0.44	0.62	38.3
11	T1	5	0.0	0.085	2.8	LOS A	0.3	2.2	0.44	0.62	38.3
12	R2	43	0.0	0.085	7.0	LOS A	0.3	2.2	0.44	0.62	39.5
Approach		73	13.0	0.085	5.6	LOS A	0.3	2.2	0.44	0.62	39.1
All Vehicles		1352	7.2	0.379	4.0	LOS A	3.0	21.5	0.44	0.44	41.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akgelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2020 PM Peak – Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2020_PM Peak (School) - Build]

Hezlett and Curtis - Future_2020_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. 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: Hezlett Road - South											
1	L2	59	0.0	0.118	2.3	LOS A	0.7	5.0	0.22	0.28	39.5
2	T1	547	6.2	0.331	1.8	LOS A	2.5	18.3	0.22	0.29	40.9
3	R2	5	0.0	0.331	6.1	LOS A	2.5	18.3	0.22	0.29	41.7
3u	U	45	0.0	0.331	7.6	LOS A	2.5	18.3	0.22	0.29	48.6
Approach		657	5.1	0.331	2.3	LOS A	2.5	18.3	0.22	0.29	41.3
East: Cambrose Street - East											
4	L2	9	0.0	0.035	3.0	LOS A	0.1	0.8	0.40	0.56	38.5
5	T1	5	0.0	0.035	2.6	LOS A	0.1	0.8	0.40	0.56	38.6
6	R2	19	0.0	0.035	6.8	LOS A	0.1	0.8	0.40	0.56	39.0
Approach		34	0.0	0.035	5.1	LOS A	0.1	0.8	0.40	0.56	38.8
North: Hezlett Road - North											
7	L2	15	0.0	0.099	3.3	LOS A	0.6	4.0	0.40	0.35	38.1
8	T1	436	4.3	0.274	2.2	LOS A	1.9	13.8	0.39	0.32	39.8
9	R2	22	0.0	0.274	6.2	LOS A	1.9	13.8	0.39	0.31	39.9
Approach		473	4.0	0.274	2.4	LOS A	1.9	13.8	0.39	0.32	39.8
West: Curtis Road - West											
10	L2	5	0.0	0.108	3.3	LOS A	0.4	2.5	0.42	0.66	38.1
11	T1	5	0.0	0.108	2.9	LOS A	0.4	2.5	0.42	0.66	37.9
12	R2	92	0.0	0.108	7.1	LOS A	0.4	2.5	0.42	0.66	39.3
Approach		102	0.0	0.108	6.6	LOS A	0.4	2.5	0.42	0.66	39.2
All Vehicles		1265	4.2	0.331	2.8	LOS A	2.5	18.3	0.30	0.33	40.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akgelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 AM Peak – No Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_AM Peak (School) - No Build]

Hezlett and Curtis - Future_2030_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	76	18.1	0.106	2.4	LOS A	0.6	4.9	0.20	0.30	39.5
2	T1	494	8.5	0.299	1.5	LOS A	2.2	16.5	0.20	0.23	40.1
3	R2	14	0.0	0.299	5.7	LOS A	2.2	16.5	0.20	0.22	40.4
3u	U	1	0.0	0.299	7.1	LOS A	2.2	16.5	0.20	0.22	47.7
Approach		584	9.5	0.299	1.8	LOS A	2.2	16.5	0.20	0.24	40.0
East: Cambrose Street - East											
4	L2	14	0.0	0.040	3.7	LOS A	0.1	1.0	0.48	0.58	38.5
5	T1	7	0.0	0.040	3.3	LOS A	0.1	1.0	0.48	0.58	38.7
6	R2	14	0.0	0.040	7.4	LOS A	0.1	1.0	0.48	0.58	39.1
Approach		35	0.0	0.040	5.1	LOS A	0.1	1.0	0.48	0.58	38.7
North: Hezlett Road - North											
7	L2	69	10.6	0.146	2.8	LOS A	0.9	6.7	0.32	0.33	36.3
8	T1	660	8.5	0.406	1.9	LOS A	3.4	25.6	0.34	0.27	39.9
9	R2	15	50.0	0.406	6.5	LOS A	3.4	25.6	0.34	0.26	40.0
Approach		744	9.5	0.406	2.1	LOS A	3.4	25.6	0.34	0.27	39.8
West: Curtis Road - West											
10	L2	35	39.4	0.114	3.7	LOS A	0.4	2.9	0.39	0.60	38.3
11	T1	7	0.0	0.114	2.7	LOS A	0.4	2.9	0.39	0.60	38.4
12	R2	62	0.0	0.114	6.8	LOS A	0.4	2.9	0.39	0.60	39.5
Approach		104	13.1	0.114	5.5	LOS A	0.4	2.9	0.39	0.60	39.1
All Vehicles		1467	9.5	0.406	2.3	LOS A	3.4	25.6	0.29	0.29	39.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 PM Peak – No Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_PM Peak (School) - No Build]

Hezlett and Curtis - Future_2030_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	62	0.0	0.141	2.4	LOS A	0.9	6.3	0.23	0.28	39.5
2	T1	708	6.8	0.395	1.6	LOS A	3.3	24.8	0.25	0.23	40.0
3	R2	7	0.0	0.395	5.8	LOS A	3.3	24.8	0.25	0.23	40.3
3u	U	1	0.0	0.395	7.2	LOS A	3.3	24.8	0.25	0.23	47.6
Approach		779	6.2	0.395	1.7	LOS A	3.3	24.8	0.25	0.24	40.0
East: Cambrose Street - East											
4	L2	14	0.0	0.057	3.7	LOS A	0.2	1.5	0.49	0.63	38.4
5	T1	7	0.0	0.057	3.3	LOS A	0.2	1.5	0.49	0.63	38.4
6	R2	27	0.0	0.057	7.4	LOS A	0.2	1.5	0.49	0.63	38.7
Approach		48	0.0	0.057	5.7	LOS A	0.2	1.5	0.49	0.63	38.5
North: Hezlett Road - North											
7	L2	21	0.0	0.138	3.3	LOS A	0.8	6.0	0.42	0.37	38.0
8	T1	625	4.4	0.383	2.3	LOS A	3.1	22.6	0.45	0.32	39.7
9	R2	14	0.0	0.383	6.3	LOS A	3.1	22.6	0.45	0.31	39.9
Approach		660	4.1	0.383	2.4	LOS A	3.1	22.6	0.45	0.32	39.7
West: Curtis Road - West											
10	L2	7	0.0	0.167	3.9	LOS A	0.6	4.3	0.50	0.72	37.9
11	T1	7	0.0	0.167	3.5	LOS A	0.6	4.3	0.50	0.72	37.6
12	R2	132	0.0	0.167	7.7	LOS A	0.6	4.3	0.50	0.72	39.2
Approach		146	0.0	0.167	7.3	LOS A	0.6	4.3	0.50	0.72	39.1
All Vehicles		1634	4.6	0.395	2.6	LOS A	3.3	24.8	0.36	0.33	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 AM Peak – Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_AM Peak (School) - Build]

Hezlett and Curtis - Future_2030_AM Peak (School)
8am - 9am
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	95	14.4	0.320	5.5	LOS A	2.2	16.7	0.68	0.62	38.9
2	T1	765	5.5	0.898	12.1	LOS A	23.4	168.2	0.95	0.98	40.8
3	R2	14	0.0	0.898	17.8	LOS B	23.4	168.2	1.00	1.05	41.9
3u	U	431	0.0	0.898	19.6	LOS B	23.4	168.2	1.00	1.05	48.8
Approach		1304	4.3	0.898	14.1	LOS A	23.4	168.2	0.94	0.98	43.5
East: Cambrose Street - East											
4	L2	14	0.0	0.088	9.9	LOS A	0.5	3.4	0.85	0.86	36.7
5	T1	7	0.0	0.088	9.5	LOS A	0.5	3.4	0.85	0.86	35.7
6	R2	14	0.0	0.088	13.6	LOS A	0.5	3.4	0.85	0.86	35.7
Approach		35	0.0	0.088	11.3	LOS A	0.5	3.4	0.85	0.86	36.2
North: Hezlett Road - North											
7	L2	69	10.6	0.319	7.6	LOS A	2.1	15.9	0.80	0.78	36.1
8	T1	660	8.5	0.886	17.5	LOS B	20.9	154.3	0.97	1.35	36.4
9	R2	267	2.8	0.886	23.5	LOS B	20.9	154.3	1.00	1.46	34.7
Approach		997	7.1	0.886	18.4	LOS B	20.9	154.3	0.96	1.34	36.0
West: Curtis Road - West											
10	L2	35	39.4	0.247	8.5	LOS A	1.3	10.2	0.82	0.90	37.0
11	T1	7	0.0	0.247	6.6	LOS A	1.3	10.2	0.82	0.90	36.3
12	R2	62	0.0	0.247	10.8	LOS A	1.3	10.2	0.82	0.90	38.6
Approach		104	13.1	0.247	9.7	LOS A	1.3	10.2	0.82	0.90	38.0
All Vehicles		2440	5.7	0.898	15.7	LOS B	23.4	168.2	0.95	1.12	40.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akgelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

2030 PM Peak – Build (5% growth rate)

MOVEMENT SUMMARY

Site: 1 [Hezlett and Curtis - Future_2030_PM Peak (School) - Build]

Hezlett and Curtis - Future_2030_PM Peak (School)
3pm - 4pm
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Total veh/h	Demand Flows HV %	Deg. 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: Hezlett Road - South											
1	L2	113	0.0	0.218	2.8	LOS A	1.4	10.2	0.35	0.35	39.3
2	T1	888	5.5	0.613	2.6	LOS A	6.9	50.4	0.46	0.39	41.2
3	R2	7	0.0	0.613	6.9	LOS A	6.9	50.4	0.47	0.39	42.3
3u	U	149	0.0	0.613	8.5	LOS A	6.9	50.4	0.47	0.39	49.1
Approach		1158	4.2	0.613	3.4	LOS A	6.9	50.4	0.45	0.38	42.1
East: Cambrose Street - East											
4	L2	14	0.0	0.067	4.7	LOS A	0.3	2.0	0.60	0.70	38.1
5	T1	7	0.0	0.067	4.2	LOS A	0.3	2.0	0.60	0.70	37.9
6	R2	27	0.0	0.067	8.4	LOS A	0.3	2.0	0.60	0.70	38.2
Approach		48	0.0	0.067	6.7	LOS A	0.3	2.0	0.60	0.70	38.1
North: Hezlett Road - North											
7	L2	21	0.0	0.168	4.7	LOS A	1.0	7.1	0.57	0.51	37.5
8	T1	625	4.4	0.468	3.5	LOS A	3.8	27.6	0.63	0.49	39.4
9	R2	56	0.0	0.468	7.4	LOS A	3.8	27.6	0.64	0.49	39.4
Approach		702	3.9	0.468	3.8	LOS A	3.8	27.6	0.63	0.49	39.4
West: Curtis Road - West											
10	L2	7	0.0	0.223	6.1	LOS A	1.1	7.4	0.69	0.86	37.3
11	T1	7	0.0	0.223	5.6	LOS A	1.1	7.4	0.69	0.86	36.6
12	R2	132	0.0	0.223	9.8	LOS A	1.1	7.4	0.69	0.86	38.7
Approach		146	0.0	0.223	9.4	LOS A	1.1	7.4	0.69	0.86	38.6
All Vehicles		2055	3.7	0.613	4.1	LOS A	6.9	50.4	0.53	0.46	40.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
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.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akgelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix F – Preliminary Green Travel Plan



Green Travel Plan: Kellyville North New Primary School

07 August 2017

Project	Appendix F – Green Travel Plan (GTP) for staff, students and their parents at Kellyville North New Primary School
Purpose of this GTP	To encourage parents, students and staff at the Kellyville North New Primary School to use walking, cycling and public transport as their usual transport modes to school

Background

A new school, Kellyville North Primary School, has been proposed on Hezlett Road in Kellyville. The new school is expected to accommodate 1,000 students and 40 teachers. The Secretary's Environmental Assessment Requirements (SEAR's) states that a Green Travel Plan (GTP) be included that outlines proposals to encourage sustainable travel choices and details programs for implementation. The Department of Education (DoE) proposes to limit the number of parking spaces within the school site to 12 spaces, of which, two spaces are designated for people with a mobility impairment. Whilst the Kellyville North Primary School is a new school, a *Mode of Travel Survey* was carried out for a school located close to the school (Beaumont Public School) which has shown that around 85% of parents drive their children to school in the morning peak period. Should this reliance on car-based transport be replicated at the Kellyville North New Primary School, there would be issues associated with traffic congestion, safety of children and general amenity in the surrounding road network. The implementation of a GTP for Kellyville North New Primary School is intended to be part of a suite of responses to ensure that sustainable travel behaviours are encouraged for parents, students and staff from the time of the school opening. The information in this GTP can be disseminated to students and their parents in student enrolment packs, newsletters, school assemblies, and to staff in employment information packs and staff communiques.

What is a Green Travel Plan (GTP)?

A GTP is a tool designed to address an organisation's travel needs and impacts. GTP's are frequently a requirement of Development Applications (DAs) in NSW, as local governments are concerned with the intensification of land uses and their associated travel impacts on the surrounding communities' amenity and functionality. GTPs for schools are specifically focussed on staff, students and the broader school community including parents and service providers. The plan provides a set of measures and initiatives in encouraging sustainable travel alternatives that can be implemented for staff, students and their carers.

GTPs can deliver efficiencies, savings and benefits to schools, its operation and its employees. GTPs can be a useful tool in managing limited land resources and help prioritise the use of space. Many schools are seeing reduced amounts of car parking on-site which may not align with expectations based on experiences at other schools.

How to get to Kellyville North New Primary School

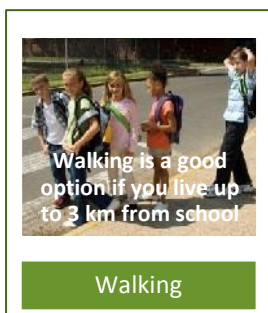
The Kellyville North New Primary School GTP promotes the use of sustainable travel choices such as walking, cycling, and using public transport. It recognises that on occasion, parent's students and staff may have to drive to school, but this is not encouraged on a daily basis unless the staff member has a mobility impairment which makes other options unfeasible.

This GTP includes maps showing routes for these modes, along with the benefits of each mode and options for access to the school.

Walking

As the existing Kellyville North is underdeveloped, the current pedestrian infrastructure is not fully constructed, particularly on Hezlett Road. However, given the proposed location for the school, there is likely to be good walking infrastructure surrounding the school, with signalised intersections at busier intersections and a proposed pedestrian crossing point at the entrance gate on Hezlett Road.

The proposed grid structure and short road links of the surrounding residential areas will likely provide good connectivity for students to walk to school.



Walking school bus: This may be an appropriate option for students to walk to school in a group setting monitored by an adult 'driver' in the front and an adult 'conductor' at the rear. The walkers are the bus and the bus takes in a set route to school picking up children along the way. The Walking School Bus travels the safest and most convenient route for its passengers. Routes can vary in length but are usually a maximum of 30 minutes or around 2km.

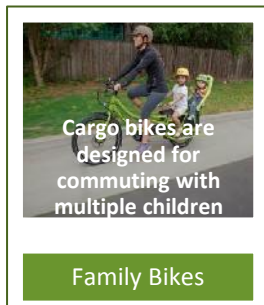
The map at the end of this GTP shows where you can walk within a 30 minute commute (presuming a 6 km per hour speed for pedestrians). This walking catchment generally covers the majority of the North Kellyville Precinct.

Cycling



Existing cycling infrastructure linking the surrounding neighbourhood to the school location is limited, however there are a combination of on-road and off-road cycle routes planned that may provide good connectivity to the school. There is a good network of off-road shared paths in the surrounding street network which will make cycling and scooting feasible for school-aged children, although parents and carers should be aware of the risks posed by the vehicle cross overs (driveways), which are common in the surrounding residential area.

There are now a range of 'family' style bikes available at select retailers in Sydney. These are specifically designed cargo bikes which can fit multiple children. They can come in motorised (electric) or non-motorised models.



The map at the end of this GTP shows where you can cycle from within a 30 minute commute (presuming a 12 km/h average speed for bicycle riders).

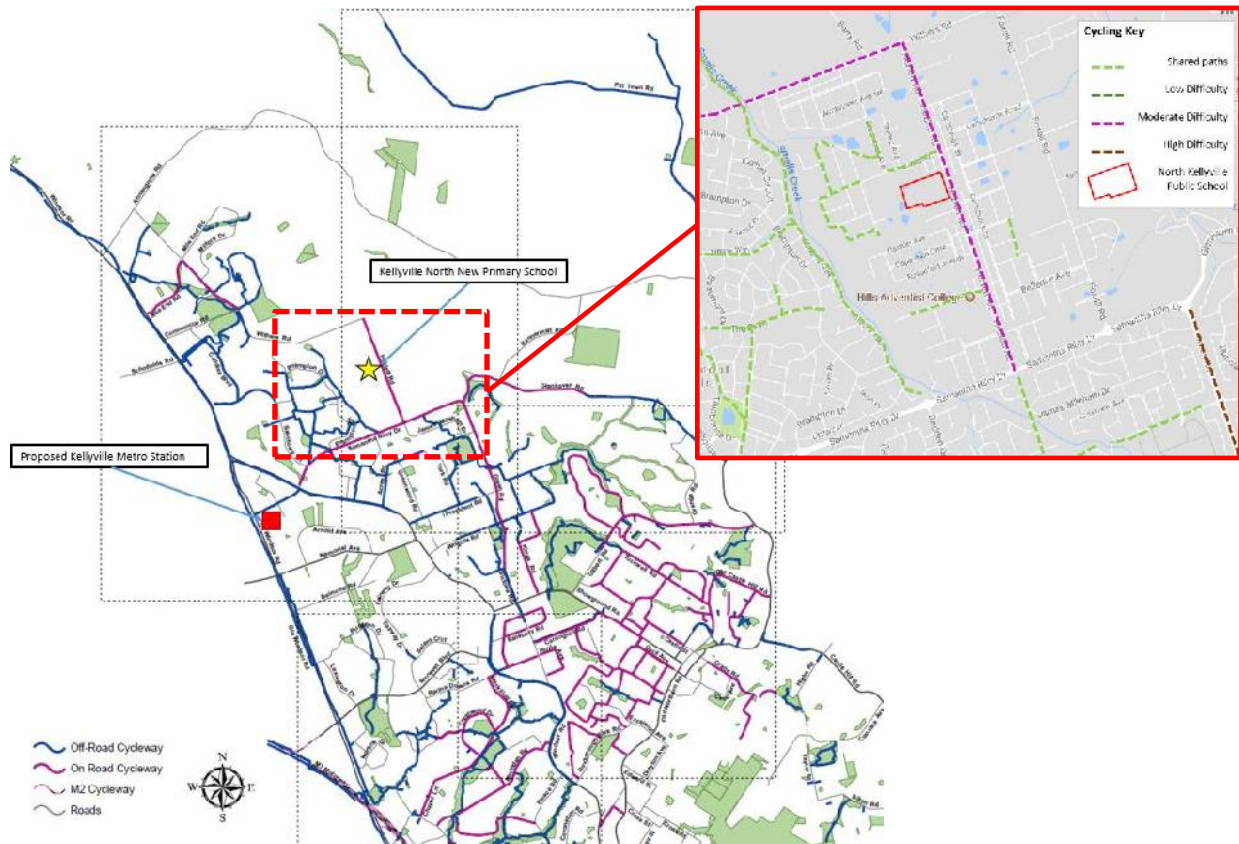
Bike Maintenance and Cycling skills: A number of Councils now run bike maintenance and cycling skills workshops on a regular basis. These are designed for a range of abilities from beginner cyclists to commuters. Bicycle NSW run basic maintenance course in Sydney Olympic Park. Other annual cycling events include NSW Bike Week in September and National Ride to Work Day in October. The Hills Council does not run these workshops however other councils such as Parramatta and Ryde have run workshops

for cycling in the past. Cycling workshops may be run by the Council in which North Kellyville New Primary School staff live. Please contact your local Council for more information on these workshops.

Bikes on Public Transport: Bicycles are permitted on CityRail trains free of charge with possession of an Opal Card. However if at least part of your journey is made between 6 am and 9 am or between 3:30 pm and 7:30 pm on weekdays, you must purchase a ticket for yourself as well as a child's ticket for the bicycle. If you take a bicycle on a train please remember not to block the doorways. Bikes are generally not allowed on buses. Parking and storage for 45 bicycles will be provided at the new Kellyville metro station to assist with transfer between Sydney Metro trains or bus services.

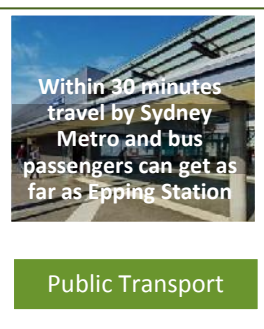
The map at the end of this GTP shows where you can cycle to within a 30 minute commute (presuming a 12 km per hour speed for cyclists). The following maps shows the existing and proposed cycling networks in proximity to the school. Off-road cycleways (blue in main map and green in insert map) are generally suitable for primary school aged children as they separate children from general traffic.

Proposed Cycleways and existing local cycle network



Source: The Hills Shire Combined On-Road / Off Road linked maps

Bus and Train



Kellyville North New Public School is well located near the proposed Kellyville Sydney Metro Station and bus services. The nearest bus stops to the school are located on Hezlett Road, just north of Curtis Road and approximately 160 metres north of Rosenfeld Avenue.

Bus Route 603 currently operates on Hezlett Road and serves Rouse Hill in the north and Glen Haven and Castle Hill to the south. Further south of Castle Hill would be a longer than a 30 minute bus trip duration, however this bus route does service as far as Parramatta in the south.

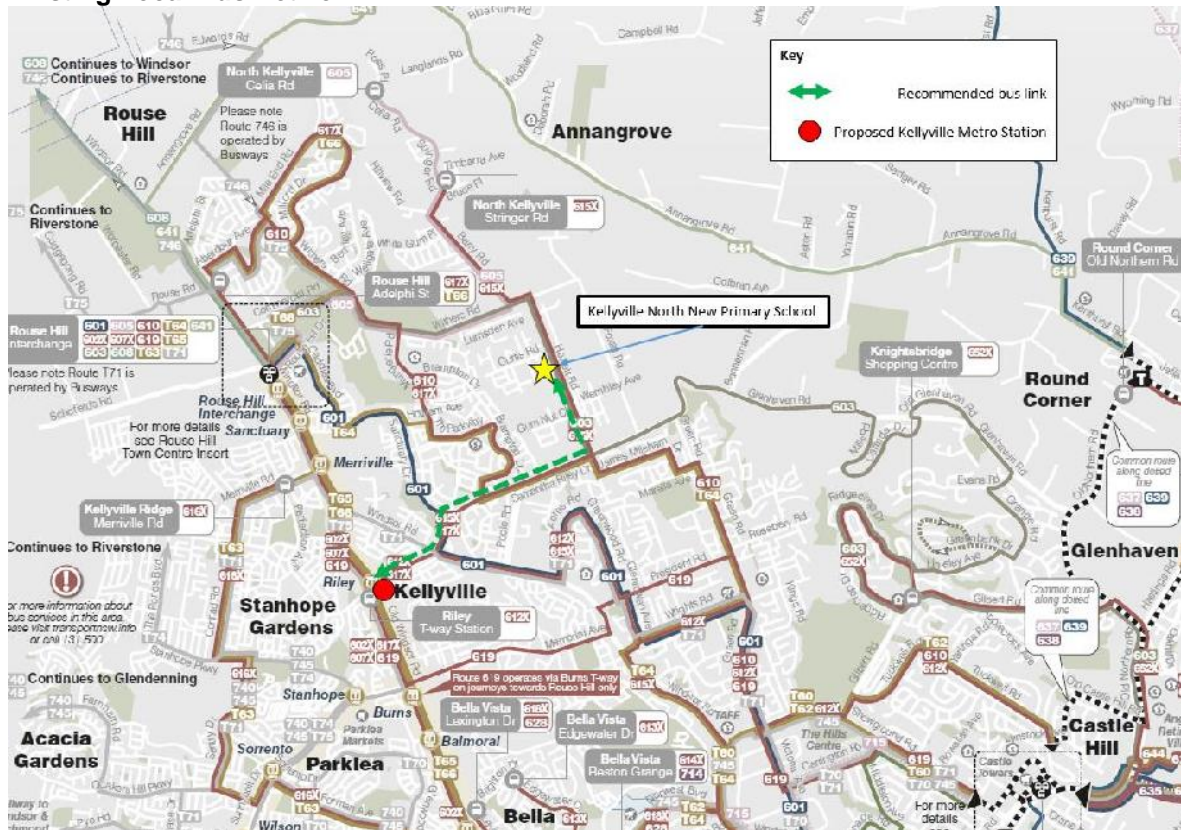
Proposed bus services are to serve Hezlett Road, however details on these are not currently available. It could be beneficial for future proposed bus routes to transfer via the Kellyville Metro Station to the School on Hezlett

Road as shown in the bus network map below, which could increase the passenger catchment distance.

Train journeys to and from the proposed Sydney Metro Line to Kellyville Station could provide a useful transfer to future bus services to the school as previously mentioned, as this could increase the passenger catchment due to the attractiveness and travel time reliability of the Metro train line. For a 30-minute journey in total for a train-bus transfer, train trips could reach as far as Epping Station (18 minutes approx.) with a bus transfer from the station to the school (10 minutes approx.).

The map at the end of this GTP shows 30-minute commute catchments for each mode to Kellyville North Primary School. The following maps show the local bus and train connections surrounding the school.

Existing Local Bus Network



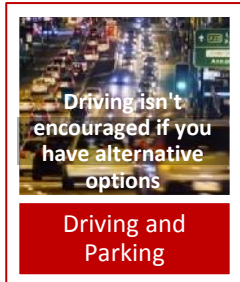
Existing Local Train Network





Green Travel Plan: Kellyville North New Primary School

Driving and Parking



Onsite: Staff at the school have been provided with 12 onsite spaces with two of these spaces used only by those who have a permit as part of the Mobility Parking Scheme in NSW (part of the Australian Disability Parking Scheme). In addition, 45 parking spaces will be provided to the west of the school primarily for teachers.

On-street: In general, there is currently unrestricted parking in the neighbourhood surrounding the new School. However, out of respect to our local neighbourhood, staff are encouraged not to park on-street.

A kiss and drop location will be primarily located at the front of the school on Hezlett Road, which will likely provide space for about 35 vehicles. An additional drop off in Curtis Ave for older students being facilitated by providing pedestrian entry off Thorogood Boulevard. While drop off facilities will be provided, other modes of transport are encouraged to be used.

What if I need to use a car? In some cases there are good reasons why staff and parents may need to use a car on a particular day. Staff may have teaching material to carry, need to work late or need to run an errand at lunchtime. Parents may be dropping off children on their way to another destination such as work. This GTP *encourages* staff and parents to think about non-car travel and only use a car when other options don't suit.

Carpooling: Can you catch a ride with another staff member who lives near you? Carpooling saves money and reduces congestion on our roads and pressure on parking. It also gives you the opportunity to develop new friendships with co-workers or other commuters.

GHD

Level 3

22 Giffnock Avenue



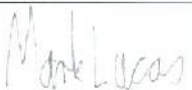


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Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
A	Mark Lucas, Shane Quinn, Owen Peel	Simon Payne				
1	Mark Lucas	Simon Payne				
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