

Appendix X

Modelling Results

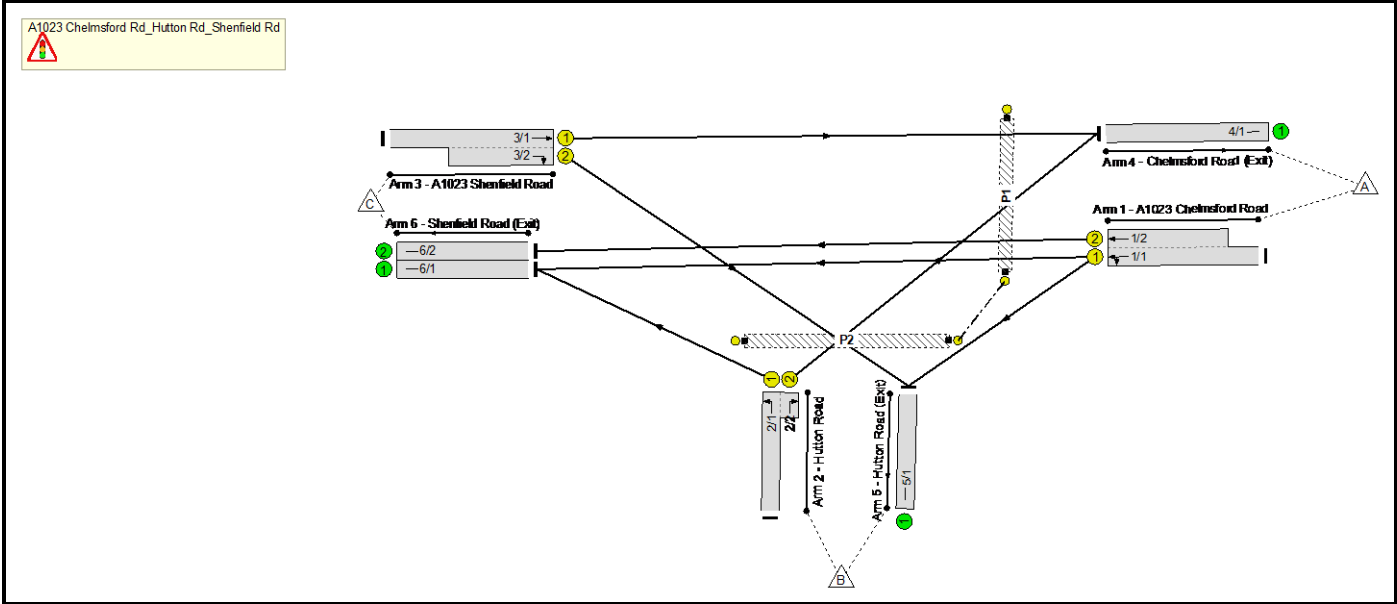
Full Input Data And Results

Full Input Data And Results

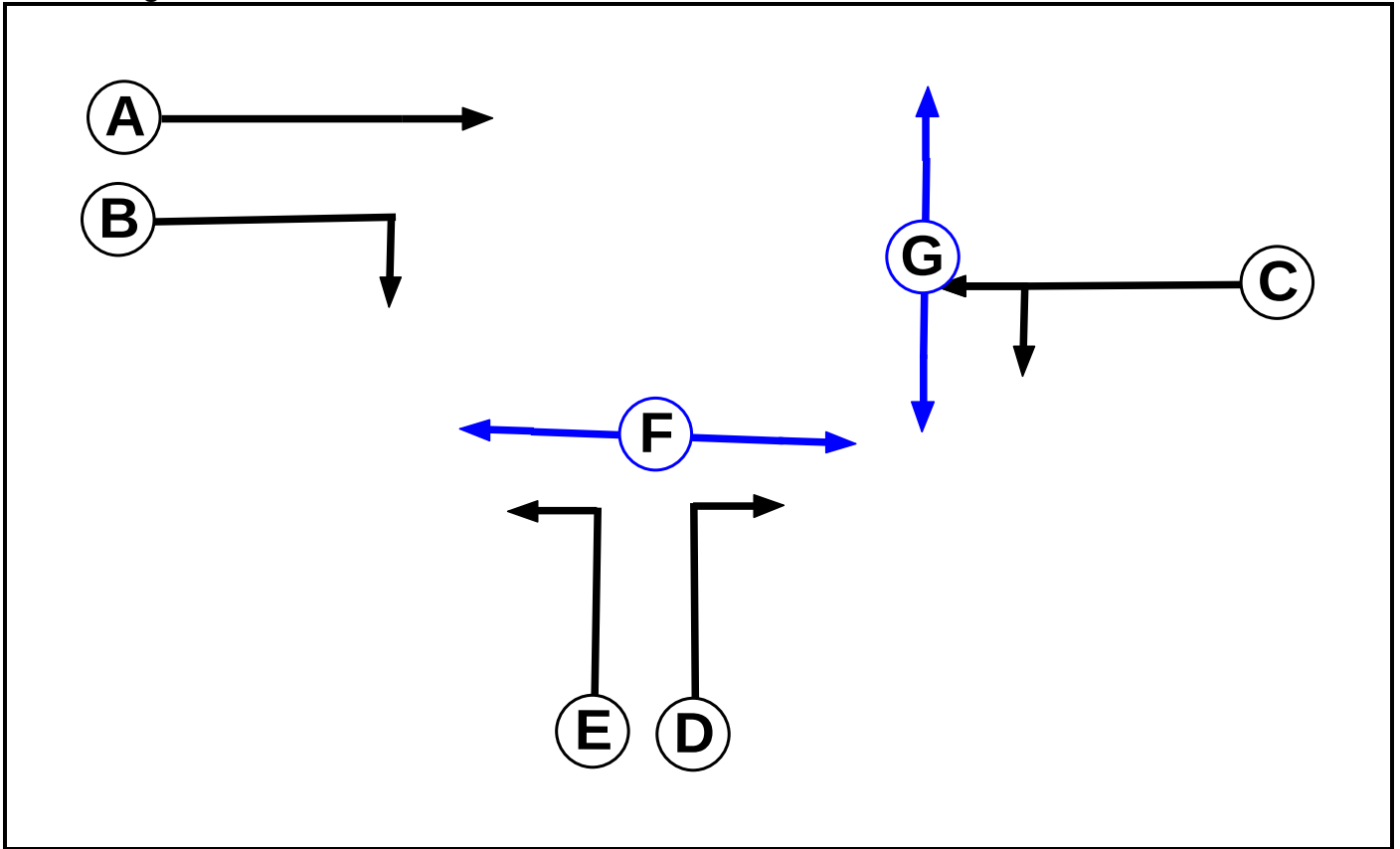
User and Project Details

Project:	
Title:	Shenfield
Location:	
Additional detail:	
File name:	152080 - A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd Junction - BS update - V1.lsg3x
Author:	Ben Stone
Company:	SLR
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		1	1
F	Pedestrian		12	12
G	Pedestrian		11	11

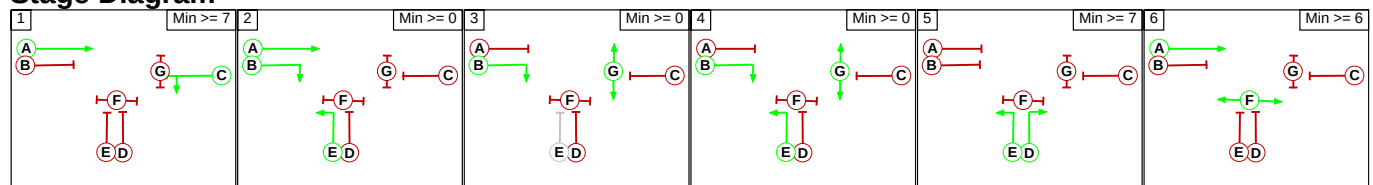
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		-	-	5	-	-	8
	B	-		6	5	-	7	-
	C	-	5		6	6	7	5
	D	5	5	5		-	5	8
	E	-	-	-	-		-	-
	F	-	15	15	15	15		-
	G	13	-	13	13	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	A B E
3	B G
4	B E G
5	D E
6	A F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage						
		1	2	3	4	5	6
	1		6	8	8	6	7
	2	6		8	8	5	7
	3	13	13		2	13	13
	4	13	13	0		13	13
	5	5	5	8	8		5
	6	15	15	15	15	15	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A1023 Chelmsford Road)	U	C	2	3	12.0	Geom	-	3.25	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
1/2 (A1023 Chelmsford Road)	U	C	2	3	12.0	Geom	-	3.25	0.00	N	Arm 6 Ahead	Inf
2/1 (Hutton Road)	U	E	2	3	31.3	Geom	-	3.25	0.00	Y	Arm 6 Left	13.00
2/2 (Hutton Road)	U	D	2	3	2.1	Geom	-	3.25	0.00	N	Arm 4 Right	21.00
3/1 (A1023 Shenfield Road)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 4 Ahead	Inf
3/2 (A1023 Shenfield Road)	U	B	2	3	8.7	Geom	-	3.25	0.00	Y	Arm 5 Right	21.00
4/1 (Chelmsford Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		
5/1 (Hutton Road (Exit))	U		2	3	31.3	Geom	-	3.25	0.00	Y		
6/1 (Shenfield Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		
6/2 (Shenfield Road (Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM Peak'	07:30	08:30	01:00	
2: '2022 Base PM Peak'	17:00	18:00	01:00	
3: '2028 Base AM Peak'	07:30	08:30	01:00	
4: '2028 Base PM Peak'	17:00	18:00	01:00	
5: '2028 Base + Committed AM Peak'	07:30	08:30	01:00	
6: '2028 Base + Committed PM Peak'	17:00	18:00	01:00	
7: '2028 Base + Development AM Peak'	07:30	08:30	01:00	
8: '2028 Base + Development PM Peak'	17:00	18:00	01:00	
9: '2028 Base + Comm + Dev AM Peak'	07:30	08:30	01:00	
10: '2028 Base + Comm + Dev PM Peak'	17:00	18:00	01:00	

Scenario 1: '2022 Base AM Peak' (FG1: '2022 Base AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	95	668	763
	B	85	0	244	329
	C	680	292	0	972
	Tot.	765	387	912	2064

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	763(In) 326(Out)
1/2 (short)	437
2/1 (with short)	329(In) 244(Out)
2/2 (short)	85
3/1 (with short)	972(In) 680(Out)
3/2 (short)	292
4/1	765
5/1	387
6/1	475
6/2	437

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left Arm 6 Ahead	15.00 Inf	29.1 % 70.9 %	1885	1885
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2022 Base PM Peak' (FG2: '2022 Base PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	63	591	654
	B	84	0	302	386
	C	692	273	0	965
	Tot.	776	336	893	2005

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	654(In) 305(Out)
1/2 (short)	349
2/1 (with short)	386(In) 302(Out)
2/2 (short)	84
3/1 (with short)	965(In) 692(Out)
3/2 (short)	273
4/1	776
5/1	336
6/1	544
6/2	349

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left Arm 6 Ahead	15.00 Inf	20.7 % 79.3 %	1901	1901
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2028 Base AM Peak' (FG3: '2028 Base AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	95	668	763
	B	85	0	244	329
	C	680	292	0	972
	Tot.	765	387	912	2064

Traffic Lane Flows

Lane	Scenario 3: 2028 Base AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	763(In) 326(Out)
1/2 (short)	437
2/1 (with short)	329(In) 244(Out)
2/2 (short)	85
3/1 (with short)	972(In) 680(Out)
3/2 (short)	292
4/1	765
5/1	387
6/1	475
6/2	437

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left Arm 6 Ahead	15.00 Inf	29.1 % 70.9 %	1885	1885
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2028 Base PM Peak' (FG4: '2028 Base PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	63	591	654
	B	84	0	302	386
	C	692	273	0	965
	Tot.	776	336	893	2005

Traffic Lane Flows

Lane	Scenario 4: 2028 Base PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	654(In) 299(Out)
1/2 (short)	355
2/1 (with short)	386(In) 302(Out)
2/2 (short)	84
3/1 (with short)	965(In) 692(Out)
3/2 (short)	273
4/1	776
5/1	336
6/1	538
6/2	355

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left Arm 6 Ahead	15.00 Inf	21.1 % 78.9 %	1900	1900
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2028 Base + Committed AM Peak' (FG5: '2028 Base + Committed AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired
Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	100	694	794
	B	88	0	244	332
	C	697	292	0	989
	Tot.	785	392	938	2115

Traffic Lane Flows

Lane	Scenario 5: 2028 Base + Committed AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	794(In) 346(Out)
1/2 (short)	448
2/1 (with short)	332(In) 244(Out)
2/2 (short)	88
3/1 (with short)	989(In) 697(Out)
3/2 (short)	292
4/1	785
5/1	392
6/1	490
6/2	448

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	15.00	28.9 %	1886	1886
				Arm 6 Ahead	Inf	71.1 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2028 Base + Committed PM Peak' (FG6: '2028 Base + Committed PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired
Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	66	607	673
	B	89	0	302	391
	C	719	273	0	992
	Tot.	808	339	909	2056

Traffic Lane Flows

Lane	Scenario 6: 2028 Base + Committed PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	673(In) 313(Out)
1/2 (short)	360
2/1 (with short)	391(In) 302(Out)
2/2 (short)	89
3/1 (with short)	992(In) 719(Out)
3/2 (short)	273
4/1	808
5/1	339
6/1	549
6/2	360

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	15.00	21.1 %	1900	1900
				Arm 6 Ahead	Inf	78.9 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2028 Base + Development AM Peak' (FG7: '2028 Base + Development AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	95	710	805
	B	85	0	244	329
	C	706	292	0	998
	Tot.	791	387	954	2132

Traffic Lane Flows

Lane	Scenario 7: 2028 Base + Development AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	805(In) 318(Out)
1/2 (short)	487
2/1 (with short)	329(In) 244(Out)
2/2 (short)	85
3/1 (with short)	998(In) 706(Out)
3/2 (short)	292
4/1	791
5/1	387
6/1	467
6/2	487

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	15.00	29.9 %	1884	1884
				Arm 6 Ahead	Inf	70.1 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2028 Base + Development PM Peak' (FG8: '2028 Base + Development PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	63	606	669
	B	84	0	302	386
	C	719	273	0	992
	Tot.	803	336	908	2047

Traffic Lane Flows

Lane	Scenario 8: 2028 Base + Development PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	669(In) 311(Out)
1/2 (short)	358
2/1 (with short)	386(In) 302(Out)
2/2 (short)	84
3/1 (with short)	992(In) 719(Out)
3/2 (short)	273
4/1	803
5/1	336
6/1	550
6/2	358

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	15.00	20.3 %	1901	1901
				Arm 6 Ahead	Inf	79.7 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2028 Base + Comm + Dev AM Peak' (FG9: '2028 Base + Comm + Dev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	100	736	836
	B	88	0	244	332
	C	722	292	0	1014
	Tot.	810	392	980	2182

Traffic Lane Flows

Lane	Scenario 9: 2028 Base + Comm + Dev AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	836(In) 378(Out)
1/2 (short)	458
2/1 (with short)	332(In) 244(Out)
2/2 (short)	88
3/1 (with short)	1014(In) 722(Out)
3/2 (short)	292
4/1	810
5/1	392
6/1	522
6/2	458

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	15.00	26.5 %	1890	1890
				Arm 6 Ahead	Inf	73.5 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: '2028 Base + Comm + Dev PM Peak' (FG10: '2028 Base + Comm + Dev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired
Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	66	622	688
	B	89	0	302	391
	C	746	273	0	1019
	Tot.	835	339	924	2098

Traffic Lane Flows

Lane	Scenario 10: 2028 Base + Comm + Dev PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1 (with short)	688(In) 320(Out)
1/2 (short)	368
2/1 (with short)	391(In) 302(Out)
2/2 (short)	89
3/1 (with short)	1019(In) 746(Out)
3/2 (short)	273
4/1	835
5/1	339
6/1	556
6/2	368

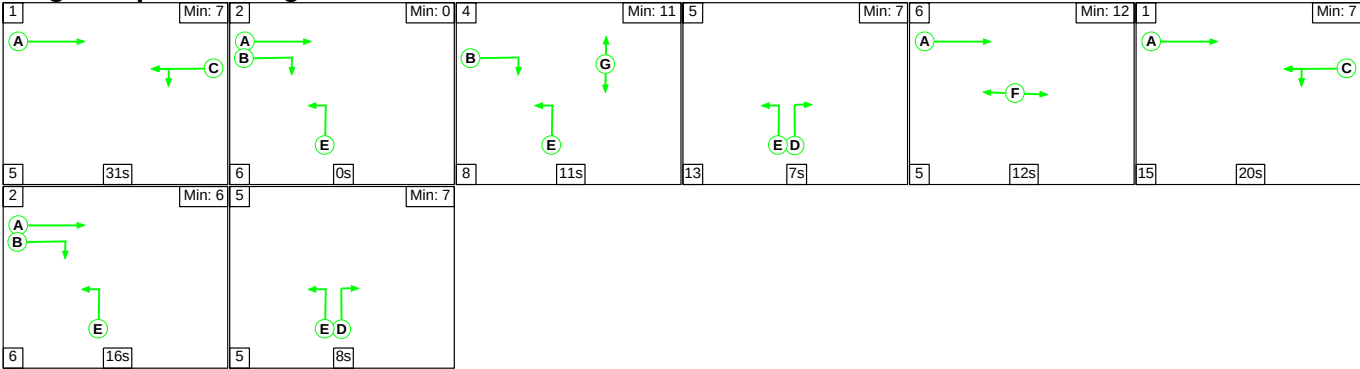
Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	15.00	20.6 %	1901	1901
				Arm 6 Ahead	Inf	79.4 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	13.00	100.0 %	1739	1739
2/2 (Hutton Road)	3.25	0.00	N	Arm 4 Right	21.00	100.0 %	1941	1941
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	21.00	100.0 %	1811	1811
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940
6/2 (Shenfield Road (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '2022 Base AM Peak' (FG1: '2022 Base AM Peak', Plan 1: 'Network Control Plan 1')

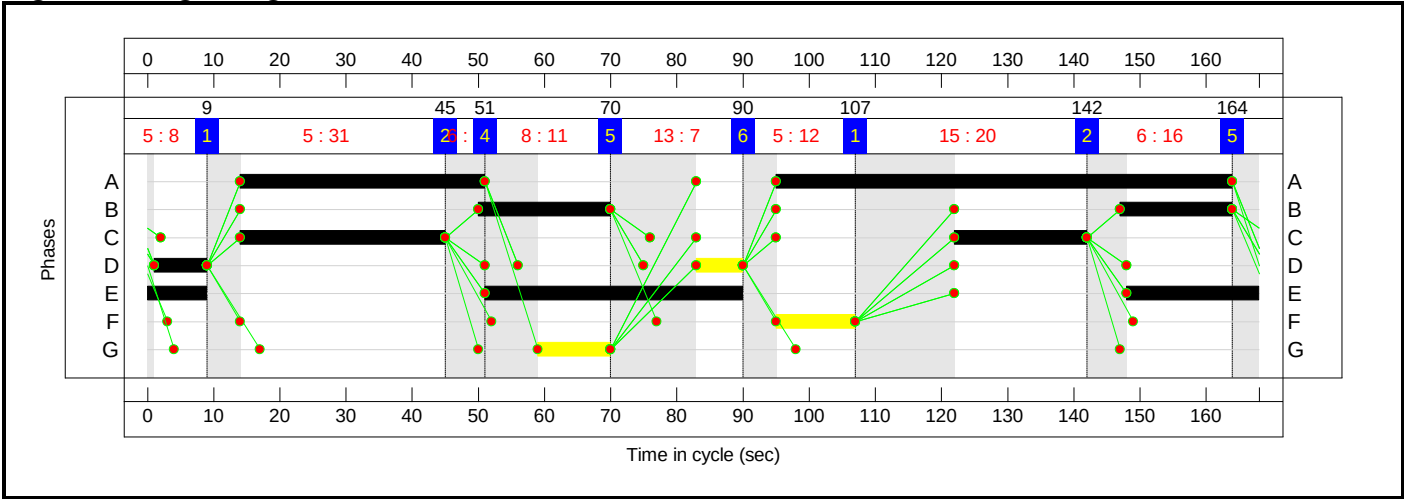
Stage Sequence Diagram



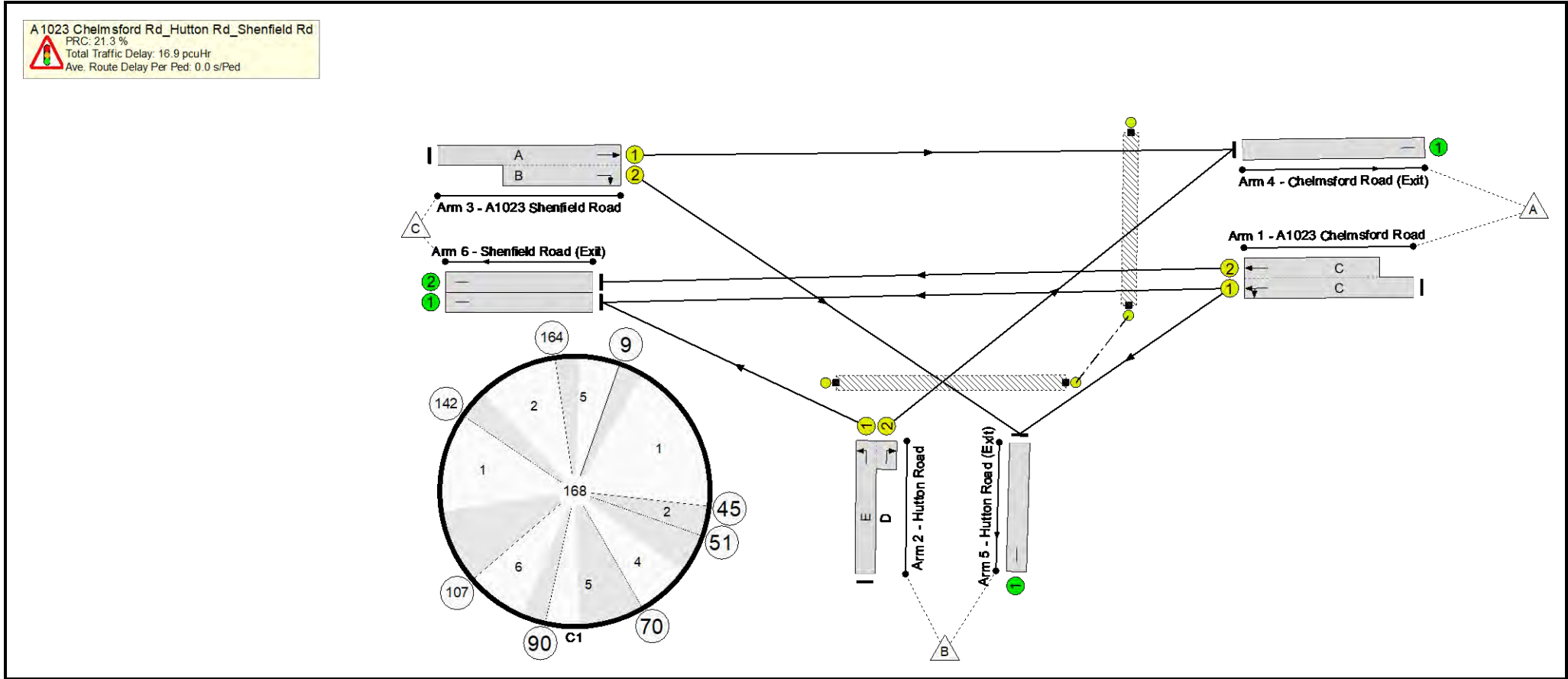
Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	31	0	11	7	12	20	16	8
Change Point	9	45	51	70	90	107	142	164

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	51	-	763	1885:2080	439+589	74.2 : 74.2%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	68:15	-	329	1739:1941	329+115	74.2 : 74.2%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	106:37	-	972	1940:1811	917+394	74.2 : 74.2%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	765	1940	1940	39.4%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	387	1940	1940	19.9%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	475	1940	1940	24.5%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

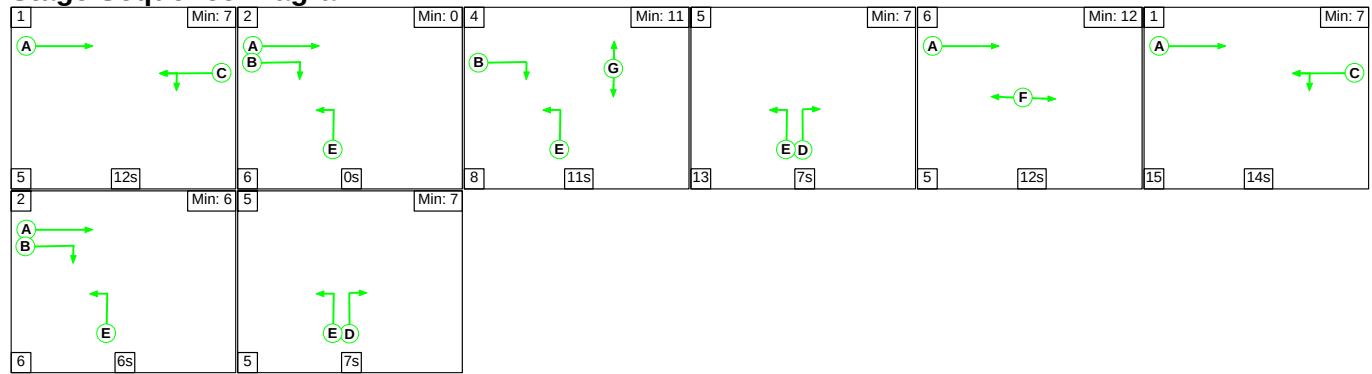
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	12.1	4.9	0.0	16.9	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	12.1	4.9	0.0	16.9	-	-	-	-
1/1+1/2	763	763	-	-	-	5.7	1.4	-	7.1	33.7	11.7	1.4	13.1
2/1+2/2	329	329	-	-	-	2.0	1.4	-	3.4	37.3	5.4	1.4	6.8
3/1+3/2	972	972	-	-	-	4.4	1.4	-	5.8	21.4	15.4	1.4	16.9
4/1	765	765	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	387	387	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	475	475	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/2	437	437	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 21.3 Total Delay for Signalled Lanes (pcuHr): 16.33 Cycle Time (s): 168 PRC Over All Lanes (%): 21.3 Total Delay Over All Lanes(pcuHr): 16.94													

Full Input Data And Results

Scenario 2: '2022 Base PM Peak' (FG2: '2022 Base PM Peak', Plan 1: 'Network Control Plan 1')

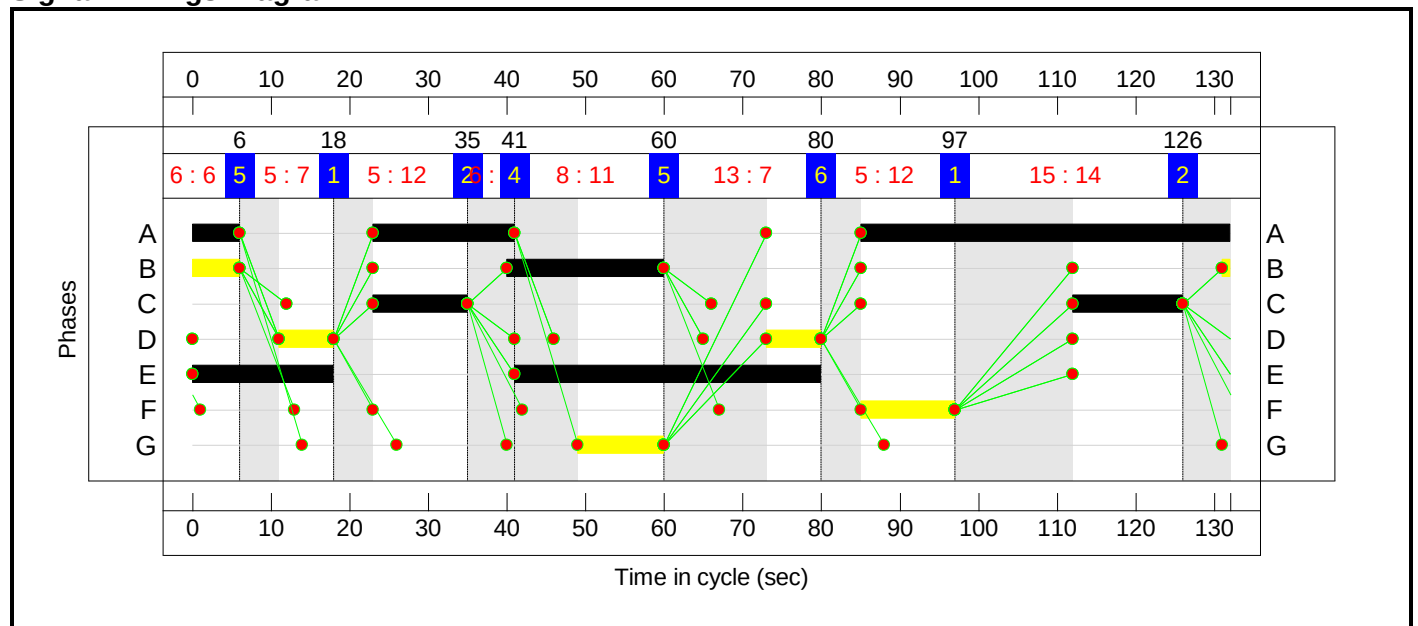
Stage Sequence Diagram



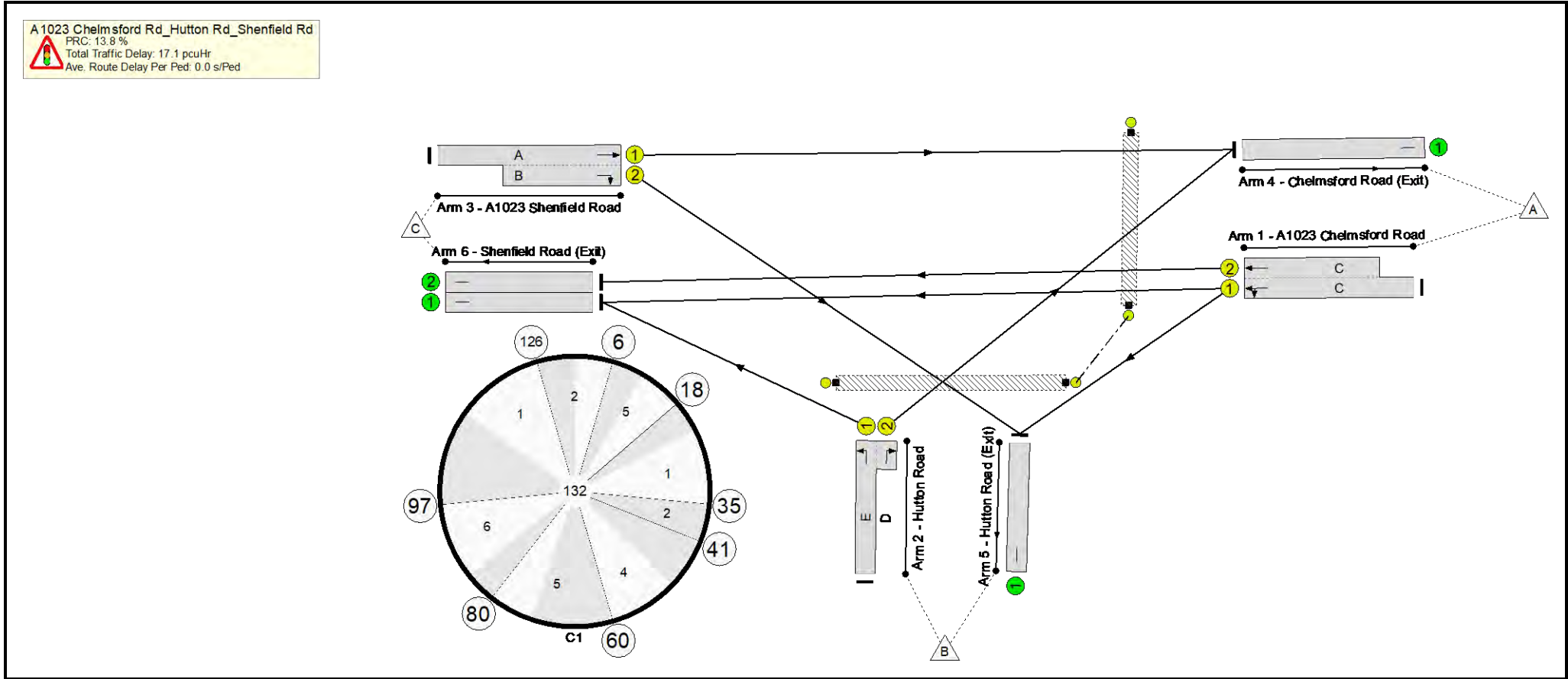
Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	12	0	11	7	12	14	6	7
Change Point	18	35	41	60	80	97	126	6

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	79.1%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	79.1%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	26	-	654	1901:2080	403+441	75.6 : 79.1%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	57:14	-	386	1739:1941	462+129	65.3 : 65.3%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	71:27	-	965	1940:1811	906+357	76.4 : 76.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	776	1940	1940	40.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	336	1940	1940	17.3%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	544	1940	1940	28.0%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

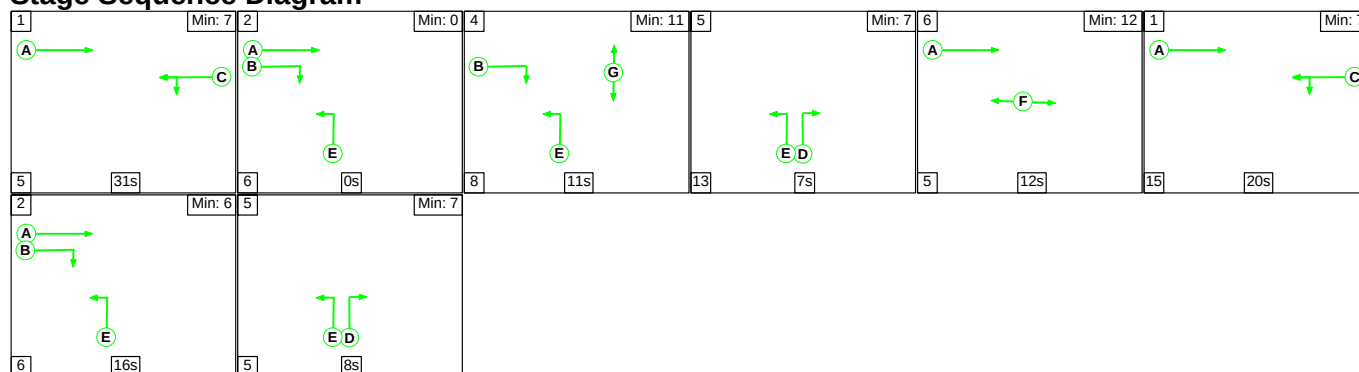
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	12.3	4.9	0.0	17.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	12.3	4.9	0.0	17.1	-	-	-	-
1/1+1/2	654	654	-	-	-	5.4	1.7	-	7.1	39.2	8.8	1.7	10.5
2/1+2/2	386	386	-	-	-	1.8	0.9	-	2.8	25.7	6.2	0.9	7.1
3/1+3/2	965	965	-	-	-	5.0	1.6	-	6.6	24.7	15.9	1.6	17.5
4/1	776	776	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	544	544	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 13.8 Total Delay for Signalled Lanes (pcuHr): 16.50 Cycle Time (s): 132 PRC Over All Lanes (%): 13.8 Total Delay Over All Lanes(pcuHr): 17.13													

Full Input Data And Results

Scenario 3: '2028 Base AM Peak' (FG3: '2028 Base AM Peak', Plan 1: 'Network Control Plan 1')

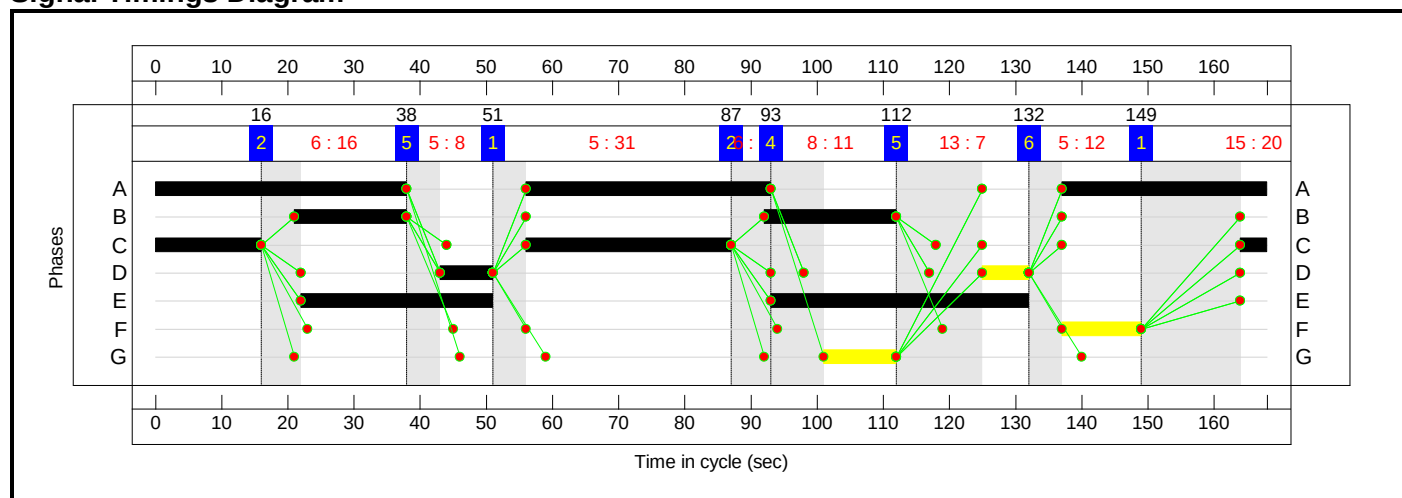
Stage Sequence Diagram



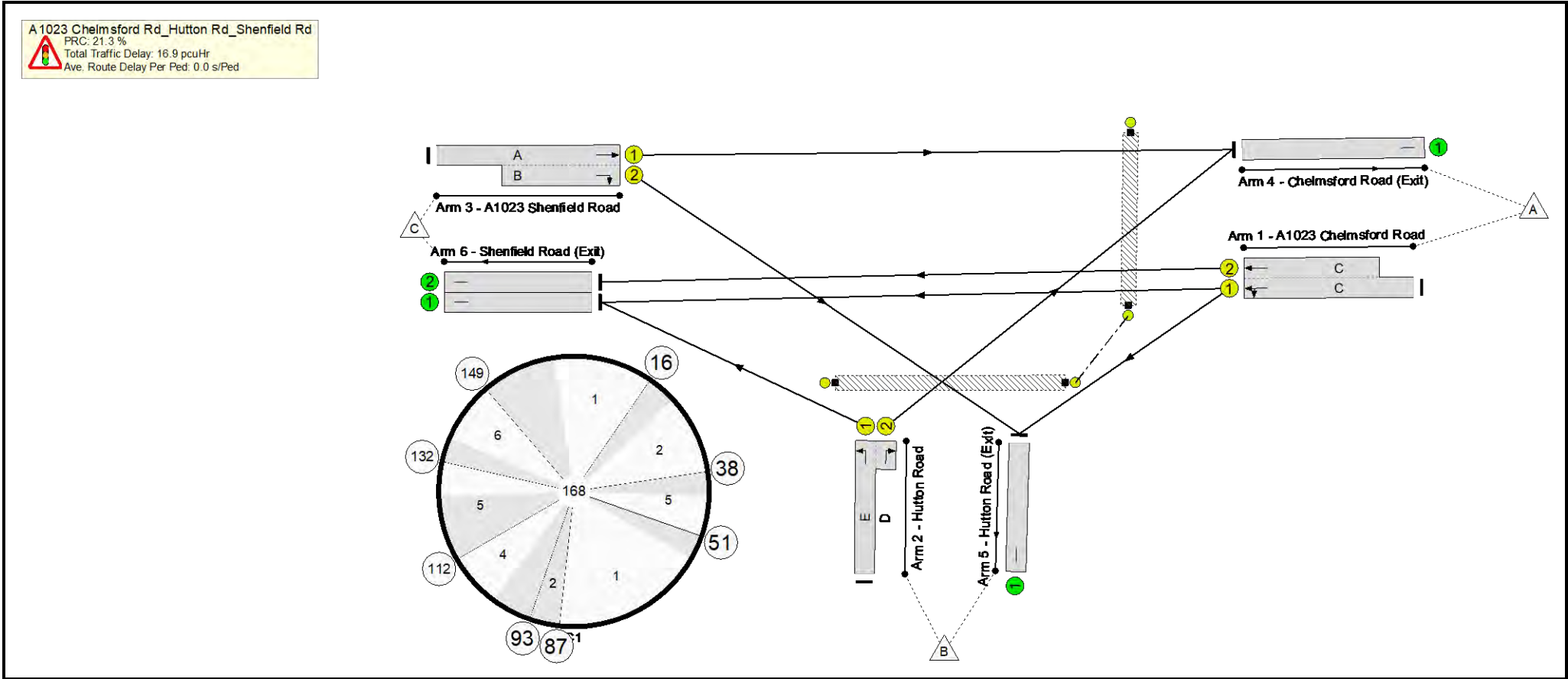
Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	31	0	11	7	12	20	16	8
Change Point	51	87	93	112	132	149	16	38

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	51	-	763	1885:2080	439+589	74.2 : 74.2%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	68:15	-	329	1739:1941	329+115	74.2 : 74.2%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	106:37	-	972	1940:1811	917+394	74.2 : 74.2%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	765	1940	1940	39.4%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	387	1940	1940	19.9%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	475	1940	1940	24.5%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

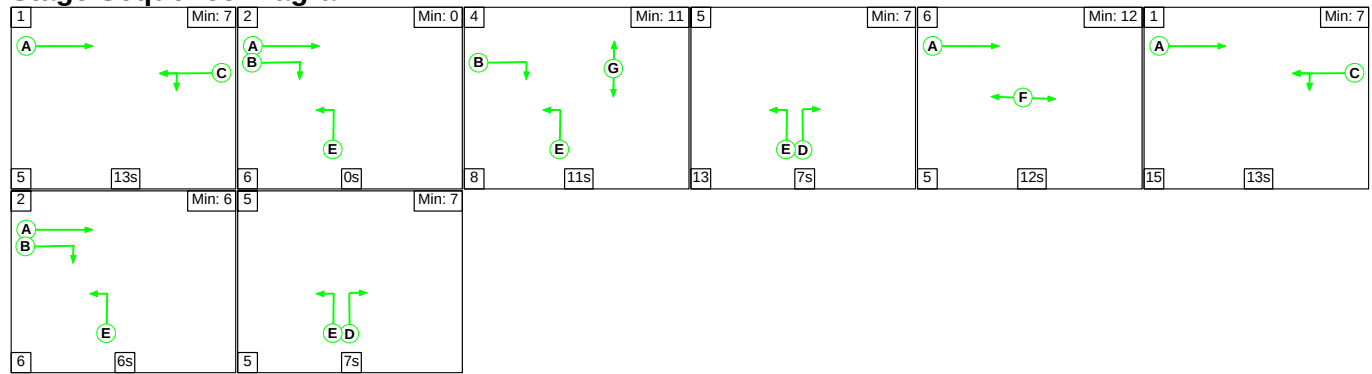
Full Input Data And Results

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Full Input Data And Results

Scenario 4: '2028 Base PM Peak' (FG4: '2028 Base PM Peak', Plan 1: 'Network Control Plan 1')

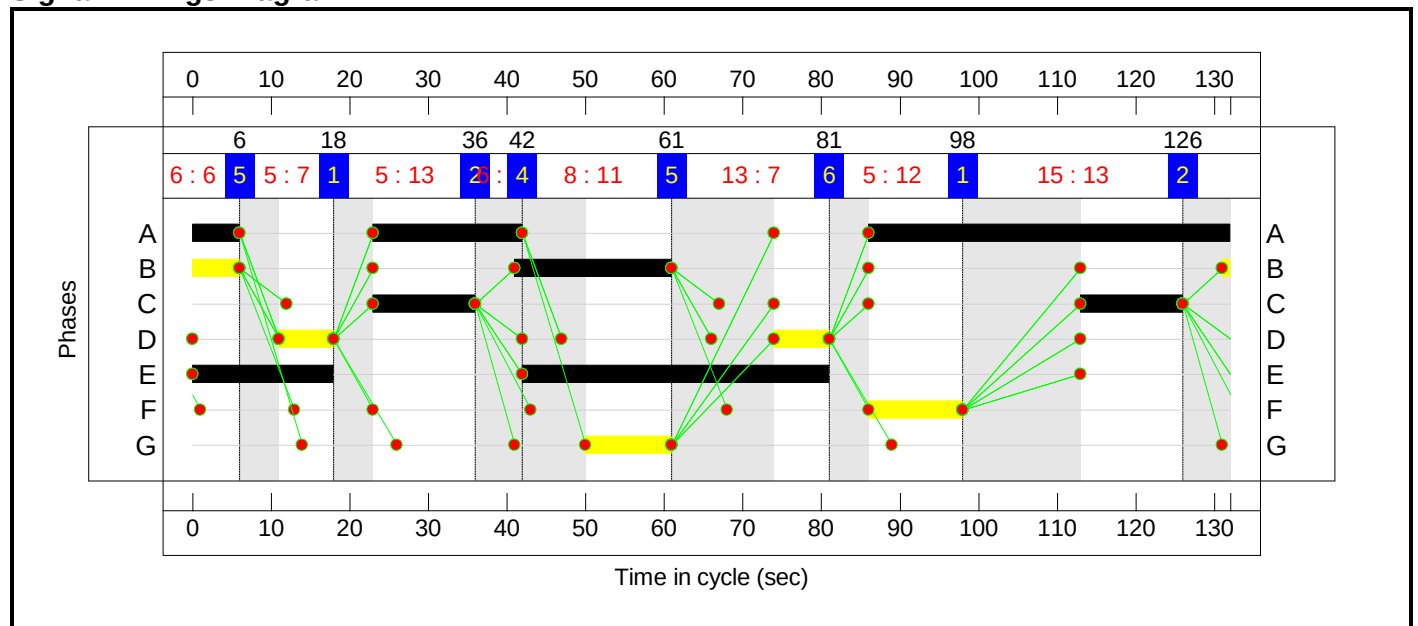
Stage Sequence Diagram



Stage Timings

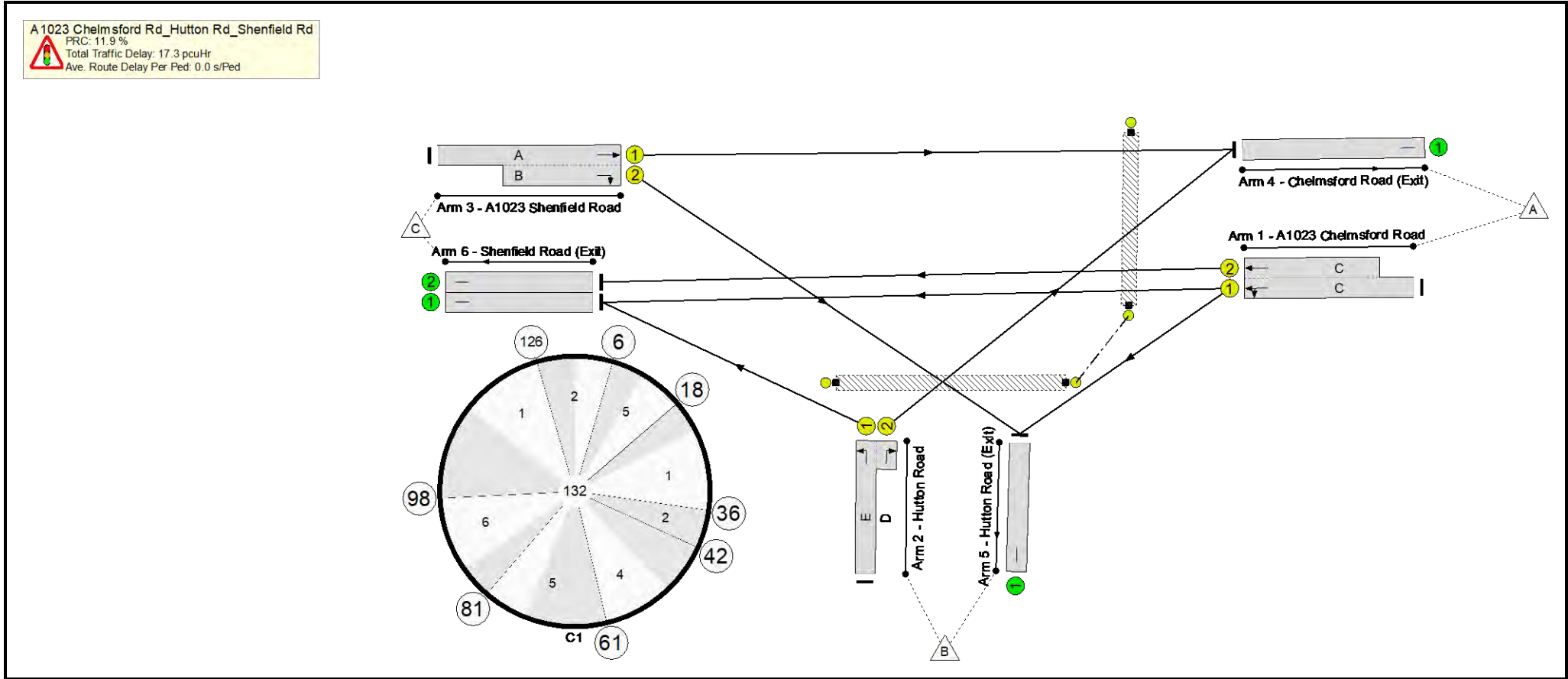
Stage	1	2	4	5	6	1	2	5
Duration	13	0	11	7	12	13	6	7
Change Point	18	36	42	61	81	98	126	6

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	80.5%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	80.5%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	26	-	654	1900:2080	403+441	74.2 : 80.5%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	57:14	-	386	1739:1941	462+129	65.3 : 65.3%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	71:27	-	965	1940:1811	906+357	76.4 : 76.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	776	1940	1940	40.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	336	1940	1940	17.3%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	538	1940	1940	27.7%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

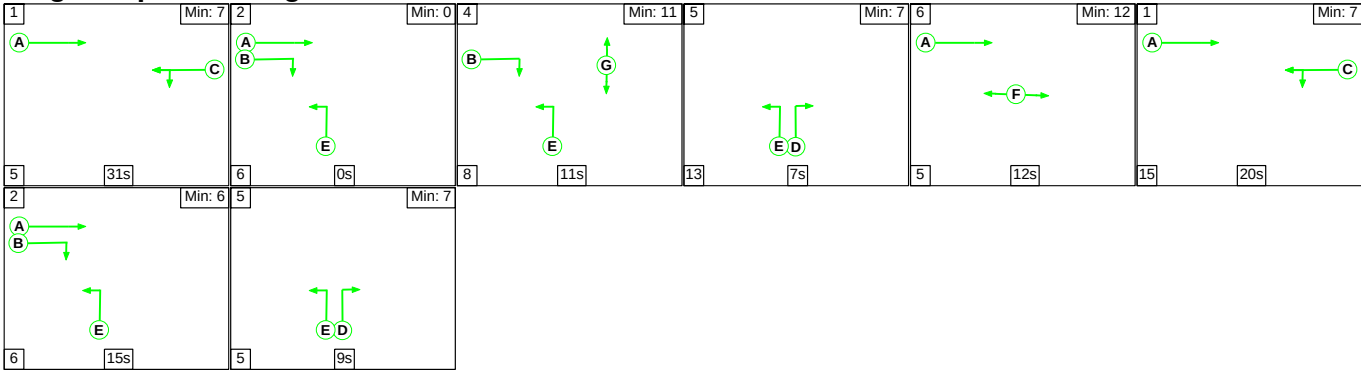
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	12.4	4.9	0.0	17.3	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	12.4	4.9	0.0	17.3	-	-	-	-
1/1+1/2	654	654	-	-	-	5.6	1.7	-	7.3	40.3	8.9	1.7	10.6
2/1+2/2	386	386	-	-	-	1.8	0.9	-	2.7	25.5	6.1	0.9	7.0
3/1+3/2	965	965	-	-	-	5.0	1.6	-	6.6	24.6	15.9	1.6	17.5
4/1	776	776	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	538	538	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 11.9 Total Delay for Signalled Lanes (pcuHr): 16.63 Cycle Time (s): 132 PRC Over All Lanes (%): 11.9 Total Delay Over All Lanes(pcuHr): 17.26													

Full Input Data And Results

Scenario 5: '2028 Base + Committed AM Peak' (FG5: '2028 Base + Committed AM Peak', Plan 1: 'Network Control Plan 1')

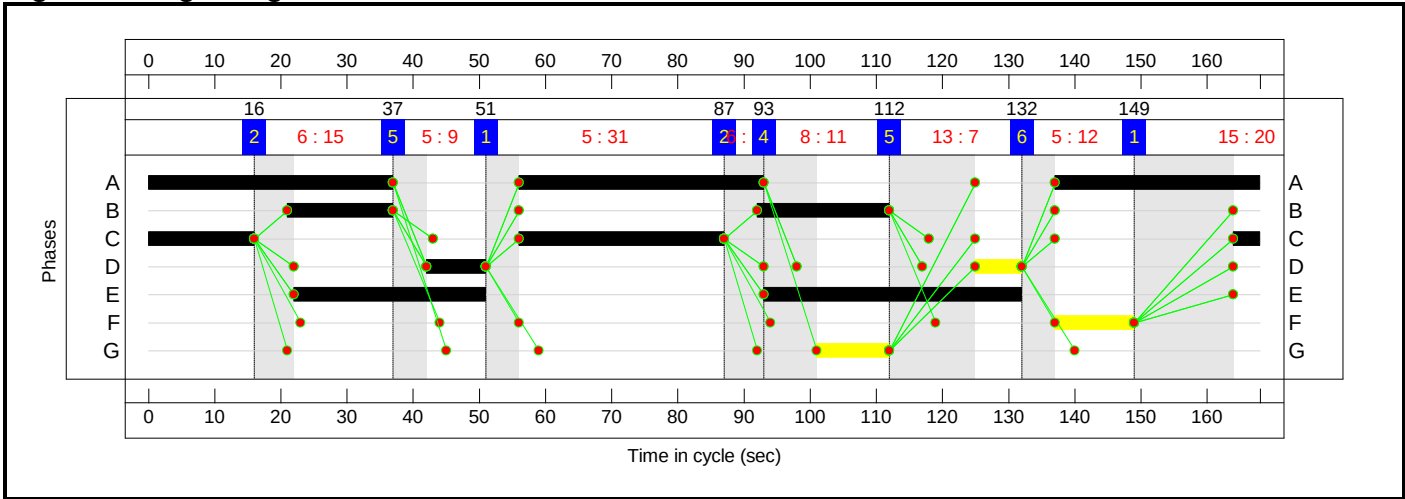
Stage Sequence Diagram



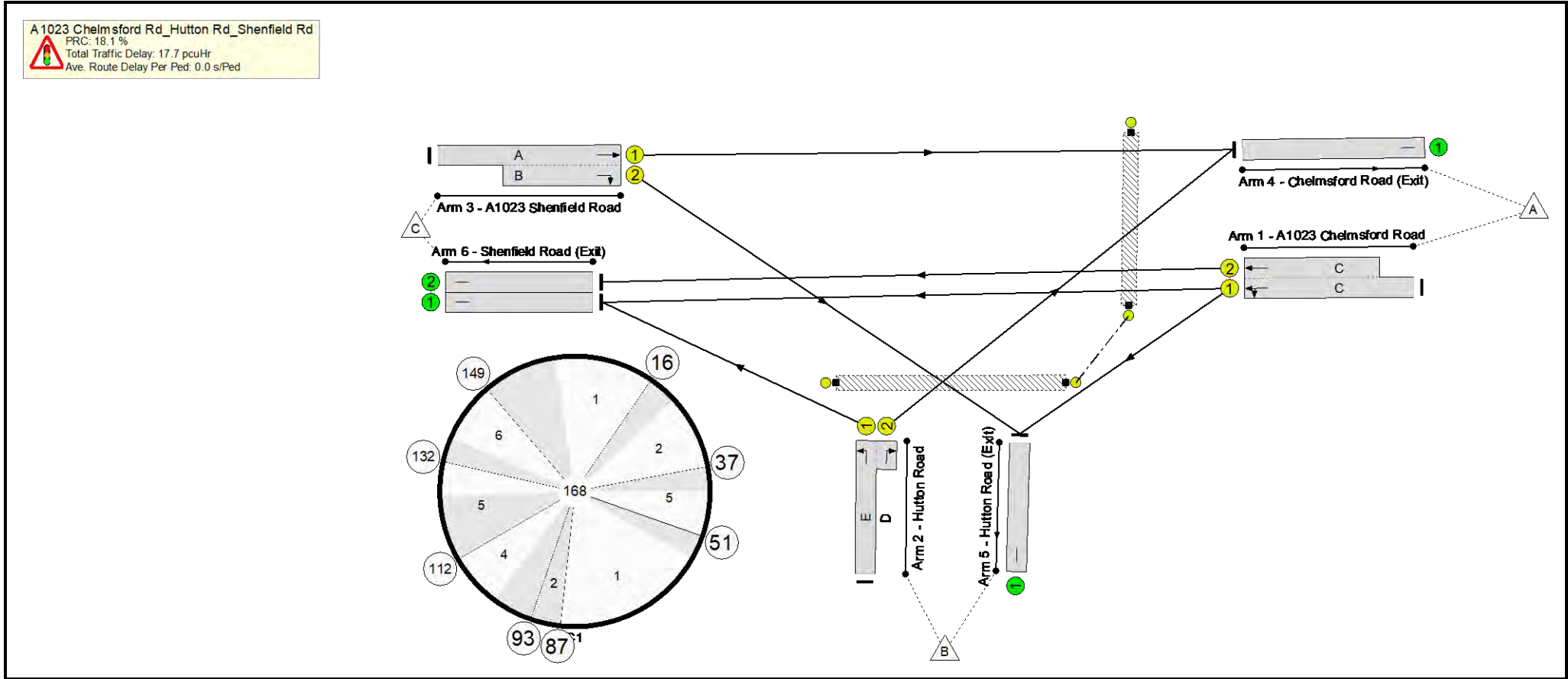
Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	31	0	11	7	12	20	15	9
Change Point	51	87	93	112	132	149	16	37

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

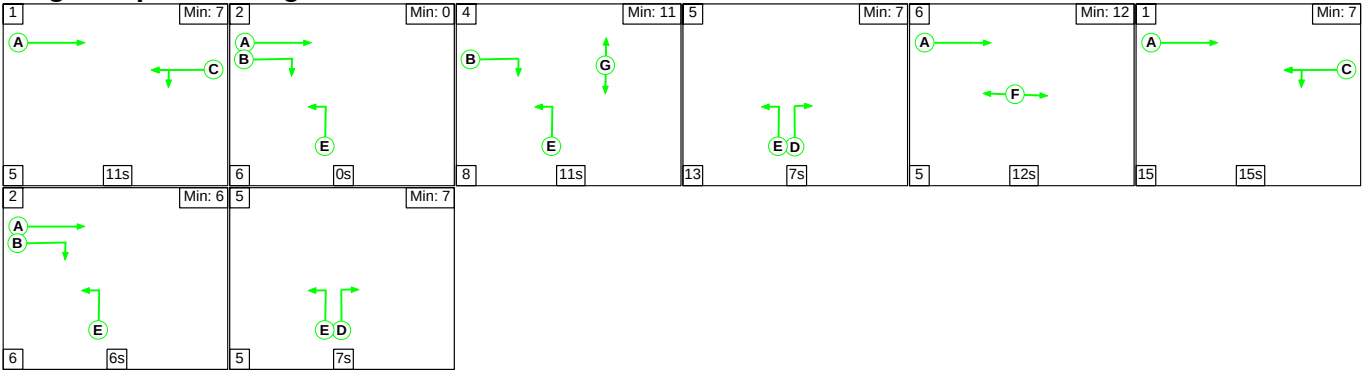
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	76.2%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	76.2%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	51	-	794	1886:2080	454+588	76.2 : 76.2%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	68:16	-	332	1739:1941	327+118	74.5 : 74.5%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	105:36	-	989	1940:1811	919+385	75.8 : 75.8%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	785	1940	1940	40.5%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	392	1940	1940	20.2%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	490	1940	1940	25.3%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	12.5	5.2	0.0	17.7	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	12.5	5.2	0.0	17.7	-	-	-	-
1/1+1/2	794	794	-	-	-	6.0	1.6	-	7.6	34.4	12.2	1.6	13.8
2/1+2/2	332	332	-	-	-	2.0	1.4	-	3.5	37.4	5.4	1.4	6.8
3/1+3/2	989	989	-	-	-	4.5	1.6	-	6.1	22.0	16.4	1.6	18.0
4/1	785	785	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	392	392	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	490	490	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/2	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 18.1 Total Delay for Signalled Lanes (pcuHr): 17.11 Cycle Time (s): 168 PRC Over All Lanes (%): 18.1 Total Delay Over All Lanes(pcuHr): 17.74													

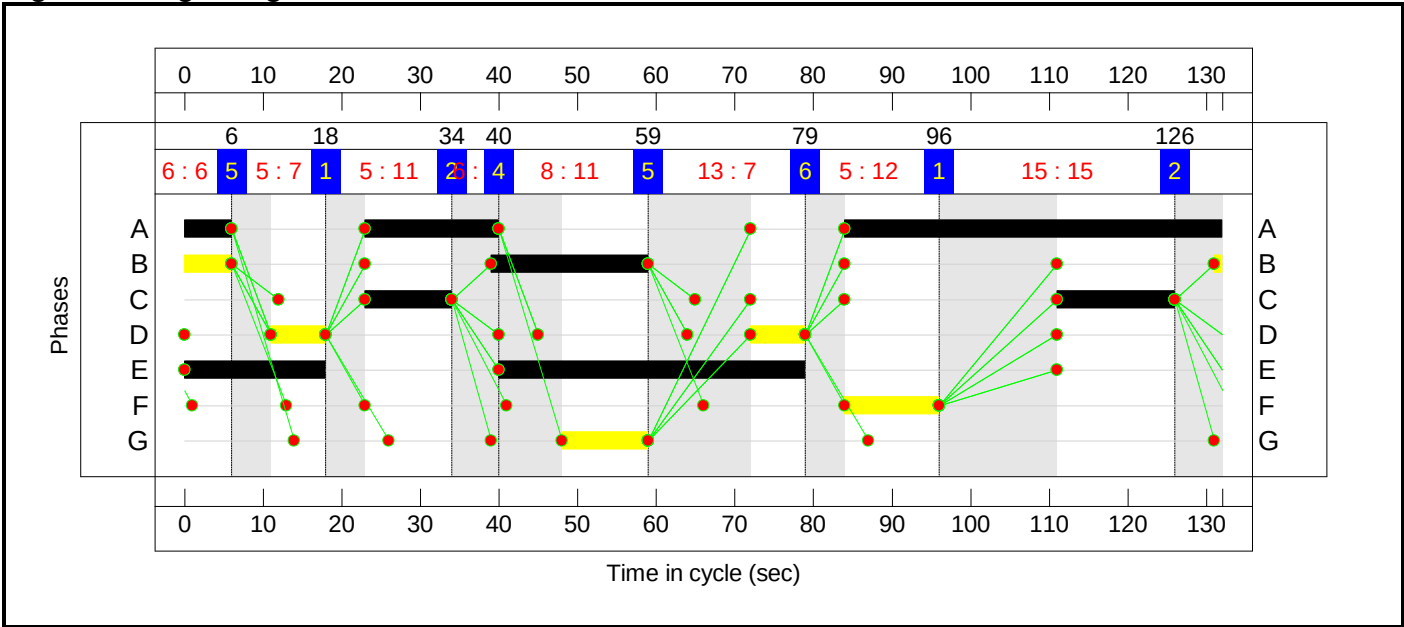
Stage Sequence Diagram



Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	11	0	11	7	12	15	6	7
Change Point	18	34	40	59	79	96	126	6

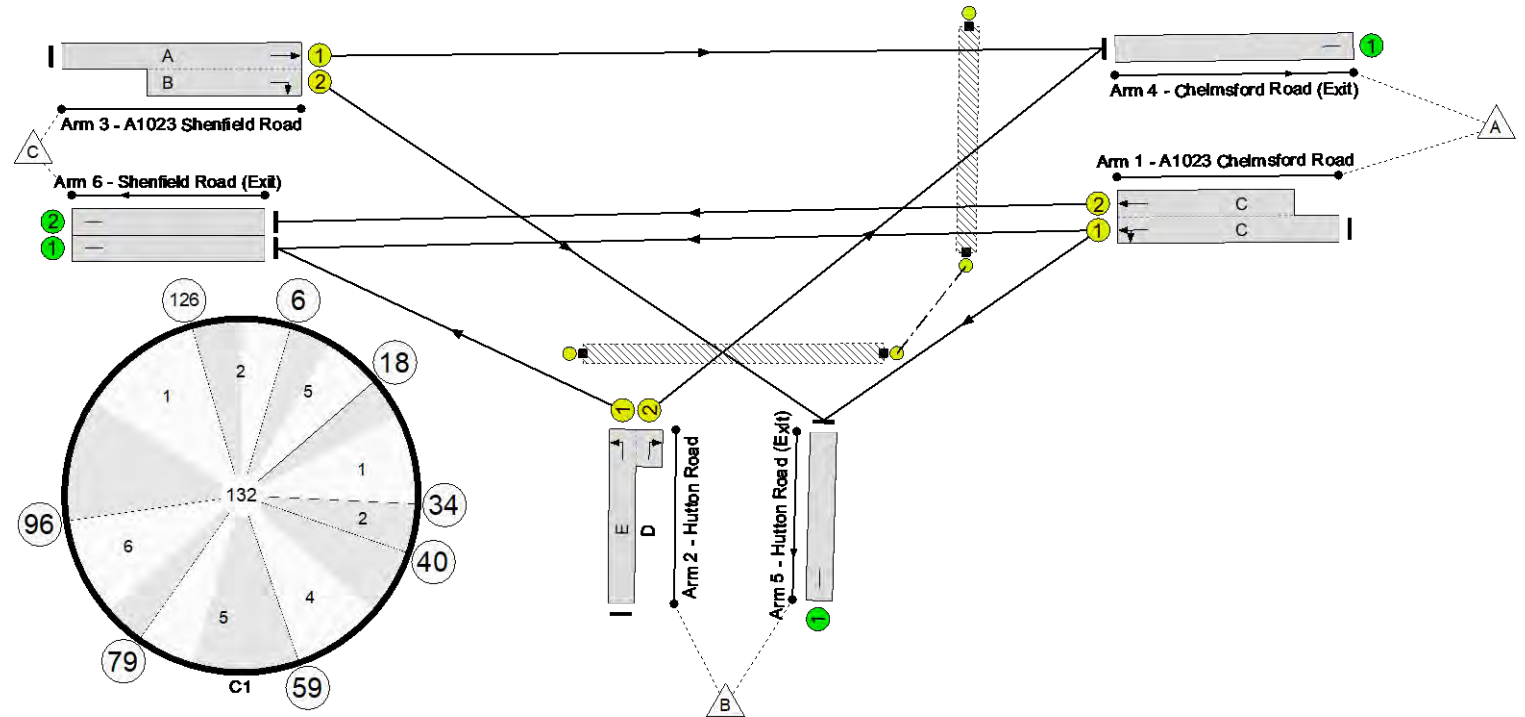
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A 1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
PRC: 10.3 %
Total Traffic Delay: 18.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	26	-	673	1900:2080	403+441	77.7 : 81.6%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	57:14	-	391	1739:1941	448+132	67.4 : 67.4%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	71:27	-	992	1940:1811	911+346	78.9 : 78.9%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	808	1940	1940	41.6%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	339	1940	1940	17.5%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	549	1940	1940	28.3%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

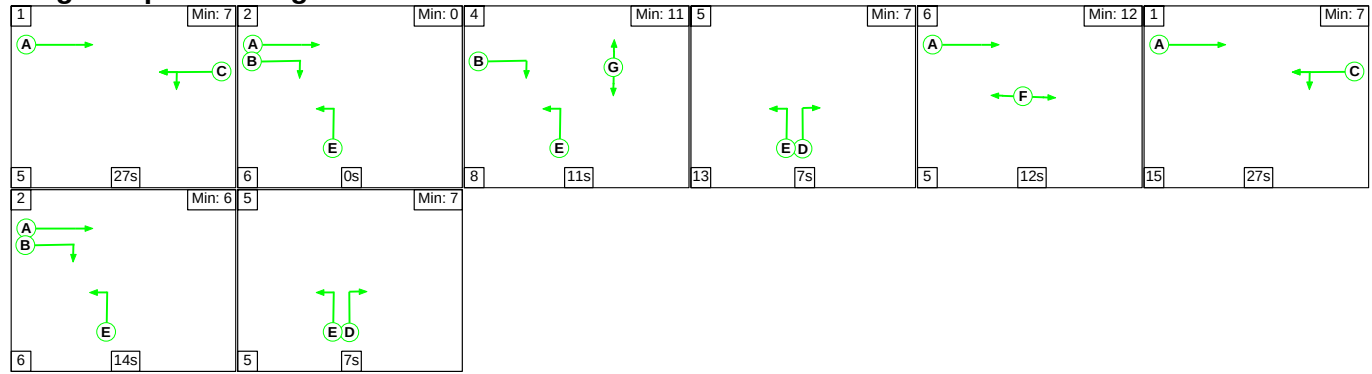
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	12.7	5.5	0.0	18.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	12.7	5.5	0.0	18.1	-	-	-	-
1/1+1/2	673	673	-	-	-	5.6	1.9	-	7.5	40.2	9.1	1.9	11.0
2/1+2/2	391	391	-	-	-	1.9	1.0	-	2.9	26.8	6.3	1.0	7.4
3/1+3/2	992	992	-	-	-	5.2	1.8	-	7.1	25.6	17.4	1.8	19.2
4/1	808	808	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
5/1	339	339	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	549	549	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 10.3 Total Delay for Signalled Lanes (pcuHr): 17.49 Cycle Time (s): 132 PRC Over All Lanes (%): 10.3 Total Delay Over All Lanes(pcuHr): 18.15													

Full Input Data And Results

Scenario 7: '2028 Base + Development AM Peak' (FG7: '2028 Base + Development AM Peak', Plan 1: 'Network Control Plan 1')

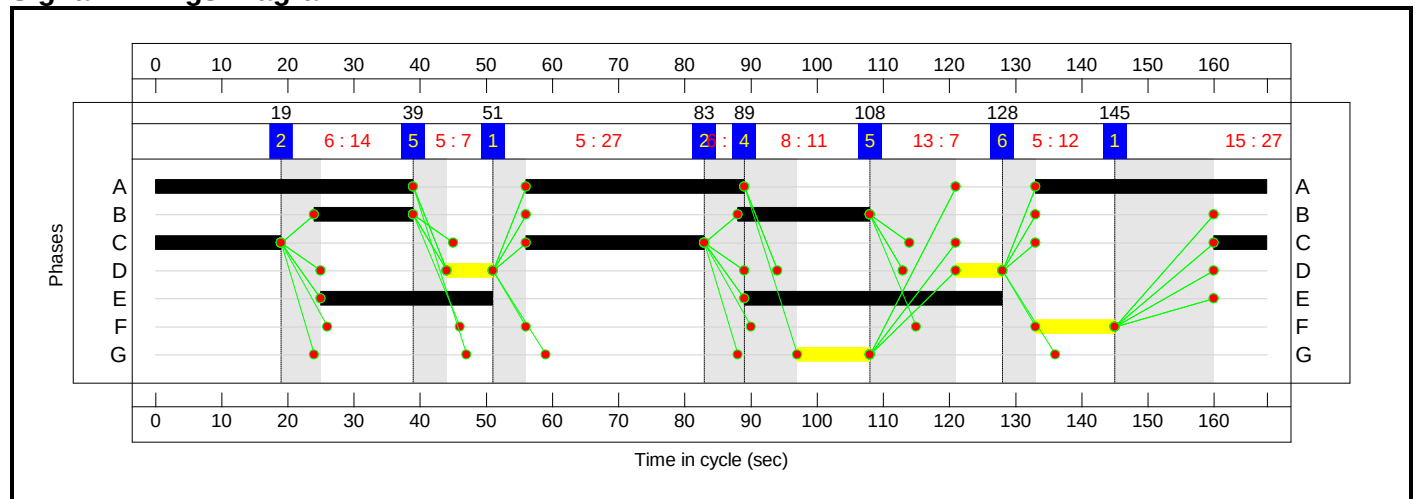
Stage Sequence Diagram



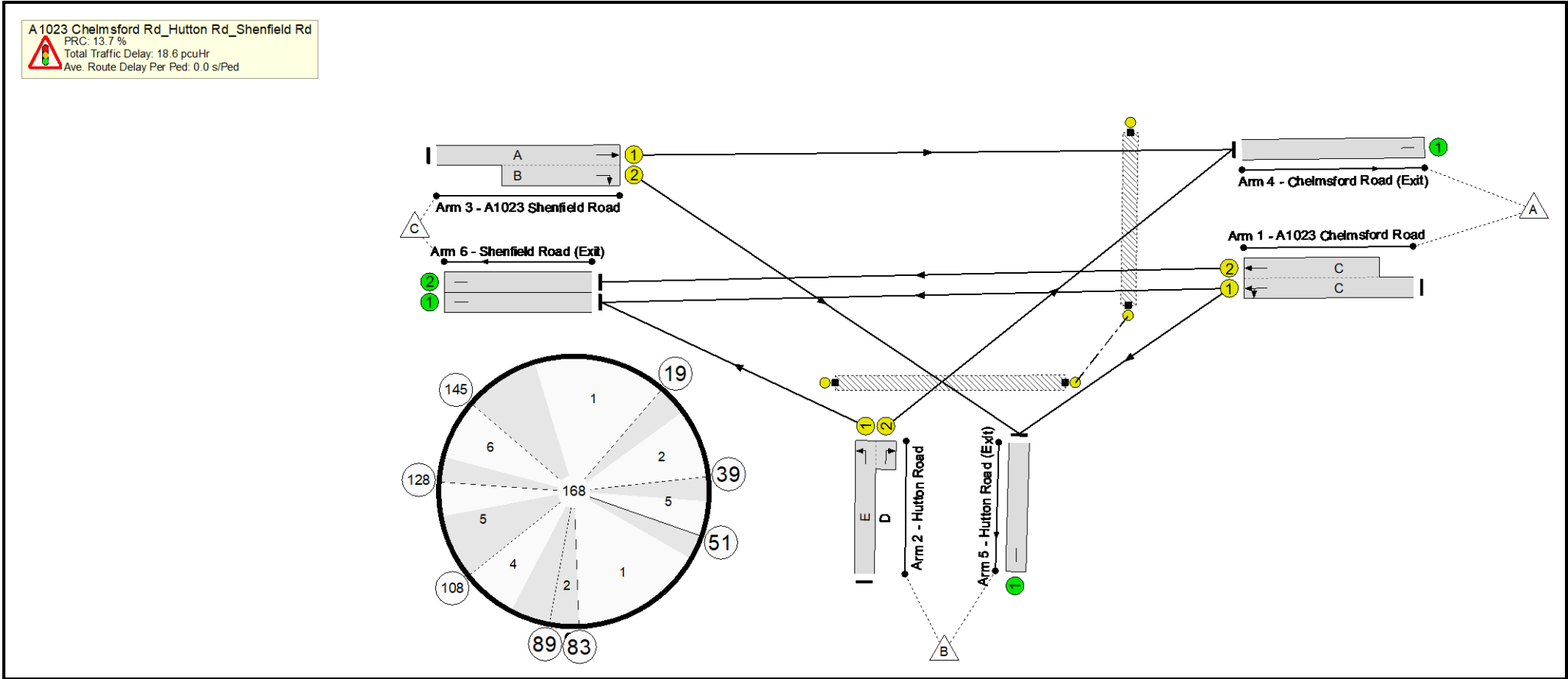
Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	27	0	11	7	12	27	14	7
Change Point	51	83	89	108	128	145	19	39

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	79.2%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	79.2%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	54	-	805	1884:2080	402+615	79.2 : 79.2%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	65:14	-	329	1739:1941	321+112	76.0 : 76.0%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	107:35	-	998	1940:1811	904+374	78.1 : 78.1%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	791	1940	1940	40.8%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	387	1940	1940	19.9%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	467	1940	1940	24.1%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	487	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

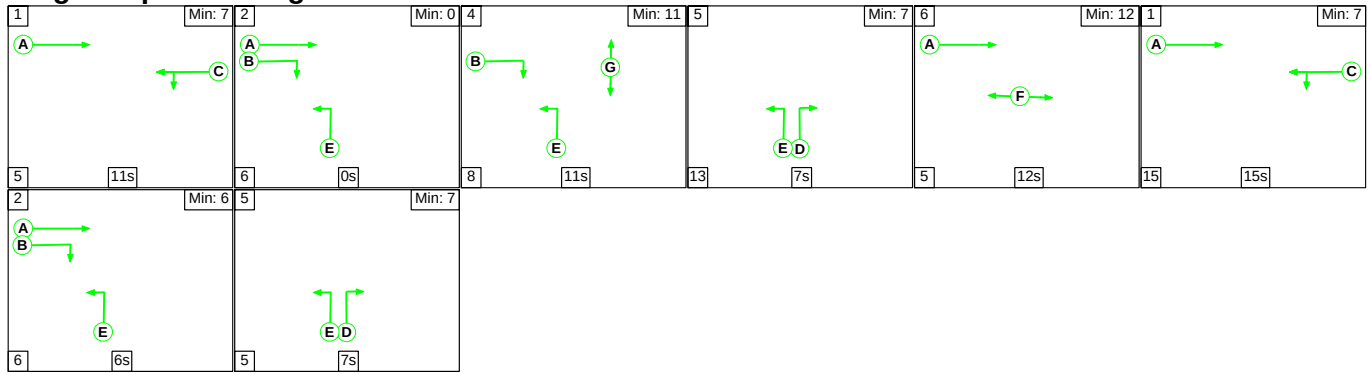
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 8: '2028 Base + Development PM Peak' (FG8: '2028 Base + Development PM Peak', Plan 1: 'Network Control Plan 1')

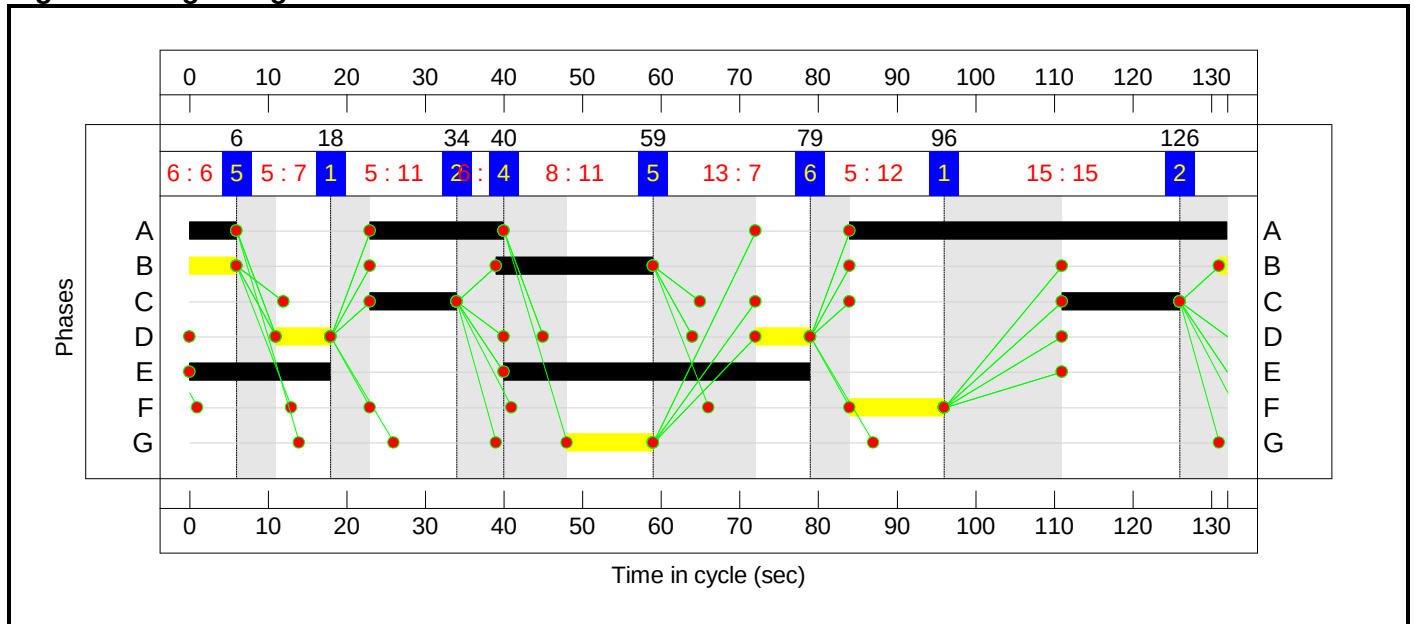
Stage Sequence Diagram



Stage Timings

Stage	1	2	4	5	6	1	2	5
Duration	11	0	11	7	12	15	6	7
Change Point	18	34	40	59	79	96	126	6

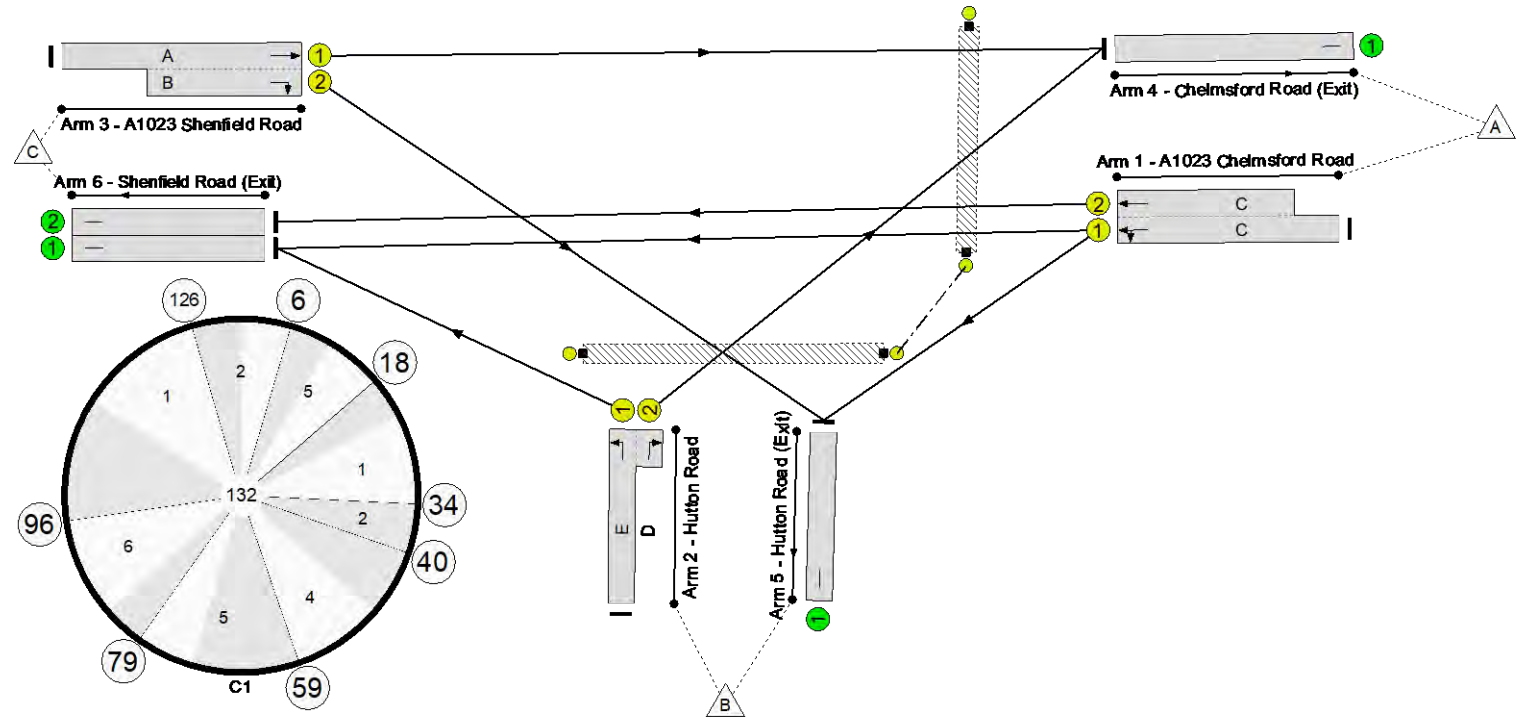
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A 1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
PRC: 10.9 %
Total Traffic Delay: 17.9 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	81.1%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	81.1%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	26	-	669	1901:2080	403+441	77.1 : 81.1%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	57:14	-	386	1739:1941	462+129	65.3 : 65.3%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	71:27	-	992	1940:1811	911+346	78.9 : 78.9%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	803	1940	1940	41.4%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	336	1940	1940	17.3%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	550	1940	1940	28.4%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

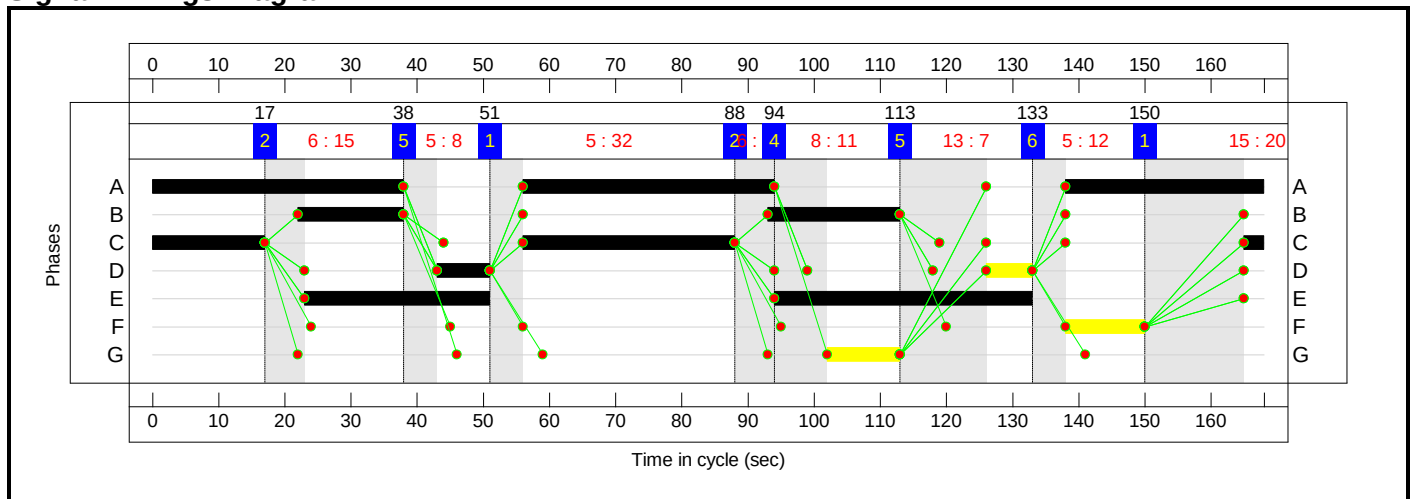
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	12.6	5.3	0.0	17.9	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	12.6	5.3	0.0	17.9	-	-	-	-
1/1+1/2	669	669	-	-	-	5.6	1.9	-	7.4	39.9	9.0	1.9	10.9
2/1+2/2	386	386	-	-	-	1.9	0.9	-	2.8	26.0	6.3	0.9	7.2
3/1+3/2	992	992	-	-	-	5.2	1.8	-	7.1	25.6	17.4	1.8	19.2
4/1	803	803	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
5/1	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	550	550	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1	PRC for Signalled Lanes (%): PRC Over All Lanes (%):		10.9 10.9		Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			17.26 17.92	Cycle Time (s): 132				

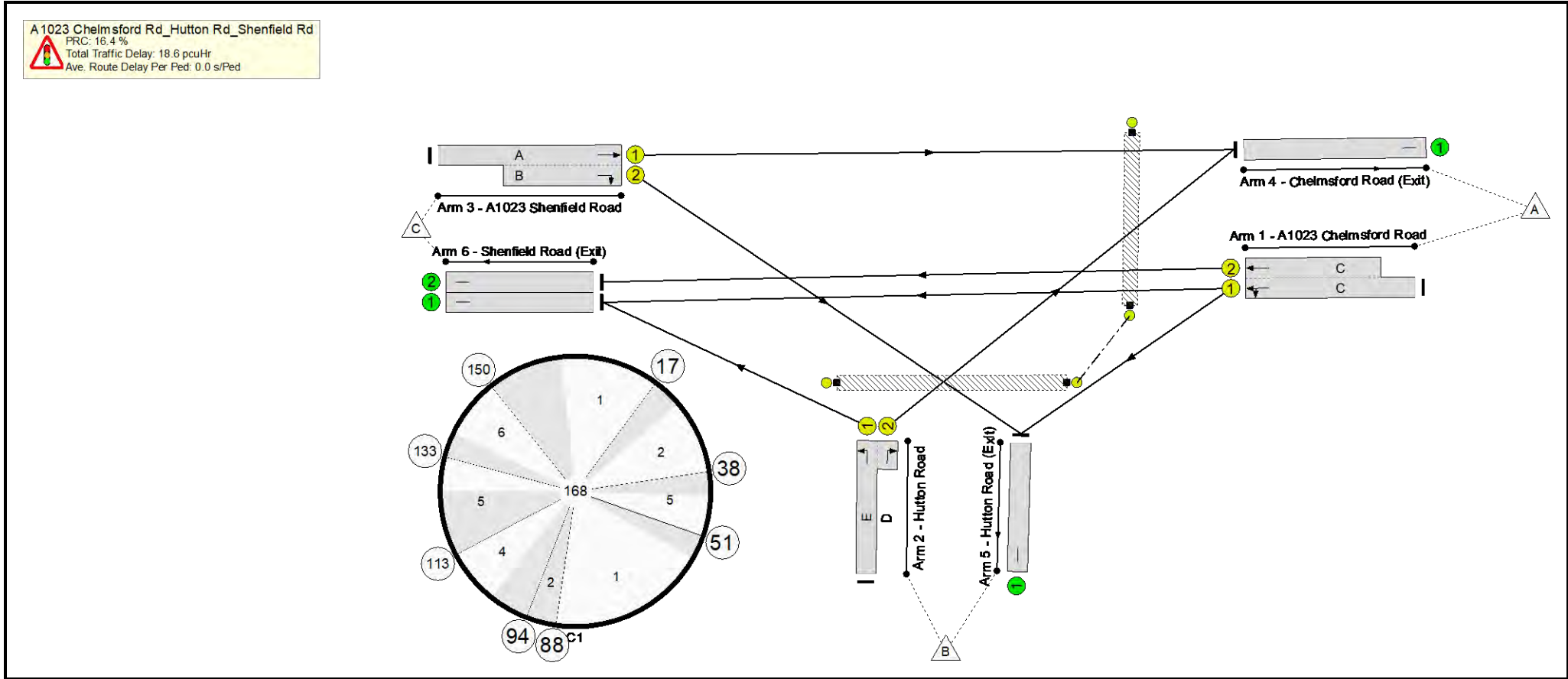
Stage Sequence Diagram



Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	77.3%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	77.3%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	52	-	836	1890:2080	489+592	77.3 : 77.3%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	67:15	-	332	1739:1941	320+115	76.4 : 76.4%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	106:36	-	1014	1940:1811	951+385	75.9 : 75.9%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	810	1940	1940	41.8%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	392	1940	1940	20.2%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	522	1940	1940	26.9%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

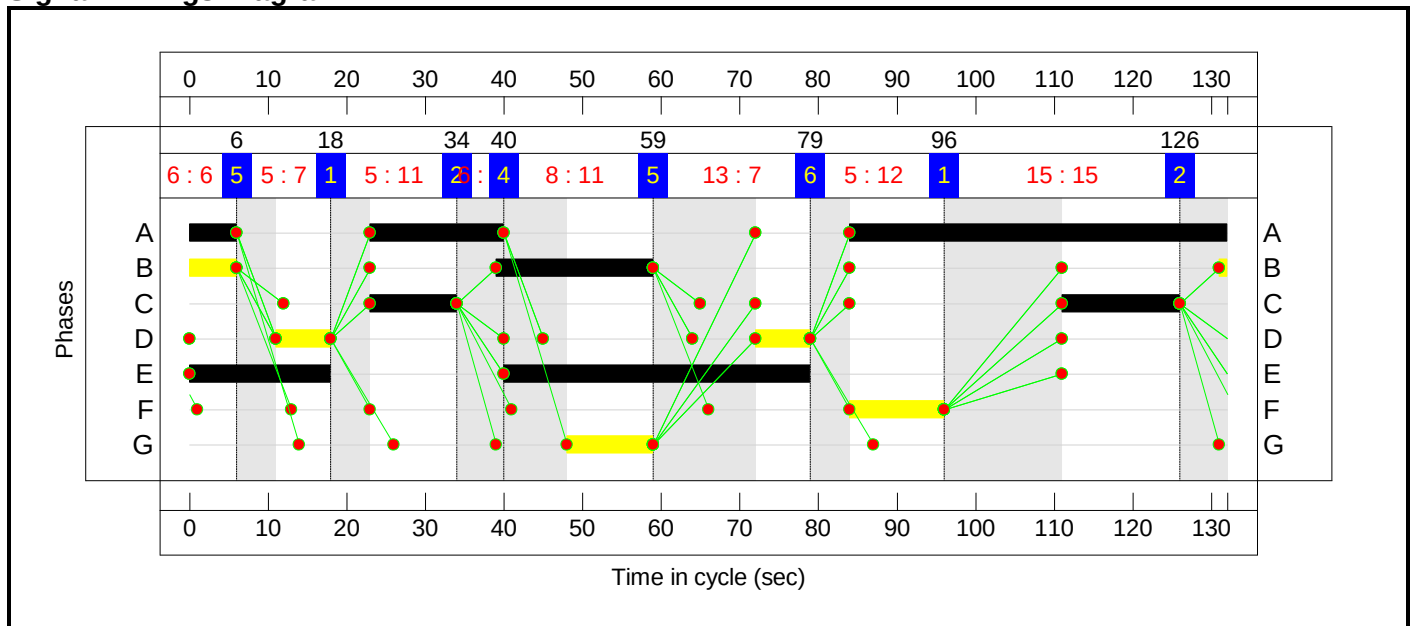
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	13.1	5.5	0.0	18.6	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	13.1	5.5	0.0	18.6	-	-	-	-
1/1+1/2	836	836	-	-	-	6.4	1.7	-	8.1	35.0	12.9	1.7	14.6
2/1+2/2	332	332	-	-	-	2.1	1.6	-	3.6	39.3	5.4	1.6	7.0
3/1+3/2	1014	1014	-	-	-	4.6	1.6	-	6.2	21.9	17.9	1.6	19.4
4/1	810	810	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
5/1	392	392	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	522	522	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/2	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 16.4 Total Delay for Signalled Lanes (pcuHr): 17.91 Cycle Time (s): 168 PRC Over All Lanes (%): 16.4 Total Delay Over All Lanes(pcuHr): 18.58													

Stage Sequence Diagram



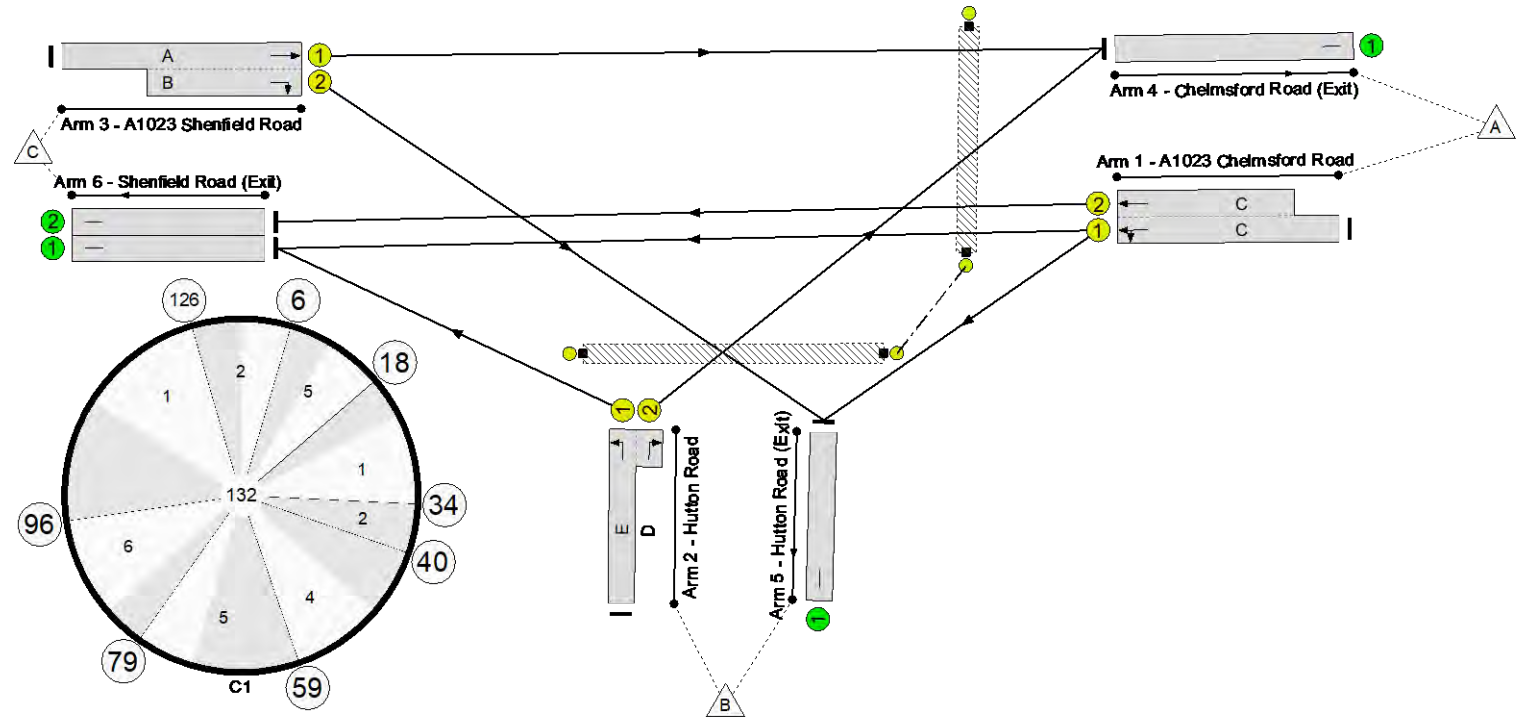
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A 1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
PRC: 7.9 %
Total Traffic Delay: 19.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	83.4%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	83.4%
1/1+1/2	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		2	26	-	688	1901:2080	403+441	79.4 : 83.4%
2/1+2/2	Hutton Road Right Left	U	N/A	N/A	E D		2	57:14	-	391	1739:1941	448+132	67.4 : 67.4%
3/1+3/2	A1023 Shenfield Road Ahead Right	U	N/A	N/A	A B		2	71:27	-	1019	1940:1811	915+335	81.5 : 81.5%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	835	1940	1940	43.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	339	1940	1940	17.5%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	556	1940	1940	28.7%
6/2	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	368	Inf	Inf	0.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

Full Input Data And Results

[illegible]

Junctions 9				
PICADY 9 - Priority Intersection Module				
Version: 9.5.2.1013				
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Filename: Alexander Lane - Long Ridings Avenue V1.j9
Path: X:\Projects\Projects\150000\152080 - Shenfield\MODELLING
Report generation date: 24/08/2023 12:55:26

- »2022 Base, AM
- »2022 Base, PM
- »2028 Base, AM
- »2028 Base, PM
- »2028 Base + Dev, AM
- »2028 Base + Dev, PM
- »2028 Base + Comm, AM
- »2028 Base + Comm, PM
- »2028 Base + Comm + Dev, AM
- »2028 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
Stream B-AC	D1	0.4	11.71	0.30	B	D2	0.2	9.55	0.18	A
Stream C-B		0.1	7.70	0.10	A		0.1	7.56	0.09	A
	2028 Base									
Stream B-AC	D3	0.4	11.71	0.30	B	D4	0.2	9.55	0.18	A
Stream C-B		0.1	7.70	0.10	A		0.1	7.56	0.09	A
	2028 Base + Dev									
Stream B-AC	D5	0.4	12.18	0.31	B	D6	0.2	9.74	0.19	A
Stream C-B		0.1	7.81	0.10	A		0.1	7.59	0.09	A
	2028 Base + Comm									
Stream B-AC	D7	0.4	11.84	0.30	B	D8	0.2	9.66	0.19	A
Stream C-B		0.1	7.73	0.10	A		0.1	7.57	0.09	A
	2028 Base + Comm + Dev									
Stream B-AC	D9	0.5	12.32	0.31	B	D10	0.2	9.84	0.20	A
Stream C-B		0.1	7.84	0.10	A		0.1	7.60	0.09	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/02/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	08:00	09:30	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2028 Base	AM	DIRECT	08:00	09:30	90	15	✓
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2028 Base + Dev	AM	DIRECT	08:00	09:30	90	15	✓
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2028 Base + Comm	AM	DIRECT	08:00	09:30	90	15	✓
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2028 Base + Comm + Dev	AM	DIRECT	08:00	09:30	90	15	✓
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		2.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Alexander Lane (N)		Major
B	Long Ridings Avenue		Minor
C	Alexander Lane (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Alexander Lane (S)	6.15			108.8		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Long Ridings Avenue	One lane	4.28	32	52

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	579	0.105	0.265	0.167	0.379
B-C	741	0.113	0.285	-	-
C-B	637	0.245	0.245	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	92	292
	B - Long Ridings Avenue	127	0	2
	C - Alexander Lane (S)	195	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	11.71	0.4	B	129	194
C-A					195	293
C-B	0.10	7.70	0.1	A	53	80
A-B					92	138
A-C					292	438

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	437	0.296	127	0.0	0.4	11.584	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.0	0.1	7.689	A
A-B	92	23			92				
A-C	292	73			292				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.709	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		1.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	99	214
	B - Long Ridings Avenue	81	0	2
	C - Alexander Lane (S)	191	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.18	9.55	0.2	A	83	124
C-A					191	287
C-B	0.09	7.56	0.1	A	46	69
A-B					99	149
A-C					214	321

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	82	0.0	0.2	9.501	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.0	0.1	7.543	A
A-B	99	25			99				
A-C	214	54			214				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D3 - 2028 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		2.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2028 Base	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	92	292
	B - Long Ridings Avenue	127	0	2
	C - Alexander Lane (S)	195	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	11.71	0.4	B	129	194
C-A					195	293
C-B	0.10	7.70	0.1	A	53	80
A-B					92	138
A-C					292	438

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	437	0.296	127	0.0	0.4	11.584	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.0	0.1	7.689	A
A-B	92	23			92				
A-C	292	73			292				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.709	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	32	436	0.296	129	0.4	0.4	11.712	B
C-A	195	49			195				
C-B	53	13	520	0.102	53	0.1	0.1	7.702	A
A-B	92	23			92				
A-C	292	73			292				

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D4 - 2028 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		1.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	99	214
	B - Long Ridings Avenue	81	0	2
	C - Alexander Lane (S)	191	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.18	9.55	0.2	A	83	124
C-A					191	287
C-B	0.09	7.56	0.1	A	46	69
A-B					99	149
A-C					214	321

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	82	0.0	0.2	9.501	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.0	0.1	7.543	A
A-B	99	25			99				
A-C	214	54			214				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	460	0.180	83	0.2	0.2	9.547	A
C-A	191	48			191				
C-B	46	12	522	0.088	46	0.1	0.1	7.555	A
A-B	99	25			99				
A-C	214	54			214				

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D5 - 2028 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		2.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2028 Base + Dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	95	317
	B - Long Ridings Avenue	128	0	2
	C - Alexander Lane (S)	218	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.31	12.18	0.4	B	130	195
C-A					218	327
C-B	0.10	7.81	0.1	A	53	80
A-B					95	143
A-C					317	476

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	426	0.305	128	0.0	0.4	12.041	B
C-A	218	55			218				
C-B	53	13	514	0.103	53	0.0	0.1	7.799	A
A-B	95	24			95				
A-C	317	79			317				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	425	0.306	130	0.4	0.4	12.181	B
C-A	218	55			218				
C-B	53	13	514	0.103	53	0.1	0.1	7.815	A
A-B	95	24			95				
A-C	317	79			317				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	425	0.306	130	0.4	0.4	12.183	B
C-A	218	55			218				
C-B	53	13	514	0.103	53	0.1	0.1	7.815	A
A-B	95	24			95				
A-C	317	79			317				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	425	0.306	130	0.4	0.4	12.183	B
C-A	218	55			218				
C-B	53	13	514	0.103	53	0.1	0.1	7.815	A
A-B	95	24			95				
A-C	317	79			317				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	425	0.306	130	0.4	0.4	12.183	B
C-A	218	55			218				
C-B	53	13	514	0.103	53	0.1	0.1	7.815	A
A-B	95	24			95				
A-C	317	79			317				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	425	0.306	130	0.4	0.4	12.183	B
C-A	218	55			218				
C-B	53	13	514	0.103	53	0.1	0.1	7.815	A
A-B	95	24			95				
A-C	317	79			317				

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D6 - 2028 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		1.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	100	223
	B - Long Ridings Avenue	84	0	2
	C - Alexander Lane (S)	204	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	0	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.19	9.74	0.2	A	86	129
C-A					204	306
C-B	0.09	7.59	0.1	A	46	69
A-B					100	150
A-C					223	335

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	456	0.189	85	0.0	0.2	9.686	A
C-A	204	51			204				
C-B	46	12	520	0.088	46	0.0	0.1	7.580	A
A-B	100	25			100				
A-C	223	56			223				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	456	0.189	86	0.2	0.2	9.736	A
C-A	204	51			204				
C-B	46	12	520	0.088	46	0.1	0.1	7.592	A
A-B	100	25			100				
A-C	223	56			223				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	456	0.189	86	0.2	0.2	9.736	A
C-A	204	51			204				
C-B	46	12	520	0.088	46	0.1	0.1	7.592	A
A-B	100	25			100				
A-C	223	56			223				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	456	0.189	86	0.2	0.2	9.736	A
C-A	204	51			204				
C-B	46	12	520	0.088	46	0.1	0.1	7.592	A
A-B	100	25			100				
A-C	223	56			223				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	456	0.189	86	0.2	0.2	9.736	A
C-A	204	51			204				
C-B	46	12	520	0.088	46	0.1	0.1	7.592	A
A-B	100	25			100				
A-C	223	56			223				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	456	0.189	86	0.2	0.2	9.736	A
C-A	204	51			204				
C-B	46	12	520	0.088	46	0.1	0.1	7.592	A
A-B	100	25			100				
A-C	223	56			223				

2028 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D7 - 2028 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		2.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2028 Base + Comm	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	95	295
	B - Long Ridings Avenue	129	0	2
	C - Alexander Lane (S)	197	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	11.84	0.4	B	131	197
C-A					197	296
C-B	0.10	7.73	0.1	A	53	80
A-B					95	143
A-C					295	443

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	131	33	435	0.301	129	0.0	0.4	11.711	B
C-A	197	49			197				
C-B	53	13	519	0.102	53	0.0	0.1	7.712	A
A-B	95	24			95				
A-C	295	74			295				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	131	33	435	0.301	131	0.4	0.4	11.842	B
C-A	197	49			197				
C-B	53	13	519	0.102	53	0.1	0.1	7.726	A
A-B	95	24			95				
A-C	295	74			295				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	131	33	435	0.301	131	0.4	0.4	11.845	B
C-A	197	49			197				
C-B	53	13	519	0.102	53	0.1	0.1	7.726	A
A-B	95	24			95				
A-C	295	74			295				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	131	33	435	0.301	131	0.4	0.4	11.845	B
C-A	197	49			197				
C-B	53	13	519	0.102	53	0.1	0.1	7.726	A
A-B	95	24			95				
A-C	295	74			295				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	131	33	435	0.301	131	0.4	0.4	11.845	B
C-A	197	49			197				
C-B	53	13	519	0.102	53	0.1	0.1	7.726	A
A-B	95	24			95				
A-C	295	74			295				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	131	33	435	0.301	131	0.4	0.4	11.845	B
C-A	197	49			197				
C-B	53	13	519	0.102	53	0.1	0.1	7.726	A
A-B	95	24			95				
A-C	295	74			295				

2028 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D8 - 2028 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		1.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	101	216
	B - Long Ridings Avenue	84	0	2
	C - Alexander Lane (S)	194	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.19	9.66	0.2	A	86	129
C-A					194	291
C-B	0.09	7.57	0.1	A	46	69
A-B					101	152
A-C					216	324

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	459	0.187	85	0.0	0.2	9.606	A
C-A	194	49			194				
C-B	46	12	521	0.088	46	0.0	0.1	7.558	A
A-B	101	25			101				
A-C	216	54			216				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	459	0.187	86	0.2	0.2	9.656	A
C-A	194	49			194				
C-B	46	12	521	0.088	46	0.1	0.1	7.570	A
A-B	101	25			101				
A-C	216	54			216				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	459	0.187	86	0.2	0.2	9.656	A
C-A	194	49			194				
C-B	46	12	521	0.088	46	0.1	0.1	7.570	A
A-B	101	25			101				
A-C	216	54			216				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	459	0.187	86	0.2	0.2	9.656	A
C-A	194	49			194				
C-B	46	12	521	0.088	46	0.1	0.1	7.570	A
A-B	101	25			101				
A-C	216	54			216				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	459	0.187	86	0.2	0.2	9.656	A
C-A	194	49			194				
C-B	46	12	521	0.088	46	0.1	0.1	7.570	A
A-B	101	25			101				
A-C	216	54			216				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	21	459	0.187	86	0.2	0.2	9.656	A
C-A	194	49			194				
C-B	46	12	521	0.088	46	0.1	0.1	7.570	A
A-B	101	25			101				
A-C	216	54			216				

2028 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D9 - 2028 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		2.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2028 Base + Comm + Dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	97	320
	B - Long Ridings Avenue	130	0	2
	C - Alexander Lane (S)	220	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.31	12.32	0.5	B	132	198
C-A					220	330
C-B	0.10	7.84	0.1	A	53	80
A-B					97	146
A-C					320	480

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	424	0.311	130	0.0	0.4	12.171	B
C-A	220	55			220				
C-B	53	13	512	0.103	53	0.0	0.1	7.819	A
A-B	97	24			97				
A-C	320	80			320				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	424	0.311	132	0.4	0.4	12.320	B
C-A	220	55			220				
C-B	53	13	512	0.103	53	0.1	0.1	7.835	A
A-B	97	24			97				
A-C	320	80			320				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	424	0.311	132	0.4	0.4	12.323	B
C-A	220	55			220				
C-B	53	13	512	0.103	53	0.1	0.1	7.835	A
A-B	97	24			97				
A-C	320	80			320				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	424	0.311	132	0.4	0.4	12.323	B
C-A	220	55			220				
C-B	53	13	512	0.103	53	0.1	0.1	7.835	A
A-B	97	24			97				
A-C	320	80			320				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	424	0.311	132	0.4	0.5	12.323	B
C-A	220	55			220				
C-B	53	13	512	0.103	53	0.1	0.1	7.835	A
A-B	97	24			97				
A-C	320	80			320				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	424	0.311	132	0.5	0.5	12.323	B
C-A	220	55			220				
C-B	53	13	512	0.103	53	0.1	0.1	7.835	A
A-B	97	24			97				
A-C	320	80			320				

2028 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D10 - 2028 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way		1.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	102	224
	B - Long Ridings Avenue	87	0	2
	C - Alexander Lane (S)	207	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	50
	C - Alexander Lane (S)	0	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.20	9.84	0.2	A	89	133
C-A					207	311
C-B	0.09	7.60	0.1	A	46	69
A-B					102	153
A-C					224	336

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	89	22	455	0.196	88	0.0	0.2	9.787	A
C-A	207	52			207				
C-B	46	12	519	0.089	46	0.0	0.1	7.591	A
A-B	102	26			102				
A-C	224	56			224				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	89	22	455	0.196	89	0.2	0.2	9.841	A
C-A	207	52			207				
C-B	46	12	519	0.089	46	0.1	0.1	7.603	A
A-B	102	26			102				
A-C	224	56			224				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	89	22	455	0.196	89	0.2	0.2	9.841	A
C-A	207	52			207				
C-B	46	12	519	0.089	46	0.1	0.1	7.603	A
A-B	102	26			102				
A-C	224	56			224				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	89	22	455	0.196	89	0.2	0.2	9.841	A
C-A	207	52			207				
C-B	46	12	519	0.089	46	0.1	0.1	7.603	A
A-B	102	26			102				
A-C	224	56			224				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	89	22	455	0.196	89	0.2	0.2	9.841	A
C-A	207	52			207				
C-B	46	12	519	0.089	46	0.1	0.1	7.603	A
A-B	102	26			102				
A-C	224	56			224				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	89	22	455	0.196	89	0.2	0.2	9.841	A
C-A	207	52			207				
C-B	46	12	519	0.089	46	0.1	0.1	7.603	A
A-B	102	26			102				
A-C	224	56			224				

Junctions 9				
PICADY 9 - Priority Intersection Module				
Version: 9.5.2.1013				
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Filename: Alexander Lane - Oliver Road.j9

Path: X:\Projects\Projects\150000\152080 - Shenfield\MODELLING

Report generation date: 24/08/2023 12:51:55

- »2022 Base, AM
- »2022 Base, PM
- »2028 Base, AM
- »2028 Base, PM
- »2028 Base + Dev, AM
- »2028 Base + Dev, PM
- »2028 Base + Comm, AM
- »2028 Base + Comm, PM
- »2028 Base + Comm + Dev, AM
- »2028 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
Stream B-AC	D1	1.1	17.82	0.53	C	D2	0.9	16.22	0.47	C
Stream C-AB		0.0	6.75	0.03	A		0.0	6.61	0.01	A
	2028 Base									
Stream B-AC	D3	1.1	17.82	0.53	C	D4	0.9	16.22	0.47	C
Stream C-AB		0.0	6.75	0.03	A		0.0	6.61	0.01	A
	2028 Base + Dev									
Stream B-AC	D5	1.5	21.32	0.60	C	D6	1.1	17.79	0.52	C
Stream C-AB		0.0	6.82	0.03	A		0.0	6.66	0.01	A
	2028 Base + Comm									
Stream B-AC	D7	1.2	18.35	0.54	C	D8	0.9	16.46	0.48	C
Stream C-AB		0.0	6.76	0.03	A		0.0	6.63	0.01	A
	2028 Base + Comm + Dev									
Stream B-AC	D9	1.6	22.10	0.61	C	D10	1.1	18.00	0.53	C
Stream C-AB		0.0	6.83	0.03	A		0.0	6.67	0.01	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/02/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2028 Base	AM	DIRECT	07:30	09:00	90	15	✓
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2028 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2028 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2028 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		5.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Alexander Lane (S)		Major
B	Oliver Road		Minor
C	Alexander Lane (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Alexander Lane (N)	6.10			79.5	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Oliver Road	One lane	3.08	16	26

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	499	0.091	0.229	0.144	0.327
B-C	645	0.098	0.249	-	-
C-B	620	0.239	0.239	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	198	114
	B - Oliver Road	211	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.53	17.82	1.1	C	224	336
C-AB	0.03	6.75	0.0	A	16	24
C-A					181	271
A-B					198	297
A-C					114	171

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	220	0.0	1.1	17.128	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.744	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.800	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.814	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.819	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.821	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.823	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		5.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	156	131
	B - Oliver Road	190	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.47	16.22	0.9	C	199	299
C-AB	0.01	6.61	0.0	A	8	12
C-A					120	180
A-B					156	234
A-C					131	197

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	196	0.0	0.9	15.741	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.203	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.211	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.214	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.216	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.216	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D3 - 2028 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		5.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2028 Base	AM	DIRECT	07:30	09:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	198	114
	B - Oliver Road	211	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.53	17.82	1.1	C	224	336
C-AB	0.03	6.75	0.0	A	16	24
C-A					181	271
A-B					198	297
A-C					114	171

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	220	0.0	1.1	17.128	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.744	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.800	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.814	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.819	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.821	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	56	426	0.526	224	1.1	1.1	17.823	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D4 - 2028 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		5.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	156	131
	B - Oliver Road	190	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.47	16.22	0.9	C	199	299
C-AB	0.01	6.61	0.0	A	8	12
C-A					120	180
A-B					156	234
A-C					131	197

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	196	0.0	0.9	15.741	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.203	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.211	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.214	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.216	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	199	50	421	0.473	199	0.9	0.9	16.216	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D5 - 2028 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		7.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2028 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	217	119
	B - Oliver Road	241	0	13
	C - Alexander Lane (N)	179	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	1
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.60	21.32	1.5	C	254	381
C-AB	0.03	6.82	0.0	A	16	24
C-A					179	268
A-B					217	326
A-C					119	179

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	63	423	0.601	248	0.0	1.4	20.049	C
C-AB	16	4	544	0.030	16	0.0	0.0	6.814	A
C-A	179	45			179				
A-B	217	54			217				
A-C	119	30			119				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	63	423	0.601	254	1.4	1.5	21.266	C
C-AB	16	4	544	0.030	16	0.0	0.0	6.820	A
C-A	179	45			179				
A-B	217	54			217				
A-C	119	30			119				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	63	423	0.601	254	1.5	1.5	21.302	C
C-AB	16	4	544	0.030	16	0.0	0.0	6.817	A
C-A	179	45			179				
A-B	217	54			217				
A-C	119	30			119				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	63	423	0.601	254	1.5	1.5	21.314	C
C-AB	16	4	544	0.030	16	0.0	0.0	6.820	A
C-A	179	45			179				
A-B	217	54			217				
A-C	119	30			119				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	63	423	0.601	254	1.5	1.5	21.321	C
C-AB	16	4	544	0.030	16	0.0	0.0	6.820	A
C-A	179	45			179				
A-B	217	54			217				
A-C	119	30			119				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	63	423	0.601	254	1.5	1.5	21.325	C
C-AB	16	4	544	0.030	16	0.0	0.0	6.817	A
C-A	179	45			179				
A-B	217	54			217				
A-C	119	30			119				

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D6 - 2028 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		6.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	177	126
	B - Oliver Road	211	0	9
	C - Alexander Lane (N)	109	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.52	17.79	1.1	C	220	330
C-AB	0.01	6.66	0.0	A	8	12
C-A					109	163
A-B					177	266
A-C					126	189

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	422	0.521	216	0.0	1.0	17.108	C
C-AB	8	2	549	0.015	8	0.0	0.0	6.657	A
C-A	109	27			109				
A-B	177	44			177				
A-C	126	32			126				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	422	0.521	220	1.0	1.1	17.765	C
C-AB	8	2	549	0.015	8	0.0	0.0	6.657	A
C-A	109	27			109				
A-B	177	44			177				
A-C	126	32			126				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	422	0.521	220	1.1	1.1	17.777	C
C-AB	8	2	549	0.015	8	0.0	0.0	6.657	A
C-A	109	27			109				
A-B	177	44			177				
A-C	126	32			126				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	422	0.521	220	1.1	1.1	17.782	C
C-AB	8	2	549	0.015	8	0.0	0.0	6.660	A
C-A	109	27			109				
A-B	177	44			177				
A-C	126	32			126				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	422	0.521	220	1.1	1.1	17.784	C
C-AB	8	2	549	0.015	8	0.0	0.0	6.660	A
C-A	109	27			109				
A-B	177	44			177				
A-C	126	32			126				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	422	0.521	220	1.1	1.1	17.786	C
C-AB	8	2	549	0.015	8	0.0	0.0	6.657	A
C-A	109	27			109				
A-B	177	44			177				
A-C	126	32			126				

2028 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D7 - 2028 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		5.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2028 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	201	115
	B - Oliver Road	216	0	13
	C - Alexander Lane (N)	182	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.54	18.35	1.2	C	229	344
C-AB	0.03	6.76	0.0	A	16	24
C-A					182	273
A-B					201	302
A-C					115	173

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	229	57	425	0.539	225	0.0	1.1	17.582	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.755	A
C-A	182	45			182				
A-B	201	50			201				
A-C	115	29			115				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	229	57	425	0.539	229	1.1	1.1	18.324	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.761	A
C-A	182	45			182				
A-B	201	50			201				
A-C	115	29			115				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	229	57	425	0.539	229	1.1	1.2	18.340	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.761	A
C-A	182	45			182				
A-B	201	50			201				
A-C	115	29			115				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	229	57	425	0.539	229	1.2	1.2	18.346	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.758	A
C-A	182	45			182				
A-B	201	50			201				
A-C	115	29			115				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	229	57	425	0.539	229	1.2	1.2	18.349	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.758	A
C-A	182	45			182				
A-B	201	50			201				
A-C	115	29			115				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	229	57	425	0.539	229	1.2	1.2	18.354	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.761	A
C-A	182	45			182				
A-B	201	50			201				
A-C	115	29			115				

2028 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D8 - 2028 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		5.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	161	131
	B - Oliver Road	193	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.48	16.46	0.9	C	202	303
C-AB	0.01	6.63	0.0	A	8	12
C-A					120	180
A-B					161	242
A-C					131	197

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	51	421	0.480	198	0.0	0.9	15.962	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.622	A
C-A	120	30			120				
A-B	161	40			161				
A-C	131	33			131				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	51	421	0.480	202	0.9	0.9	16.452	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.622	A
C-A	120	30			120				
A-B	161	40			161				
A-C	131	33			131				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	51	421	0.480	202	0.9	0.9	16.460	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.622	A
C-A	120	30			120				
A-B	161	40			161				
A-C	131	33			131				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	51	421	0.480	202	0.9	0.9	16.463	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.625	A
C-A	120	30			120				
A-B	161	40			161				
A-C	131	33			131				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	51	421	0.480	202	0.9	0.9	16.465	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.625	A
C-A	120	30			120				
A-B	161	40			161				
A-C	131	33			131				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	51	421	0.480	202	0.9	0.9	16.465	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.625	A
C-A	120	30			120				
A-B	161	40			161				
A-C	131	33			131				

2028 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D9 - 2028 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		7.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2028 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	220	120
	B - Oliver Road	246	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	1
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.61	22.10	1.6	C	259	388
C-AB	0.03	6.83	0.0	A	16	24
C-A					181	271
A-B					220	330
A-C					120	180

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	65	422	0.614	253	0.0	1.5	20.667	C
C-AB	16	4	543	0.030	16	0.0	0.0	6.826	A
C-A	181	45			181				
A-B	220	55			220				
A-C	120	30			120				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	65	422	0.614	259	1.5	1.5	22.026	C
C-AB	16	4	543	0.030	16	0.0	0.0	6.831	A
C-A	181	45			181				
A-B	220	55			220				
A-C	120	30			120				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	65	422	0.614	259	1.5	1.6	22.069	C
C-AB	16	4	543	0.030	16	0.0	0.0	6.829	A
C-A	181	45			181				
A-B	220	55			220				
A-C	120	30			120				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	65	422	0.614	259	1.6	1.6	22.085	C
C-AB	16	4	543	0.030	16	0.0	0.0	6.829	A
C-A	181	45			181				
A-B	220	55			220				
A-C	120	30			120				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	65	422	0.614	259	1.6	1.6	22.091	C
C-AB	16	4	543	0.030	16	0.0	0.0	6.831	A
C-A	181	45			181				
A-B	220	55			220				
A-C	120	30			120				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	65	422	0.614	259	1.6	1.6	22.097	C
C-AB	16	4	543	0.030	16	0.0	0.0	6.829	A
C-A	181	45			181				
A-B	220	55			220				
A-C	120	30			120				

2028 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D10 - 2028 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way		6.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	182	126
	B - Oliver Road	213	0	9
	C - Alexander Lane (N)	109	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.53	18.00	1.1	C	222	333
C-AB	0.01	6.67	0.0	A	8	12
C-A					109	163
A-B					182	273
A-C					126	189

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	422	0.526	218	0.0	1.1	17.292	C
C-AB	8	2	547	0.015	8	0.0	0.0	6.672	A
C-A	109	27			109				
A-B	182	46			182				
A-C	126	32			126				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	422	0.526	222	1.1	1.1	17.976	C
C-AB	8	2	547	0.015	8	0.0	0.0	6.672	A
C-A	109	27			109				
A-B	182	46			182				
A-C	126	32			126				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	422	0.526	222	1.1	1.1	17.990	C
C-AB	8	2	547	0.015	8	0.0	0.0	6.672	A
C-A	109	27			109				
A-B	182	46			182				
A-C	126	32			126				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	422	0.526	222	1.1	1.1	17.995	C
C-AB	8	2	547	0.015	8	0.0	0.0	6.672	A
C-A	109	27			109				
A-B	182	46			182				
A-C	126	32			126				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	422	0.526	222	1.1	1.1	17.997	C
C-AB	8	2	547	0.015	8	0.0	0.0	6.672	A
C-A	109	27			109				
A-B	182	46			182				
A-C	126	32			126				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	56	422	0.526	222	1.1	1.1	17.999	C
C-AB	8	2	547	0.015	8	0.0	0.0	6.672	A
C-A	109	27			109				
A-B	182	46			182				
A-C	126	32			126				

Junctions 9										
ARCADY 9 - Roundabout Module										
Version: 9.5.2.1013										
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Filename: Alexander Lane - Rayleigh Road Mini-Roundabout V1.j9

Path: X:\Projects\Projects\150000\152080 - Shenfield\MODELLING

Report generation date: 24/08/2023 12:58:18

- »2022 Base, AM
- »2022 Base, PM
- »2028 Base, AM
- »2028 Base, PM
- »2028 Base + Dev, AM
- »2028 Base + Dev, PM
- »2028 Base + Comm, AM
- »2028 Base + Comm, PM
- »2028 Base + Comm + Dev, AM
- »2028 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
C - Rayleigh Road (E)	D1	2.4	15.62	0.71	C	D2	1.1	8.66	0.51	A
A - Rayleigh Road (W)		1.4	9.63	0.58	A		1.7	10.82	0.64	B
B - Alexander Lane		1.8	16.72	0.64	C		0.9	12.16	0.46	B
	2028 Base									
C - Rayleigh Road (E)	D3	2.4	15.62	0.71	C	D4	1.1	8.66	0.51	A
A - Rayleigh Road (W)		1.4	9.63	0.58	A		1.7	10.82	0.64	B
B - Alexander Lane		1.8	16.72	0.64	C		0.9	12.16	0.46	B
	2028 Base + Dev									
C - Rayleigh Road (E)	D5	2.6	16.48	0.72	C	D6	1.1	8.89	0.52	A
A - Rayleigh Road (W)		1.5	10.20	0.60	B		1.8	11.15	0.65	B
B - Alexander Lane		2.1	18.90	0.68	C		0.9	12.49	0.48	B
	2028 Base + Comm									
C - Rayleigh Road (E)	D7	2.5	15.91	0.71	C	D8	1.1	8.80	0.52	A
A - Rayleigh Road (W)		1.4	9.72	0.58	A		1.8	10.93	0.64	B
B - Alexander Lane		1.8	17.27	0.65	C		0.9	12.19	0.47	B
	2028 Base + Comm + Dev									
C - Rayleigh Road (E)	D9	2.6	16.76	0.73	C	D10	1.1	9.03	0.53	A
A - Rayleigh Road (W)		1.5	10.30	0.60	B		1.8	11.25	0.65	B
B - Alexander Lane		2.2	19.50	0.69	C		0.9	12.60	0.48	B

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/02/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	08:00	09:30	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2028 Base	AM	DIRECT	08:00	09:30	90	15	✓
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2028 Base + Dev	AM	DIRECT	08:00	09:30	90	15	✓
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2028 Base + Comm	AM	DIRECT	08:00	09:30	90	15	✓
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2028 Base + Comm + Dev	AM	DIRECT	08:00	09:30	90	15	✓
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	13.80	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
C	Rayleigh Road (E)	
A	Rayleigh Road (W)	
B	Alexander Lane	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
C - Rayleigh Road (E)	3.90	3.90	3.90	0.0	16.70	15.50	0.0	
A - Rayleigh Road (W)	3.70	3.70	6.00	2.0	13.10	10.50	0.0	
B - Alexander Lane	2.60	2.60	5.00	4.6	13.30	10.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C - Rayleigh Road (E)	0.656	974
A - Rayleigh Road (W)	0.638	987
B - Alexander Lane	0.611	843

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	440	119
	A - Rayleigh Road (W)	380	0	130
	B - Alexander Lane	147	234	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.71	15.62	2.4	C	560	840
A - Rayleigh Road (W)	0.58	9.63	1.4	A	510	765
B - Alexander Lane	0.64	16.72	1.8	C	381	572

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	230	793	0.706	551	521	0.0	2.3	14.388	B
A - Rayleigh Road (W)	510	128	118	885	0.576	505	663	0.0	1.3	9.338	A
B - Alexander Lane	381	95	377	599	0.636	374	246	0.0	1.7	15.621	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.3	2.4	15.553	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.3	1.3	9.620	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.7	16.668	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.595	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.3	1.4	9.624	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.7	16.699	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.608	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.625	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.7	16.709	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.614	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.627	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.8	16.713	C

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.618	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.627	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.8	1.8	16.716	C

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	10.34	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	364	74
	A - Rayleigh Road (W)	452	1	132
	B - Alexander Lane	122	132	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.51	8.66	1.1	A	439	658
A - Rayleigh Road (W)	0.64	10.82	1.7	B	585	877
B - Alexander Lane	0.46	12.16	0.9	B	257	385

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	134	856	0.513	435	568	0.0	1.0	8.470	A
A - Rayleigh Road (W)	585	146	77	918	0.637	578	492	0.0	1.7	10.394	B
B - Alexander Lane	257	64	449	556	0.462	254	207	0.0	0.8	11.772	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.0	1.0	8.653	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.808	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.8	0.9	12.151	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.0	1.0	8.655	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.815	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.157	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.0	1.1	8.657	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.817	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.158	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.1	1.1	8.657	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.819	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.160	B

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.1	1.1	8.657	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.819	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.160	B

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D3 - 2028 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	13.80	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2028 Base	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	440	119
	A - Rayleigh Road (W)	380	0	130
	B - Alexander Lane	147	234	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.71	15.62	2.4	C	560	840
A - Rayleigh Road (W)	0.58	9.63	1.4	A	510	765
B - Alexander Lane	0.64	16.72	1.8	C	381	572

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	230	793	0.706	551	521	0.0	2.3	14.388	B
A - Rayleigh Road (W)	510	128	118	885	0.576	505	663	0.0	1.3	9.338	A
B - Alexander Lane	381	95	377	599	0.636	374	246	0.0	1.7	15.621	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.3	2.4	15.553	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.3	1.3	9.620	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.7	16.668	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.595	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.3	1.4	9.624	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.7	16.699	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.608	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.625	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.7	16.709	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.614	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.627	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.7	1.8	16.713	C

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	560	140	234	790	0.709	560	528	2.4	2.4	15.618	C
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.627	A
B - Alexander Lane	381	95	381	596	0.639	381	249	1.8	1.8	16.716	C

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D4 - 2028 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	10.34	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	364	74
	A - Rayleigh Road (W)	452	1	132
	B - Alexander Lane	122	132	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.51	8.66	1.1	A	439	658
A - Rayleigh Road (W)	0.64	10.82	1.7	B	585	877
B - Alexander Lane	0.46	12.16	0.9	B	257	385

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	134	856	0.513	435	568	0.0	1.0	8.470	A
A - Rayleigh Road (W)	585	146	77	918	0.637	578	492	0.0	1.7	10.394	B
B - Alexander Lane	257	64	449	556	0.462	254	207	0.0	0.8	11.772	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.0	1.0	8.653	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.808	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.8	0.9	12.151	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.0	1.0	8.655	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.815	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.157	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.0	1.1	8.657	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.817	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.158	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.1	1.1	8.657	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.819	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.160	B

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	439	110	136	855	0.514	439	575	1.1	1.1	8.657	A
A - Rayleigh Road (W)	585	146	78	918	0.637	585	497	1.7	1.7	10.819	B
B - Alexander Lane	257	64	454	553	0.465	257	209	0.9	0.9	12.160	B

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D5 - 2028 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	14.90	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2028 Base + Dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	440	122
	A - Rayleigh Road (W)	380	0	150
	B - Alexander Lane	155	251	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	2
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.72	16.48	2.6	C	563	844
A - Rayleigh Road (W)	0.60	10.20	1.5	B	530	795
B - Alexander Lane	0.68	18.90	2.1	C	406	609

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	246	784	0.718	553	529	0.0	2.4	15.029	C
A - Rayleigh Road (W)	530	132	121	884	0.599	524	679	0.0	1.5	9.845	A
B - Alexander Lane	406	102	377	599	0.678	398	268	0.0	2.0	17.313	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	251	781	0.721	563	536	2.4	2.5	16.389	C
A - Rayleigh Road (W)	530	132	123	883	0.600	530	691	1.5	1.5	10.186	B
B - Alexander Lane	406	102	381	596	0.681	406	272	2.0	2.1	18.807	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	251	781	0.721	563	536	2.5	2.5	16.448	C
A - Rayleigh Road (W)	530	132	123	883	0.600	530	691	1.5	1.5	10.193	B
B - Alexander Lane	406	102	381	596	0.681	406	272	2.1	2.1	18.866	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	251	781	0.721	563	536	2.5	2.5	16.465	C
A - Rayleigh Road (W)	530	132	123	883	0.600	530	691	1.5	1.5	10.195	B
B - Alexander Lane	406	102	381	596	0.681	406	272	2.1	2.1	18.883	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	251	781	0.721	563	536	2.5	2.5	16.474	C
A - Rayleigh Road (W)	530	132	123	883	0.600	530	691	1.5	1.5	10.195	B
B - Alexander Lane	406	102	381	596	0.681	406	272	2.1	2.1	18.893	C

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	251	781	0.721	563	536	2.5	2.6	16.479	C
A - Rayleigh Road (W)	530	132	123	883	0.600	530	691	1.5	1.5	10.197	B
B - Alexander Lane	406	102	381	596	0.681	406	272	2.1	2.1	18.898	C

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D6 - 2028 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	10.64	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	364	82
	A - Rayleigh Road (W)	452	1	137
	B - Alexander Lane	125	137	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.52	8.89	1.1	A	447	671
A - Rayleigh Road (W)	0.65	11.15	1.8	B	590	885
B - Alexander Lane	0.48	12.49	0.9	B	265	398

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	447	112	139	853	0.524	443	571	0.0	1.1	8.679	A
A - Rayleigh Road (W)	590	147	85	913	0.646	583	497	0.0	1.8	10.669	B
B - Alexander Lane	265	66	449	557	0.476	261	220	0.0	0.9	12.064	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	447	112	141	852	0.525	447	578	1.1	1.1	8.881	A
A - Rayleigh Road (W)	590	147	86	913	0.646	590	502	1.8	1.8	11.141	B
B - Alexander Lane	265	66	454	553	0.479	265	222	0.9	0.9	12.480	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	447	112	141	852	0.525	447	578	1.1	1.1	8.883	A
A - Rayleigh Road (W)	590	147	86	913	0.646	590	502	1.8	1.8	11.150	B
B - Alexander Lane	265	66	454	553	0.479	265	222	0.9	0.9	12.489	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	447	112	141	852	0.525	447	578	1.1	1.1	8.885	A
A - Rayleigh Road (W)	590	147	86	913	0.646	590	502	1.8	1.8	11.152	B
B - Alexander Lane	265	66	454	553	0.479	265	222	0.9	0.9	12.489	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	447	112	141	852	0.525	447	578	1.1	1.1	8.885	A
A - Rayleigh Road (W)	590	147	86	913	0.646	590	502	1.8	1.8	11.154	B
B - Alexander Lane	265	66	454	553	0.479	265	222	0.9	0.9	12.492	B

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	447	112	141	852	0.525	447	578	1.1	1.1	8.885	A
A - Rayleigh Road (W)	590	147	86	913	0.646	590	502	1.8	1.8	11.154	B
B - Alexander Lane	265	66	454	553	0.479	265	222	0.9	0.9	12.492	B

2028 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D7 - 2028 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	14.09	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2028 Base + Comm	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	442	120
	A - Rayleigh Road (W)	383	0	130
	B - Alexander Lane	150	236	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.71	15.91	2.5	C	563	844
A - Rayleigh Road (W)	0.58	9.72	1.4	A	513	769
B - Alexander Lane	0.65	17.27	1.8	C	386	579

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	232	792	0.711	554	527	0.0	2.3	14.609	B
A - Rayleigh Road (W)	513	128	119	885	0.580	508	666	0.0	1.3	9.423	A
B - Alexander Lane	386	96	380	597	0.647	379	247	0.0	1.7	16.063	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	236	789	0.713	563	534	2.3	2.4	15.839	C
A - Rayleigh Road (W)	513	128	121	883	0.581	513	678	1.3	1.4	9.713	A
B - Alexander Lane	386	96	384	594	0.649	386	250	1.7	1.8	17.212	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	236	789	0.714	563	534	2.4	2.4	15.885	C
A - Rayleigh Road (W)	513	128	121	883	0.581	513	678	1.4	1.4	9.720	A
B - Alexander Lane	386	96	384	594	0.649	386	250	1.8	1.8	17.250	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	236	789	0.714	563	534	2.4	2.5	15.900	C
A - Rayleigh Road (W)	513	128	121	883	0.581	513	678	1.4	1.4	9.719	A
B - Alexander Lane	386	96	384	594	0.649	386	250	1.8	1.8	17.260	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	236	789	0.714	563	534	2.5	2.5	15.907	C
A - Rayleigh Road (W)	513	128	121	883	0.581	513	678	1.4	1.4	9.721	A
B - Alexander Lane	386	96	384	594	0.649	386	250	1.8	1.8	17.266	C

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	563	141	236	789	0.714	563	534	2.5	2.5	15.910	C
A - Rayleigh Road (W)	513	128	121	883	0.581	513	678	1.4	1.4	9.721	A
B - Alexander Lane	386	96	384	594	0.649	386	250	1.8	1.8	17.269	C

2028 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D8 - 2028 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	10.43	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	369	76
	A - Rayleigh Road (W)	453	1	133
	B - Alexander Lane	122	132	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.52	8.80	1.1	A	446	669
A - Rayleigh Road (W)	0.64	10.93	1.8	B	587	880
B - Alexander Lane	0.47	12.19	0.9	B	257	385

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	446	112	134	856	0.521	442	569	0.0	1.1	8.604	A
A - Rayleigh Road (W)	587	147	79	917	0.640	580	497	0.0	1.7	10.487	B
B - Alexander Lane	257	64	450	556	0.462	254	210	0.0	0.8	11.793	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	446	112	136	855	0.522	446	576	1.1	1.1	8.800	A
A - Rayleigh Road (W)	587	147	80	916	0.641	587	502	1.7	1.8	10.915	B
B - Alexander Lane	257	64	455	552	0.465	257	212	0.8	0.9	12.180	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	446	112	136	855	0.522	446	576	1.1	1.1	8.802	A
A - Rayleigh Road (W)	587	147	80	916	0.641	587	502	1.8	1.8	10.921	B
B - Alexander Lane	257	64	455	552	0.465	257	212	0.9	0.9	12.183	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	446	112	136	855	0.522	446	576	1.1	1.1	8.804	A
A - Rayleigh Road (W)	587	147	80	916	0.641	587	502	1.8	1.8	10.923	B
B - Alexander Lane	257	64	455	552	0.465	257	212	0.9	0.9	12.183	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	446	112	136	855	0.522	446	576	1.1	1.1	8.804	A
A - Rayleigh Road (W)	587	147	80	916	0.641	587	502	1.8	1.8	10.926	B
B - Alexander Lane	257	64	455	552	0.465	257	212	0.9	0.9	12.186	B

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	446	112	136	855	0.522	446	576	1.1	1.1	8.804	A
A - Rayleigh Road (W)	587	147	80	916	0.641	587	502	1.8	1.8	10.926	B
B - Alexander Lane	257	64	455	552	0.465	257	212	0.9	0.9	12.186	B

2028 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D9 - 2028 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	15.21	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2028 Base + Comm + Dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	442	123
	A - Rayleigh Road (W)	383	0	150
	B - Alexander Lane	158	252	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	2
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.73	16.76	2.6	C	566	849
A - Rayleigh Road (W)	0.60	10.30	1.5	B	533	799
B - Alexander Lane	0.69	19.50	2.2	C	410	615

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	566	142	247	784	0.722	556	535	0.0	2.4	15.233	C
A - Rayleigh Road (W)	533	133	122	884	0.603	527	681	0.0	1.5	9.939	A
B - Alexander Lane	410	103	380	597	0.687	402	269	0.0	2.1	17.769	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	566	142	252	781	0.725	566	542	2.4	2.5	16.661	C
A - Rayleigh Road (W)	533	133	124	882	0.604	533	693	1.5	1.5	10.292	B
B - Alexander Lane	410	103	384	594	0.690	410	273	2.1	2.1	19.399	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	566	142	252	781	0.725	566	542	2.5	2.6	16.722	C
A - Rayleigh Road (W)	533	133	124	882	0.604	533	694	1.5	1.5	10.299	B
B - Alexander Lane	410	103	384	594	0.690	410	273	2.1	2.2	19.465	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	566	142	252	781	0.725	566	542	2.6	2.6	16.742	C
A - Rayleigh Road (W)	533	133	124	882	0.604	533	694	1.5	1.5	10.301	B
B - Alexander Lane	410	103	384	594	0.690	410	273	2.2	2.2	19.487	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	566	142	252	781	0.725	566	542	2.6	2.6	16.751	C
A - Rayleigh Road (W)	533	133	124	882	0.604	533	694	1.5	1.5	10.301	B
B - Alexander Lane	410	103	384	594	0.690	410	273	2.2	2.2	19.496	C

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	566	142	252	781	0.725	566	542	2.6	2.6	16.756	C
A - Rayleigh Road (W)	533	133	124	882	0.604	533	694	1.5	1.5	10.303	B
B - Alexander Lane	410	103	384	594	0.690	410	273	2.2	2.2	19.502	C

2028 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D10 - 2028 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	10.75	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	369	83
	A - Rayleigh Road (W)	453	1	138
	B - Alexander Lane	126	138	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	0	67

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.53	9.03	1.1	A	453	680
A - Rayleigh Road (W)	0.65	11.25	1.8	B	592	888
B - Alexander Lane	0.48	12.60	0.9	B	267	400

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	453	113	140	853	0.531	449	573	0.0	1.1	8.814	A
A - Rayleigh Road (W)	592	148	86	913	0.649	585	503	0.0	1.8	10.766	B
B - Alexander Lane	267	67	450	556	0.480	263	221	0.0	0.9	12.163	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	453	113	142	852	0.532	453	580	1.1	1.1	9.029	A
A - Rayleigh Road (W)	592	148	87	912	0.649	592	508	1.8	1.8	11.232	B
B - Alexander Lane	267	67	455	553	0.483	267	224	0.9	0.9	12.592	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	453	113	142	851	0.532	453	580	1.1	1.1	9.032	A
A - Rayleigh Road (W)	592	148	87	912	0.649	592	508	1.8	1.8	11.241	B
B - Alexander Lane	267	67	455	553	0.483	267	224	0.9	0.9	12.598	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	453	113	142	851	0.532	453	580	1.1	1.1	9.033	A
A - Rayleigh Road (W)	592	148	87	912	0.649	592	508	1.8	1.8	11.243	B
B - Alexander Lane	267	67	455	553	0.483	267	224	0.9	0.9	12.602	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	453	113	142	851	0.532	453	580	1.1	1.1	9.033	A
A - Rayleigh Road (W)	592	148	87	912	0.649	592	508	1.8	1.8	11.247	B
B - Alexander Lane	267	67	455	553	0.483	267	224	0.9	0.9	12.605	B

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
C - Rayleigh Road (E)	453	113	142	851	0.532	453	580	1.1	1.1	9.033	A
A - Rayleigh Road (W)	592	148	87	912	0.649	592	508	1.8	1.8	11.246	B
B - Alexander Lane	267	67	455	553	0.483	267	224	0.9	0.9	12.605	B

Junctions 9									
PICADY 9 - Priority Intersection Module									
Version: 9.5.2.1013									
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Filename: Chelmsford Road - Oliver Road V1.j9
Path: X:\Projects\Projects\150000\152080 - Shenfield\MODELLING
Report generation date: 24/08/2023 12:46:32

»2022 Base, AM
 »2022 Base, PM
 »2028 Base, AM
 »2028 Base, PM
 »2028 Base + Dev, AM
 »2028 Base + Dev, PM
 »2028 Base + Comm, AM
 »2028 Base + Comm, PM
 »2028 Base + Comm + Dev, AM
 »2028 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
Stream B-AC	D1	1.6	34.49	0.62	D	D2	0.6	15.77	0.37	C
Stream C-AB		0.5	12.37	0.31	B		0.1	8.17	0.13	A
	2028 Base									
Stream B-AC	D3	1.6	34.49	0.62	D	D4	0.6	15.77	0.37	C
Stream C-AB		0.5	12.37	0.31	B		0.1	8.17	0.13	A
	2028 Base + Dev									
Stream B-AC	D5	3.3	65.08	0.78	F	D6	0.9	20.03	0.46	C
Stream C-AB		0.5	13.46	0.34	B		0.2	8.44	0.13	A
	2028 Base + Comm									
Stream B-AC	D7	1.9	39.83	0.66	E	D8	0.7	17.27	0.40	C
Stream C-AB		0.5	12.60	0.32	B		0.1	8.28	0.13	A
	2028 Base + Comm + Dev									
Stream B-AC	D9	4.2	83.12	0.82	F	D10	1.0	22.42	0.50	C
Stream C-AB		0.5	13.73	0.34	B		0.2	8.56	0.14	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	02/02/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	08:00	09:30	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2028 Base	AM	DIRECT	08:00	09:30	90	15	✓
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2028 Base + Dev	AM	DIRECT	08:00	09:30	90	15	✓
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2028 Base + Comm	AM	DIRECT	08:00	09:30	90	15	✓
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2028 Base + Comm + Dev	AM	DIRECT	08:00	09:30	90	15	✓
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		4.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Chelmsford Road (N)		Major
B	Oliver Road		Minor
C	Chelmsford Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Chelmsford Road (S)	6.35		✓	2.98	117.1	✓	8.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Oliver Road	One lane	3.86	68	66

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	578	0.104	0.262	0.165	0.375
B-C	723	0.109	0.276	-	-
C-B	696	0.266	0.266	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	186	738
	B - Oliver Road	99	0	70
	C - Chelmsford Road (S)	568	133	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	16	1
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.62	34.49	1.6	D	169	253
C-AB	0.31	12.37	0.5	B	133	200
C-A					568	852
A-B					186	279
A-C					738	1107

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	274	0.617	163	0.0	1.5	31.092	D
C-AB	133	33	424	0.314	131	0.0	0.4	12.222	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.5	1.5	34.232	D
C-AB	133	33	424	0.314	133	0.4	0.5	12.367	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.5	1.6	34.392	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.6	1.6	34.446	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.6	1.6	34.475	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.6	1.6	34.491	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		1.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	98	556
	B - Oliver Road	72	0	61
	C - Chelmsford Road (S)	688	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	11	0
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.37	15.77	0.6	C	133	199
C-AB	0.13	8.17	0.1	A	64	96
C-A					688	1032
A-B					98	147
A-C					556	834

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	131	0.0	0.6	15.460	C
C-AB	64	16	505	0.127	63	0.0	0.1	8.151	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.765	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.770	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.772	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.771	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.771	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D3 - 2028 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		4.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2028 Base	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	186	738
	B - Oliver Road	99	0	70
	C - Chelmsford Road (S)	568	133	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	16	1
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.62	34.49	1.6	D	169	253
C-AB	0.31	12.37	0.5	B	133	200
C-A					568	852
A-B					186	279
A-C					738	1107

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	274	0.617	163	0.0	1.5	31.092	D
C-AB	133	33	424	0.314	131	0.0	0.4	12.222	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.5	1.5	34.232	D
C-AB	133	33	424	0.314	133	0.4	0.5	12.367	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.5	1.6	34.392	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.6	1.6	34.446	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.6	1.6	34.475	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	169	42	273	0.619	169	1.6	1.6	34.491	D
C-AB	133	33	424	0.314	133	0.5	0.5	12.369	B
C-A	568	142			568				
A-B	186	47			186				
A-C	738	185			738				

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D4 - 2028 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		1.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2028 Base	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	98	556
	B - Oliver Road	72	0	61
	C - Chelmsford Road (S)	688	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	11	0
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.37	15.77	0.6	C	133	199
C-AB	0.13	8.17	0.1	A	64	96
C-A					688	1032
A-B					98	147
A-C					556	834

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	131	0.0	0.6	15.460	C
C-AB	64	16	505	0.127	63	0.0	0.1	8.151	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.765	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.770	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.772	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.771	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	133	33	361	0.368	133	0.6	0.6	15.771	C
C-AB	64	16	505	0.127	64	0.1	0.1	8.171	A
C-A	688	172			688				
A-B	98	25			98				
A-C	556	139			556				

2028 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D5 - 2028 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		7.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2028 Base + Dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	213	791
	B - Oliver Road	116	0	72
	C - Chelmsford Road (S)	591	136	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	14	1
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.78	65.08	3.3	F	188	282
C-AB	0.34	13.46	0.5	B	136	204
C-A					591	886
A-B					213	320
A-C					791	1187

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	47	243	0.773	177	0.0	2.7	48.931	E
C-AB	136	34	404	0.337	134	0.0	0.5	13.266	B
C-A	591	148			591				
A-B	213	53			213				
A-C	791	198			791				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	47	242	0.776	187	2.7	3.0	61.908	F
C-AB	136	34	404	0.337	136	0.5	0.5	13.456	B
C-A	591	148			591				
A-B	213	53			213				
A-C	791	198			791				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	47	242	0.776	187	3.0	3.1	63.654	F
C-AB	136	34	404	0.337	136	0.5	0.5	13.458	B
C-A	591	148			591				
A-B	213	53			213				
A-C	791	198			791				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	47	242	0.776	188	3.1	3.2	64.397	F
C-AB	136	34	404	0.337	136	0.5	0.5	13.458	B
C-A	591	148			591				
A-B	213	53			213				
A-C	791	198			791				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	47	242	0.776	188	3.2	3.3	64.811	F
C-AB	136	34	404	0.337	136	0.5	0.5	13.458	B
C-A	591	148			591				
A-B	213	53			213				
A-C	791	198			791				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	188	47	242	0.776	188	3.3	3.3	65.076	F
C-AB	136	34	404	0.337	136	0.5	0.5	13.458	B
C-A	591	148			591				
A-B	213	53			213				
A-C	791	198			791				

2028 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D6 - 2028 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		2.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2028 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	116	583
	B - Oliver Road	91	0	63
	C - Chelmsford Road (S)	713	66	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	10	0
	B - Oliver Road	1	0	3
	C - Chelmsford Road (S)	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.46	20.03	0.9	C	154	231
C-AB	0.13	8.44	0.2	A	66	99
C-A					713	1069
A-B					116	174
A-C					583	875

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	334	0.461	151	0.0	0.8	19.335	C
C-AB	66	17	493	0.134	65	0.0	0.2	8.413	A
C-A	713	178			713				
A-B	116	29			116				
A-C	583	146			583				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	334	0.462	154	0.8	0.8	20.013	C
C-AB	66	17	493	0.134	66	0.2	0.2	8.436	A
C-A	713	178			713				
A-B	116	29			116				
A-C	583	146			583				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	334	0.462	154	0.8	0.8	20.027	C
C-AB	66	17	493	0.134	66	0.2	0.2	8.436	A
C-A	713	178			713				
A-B	116	29			116				
A-C	583	146			583				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	334	0.462	154	0.8	0.8	20.031	C
C-AB	66	17	493	0.134	66	0.2	0.2	8.436	A
C-A	713	178			713				
A-B	116	29			116				
A-C	583	146			583				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	334	0.462	154	0.8	0.9	20.034	C
C-AB	66	17	493	0.134	66	0.2	0.2	8.436	A
C-A	713	178			713				
A-B	116	29			116				
A-C	583	146			583				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	334	0.462	154	0.9	0.9	20.034	C
C-AB	66	17	493	0.134	66	0.2	0.2	8.436	A
C-A	713	178			713				
A-B	116	29			116				
A-C	583	146			583				

2028 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D7 - 2028 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		4.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2028 Base + Comm	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	188	756
	B - Oliver Road	102	0	70
	C - Chelmsford Road (S)	590	133	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	16	1
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.66	39.83	1.9	E	172	258
C-AB	0.32	12.60	0.5	B	133	200
C-A					590	885
A-B					188	282
A-C					756	1134

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	172	43	263	0.654	165	0.0	1.7	34.879	D
C-AB	133	33	419	0.318	131	0.0	0.5	12.441	B
C-A	590	147			590				
A-B	188	47			188				
A-C	756	189			756				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	172	43	262	0.656	172	1.7	1.8	39.358	E
C-AB	133	33	419	0.318	133	0.5	0.5	12.593	B
C-A	590	147			590				
A-B	188	47			188				
A-C	756	189			756				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	172	43	262	0.656	172	1.8	1.8	39.640	E
C-AB	133	33	419	0.318	133	0.5	0.5	12.596	B
C-A	590	147			590				
A-B	188	47			188				
A-C	756	189			756				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	172	43	262	0.656	172	1.8	1.8	39.742	E
C-AB	133	33	419	0.318	133	0.5	0.5	12.596	B
C-A	590	147			590				
A-B	188	47			188				
A-C	756	189			756				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	172	43	262	0.656	172	1.8	1.9	39.799	E
C-AB	133	33	419	0.318	133	0.5	0.5	12.596	B
C-A	590	147			590				
A-B	188	47			188				
A-C	756	189			756				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	172	43	262	0.656	172	1.9	1.9	39.829	E
C-AB	133	33	419	0.318	133	0.5	0.5	12.596	B
C-A	590	147			590				
A-B	188	47			188				
A-C	756	189			756				

2028 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D8 - 2028 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		1.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2028 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	101	576
	B - Oliver Road	77	0	61
	C - Chelmsford Road (S)	721	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	11	0
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.40	17.27	0.7	C	138	207
C-AB	0.13	8.28	0.1	A	64	96
C-A					721	1081
A-B					101	152
A-C					576	864

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	35	347	0.398	135	0.0	0.6	16.851	C
C-AB	64	16	499	0.128	63	0.0	0.1	8.264	A
C-A	721	180			721				
A-B	101	25			101				
A-C	576	144			576				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	35	346	0.398	138	0.6	0.7	17.258	C
C-AB	64	16	499	0.128	64	0.1	0.1	8.285	A
C-A	721	180			721				
A-B	101	25			101				
A-C	576	144			576				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	35	346	0.398	138	0.7	0.7	17.267	C
C-AB	64	16	499	0.128	64	0.1	0.1	8.285	A
C-A	721	180			721				
A-B	101	25			101				
A-C	576	144			576				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	35	346	0.398	138	0.7	0.7	17.266	C
C-AB	64	16	499	0.128	64	0.1	0.1	8.285	A
C-A	721	180			721				
A-B	101	25			101				
A-C	576	144			576				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	35	346	0.398	138	0.7	0.7	17.269	C
C-AB	64	16	499	0.128	64	0.1	0.1	8.285	A
C-A	721	180			721				
A-B	101	25			101				
A-C	576	144			576				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	138	35	346	0.398	138	0.7	0.7	17.268	C
C-AB	64	16	499	0.128	64	0.1	0.1	8.285	A
C-A	721	180			721				
A-B	101	25			101				
A-C	576	144			576				

2028 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D9 - 2028 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		8.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2028 Base + Comm + Dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	215	809
	B - Oliver Road	119	0	72
	C - Chelmsford Road (S)	612	136	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	14	1
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	4	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.82	83.12	4.2	F	191	287
C-AB	0.34	13.73	0.5	B	136	204
C-A					612	918
A-B					215	323
A-C					809	1214

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	48	234	0.818	178	0.0	3.2	56.432	F
C-AB	136	34	398	0.342	134	0.0	0.5	13.522	B
C-A	612	153			612				
A-B	215	54			215				
A-C	809	202			809				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	48	233	0.821	189	3.2	3.7	76.110	F
C-AB	136	34	398	0.342	136	0.5	0.5	13.723	B
C-A	612	153			612				
A-B	215	54			215				
A-C	809	202			809				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	48	233	0.821	190	3.7	3.9	79.745	F
C-AB	136	34	398	0.342	136	0.5	0.5	13.726	B
C-A	612	153			612				
A-B	215	54			215				
A-C	809	202			809				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	48	233	0.821	190	3.9	4.1	81.453	F
C-AB	136	34	398	0.342	136	0.5	0.5	13.726	B
C-A	612	153			612				
A-B	215	54			215				
A-C	809	202			809				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	48	233	0.821	191	4.1	4.2	82.458	F
C-AB	136	34	398	0.342	136	0.5	0.5	13.726	B
C-A	612	153			612				
A-B	215	54			215				
A-C	809	202			809				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	48	233	0.821	191	4.2	4.2	83.123	F
C-AB	136	34	398	0.342	136	0.5	0.5	13.726	B
C-A	612	153			612				
A-B	215	54			215				
A-C	809	202			809				

2028 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D10 - 2028 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way		2.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2028 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	119	603
	B - Oliver Road	96	0	63
	C - Chelmsford Road (S)	747	66	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	10	0
	B - Oliver Road	1	0	3
	C - Chelmsford Road (S)	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.50	22.42	1.0	C	159	239
C-AB	0.14	8.56	0.2	A	66	99
C-A					747	1120
A-B					119	179
A-C					603	905

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	159	40	320	0.497	155	0.0	0.9	21.432	C
C-AB	66	17	487	0.136	65	0.0	0.2	8.533	A
C-A	747	187			747				
A-B	119	30			119				
A-C	603	151			603				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	159	40	320	0.498	159	0.9	1.0	22.380	C
C-AB	66	17	487	0.136	66	0.2	0.2	8.557	A
C-A	747	187			747				
A-B	119	30			119				
A-C	603	151			603				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	159	40	320	0.498	159	1.0	1.0	22.402	C
C-AB	66	17	487	0.136	66	0.2	0.2	8.557	A
C-A	747	187			747				
A-B	119	30			119				
A-C	603	151			603				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	159	40	320	0.498	159	1.0	1.0	22.410	C
C-AB	66	17	487	0.136	66	0.2	0.2	8.557	A
C-A	747	187			747				
A-B	119	30			119				
A-C	603	151			603				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	159	40	320	0.498	159	1.0	1.0	22.415	C
C-AB	66	17	487	0.136	66	0.2	0.2	8.557	A
C-A	747	187			747				
A-B	119	30			119				
A-C	603	151			603				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	159	40	320	0.498	159	1.0	1.0	22.417	C
C-AB	66	17	487	0.136	66	0.2	0.2	8.557	A
C-A	747	187			747				
A-B	119	30			119				
A-C	603	151			603				

Junctions 9									
ARCADY 9 - Roundabout Module									
Version: 9.5.2.1013									
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Filename: Chelmsford Road - Site Access V2.j9
Path: X:\Projects\Projects\150000\152080 - Shenfield\MODELLING
Report generation date: 24/08/2023 12:43:20

- »2028 + Dev, AM
- »2028 + Dev, PM
- »2028 + Comm + Dev, AM
- »2028 + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2028 + Dev									
Arm 1	D1	3.5	9.21	0.78	A	D2	1.1	4.26	0.53	A
Arm 2		0.6	7.49	0.37	A		0.2	4.39	0.19	A
Arm 3		0.9	4.00	0.48	A		1.0	3.87	0.49	A
	2028 + Comm + Dev									
Arm 1	D3	4.0	10.48	0.81	B	D4	1.2	4.40	0.55	A
Arm 2		0.6	7.92	0.38	A		0.2	4.48	0.19	A
Arm 3		1.0	4.13	0.50	A		1.1	4.05	0.51	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	23/08/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SLR\Sean.GwynThomas
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028 + Dev	AM	ONE HOUR	00:00	01:30	15
D2	2028 + Dev	PM	ONE HOUR	00:00	01:30	15
D3	2028 + Comm + Dev	AM	ONE HOUR	00:00	01:30	15
D4	2028 + Comm + Dev	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access - Chelmsford Road	Standard Roundabout		1, 2, 3	7.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Chelmsford Road (North)	
2	Site Access	
3	Chelmsford Road (South)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.00	7.40	35.6	25.0	38.0	34.0	
2	3.65	6.85	6.9	30.0	38.0	33.0	
3	3.00	7.15	83.2	22.5	38.0	36.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.676	1856
2	0.609	1504
3	0.694	1963

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028 + Dev	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	1249	100.000
2		✓	254	100.000
3		✓	764	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	190	1059
	2	201	0	53
	3	722	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	4
	2	1	0	0
	3	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.78	9.21	3.5	A
2	0.37	7.49	0.6	A
3	0.48	4.00	0.9	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	940	32	1775	0.530	936	1.1	4.270	A
2	191	793	994	0.192	190	0.2	4.475	A
3	575	151	1789	0.322	573	0.5	2.959	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1123	38	1771	0.634	1120	1.7	5.517	A
2	228	950	896	0.255	228	0.3	5.385	A
3	687	180	1768	0.388	686	0.6	3.325	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1375	46	1765	0.779	1368	3.4	8.929	A
2	280	1160	764	0.366	279	0.6	7.408	A
3	841	221	1741	0.483	840	0.9	3.990	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1375	46	1765	0.779	1375	3.5	9.210	A
2	280	1166	760	0.368	280	0.6	7.487	A
3	841	221	1741	0.483	841	0.9	4.001	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1123	38	1771	0.634	1130	1.8	5.676	A
2	228	958	891	0.256	229	0.3	5.446	A
3	687	181	1768	0.389	688	0.6	3.337	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	940	32	1775	0.530	943	1.1	4.340	A
2	191	799	991	0.193	192	0.2	4.510	A
3	575	152	1788	0.322	576	0.5	2.971	A

2028 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access - Chelsmford Road	Standard Roundabout		1, 2, 3	4.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2028 + Dev	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	867	100.000
2		✓	173	100.000
3		✓	816	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	1	2	3
From	1	0	198
	2	146	0
	3	777	39

Vehicle Mix

Heavy Vehicle Percentages

	To		
	1	2	3
From	1	0	0
	2	4	0
	3	1	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.53	4.26	1.1	A
2	0.19	4.39	0.2	A
3	0.49	3.87	1.0	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	653	29	1809	0.361	650	0.6	3.104	A
2	130	502	1150	0.113	130	0.1	3.525	A
3	614	109	1865	0.329	612	0.5	2.871	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	779	35	1805	0.432	779	0.8	3.507	A
2	156	601	1091	0.143	155	0.2	3.847	A
3	734	131	1850	0.397	733	0.7	3.222	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	955	43	1799	0.531	953	1.1	4.247	A
2	190	735	1011	0.189	190	0.2	4.388	A
3	898	161	1829	0.491	897	1.0	3.861	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	955	43	1799	0.531	955	1.1	4.261	A
2	190	737	1010	0.189	190	0.2	4.393	A
3	898	161	1828	0.491	898	1.0	3.871	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	779	35	1805	0.432	781	0.8	3.523	A
2	156	603	1090	0.143	156	0.2	3.855	A
3	734	131	1849	0.397	735	0.7	3.232	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	653	29	1808	0.361	654	0.6	3.118	A
2	130	504	1149	0.113	130	0.1	3.536	A
3	614	110	1865	0.329	615	0.5	2.881	A

2028 + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access - Chelmsford Road	Standard Roundabout		1, 2, 3	8.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028 + Comm + Dev	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	1291	100.000
2		✓	254	100.000
3		✓	789	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	1	2	3
From	1	0	194
	2	201	0
	3	745	44

Vehicle Mix

Heavy Vehicle Percentages

	To		
	1	2	3
From	1	0	0
	2	1	0
	3	4	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.81	10.48	4.0	B
2	0.38	7.92	0.6	A
3	0.50	4.13	1.0	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	972	33	1774	0.548	967	1.2	4.439	A
2	191	822	976	0.196	190	0.2	4.573	A
3	594	151	1789	0.332	592	0.5	3.003	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1161	40	1769	0.656	1158	1.9	5.862	A
2	228	984	875	0.261	228	0.4	5.563	A
3	709	180	1768	0.401	709	0.7	3.395	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1421	48	1763	0.806	1413	3.9	10.044	B
2	280	1201	738	0.379	279	0.6	7.814	A
3	869	221	1741	0.499	867	1.0	4.113	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1421	48	1763	0.806	1421	4.0	10.479	B
2	280	1207	734	0.381	280	0.6	7.918	A
3	869	221	1741	0.499	869	1.0	4.127	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1161	40	1769	0.656	1169	1.9	6.080	A
2	228	993	869	0.263	229	0.4	5.640	A
3	709	181	1768	0.401	711	0.7	3.411	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	972	33	1773	0.548	975	1.2	4.523	A
2	191	828	972	0.197	192	0.2	4.613	A
3	594	152	1788	0.332	595	0.5	3.020	A

2028 + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Site Access - Chelmsford Road	Standard Roundabout		1, 2, 3	4.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 + Comm + Dev	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	891	100.000
2		✓	173	100.000
3		✓	854	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	1	2	3
From	1	0	198
	2	146	0
	3	815	39

Vehicle Mix

Heavy Vehicle Percentages

	To		
	1	2	3
From	1	0	0
	2	4	0
	3	1	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.55	4.40	1.2	A
2	0.19	4.48	0.2	A
3	0.51	4.05	1.1	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	671	29	1808	0.371	668	0.6	3.151	A
2	130	520	1140	0.114	130	0.1	3.563	A
3	643	109	1865	0.345	641	0.5	2.935	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	801	35	1804	0.444	800	0.8	3.581	A
2	156	622	1078	0.144	155	0.2	3.901	A
3	768	131	1850	0.415	767	0.7	3.324	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	981	43	1799	0.545	979	1.2	4.384	A
2	190	762	995	0.191	190	0.2	4.474	A
3	940	161	1829	0.514	939	1.0	4.041	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	981	43	1799	0.545	981	1.2	4.400	A
2	190	763	994	0.192	190	0.2	4.479	A
3	940	161	1828	0.514	940	1.1	4.053	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	801	35	1804	0.444	803	0.8	3.598	A
2	156	624	1077	0.144	156	0.2	3.909	A
3	768	131	1849	0.415	769	0.7	3.338	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	671	29	1808	0.371	672	0.6	3.169	A
2	130	522	1138	0.114	130	0.1	3.574	A
3	643	110	1865	0.345	644	0.5	2.949	A