Appendix C – Full Model Outputs

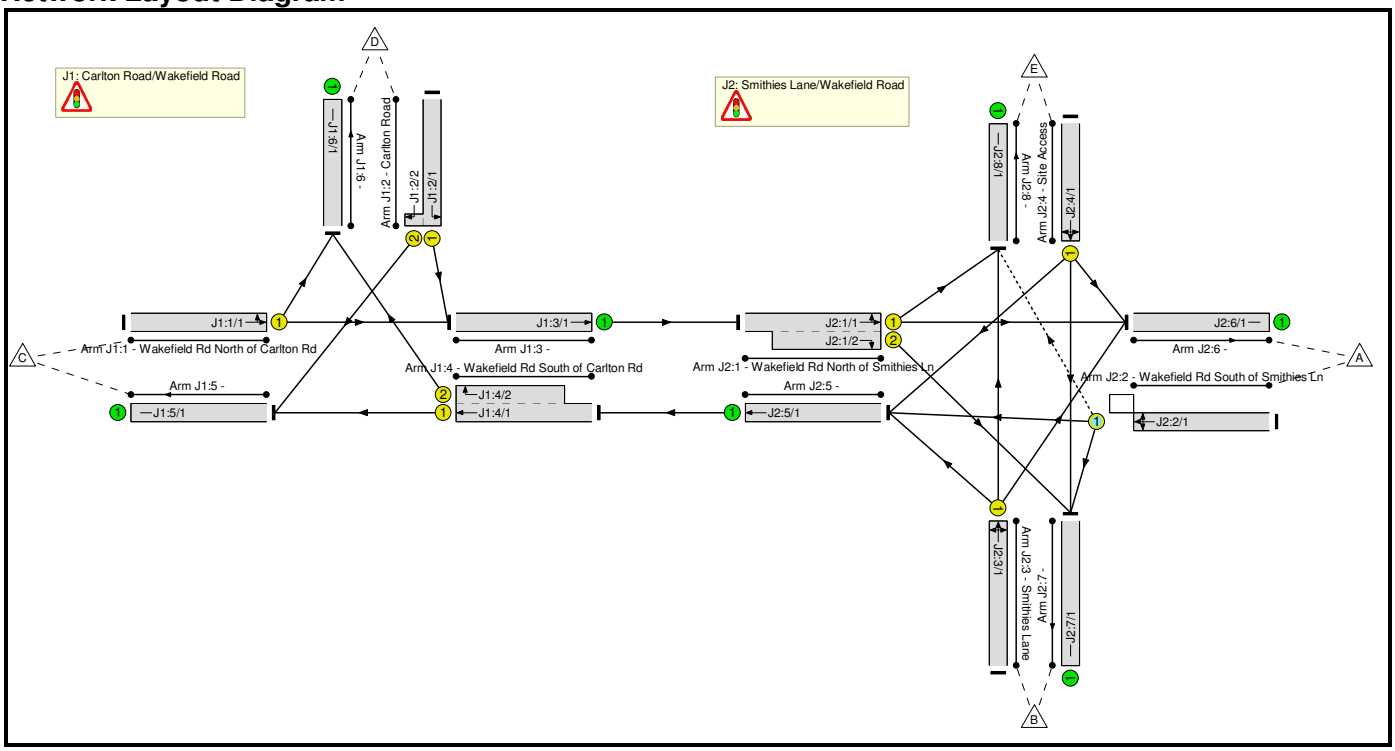
Wakefield Road/Carlton Road/Smithies Lane

Full Input Data And Results

User and Project Details

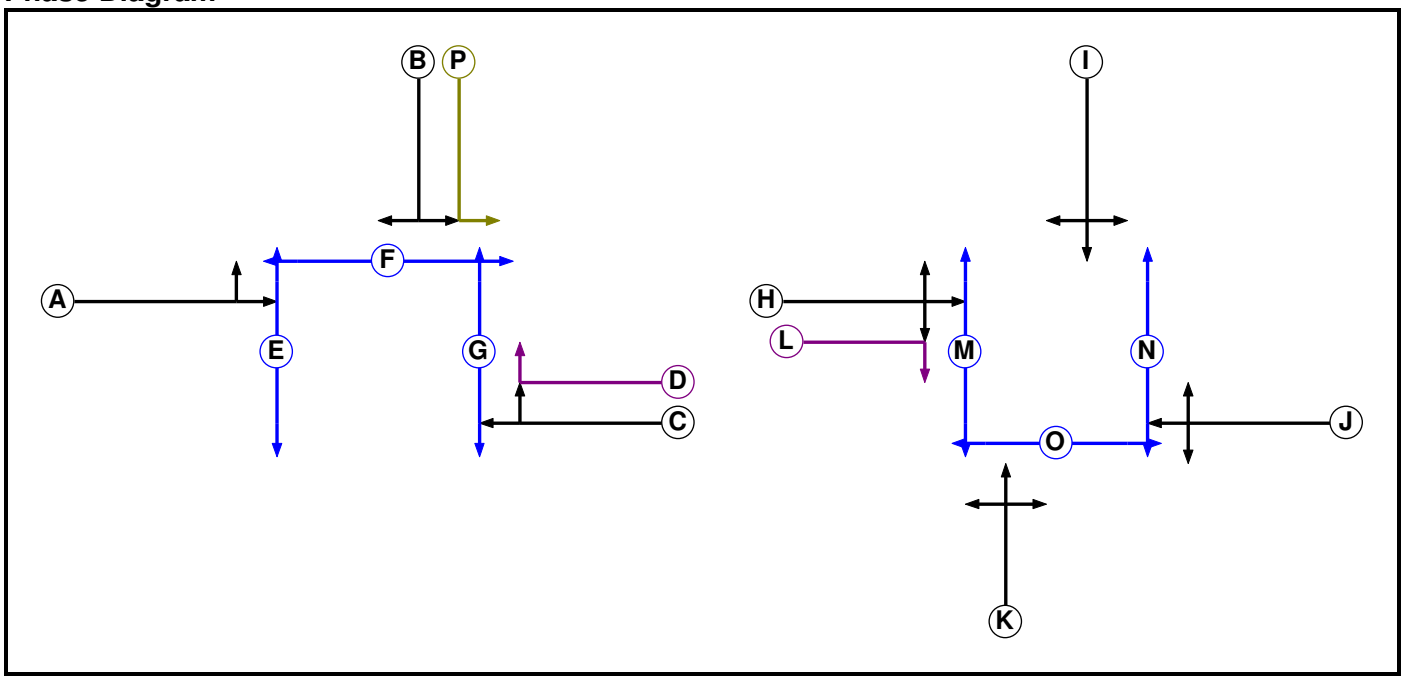
Project:	**90095 Proposed Barnsley Foodstore**
Title:	**Wakefield Road/Carlton Road/Smithies Lane**
Location:	Barnsley
File name:	Carlton Rd_Smithies Ln_Wakefield Rd.lsg3x
Author:	D Stoddart
Company:	Curtins
Address:	Manchester
Notes:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Ind. Arrow	1	C	4	4
E	Pedestrian	1		8	8
F	Pedestrian	1		8	8
G	Pedestrian	1		8	8
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Traffic	2		7	7
K	Traffic	2		7	7
L	Ind. Arrow	2	H	4	4
M	Pedestrian	2		8	8
N	Pedestrian	2		8	8
O	Pedestrian	2		8	8
P	Filter	1	B	3	0

Full Input Data And Results

Phase Intergreens Matrix

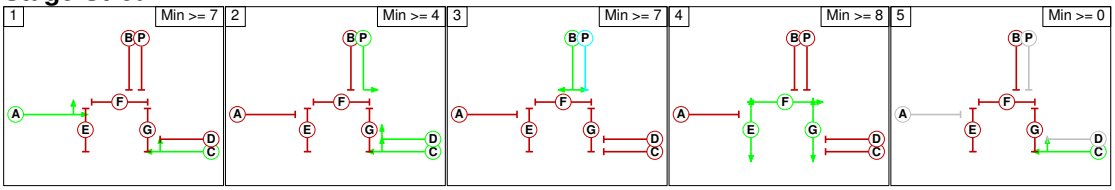
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A		5	-	7	7	7	7	-	-	-	-	-	-	-	-	5
B	7		7	5	7	7	7	-	-	-	-	-	-	-	-	-
C	-	5		-	7	7	7	-	-	-	-	-	-	-	-	-
D	5	5	-		7	7	7	-	-	-	-	-	-	-	-	-
E	7	7	7	7		-	-	-	-	-	-	-	-	-	-	5
F	7	7	7	7	-		-	-	-	-	-	-	-	-	-	5
G	7	7	7	7	-	-		-	-	-	-	-	-	-	-	5
H	-	-	-	-	-	-	-		5	-	5	-	7	7	7	-
I	-	-	-	-	-	-	-	7		7	-	7	7	7	7	-
J	-	-	-	-	-	-	-	-	5		5	7	7	7	7	-
K	-	-	-	-	-	-	-	7	-	7		7	7	7	7	-
L	-	-	-	-	-	-	-	-	5	7	5		7	7	7	-
M	-	-	-	-	-	-	-	7	7	7	7	7		-	-	-
N	-	-	-	-	-	-	-	7	7	7	7	7	-		-	-
O	-	-	-	-	-	-	-	7	7	7	7	7	-	-		-
P	3	-	-	-	3	3	3	-	-	-	-	-	-	-	-	

Phases in Stage

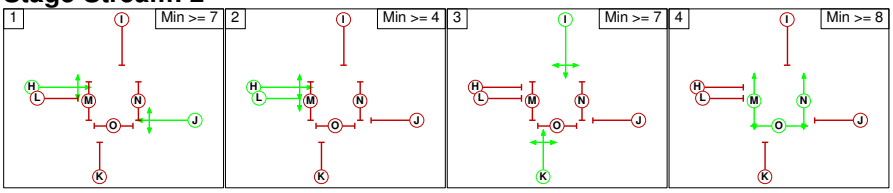
Stream	Stage No.	Phases in Stage
1	1	A C
1	2	C D P
1	3	B
1	4	E F G
1	5	C
2	1	H J
2	2	H L
2	3	I K
2	4	M N O

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

From Stage \ To Stage	1	2	3	4	5
1		7	5	7	0
2	X		5	X	X
3	7	X		7	7
4	7	7	7		7
5	2	0	5	7	

Stage Stream: 2

From Stage \ To Stage	1	2	3	4
1		7	5	7
2	7		5	7
3	7	7		7
4	7	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Carlton Road/Wakefield Road
There are no Opposed Lanes in this Junction

Junction: J2: Smithies Lane/Wakefield Road										
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
J2:2/1 (Wakefield Rd South of Smithies Ln)	J2:8/1 (Right)	1439	J2:1/1	1.09	J2:1/1	2.00	2.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: J1: Carlton Road/Wakefield Road												
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)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:3 Ahead	Inf
											Arm J1:6 Left	15.00
J1:2/1 (Carlton Road)	U	B P	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:3 Left	18.00
J1:2/2 (Carlton Road)	U	B	2	3	0.1	Geom	-	3.00	0.00	Y	Arm J1:5 Right	20.00
J1:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:4/1 (Wakefield Rd South of Carlton Rd)	U	C	2	3	28.0	Geom	-	2.80	0.00	Y	Arm J1:5 Ahead	Inf
J1:4/2 (Wakefield Rd South of Carlton Rd)	U	C D	2	3	10.0	Geom	-	2.50	0.00	Y	Arm J1:6 Right	18.00
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road

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)
J2:1/1 (Wakefield Rd North of Smithies Ln)	U	H	2	3	27.0	Geom	-	3.00	0.00	Y	Arm J2:6 Ahead	Inf
											Arm J2:8 Left	Inf
J2:1/2 (Wakefield Rd North of Smithies Ln)	U	H L	2	3	10.5	Geom	-	2.60	0.00	Y	Arm J2:7 Right	15.00
J2:2/1 (Wakefield Rd South of Smithies Ln)	O	J	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:5 Ahead	Inf
											Arm J2:7 Left	20.00
											Arm J2:8 Right	15.00
J2:3/1 (Smithies Lane)	U	K	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:5 Left	20.00
											Arm J2:6 Right	18.00
											Arm J2:8 Ahead	Inf
J2:4/1 (Site Access)	U	I	2	3	60.0	Geom	-	2.50	0.00	Y	Arm J2:5 Right	12.00
											Arm J2:6 Left	10.00
											Arm J2:7 Ahead	Inf
J2:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Fri 2011 Obs'	15:45	16:45	01:00	
2: 'Sat 2011 Obs'	12:30	13:30	01:00	
3: 'Fri 2012 Future Base'	15:45	16:45	01:00	
4: 'Sat 2012 Future Base'	12:30	13:30	01:00	
5: 'Fri 2017 Future Base'	15:45	16:45	01:00	
6: 'Sat 2017 Future Base'	12:30	13:30	01:00	
7: 'Fri 2017 Future Base+Dev'	15:45	16:45	01:00	
8: 'Sat 2017 Future Base+Dev'	12:30	13:30	01:00	

Scenario 1: 'Fri 2011 Obs' (FG1: 'Fri 2011 Obs', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	48	527	288	4	867
	B	25	0	176	80	2	283
	C	337	172	0	33	2	544
	D	276	137	8	0	2	423
	E	4	2	3	1	0	10
	Tot.	642	359	714	402	10	2127

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Fri 2011 Obs
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	544
J1:2/1 (with short)	423(In) 415(Out)
J1:2/2 (short)	8
J1:3/1	926
J1:4/1 (with short)	1075(In) 706(Out)
J1:4/2 (short)	369
J1:5/1	714
J1:6/1	402
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	926(In) 617(Out)
J2:1/2 (short)	309
J2:2/1	867
J2:3/1	283
J2:4/1	10
J2:5/1	1075
J2:6/1	642
J2:7/1	359
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	93.9 %	1903	1903
				Arm J1:6 Left	15.00	6.1 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.0 %	1931	1931
				Arm J2:7 Left	20.00	5.5 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	90.5 %	1828	1828
				Arm J2:6 Right	18.00	8.8 %		
				Arm J2:8 Ahead	Inf	0.7 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Sat 2011 Obs' (FG2: 'Sat 2011 Obs', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	27	502	230	4	763
	B	23	0	115	39	2	179
	C	346	138	0	15	2	501
	D	286	110	14	0	2	412
	E	4	2	3	1	0	10
	Tot.	659	277	634	285	10	1865

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Sat 2011 Obs
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	501
J1:2/1 (with short)	412(In) 398(Out)
J1:2/2 (short)	14
J1:3/1	884
J1:4/1 (with short)	890(In) 620(Out)
J1:4/2 (short)	270
J1:5/1	634
J1:6/1	285
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	884(In) 636(Out)
J2:1/2 (short)	248
J2:2/1	763
J2:3/1	179
J2:4/1	10
J2:5/1	890
J2:6/1	659
J2:7/1	277
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.0 %	1909	1909
				Arm J1:6 Left	15.00	3.0 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	95.9 %	1934	1934
				Arm J2:7 Left	20.00	3.5 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	86.0 %	1828	1828
				Arm J2:6 Right	18.00	12.8 %		
				Arm J2:8 Ahead	Inf	1.1 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Fri 2012 Future Base' (FG3: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	48	539	290	4	881
	B	25	0	178	79	2	284
	C	349	174	0	33	2	558
	D	283	136	8	0	2	429
	E	4	2	3	1	0	10
	Tot.	661	360	728	403	10	2162

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Fri 2012 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	558
J1:2/1 (with short)	429(In) 421(Out)
J1:2/2 (short)	8
J1:3/1	946
J1:4/1 (with short)	1090(In) 720(Out)
J1:4/2 (short)	370
J1:5/1	728
J1:6/1	403
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	946(In) 636(Out)
J2:1/2 (short)	310
J2:2/1	881
J2:3/1	284
J2:4/1	10
J2:5/1	1090
J2:6/1	661
J2:7/1	360
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	94.1 %	1904	1904
				Arm J1:6 Left	15.00	5.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.1 %	1931	1931
				Arm J2:7 Left	20.00	5.4 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	90.5 %	1828	1828
				Arm J2:6 Right	18.00	8.8 %		
				Arm J2:8 Ahead	Inf	0.7 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Sat 2012 Future Base' (FG4: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	27	523	232	4	786
	B	23	0	117	38	2	180
	C	370	141	0	15	2	528
	D	297	107	14	0	2	420
	E	4	2	3	1	0	10
	Tot.	694	277	657	286	10	1924

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Sat 2012 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	528
J1:2/1 (with short)	420(In) 406(Out)
J1:2/2 (short)	14
J1:3/1	919
J1:4/1 (with short)	914(In) 643(Out)
J1:4/2 (short)	271
J1:5/1	657
J1:6/1	286
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	919(In) 671(Out)
J2:1/2 (short)	248
J2:2/1	786
J2:3/1	180
J2:4/1	10
J2:5/1	914
J2:6/1	694
J2:7/1	277
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.2 %	1910	1910
				Arm J1:6 Left	15.00	2.8 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	96.1 %	1934	1934
				Arm J2:7 Left	20.00	3.4 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	86.1 %	1828	1828
				Arm J2:6 Right	18.00	12.8 %		
				Arm J2:8 Ahead	Inf	1.1 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Fri 2017 Future Base' (FG5: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	50	560	301	4	915
	B	26	0	184	83	2	295
	C	362	180	0	34	2	578
	D	293	141	8	0	2	444
	E	4	2	3	1	0	10
	Tot.	685	373	755	419	10	2242

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Fri 2017 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	578
J1:2/1 (with short)	444(In) 436(Out)
J1:2/2 (short)	8
J1:3/1	980
J1:4/1 (with short)	1132(In) 747(Out)
J1:4/2 (short)	385
J1:5/1	755
J1:6/1	419
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	980(In) 659(Out)
J2:1/2 (short)	321
J2:2/1	915
J2:3/1	295
J2:4/1	10
J2:5/1	1132
J2:6/1	685
J2:7/1	373
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	94.1 %	1904	1904
				Arm J1:6 Left	15.00	5.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.1 %	1931	1931
				Arm J2:7 Left	20.00	5.5 %		
				Arm J2:8 Right	15.00	0.4 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	90.5 %	1828	1828
				Arm J2:6 Right	18.00	8.8 %		
				Arm J2:8 Ahead	Inf	0.7 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Sat 2017 Future Base' (FG6: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	28	544	242	4	818
	B	24	0	122	39	2	187
	C	384	147	0	16	2	549
	D	310	112	15	0	2	439
	E	4	2	3	1	0	10
	Tot.	722	289	684	298	10	2003

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Sat 2017 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	549
J1:2/1 (with short)	439(In) 424(Out)
J1:2/2 (short)	15
J1:3/1	957
J1:4/1 (with short)	951(In) 669(Out)
J1:4/2 (short)	282
J1:5/1	684
J1:6/1	298
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	957(In) 698(Out)
J2:1/2 (short)	259
J2:2/1	818
J2:3/1	187
J2:4/1	10
J2:5/1	951
J2:6/1	722
J2:7/1	289
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.1 %	1909	1909
				Arm J1:6 Left	15.00	2.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	96.1 %	1934	1934
				Arm J2:7 Left	20.00	3.4 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	86.1 %	1827	1827
				Arm J2:6 Right	18.00	12.8 %		
				Arm J2:8 Ahead	Inf	1.1 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Fri 2017 Future Base+Dev' (FG7: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	50	690	315	4	1059
	B	26	0	198	69	2	295
	C	480	203	0	34	3	720
	D	310	118	8	0	1	437
	E	4	2	3	1	0	10
	Tot.	820	373	899	419	10	2521

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Fri 2017 Future Base+Dev
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	720
J1:2/1 (with short)	437(In) 429(Out)
J1:2/2 (short)	8
J1:3/1	1115
J1:4/1 (with short)	1276(In) 891(Out)
J1:4/2 (short)	385
J1:5/1	899
J1:6/1	419
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	1115(In) 794(Out)
J2:1/2 (short)	321
J2:2/1	1059
J2:3/1	295
J2:4/1	10
J2:5/1	1276
J2:6/1	820
J2:7/1	373
J2:8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	95.3 %	1906	1906
				Arm J1:6 Left	15.00	4.7 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.5 %	1915	1915
				Arm J2:8 Left	Inf	0.5 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.9 %	1932	1932
				Arm J2:7 Left	20.00	4.7 %		
				Arm J2:8 Right	15.00	0.4 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	90.5 %	1828	1828
				Arm J2:6 Right	18.00	8.8 %		
				Arm J2:8 Ahead	Inf	0.7 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: 'Sat 2017 Future Base+Dev' (FG8: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	28	666	248	4	946
	B	24	0	130	32	2	188
	C	487	164	0	16	3	670
	D	319	95	15	0	1	430
	E	4	2	3	1	0	10
	Tot.	834	289	814	297	10	2244

Traffic Lane Flows

Lane	Scenario 8: Sat 2017 Future Base+Dev
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	670
J1:2/1 (with short)	430(In) 415(Out)
J1:2/2 (short)	15
J1:3/1	1069
J1:4/1 (with short)	1080(In) 799(Out)
J1:4/2 (short)	281
J1:5/1	814
J1:6/1	297
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	1069(In) 810(Out)
J2:1/2 (short)	259
J2:2/1	946
J2:3/1	188
J2:4/1	10
J2:5/1	1080
J2:6/1	834
J2:7/1	289
J2:8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.6 %	1910	1910
				Arm J1:6 Left	15.00	2.4 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

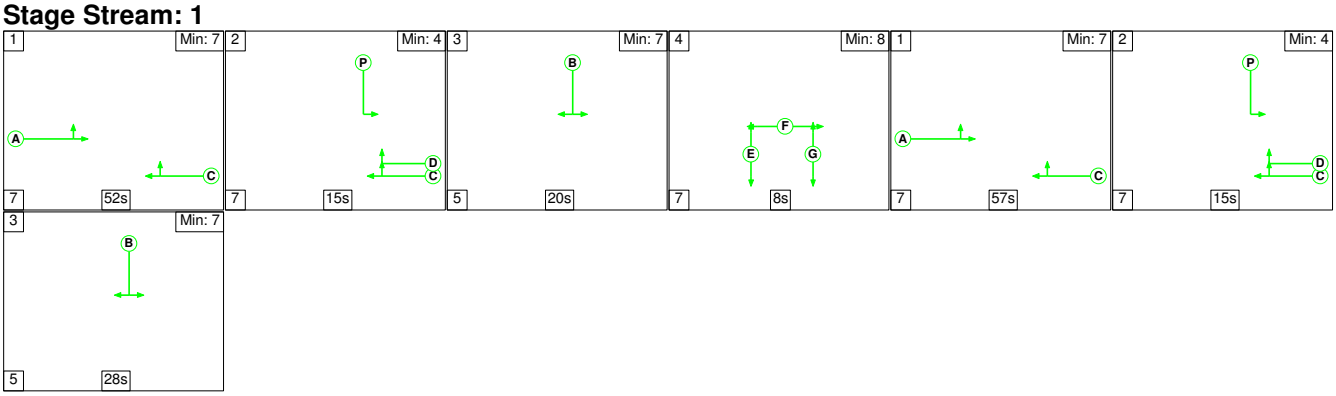
Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.5 %	1915	1915
				Arm J2:8 Left	Inf	0.5 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	96.6 %	1935	1935
				Arm J2:7 Left	20.00	3.0 %		
				Arm J2:8 Right	15.00	0.4 %		
J2:3/1 (Smithies Lane)	3.50	0.00	Y	Arm J2:5 Left	20.00	86.2 %	1827	1827
				Arm J2:6 Right	18.00	12.8 %		
				Arm J2:8 Ahead	Inf	1.1 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

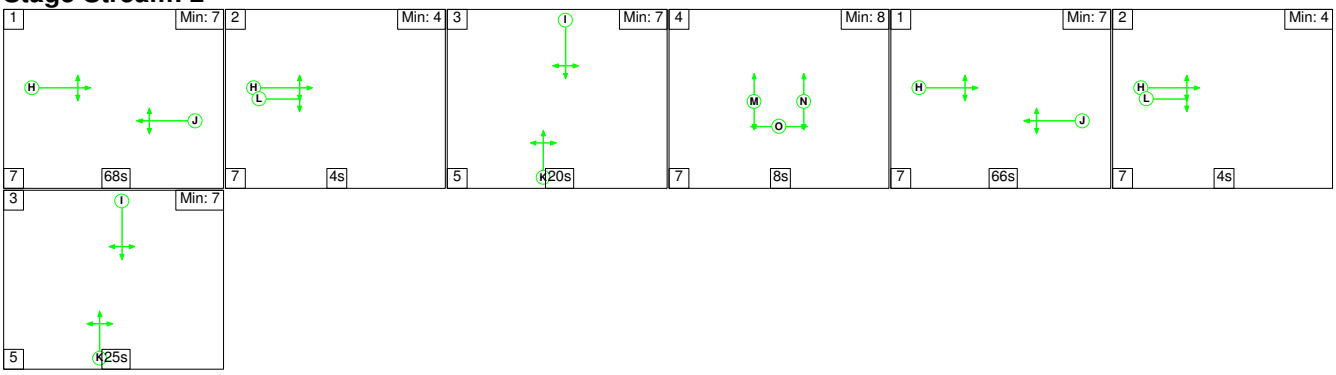
Scenario 1: 'Fri 2011 Obs' (FG1: 'Fri 2011 Obs', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

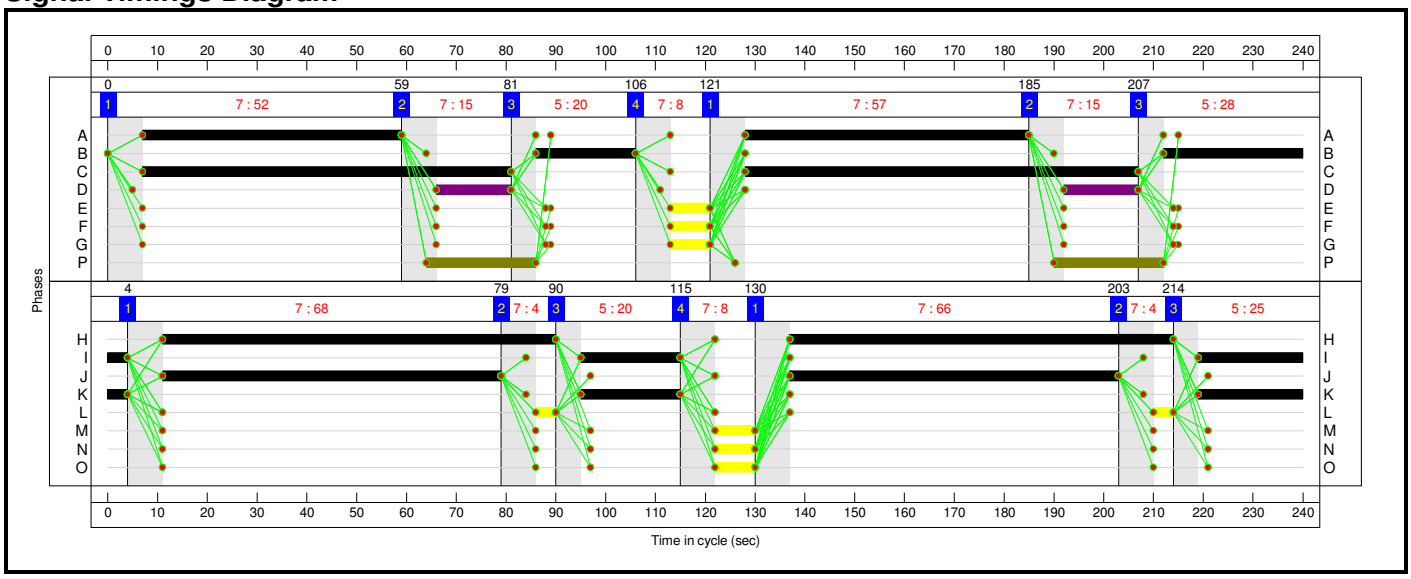
Stage	1	2	3	4	1	2	3
Duration	52	15	20	8	57	15	28
Change Point	0	59	81	106	121	185	207

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	68	4	20	8	66	4	25
Change Point	4	79	90	115	130	203	214

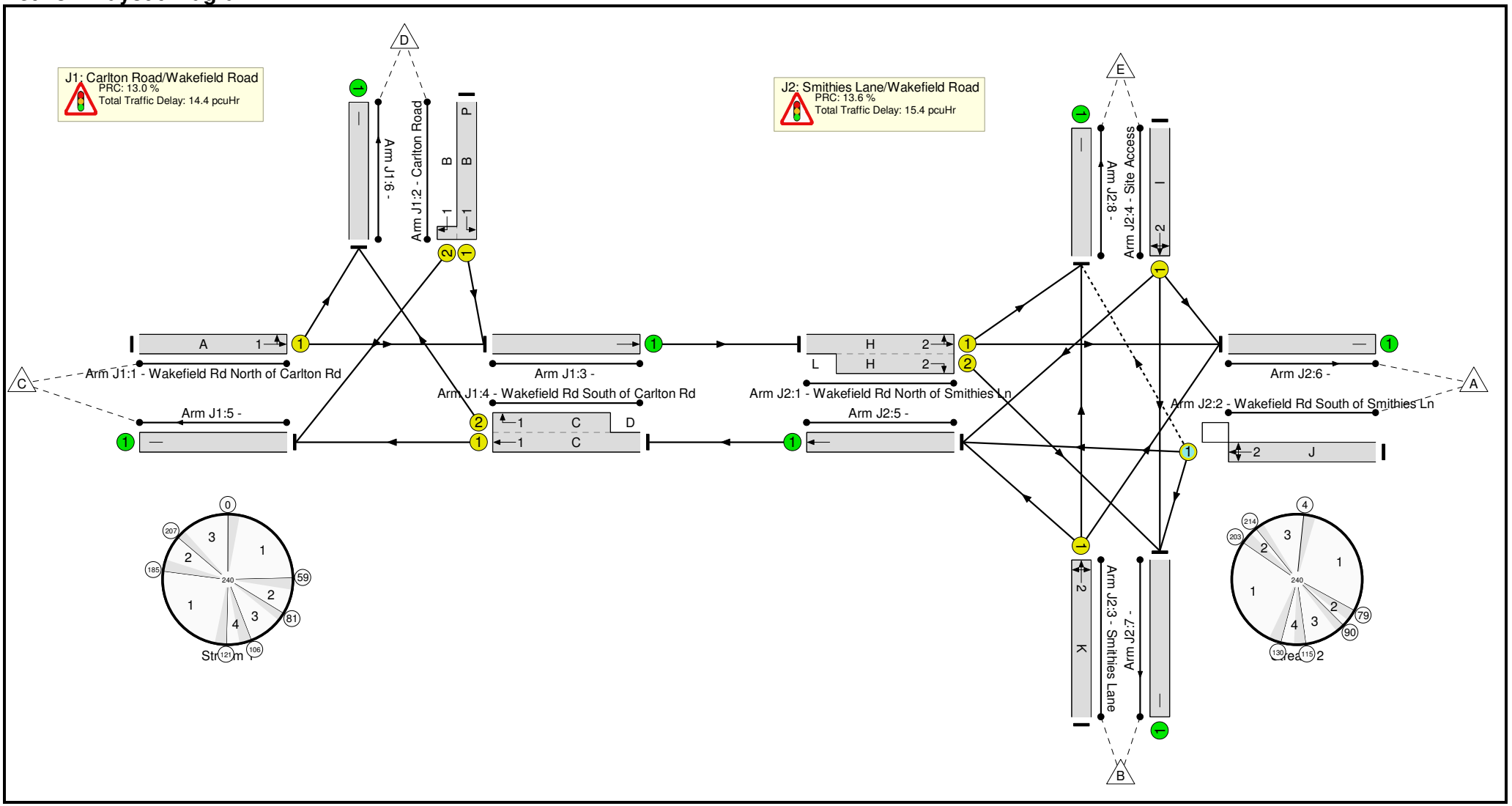
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.6%**
J1: Carlton Road/Wakefield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.6%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	109	-	544	1903	880	61.8%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	92:48	44	423	1814:1781	536	78.9%
3/1	Ahead	U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	153	30	1075	1895:1722	1350	79.6%
5/1		U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.2%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	156	8	926	1915:1705	1386	66.8%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	134	-	867	1931	1094	79.2%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	45	-	283	1828	358	79.1%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	45	-	10	1680	329	3.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1075	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**20.6**	**9.2**	**0.0**	**29.8**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**9.9**	**4.5**	**0.0**	**14.4**	**-**	**-**	**-**	**-**
1/1	544	544	-	-	-	3.7	0.8	-	4.5	29.7	14.4	0.8	15.2
2/1+2/2	423	423	-	-	-	4.2	1.8	-	6.0	50.8	14.5	1.8	16.3
3/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1075	1075	-	-	-	2.1	1.9	-	4.0	13.4	8.3	1.9	10.3
5/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**10.7**	**4.7**	**0.0**	**15.4**	**-**	**-**	**-**	**-**
1/1+1/2	926	926	-	-	-	2.0	1.0	-	3.0	11.7	9.1	1.0	10.1
2/1	867	867	4	0	0	5.0	1.9	0.0	6.8	28.4	24.8	1.9	26.7
3/1	283	283	-	-	-	3.6	1.8	-	5.4	69.0	9.5	1.8	11.3
4/1	10	10	-	-	-	0.1	0.0	-	0.1	45.0	0.3	0.0	0.3
5/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

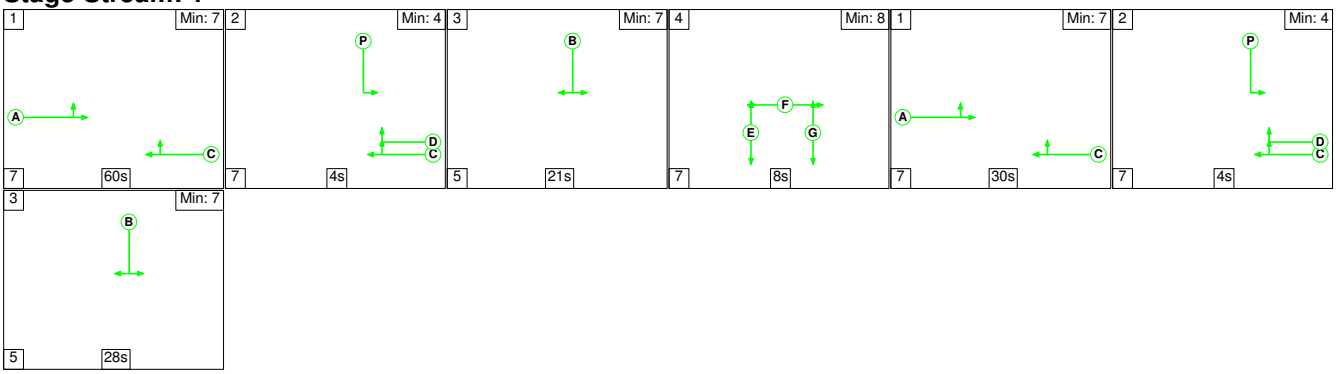
C1 Stream: 1 PRC for Signalled Lanes (%): 13.0 Total Delay for Signalled Lanes (pcuHr): 14.44 Cycle Time (s): 240
C1 Stream: 2 PRC for Signalled Lanes (%): 13.6 Total Delay for Signalled Lanes (pcuHr): 15.41 Cycle Time (s): 240
PRC Over All Lanes (%): 13.0 Total Delay Over All Lanes(pcuHr): 29.85

Full Input Data And Results

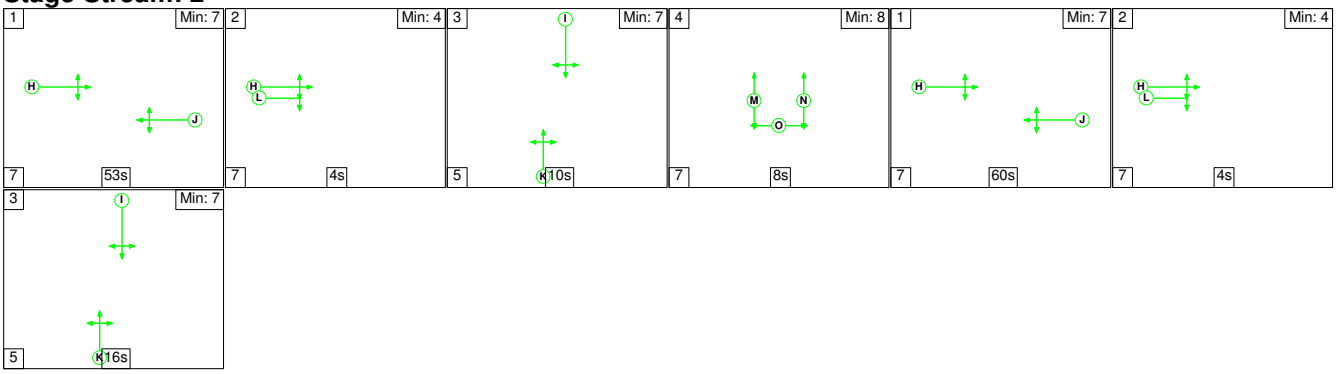
Scenario 2: 'Sat 2011 Obs' (FG2: 'Sat 2011 Obs', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

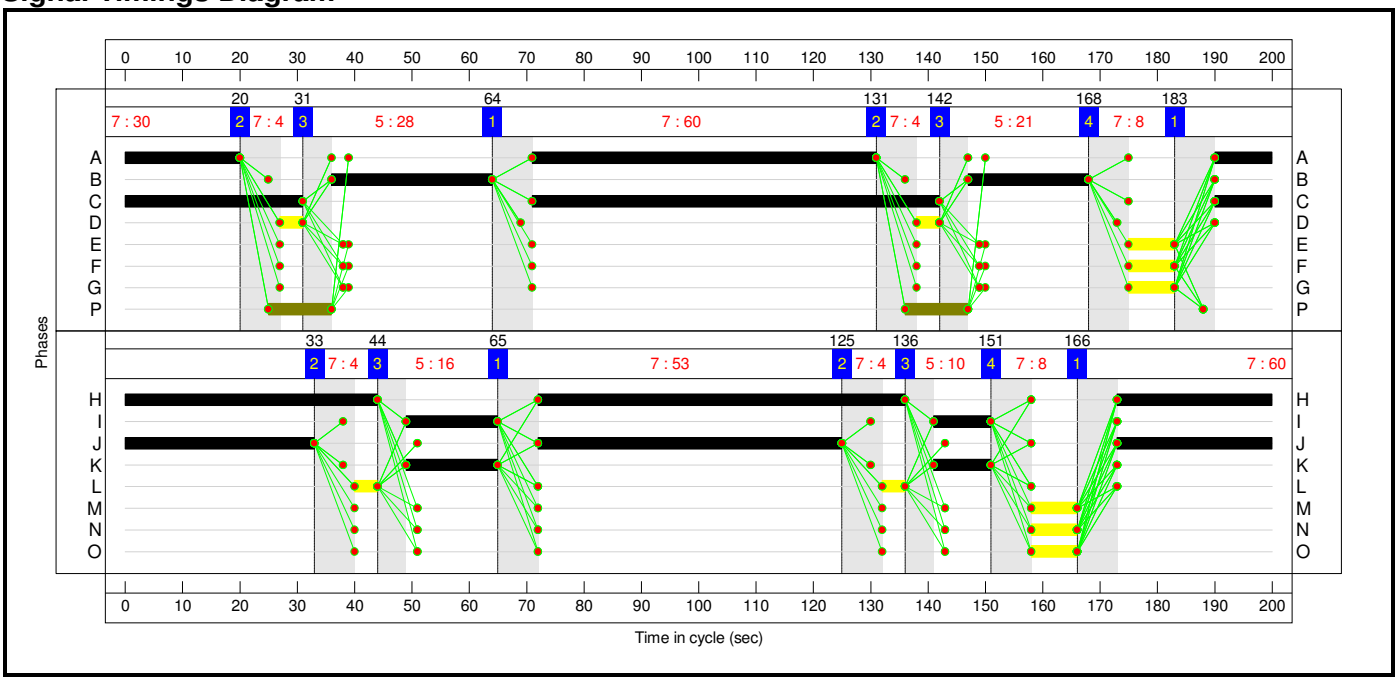
Stage	1	2	3	4	1	2	3
Duration	60	4	21	8	30	4	28
Change Point	64	131	142	168	183	20	31

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	53	4	10	8	60	4	16
Change Point	65	125	136	151	166	33	44

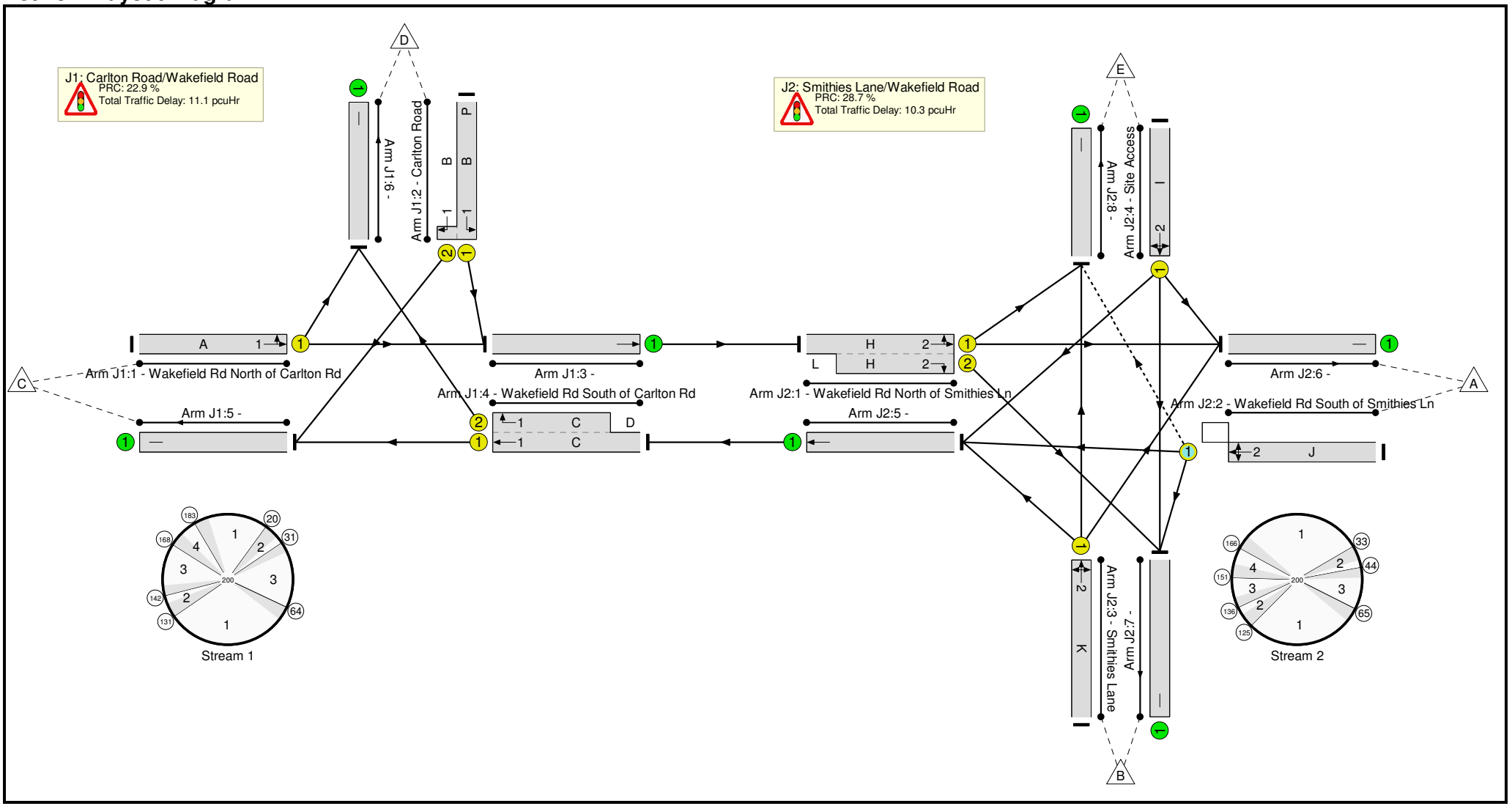
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.2%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.2%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	90	-	501	1909	878	57.1%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	71:49	22	412	1814:1781	568	72.5%
3/1	Ahead	U	N/A	N/A	-		-	-	-	884	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	112	8	890	1895:1722	1216	73.2%
5/1		U	N/A	N/A	-		-	-	-	634	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	285	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**69.9%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	135	8	884	1915:1705	1434	61.6%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	113	-	763	1934	1112	68.6%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	26	-	179	1828	256	69.9%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	26	-	10	1680	235	4.3%
5/1	Ahead	U	N/A	N/A	-		-	-	-	890	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**15.0**	**6.4**	**0.0**	**21.3**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**7.8**	**3.3**	**0.0**	**11.1**	**-**	**-**	**-**	**-**
1/1	501	501	-	-	-	2.8	0.7	-	3.4	24.6	10.9	0.7	11.5
2/1+2/2	412	412	-	-	-	3.4	1.3	-	4.7	41.1	11.2	1.3	12.5
3/1	884	884	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	890	890	-	-	-	1.6	1.4	-	3.0	12.0	20.2	1.4	21.6
5/1	634	634	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**7.2**	**3.0**	**0.0**	**10.3**	**-**	**-**	**-**	**-**
1/1+1/2	884	884	-	-	-	1.8	0.8	-	2.6	10.7	14.6	0.8	15.4
2/1	763	763	4	0	0	3.2	1.1	0.0	4.3	20.2	16.3	1.1	17.4
3/1	179	179	-	-	-	2.1	1.1	-	3.2	64.4	5.3	1.1	6.5
4/1	10	10	-	-	-	0.1	0.0	-	0.1	46.0	0.3	0.0	0.3
5/1	890	890	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

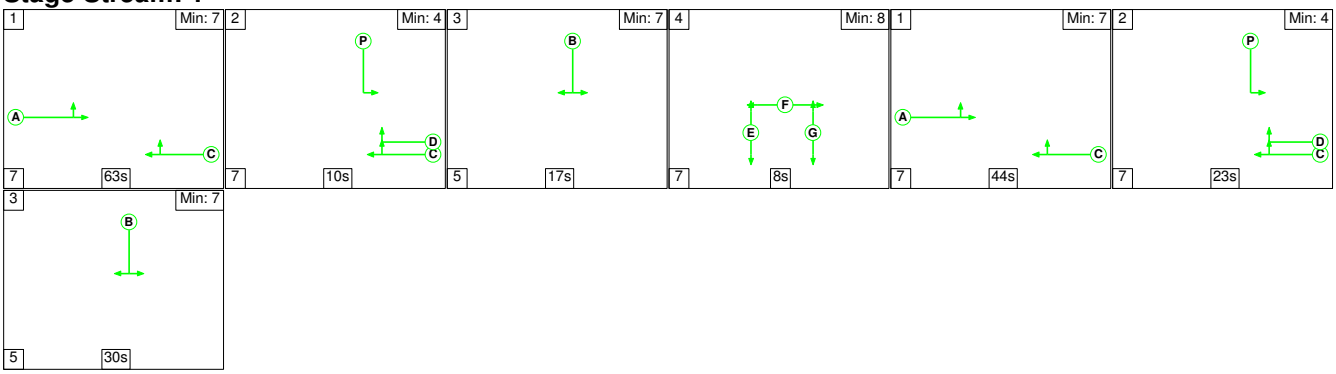
C1	Stream: 1 PRC for Signalled Lanes (%):	22.9	Total Delay for Signalled Lanes (pcuHr):	11.09	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	28.7	Total Delay for Signalled Lanes (pcuHr):	10.25	Cycle Time (s): 200
	PRC Over All Lanes (%):	22.9	Total Delay Over All Lanes(pcuHr):	21.34	

Full Input Data And Results

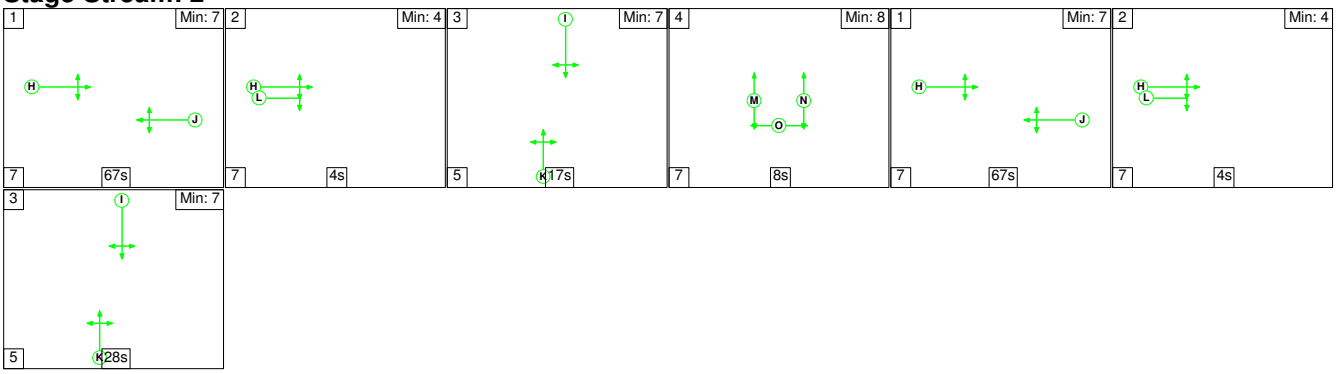
Scenario 3: 'Fri 2012 Future Base' (FG3: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

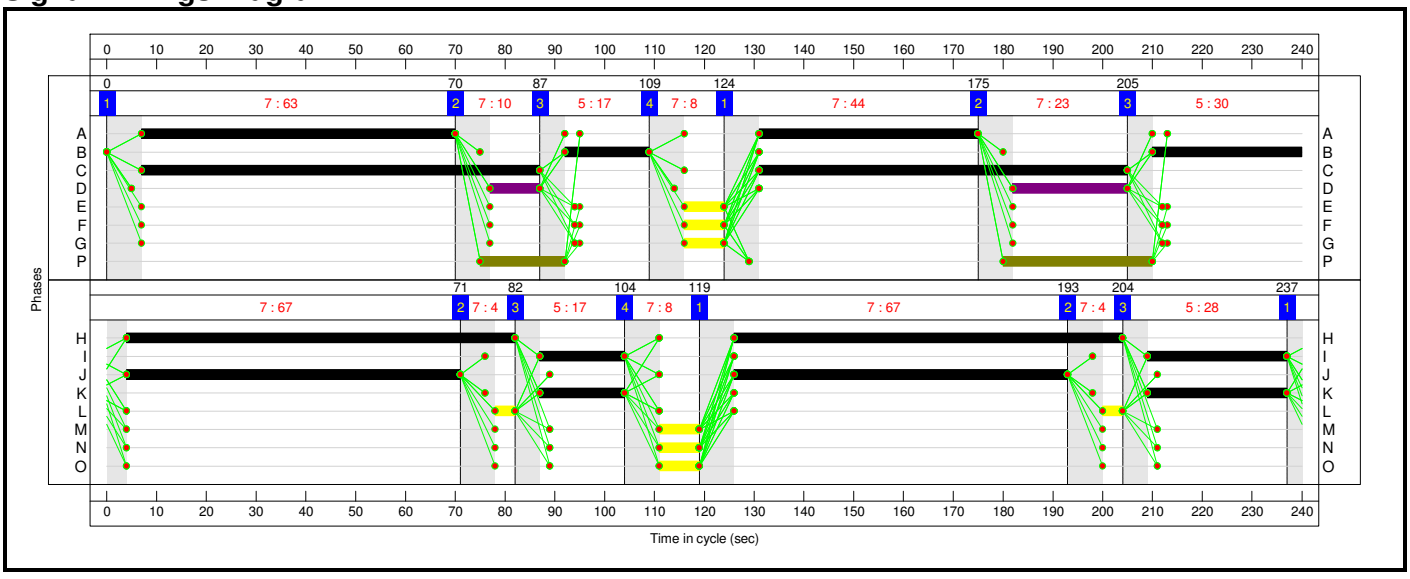
Stage Stream: 1

Stage	1	2	3	4	1	2	3
Duration	63	10	17	8	44	23	30
Change Point	0	70	87	109	124	175	205

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	67	4	17	8	67	4	28
Change Point	237	71	82	104	119	193	204

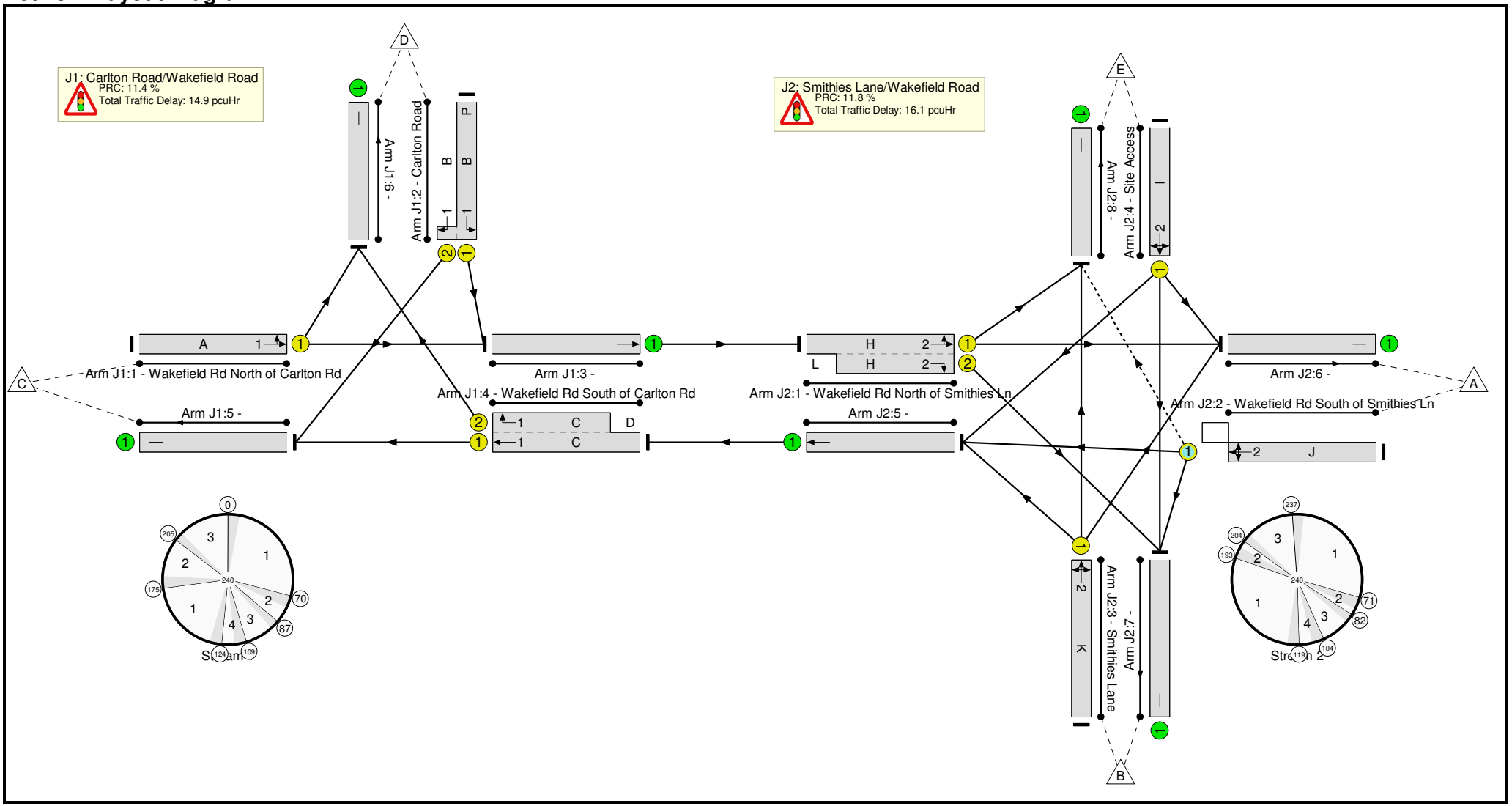
Signal Timings Diagram



Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.8%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.8%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	107	-	558	1904	865	64.5%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	94:47	47	429	1814:1781	531	80.8%
3/1	Ahead	U	N/A	N/A	-		-	-	-	946	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	154	33	1090	1895:1722	1355	80.4%
5/1		U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	403	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.5%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	156	8	946	1915:1705	1383	68.4%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	134	-	881	1931	1094	80.5%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	45	-	284	1828	358	79.3%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	45	-	10	1680	329	3.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1090	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**21.1**	**9.9**	**0.0**	**31.0**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**10.0**	**5.0**	**0.0**	**14.9**	**-**	**-**	**-**	**-**
1/1	558	558	-	-	-	3.9	0.9	-	4.9	31.3	15.5	0.9	16.4
2/1+2/2	429	429	-	-	-	4.2	2.0	-	6.2	51.9	13.9	2.0	16.0
3/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1090	1090	-	-	-	1.9	2.0	-	3.9	12.9	7.9	2.0	9.9
5/1	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	403	403	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**11.1**	**4.9**	**0.0**	**16.1**	**-**	**-**	**-**	**-**
1/1+1/2	946	946	-	-	-	2.3	1.1	-	3.4	12.8	9.0	1.1	10.1
2/1	881	881	4	0	0	5.1	2.0	0.0	7.1	29.0	24.2	2.0	26.3
3/1	284	284	-	-	-	3.6	1.8	-	5.5	69.4	9.7	1.8	11.5
4/1	10	10	-	-	-	0.1	0.0	-	0.1	45.1	0.3	0.0	0.3
5/1	1090	1090	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

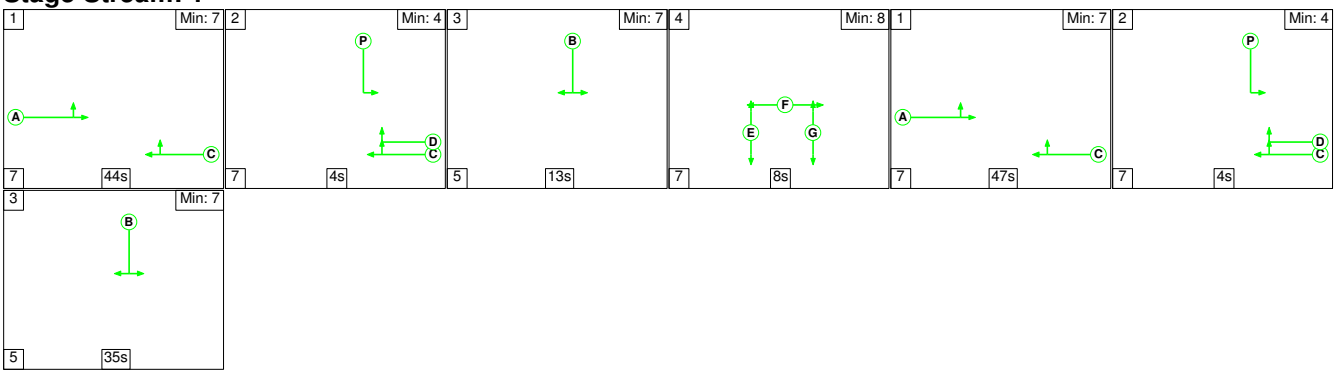
C1 Stream: 1 PRC for Signalled Lanes (%): 11.4 Total Delay for Signalled Lanes (pcuHr): 14.94 Cycle Time (s): 240
C1 Stream: 2 PRC for Signalled Lanes (%): 11.8 Total Delay for Signalled Lanes (pcuHr): 16.07 Cycle Time (s): 240
PRC Over All Lanes (%): 11.4 Total Delay Over All Lanes(pcuHr): 31.01

Full Input Data And Results

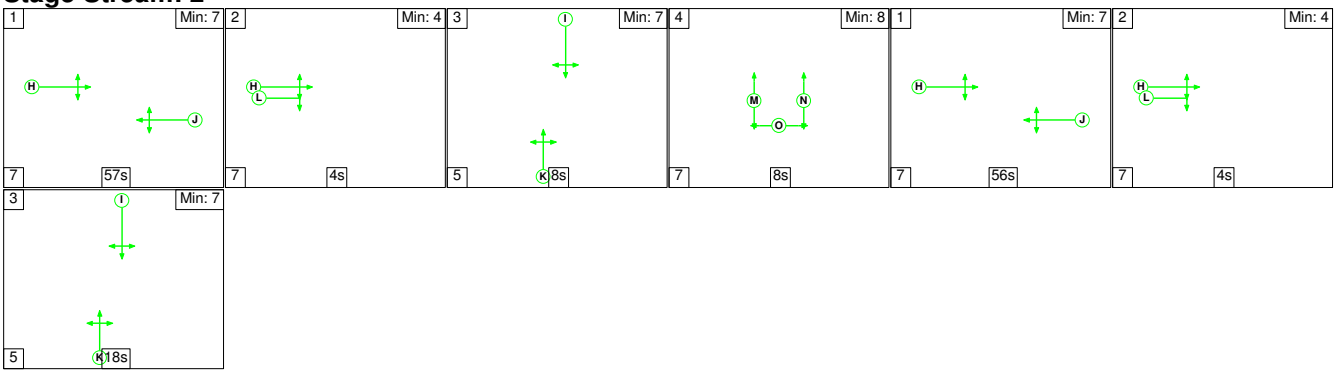
Scenario 4: 'Sat 2012 Future Base' (FG4: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

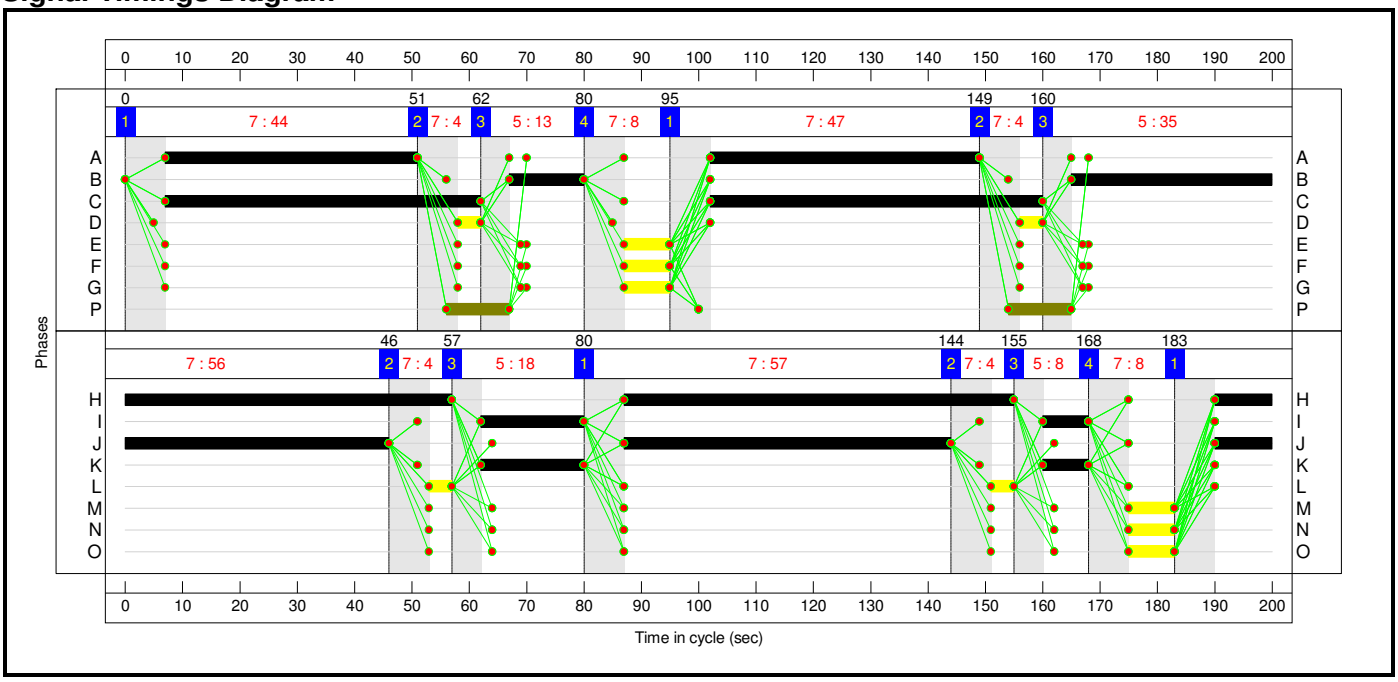
Stage	1	2	3	4	1	2	3
Duration	44	4	13	8	47	4	35
Change Point	0	51	62	80	95	149	160

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	57	4	8	8	56	4	18
Change Point	80	144	155	168	183	46	57

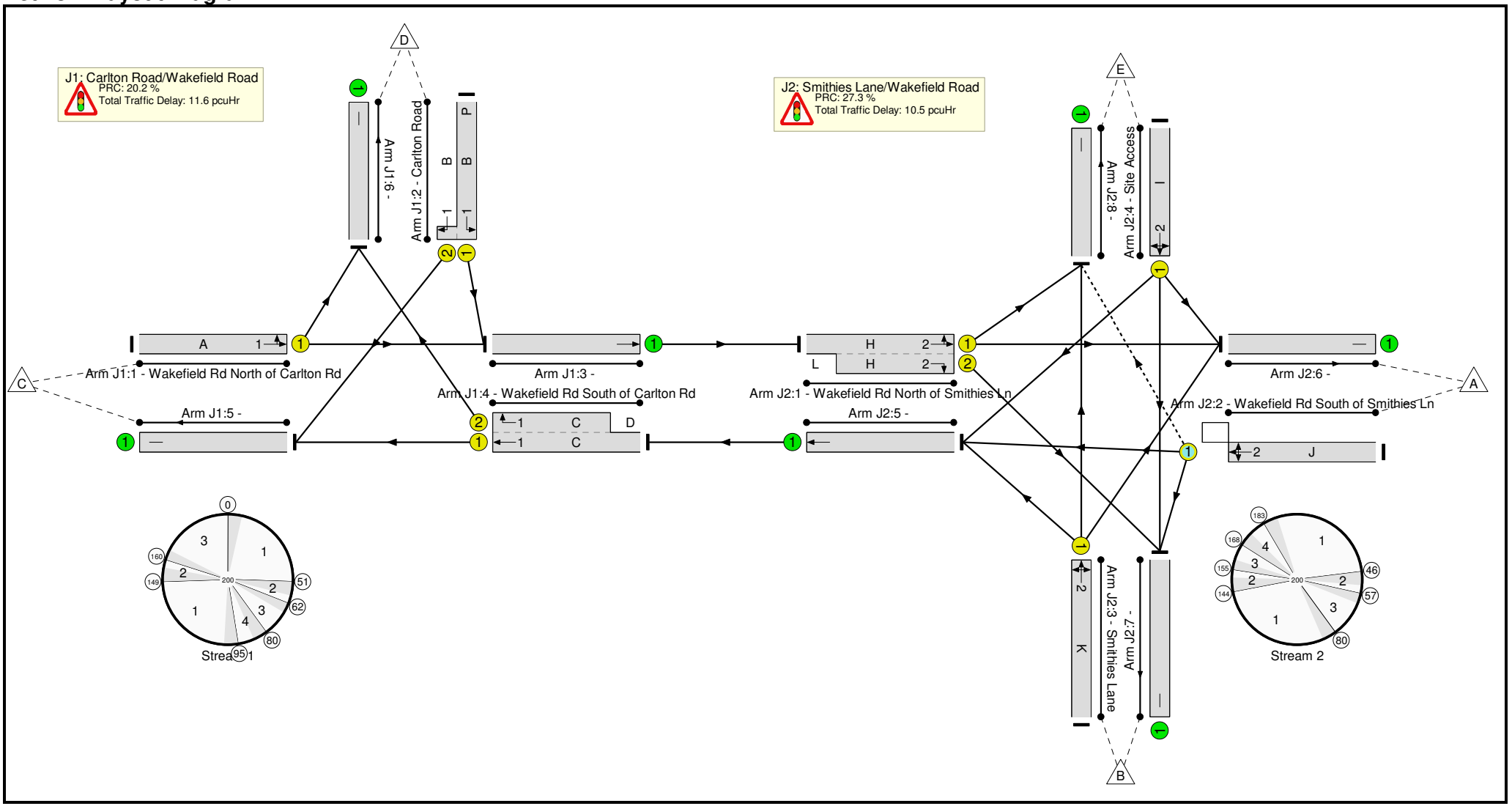
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.9%**
J1: Carlton Road/Wakefield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.9%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	91	-	528	1910	888	59.4%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	70:48	22	420	1814:1781	561	74.8%
3/1	Ahead	U	N/A	N/A	-		-	-	-	919	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	113	8	914	1895:1722	1220	74.9%
5/1		U	N/A	N/A	-		-	-	-	657	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.7%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	135	8	919	1915:1705	1427	64.4%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	113	-	786	1934	1112	70.7%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	26	-	180	1828	256	70.3%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	26	-	10	1680	235	4.3%
5/1	Ahead	U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	694	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**15.2**	**6.9**	**0.0**	**22.1**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**8.0**	**3.7**	**0.0**	**11.6**	**-**	**-**	**-**	**-**
1/1	528	528	-	-	-	2.9	0.7	-	3.6	24.8	11.4	0.7	12.2
2/1+2/2	420	420	-	-	-	3.6	1.5	-	5.0	43.0	11.8	1.5	13.2
3/1	919	919	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	914	914	-	-	-	1.5	1.5	-	3.0	11.7	20.3	1.5	21.8
5/1	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**7.2**	**3.3**	**0.0**	**10.5**	**-**	**-**	**-**	**-**
1/1+1/2	919	919	-	-	-	1.7	0.9	-	2.6	10.1	16.2	0.9	17.1
2/1	786	786	4	0	0	3.3	1.2	0.0	4.5	20.8	16.4	1.2	17.6
3/1	180	180	-	-	-	2.1	1.2	-	3.2	64.3	5.2	1.2	6.3
4/1	10	10	-	-	-	0.1	0.0	-	0.1	45.6	0.3	0.0	0.3
5/1	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	694	694	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

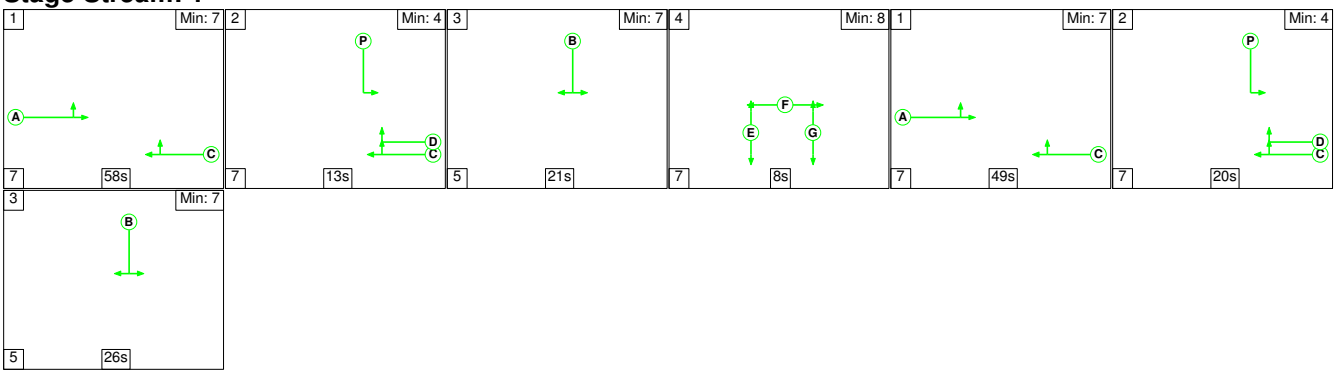
C1	Stream: 1 PRC for Signalled Lanes (%):	20.2	Total Delay for Signalled Lanes (pcuHr):	11.63	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	27.3	Total Delay for Signalled Lanes (pcuHr):	10.47	Cycle Time (s): 200
	PRC Over All Lanes (%):	20.2	Total Delay Over All Lanes(pcuHr):	22.09	

Full Input Data And Results

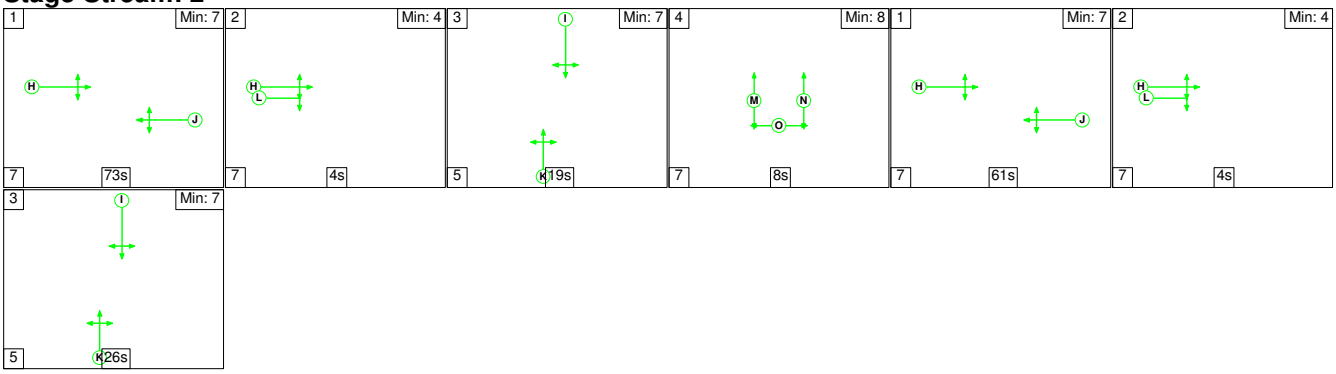
Scenario 5: 'Fri 2017 Future Base' (FG5: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

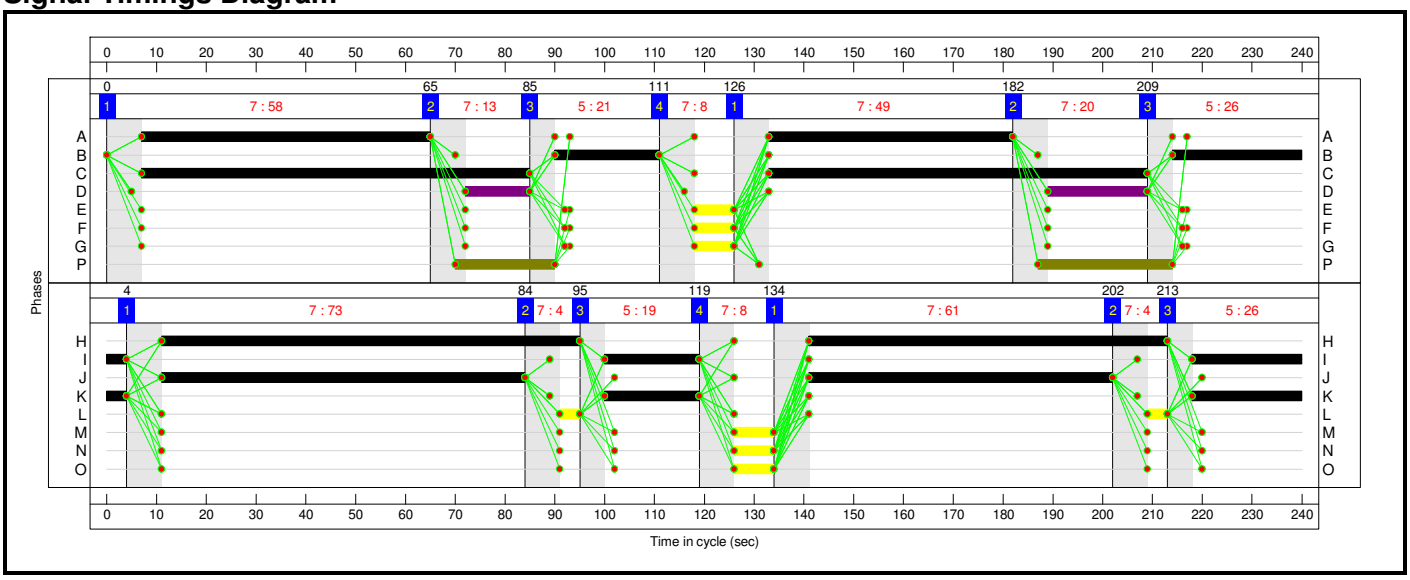
Stage Stream: 1

Stage	1	2	3	4	1	2	3
Duration	58	13	21	8	49	20	26
Change Point	0	65	85	111	126	182	209

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	73	4	19	8	61	4	26
Change Point	4	84	95	119	134	202	213

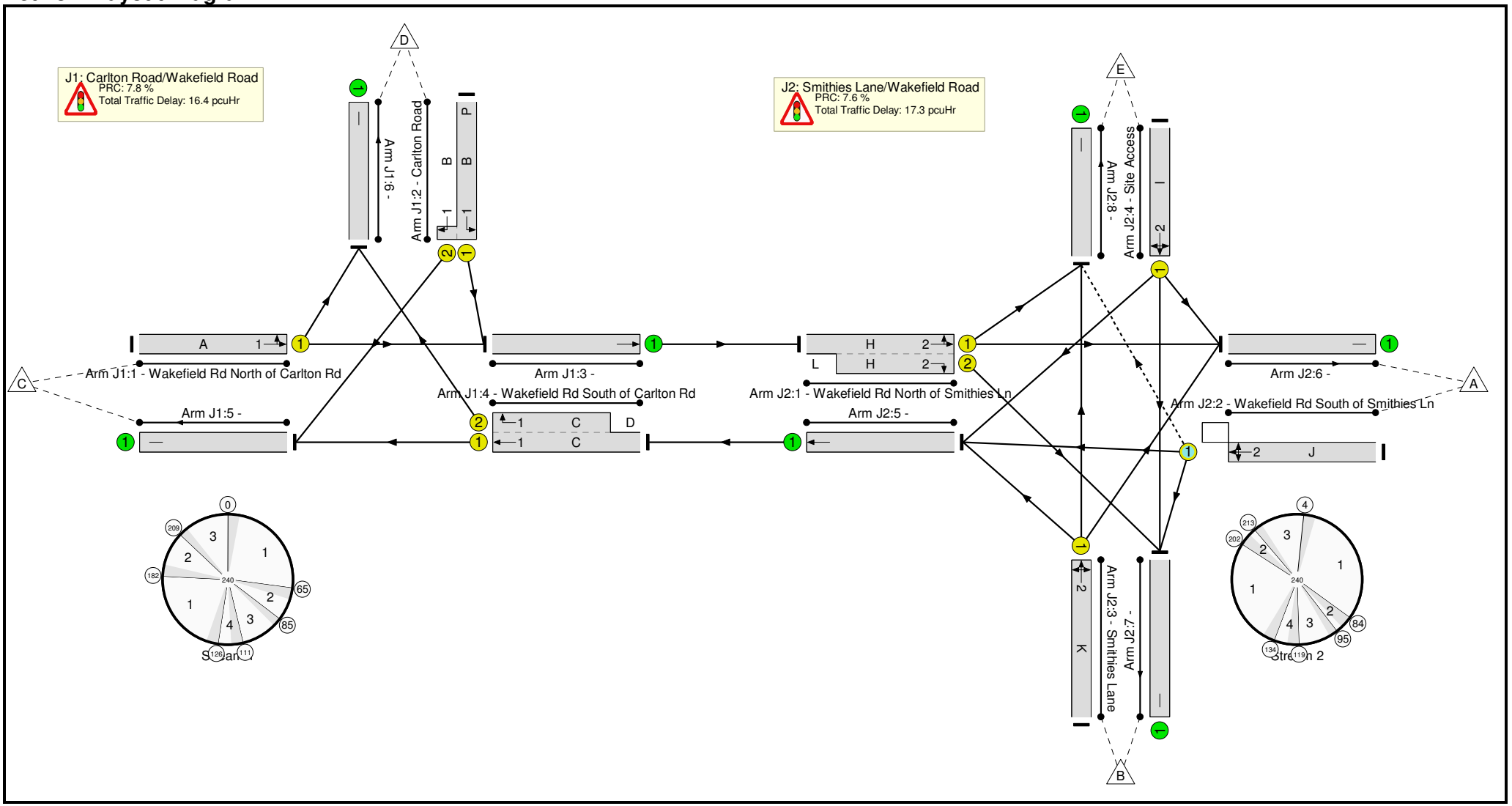
Signal Timings Diagram



Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.6%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	107	-	578	1904	865	66.8%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	94:47	47	444	1814:1781	537	82.7%
3/1	Ahead	U	N/A	N/A	-		-	-	-	980	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	154	33	1132	1895:1722	1356	83.5%
5/1		U	N/A	N/A	-		-	-	-	755	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.6%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	156	8	980	1915:1705	1383	70.9%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	134	-	915	1931	1094	83.6%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	45	-	295	1828	358	82.4%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	45	-	10	1680	329	3.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1132	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**22.1**	**11.7**	**0.0**	**33.7**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**10.6**	**5.8**	**0.0**	**16.4**	**-**	**-**	**-**	**-**
1/1	578	578	-	-	-	4.1	1.0	-	5.1	31.9	15.4	1.0	16.4
2/1+2/2	444	444	-	-	-	4.4	2.3	-	6.6	53.8	14.8	2.3	17.1
3/1	980	980	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1132	1132	-	-	-	2.2	2.5	-	4.6	14.7	8.5	2.5	11.0
5/1	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**11.4**	**5.9**	**0.0**	**17.3**	**-**	**-**	**-**	**-**
1/1+1/2	980	980	-	-	-	2.1	1.2	-	3.3	12.0	8.6	1.2	9.8
2/1	915	915	4	0	0	5.5	2.5	0.0	8.0	31.3	26.9	2.5	29.4
3/1	295	295	-	-	-	3.8	2.2	-	6.0	73.0	9.5	2.2	11.7
4/1	10	10	-	-	-	0.1	0.0	-	0.1	44.9	0.3	0.0	0.3
5/1	1132	1132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

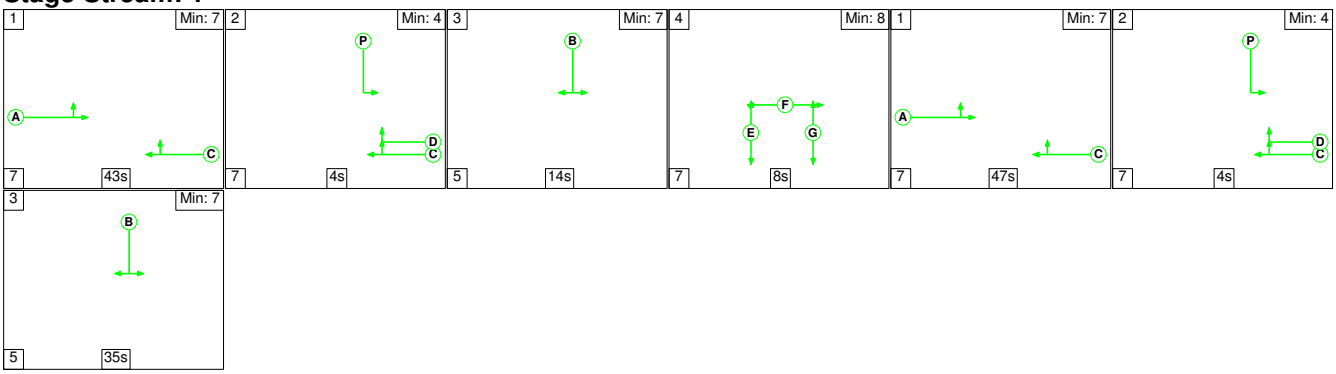
C1	Stream: 1 PRC for Signalled Lanes (%):	7.8	Total Delay for Signalled Lanes (pcuHr):	16.39	Cycle Time (s): 240
C1	Stream: 2 PRC for Signalled Lanes (%):	7.6	Total Delay for Signalled Lanes (pcuHr):	17.34	Cycle Time (s): 240
	PRC Over All Lanes (%):	7.6	Total Delay Over All Lanes(pcuHr):	33.73	

Full Input Data And Results

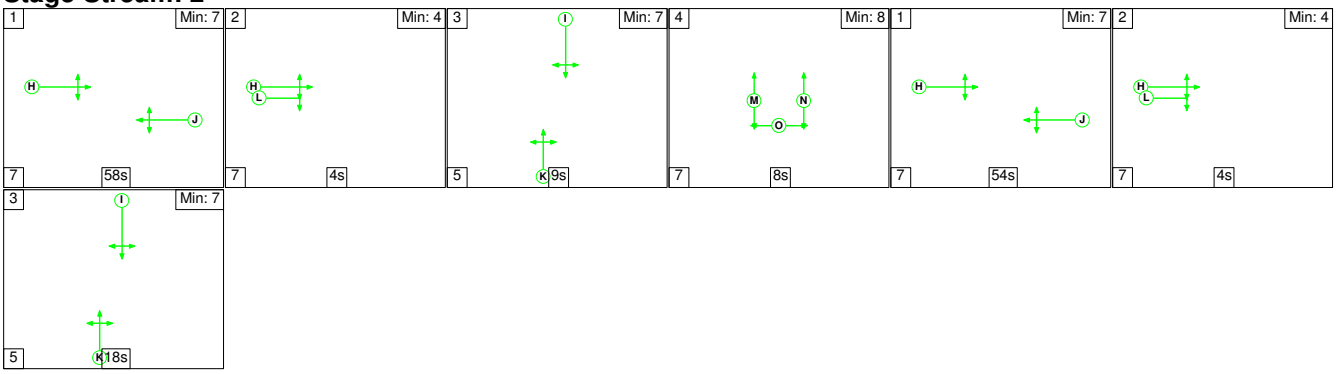
Scenario 6: 'Sat 2017 Future Base' (FG6: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

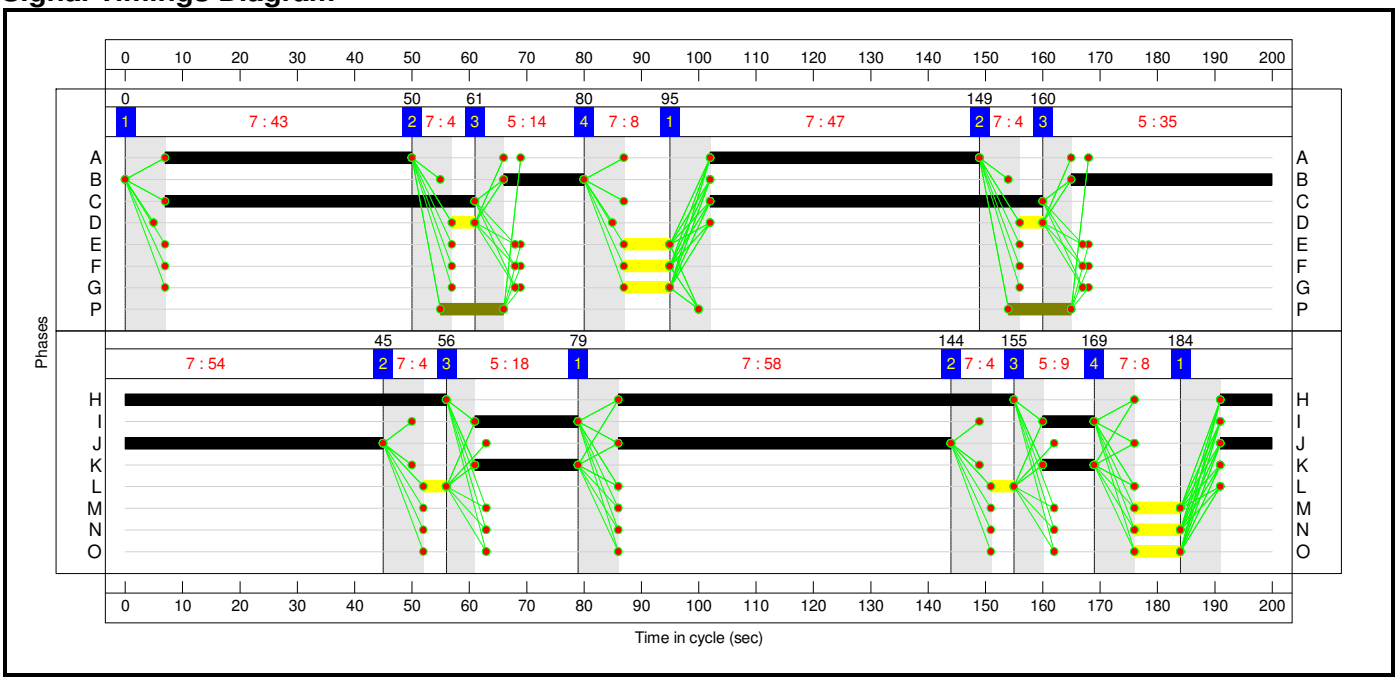
Stage	1	2	3	4	1	2	3
Duration	43	4	14	8	47	4	35
Change Point	0	50	61	80	95	149	160

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	58	4	9	8	54	4	18
Change Point	79	144	155	169	184	45	56

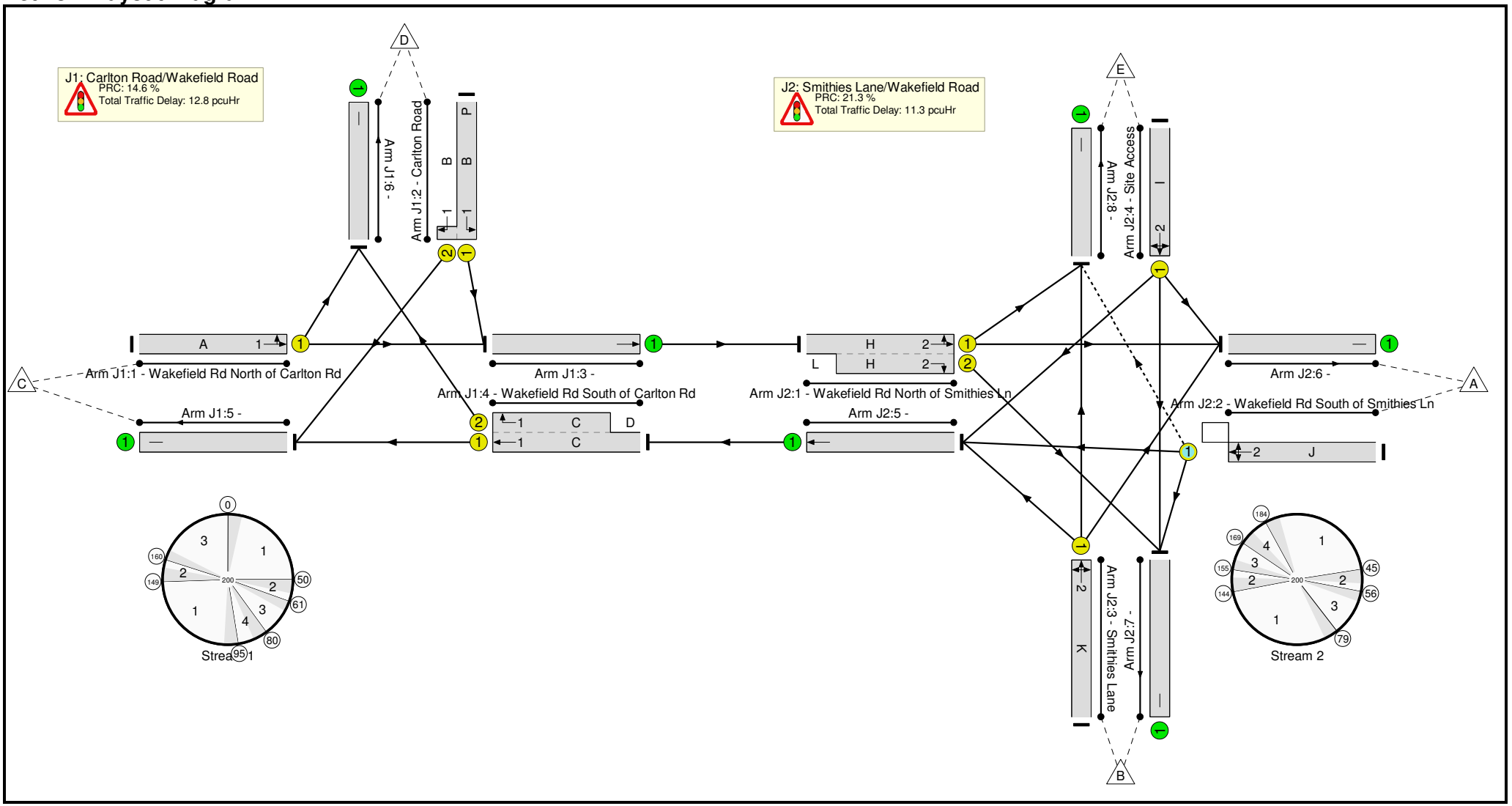
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**78.5%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**78.5%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	90	-	549	1909	878	62.5%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	71:49	22	439	1814:1781	568	77.3%
3/1	Ahead	U	N/A	N/A	-		-	-	-	957	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	112	8	951	1895:1722	1211	78.5%
5/1		U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.2%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	134	8	957	1915:1705	1419	67.5%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	112	-	818	1934	1102	74.2%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	27	-	187	1827	265	70.6%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	27	-	10	1680	244	4.1%
5/1	Ahead	U	N/A	N/A	-		-	-	-	951	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**16.2**	**7.9**	**0.0**	**24.1**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**8.5**	**4.3**	**0.0**	**12.8**	**-**	**-**	**-**	**-**
1/1	549	549	-	-	-	3.1	0.8	-	4.0	26.0	12.2	0.8	13.0
2/1+2/2	439	439	-	-	-	3.7	1.7	-	5.4	44.3	12.6	1.7	14.2
3/1	957	957	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	951	951	-	-	-	1.6	1.8	-	3.4	13.0	22.3	1.8	24.1
5/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**7.7**	**3.6**	**0.0**	**11.3**	**-**	**-**	**-**	**-**
1/1+1/2	957	957	-	-	-	1.8	1.0	-	2.8	10.7	15.6	1.0	16.7
2/1	818	818	4	0	0	3.7	1.4	0.0	5.1	22.4	18.0	1.4	19.4
3/1	187	187	-	-	-	2.1	1.2	-	3.3	63.3	5.2	1.2	6.4
4/1	10	10	-	-	-	0.1	0.0	-	0.1	44.8	0.3	0.0	0.3
5/1	951	951	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

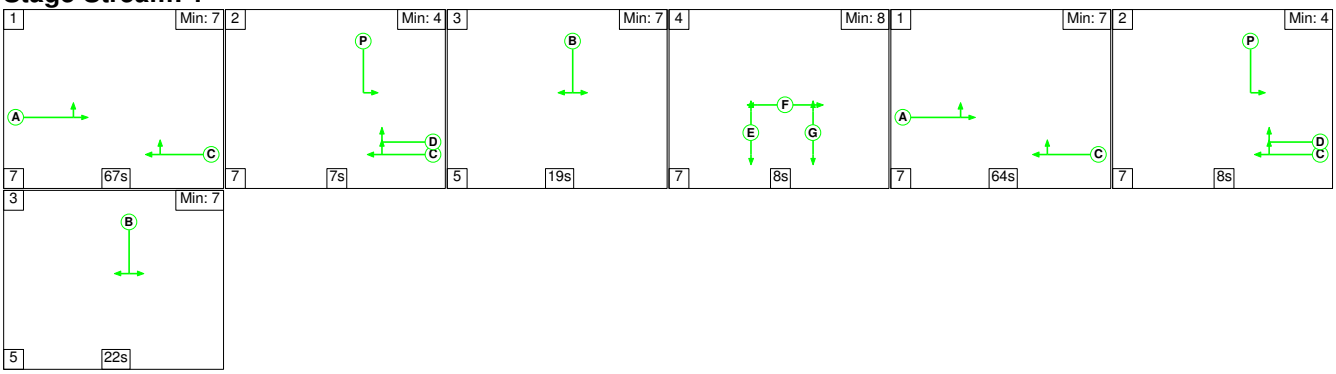
C1	Stream: 1 PRC for Signalled Lanes (%):	14.6	Total Delay for Signalled Lanes (pcuHr):	12.79	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	21.3	Total Delay for Signalled Lanes (pcuHr):	11.34	Cycle Time (s): 200
	PRC Over All Lanes (%):	14.6	Total Delay Over All Lanes(pcuHr):	24.13	

Full Input Data And Results

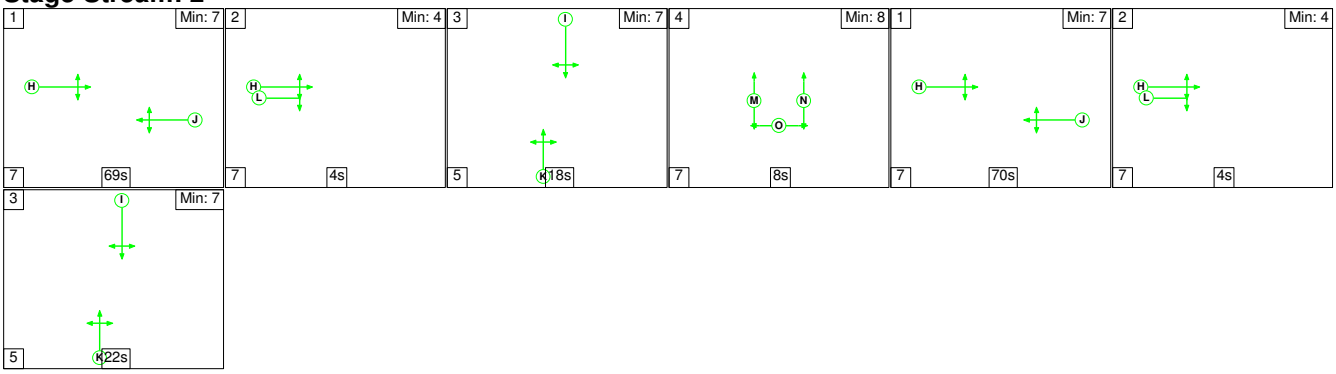
Scenario 7: 'Fri 2017 Future Base+Dev' (FG7: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

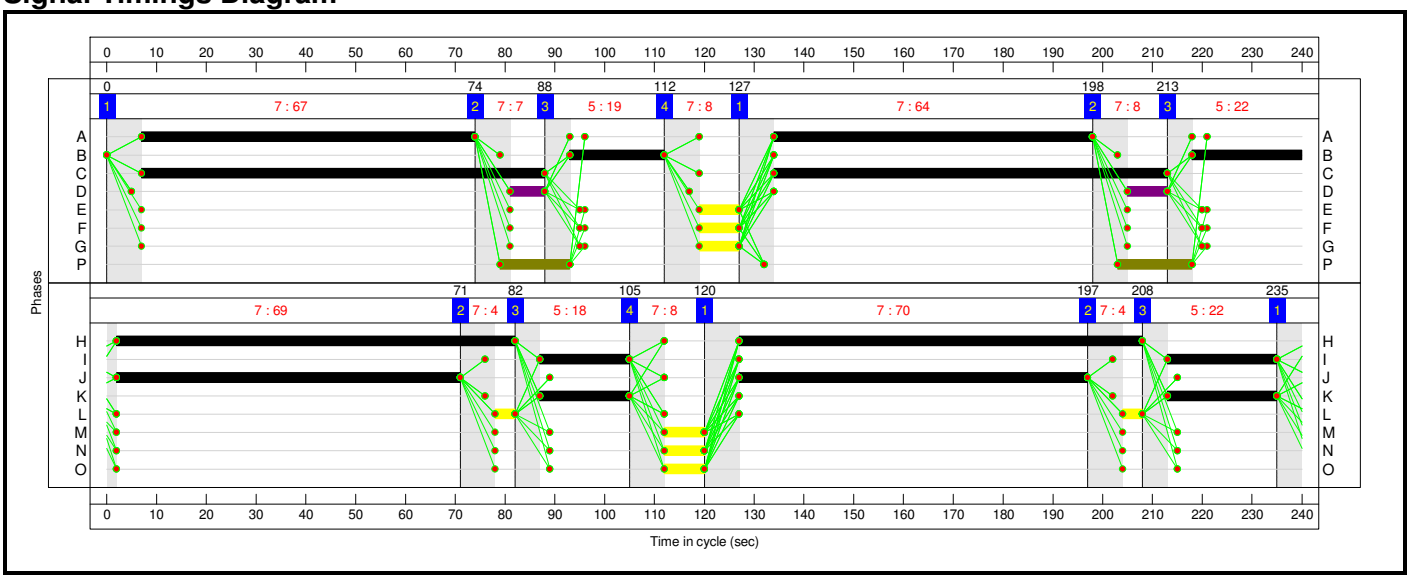
Stage Stream: 1

Stage	1	2	3	4	1	2	3
Duration	67	7	19	8	64	8	22
Change Point	0	74	88	112	127	198	213

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	69	4	18	8	70	4	22
Change Point	235	71	82	105	120	197	208

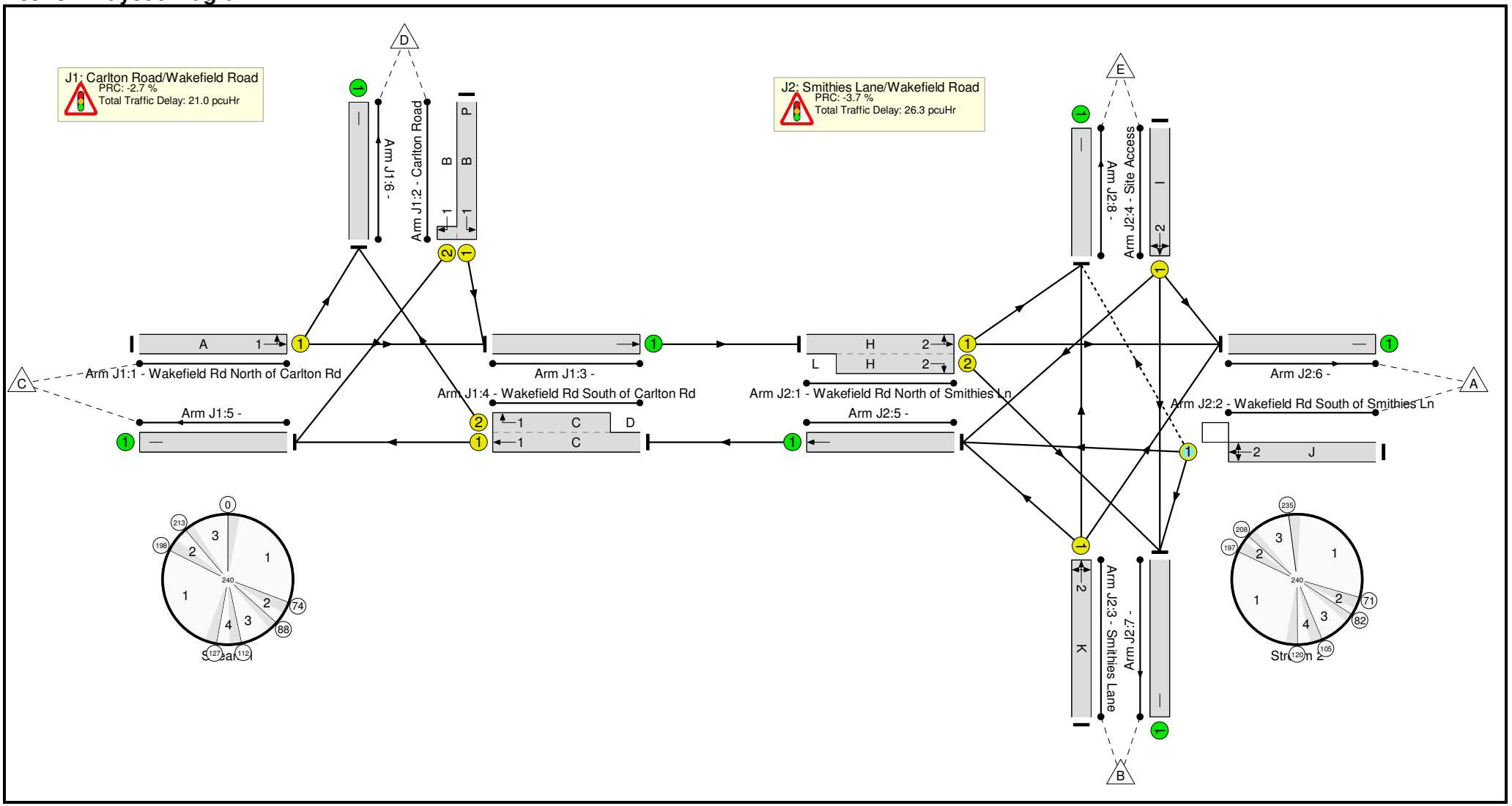
Signal Timings Diagram



Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.3%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.5%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	131	-	720	1906	1056	68.2%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	70:41	29	437	1814:1781	488	89.5%
3/1	Ahead	U	N/A	N/A	-		-	-	-	1115	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	160	15	1276	1895:1722	1380	92.5%
5/1		U	N/A	N/A	-		-	-	-	899	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.3%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	161	8	1115	1915:1705	1399	79.7%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	139	-	1059	1932	1135	93.3%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	40	-	295	1828	320	92.2%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	40	-	10	1680	294	3.4%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1276	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**24.6**	**22.7**	**0.0**	**47.3**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**10.6**	**10.3**	**0.0**	**21.0**	**-**	**-**	**-**	**-**
1/1	720	720	-	-	-	3.9	1.1	-	4.9	24.7	18.8	1.1	19.9
2/1+2/2	437	437	-	-	-	5.0	3.7	-	8.8	72.2	15.1	3.7	18.8
3/1	1115	1115	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1276	1276	-	-	-	1.7	5.5	-	7.3	20.6	9.6	5.5	15.2
5/1	899	899	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**13.9**	**12.3**	**0.0**	**26.3**	**-**	**-**	**-**	**-**
1/1+1/2	1115	1115	-	-	-	3.1	1.9	-	5.0	16.2	27.3	1.9	29.2
2/1	1059	1059	4	0	0	6.7	6.0	0.0	12.7	43.3	35.6	6.0	41.6
3/1	295	295	-	-	-	4.0	4.4	-	8.4	102.5	10.4	4.4	14.8
4/1	10	10	-	-	-	0.1	0.0	-	0.1	47.9	0.3	0.0	0.3
5/1	1276	1276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

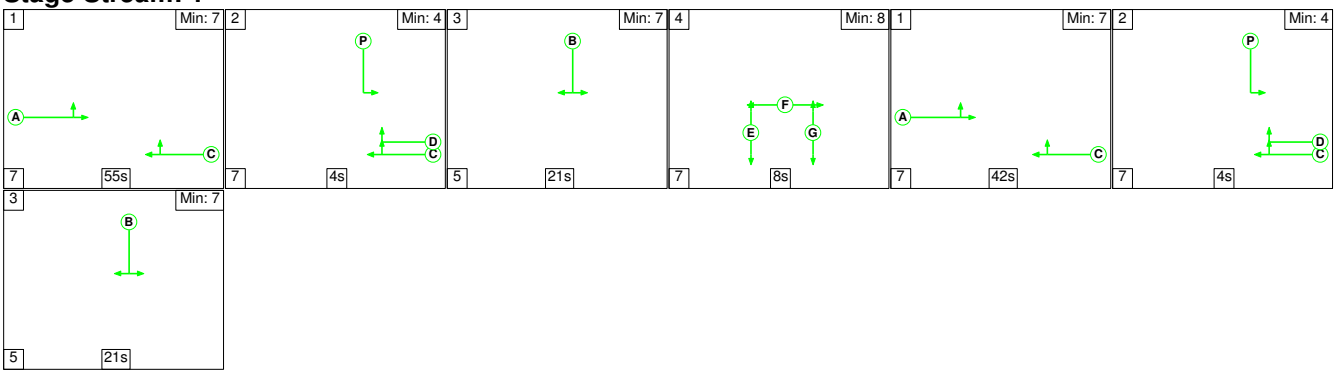
C1	Stream: 1 PRC for Signalled Lanes (%):	-2.7	Total Delay for Signalled Lanes (pcuHr):	20.99	Cycle Time (s): 240
C1	Stream: 2 PRC for Signalled Lanes (%):	-3.7	Total Delay for Signalled Lanes (pcuHr):	26.28	Cycle Time (s): 240
	PRC Over All Lanes (%):	-3.7	Total Delay Over All Lanes(pcuHr):	47.27	

Full Input Data And Results

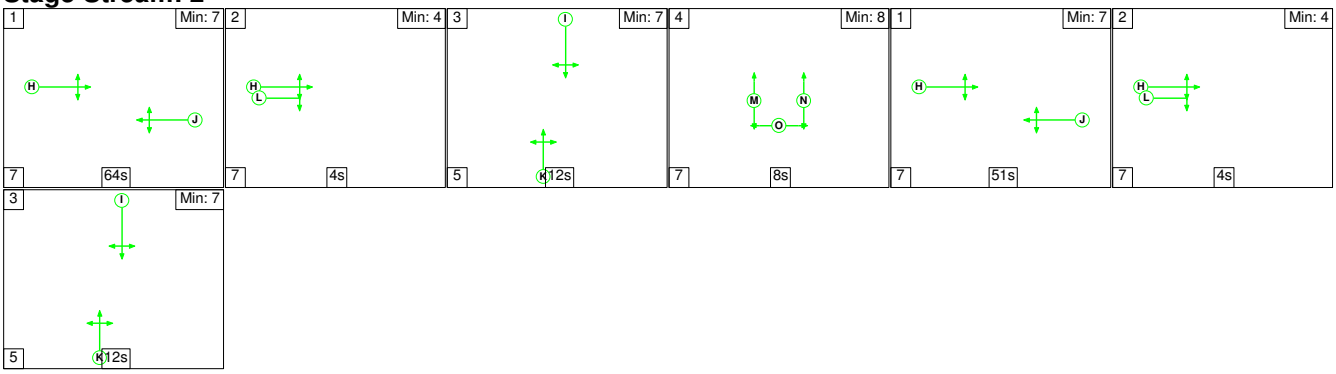
Scenario 8: 'Sat 2017 Future Base+Dev' (FG8: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

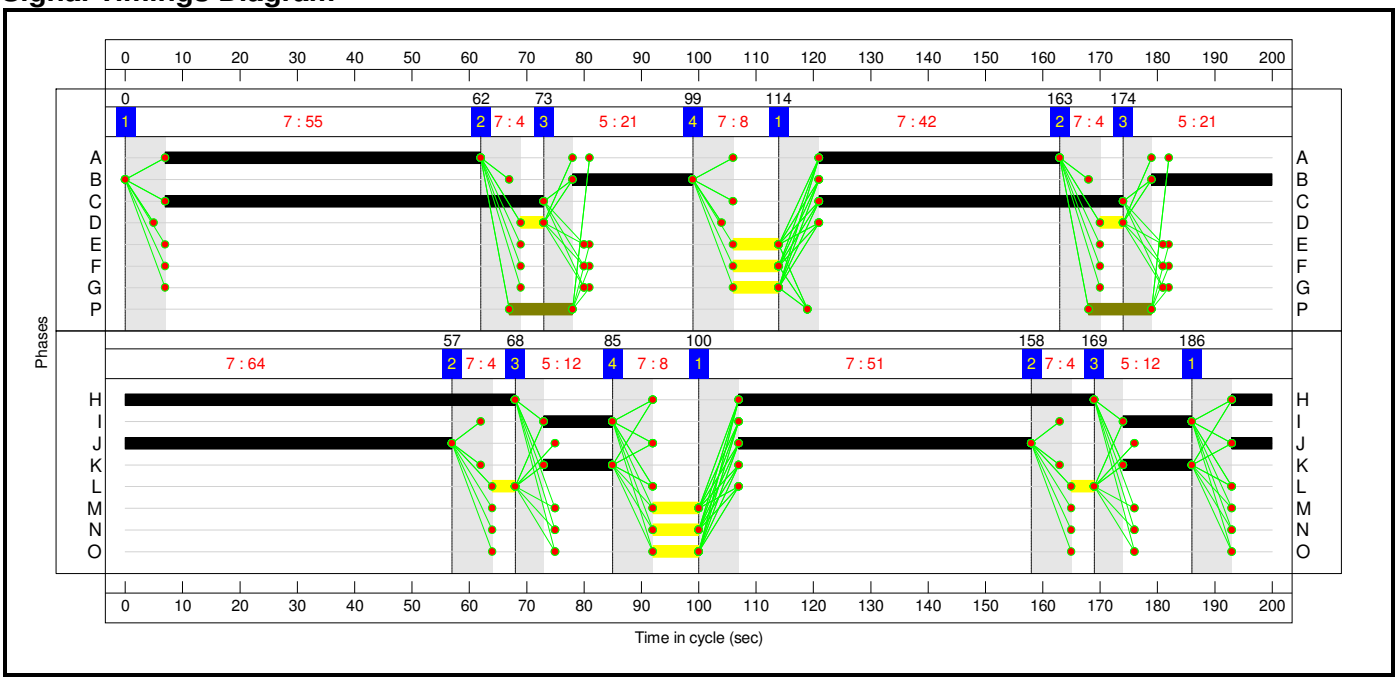
Stage	1	2	3	4	1	2	3
Duration	55	4	21	8	42	4	21
Change Point	0	62	73	99	114	163	174

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	64	4	12	8	51	4	12
Change Point	186	57	68	85	100	158	169

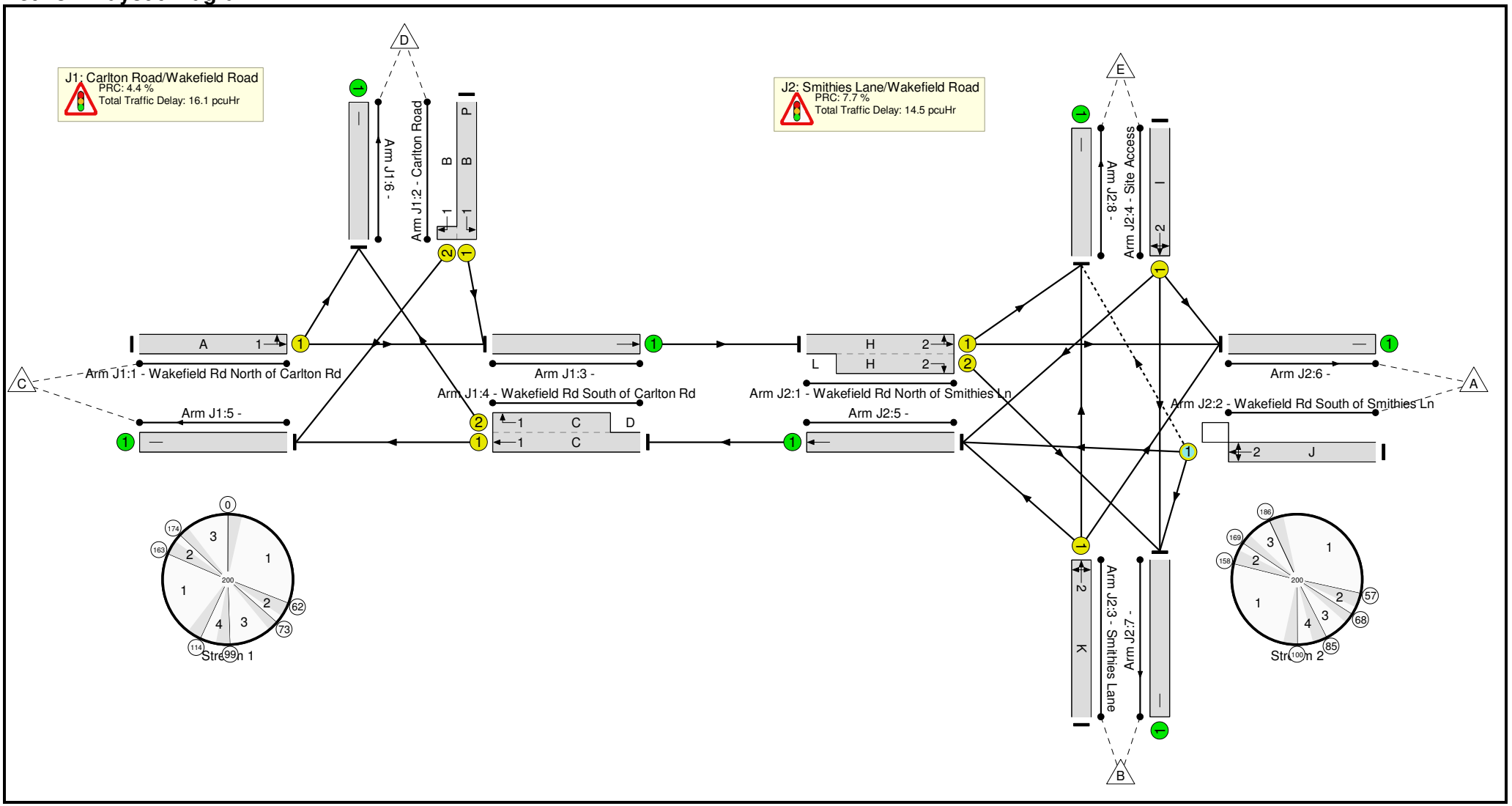
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.2%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.2%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	97	-	670	1910	945	70.9%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	64:42	22	430	1814:1781	502	85.7%
3/1	Ahead	U	N/A	N/A	-		-	-	-	1069	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	119	8	1080	1895:1722	1253	86.2%
5/1		U	N/A	N/A	-		-	-	-	814	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.6%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	137	8	1069	1915:1705	1430	74.8%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	115	-	946	1935	1132	83.6%
3/1	Smithies Lane Left Right Ahead	U	2	N/A	K		2	24	-	188	1827	238	79.2%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	24	-	10	1680	218	4.6%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1080	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	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: Wakefield Road/Carlton Road/Smithies Lane	**-**	**-**	**4**	**0**	**0**	**17.8**	**12.7**	**0.0**	**30.6**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**9.1**	**7.0**	**0.0**	**16.1**	**-**	**-**	**-**	**-**
1/1	670	670	-	-	-	3.7	1.2	-	4.9	26.6	16.6	1.2	17.8
2/1+2/2	430	430	-	-	-	4.0	2.8	-	6.7	56.4	11.5	2.8	14.2
3/1	1069	1069	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1080	1080	-	-	-	1.4	3.0	-	4.4	14.8	30.6	3.0	33.6
5/1	814	814	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**8.7**	**5.7**	**0.0**	**14.5**	**-**	**-**	**-**	**-**
1/1+1/2	1069	1069	-	-	-	1.8	1.5	-	3.3	11.1	21.9	1.5	23.3
2/1	946	946	4	0	0	4.6	2.5	0.0	7.1	26.9	25.0	2.5	27.4
3/1	188	188	-	-	-	2.2	1.8	-	4.0	76.1	5.1	1.8	6.9
4/1	10	10	-	-	-	0.1	0.0	-	0.1	46.9	0.2	0.0	0.3
5/1	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

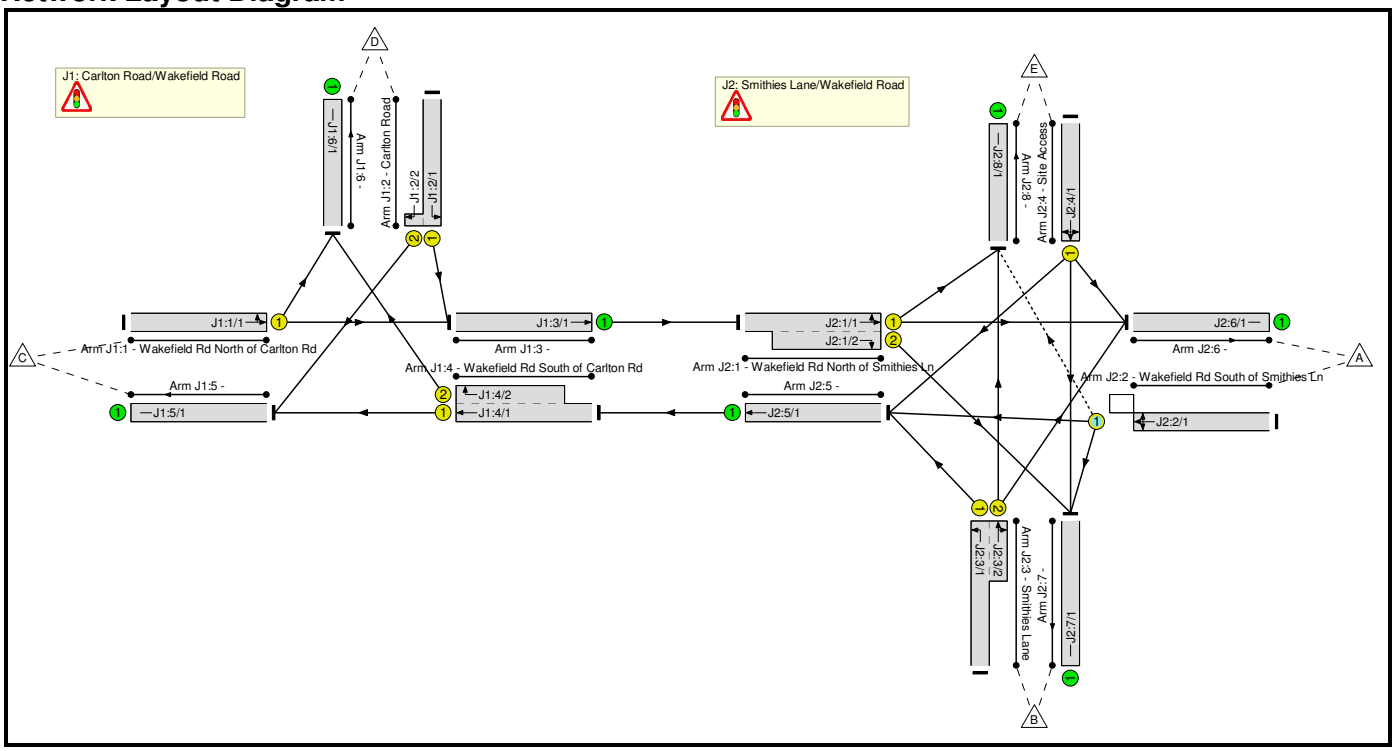
C1	Stream: 1 PRC for Signalled Lanes (%):	4.4	Total Delay for Signalled Lanes (pcuHr):	16.13	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	7.7	Total Delay for Signalled Lanes (pcuHr):	14.45	Cycle Time (s): 200
	PRC Over All Lanes (%):	4.4	Total Delay Over All Lanes(pcuHr):	30.59	

Full Input Data And Results

User and Project Details

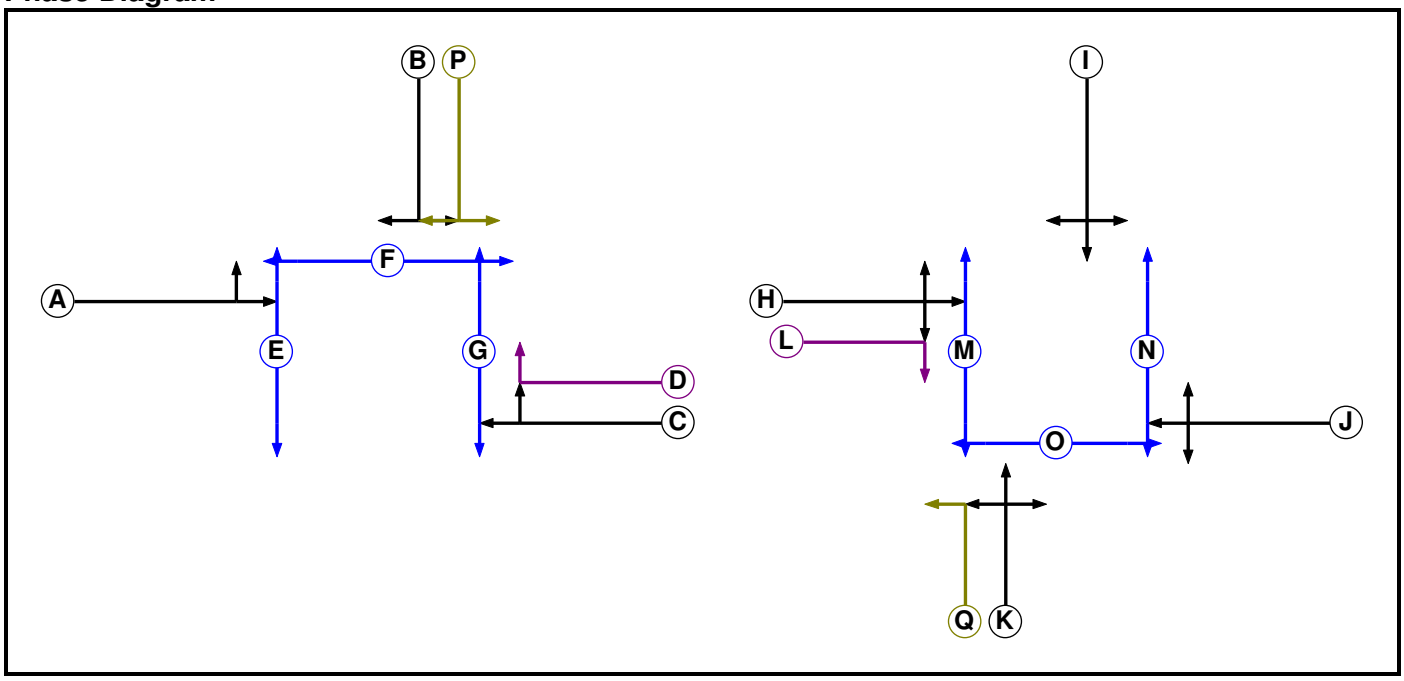
Project:	**90095 Proposed Barnsley Foodstore**
Title:	**Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation**
Location:	Barnsley
File name:	Carlton Rd_Smithies Ln_Wakefield Rd_Mit.lsg3x
Author:	D Stoddart
Company:	Curtins
Address:	Manchester
Notes:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Ind. Arrow	1	C	4	4
E	Pedestrian	1		8	8
F	Pedestrian	1		8	8
G	Pedestrian	1		8	8
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Traffic	2		7	7
K	Traffic	2		7	7
L	Ind. Arrow	2	H	4	4
M	Pedestrian	2		8	8
N	Pedestrian	2		8	8
O	Pedestrian	2		8	8
P	Filter	1	B	3	0
Q	Filter	2	K	4	0

Full Input Data And Results

Phase Intergreens Matrix

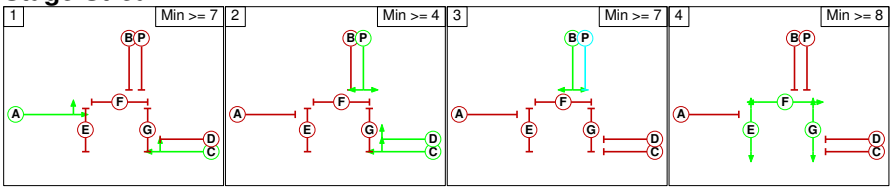
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
A		5	-	7	7	7	7	-	-	-	-	-	-	-	-	5	-
B	7		7	5	7	7	7	-	-	-	-	-	-	-	-	-	-
C	-	5		-	7	7	7	-	-	-	-	-	-	-	-	-	-
D	5	5	-		7	7	7	-	-	-	-	-	-	-	-	-	-
E	7	7	7	7		-	-	-	-	-	-	-	-	-	-	5	-
F	7	7	7	7	-		-	-	-	-	-	-	-	-	-	5	-
G	7	7	7	7	-	-		-	-	-	-	-	-	-	-	5	-
H	-	-	-	-	-	-	-		5	-	5	-	7	7	7	-	-
I	-	-	-	-	-	-	-	7		7	-	7	7	7	7	-	-
J	-	-	-	-	-	-	-	-	5		5	7	7	7	7	-	5
K	-	-	-	-	-	-	-	7	-	7		7	7	7	7	-	-
L	-	-	-	-	-	-	-	-	5	7	5		7	7	7	-	-
M	-	-	-	-	-	-	-	7	7	7	7	7		-	-	-	7
N	-	-	-	-	-	-	-	7	7	7	7	7	-		-	-	-
O	-	-	-	-	-	-	-	7	7	7	7	7	-	-		-	7
P	3	-	-	-	3	3	3	-	-	-	-	-	-	-	-		-
Q	-	-	-	-	-	-	-	-	-	7	-	-	7	-	7	-	

Phases in Stage

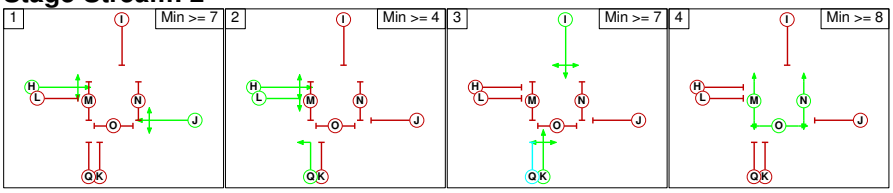
Stream	Stage No.	Phases in Stage
1	1	A C
1	2	C D P
1	3	B
1	4	E F G
2	1	H J
2	2	H L Q
2	3	I K
2	4	M N O

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

	To Stage				
		1	2	3	4
From Stage	1		7	5	7
	2	X		5	X
	3	7	X		7
	4	7	7	7	

Stage Stream: 2

	To Stage				
		1	2	3	4
From Stage	1		7	5	7
	2	X		5	X
	3	7	7		7
	4	7	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Carlton Road/Wakefield Road
There are no Opposed Lanes in this Junction

Junction: J2: Smithies Lane/Wakefield Road										
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
J2:2/1 (Wakefield Rd South of Smithies Ln)	J2:8/1 (Right)	1439	J2:1/1	1.09	J2:1/1	2.00	2.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: J1: Carlton Road/Wakefield Road												
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)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:3 Ahead	Inf
											Arm J1:6 Left	15.00
J1:2/1 (Carlton Road)	U	B P	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:3 Left	18.00
J1:2/2 (Carlton Road)	U	B P	2	3	0.1	Geom	-	3.00	0.00	Y	Arm J1:5 Right	20.00
J1:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:4/1 (Wakefield Rd South of Carlton Rd)	U	C	2	3	28.0	Geom	-	2.80	0.00	Y	Arm J1:5 Ahead	Inf
J1:4/2 (Wakefield Rd South of Carlton Rd)	U	C D	2	3	10.0	Geom	-	2.50	0.00	Y	Arm J1:6 Right	18.00
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: Smithies Lane/Wakefield Road

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)
J2:1/1 (Wakefield Rd North of Smithies Ln)	U	H	2	3	27.0	Geom	-	3.00	0.00	Y	Arm J2:6 Ahead	Inf
											Arm J2:8 Left	Inf
J2:1/2 (Wakefield Rd North of Smithies Ln)	U	H L	2	3	10.5	Geom	-	2.60	0.00	Y	Arm J2:7 Right	15.00
J2:2/1 (Wakefield Rd South of Smithies Ln)	O	J	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:5 Ahead	Inf
											Arm J2:7 Left	20.00
											Arm J2:8 Right	15.00
J2:3/1 (Smithies Lane)	U	K Q	2	3	60.0	Geom	-	3.15	0.00	Y	Arm J2:5 Left	20.00
J2:3/2 (Smithies Lane)	U	K	2	3	5.0	Geom	-	3.20	0.00	Y	Arm J2:6 Right	15.00
											Arm J2:8 Ahead	Inf
J2:4/1 (Site Access)	U	I	2	3	60.0	Geom	-	2.50	0.00	Y	Arm J2:5 Right	12.00
											Arm J2:6 Left	10.00
											Arm J2:7 Ahead	Inf
J2:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Fri 2012 Future Base'	15:45	16:45	01:00	
2: 'Sat 2012 Future Base'	12:30	13:30	01:00	
3: 'Fri 2017 Future Base'	15:45	16:45	01:00	
4: 'Sat 2017 Future Base'	12:30	13:30	01:00	
5: 'Fri 2017 Future Base+Dev'	15:45	16:45	01:00	
6: 'Sat 2017 Future Base+Dev'	12:30	13:30	01:00	

Scenario 1: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	48	540	289	4	881
	B	25	0	178	80	2	285
	C	349	174	0	33	2	558
	D	283	136	8	0	2	429
	E	4	2	3	1	0	10
	Tot.	661	360	729	403	10	2163

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Fri 2012 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	558
J1:2/1 (with short)	429(In) 421(Out)
J1:2/2 (short)	8
J1:3/1	946
J1:4/1 (with short)	1091(In) 721(Out)
J1:4/2 (short)	370
J1:5/1	729
J1:6/1	403
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	946(In) 636(Out)
J2:1/2 (short)	310
J2:2/1	881
J2:3/1 (with short)	285(In) 258(Out)
J2:3/2 (short)	27
J2:4/1	10
J2:5/1	1091
J2:6/1	661
J2:7/1	360
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	94.1 %	1904	1904
				Arm J1:6 Left	15.00	5.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.1 %	1931	1931
				Arm J2:7 Left	20.00	5.4 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.15	0.00	Y	Arm J2:5 Left	20.00	100.0 %	1795	1795
J2:3/2 (Smithies Lane)	3.20	0.00	Y	Arm J2:6 Right	15.00	92.6 %	1771	1771
				Arm J2:8 Ahead	Inf	7.4 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	27	524	232	4	787
	B	22	0	117	38	2	179
	C	368	141	0	15	2	526
	D	296	107	14	0	2	419
	E	4	2	3	1	0	10
	Tot.	690	277	658	286	10	1921

Traffic Lane Flows

Lane	Scenario 2: Sat 2012 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	526
J1:2/1 (with short)	419(In) 405(Out)
J1:2/2 (short)	14
J1:3/1	916
J1:4/1 (with short)	915(In) 644(Out)
J1:4/2 (short)	271
J1:5/1	658
J1:6/1	286
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	916(In) 668(Out)
J2:1/2 (short)	248
J2:2/1	787
J2:3/1 (with short)	179(In) 155(Out)
J2:3/2 (short)	24
J2:4/1	10
J2:5/1	915
J2:6/1	690
J2:7/1	277
J2:8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.1 %	1910	1910
				Arm J1:6 Left	15.00	2.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	96.1 %	1934	1934
				Arm J2:7 Left	20.00	3.4 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.15	0.00	Y	Arm J2:5 Left	20.00	100.0 %	1795	1795
J2:3/2 (Smithies Lane)	3.20	0.00	Y	Arm J2:6 Right	15.00	91.7 %	1773	1773
				Arm J2:8 Ahead	Inf	8.3 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	50	560	301	4	915
	B	26	0	184	83	2	295
	C	362	180	0	34	2	578
	D	293	141	8	0	2	444
	E	4	2	3	1	0	10
	Tot.	685	373	755	419	10	2242

Traffic Lane Flows

Lane	Scenario 3: Fri 2017 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	578
J1:2/1 (with short)	444(In) 436(Out)
J1:2/2 (short)	8
J1:3/1	980
J1:4/1 (with short)	1132(In) 747(Out)
J1:4/2 (short)	385
J1:5/1	755
J1:6/1	419
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	980(In) 659(Out)
J2:1/2 (short)	321
J2:2/1	915
J2:3/1 (with short)	295(In) 267(Out)
J2:3/2 (short)	28
J2:4/1	10
J2:5/1	1132
J2:6/1	685
J2:7/1	373
J2:8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	94.1 %	1904	1904
				Arm J1:6 Left	15.00	5.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.1 %	1931	1931
				Arm J2:7 Left	20.00	5.5 %		
				Arm J2:8 Right	15.00	0.4 %		
J2:3/1 (Smithies Lane)	3.15	0.00	Y	Arm J2:5 Left	20.00	100.0 %	1795	1795
J2:3/2 (Smithies Lane)	3.20	0.00	Y	Arm J2:6 Right	15.00	92.9 %	1771	1771
				Arm J2:8 Ahead	Inf	7.1 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	28	544	242	4	818
	B	24	0	122	39	2	187
	C	384	147	0	16	2	549
	D	310	112	15	0	2	439
	E	4	2	3	1	0	10
	Tot.	722	289	684	298	10	2003

Traffic Lane Flows

Lane	Scenario 4: Sat 2017 Future Base
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	549
J1:2/1 (with short)	439(In) 424(Out)
J1:2/2 (short)	15
J1:3/1	957
J1:4/1 (with short)	951(In) 669(Out)
J1:4/2 (short)	282
J1:5/1	684
J1:6/1	298
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	957(In) 698(Out)
J2:1/2 (short)	259
J2:2/1	818
J2:3/1 (with short)	187(In) 161(Out)
J2:3/2 (short)	26
J2:4/1	10
J2:5/1	951
J2:6/1	722
J2:7/1	289
J2:8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.1 %	1909	1909
				Arm J1:6 Left	15.00	2.9 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.4 %	1915	1915
				Arm J2:8 Left	Inf	0.6 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	96.1 %	1934	1934
				Arm J2:7 Left	20.00	3.4 %		
				Arm J2:8 Right	15.00	0.5 %		
J2:3/1 (Smithies Lane)	3.15	0.00	Y	Arm J2:5 Left	20.00	100.0 %	1795	1795
J2:3/2 (Smithies Lane)	3.20	0.00	Y	Arm J2:6 Right	15.00	92.3 %	1771	1771
				Arm J2:8 Ahead	Inf	7.7 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Fri 2017 Future Base+Dev' (FG5: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	50	690	315	4	1059
	B	26	0	197	70	2	295
	C	480	202	0	34	3	719
	D	310	119	8	0	1	438
	E	4	2	3	1	0	10
	Tot.	820	373	898	420	10	2521

Traffic Lane Flows

Lane	Scenario 5: Fri 2017 Future Base+Dev
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	719
J1:2/1 (with short)	438(In) 430(Out)
J1:2/2 (short)	8
J1:3/1	1115
J1:4/1 (with short)	1276(In) 890(Out)
J1:4/2 (short)	386
J1:5/1	898
J1:6/1	420
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	1115(In) 794(Out)
J2:1/2 (short)	321
J2:2/1	1059
J2:3/1 (with short)	295(In) 267(Out)
J2:3/2 (short)	28
J2:4/1	10
J2:5/1	1276
J2:6/1	820
J2:7/1	373
J2:8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	95.3 %	1906	1906
				Arm J1:6 Left	15.00	4.7 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.5 %	1915	1915
				Arm J2:8 Left	Inf	0.5 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	94.9 %	1932	1932
				Arm J2:7 Left	20.00	4.7 %		
				Arm J2:8 Right	15.00	0.4 %		
J2:3/1 (Smithies Lane)	3.15	0.00	Y	Arm J2:5 Left	20.00	100.0 %	1795	1795
J2:3/2 (Smithies Lane)	3.20	0.00	Y	Arm J2:6 Right	15.00	92.9 %	1771	1771
				Arm J2:8 Ahead	Inf	7.1 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Sat 2017 Future Base+Dev' (FG6: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	28	666	248	4	946
	B	24	0	130	32	2	188
	C	487	164	0	16	3	670
	D	319	95	15	0	1	430
	E	4	2	3	1	0	10
	Tot.	834	289	814	297	10	2244

Traffic Lane Flows

Lane	Scenario 6: Sat 2017 Future Base+Dev
Junction: J1: Carlton Road/Wakefield Road	
J1:1/1	670
J1:2/1 (with short)	430(In) 415(Out)
J1:2/2 (short)	15
J1:3/1	1069
J1:4/1 (with short)	1080(In) 799(Out)
J1:4/2 (short)	281
J1:5/1	814
J1:6/1	297
Junction: J2: Smithies Lane/Wakefield Road	
J2:1/1 (with short)	1069(In) 810(Out)
J2:1/2 (short)	259
J2:2/1	946
J2:3/1 (with short)	188(In) 162(Out)
J2:3/2 (short)	26
J2:4/1	10
J2:5/1	1080
J2:6/1	834
J2:7/1	289
J2:8/1	10

Lane Saturation Flows

Junction: J1: Carlton Road/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Wakefield Rd North of Carlton Rd)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	97.6 %	1910	1910
				Arm J1:6 Left	15.00	2.4 %		
J1:2/1 (Carlton Road)	3.50	0.00	Y	Arm J1:3 Left	18.00	100.0 %	1814	1814
J1:2/2 (Carlton Road)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Wakefield Rd South of Carlton Rd)	2.80	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1895	1895
J1:4/2 (Wakefield Rd South of Carlton Rd)	2.50	0.00	Y	Arm J1:6 Right	18.00	100.0 %	1722	1722
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

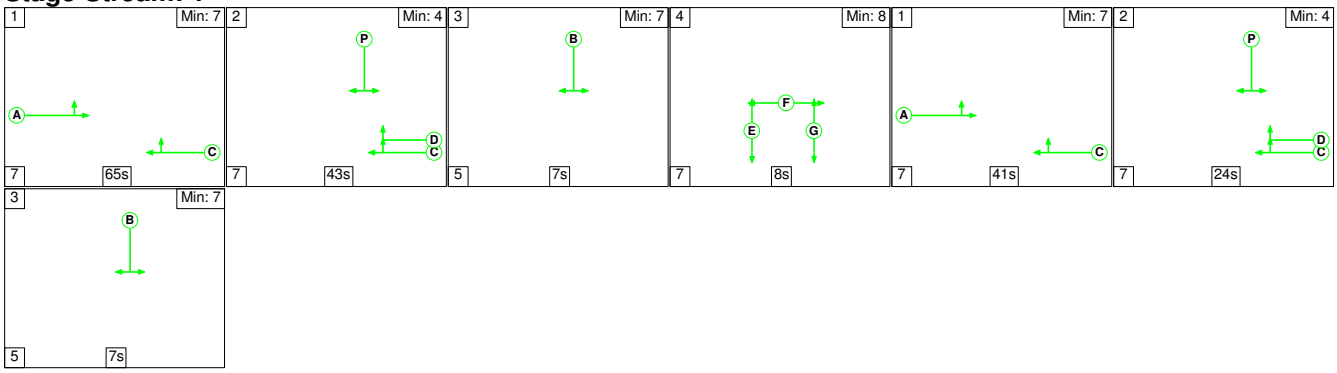
Junction: J2: Smithies Lane/Wakefield Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wakefield Rd North of Smithies Ln)	3.00	0.00	Y	Arm J2:6 Ahead	Inf	99.5 %	1915	1915
				Arm J2:8 Left	Inf	0.5 %		
J2:1/2 (Wakefield Rd North of Smithies Ln)	2.60	0.00	Y	Arm J2:7 Right	15.00	100.0 %	1705	1705
J2:2/1 (Wakefield Rd South of Smithies Ln)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	96.6 %	1935	1935
				Arm J2:7 Left	20.00	3.0 %		
				Arm J2:8 Right	15.00	0.4 %		
J2:3/1 (Smithies Lane)	3.15	0.00	Y	Arm J2:5 Left	20.00	100.0 %	1795	1795
J2:3/2 (Smithies Lane)	3.20	0.00	Y	Arm J2:6 Right	15.00	92.3 %	1771	1771
				Arm J2:8 Ahead	Inf	7.7 %		
J2:4/1 (Site Access)	2.50	0.00	Y	Arm J2:5 Right	12.00	40.0 %	1680	1680
				Arm J2:6 Left	10.00	40.0 %		
				Arm J2:7 Ahead	Inf	20.0 %		
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf
J2:7/1	Infinite Saturation Flow						Inf	Inf
J2:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

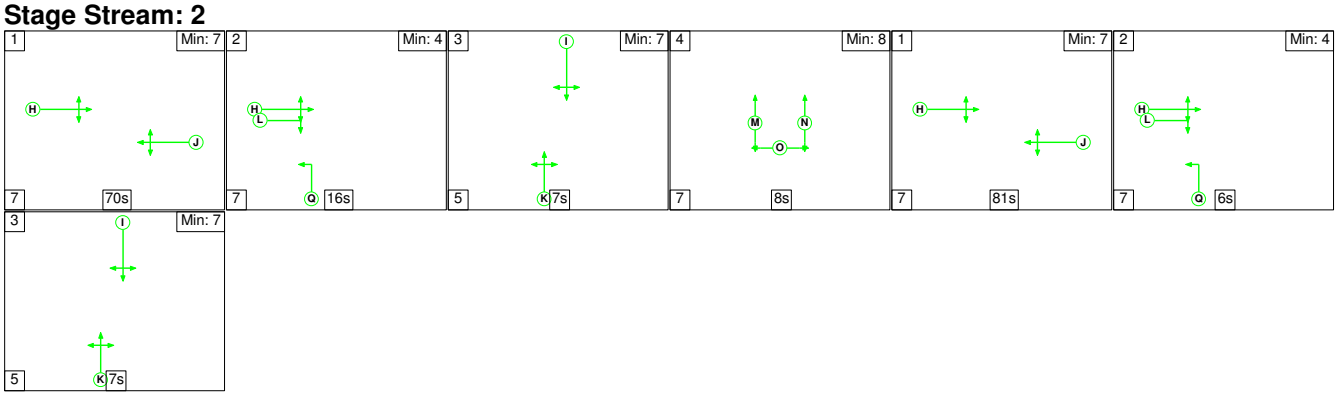
Scenario 1: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

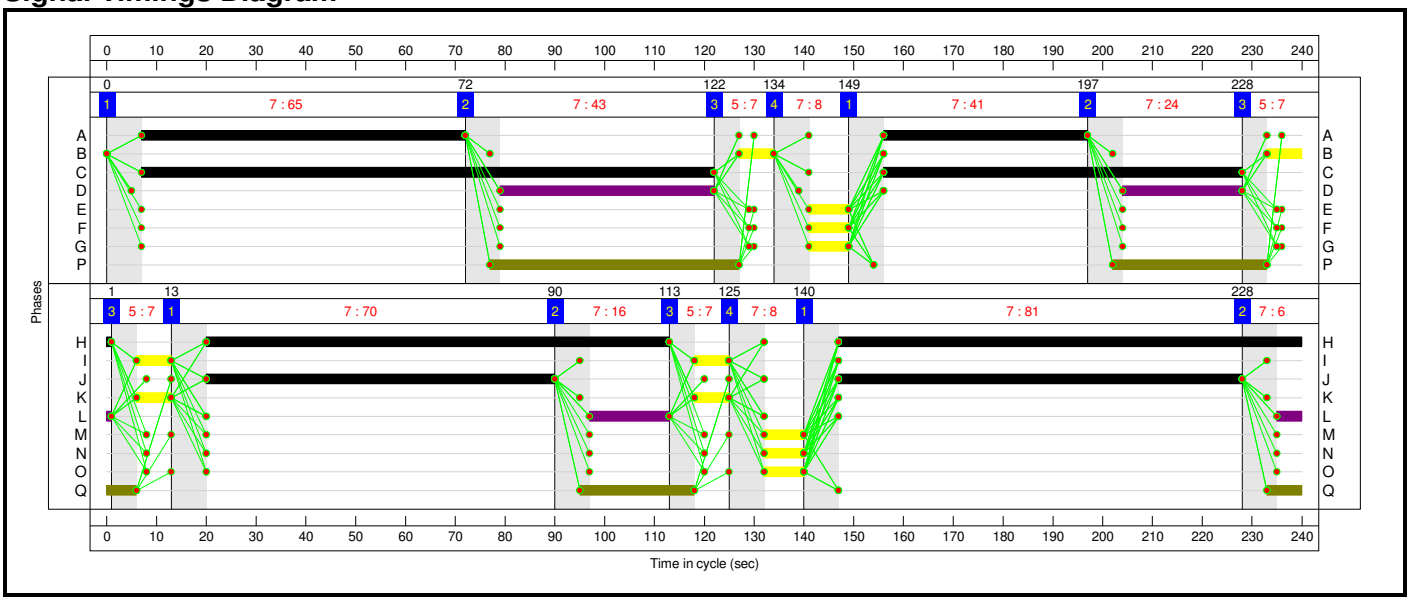
Stage	1	2	3	4	1	2	3
Duration	65	43	7	8	41	24	7
Change Point	0	72	122	134	149	197	228

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	70	16	7	8	81	6	7
Change Point	13	90	113	125	140	228	1

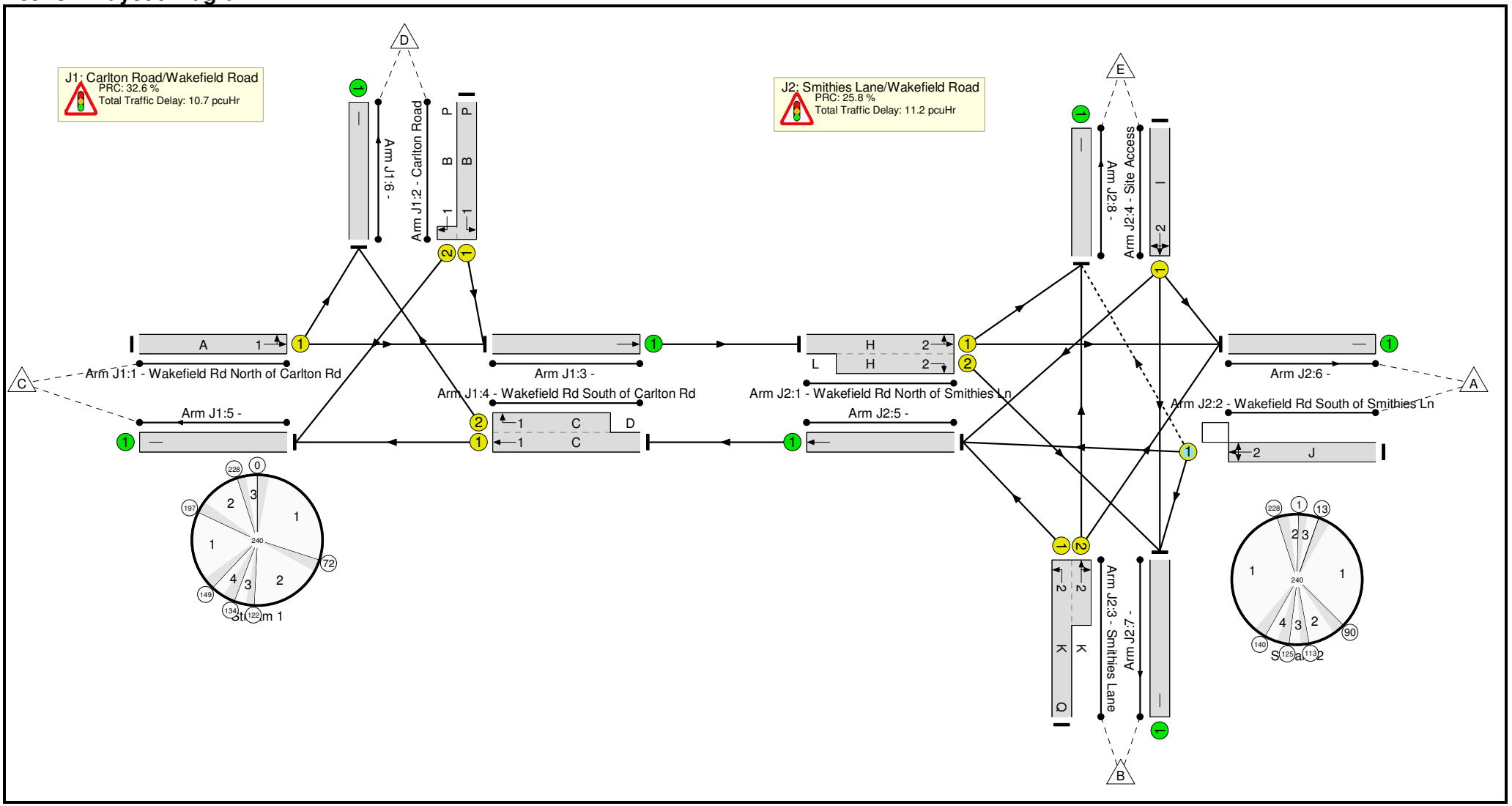
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**71.6%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**67.9%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	106	-	558	1904	857	65.1%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	95	81:81	429	1814:1781	734	58.4%
3/1	Ahead	U	N/A	N/A	-		-	-	-	946	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	187	67	1091	1895:1722	1607	67.9%
5/1		U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	403	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**71.6%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	187	22	946	1915:1705	1621	58.4%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	151	-	881	1931	1231	71.6%
3/1+3/2	Smithies Lane Left Right Ahead	U	2	N/A	K	Q	2	50:14	36	285	1795:1771	405	70.4%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	14	-	10	1680	112	8.9%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1091	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%

Full Input Data And Results

8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	**-**	**-**	**4**	**0**	**0**	**16.0**	**5.8**	**0.0**	**21.8**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**8.0**	**2.7**	**0.0**	**10.7**	**-**	**-**	**-**	**-**
1/1	558	558	-	-	-	4.2	0.9	-	5.2	33.4	18.1	0.9	19.1
2/1+2/2	429	429	-	-	-	3.3	0.7	-	4.0	33.8	11.8	0.7	12.5
3/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1091	1091	-	-	-	0.4	1.1	-	1.5	4.9	6.9	1.1	7.9
5/1	729	729	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	403	403	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**8.0**	**3.2**	**0.0**	**11.2**	**-**	**-**	**-**	**-**
1/1+1/2	946	946	-	-	-	0.4	0.7	-	1.1	4.4	3.1	0.7	3.8
2/1	881	881	4	0	0	3.8	1.2	0.0	5.1	20.8	25.0	1.2	26.2
3/1+3/2	285	285	-	-	-	3.6	1.2	-	4.7	59.6	9.4	1.2	10.5
4/1	10	10	-	-	-	0.1	0.0	-	0.2	70.6	0.3	0.0	0.4
5/1	1091	1091	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

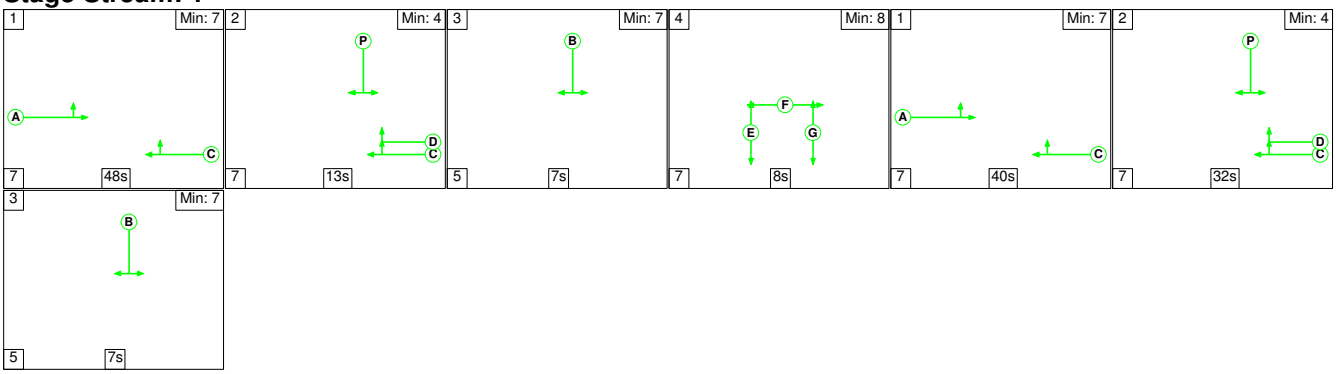
C1	Stream: 1 PRC for Signalled Lanes (%):	32.6	Total Delay for Signalled Lanes (pcuHr):	10.68	Cycle Time (s): 240
C1	Stream: 2 PRC for Signalled Lanes (%):	25.8	Total Delay for Signalled Lanes (pcuHr):	11.15	Cycle Time (s): 240
	PRC Over All Lanes (%):	25.8	Total Delay Over All Lanes(pcuHr):	21.83	

Full Input Data And Results

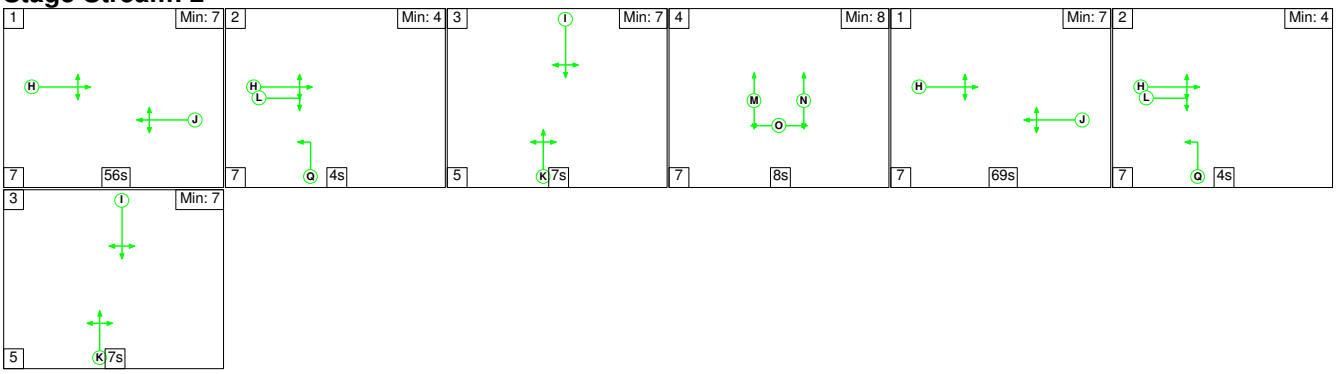
Scenario 2: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

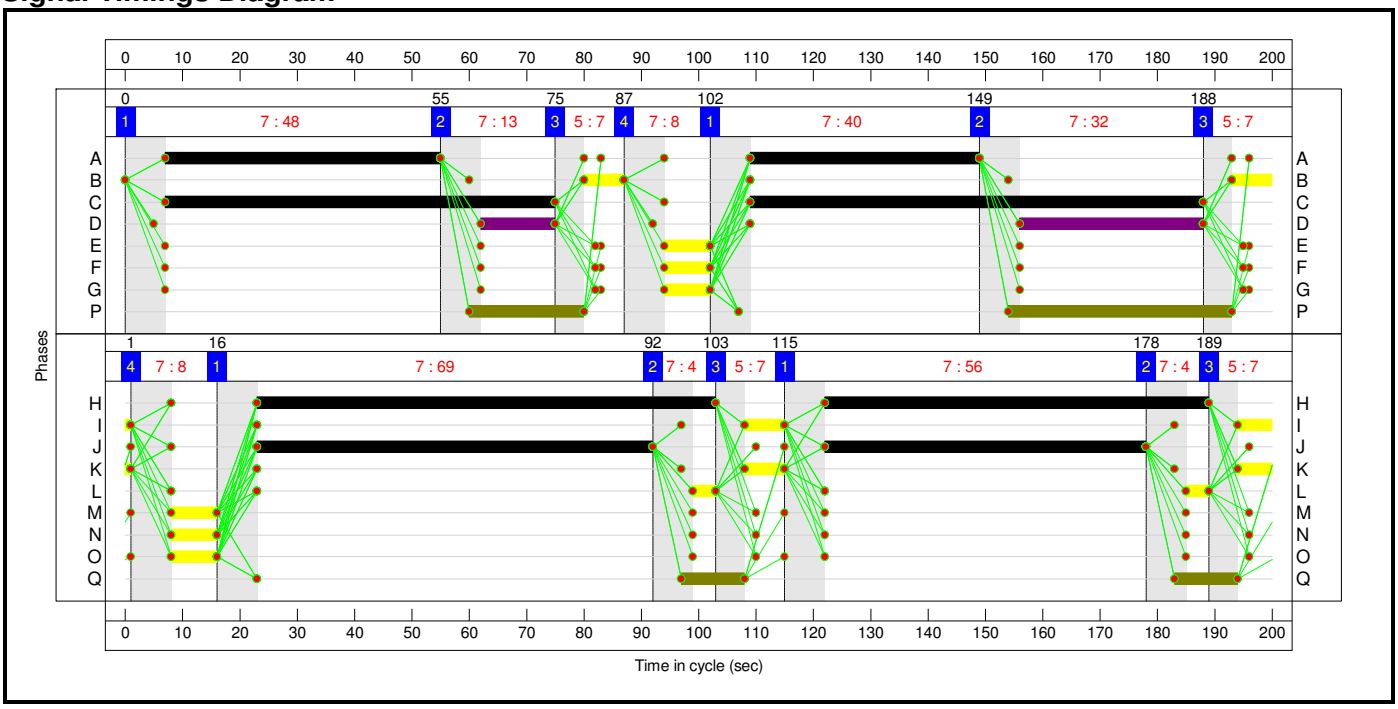
Stage	1	2	3	4	1	2	3
Duration	48	13	7	8	40	32	7
Change Point	0	55	75	87	102	149	188

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	56	4	7	8	69	4	7
Change Point	115	178	189	1	16	92	103

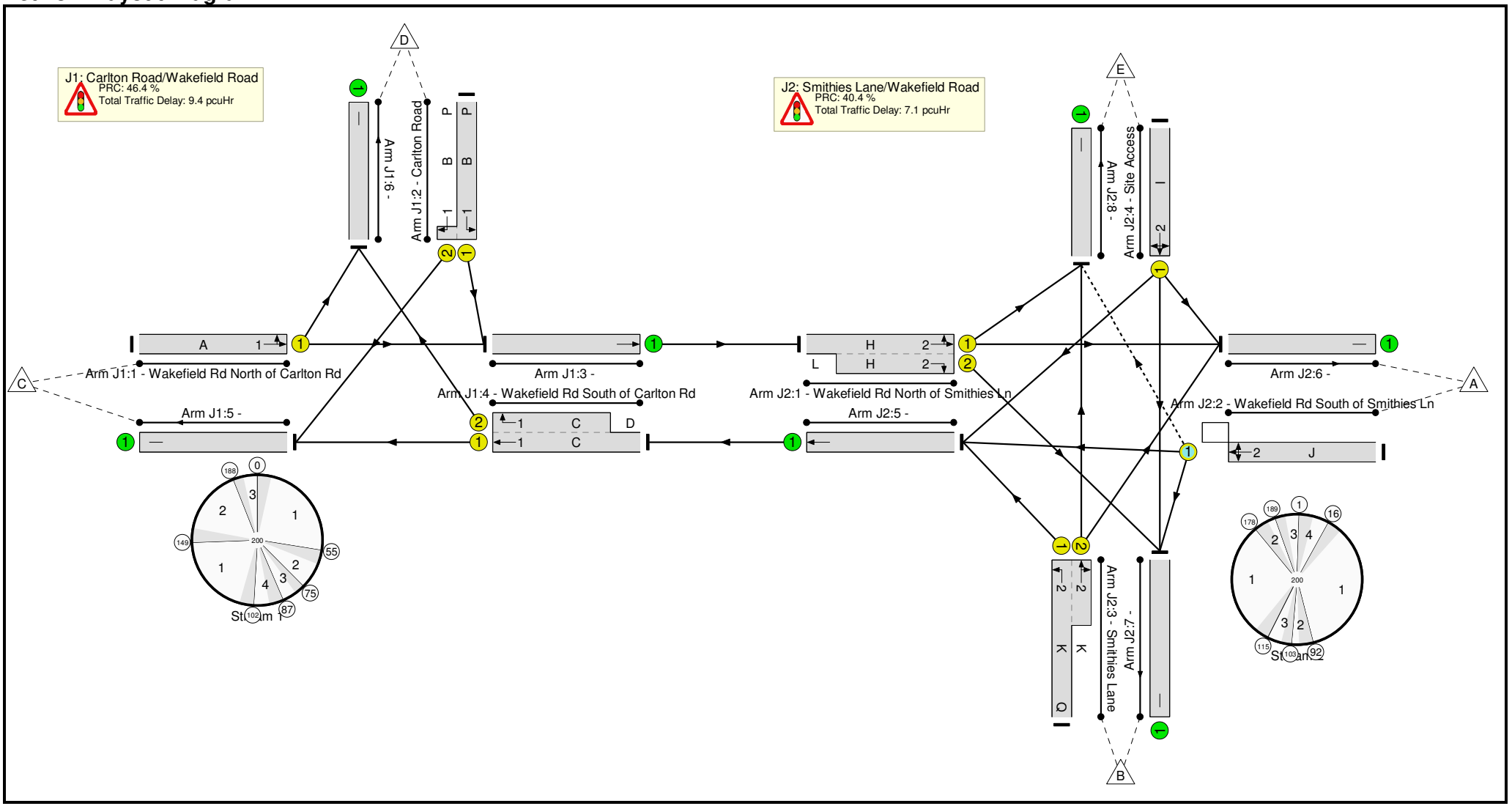
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.1%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	88	-	526	1910	860	61.2%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	73	59:59	419	1814:1781	682	61.5%
3/1	Ahead	U	N/A	N/A	-		-	-	-	916	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	147	45	915	1895:1722	1533	59.7%
5/1		U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.1%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	147	8	916	1915:1705	1539	59.5%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	125	-	787	1934	1228	64.1%
3/1+3/2	Smithies Lane Left Right Ahead	U	2	N/A	K	Q	2	36:14	22	179	1795:1773	369	48.5%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	14	-	10	1680	134	7.4%
5/1	Ahead	U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%

Full Input Data And Results

8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	**-**	**-**	**4**	**0**	**0**	**12.1**	**4.4**	**0.0**	**16.5**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**7.1**	**2.3**	**0.0**	**9.4**	**-**	**-**	**-**	**-**
1/1	526	526	-	-	-	3.1	0.8	-	3.8	26.3	11.4	0.8	12.2
2/1+2/2	419	419	-	-	-	3.0	0.8	-	3.7	32.2	9.9	0.8	10.7
3/1	916	916	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	915	915	-	-	-	1.1	0.7	-	1.8	7.3	20.8	0.7	21.5
5/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**5.0**	**2.1**	**0.0**	**7.1**	**-**	**-**	**-**	**-**
1/1+1/2	916	916	-	-	-	0.4	0.7	-	1.1	4.4	15.1	0.7	15.9
2/1	787	787	4	0	0	2.6	0.9	0.0	3.5	15.8	16.2	0.9	17.1
3/1+3/2	179	179	-	-	-	1.9	0.5	-	2.4	47.3	4.4	0.5	4.9
4/1	10	10	-	-	-	0.1	0.0	-	0.2	58.2	0.3	0.0	0.3
5/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

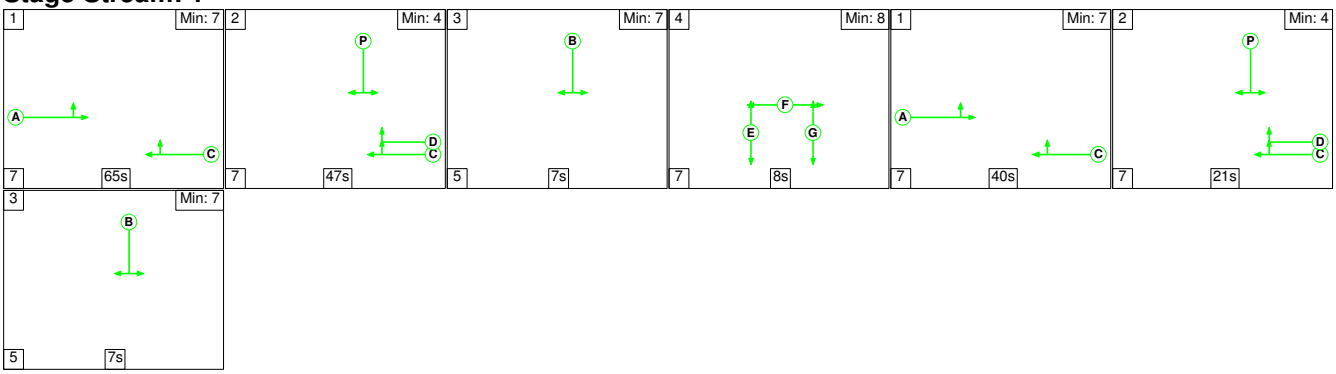
C1	Stream: 1 PRC for Signalled Lanes (%):	46.4	Total Delay for Signalled Lanes (pcuHr):	9.43	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	40.4	Total Delay for Signalled Lanes (pcuHr):	7.09	Cycle Time (s): 200
	PRC Over All Lanes (%):	40.4	Total Delay Over All Lanes(pcuHr):	16.52	

Full Input Data And Results

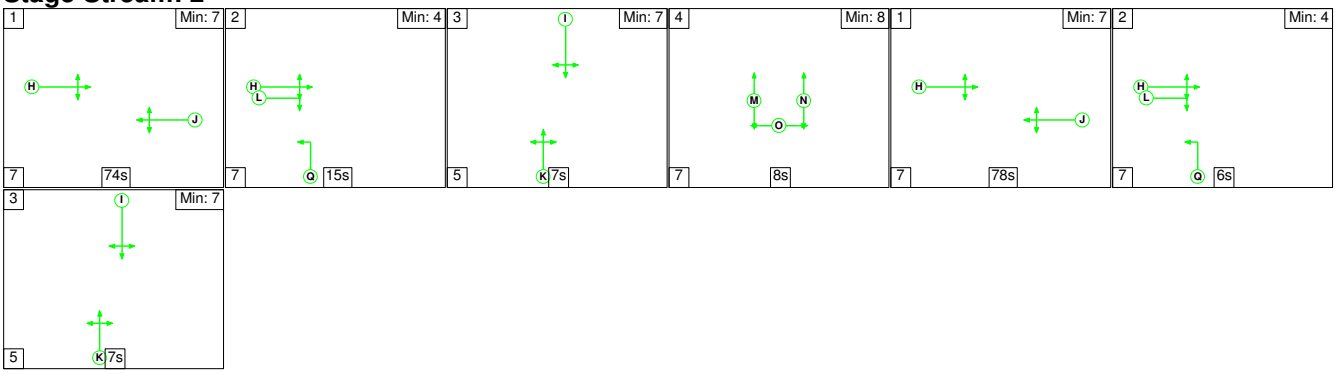
Scenario 3: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

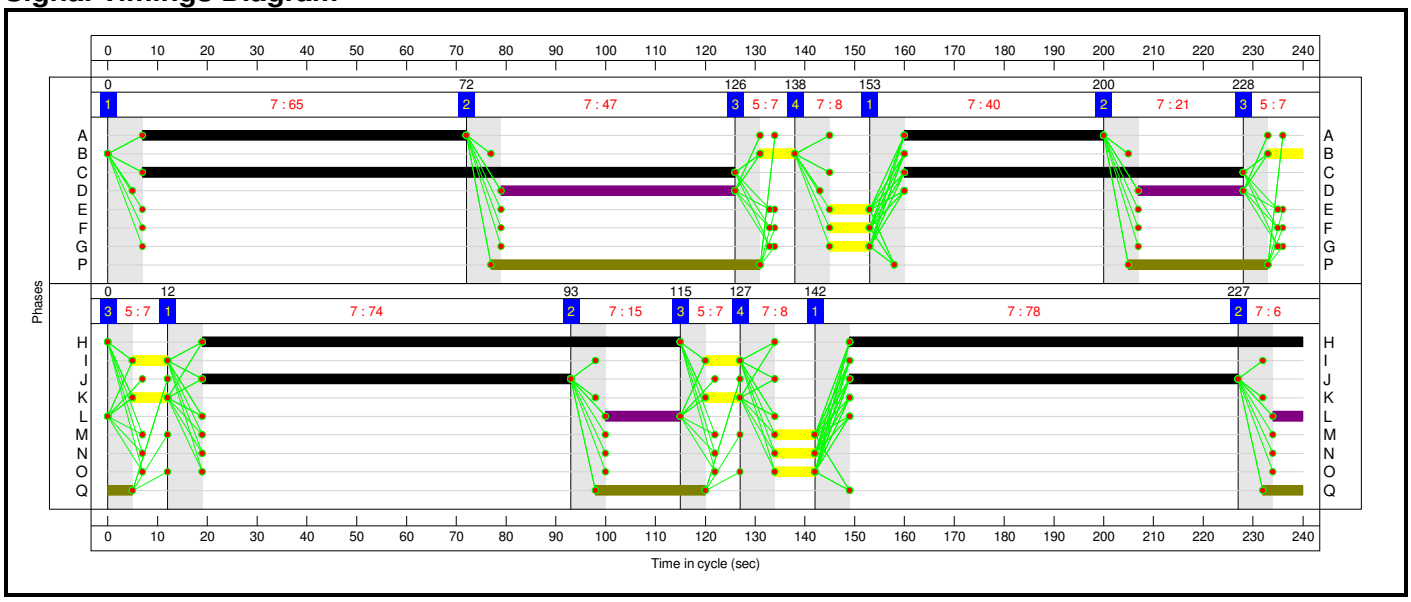
Stage	1	2	3	4	1	2	3
Duration	65	47	7	8	40	21	7
Change Point	0	72	126	138	153	200	228

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	74	15	7	8	78	6	7
Change Point	12	93	115	127	142	227	0

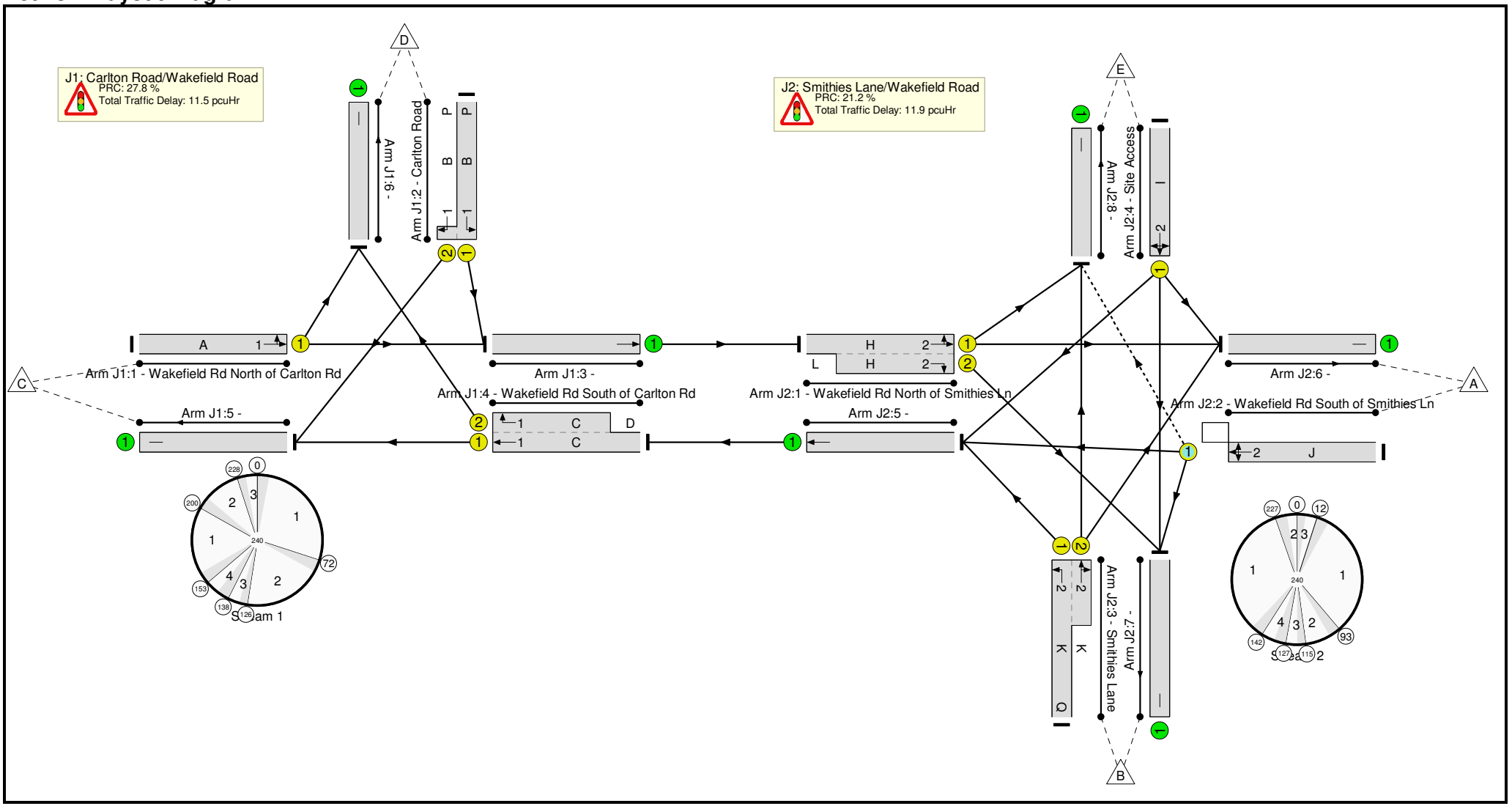
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.3%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.4%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	105	-	578	1904	849	68.1%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	96	82:82	444	1814:1781	742	59.8%
3/1	Ahead	U	N/A	N/A	-		-	-	-	980	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	187	68	1132	1895:1722	1607	70.4%
5/1		U	N/A	N/A	-		-	-	-	755	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.3%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	187	21	980	1915:1705	1621	60.5%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	152	-	915	1931	1239	73.8%
3/1+3/2	Smithies Lane Left Right Ahead	U	2	N/A	K	Q	2	49:14	35	295	1795:1771	397	74.3%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	14	-	10	1680	112	8.9%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1132	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%

Full Input Data And Results

8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	**-**	**-**	**4**	**0**	**0**	**16.9**	**6.6**	**0.0**	**23.5**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**8.5**	**3.0**	**0.0**	**11.5**	**-**	**-**	**-**	**-**
1/1	578	578	-	-	-	4.7	1.1	-	5.7	35.6	19.9	1.1	21.0
2/1+2/2	444	444	-	-	-	3.4	0.7	-	4.2	33.9	12.3	0.7	13.1
3/1	980	980	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1132	1132	-	-	-	0.5	1.2	-	1.6	5.2	7.5	1.2	8.6
5/1	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**8.3**	**3.6**	**0.0**	**11.9**	**-**	**-**	**-**	**-**
1/1+1/2	980	980	-	-	-	0.5	0.8	-	1.2	4.5	3.2	0.8	4.0
2/1	915	915	4	0	0	4.0	1.4	0.0	5.4	21.3	26.4	1.4	27.8
3/1+3/2	295	295	-	-	-	3.7	1.4	-	5.1	62.3	9.6	1.4	11.0
4/1	10	10	-	-	-	0.1	0.0	-	0.2	70.5	0.3	0.0	0.4
5/1	1132	1132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

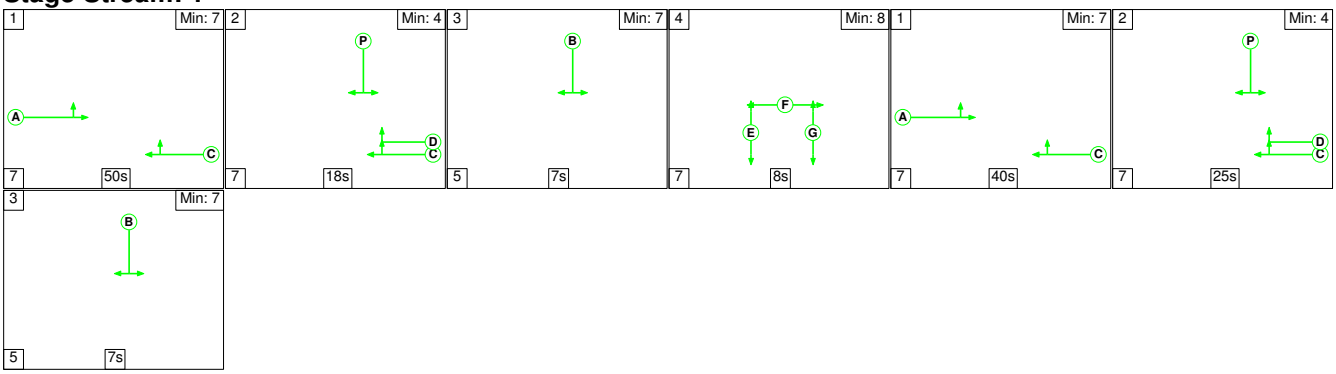
C1	Stream: 1 PRC for Signalled Lanes (%):	27.8	Total Delay for Signalled Lanes (pcuHr):	11.53	Cycle Time (s): 240
C1	Stream: 2 PRC for Signalled Lanes (%):	21.2	Total Delay for Signalled Lanes (pcuHr):	11.93	Cycle Time (s): 240
	PRC Over All Lanes (%):	21.2	Total Delay Over All Lanes(pcuHr):	23.46	

Full Input Data And Results

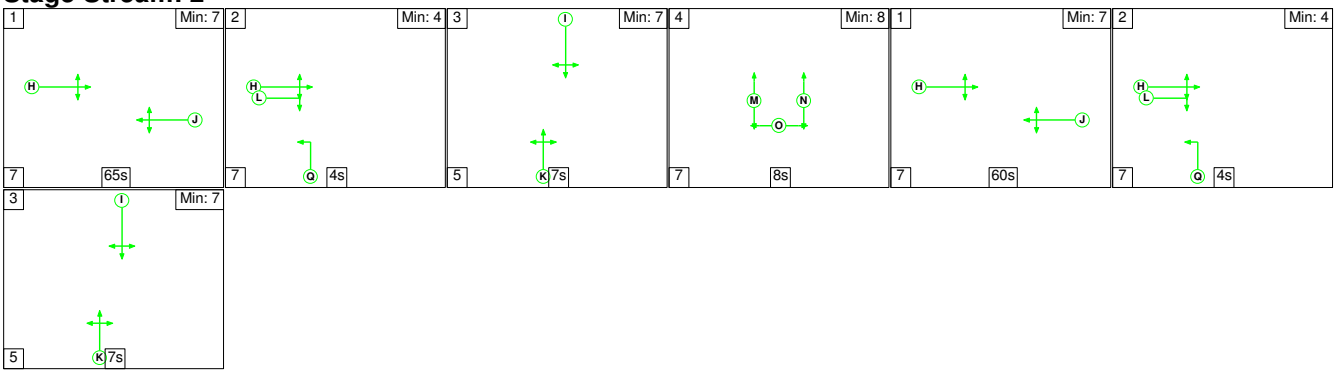
Scenario 4: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

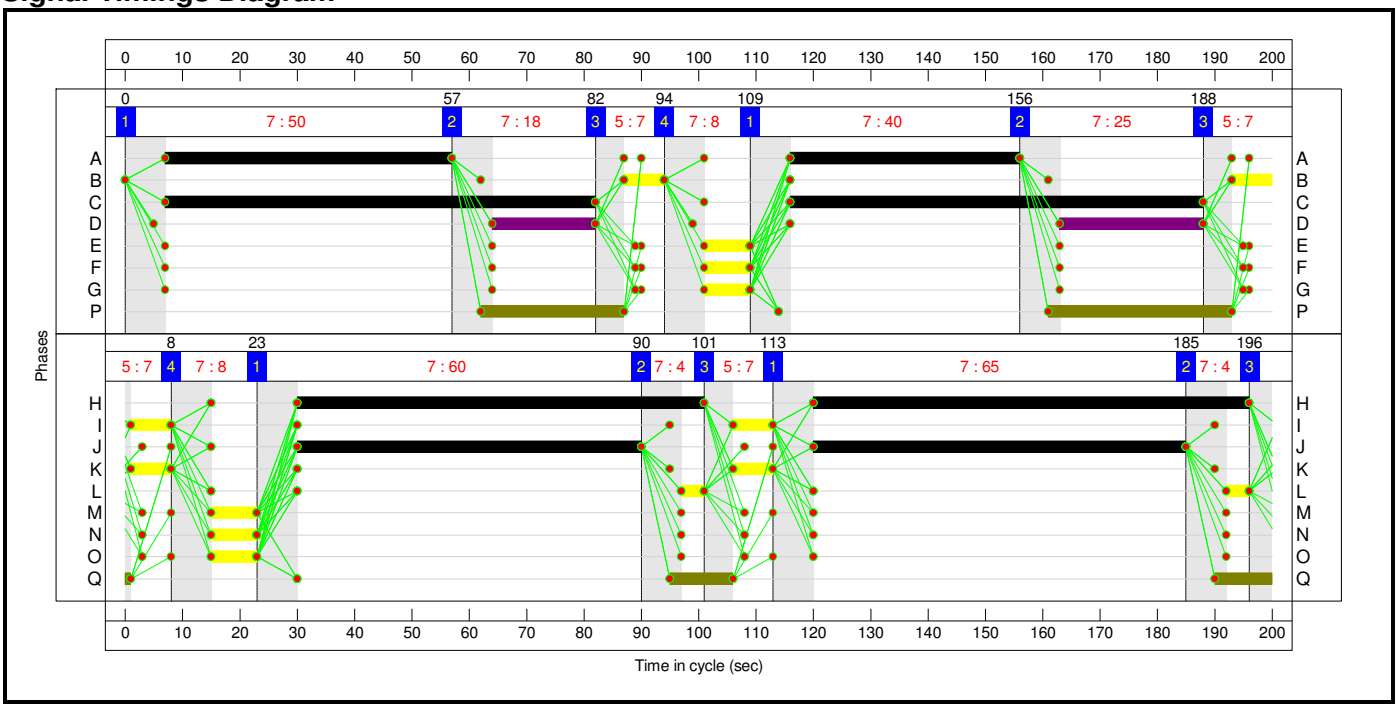
Stage	1	2	3	4	1	2	3
Duration	50	18	7	8	40	25	7
Change Point	0	57	82	94	109	156	188

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	65	4	7	8	60	4	7
Change Point	113	185	196	8	23	90	101

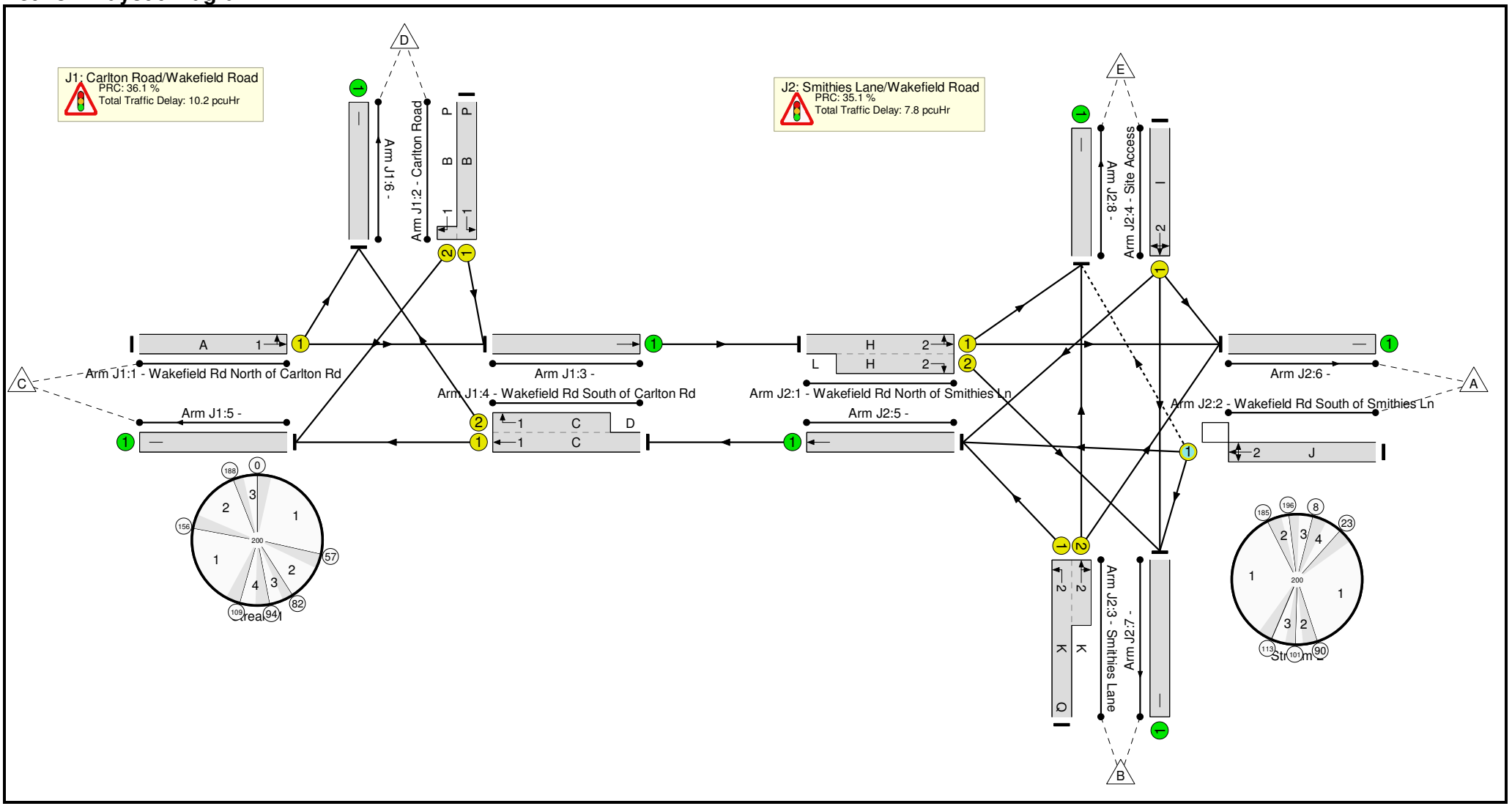
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**66.6%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**66.1%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	90	-	549	1909	878	62.5%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	71	57:57	439	1814:1781	664	66.1%
3/1	Ahead	U	N/A	N/A	-		-	-	-	957	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	147	43	951	1895:1722	1533	62.0%
5/1		U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**66.6%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	147	8	957	1915:1705	1539	62.2%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	125	-	818	1934	1228	66.6%
3/1+3/2	Smithies Lane Left Right Ahead	U	2	N/A	K	Q	2	36:14	22	187	1795:1771	370	50.5%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	14	-	10	1680	134	7.4%
5/1	Ahead	U	N/A	N/A	-		-	-	-	951	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%

Full Input Data And Results

8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	**-**	**-**	**4**	**0**	**0**	**13.0**	**5.0**	**0.0**	**18.0**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**7.6**	**2.6**	**0.0**	**10.2**	**-**	**-**	**-**	**-**
1/1	549	549	-	-	-	3.1	0.8	-	4.0	26.0	12.4	0.8	13.2
2/1+2/2	439	439	-	-	-	3.2	1.0	-	4.2	34.5	10.5	1.0	11.5
3/1	957	957	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	951	951	-	-	-	1.2	0.8	-	2.0	7.6	22.3	0.8	23.1
5/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**5.5**	**2.4**	**0.0**	**7.8**	**-**	**-**	**-**	**-**
1/1+1/2	957	957	-	-	-	0.7	0.8	-	1.5	5.7	15.6	0.8	16.5
2/1	818	818	4	0	0	2.7	1.0	0.0	3.7	16.4	17.3	1.0	18.3
3/1+3/2	187	187	-	-	-	1.9	0.5	-	2.4	46.9	4.2	0.5	4.7
4/1	10	10	-	-	-	0.1	0.0	-	0.2	57.4	0.3	0.0	0.3
5/1	951	951	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

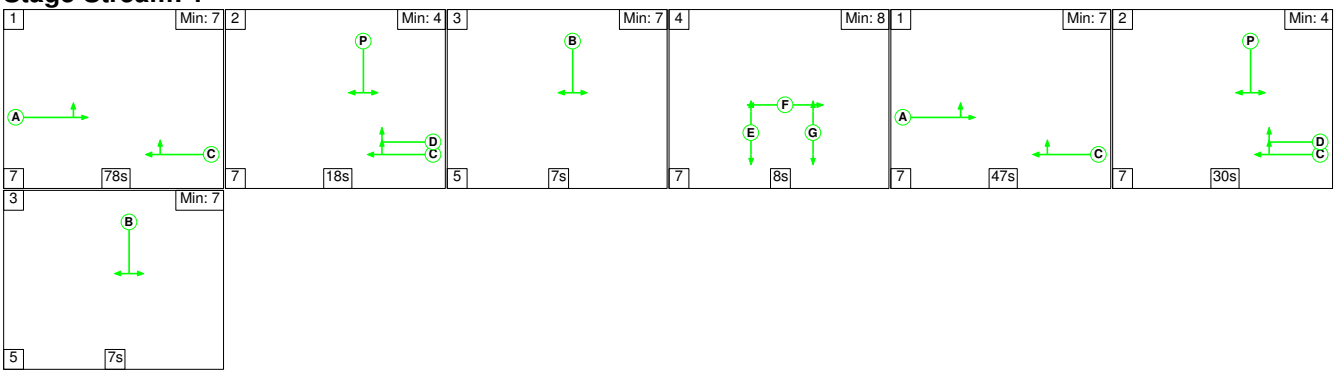
C1	Stream: 1 PRC for Signalled Lanes (%):	36.1	Total Delay for Signalled Lanes (pcuHr):	10.18	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	35.1	Total Delay for Signalled Lanes (pcuHr):	7.83	Cycle Time (s): 200
	PRC Over All Lanes (%):	35.1	Total Delay Over All Lanes(pcuHr):	18.01	

Full Input Data And Results

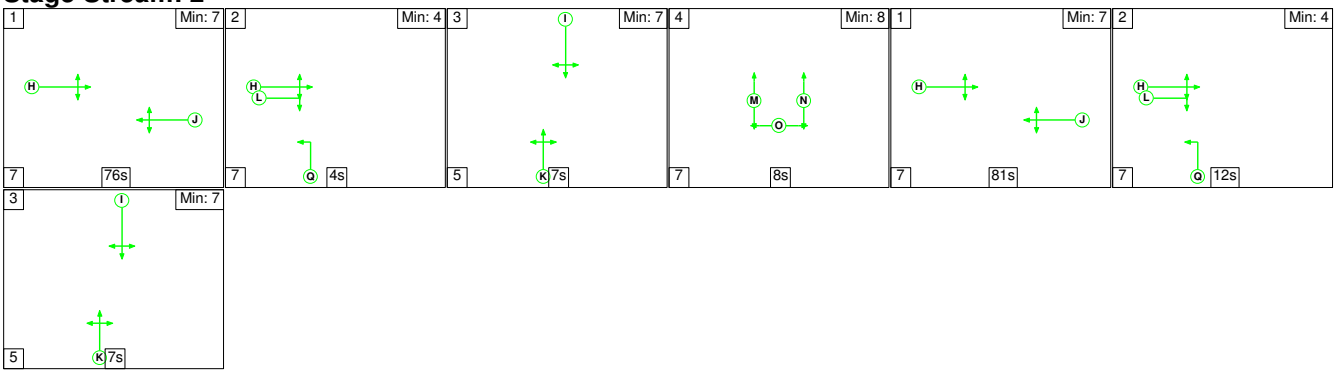
Scenario 5: 'Fri 2017 Future Base+Dev' (FG5: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

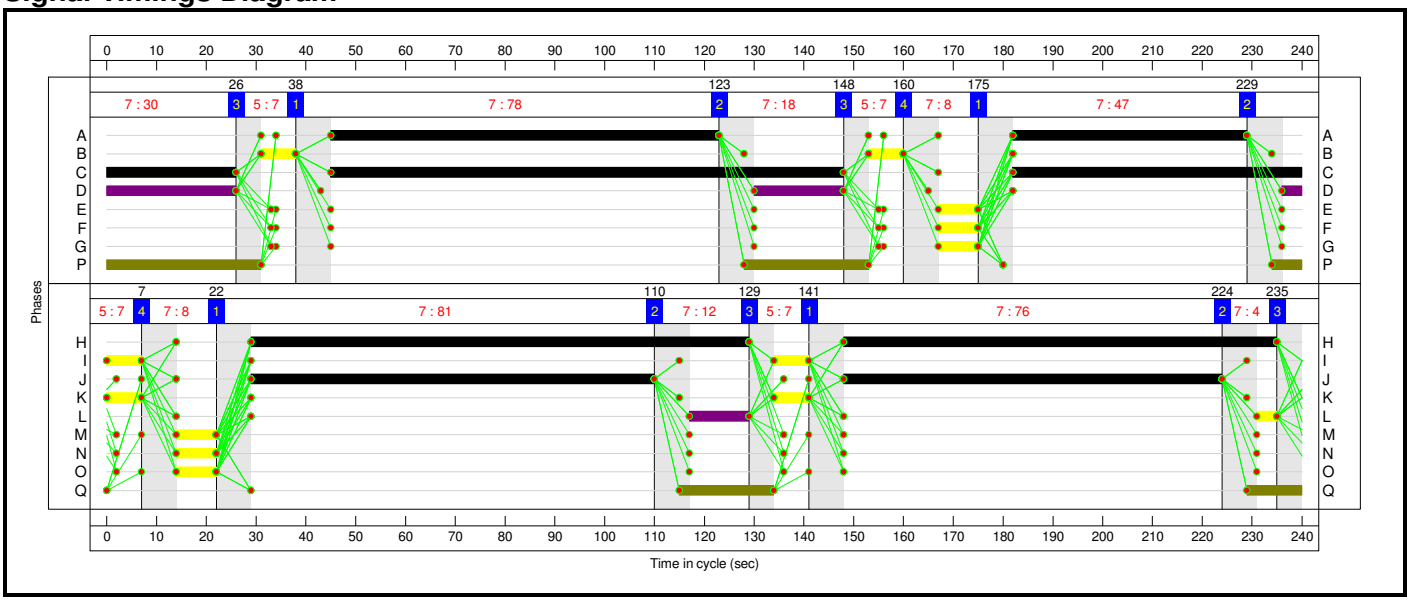
Stage	1	2	3	4	1	2	3
Duration	78	18	7	8	47	30	7
Change Point	38	123	148	160	175	229	26

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	76	4	7	8	81	12	7
Change Point	141	224	235	7	22	110	129

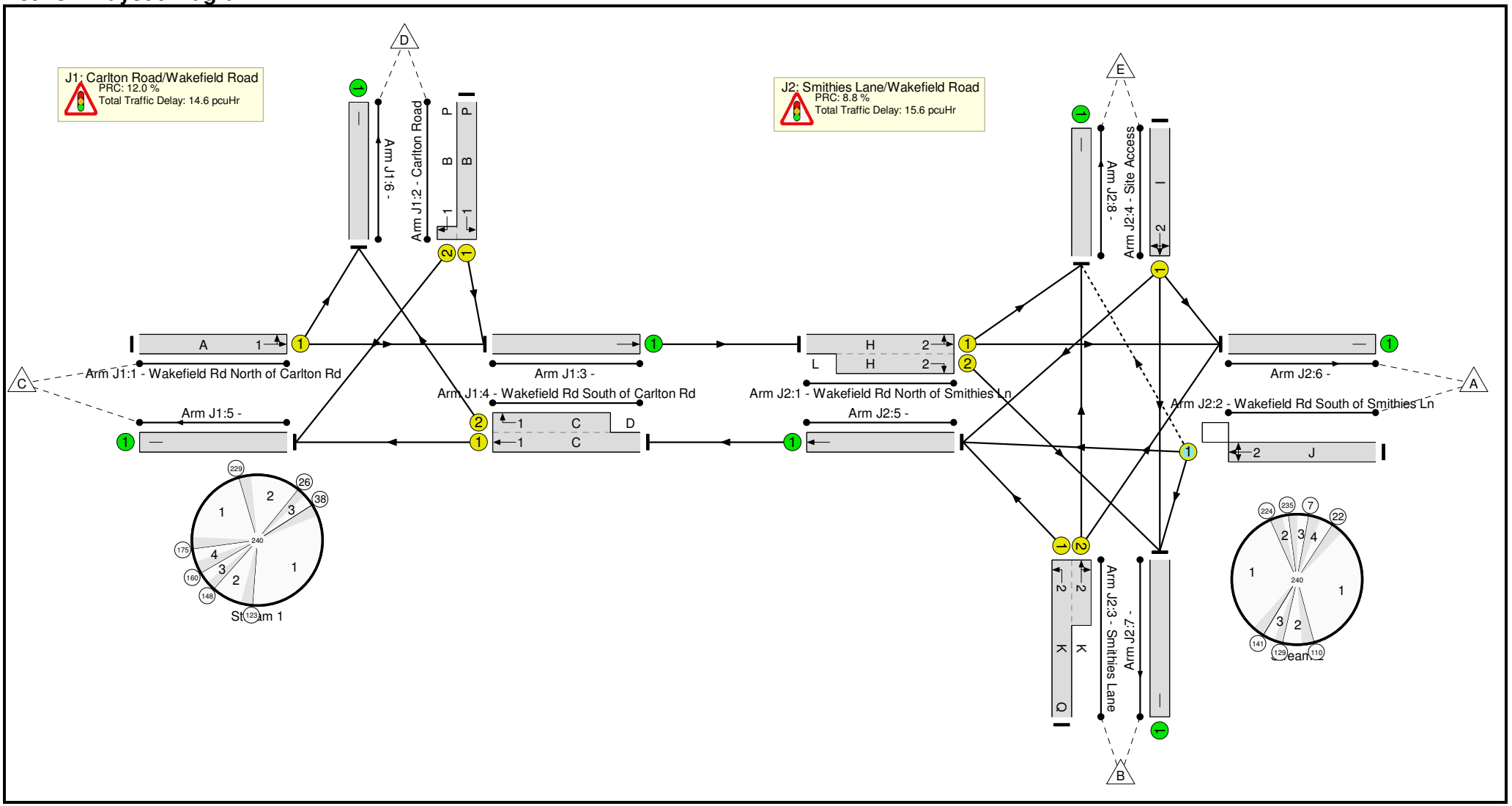
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.7%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.4%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	125	-	719	1906	1009	71.3%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	76	62:62	438	1814:1781	591	74.1%
3/1	Ahead	U	N/A	N/A	-		-	-	-	1115	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	187	48	1276	1895:1722	1587	80.4%
5/1		U	N/A	N/A	-		-	-	-	898	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	420	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.7%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	187	16	1115	1915:1705	1600	69.7%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	157	-	1059	1932	1280	82.7%
3/1+3/2	Smithies Lane Left Right Ahead	U	2	N/A	K	Q	2	44:14	30	295	1795:1771	360	82.0%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	14	-	10	1680	112	8.9%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1276	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%

Full Input Data And Results

8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	**-**	**-**	**4**	**0**	**0**	**19.9**	**10.3**	**0.0**	**30.2**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**9.9**	**4.7**	**0.0**	**14.6**	**-**	**-**	**-**	**-**
1/1	719	719	-	-	-	4.3	1.2	-	5.5	27.5	18.6	1.2	19.8
2/1+2/2	438	438	-	-	-	4.4	1.4	-	5.8	47.9	14.2	1.4	15.6
3/1	1115	1115	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1276	1276	-	-	-	1.2	2.0	-	3.3	9.2	24.9	2.0	26.9
5/1	898	898	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	420	420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**9.9**	**5.7**	**0.0**	**15.6**	**-**	**-**	**-**	**-**
1/1+1/2	1115	1115	-	-	-	1.4	1.1	-	2.6	8.3	11.6	1.1	12.7
2/1	1059	1059	4	0	0	4.5	2.3	0.0	6.8	23.2	28.5	2.3	30.9
3/1+3/2	295	295	-	-	-	3.9	2.1	-	6.0	73.4	9.8	2.1	11.9
4/1	10	10	-	-	-	0.1	0.0	-	0.2	71.2	0.4	0.0	0.4
5/1	1276	1276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

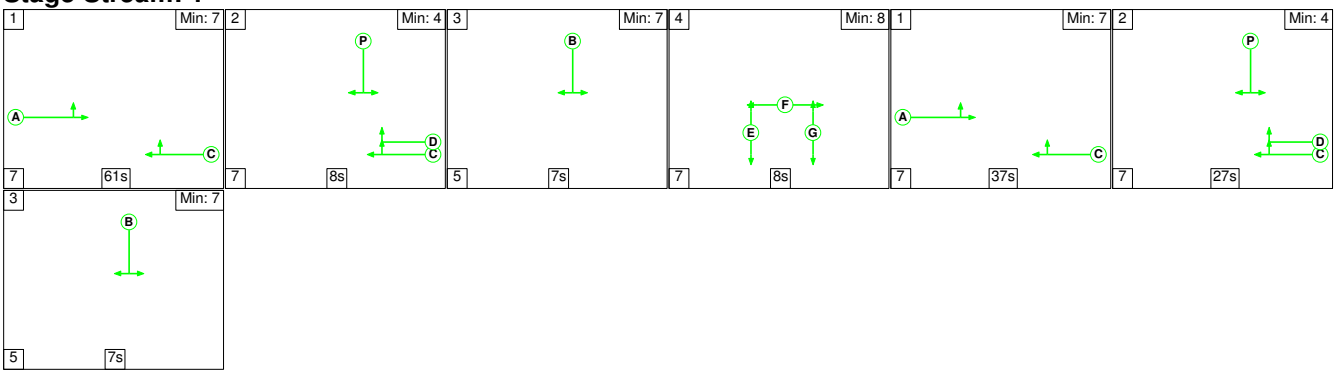
C1	Stream: 1 PRC for Signalled Lanes (%):	12.0	Total Delay for Signalled Lanes (pcuHr):	14.58	Cycle Time (s): 240
C1	Stream: 2 PRC for Signalled Lanes (%):	8.8	Total Delay for Signalled Lanes (pcuHr):	15.61	Cycle Time (s): 240
	PRC Over All Lanes (%):	8.8	Total Delay Over All Lanes(pcuHr):	30.19	

Full Input Data And Results

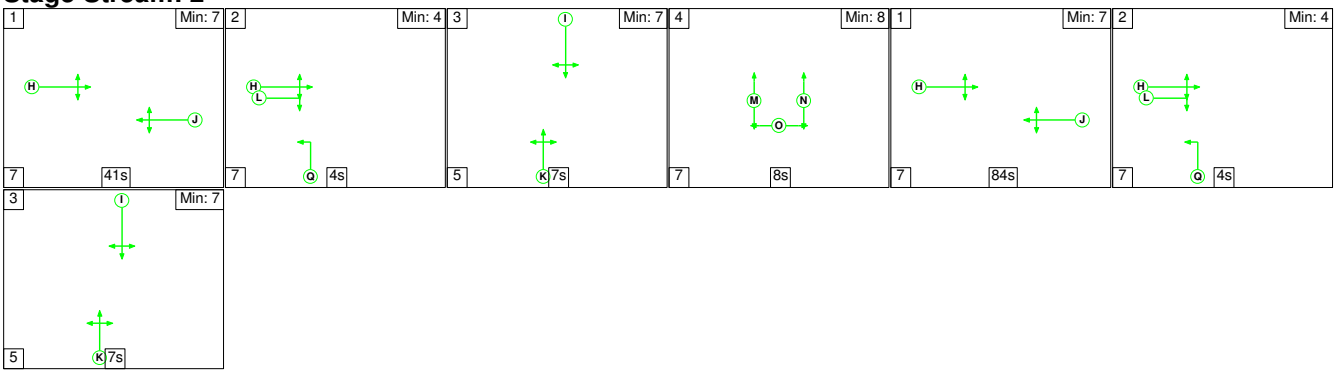
Scenario 6: 'Sat 2017 Future Base+Dev' (FG6: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

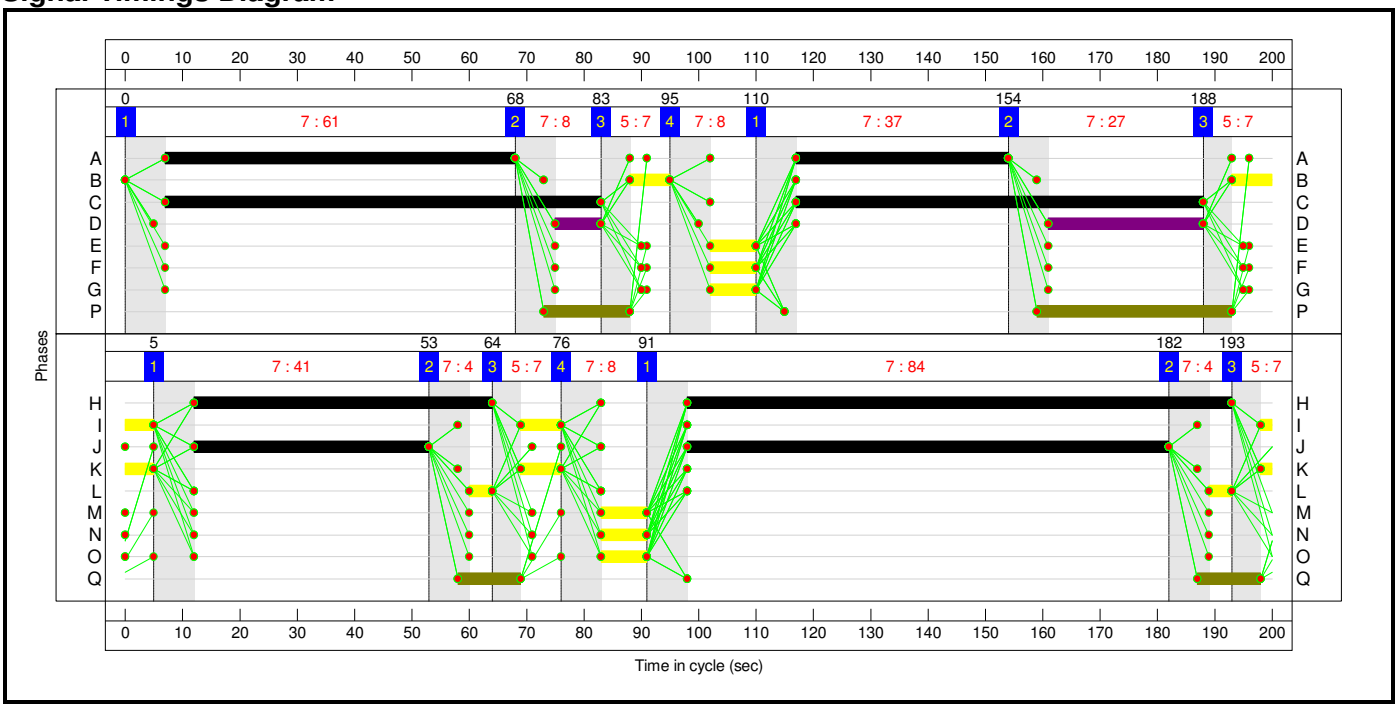
Stage	1	2	3	4	1	2	3
Duration	61	8	7	8	37	27	7
Change Point	0	68	83	95	110	154	188

Stage Stream: 2

Stage	1	2	3	4	1	2	3
Duration	41	4	7	8	84	4	7
Change Point	5	53	64	76	91	182	193

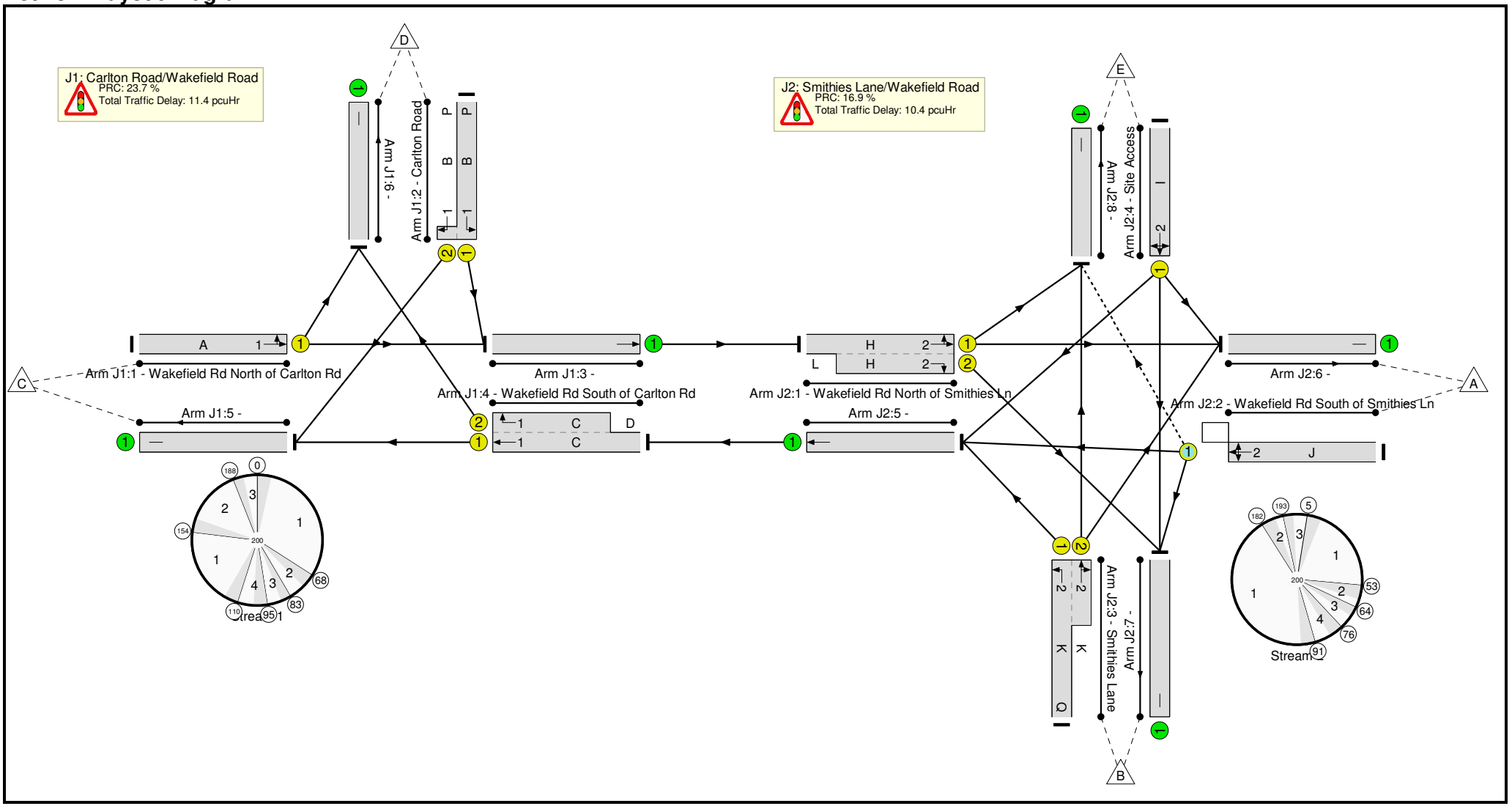
Full Input Data And Results

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.0%**
J1: Carlton Road/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**72.7%**
1/1	Wakefield Rd North of Carlton Rd Ahead Left	U	1	N/A	A		2	98	-	670	1910	955	70.2%
2/1+2/2	Carlton Road Left Right	U	1	N/A	B	P	2	63	49:49	430	1814:1781	591	72.7%
3/1	Ahead	U	N/A	N/A	-		-	-	-	1069	Inf	Inf	0.0%
4/1+4/2	Wakefield Rd South of Carlton Rd Ahead Right	U	1	N/A	C	D	2	147	35	1080	1895:1722	1512	71.5%
5/1		U	N/A	N/A	-		-	-	-	814	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
J2: Smithies Lane/Wakefield Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.0%**
1/1+1/2	Wakefield Rd North of Smithies Ln Ahead Right Left	U	2	N/A	H	L	2	147	8	1069	1915:1705	1523	70.2%
2/1	Wakefield Rd South of Smithies Ln Ahead Left Right	O	2	N/A	J		2	125	-	946	1935	1229	77.0%
3/1+3/2	Smithies Lane Left Right Ahead	U	2	N/A	K	Q	2	36:14	22	188	1795:1771	370	50.8%
4/1	Site Access Right Left Ahead	U	2	N/A	I		2	14	-	10	1680	134	7.4%
5/1	Ahead	U	N/A	N/A	-		-	-	-	1080	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%

Full Input Data And Results

8/1		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

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: Wakefield Road/Carlton Road/Smithies Lane - Proposed Mitigation	**-**	**-**	**4**	**0**	**0**	**14.7**	**7.1**	**0.0**	**21.8**	**-**	**-**	**-**	**-**
J1: Carlton Road/Wakefield Road	**-**	**-**	**0**	**0**	**0**	**7.7**	**3.7**	**0.0**	**11.4**	**-**	**-**	**-**	**-**
1/1	670	670	-	-	-	3.6	1.2	-	4.8	25.6	14.9	1.2	16.1
2/1+2/2	430	430	-	-	-	3.6	1.3	-	4.9	40.9	11.2	1.3	12.5
3/1	1069	1069	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	1080	1080	-	-	-	0.5	1.2	-	1.7	5.8	25.5	1.2	26.7
5/1	814	814	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Smithies Lane/Wakefield Road	**-**	**-**	**4**	**0**	**0**	**7.0**	**3.4**	**0.0**	**10.4**	**-**	**-**	**-**	**-**
1/1+1/2	1069	1069	-	-	-	1.2	1.2	-	2.3	7.8	20.3	1.2	21.5
2/1	946	946	4	0	0	3.6	1.7	0.0	5.2	19.9	22.6	1.7	24.3
3/1+3/2	188	188	-	-	-	2.2	0.5	-	2.7	51.4	5.5	0.5	6.0
4/1	10	10	-	-	-	0.1	0.0	-	0.2	61.4	0.3	0.0	0.4
5/1	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	23.7	Total Delay for Signalled Lanes (pcuHr):	11.39	Cycle Time (s): 200
C1	Stream: 2 PRC for Signalled Lanes (%):	16.9	Total Delay for Signalled Lanes (pcuHr):	10.41	Cycle Time (s): 200
	PRC Over All Lanes (%):	16.9	Total Delay Over All Lanes(pcuHr):	21.81	

Old Mill Lane/Burton Road

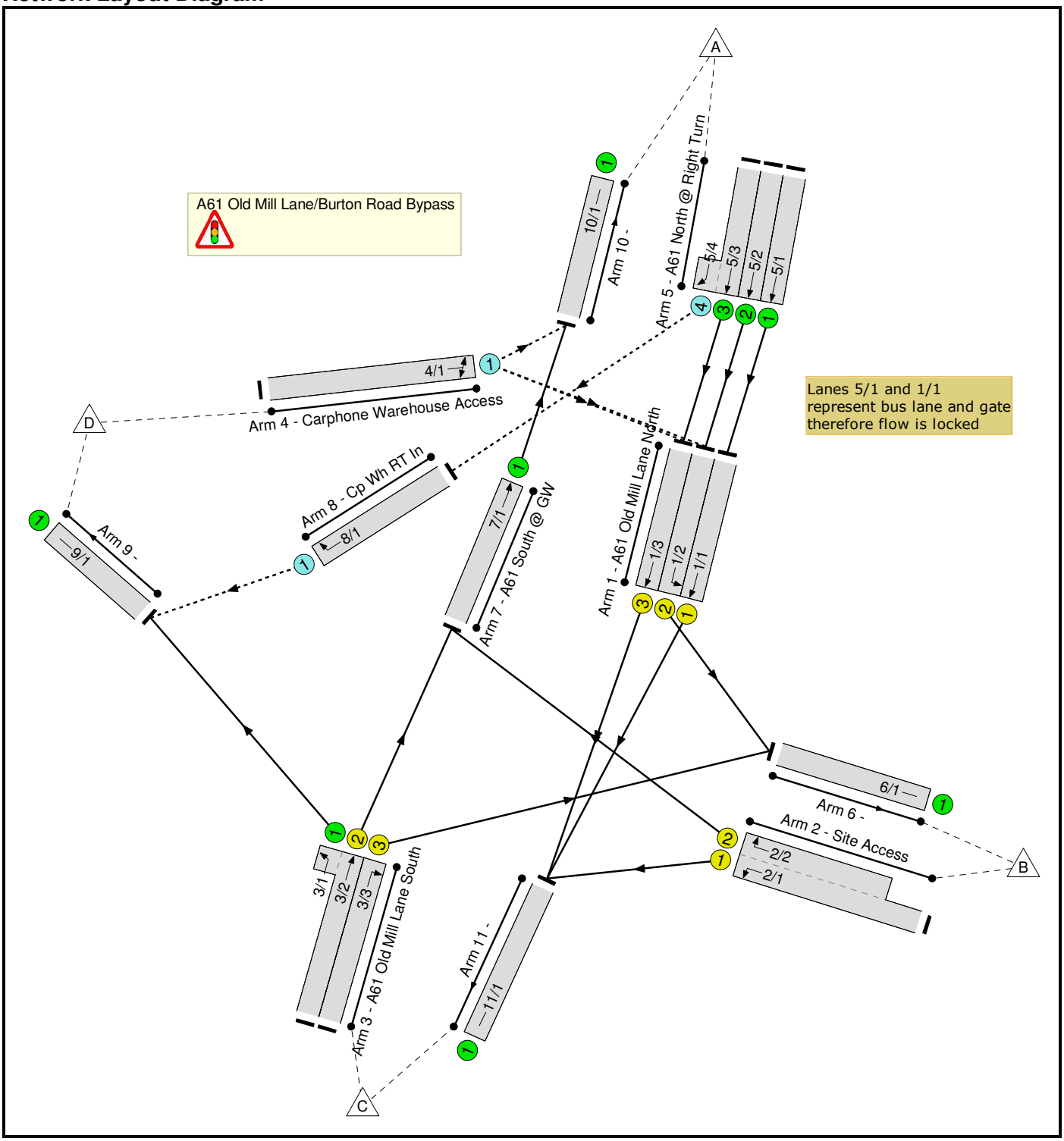
Full Input Data And Results

User and Project Details

Project:	**90095 Proposed Food-store, Barnsley**
Title:	**A61 Old Mill Lane/Burton Road Bypass**
Location:	Barnsley
File name:	Old Mill Lane_Burton Rd Bypass.lsg3x
Author:	D Stoddart
Company:	Curtins Consulting
Address:	Manchester
Notes:	Proposed Design

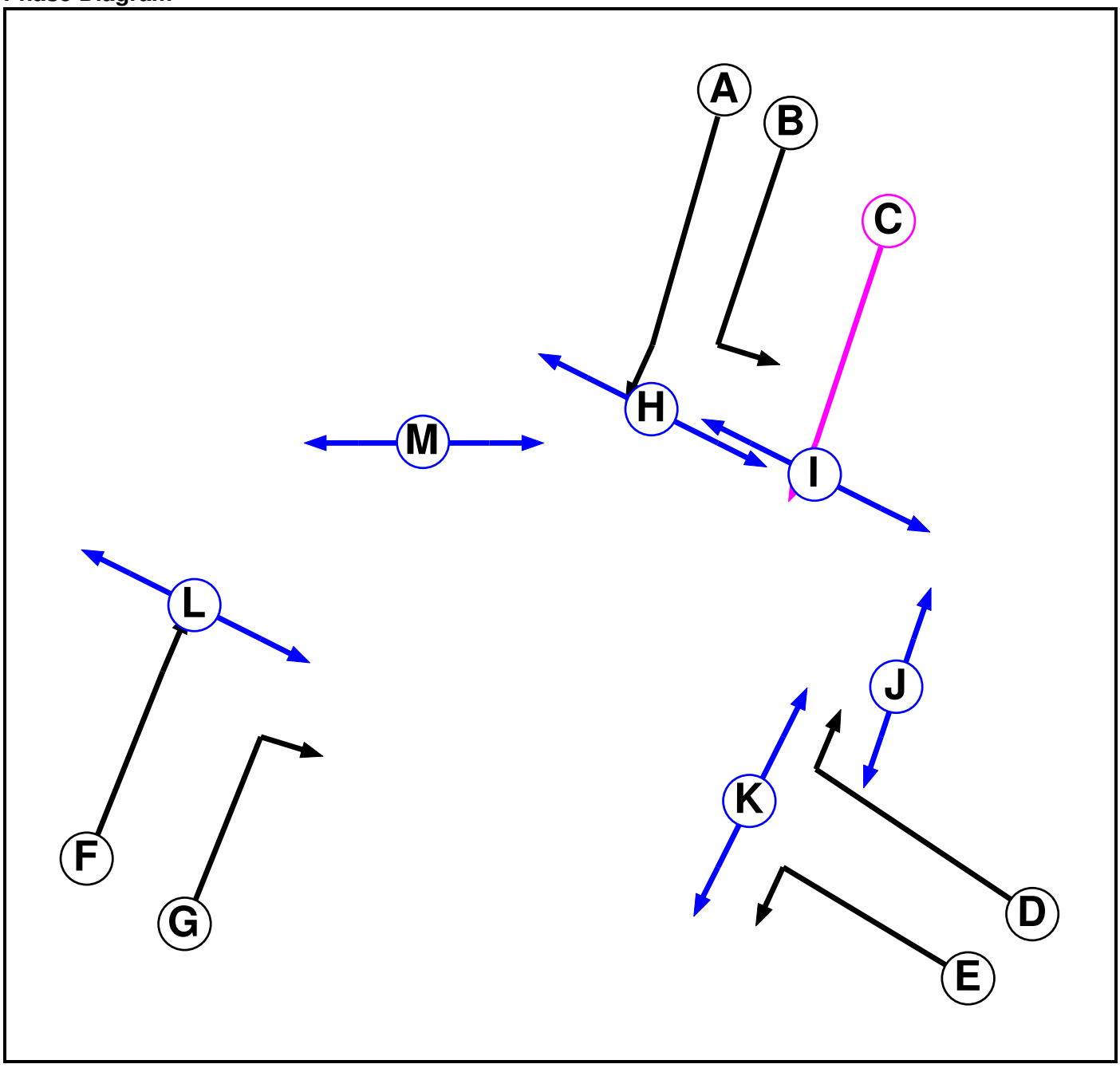
Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

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	Bus		5	5
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		5	5
K	Pedestrian		5	5
L	Pedestrian		5	5
M	Pedestrian		5	5

Phase Intergreens Matrix

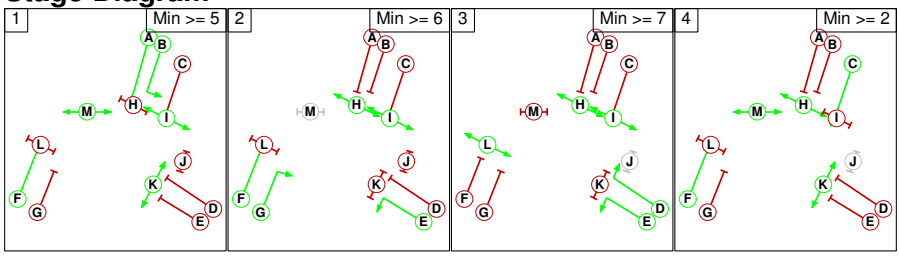
		Starting Phase												
		A	B	C	D	E	F	G	H	I	J	K	L	M
Terminating Phase	A		-	5	5	7	-	6	5	-	-	-	-	-
	B	-		5	-	-	-	5	5	-	8	-	-	-
	C	5	5		7	7	-	6	-	5	-	-	-	-
	D	5	-	5		-	7	6	-	-	-	5	-	8
	E	5	-	5	-		-	-	-	-	-	5	-	-
	F	-	-	-	5	-		-	-	-	-	-	5	-
	G	5	5	5	5	-	-		-	-	8	-	-	-
	H	6	6	-	-	-	-	-		-	-	-	-	-
	I	-	-	5	-	-	-	-	-		-	-	-	-
	J	-	6	-	-	-	-	6	-	-		-	-	-
	K	-	-	-	7	7	-	-	-	-	-		-	-
	L	-	-	-	-	-	5	-	-	-	-	-		-
	M	-	-	-	5	-	-	-	-	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B F I K M
2	E F G H I
3	D E H I L
4	C F H K M

Full Input Data And Results

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
1		7	7	5
2	6		5	5
3	8	7		8
4	6	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A61 Old Mill Lane/Burton Road Bypass

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
4/1 (Carphone Warehouse Access)	1/2 (Right)	600	7/1	0.22	7/1	-	-	-	-	-
			5/3	0.19	5/3					
			5/2	0.19	5/2					
			5/4	0.19	5/4					
	1/3 (Right)	600	7/1	0.22	7/1					
			5/3	0.19	5/3					
			5/2	0.19	5/2					
			5/4	0.19	5/4					
	10/1 (Left)	715	7/1	0.22	7/1					
5/4 (A61 North @ Right Turn)	8/1 (Right)	850	7/1	0.35	7/1	-	-	-	-	-
8/1 (Cp Wh RT In)	9/1 (Right)	850	3/1	0.35	3/1	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: A61 Old Mill Lane/Burton Road Bypass												
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 (A61 Old Mill Lane North)	U	C	2	3	8.0	Geom	-	3.70	0.00	Y	Arm 11 Ahead	Inf
1/2 (A61 Old Mill Lane North)	U	B	2	3	8.0	Geom	-	3.70	0.00	Y	Arm 6 Left	30.00
1/3 (A61 Old Mill Lane North)	U	A	2	3	8.0	Geom	-	3.70	0.00	Y	Arm 11 Ahead	Inf
2/1 (Site Access)	U	E	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 11 Left	25.00
2/2 (Site Access)	U	D	2	3	14.0	Geom	-	3.90	0.00	Y	Arm 7 Right	40.00
3/1 (A61 Old Mill Lane South)	U		2	3	1.6	Geom	-	4.00	0.00	Y	Arm 9 Left	30.00
3/2 (A61 Old Mill Lane South)	U	F	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 7 Ahead	Inf
3/3 (A61 Old Mill Lane South)	U	G	2	3	60.0	Geom	-	5.00	0.00	Y	Arm 6 Right	35.00
4/1 (Carphone Warehouse Access)	O		2	3	60.0	Geom	-	4.10	0.00	Y	Arm 1 Right Arm 10 Left	15.00 10.00
5/1 (A61 North @ Right Turn)	U		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 1 Ahead	Inf
5/2 (A61 North @ Right Turn)	U		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 1 Ahead	Inf
5/3 (A61 North @ Right Turn)	U		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 1 Ahead	Inf
5/4 (A61 North @ Right Turn)	O		2	3	2.1	Geom	-	3.50	0.00	Y	Arm 8 Right	10.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A61 South @ GW)	U		2	3	3.5	Geom	-	4.30	0.00	Y	Arm 10 Ahead	Inf
8/1 (Cp Wh RT In)	O		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Fri 2012 Future Base'	15:45	16:45	01:00	
2: 'Sat 2012 Future Base'	12:30	13:30	01:00	
3: 'Fri 2017 Future Base'	15:45	16:45	01:00	
4: 'Sat 2017 Future Base'	12:30	13:30	01:00	
5: 'Fri 2017 Future Base+Dev'	15:45	16:45	01:00	
6: 'Sat 2017 Future Base+Dev'	12:30	13:30	01:00	

Scenario 1: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	19	651	8	678
	B	16	0	510	0	526
	C	787	730	0	18	1535
	D	12	1	8	0	21
	Tot.	815	750	1169	26	2760

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Fri 2012 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	20
1/3	591
2/1 (with short)	526(In) 510(Out)
2/2 (short)	16
3/1 (short)	18
3/2 (with short)	805(In) 787(Out)
3/3	730
4/1	21
5/1	68
5/2	19
5/3 (with short)	591(In) 583(Out)
5/4 (short)	8
6/1	750
7/1	803
8/1	8
9/1	26
10/1	815
11/1	1169

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	100.0 %	1890	1890
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	5.00	0.00	Y	Arm 6 Right	35.00	100.0 %	2028	2028
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	42.9 %	1794	1794
				Arm 10 Left	10.00	57.1 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.30	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2045	2045
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	29	668	9	706
	B	32	0	511	0	543
	C	701	643	0	20	1364
	D	13	1	10	0	24
	Tot.	746	673	1189	29	2637

Traffic Lane Flows

Lane	Scenario 2: Sat 2012 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	30
1/3	623
2/1 (with short)	543(In) 511(Out)
2/2 (short)	32
3/1 (short)	20
3/2 (with short)	721(In) 701(Out)
3/3	643
4/1	24
5/1	55
5/2	29
5/3 (with short)	622(In) 613(Out)
5/4 (short)	9
6/1	673
7/1	733
8/1	9
9/1	29
10/1	746
11/1	1189

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	100.0 %	1890	1890
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	5.00	0.00	Y	Arm 6 Right	35.00	100.0 %	2028	2028
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	45.8 %	1797	1797
				Arm 10 Left	10.00	54.2 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.30	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2045	2045
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	20	675	8	703
	B	16	0	530	0	546
	C	818	759	0	19	1596
	D	13	1	9	0	23
	Tot.	847	780	1214	27	2868

Traffic Lane Flows

Lane	Scenario 3: Fri 2017 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	21
1/3	616
2/1 (with short)	546(In) 530(Out)
2/2 (short)	16
3/1 (short)	19
3/2 (with short)	837(In) 818(Out)
3/3	759
4/1	23
5/1	68
5/2	20
5/3 (with short)	615(In) 607(Out)
5/4 (short)	8
6/1	780
7/1	834
8/1	8
9/1	27
10/1	847
11/1	1214

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	100.0 %	1890	1890
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	5.00	0.00	Y	Arm 6 Right	35.00	100.0 %	2028	2028
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	43.5 %	1795	1795
				Arm 10 Left	10.00	56.5 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.30	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2045	2045
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	30	695	9	734
	B	33	0	532	0	565
	C	730	669	0	21	1420
	D	14	2	10	0	26
	Tot.	777	701	1237	30	2745

Traffic Lane Flows

Lane	Scenario 4: Sat 2017 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	32
1/3	650
2/1 (with short)	565(In) 532(Out)
2/2 (short)	33
3/1 (short)	21
3/2 (with short)	751(In) 730(Out)
3/3	669
4/1	26
5/1	55
5/2	30
5/3 (with short)	649(In) 640(Out)
5/4 (short)	9
6/1	701
7/1	763
8/1	9
9/1	30
10/1	777
11/1	1237

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	100.0 %	1890	1890
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	5.00	0.00	Y	Arm 6 Right	35.00	100.0 %	2028	2028
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	46.2 %	1797	1797
				Arm 10 Left	10.00	53.8 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.30	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2045	2045
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'Fri 2017 Future Base+Dev' (FG5: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	245	584	8	837
	B	237	0	834	0	1071
	C	716	1082	0	19	1817
	D	13	1	9	0	23
	Tot.	966	1328	1427	27	3748

Traffic Lane Flows

Lane	Scenario 5: Fri 2017 Future Base+Dev
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	246
1/3	525
2/1 (with short)	1071(In) 834(Out)
2/2 (short)	237
3/1 (short)	19
3/2 (with short)	735(In) 716(Out)
3/3	1082
4/1	23
5/1	68
5/2	245
5/3 (with short)	524(In) 516(Out)
5/4 (short)	8
6/1	1328
7/1	953
8/1	8
9/1	27
10/1	966
11/1	1427

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	100.0 %	1890	1890
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	5.00	0.00	Y	Arm 6 Right	35.00	100.0 %	2028	2028
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	43.5 %	1795	1795
				Arm 10 Left	10.00	56.5 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.30	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2045	2045
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: 'Sat 2017 Future Base+Dev' (FG6: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	240	599	9	848
	B	235	0	798	0	1033
	C	630	964	0	21	1615
	D	14	2	10	0	26
	Tot.	879	1206	1407	30	3522

Traffic Lane Flows

Lane	Scenario 6: Sat 2017 Future Base+Dev
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	242
1/3	554
2/1 (with short)	1033(In) 798(Out)
2/2 (short)	235
3/1 (short)	21
3/2 (with short)	651(In) 630(Out)
3/3	964
4/1	26
5/1	55
5/2	240
5/3 (with short)	553(In) 544(Out)
5/4 (short)	9
6/1	1206
7/1	865
8/1	9
9/1	30
10/1	879
11/1	1407

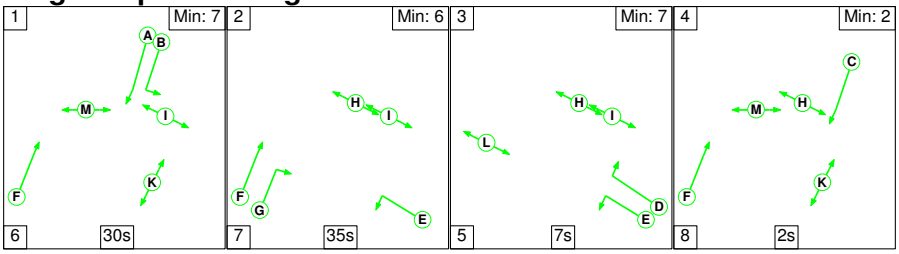
Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	100.0 %	1890	1890
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	5.00	0.00	Y	Arm 6 Right	35.00	100.0 %	2028	2028
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	46.2 %	1797	1797
				Arm 10 Left	10.00	53.8 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.30	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2045	2045
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

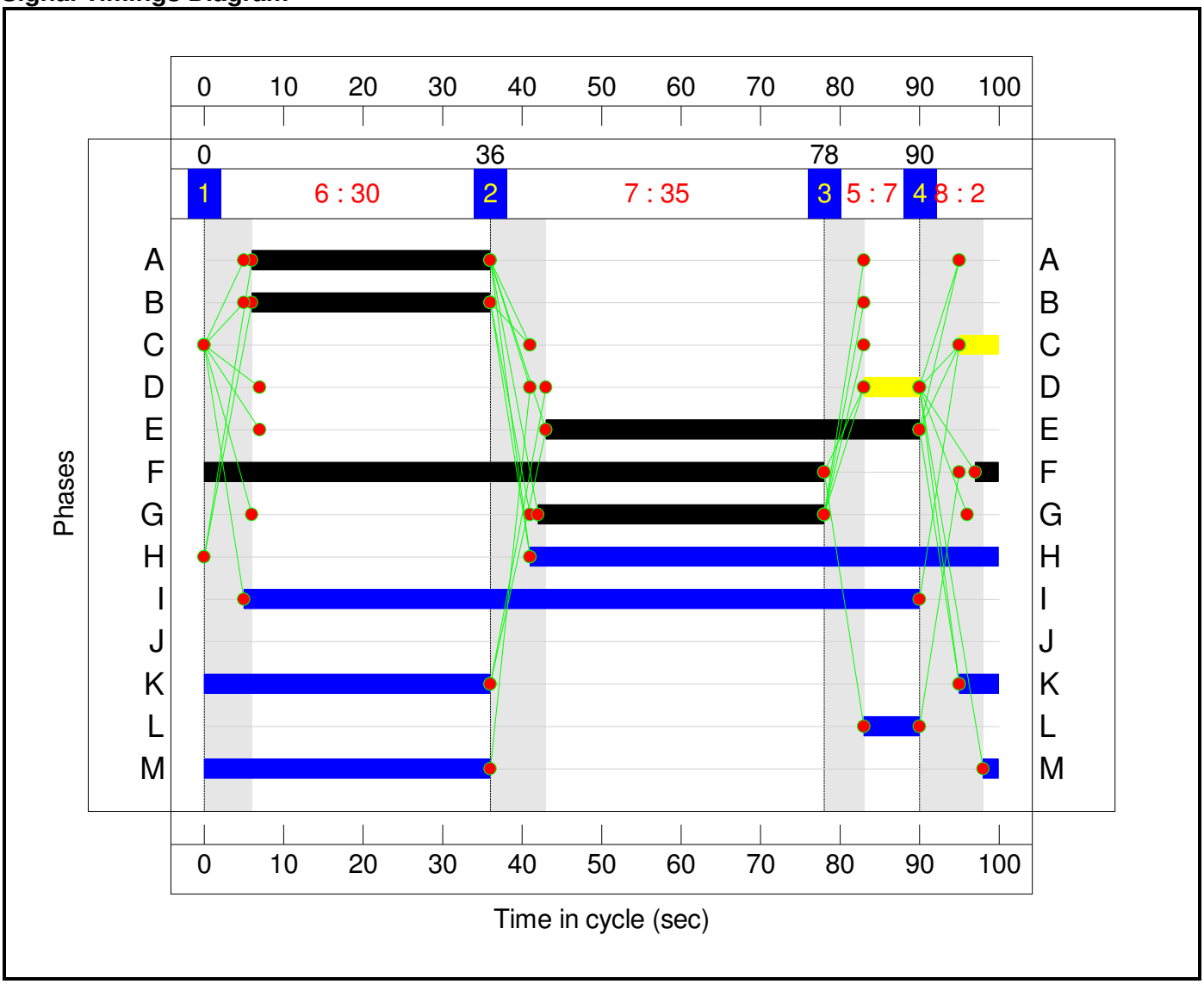


Full Input Data And Results

Stage Timings

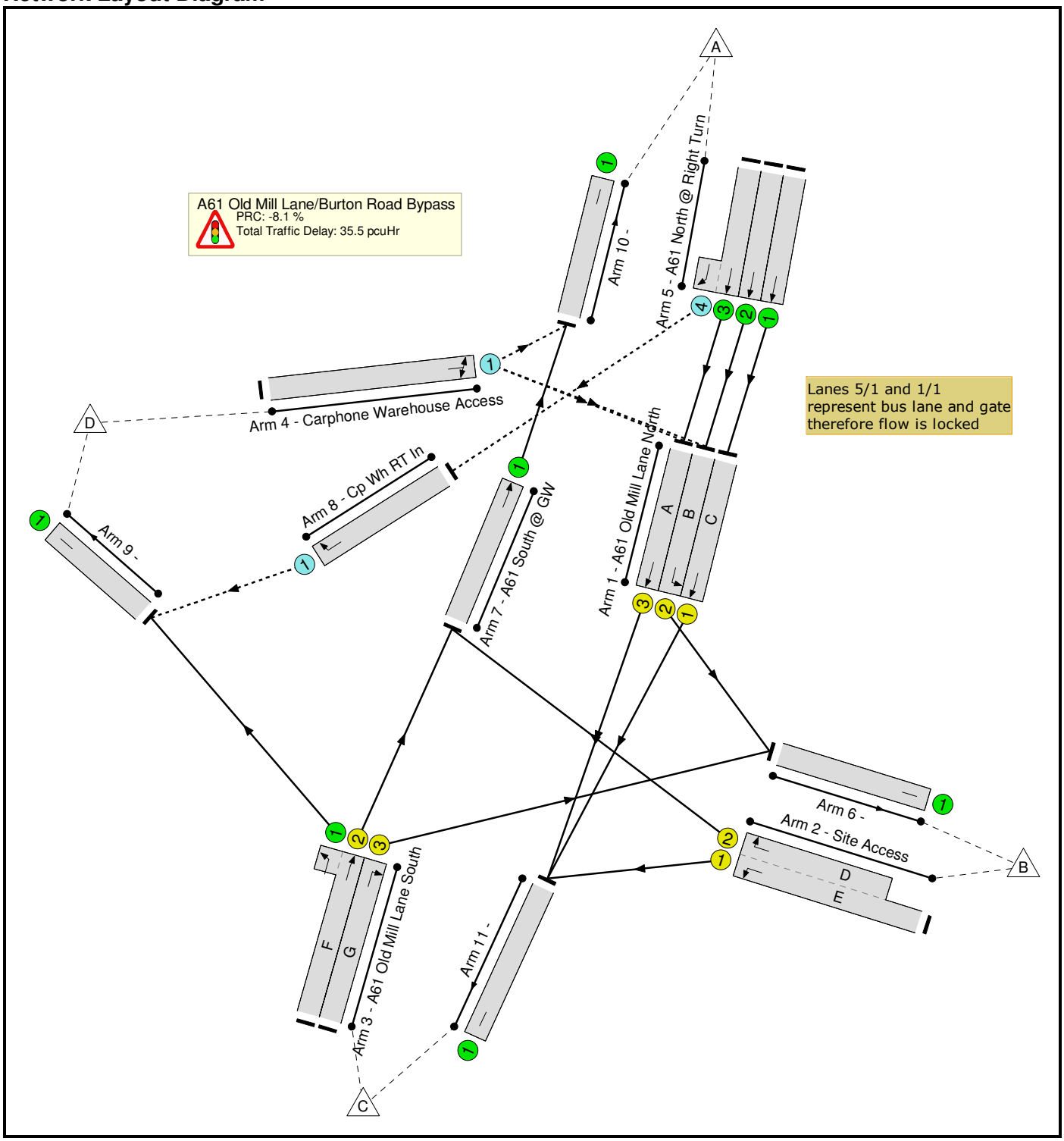
Stage	1	2	3	4
Duration	30	35	7	2
Change Point	0	36	78	90

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: A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.3%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.3%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	C		1	5	-	68	1985	119	57.1%
1/2	A61 Old Mill Lane North Left	U	N/A	N/A	B		1	30	-	20	1890	586	3.4%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	30	-	591	1985	615	96.0%
2/1+2/2	Site Access Right Left	U	N/A	N/A	E D		1	47:7	-	526	1892:1933	917	57.3%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	F -		1	81	-	805	2015:1919	1657	48.6%
3/3	A61 Old Mill Lane South Right	U	N/A	N/A	G		1	36	-	730	2028	750	97.3%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	21	1794	402	5.2%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	19	1985	1985	1.0%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	591	1985:1709	1981	29.8%
6/1		U	N/A	N/A	-		-	-	-	750	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	803	2045	2045	39.3%

Full Input Data And Results

8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	844	0.9%
9/1		U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	1169	Inf	Inf	0.0%

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: A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**37**	**0**	**0**	**16.3**	**19.3**	**0.0**	**35.5**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**37**	**0**	**0**	**16.3**	**19.3**	**0.0**	**35.5**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.9	0.6	-	1.5	80.1	1.8	0.6	2.5
1/2	20	20	-	-	-	0.1	0.0	-	0.2	27.3	0.4	0.0	0.4
1/3	591	591	-	-	-	5.6	7.5	-	13.1	79.6	16.1	7.5	23.6
2/1+2/2	526	526	-	-	-	2.8	0.7	-	3.5	23.8	10.1	0.7	10.7
3/2+3/1	805	805	-	-	-	0.6	0.5	-	1.1	4.7	6.5	0.5	7.0
3/3	730	730	-	-	-	6.3	9.3	-	15.6	77.1	19.9	9.3	29.2
4/1	21	21	21	0	0	0.0	0.0	-	0.0	4.7	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	19	19	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/3+5/4	591	591	8	0	0	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/1	750	750	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	803	803	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	26	26	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	815	815	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1169	1169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

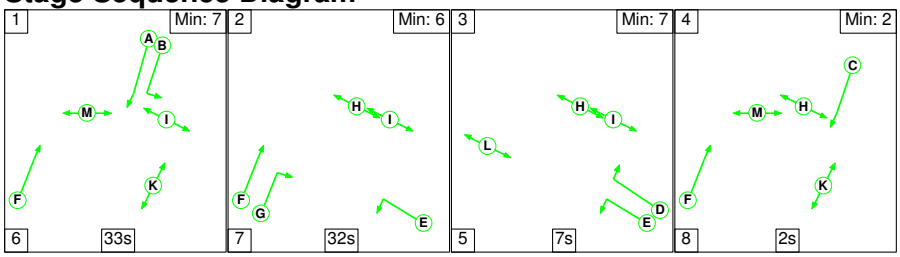
C1 PRC for Signalled Lanes (%): -8.1 Total Delay for Signalled Lanes (pcuHr): 34.91 Cycle Time (s): 100
PRC Over All Lanes (%): -8.1 Total Delay Over All Lanes(pcuHr): 35.51

Full Input Data And Results

Full Input Data And Results

Scenario 2: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

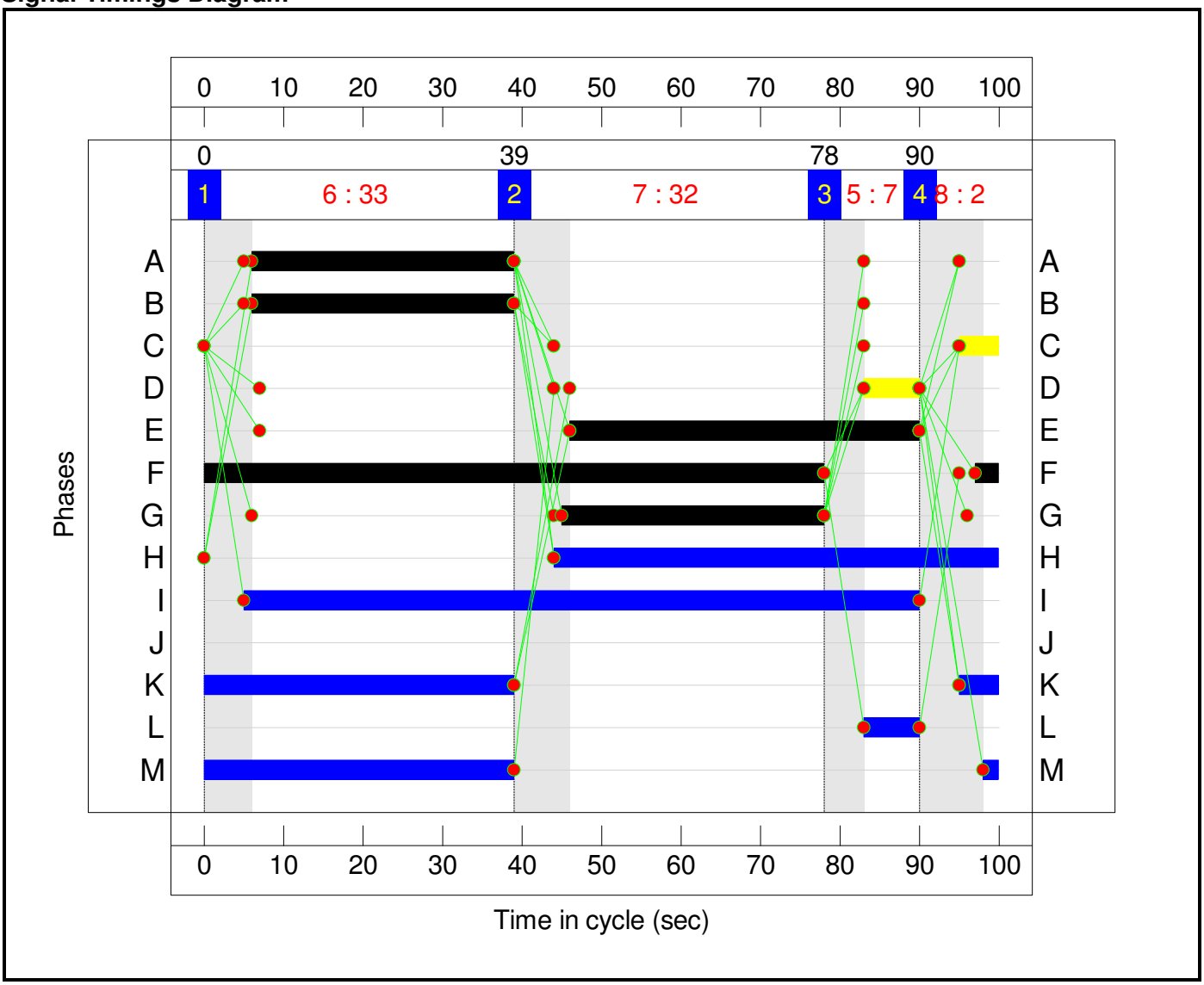
Stage Sequence Diagram



Stage Timings

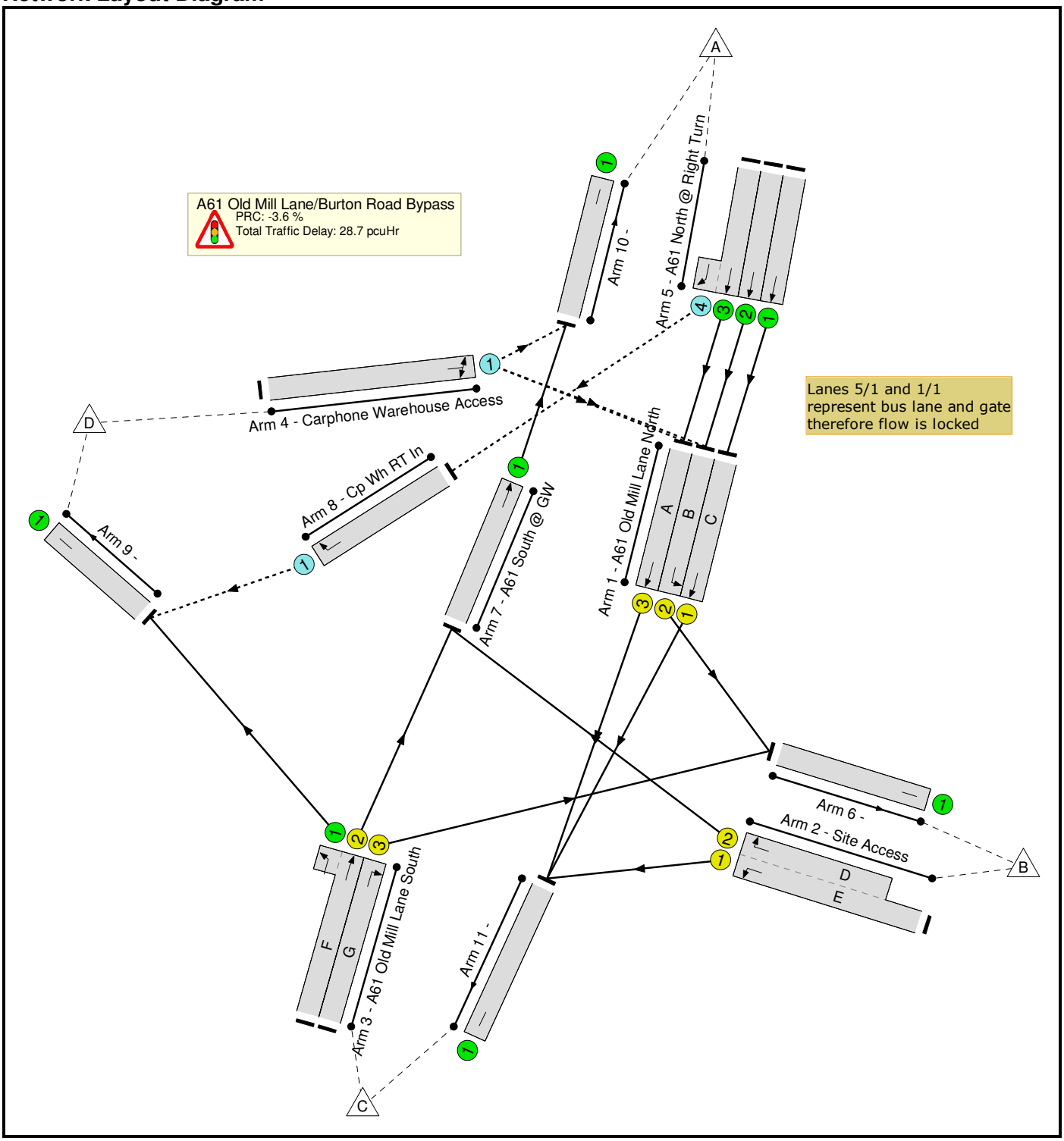
Stage	1	2	3	4
Duration	33	32	7	2
Change Point	0	39	78	90

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: A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.3%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.3%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	C		1	5	-	55	1985	119	46.2%
1/2	A61 Old Mill Lane North Left	U	N/A	N/A	B		1	33	-	30	1890	643	4.7%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	33	-	623	1985	675	92.3%
2/1+2/2	Site Access Right Left	U	N/A	N/A	E D		1	44:7	-	543	1892:1933	877	61.9%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	F -		1	81	-	721	2015:1919	1657	43.5%
3/3	A61 Old Mill Lane South Right	U	N/A	N/A	G		1	33	-	643	2028	690	93.3%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	24	1797	406	5.9%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	29	1985	1985	1.5%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	622	1985:1709	1980	31.4%
6/1		U	N/A	N/A	-		-	-	-	673	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	733	2045	2045	35.8%

Full Input Data And Results

8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	29	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	746	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	1189	Inf	Inf	0.0%

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: A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**42**	**0**	**0**	**15.9**	**12.8**	**0.0**	**28.7**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**42**	**0**	**0**	**15.9**	**12.8**	**0.0**	**28.7**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.7	0.4	-	1.1	73.2	1.5	0.4	1.9
1/2	30	30	-	-	-	0.2	0.0	-	0.2	25.1	0.6	0.0	0.6
1/3	623	623	-	-	-	5.5	5.0	-	10.5	60.8	16.6	5.0	21.6
2/1+2/2	543	543	-	-	-	3.3	0.8	-	4.1	27.4	10.6	0.8	11.5
3/2+3/1	721	721	-	-	-	0.5	0.4	-	0.9	4.4	5.4	0.4	5.8
3/3	643	643	-	-	-	5.7	5.6	-	11.3	63.1	17.1	5.6	22.7
4/1	24	24	24	0	0	0.0	0.0	-	0.0	4.7	0.0	0.0	0.0
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	29	29	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/3+5/4	622	622	9	0	0	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/1	673	673	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	733	733	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	746	746	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1189	1189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

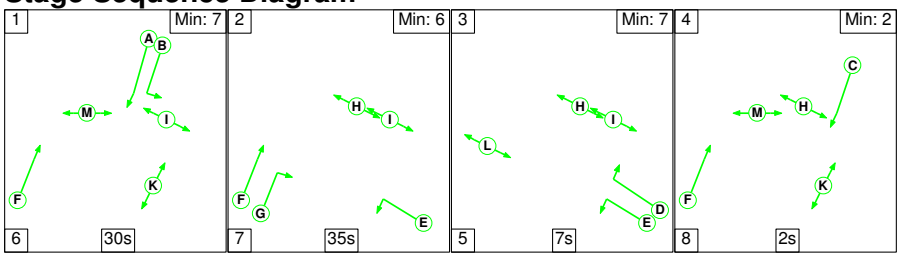
C1 PRC for Signalled Lanes (%): -3.6 Total Delay for Signalled Lanes (pcuHr): 28.13 Cycle Time (s): 100
PRC Over All Lanes (%): -3.6 Total Delay Over All Lanes(pcuHr): 28.70

Full Input Data And Results

Full Input Data And Results

Scenario 3: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

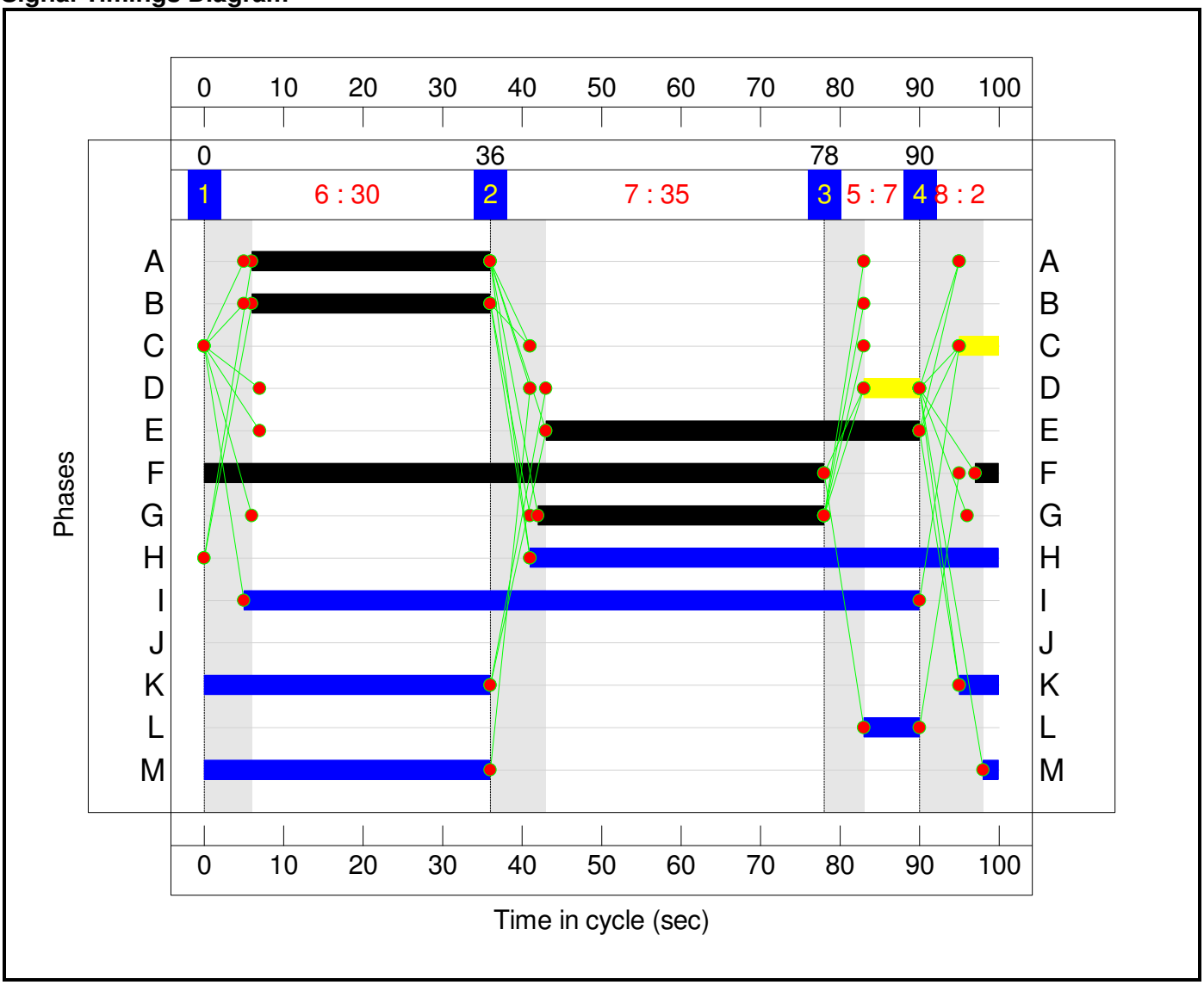
Stage Sequence Diagram



Stage Timings

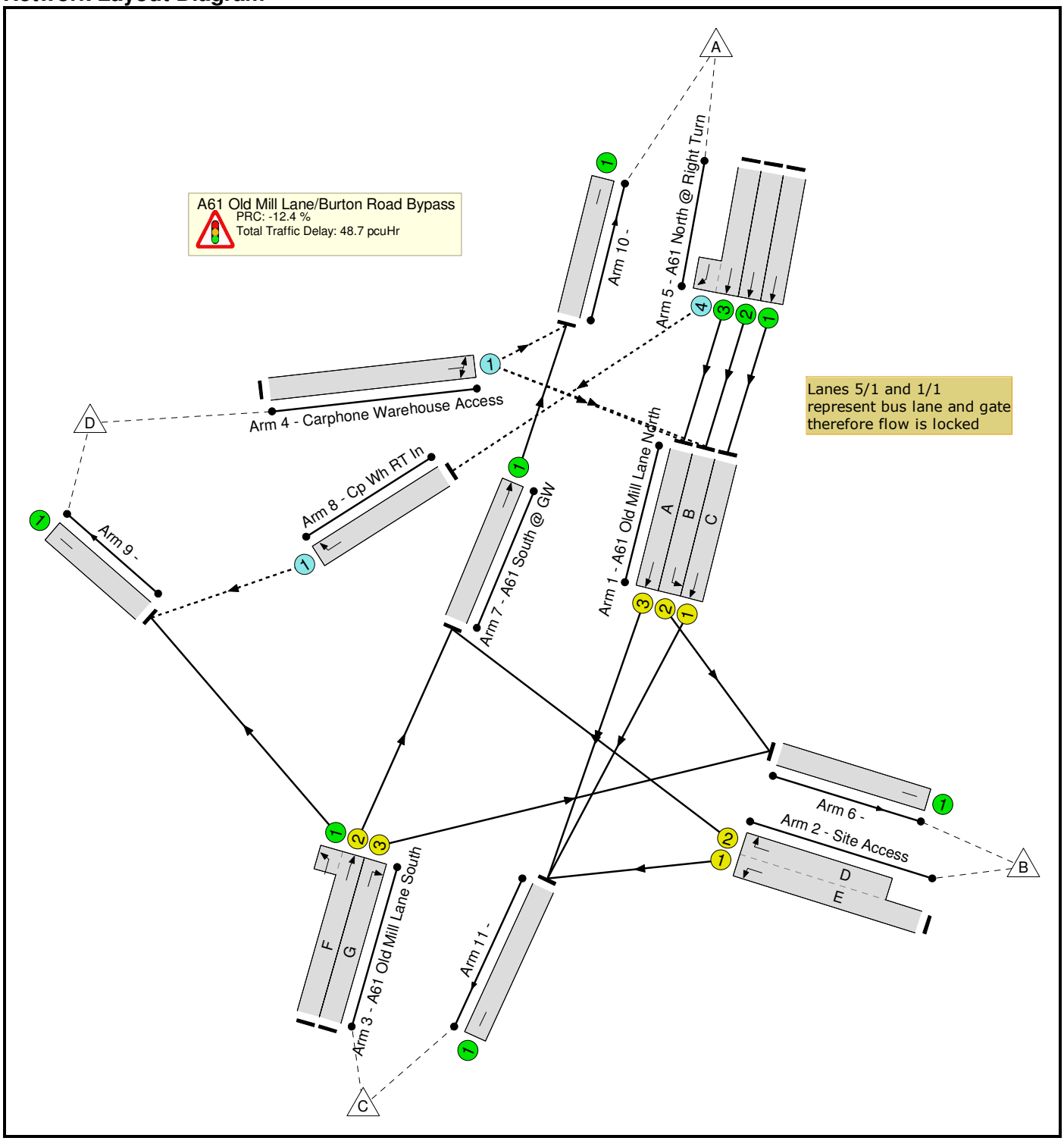
Stage	1	2	3	4
Duration	30	35	7	2
Change Point	0	36	78	90

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: A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.2%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.2%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	C		1	5	-	68	1985	119	57.1%
1/2	A61 Old Mill Lane North Left	U	N/A	N/A	B		1	30	-	21	1890	586	3.6%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	30	-	616	1985	615	100.1%
2/1+2/2	Site Access Right Left	U	N/A	N/A	E D		1	47:7	-	546	1892:1933	917	59.6%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	F -		1	81	-	837	2015:1919	1657	50.5%
3/3	A61 Old Mill Lane South Right	U	N/A	N/A	G		1	36	-	759	2028	750	101.2%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	23	1795	389	5.9%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	20	1985	1985	1.0%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	615	1985:1709	1981	31.0%
6/1		U	N/A	N/A	-		-	-	-	780	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	834	2045	2045	40.8%

Full Input Data And Results

8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	843	0.9%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	1214	Inf	Inf	0.0%

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: A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**17.5**	**31.2**	**0.0**	**48.7**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**17.5**	**31.2**	**0.0**	**48.7**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.9	0.6	-	1.5	80.1	1.8	0.6	2.5
1/2	21	21	-	-	-	0.1	0.0	-	0.2	27.3	0.4	0.0	0.4
1/3	616	615	-	-	-	5.9	12.6	-	18.5	108.2	17.1	12.6	29.7
2/1+2/2	546	546	-	-	-	3.0	0.7	-	3.7	24.3	10.6	0.7	11.3
3/2+3/1	837	837	-	-	-	0.6	0.5	-	1.1	4.9	6.9	0.5	7.5
3/3	759	750	-	-	-	7.0	16.1	-	23.1	109.5	21.3	16.1	37.4
4/1	23	23	23	0	0	0.0	0.0	-	0.0	4.9	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	20	20	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/3+5/4	615	615	8	0	0	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/1	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	834	834	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1213	1213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

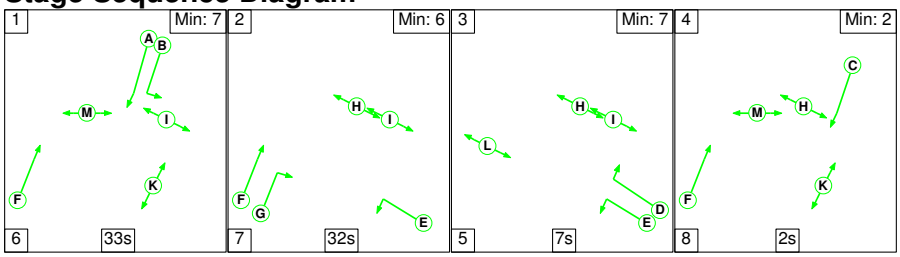
C1 PRC for Signalled Lanes (%): -12.4 Total Delay for Signalled Lanes (pcuHr): 48.08 Cycle Time (s): 100
PRC Over All Lanes (%): -12.4 Total Delay Over All Lanes(pcuHr): 48.71

Full Input Data And Results

Full Input Data And Results

Scenario 4: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

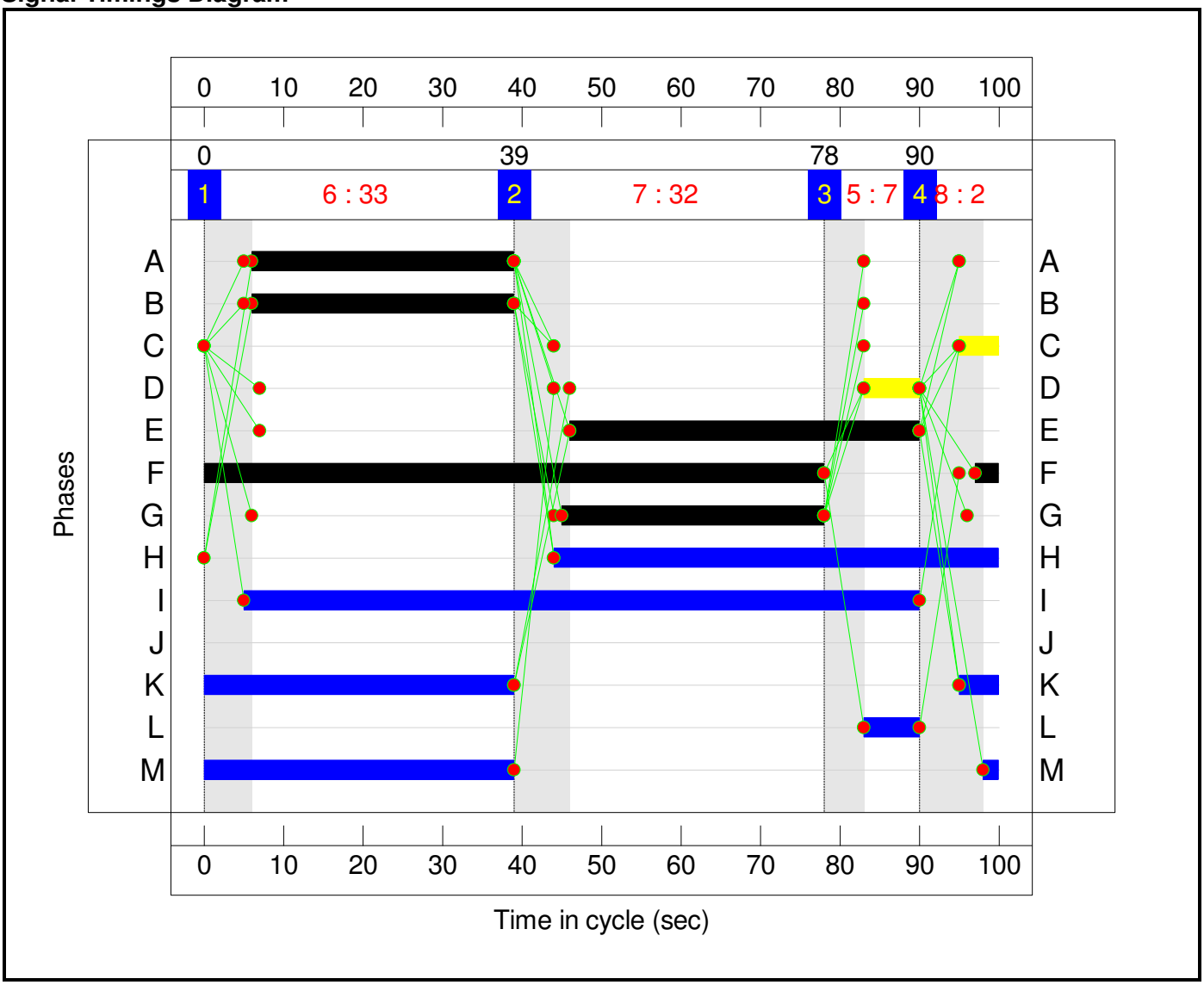
Stage Sequence Diagram



Stage Timings

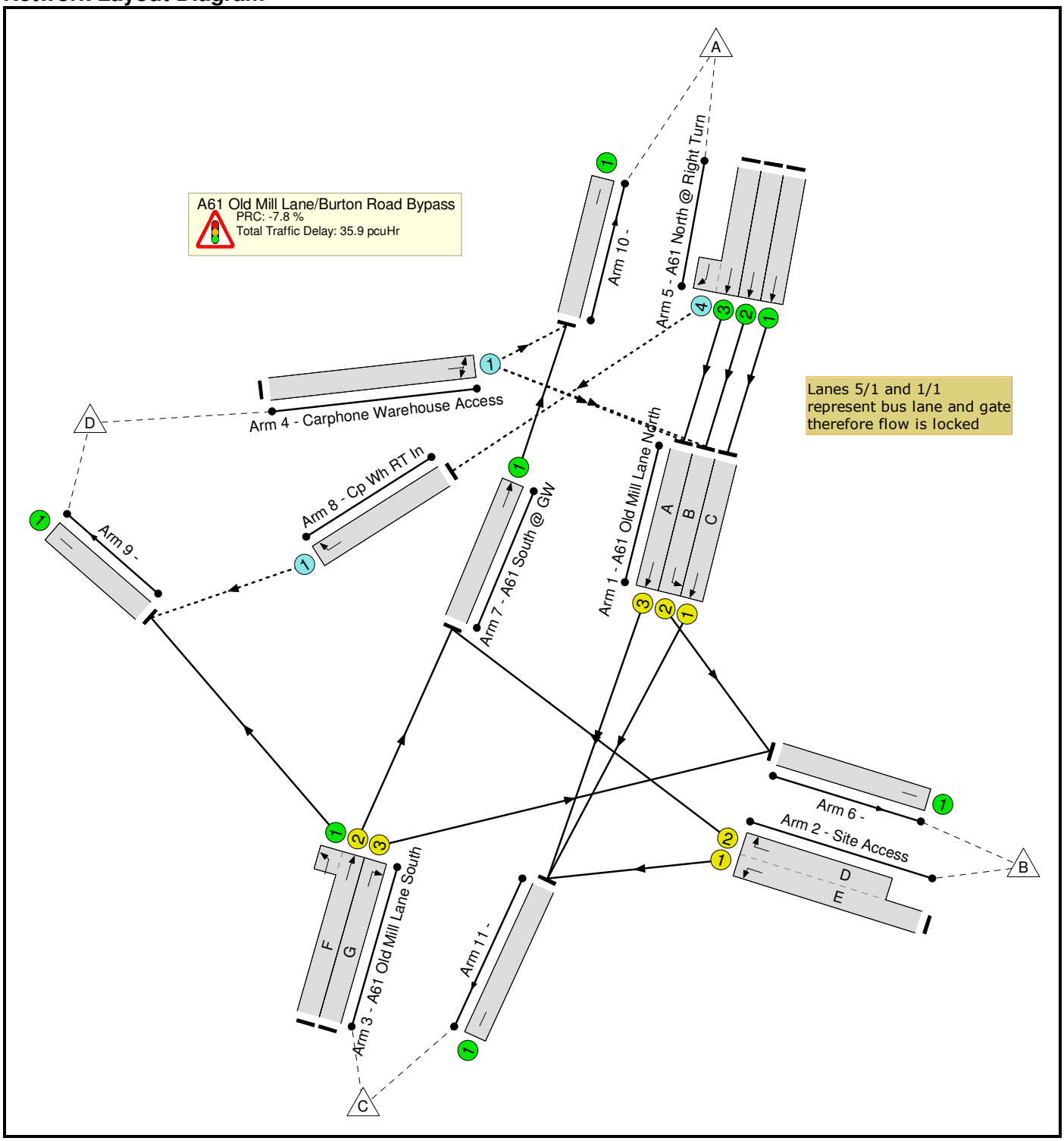
Stage	1	2	3	4
Duration	33	32	7	2
Change Point	0	39	78	90

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: A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.0%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.0%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	C		1	5	-	55	1985	119	46.2%
1/2	A61 Old Mill Lane North Left	U	N/A	N/A	B		1	33	-	32	1890	643	5.0%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	33	-	650	1985	675	96.3%
2/1+2/2	Site Access Right Left	U	N/A	N/A	E D		1	44:7	-	565	1892:1933	876	64.5%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	F -		1	81	-	751	2015:1919	1657	45.3%
3/3	A61 Old Mill Lane South Right	U	N/A	N/A	G		1	33	-	669	2028	690	97.0%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	26	1797	393	6.6%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	30	1985	1985	1.5%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	649	1985:1709	1981	32.8%
6/1		U	N/A	N/A	-		-	-	-	701	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	763	2045	2045	37.3%

Full Input Data And Results

8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	777	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	1237	Inf	Inf	0.0%

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: A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**16.8**	**19.1**	**0.0**	**35.9**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**16.8**	**19.1**	**0.0**	**35.9**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.7	0.4	-	1.1	73.2	1.5	0.4	1.9
1/2	32	32	-	-	-	0.2	0.0	-	0.2	25.1	0.6	0.0	0.6
1/3	650	650	-	-	-	5.8	8.0	-	13.8	76.5	17.7	8.0	25.7
2/1+2/2	565	565	-	-	-	3.5	0.9	-	4.4	28.1	11.2	0.9	12.1
3/2+3/1	751	751	-	-	-	0.5	0.4	-	0.9	4.5	6.0	0.4	6.4
3/3	669	669	-	-	-	6.0	8.8	-	14.8	79.8	18.2	8.8	27.0
4/1	26	26	26	0	0	0.0	0.0	-	0.0	4.9	0.0	0.0	0.0
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	30	30	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/3+5/4	649	649	9	0	0	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
6/1	701	701	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	763	763	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1237	1237	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

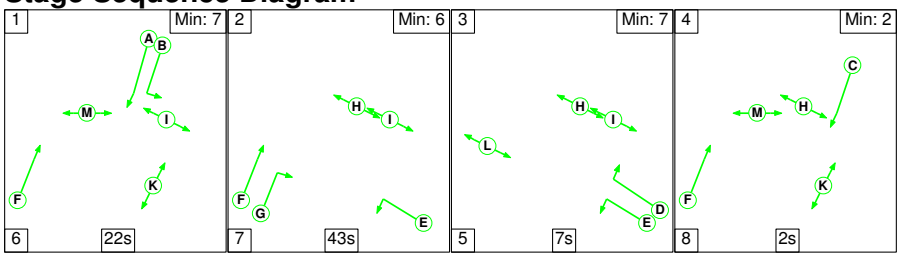
C1 PRC for Signalled Lanes (%): -7.8 Total Delay for Signalled Lanes (pcuHr): 35.32 Cycle Time (s): 100
PRC Over All Lanes (%): -7.8 Total Delay Over All Lanes(pcuHr): 35.92

Full Input Data And Results

Full Input Data And Results

Scenario 5: 'Fri 2017 Future Base+Dev' (FG5: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

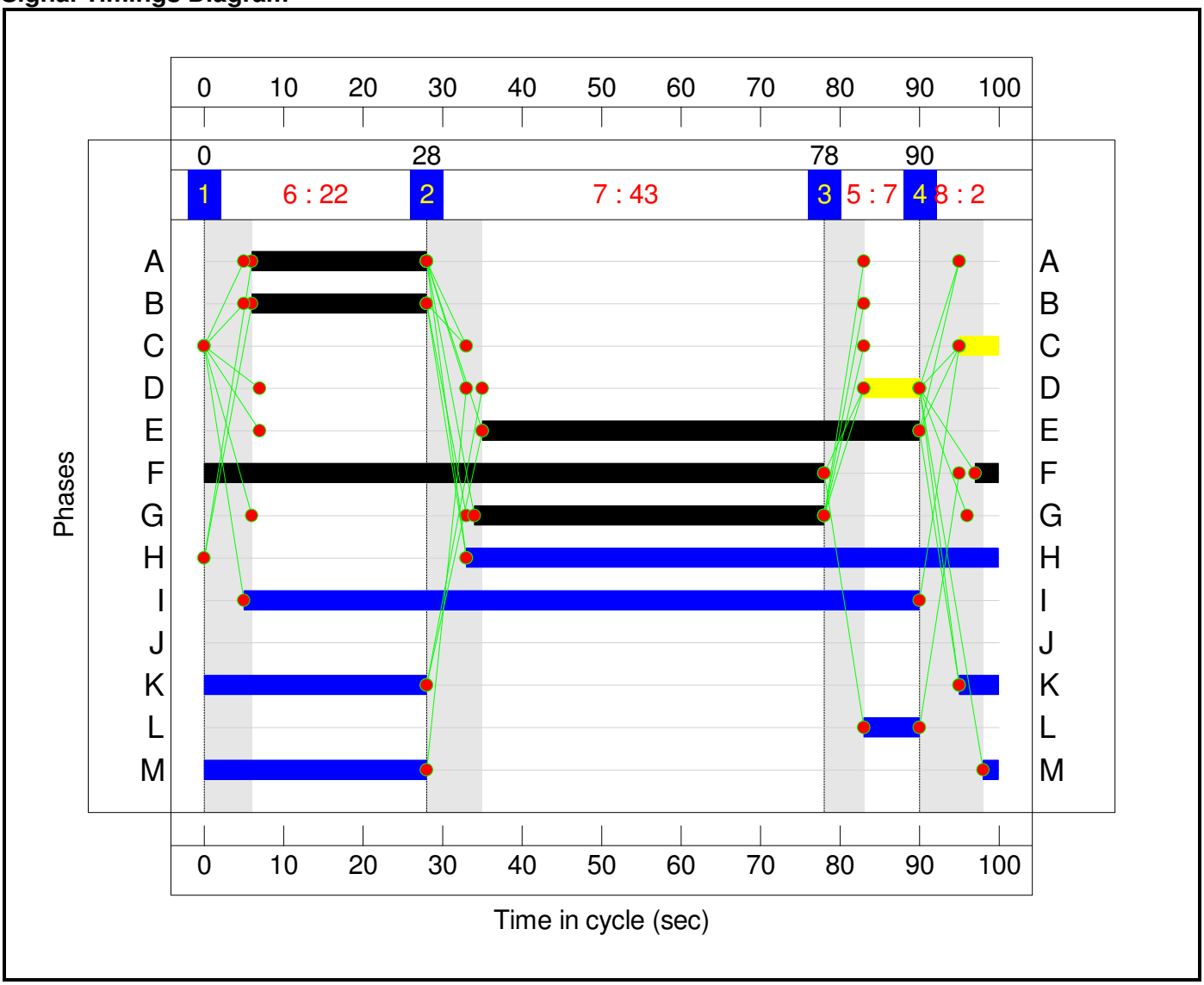
Stage Sequence Diagram



Stage Timings

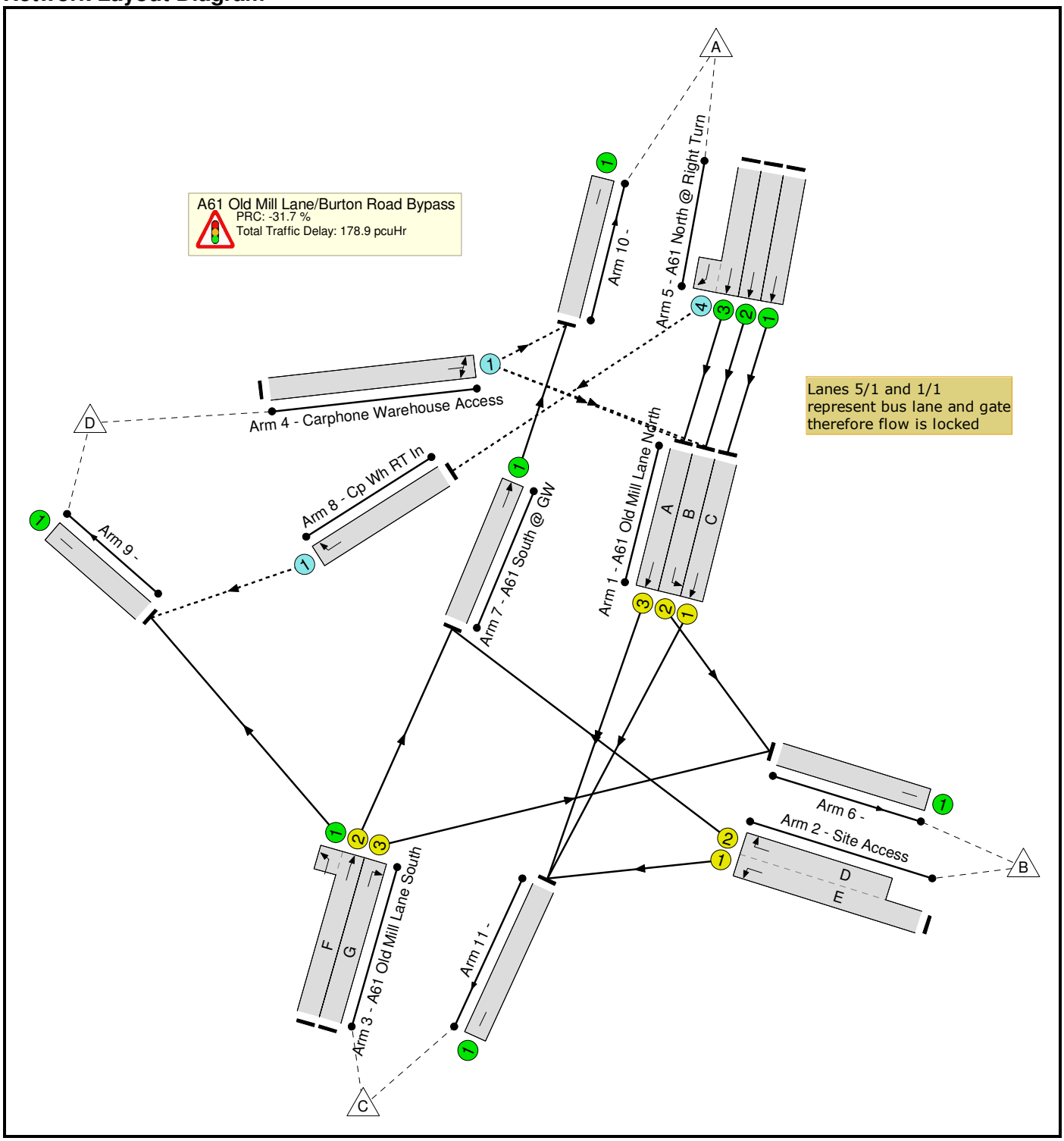
Stage	1	2	3	4
Duration	22	43	7	2
Change Point	0	28	78	90

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: A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**118.6%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**118.6%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	C		1	5	-	68	1985	119	57.1%
1/2	A61 Old Mill Lane North Left	U	N/A	N/A	B		1	22	-	246	1890	435	56.6%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	22	-	525	1985	457	115.0%
2/1+2/2	Site Access Right Left	U	N/A	N/A	E D		1	55:7	-	1071	1892:1933	1088	98.4%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	F -		1	81	-	735	2015:1919	1657	44.4%
3/3	A61 Old Mill Lane South Right	U	N/A	N/A	G		1	44	-	1082	2028	913	118.6%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	23	1795	356	6.5%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	245	1985	1985	12.3%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	524	1985:1709	1980	26.5%
6/1		U	N/A	N/A	-		-	-	-	1328	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	953	2045	2045	42.6%

Full Input Data And Results

8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	843	0.9%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	1427	Inf	Inf	0.0%

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: A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**38.4**	**140.5**	**0.0**	**178.9**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**38.4**	**140.5**	**0.0**	**178.9**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.9	0.6	-	1.5	80.1	1.8	0.6	2.5
1/2	246	246	-	-	-	2.3	0.6	-	3.0	43.6	6.0	0.6	6.7
1/3	525	457	-	-	-	9.1	37.7	-	46.8	320.7	16.5	37.7	54.2
2/1+2/2	1071	989	-	-	-	10.7	12.7	-	23.4	78.6	21.1	12.7	33.8
3/2+3/1	735	735	-	-	-	0.5	0.4	-	0.9	4.4	5.5	0.4	5.9
3/3	1082	913	-	-	-	14.9	87.8	-	102.7	341.8	34.8	87.8	122.5
4/1	23	23	23	0	0	0.0	0.0	-	0.0	5.4	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	245	245	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
5/3+5/4	524	524	8	0	0	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
6/1	1159	1159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	871	871	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	884	884	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1359	1359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -31.7 Total Delay for Signalled Lanes (pcuHr): 178.26 Cycle Time (s): 100

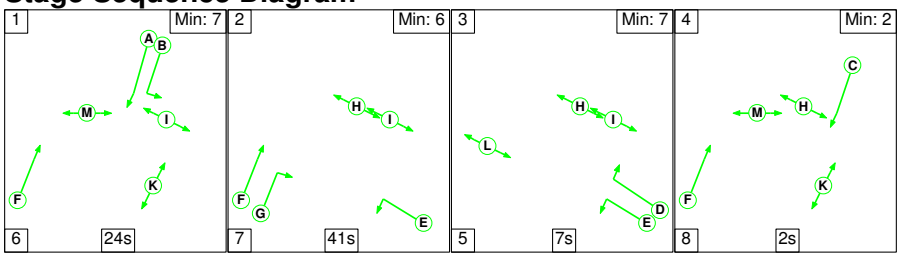
PRC Over All Lanes (%): -31.7 Total Delay Over All Lanes(pcuHr): 178.94

Full Input Data And Results

Full Input Data And Results

Scenario 6: 'Sat 2017 Future Base+Dev' (FG6: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

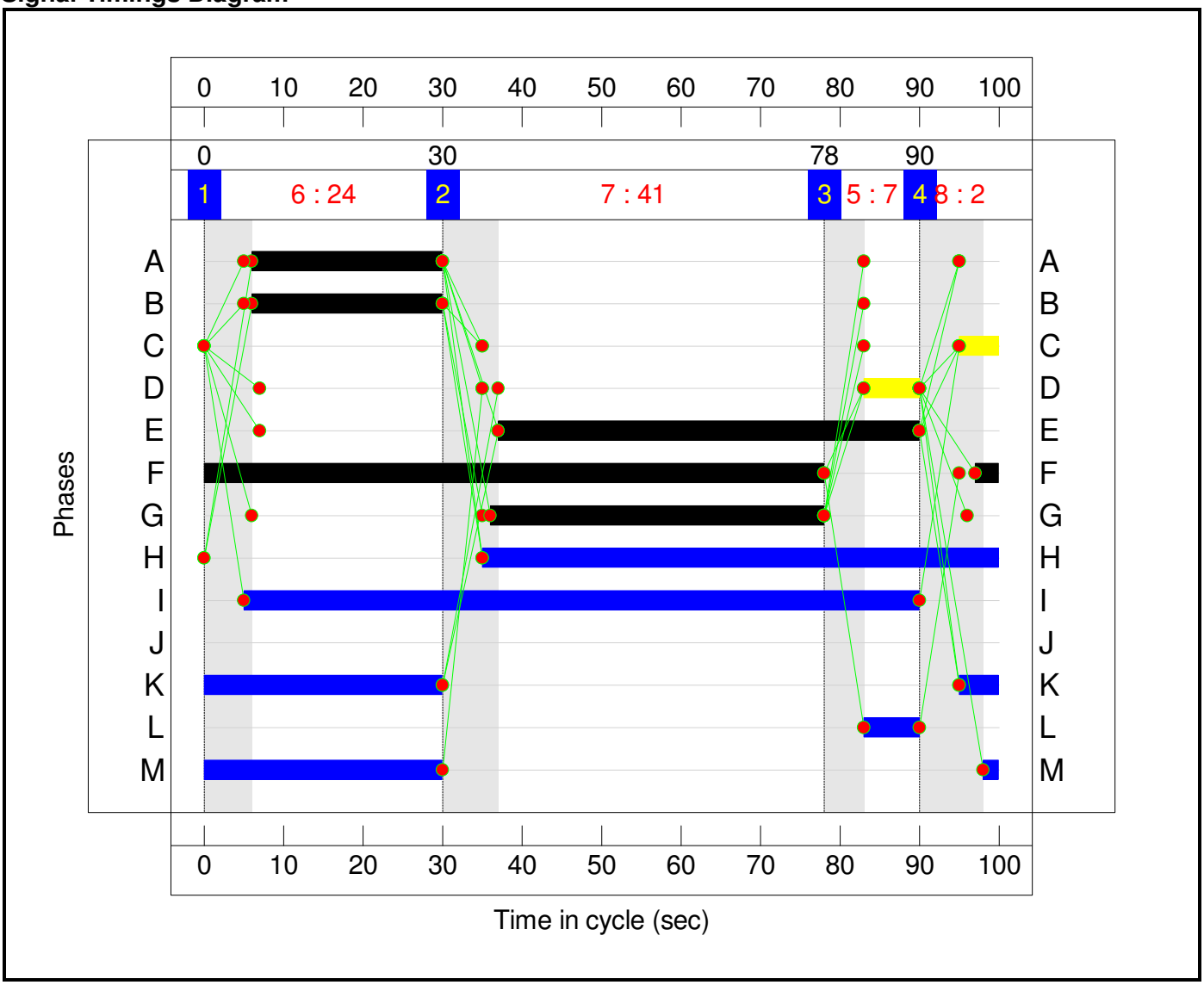
Stage Sequence Diagram



Stage Timings

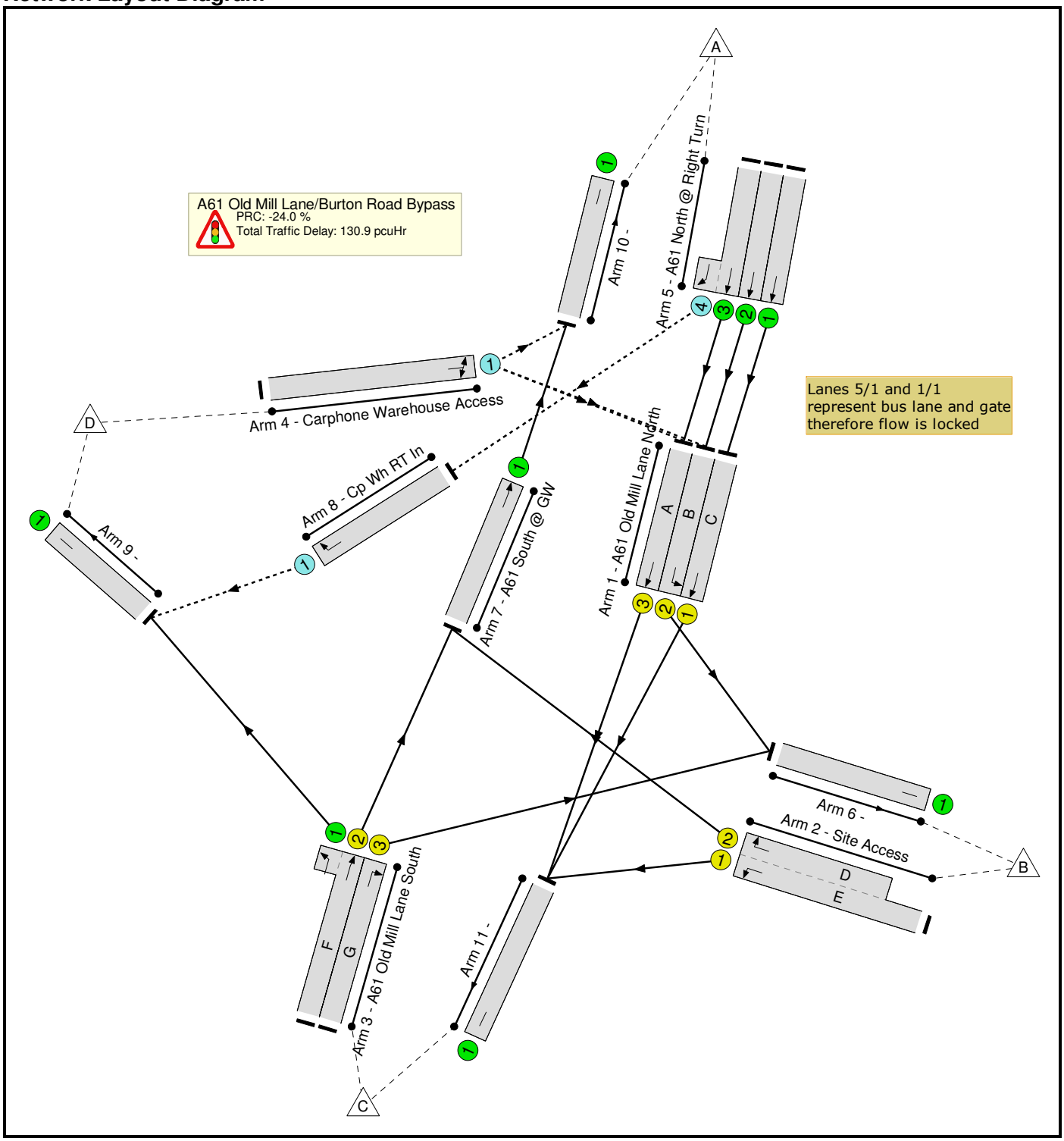
Stage	1	2	3	4
Duration	24	41	7	2
Change Point	0	30	78	90

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: A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.6%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.6%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	C		1	5	-	55	1985	119	46.2%
1/2	A61 Old Mill Lane North Left	U	N/A	N/A	B		1	24	-	242	1890	473	51.2%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	24	-	554	1985	496	111.6%
2/1+2/2	Site Access Right Left	U	N/A	N/A	E D		1	53:7	-	1033	1892:1933	1055	97.9%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	F -		1	81	-	651	2015:1919	1657	39.3%
3/3	A61 Old Mill Lane South Right	U	N/A	N/A	G		1	42	-	964	2028	872	110.5%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	26	1797	367	7.1%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	240	1985	1985	12.1%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	553	1985:1709	1980	27.9%
6/1		U	N/A	N/A	-		-	-	-	1206	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	865	2045	2045	38.4%

Full Input Data And Results

8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	879	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	1407	Inf	Inf	0.0%

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: A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**33.8**	**97.1**	**0.0**	**130.9**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**33.8**	**97.1**	**0.0**	**130.9**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.7	0.4	-	1.1	73.2	1.5	0.4	1.9
1/2	242	242	-	-	-	2.2	0.5	-	2.7	40.0	5.8	0.5	6.3
1/3	554	496	-	-	-	8.7	33.1	-	41.7	271.1	17.0	33.1	50.1
2/1+2/2	1033	953	-	-	-	10.6	11.5	-	22.1	76.9	20.0	11.5	31.5
3/2+3/1	651	651	-	-	-	0.4	0.3	-	0.7	4.1	4.7	0.3	5.0
3/3	964	872	-	-	-	11.2	50.7	-	62.0	231.4	29.3	50.7	80.1
4/1	26	26	26	0	0	0.0	0.0	-	0.0	5.3	0.0	0.0	0.1
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	240	240	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
5/3+5/4	553	553	9	0	0	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
6/1	1114	1114	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	785	785	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	1349	1349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -24.0 Total Delay for Signalled Lanes (pcuHr): 130.29 Cycle Time (s): 100
PRC Over All Lanes (%): -24.0 Total Delay Over All Lanes(pcuHr): 130.93

Full Input Data And Results

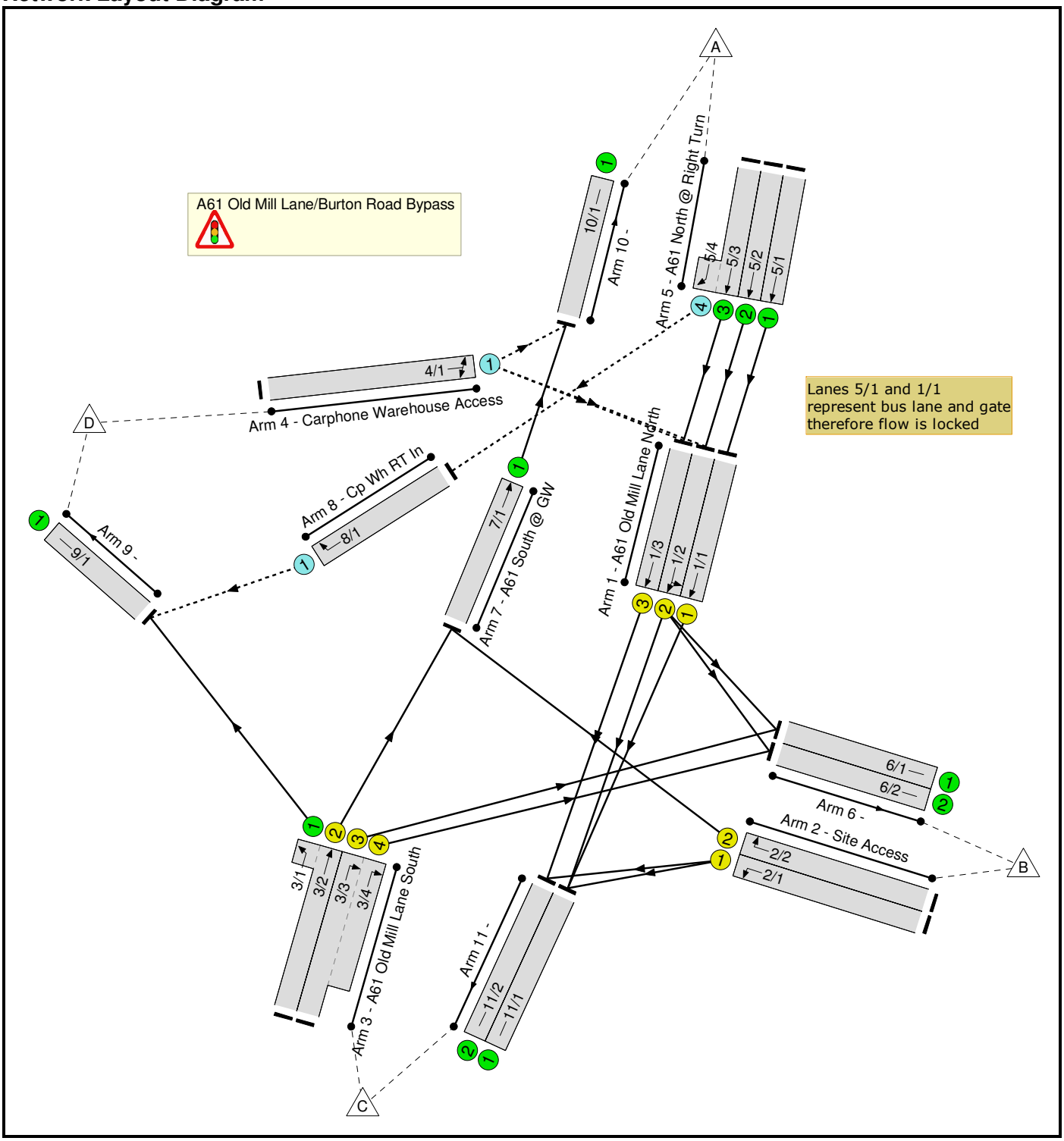
Full Input Data And Results

User and Project Details

Project:	**90095 Proposed Food-store, Barnsley**
Title:	**A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation**
Location:	Barnsley
File name:	Old Mill Lane_Burton Rd Bypass_Mit_2 lanes.lsg3x
Author:	D Stoddart
Company:	Curtins Consulting
Address:	Manchester
Notes:	Proposed Design

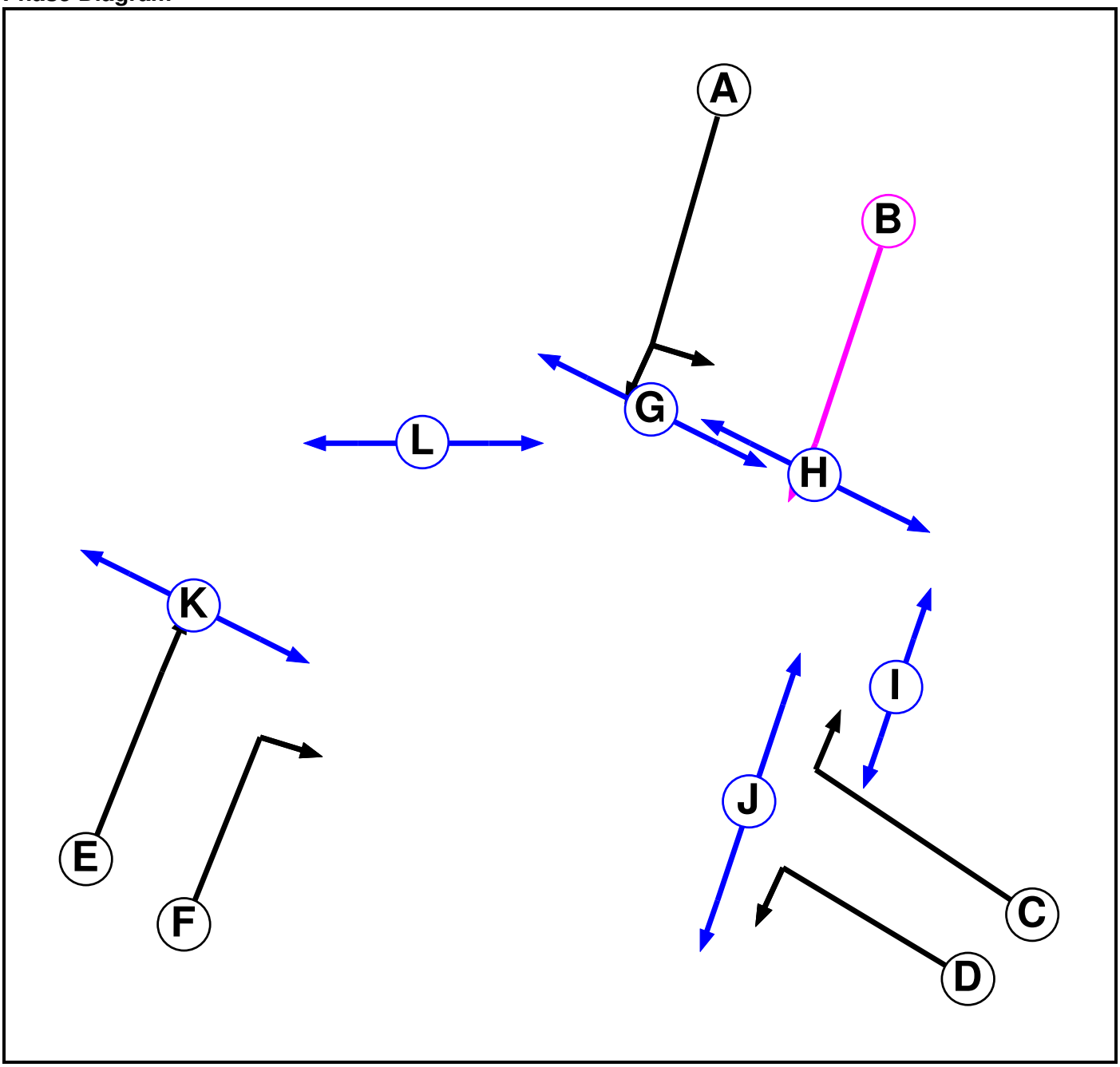
Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

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	Bus		5	5
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		5	5
K	Pedestrian		5	5
L	Pedestrian		5	5

Phase Intergreens Matrix

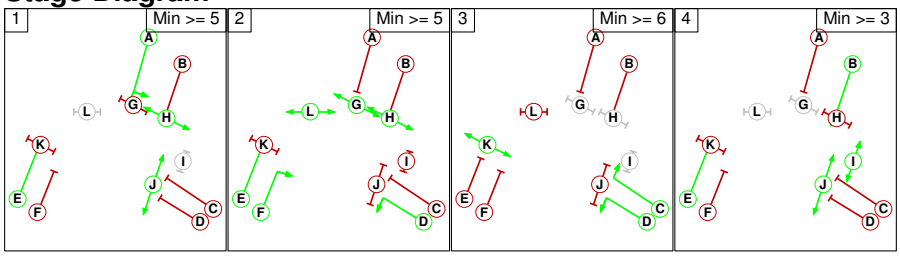
		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A		5	5	7	-	6	5	-	-	-	-	-
	B	5		7	7	-	6	-	5	-	-	-	-
	C	5	5		-	7	6	-	-	-	5	-	8
	D	5	5	-		-	-	-	-	-	5	-	-
	E	-	-	5	-		-	-	-	-	-	5	-
	F	5	5	5	-	-		-	-	8	-	-	-
	G	8	-	-	-	-	-		-	-	-	-	-
	H	-	5	-	-	-	-	-		-	-	-	-
	I	-	-	-	-	-	6	-	-		-	-	-
	J	-	-	6	6	-	-	-	-	-		-	-
	K	-	-	-	-	5	-	-	-	-	-		-
	L	-	-	5	-	-	-	-	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A E H J
2	D E F G H L
3	C D K
4	B E I J

Full Input Data And Results

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
1		7	7	5
2	8		5	8
3	7	8		7
4	5	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A61 Old Mill Lane/Burton Road Bypass

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
4/1 (Carphone Warehouse Access)	1/2 (Right)	600	7/1	0.22	7/1	-	-	-	-	-
			5/3	0.19	5/3					
			5/2	0.19	5/2					
			5/4	0.19	5/4					
	1/3 (Right)	600	7/1	0.22	7/1					
			5/3	0.19	5/3					
			5/2	0.19	5/2					
			5/4	0.19	5/4					
	10/1 (Left)	715	7/1	0.22	7/1					
5/4 (A61 North @ Right Turn)	8/1 (Right)	850	7/1	0.35	7/1	-	-	-	-	-
8/1 (Cp Wh RT In)	9/1 (Right)	850	3/1	0.35	3/1	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: A61 Old Mill Lane/Burton Road Bypass												
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 (A61 Old Mill Lane North)	U	B	2	3	8.0	Geom	-	3.70	0.00	Y	Arm 11 Ahead	Inf
1/2 (A61 Old Mill Lane North)	U	A	2	3	8.0	Geom	-	3.70	0.00	Y	Arm 6 Left	30.00
											Arm 11 Ahead	Inf
1/3 (A61 Old Mill Lane North)	U	A	2	3	8.0	Geom	-	3.70	0.00	Y	Arm 11 Ahead	Inf
2/1 (Site Access)	U	D	2	3	20.9	Geom	-	3.90	0.00	Y	Arm 11 Left	25.00
2/2 (Site Access)	U	C	2	3	20.5	Geom	-	3.90	0.00	Y	Arm 7 Right	40.00
3/1 (A61 Old Mill Lane South)	U		2	3	1.6	Geom	-	4.00	0.00	Y	Arm 9 Left	30.00
3/2 (A61 Old Mill Lane South)	U	E	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 7 Ahead	Inf
3/3 (A61 Old Mill Lane South)	U	F	2	3	60.0	Geom	-	3.45	0.00	Y	Arm 6 Right	35.00
3/4 (A61 Old Mill Lane South)	U	F	2	3	12.2	Geom	-	3.45	0.00	Y	Arm 6 Right	30.00
4/1 (Carphone Warehouse Access)	O		2	3	60.0	Geom	-	4.10	0.00	Y	Arm 1 Right	15.00
											Arm 10 Left	10.00
5/1 (A61 North @ Right Turn)	U		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 1 Ahead	Inf
5/2 (A61 North @ Right Turn)	U		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 1 Ahead	Inf
5/3 (A61 North @ Right Turn)	U		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 1 Ahead	Inf
5/4 (A61 North @ Right Turn)	O		2	3	2.1	Geom	-	3.50	0.00	Y	Arm 8 Right	10.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A61 South @ GW)	U		2	3	3.5	Geom	-	4.90	0.00	Y	Arm 10 Ahead	Inf
8/1 (Cp Wh RT In)	O		2	3	60.0	Inf	-	-	-	-	-	-

9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Fri 2012 Future Base'	15:45	16:45	01:00	
2: 'Sat 2012 Future Base'	12:30	13:30	01:00	
3: 'Fri 2017 Future Base'	15:45	16:45	01:00	
4: 'Sat 2017 Future Base'	12:30	13:30	01:00	
5: 'Fri 2017 Future Base+Dev'	15:45	16:45	01:00	
6: 'Sat 2017 Future Base+Dev'	12:30	13:30	01:00	

Scenario 1: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	19	651	8	678
	B	16	0	510	0	526
	C	787	730	0	18	1535
	D	12	1	8	0	21
	Tot.	815	750	1169	26	2760

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Fri 2012 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	304
1/3	307
2/1	510
2/2	16
3/1 (short)	18
3/2 (with short)	805(In) 787(Out)
3/3 (with short)	730(In) 366(Out)
3/4 (short)	364
4/1	21
5/1	68
5/2	301
5/3 (with short)	309(In) 301(Out)
5/4 (short)	8
6/1	377
6/2	373
7/1	803
8/1	8
9/1	26
10/1	815
11/1	607
11/2	562

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	6.6 %	1978	1978
				Arm 11 Ahead	Inf	93.4 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	42.9 %	1794	1794
				Arm 10 Left	10.00	57.1 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	29	668	9	706
	B	32	0	511	0	543
	C	701	643	0	20	1364
	D	13	1	10	0	24
	Tot.	746	673	1189	29	2637

Traffic Lane Flows

Lane	Scenario 2: Sat 2012 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	326
1/3	327
2/1	511
2/2	32
3/1 (short)	20
3/2 (with short)	721(In) 701(Out)
3/3 (with short)	643(In) 323(Out)
3/4 (short)	320
4/1	24
5/1	55
5/2	322
5/3 (with short)	329(In) 320(Out)
5/4 (short)	9
6/1	339
6/2	334
7/1	733
8/1	9
9/1	29
10/1	746
11/1	606
11/2	583

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	9.2 %	1976	1976
				Arm 11 Ahead	Inf	90.8 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	45.8 %	1797	1797
				Arm 10 Left	10.00	54.2 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	20	675	8	703
	B	16	0	530	0	546
	C	818	759	0	19	1596
	D	13	1	9	0	23
	Tot.	847	780	1214	27	2868

Traffic Lane Flows

Lane	Scenario 3: Fri 2017 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	318
1/3	319
2/1	530
2/2	16
3/1 (short)	19
3/2 (with short)	837(In) 818(Out)
3/3 (with short)	759(In) 381(Out)
3/4 (short)	378
4/1	23
5/1	68
5/2	314
5/3 (with short)	321(In) 313(Out)
5/4 (short)	8
6/1	392
6/2	388
7/1	834
8/1	8
9/1	27
10/1	847
11/1	630
11/2	584

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	6.6 %	1978	1978
				Arm 11 Ahead	Inf	93.4 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	43.5 %	1795	1795
				Arm 10 Left	10.00	56.5 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	30	695	9	734
	B	33	0	532	0	565
	C	730	669	0	21	1420
	D	14	2	10	0	26
	Tot.	777	701	1237	30	2745

Traffic Lane Flows

Lane	Scenario 4: Sat 2017 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	340
1/3	342
2/1	532
2/2	33
3/1 (short)	21
3/2 (with short)	751(In) 730(Out)
3/3 (with short)	669(In) 336(Out)
3/4 (short)	333
4/1	26
5/1	55
5/2	335
5/3 (with short)	344(In) 335(Out)
5/4 (short)	9
6/1	352
6/2	349
7/1	763
8/1	9
9/1	30
10/1	777
11/1	629
11/2	608

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	9.4 %	1976	1976
				Arm 11 Ahead	Inf	90.6 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	46.2 %	1797	1797
				Arm 10 Left	10.00	53.8 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'Fri 2017 Future Base+Dev' (FG5: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	245	584	8	837
	B	237	0	834	0	1071
	C	716	1082	0	19	1817
	D	13	1	9	0	23
	Tot.	966	1328	1427	27	3748

Traffic Lane Flows

Lane	Scenario 5: Fri 2017 Future Base+Dev
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	378
1/3	393
2/1	834
2/2	237
3/1 (short)	19
3/2 (with short)	735(In) 716(Out)
3/3 (with short)	1082(In) 543(Out)
3/4 (short)	539
4/1	23
5/1	68
5/2	375
5/3 (with short)	394(In) 386(Out)
5/4 (short)	8
6/1	667
6/2	661
7/1	953
8/1	8
9/1	27
10/1	966
11/1	617
11/2	810

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	65.1 %	1922	1922
				Arm 11 Ahead	Inf	34.9 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	43.5 %	1795	1795
				Arm 10 Left	10.00	56.5 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: 'Sat 2017 Future Base+Dev' (FG6: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	240	599	9	848
	B	235	0	798	0	1033
	C	630	964	0	21	1615
	D	14	2	10	0	26
	Tot.	879	1206	1407	30	3522

Traffic Lane Flows

Lane	Scenario 6: Sat 2017 Future Base+Dev
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	390
1/3	406
2/1	798
2/2	235
3/1 (short)	21
3/2 (with short)	651(In) 630(Out)
3/3 (with short)	964(In) 484(Out)
3/4 (short)	480
4/1	26
5/1	55
5/2	387
5/3 (with short)	406(In) 397(Out)
5/4 (short)	9
6/1	605
6/2	601
7/1	865
8/1	9
9/1	30
10/1	879
11/1	602
11/2	805

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	62.1 %	1925	1925
				Arm 11 Ahead	Inf	37.9 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	46.2 %	1797	1797
				Arm 10 Left	10.00	53.8 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	19	651	8	678
	B	16	0	510	0	526
	C	787	730	0	18	1535
	D	12	1	8	0	21
	Tot.	815	750	1169	26	2760

Traffic Lane Flows

Lane	Scenario 7: Fri 2012 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	305
1/3	306
2/1	510
2/2	16
3/1 (short)	18
3/2 (with short)	805(In) 787(Out)
3/3 (with short)	730(In) 366(Out)
3/4 (short)	364
4/1	21
5/1	68
5/2	300
5/3 (with short)	310(In) 302(Out)
5/4 (short)	8
6/1	377
6/2	373
7/1	803
8/1	8
9/1	26
10/1	815
11/1	608
11/2	561

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	6.6 %	1979	1979
				Arm 11 Ahead	Inf	93.4 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	42.9 %	1794	1794
				Arm 10 Left	10.00	57.1 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	29	668	9	706
	B	32	0	511	0	543
	C	701	643	0	20	1364
	D	13	1	10	0	24
	Tot.	746	673	1189	29	2637

Traffic Lane Flows

Lane	Scenario 8: Sat 2012 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	325
1/3	328
2/1	511
2/2	32
3/1 (short)	20
3/2 (with short)	721(In) 701(Out)
3/3 (with short)	643(In) 323(Out)
3/4 (short)	320
4/1	24
5/1	55
5/2	320
5/3 (with short)	331(In) 322(Out)
5/4 (short)	9
6/1	339
6/2	334
7/1	733
8/1	9
9/1	29
10/1	746
11/1	605
11/2	584

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	9.2 %	1976	1976
				Arm 11 Ahead	Inf	90.8 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	45.8 %	1797	1797
				Arm 10 Left	10.00	54.2 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	20	675	8	703
	B	16	0	530	0	546
	C	818	759	0	19	1596
	D	13	1	9	0	23
	Tot.	847	780	1214	27	2868

Traffic Lane Flows

Lane	Scenario 9: Fri 2017 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	318
1/3	319
2/1	530
2/2	16
3/1 (short)	19
3/2 (with short)	837(In) 818(Out)
3/3 (with short)	759(In) 381(Out)
3/4 (short)	378
4/1	23
5/1	68
5/2	313
5/3 (with short)	322(In) 314(Out)
5/4 (short)	8
6/1	392
6/2	388
7/1	834
8/1	8
9/1	27
10/1	847
11/1	630
11/2	584

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	6.6 %	1978	1978
				Arm 11 Ahead	Inf	93.4 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	43.5 %	1795	1795
				Arm 10 Left	10.00	56.5 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	30	695	9	734
	B	33	0	532	0	565
	C	730	669	0	21	1420
	D	14	2	10	0	26
	Tot.	777	701	1237	30	2745

Traffic Lane Flows

Lane	Scenario 10: Sat 2017 Future Base
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	340
1/3	342
2/1	532
2/2	33
3/1 (short)	21
3/2 (with short)	751(In) 730(Out)
3/3 (with short)	669(In) 336(Out)
3/4 (short)	333
4/1	26
5/1	55
5/2	334
5/3 (with short)	345(In) 336(Out)
5/4 (short)	9
6/1	352
6/2	349
7/1	763
8/1	9
9/1	30
10/1	777
11/1	629
11/2	608

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	9.4 %	1976	1976
				Arm 11 Ahead	Inf	90.6 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	46.2 %	1797	1797
				Arm 10 Left	10.00	53.8 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: 'Fri 2017 Future Base+Dev DC' (FG5: 'Fri 2017 Future Base+Dev', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	245	584	8	837
	B	237	0	834	0	1071
	C	716	1082	0	19	1817
	D	13	1	9	0	23
	Tot.	966	1328	1427	27	3748

Traffic Lane Flows

Lane	Scenario 11: Fri 2017 Future Base+Dev DC
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	68
1/2	378
1/3	393
2/1	834
2/2	237
3/1 (short)	19
3/2 (with short)	735(In) 716(Out)
3/3 (with short)	1082(In) 543(Out)
3/4 (short)	539
4/1	23
5/1	68
5/2	375
5/3 (with short)	394(In) 386(Out)
5/4 (short)	8
6/1	667
6/2	661
7/1	953
8/1	8
9/1	27
10/1	966
11/1	617
11/2	810

Full Input Data And Results

Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	65.1 %	1922	1922
				Arm 11 Ahead	Inf	34.9 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	43.5 %	1795	1795
				Arm 10 Left	10.00	56.5 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 12: 'Sat 2017 Future Base+Dev DC' (FG6: 'Sat 2017 Future Base+Dev', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	240	599	9	848
	B	235	0	798	0	1033
	C	630	964	0	21	1615
	D	14	2	10	0	26
	Tot.	879	1206	1407	30	3522

Traffic Lane Flows

Lane	Scenario 12: Sat 2017 Future Base+Dev DC
Junction: A61 Old Mill Lane/Burton Road Bypass	
1/1	55
1/2	391
1/3	405
2/1	798
2/2	235
3/1 (short)	21
3/2 (with short)	651(In) 630(Out)
3/3 (with short)	964(In) 484(Out)
3/4 (short)	480
4/1	26
5/1	55
5/2	386
5/3 (with short)	407(In) 398(Out)
5/4 (short)	9
6/1	605
6/2	601
7/1	865
8/1	9
9/1	30
10/1	879
11/1	603
11/2	804

Full Input Data And Results

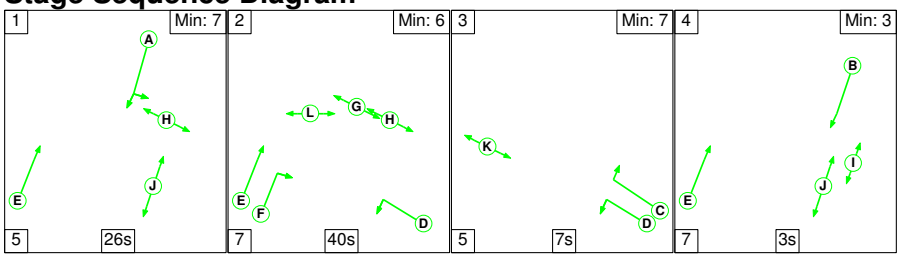
Lane Saturation Flows

Junction: A61 Old Mill Lane/Burton Road Bypass								
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 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
1/2 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 6 Left	30.00	61.9 %	1925	1925
				Arm 11 Ahead	Inf	38.1 %		
1/3 (A61 Old Mill Lane North)	3.70	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1985	1985
2/1 (Site Access)	3.90	0.00	Y	Arm 11 Left	25.00	100.0 %	1892	1892
2/2 (Site Access)	3.90	0.00	Y	Arm 7 Right	40.00	100.0 %	1933	1933
3/1 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 9 Left	30.00	100.0 %	1919	1919
3/2 (A61 Old Mill Lane South)	4.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2015	2015
3/3 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	35.00	100.0 %	1879	1879
3/4 (A61 Old Mill Lane South)	3.45	0.00	Y	Arm 6 Right	30.00	100.0 %	1867	1867
4/1 (Carphone Warehouse Access)	4.10	0.00	Y	Arm 1 Right	15.00	46.2 %	1797	1797
				Arm 10 Left	10.00	53.8 %		
5/1 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/2 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/3 (A61 North @ Right Turn)	3.70	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1985	1985
5/4 (A61 North @ Right Turn)	3.50	0.00	Y	Arm 8 Right	10.00	100.0 %	1709	1709
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1 (A61 South @ GW)	4.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2105	2105
8/1 (Cp Wh RT In Lane 1)	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

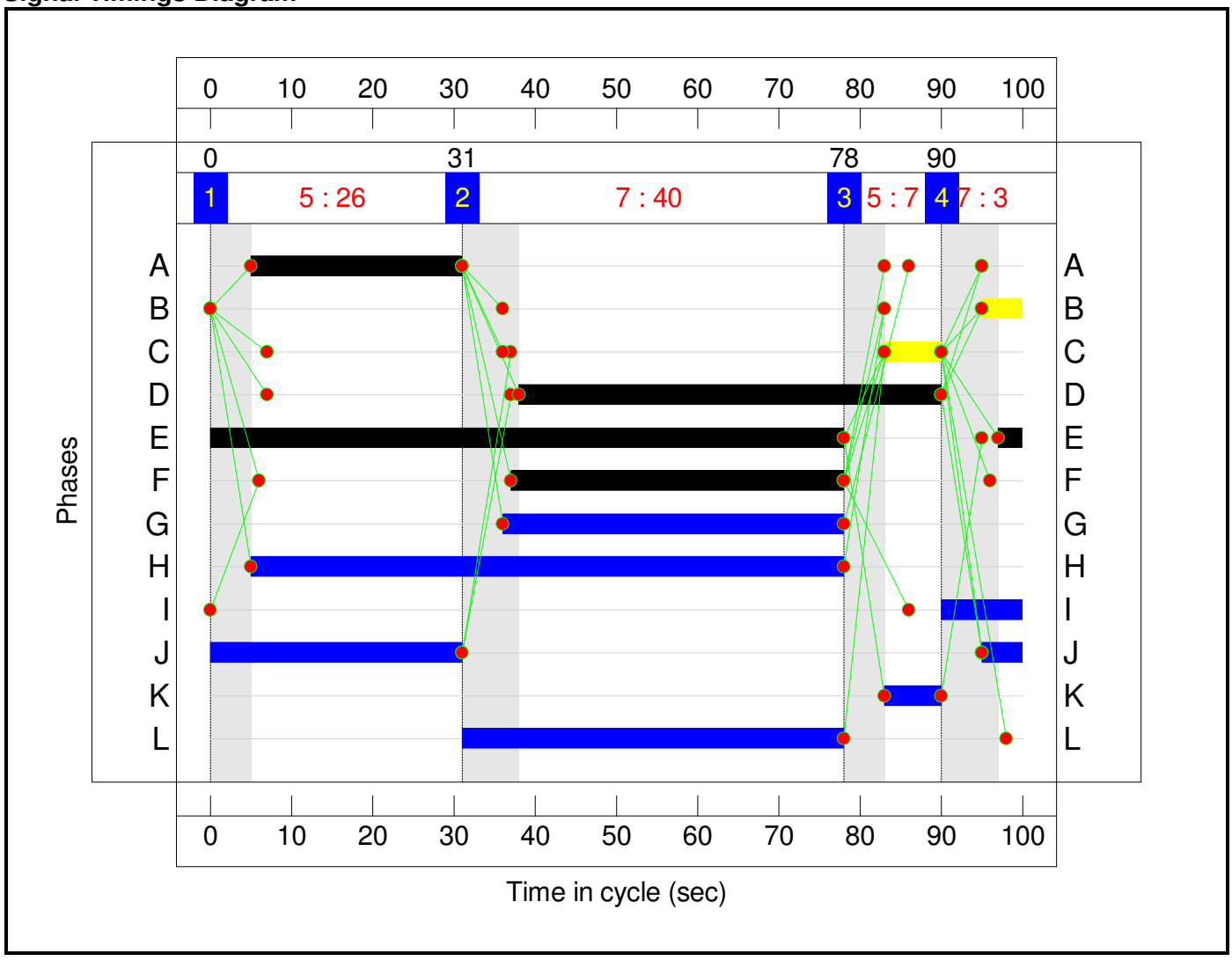
Stage Sequence Diagram



Stage Timings

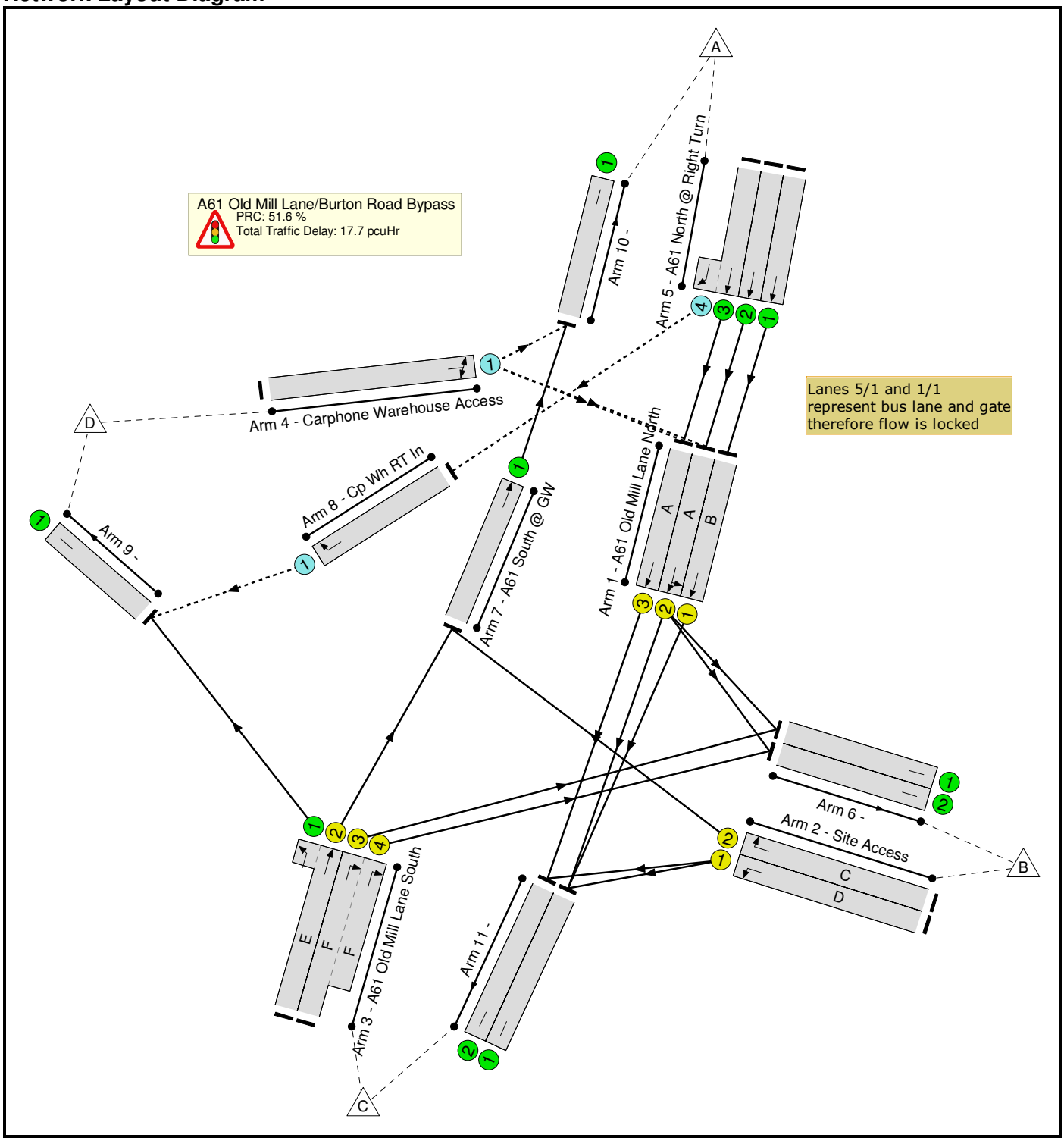
Stage	1	2	3	4
Duration	26	40	7	3
Change Point	0	31	78	90

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**59.4%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**59.4%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	68	1985	119	57.1%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		1	26	-	304	1978	534	56.9%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	26	-	307	1985	536	57.3%
2/1	Site Access Left	U	N/A	N/A	D		1	52	-	510	1892	1003	50.9%
2/2	Site Access Right	U	N/A	N/A	C		1	7	-	16	1933	155	10.3%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		1	81	-	805	2015:1919	1657	48.6%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		1	41	-	730	1879:1867	1230	59.4%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	21	1794	402	5.2%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	301	1985	1985	15.2%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	309	1985:1709	1977	15.6%
6/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	803	2105	2105	38.1%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	844	0.9%
9/1		U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	607	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%

Full Input Data And Results

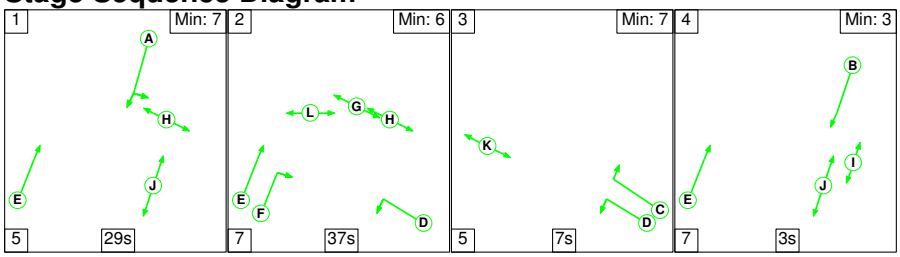
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**37**	**0**	**0**	**13.4**	**4.3**	**0.0**	**17.7**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**37**	**0**	**0**	**13.4**	**4.3**	**0.0**	**17.7**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.9	0.6	-	1.5	80.1	1.8	0.6	2.5
1/2	304	304	-	-	-	2.7	0.7	-	3.3	39.3	7.3	0.7	7.9
1/3	307	307	-	-	-	2.7	0.7	-	3.4	39.3	7.3	0.7	8.0
2/1	510	510	-	-	-	2.1	0.5	-	2.7	18.8	9.1	0.5	9.6
2/2	16	16	-	-	-	0.2	0.1	-	0.2	55.8	0.4	0.1	0.5
3/2+3/1	805	805	-	-	-	0.6	0.5	-	1.1	4.7	6.5	0.5	7.0
3/3+3/4	730	730	-	-	-	4.2	0.7	-	5.0	24.5	7.3	0.7	8.0
4/1	21	21	21	0	0	0.0	0.0	-	0.0	4.7	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	301	301	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	309	309	8	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	803	803	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	26	26	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	815	815	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	562	562	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 51.6 Total Delay for Signalled Lanes (pcuHr): 17.12 Cycle Time (s): 100
PRC Over All Lanes (%): 51.6 Total Delay Over All Lanes(pcuHr): 17.66

Full Input Data And Results

Scenario 2: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

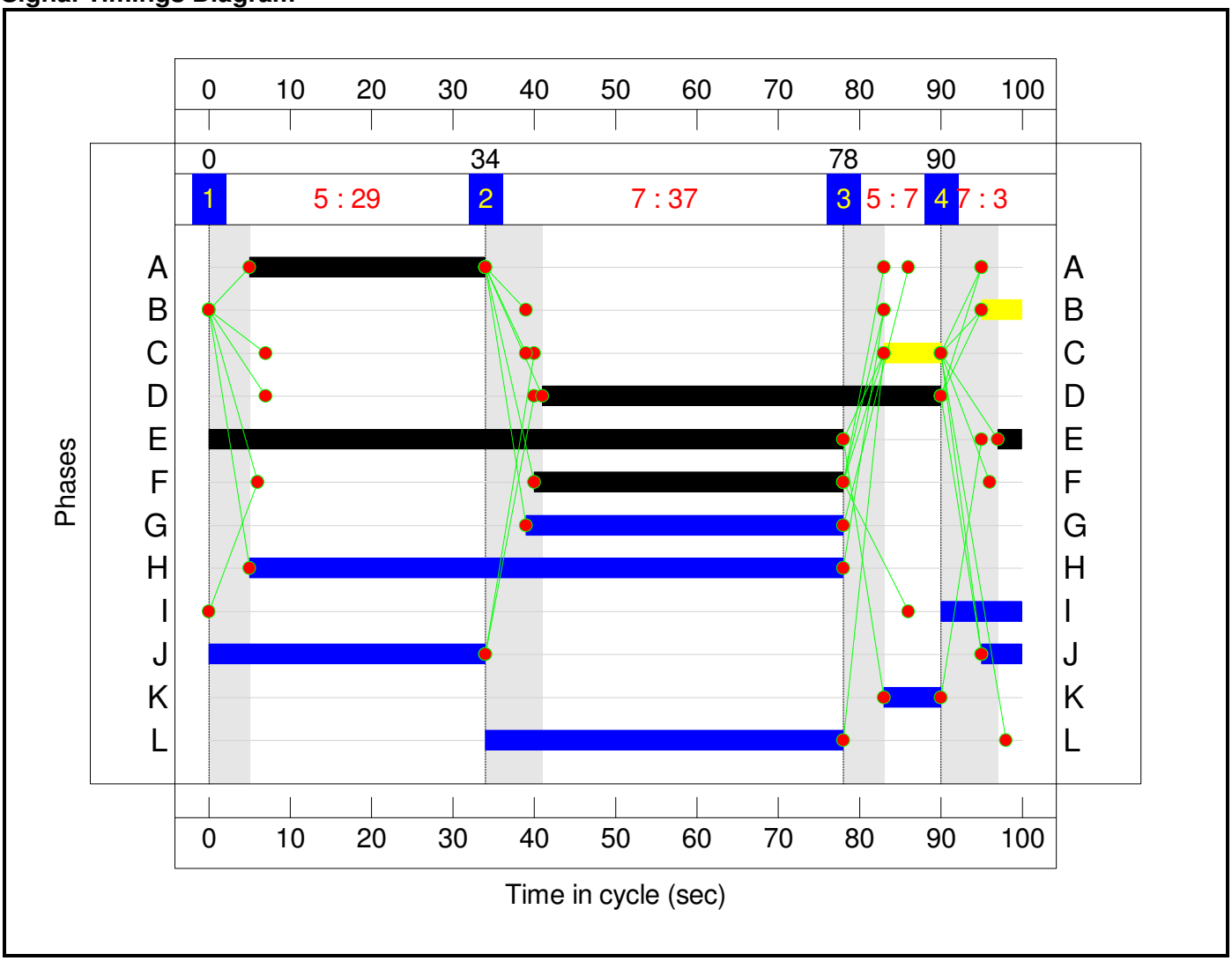
Stage Sequence Diagram



Stage Timings

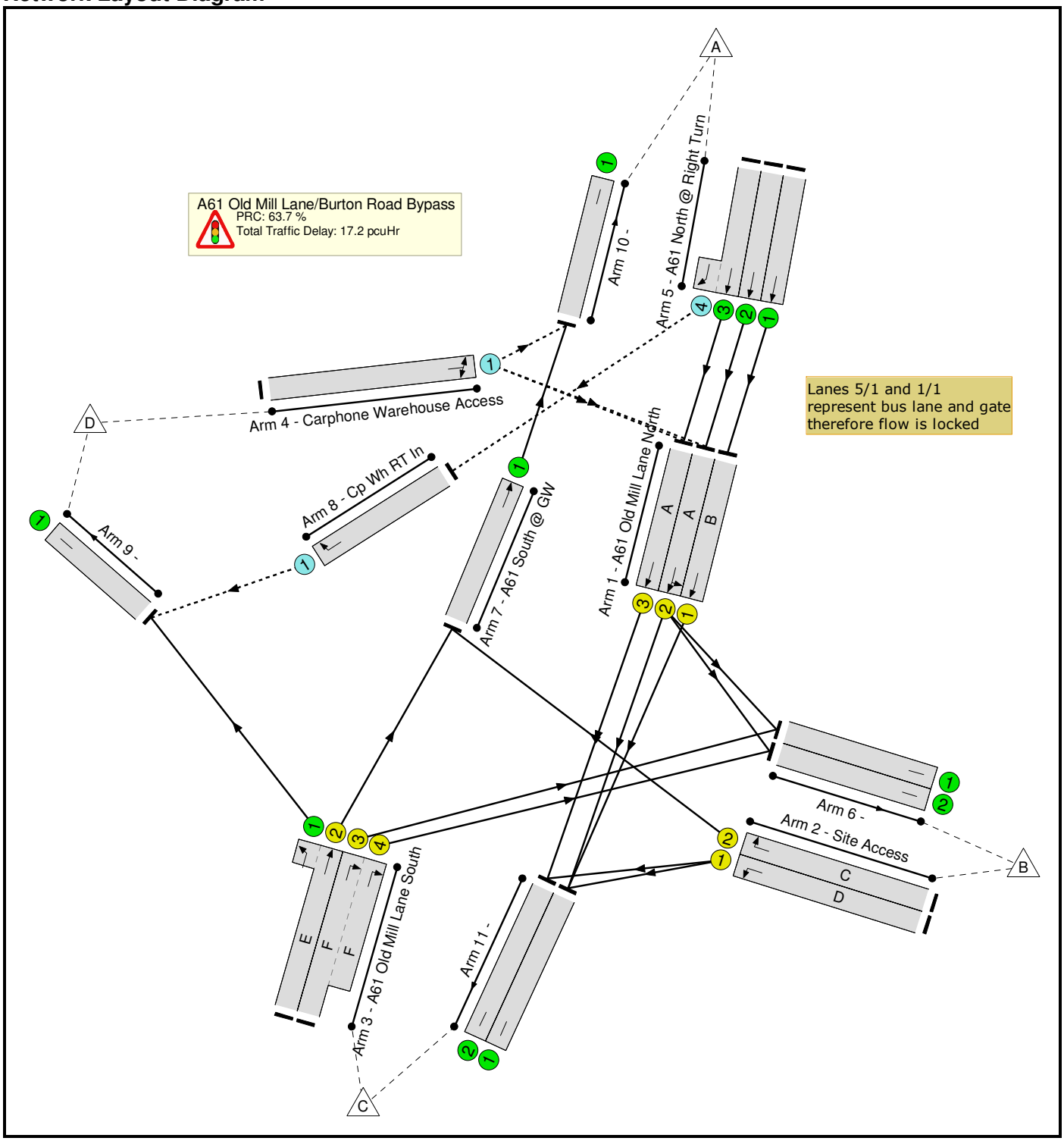
Stage	1	2	3	4
Duration	29	37	7	3
Change Point	0	34	78	90

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**55.0%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**55.0%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	55	1985	119	46.2%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		1	29	-	326	1976	593	55.0%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	29	-	327	1985	596	54.9%
2/1	Site Access Left	U	N/A	N/A	D		1	49	-	511	1892	946	54.0%
2/2	Site Access Right	U	N/A	N/A	C		1	7	-	32	1933	155	20.7%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		1	81	-	721	2015:1919	1657	43.5%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		1	38	-	643	1879:1867	1172	54.9%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	24	1797	406	5.9%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	322	1985	1985	16.2%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	329	1985:1709	1976	16.6%
6/1		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	334	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	733	2105	2105	34.8%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	29	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	746	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	606	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%

Full Input Data And Results

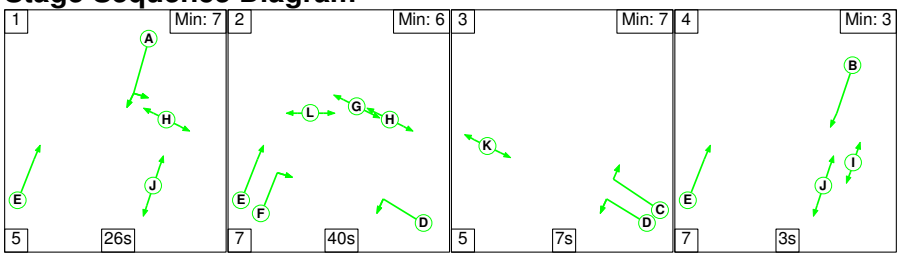
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**42**	**0**	**0**	**13.3**	**3.9**	**0.0**	**17.2**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**42**	**0**	**0**	**13.3**	**3.9**	**0.0**	**17.2**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.7	0.4	-	1.1	73.2	1.5	0.4	1.9
1/2	326	326	-	-	-	2.7	0.6	-	3.3	36.1	7.5	0.6	8.1
1/3	327	327	-	-	-	2.7	0.6	-	3.3	36.0	7.5	0.6	8.1
2/1	511	511	-	-	-	2.4	0.6	-	3.0	21.3	9.7	0.6	10.2
2/2	32	32	-	-	-	0.4	0.1	-	0.5	57.8	0.8	0.1	1.0
3/2+3/1	721	721	-	-	-	0.5	0.4	-	0.9	4.4	5.4	0.4	5.8
3/3+3/4	643	643	-	-	-	4.0	0.6	-	4.6	25.9	6.5	0.6	7.2
4/1	24	24	24	0	0	0.0	0.0	-	0.0	4.7	0.0	0.0	0.0
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	322	322	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	329	329	9	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	334	334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	733	733	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	746	746	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 63.7 Total Delay for Signalled Lanes (pcuHr): 16.68 Cycle Time (s): 100
PRC Over All Lanes (%): 63.7 Total Delay Over All Lanes(pcuHr): 17.19

Full Input Data And Results

Scenario 3: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

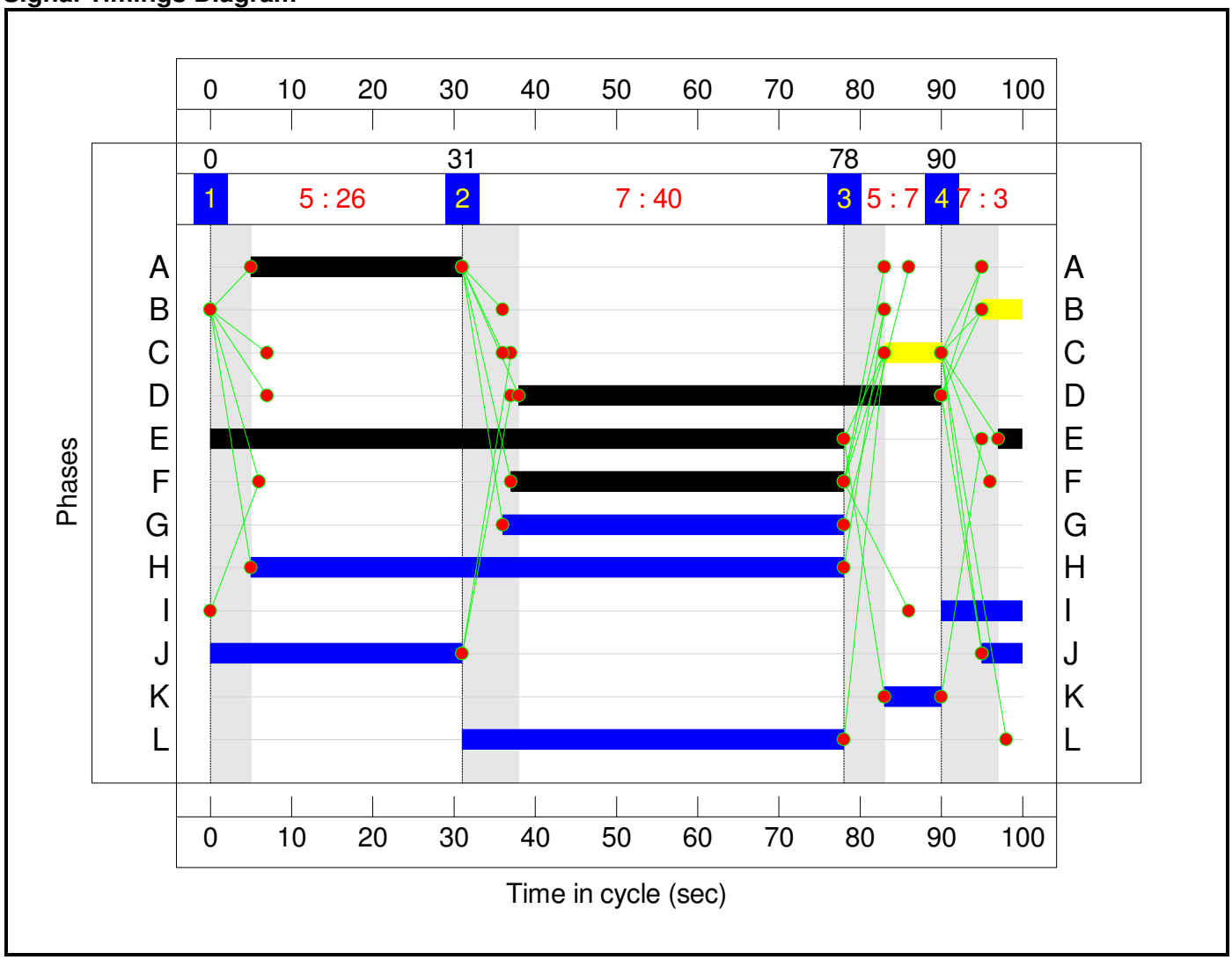
Stage Sequence Diagram



Stage Timings

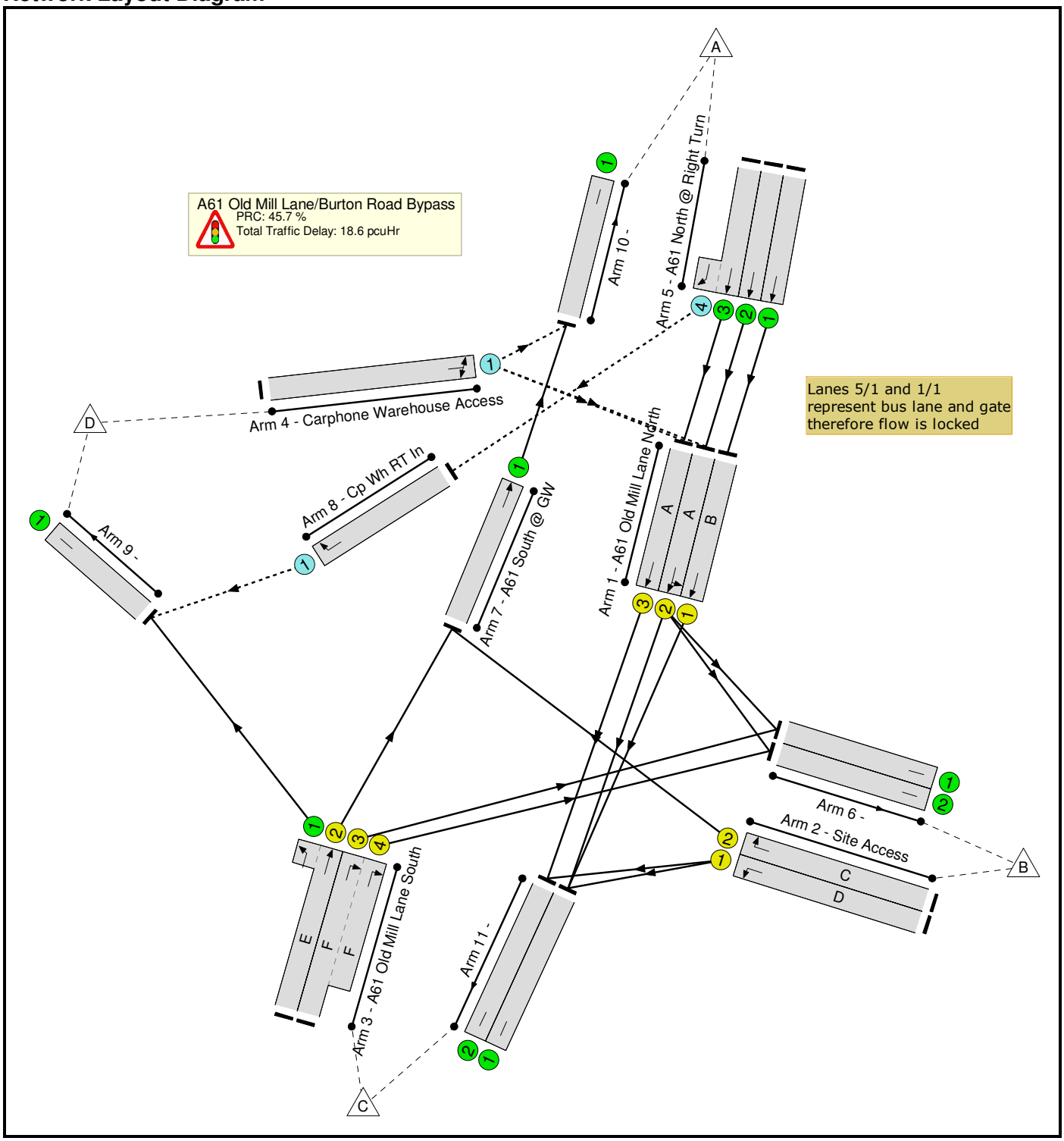
Stage	1	2	3	4
Duration	26	40	7	3
Change Point	0	31	78	90

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.8%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.8%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	68	1985	119	57.1%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		1	26	-	318	1978	534	59.5%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	26	-	319	1985	536	59.5%
2/1	Site Access Left	U	N/A	N/A	D		1	52	-	530	1892	1003	52.9%
2/2	Site Access Right	U	N/A	N/A	C		1	7	-	16	1933	155	10.3%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		1	81	-	837	2015:1919	1657	50.5%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		1	41	-	759	1879:1867	1229	61.8%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	23	1795	389	5.9%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	314	1985	1985	15.8%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	321	1985:1709	1977	16.2%
6/1		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	388	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	834	2105	2105	39.6%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	843	0.9%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%

Full Input Data And Results

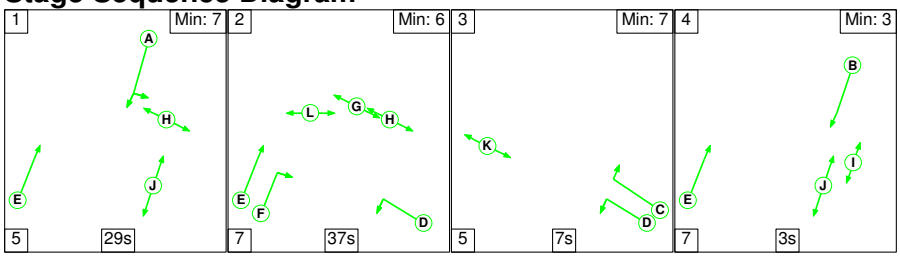
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**39**	**0**	**0**	**14.0**	**4.6**	**0.0**	**18.6**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**14.0**	**4.6**	**0.0**	**18.6**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.9	0.6	-	1.5	80.1	1.8	0.6	2.5
1/2	318	318	-	-	-	2.8	0.7	-	3.5	40.0	7.6	0.7	8.3
1/3	319	319	-	-	-	2.8	0.7	-	3.5	40.0	7.6	0.7	8.4
2/1	530	530	-	-	-	2.3	0.6	-	2.8	19.1	9.6	0.6	10.1
2/2	16	16	-	-	-	0.2	0.1	-	0.2	55.8	0.4	0.1	0.5
3/2+3/1	837	837	-	-	-	0.6	0.5	-	1.1	4.9	6.9	0.5	7.5
3/3+3/4	759	759	-	-	-	4.4	0.8	-	5.3	24.9	7.6	0.8	8.4
4/1	23	23	23	0	0	0.0	0.0	-	0.0	4.9	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	314	314	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	321	321	8	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	834	834	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	630	630	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 45.7 Total Delay for Signalled Lanes (pcuHr): 18.05 Cycle Time (s): 100
PRC Over All Lanes (%): 45.7 Total Delay Over All Lanes(pcuHr): 18.62

Full Input Data And Results

Scenario 4: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

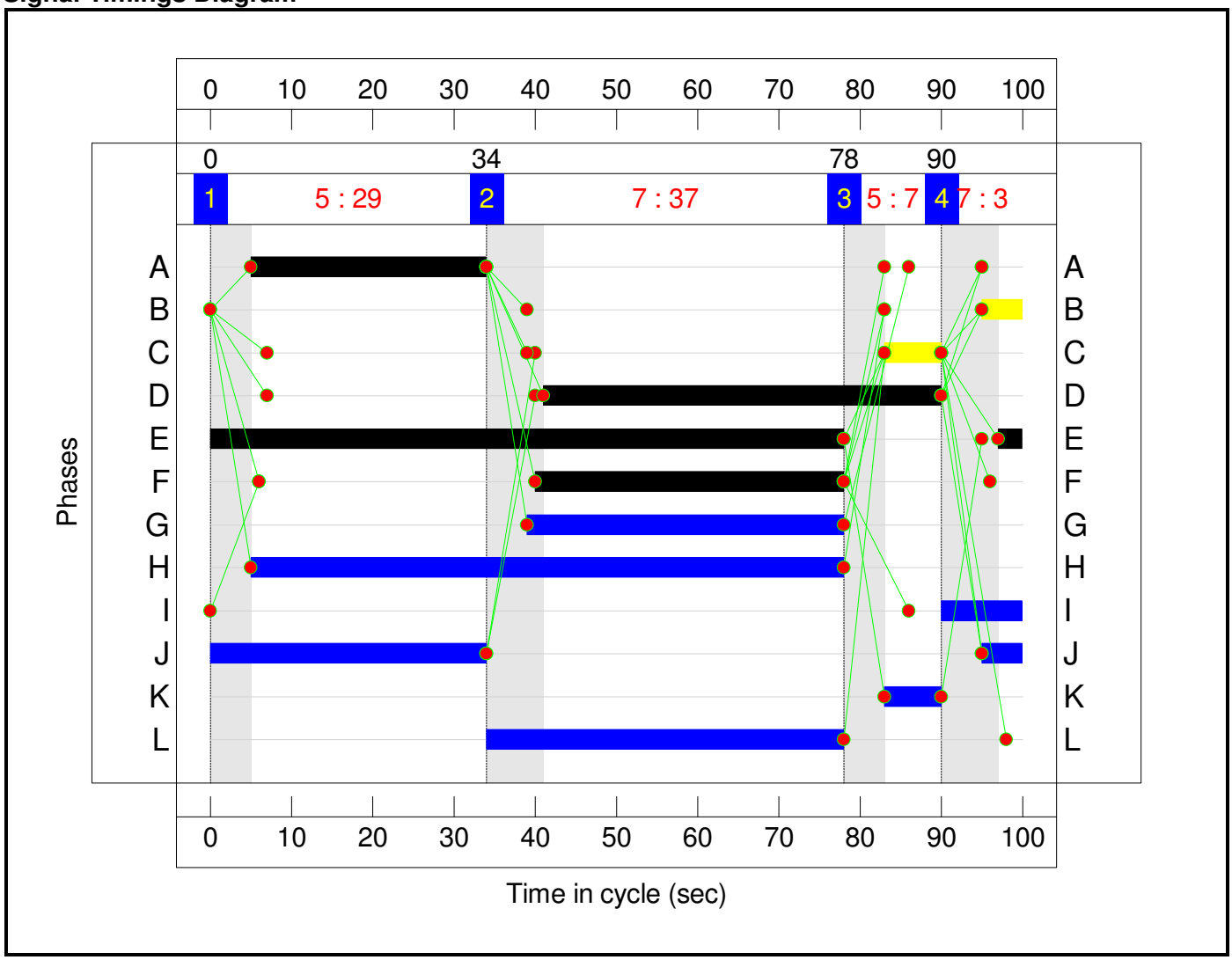
Stage Sequence Diagram



Stage Timings

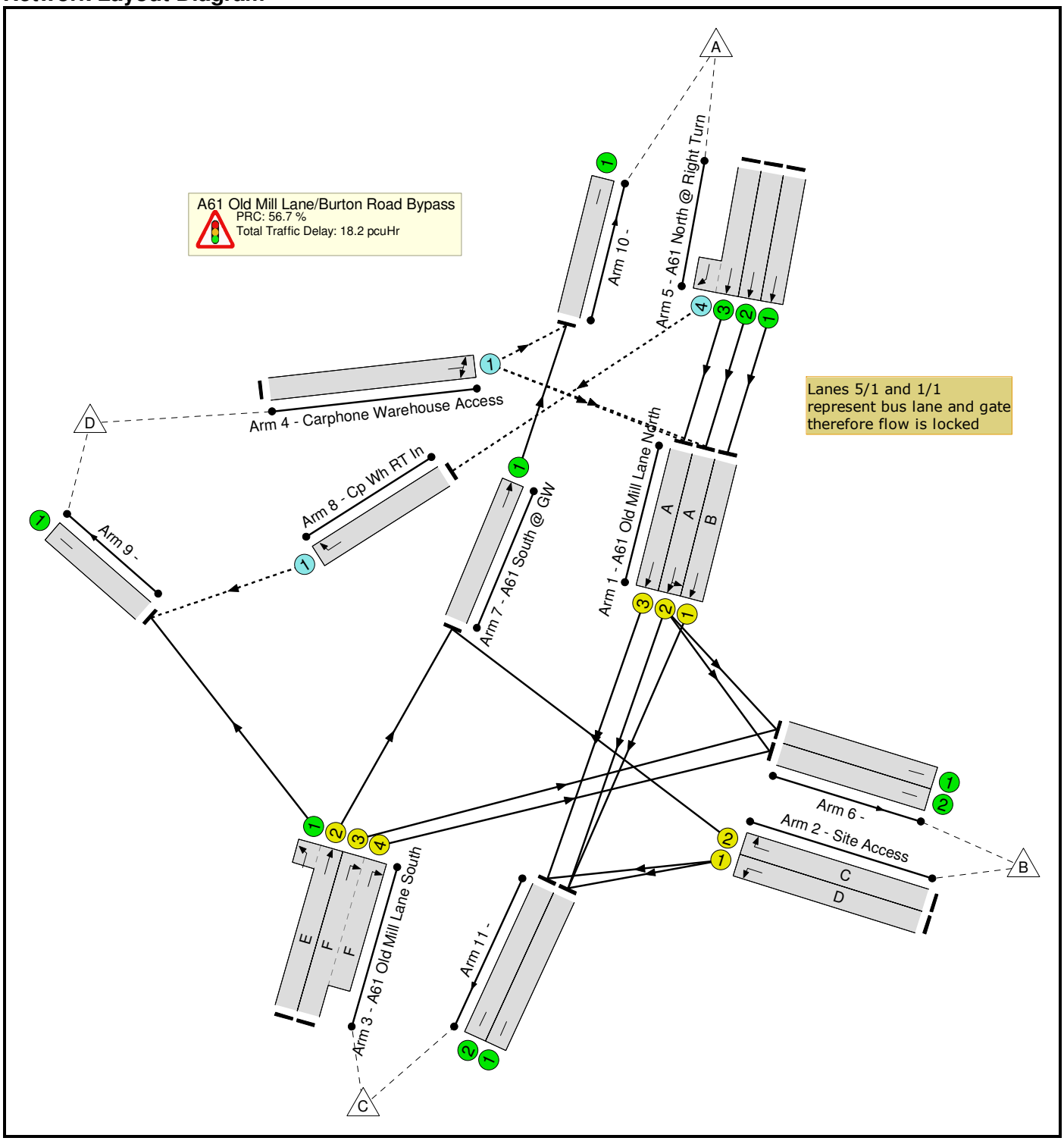
Stage	1	2	3	4
Duration	29	37	7	3
Change Point	0	34	78	90

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.4%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.4%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	55	1985	119	46.2%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		1	29	-	340	1976	593	57.4%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	29	-	342	1985	596	57.4%
2/1	Site Access Left	U	N/A	N/A	D		1	49	-	532	1892	946	56.2%
2/2	Site Access Right	U	N/A	N/A	C		1	7	-	33	1933	155	21.3%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		1	81	-	751	2015:1919	1657	45.3%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		1	38	-	669	1879:1867	1172	57.1%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	26	1797	393	6.6%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	335	1985	1985	16.9%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	344	1985:1709	1977	17.4%
6/1		U	N/A	N/A	-		-	-	-	352	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	763	2105	2105	36.2%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	777	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%

Full Input Data And Results

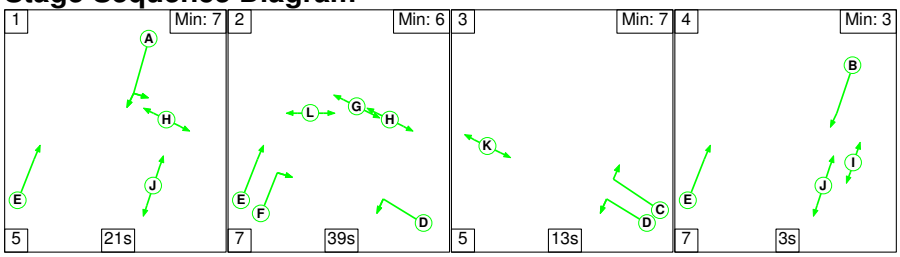
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**44**	**0**	**0**	**14.0**	**4.2**	**0.0**	**18.2**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**14.0**	**4.2**	**0.0**	**18.2**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.7	0.4	-	1.1	73.2	1.5	0.4	1.9
1/2	340	340	-	-	-	2.8	0.7	-	3.5	36.7	7.9	0.7	8.6
1/3	342	342	-	-	-	2.8	0.7	-	3.5	36.7	8.0	0.7	8.7
2/1	532	532	-	-	-	2.6	0.6	-	3.2	21.7	10.2	0.6	10.8
2/2	33	33	-	-	-	0.4	0.1	-	0.5	57.9	0.9	0.1	1.0
3/2+3/1	751	751	-	-	-	0.5	0.4	-	0.9	4.5	6.0	0.4	6.4
3/3+3/4	669	669	-	-	-	4.2	0.7	-	4.9	26.2	6.9	0.7	7.6
4/1	26	26	26	0	0	0.0	0.0	-	0.0	4.9	0.0	0.0	0.0
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	335	335	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	344	344	9	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	352	352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	763	763	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	629	629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 56.7 Total Delay for Signalled Lanes (pcuHr): 17.62 Cycle Time (s): 100
PRC Over All Lanes (%): 56.7 Total Delay Over All Lanes(pcuHr): 18.16

Full Input Data And Results

Scenario 5: 'Fri 2017 Future Base+Dev' (FG5: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

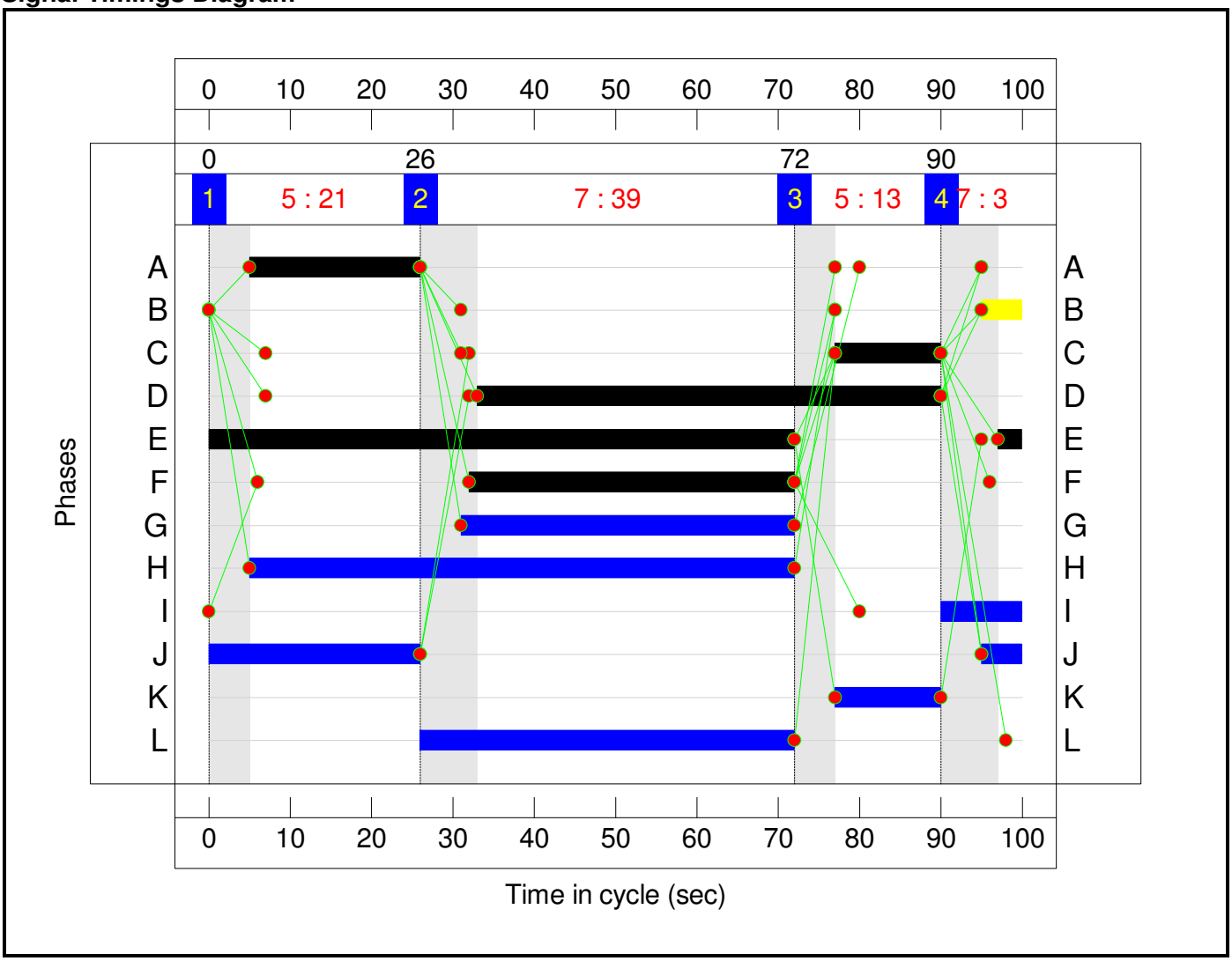
Stage Sequence Diagram



Stage Timings

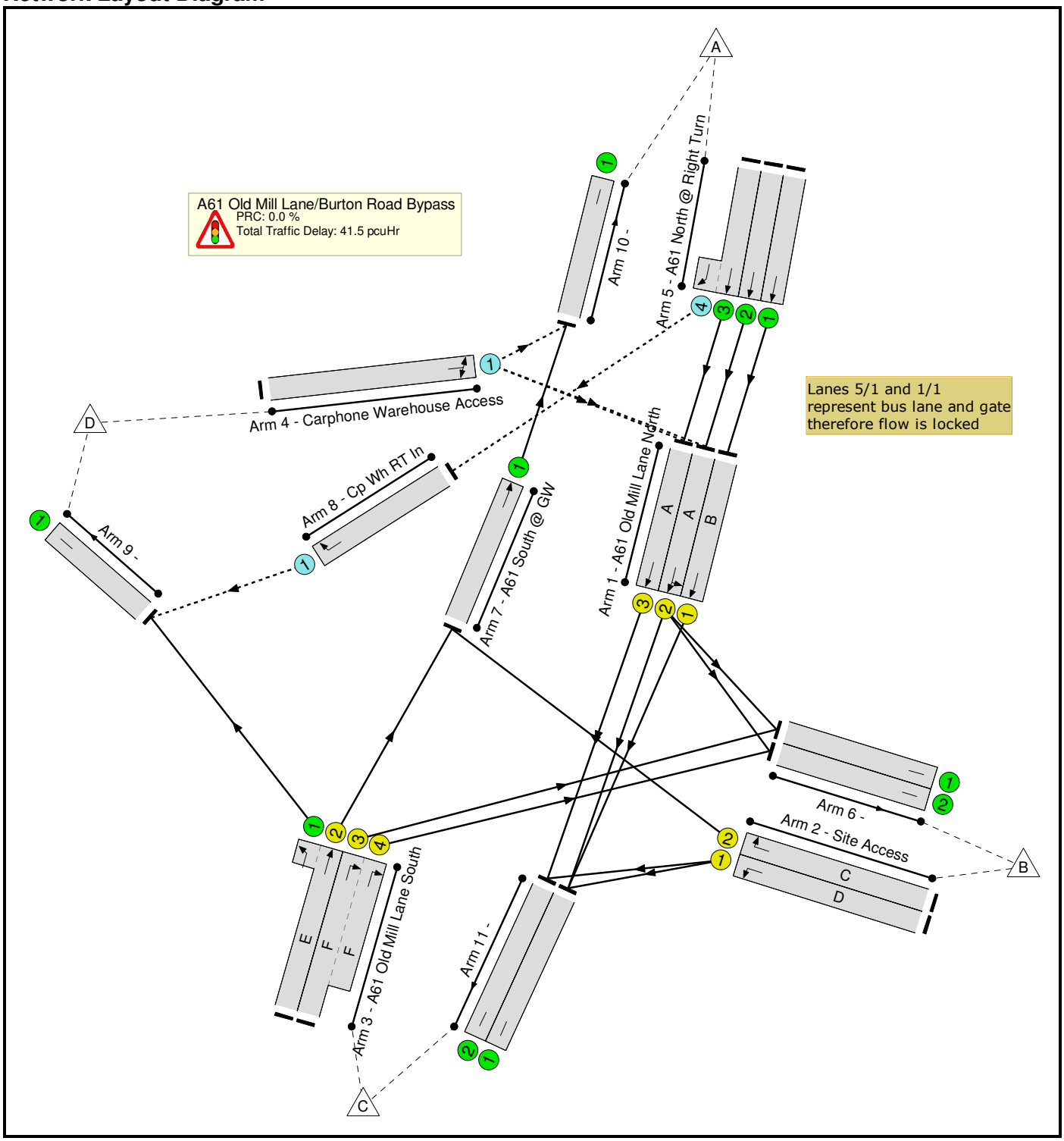
Stage	1	2	3	4
Duration	21	39	13	3
Change Point	0	26	72	90

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.0%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.0%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	68	1985	119	57.1%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		1	21	-	378	1922	423	89.4%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	21	-	393	1985	437	90.0%
2/1	Site Access Left	U	N/A	N/A	D		1	57	-	834	1892	1097	76.0%
2/2	Site Access Right	U	N/A	N/A	C		1	13	-	237	1933	271	87.6%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		1	75	-	735	2015:1919	1536	47.8%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		1	40	-	1082	1879:1867	1210	89.4%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	23	1795	332	6.9%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	375	1985	1985	18.9%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	394	1985:1709	1979	19.9%
6/1		U	N/A	N/A	-		-	-	-	667	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	953	2105	2105	45.3%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	843	0.9%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	810	Inf	Inf	0.0%

Full Input Data And Results

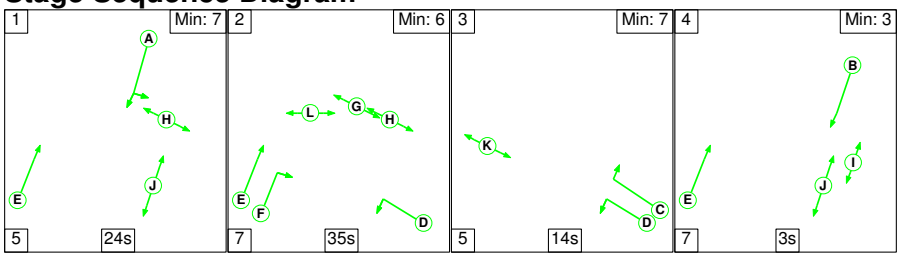
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**39**	**0**	**0**	**23.7**	**17.8**	**0.0**	**41.5**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**23.7**	**17.8**	**0.0**	**41.5**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.9	0.6	-	1.5	80.1	1.8	0.6	2.5
1/2	378	378	-	-	-	4.0	3.6	-	7.6	72.4	10.2	3.6	13.8
1/3	393	393	-	-	-	4.1	3.8	-	8.0	73.0	10.6	3.8	14.4
2/1	834	834	-	-	-	3.7	1.6	-	5.2	22.5	17.4	1.6	18.9
2/2	237	237	-	-	-	2.8	3.0	-	5.8	87.6	6.5	3.0	9.4
3/2+3/1	735	735	-	-	-	0.9	0.5	-	1.4	6.7	7.5	0.5	8.0
3/3+3/4	1082	1082	-	-	-	7.4	4.0	-	11.3	37.7	13.1	4.0	17.1
4/1	23	23	23	0	0	0.0	0.0	-	0.0	5.8	0.0	0.0	0.1
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	375	375	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	394	394	8	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	667	667	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	953	953	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	810	810	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 40.76 Cycle Time (s): 100
PRC Over All Lanes (%): 0.0 Total Delay Over All Lanes(pcuHr): 41.48

Full Input Data And Results

Scenario 6: 'Sat 2017 Future Base+Dev' (FG6: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

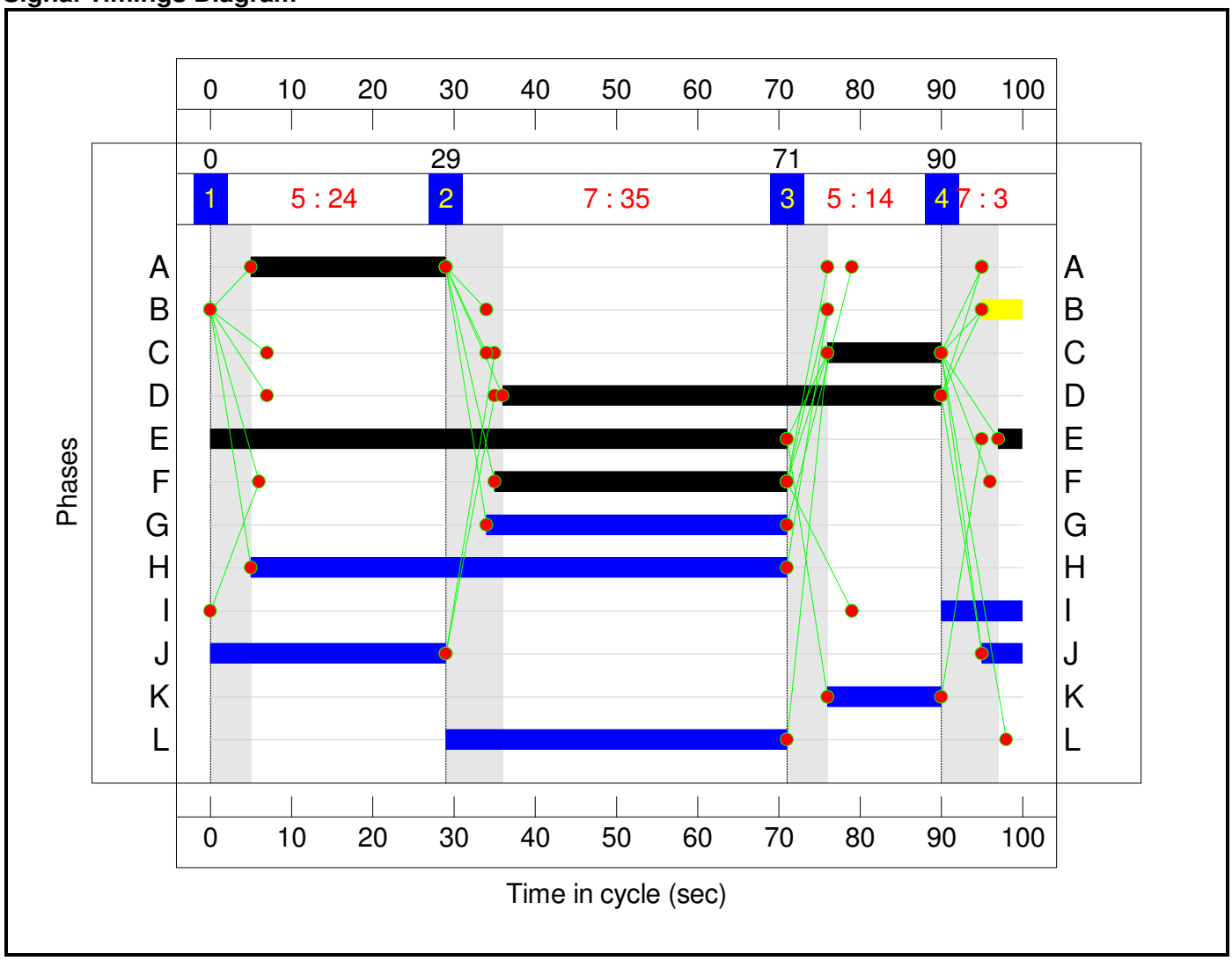
Stage Sequence Diagram



Stage Timings

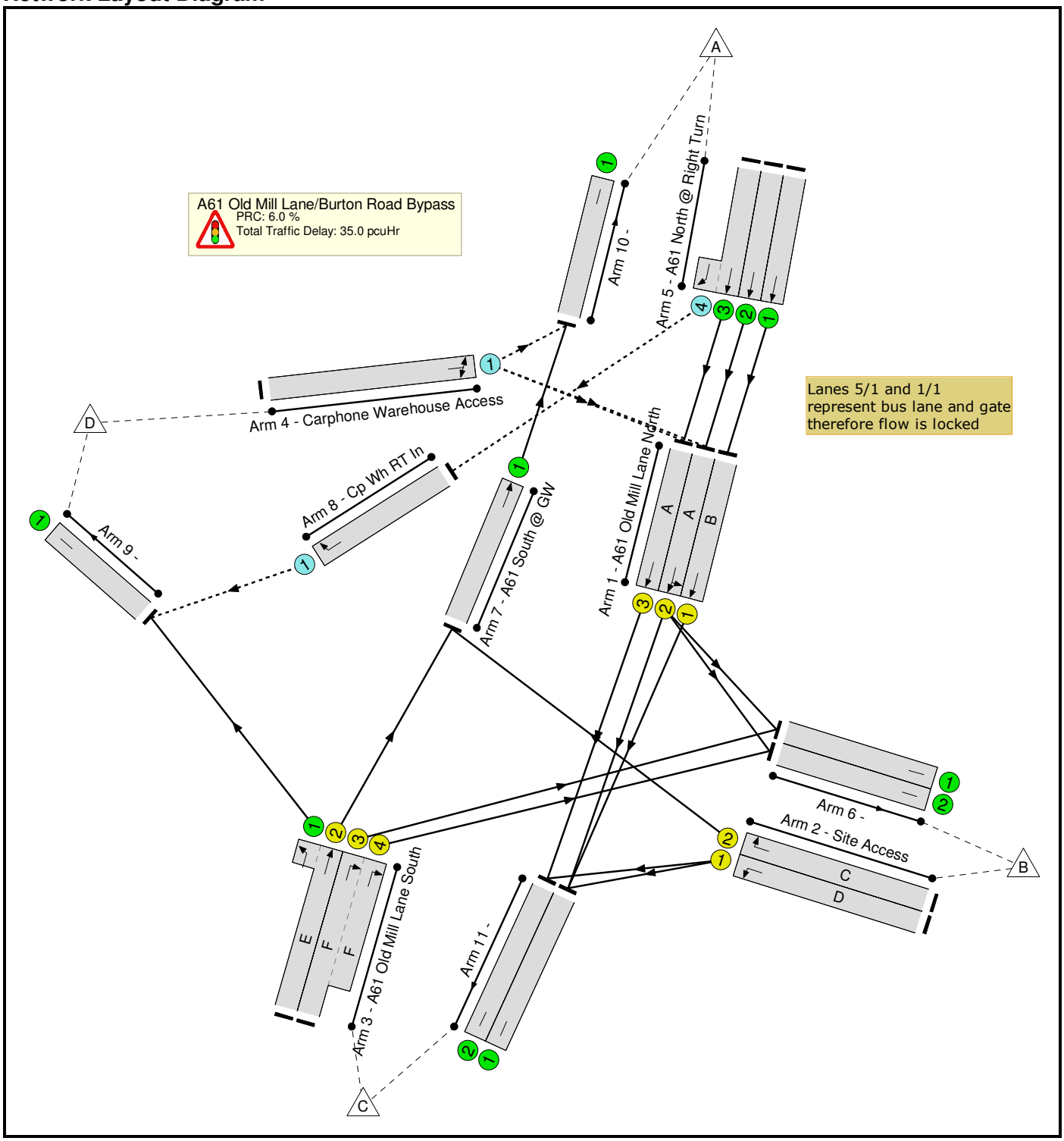
Stage	1	2	3	4
Duration	24	35	14	3
Change Point	0	29	71	90

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.9%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.9%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	55	1985	119	46.2%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		1	24	-	390	1925	481	81.0%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		1	24	-	406	1985	496	81.8%
2/1	Site Access Left	U	N/A	N/A	D		1	54	-	798	1892	1041	76.7%
2/2	Site Access Right	U	N/A	N/A	C		1	14	-	235	1933	290	81.0%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		1	74	-	651	2015:1919	1516	42.9%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		1	36	-	964	1879:1867	1135	84.9%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	26	1797	344	7.5%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	387	1985	1985	19.5%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	406	1985:1709	1978	20.5%
6/1		U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	865	2105	2105	41.1%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	879	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	805	Inf	Inf	0.0%

Full Input Data And Results

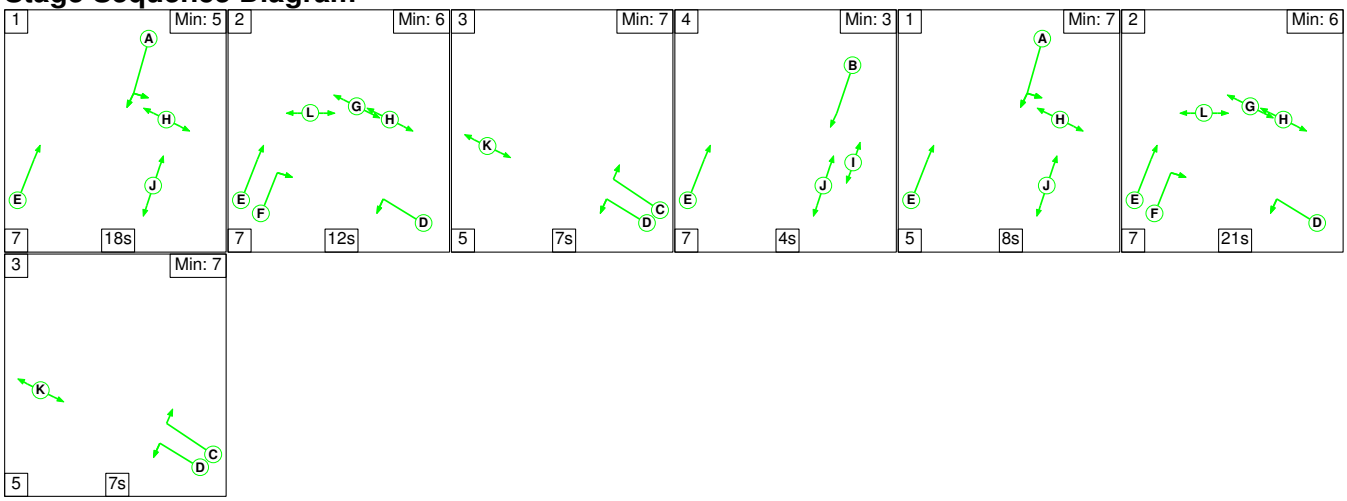
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**44**	**0**	**0**	**23.0**	**12.0**	**0.0**	**35.0**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**23.0**	**12.0**	**0.0**	**35.0**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.7	0.4	-	1.1	73.2	1.5	0.4	1.9
1/2	390	390	-	-	-	3.8	2.0	-	5.9	54.2	10.2	2.0	12.2
1/3	406	406	-	-	-	4.0	2.1	-	6.1	54.4	10.6	2.1	12.7
2/1	798	798	-	-	-	3.9	1.6	-	5.5	24.8	17.1	1.6	18.7
2/2	235	235	-	-	-	2.7	2.0	-	4.7	71.7	6.3	2.0	8.3
3/2+3/1	651	651	-	-	-	0.8	0.4	-	1.2	6.6	6.5	0.4	6.9
3/3+3/4	964	964	-	-	-	7.2	2.7	-	9.9	36.9	11.3	2.7	14.0
4/1	26	26	26	0	0	0.0	0.0	-	0.0	5.8	0.1	0.0	0.1
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	387	387	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	406	406	9	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	601	601	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	865	865	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	879	879	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	602	602	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	805	805	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 6.0 Total Delay for Signalled Lanes (pcuHr): 34.38 Cycle Time (s): 100
PRC Over All Lanes (%): 6.0 Total Delay Over All Lanes(pcuHr): 35.04

Full Input Data And Results

Scenario 7: 'Fri 2012 Future Base' (FG1: 'Fri 2012 Future Base', Plan 2: 'Network Control Plan 2')

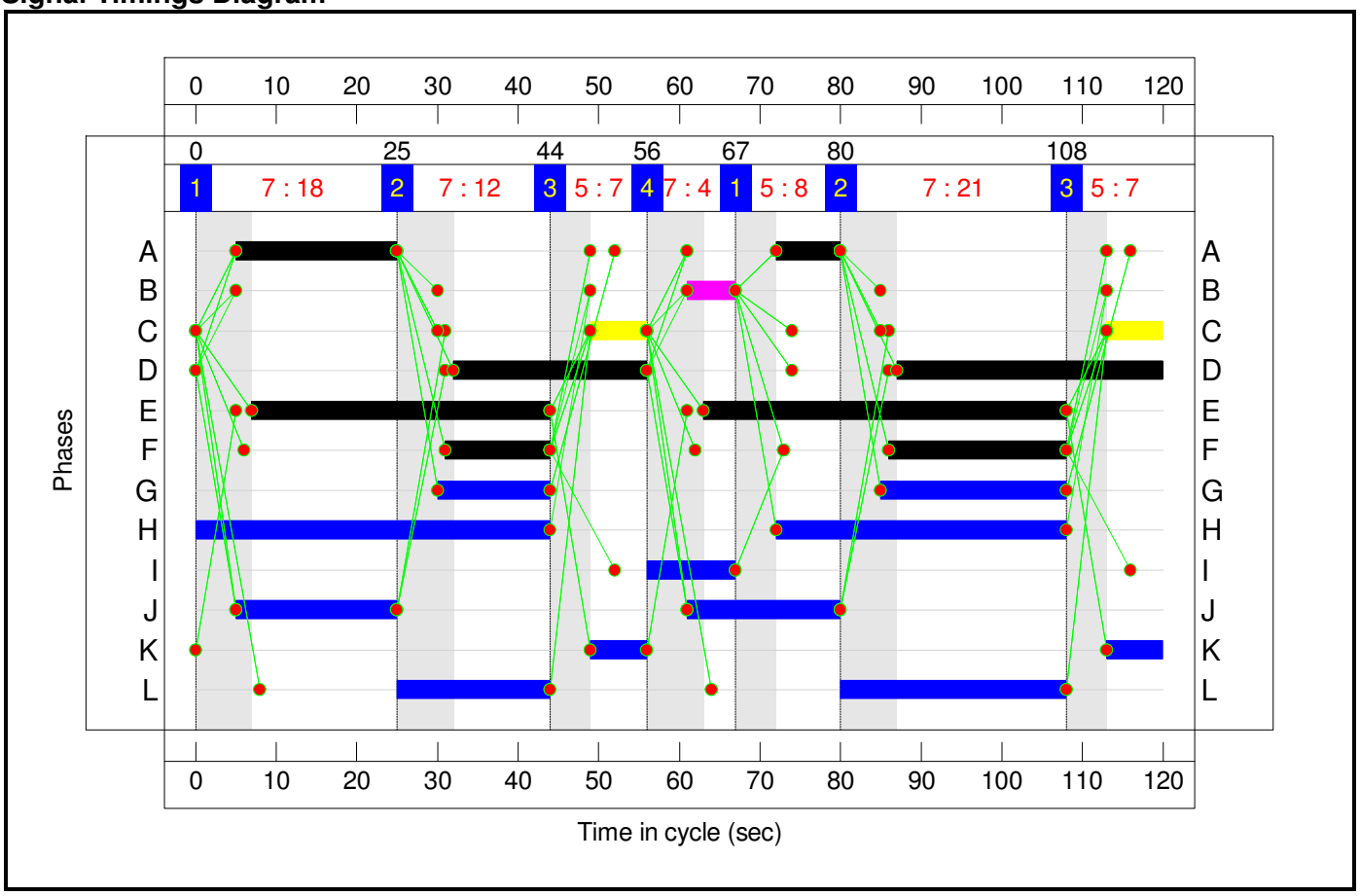
Stage Sequence Diagram



Stage Timings

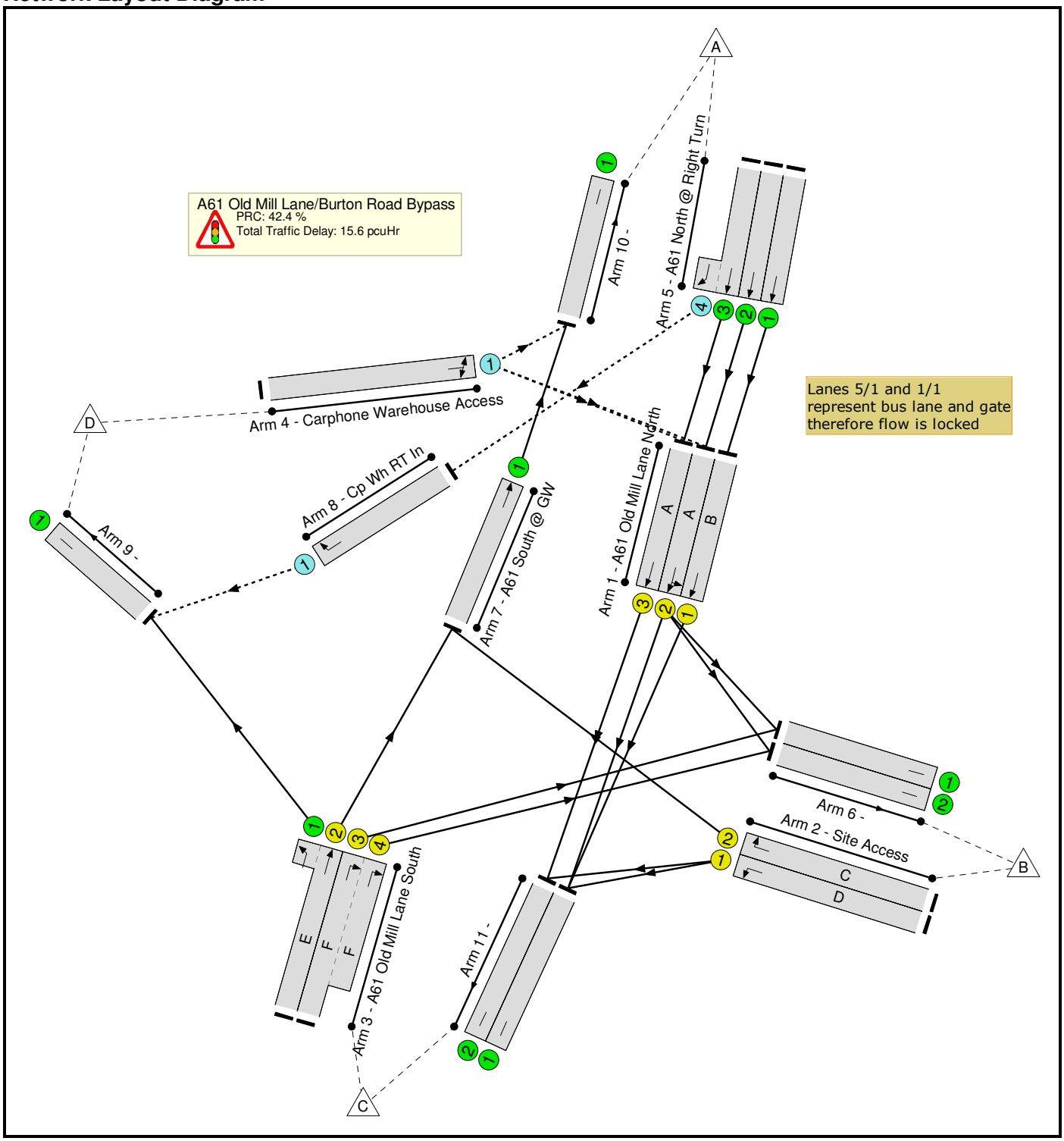
Stage	1	2	3	4	1	2	3
Duration	18	12	7	4	8	21	7
Change Point	0	25	44	56	67	80	108

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.2%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.2%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	6	-	68	1985	116	58.7%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		2	28	-	305	1979	495	61.6%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		2	28	-	306	1985	496	61.7%
2/1	Site Access Left	U	N/A	N/A	D		2	57	-	510	1892	930	54.8%
2/2	Site Access Right	U	N/A	N/A	C		2	14	-	16	1933	258	6.2%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		2	82	-	805	2015:1919	1420	56.7%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		2	35	-	730	1879:1867	1155	63.2%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	21	1794	399	5.3%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	300	1985	1985	15.1%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	310	1985:1709	1977	15.7%
6/1		U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	803	2105	2105	38.1%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	844	0.9%
9/1		U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%

Full Input Data And Results

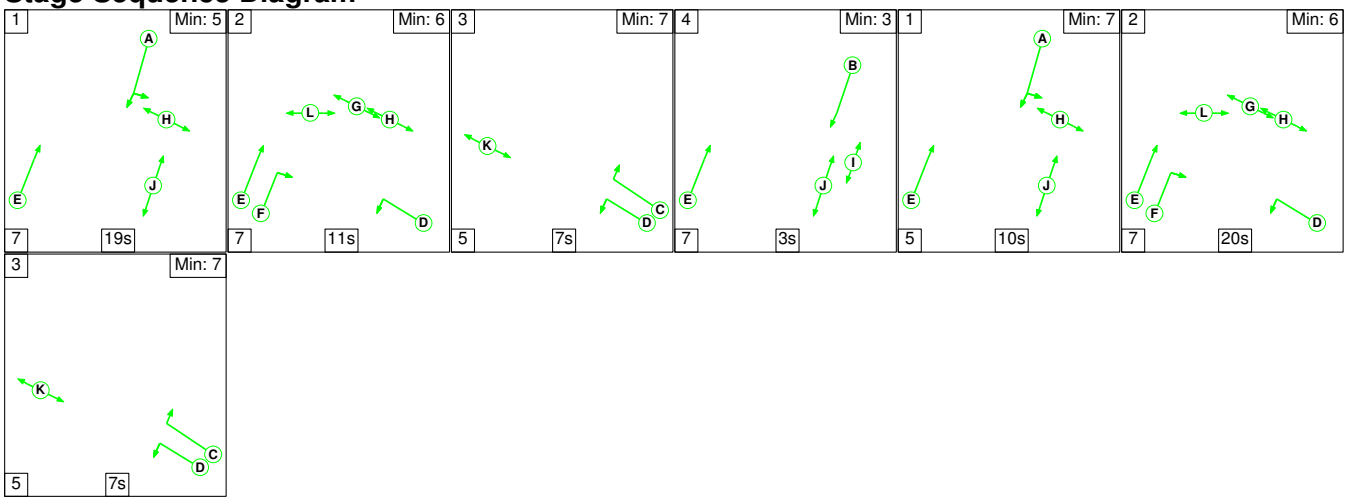
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**37**	**0**	**0**	**10.6**	**5.0**	**0.0**	**15.6**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**37**	**0**	**0**	**10.6**	**5.0**	**0.0**	**15.6**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	1.0	0.7	-	1.7	91.7	2.2	0.7	2.9
1/2	305	305	-	-	-	1.7	0.8	-	2.5	29.4	4.6	0.8	5.4
1/3	306	306	-	-	-	1.7	0.8	-	2.5	29.3	4.6	0.8	5.4
2/1	510	510	-	-	-	1.5	0.6	-	2.1	14.9	6.0	0.6	6.6
2/2	16	16	-	-	-	0.1	0.0	-	0.1	30.5	0.2	0.0	0.3
3/2+3/1	805	805	-	-	-	1.0	0.7	-	1.6	7.3	6.5	0.7	7.2
3/3+3/4	730	730	-	-	-	3.6	0.9	-	4.5	22.1	5.3	0.9	6.1
4/1	21	21	21	0	0	0.0	0.0	-	0.0	4.8	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	300	300	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	310	310	8	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	803	803	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	26	26	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	815	815	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 42.4 Total Delay for Signalled Lanes (pcuHr): 15.07 Cycle Time (s): 120
PRC Over All Lanes (%): 42.4 Total Delay Over All Lanes(pcuHr): 15.61

Full Input Data And Results

Scenario 8: 'Sat 2012 Future Base' (FG2: 'Sat 2012 Future Base', Plan 2: 'Network Control Plan 2')

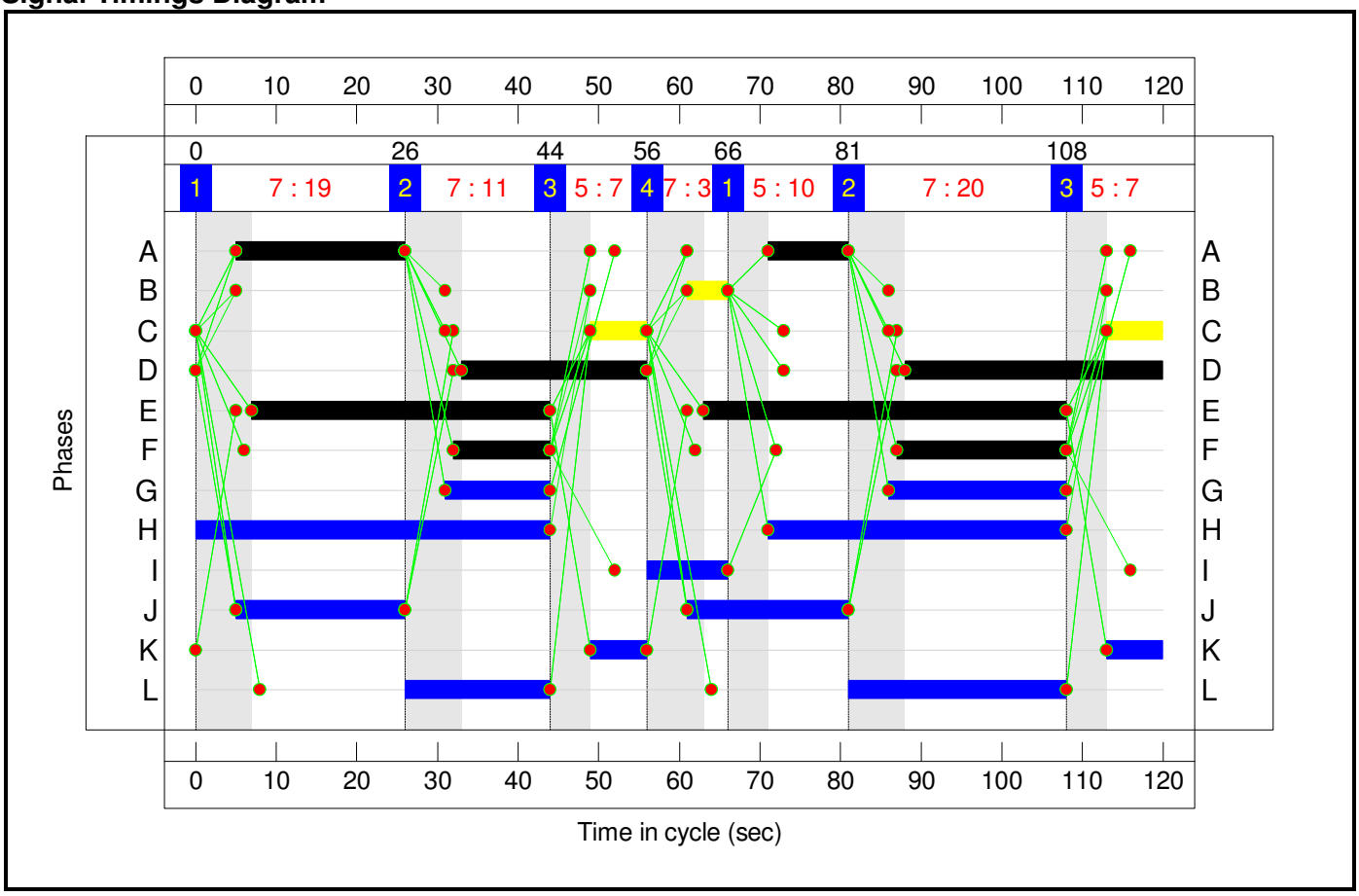
Stage Sequence Diagram



Stage Timings

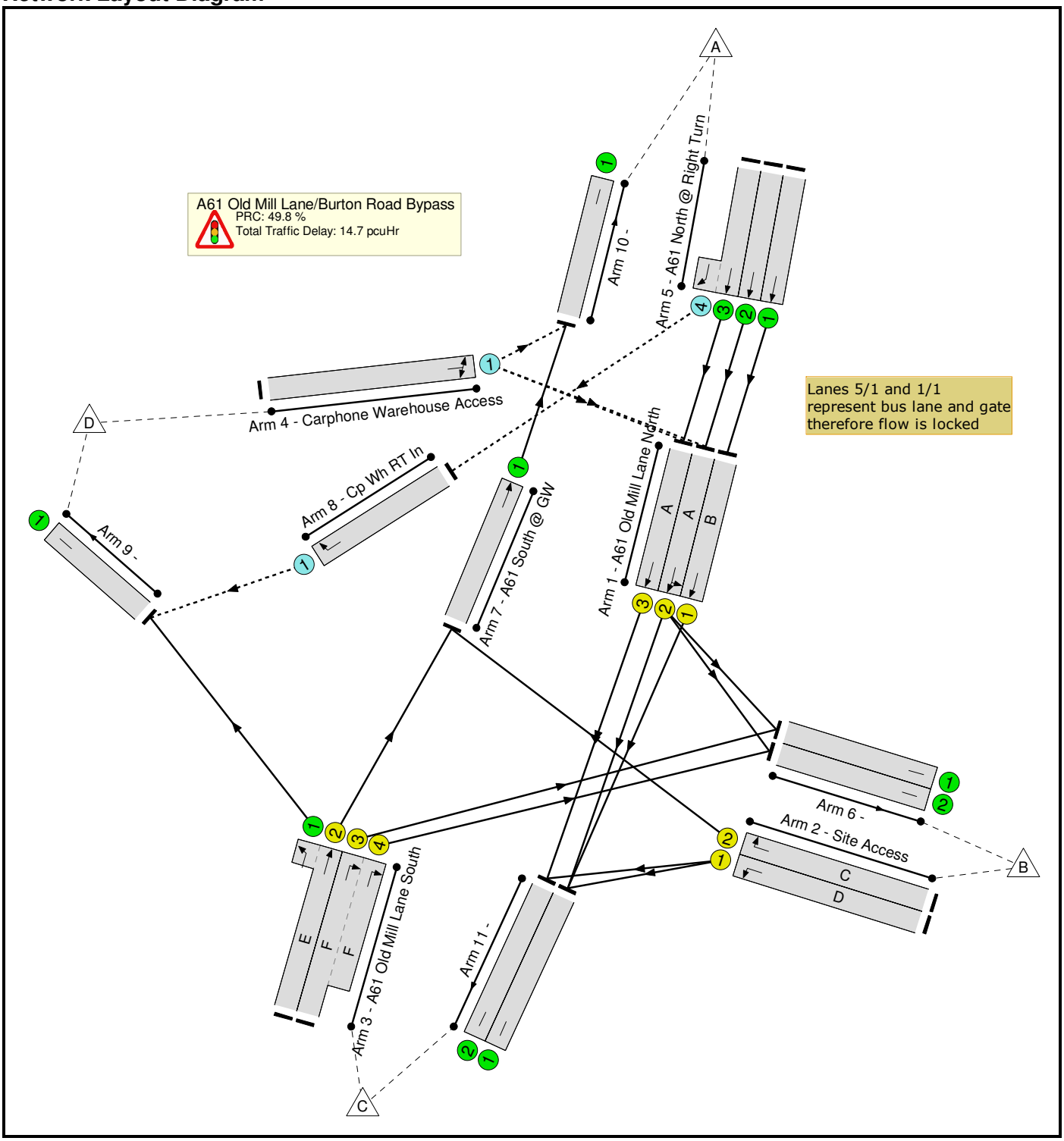
Stage	1	2	3	4	1	2	3
Duration	19	11	7	3	10	20	7
Change Point	0	26	44	56	66	81	108

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**60.1%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**60.1%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	55	1985	99	55.4%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		2	31	-	325	1976	543	59.8%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		2	31	-	328	1985	546	60.1%
2/1	Site Access Left	U	N/A	N/A	D		2	55	-	511	1892	899	56.9%
2/2	Site Access Right	U	N/A	N/A	C		2	14	-	32	1933	258	12.4%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		2	82	-	721	2015:1919	1420	50.8%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		2	33	-	643	1879:1867	1093	58.9%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	24	1797	403	6.0%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	320	1985	1985	16.1%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	331	1985:1709	1976	16.7%
6/1		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	334	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	733	2105	2105	34.8%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	29	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	746	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%

Full Input Data And Results

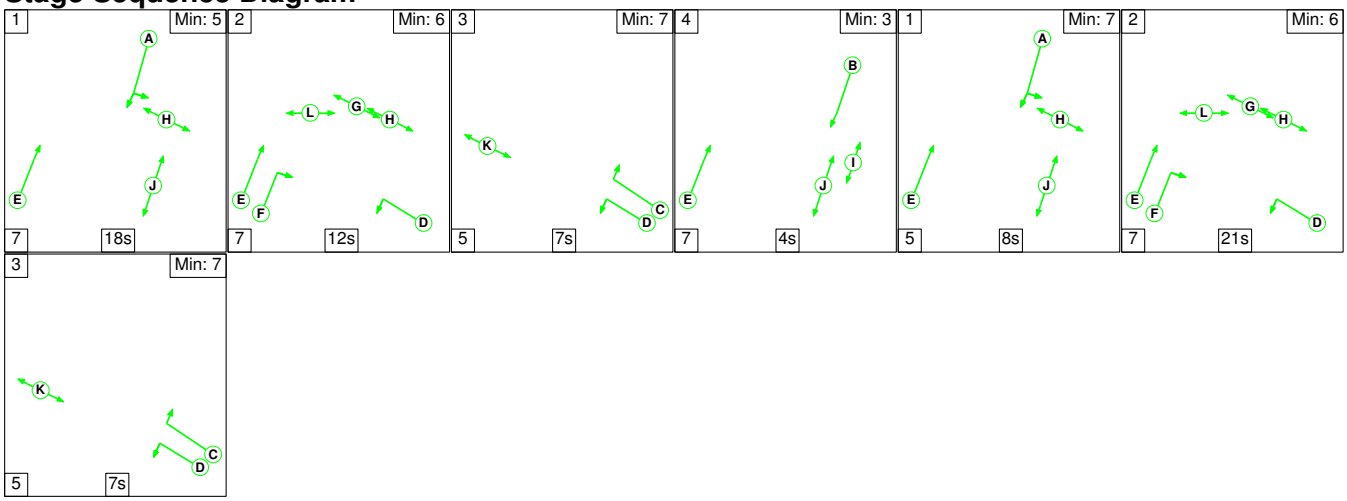
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**42**	**0**	**0**	**10.2**	**4.6**	**0.0**	**14.7**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**42**	**0**	**0**	**10.2**	**4.6**	**0.0**	**14.7**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.9	0.6	-	1.5	95.3	1.8	0.6	2.4
1/2	325	325	-	-	-	1.7	0.7	-	2.4	27.1	4.7	0.7	5.4
1/3	328	328	-	-	-	1.7	0.7	-	2.5	27.1	4.7	0.7	5.5
2/1	511	511	-	-	-	1.6	0.7	-	2.3	16.0	6.1	0.7	6.8
2/2	32	32	-	-	-	0.2	0.1	-	0.3	31.1	0.5	0.1	0.6
3/2+3/1	721	721	-	-	-	0.8	0.5	-	1.3	6.7	5.4	0.5	5.9
3/3+3/4	643	643	-	-	-	3.2	0.7	-	4.0	22.2	4.6	0.7	5.3
4/1	24	24	24	0	0	0.0	0.0	-	0.0	4.7	0.0	0.0	0.0
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	320	320	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	331	331	9	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	334	334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	733	733	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	746	746	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 49.8 Total Delay for Signalled Lanes (pcuHr): 14.20 Cycle Time (s): 120
PRC Over All Lanes (%): 49.8 Total Delay Over All Lanes(pcuHr): 14.72

Full Input Data And Results

Scenario 9: 'Fri 2017 Future Base' (FG3: 'Fri 2017 Future Base', Plan 2: 'Network Control Plan 2')

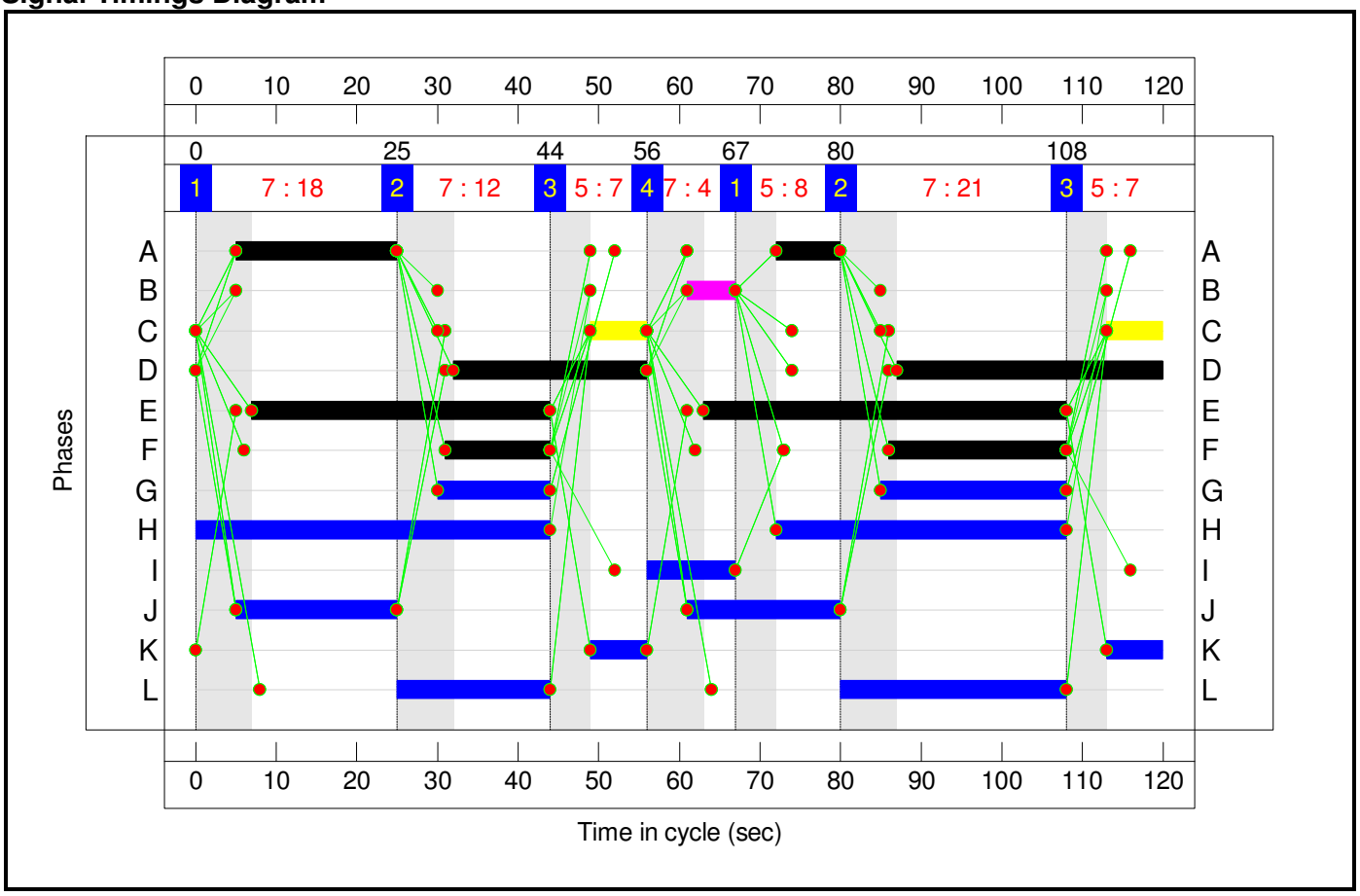
Stage Sequence Diagram



Stage Timings

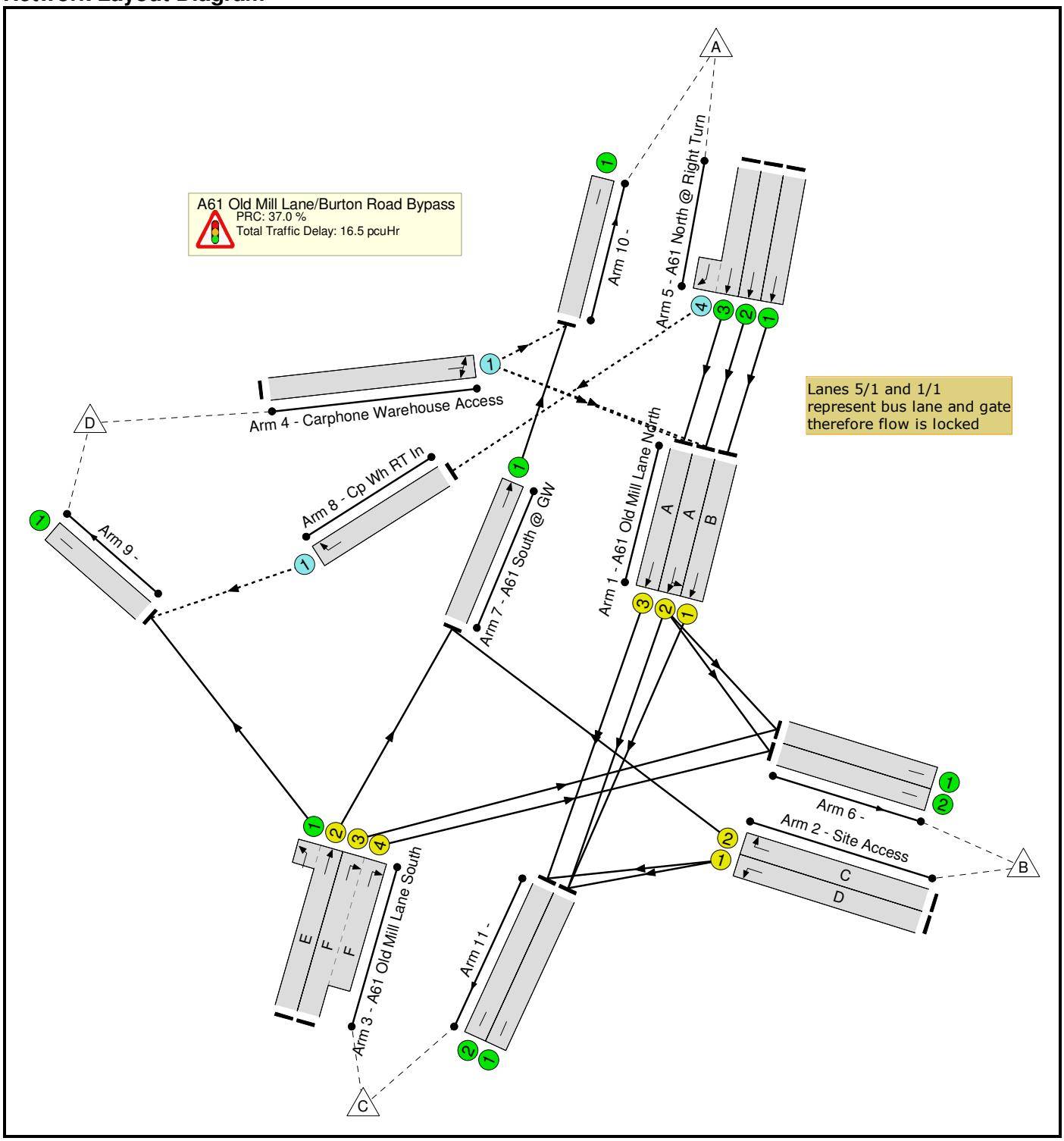
Stage	1	2	3	4	1	2	3
Duration	18	12	7	4	8	21	7
Change Point	0	25	44	56	67	80	108

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.7%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.7%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	6	-	68	1985	116	58.7%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		2	28	-	318	1978	494	64.3%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		2	28	-	319	1985	496	64.3%
2/1	Site Access Left	U	N/A	N/A	D		2	57	-	530	1892	930	57.0%
2/2	Site Access Right	U	N/A	N/A	C		2	14	-	16	1933	258	6.2%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		2	82	-	837	2015:1919	1420	58.9%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		2	35	-	759	1879:1867	1155	65.7%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	23	1795	385	6.0%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	313	1985	1985	15.8%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	322	1985:1709	1977	16.3%
6/1		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	388	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	834	2105	2105	39.6%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	843	0.9%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%

Full Input Data And Results

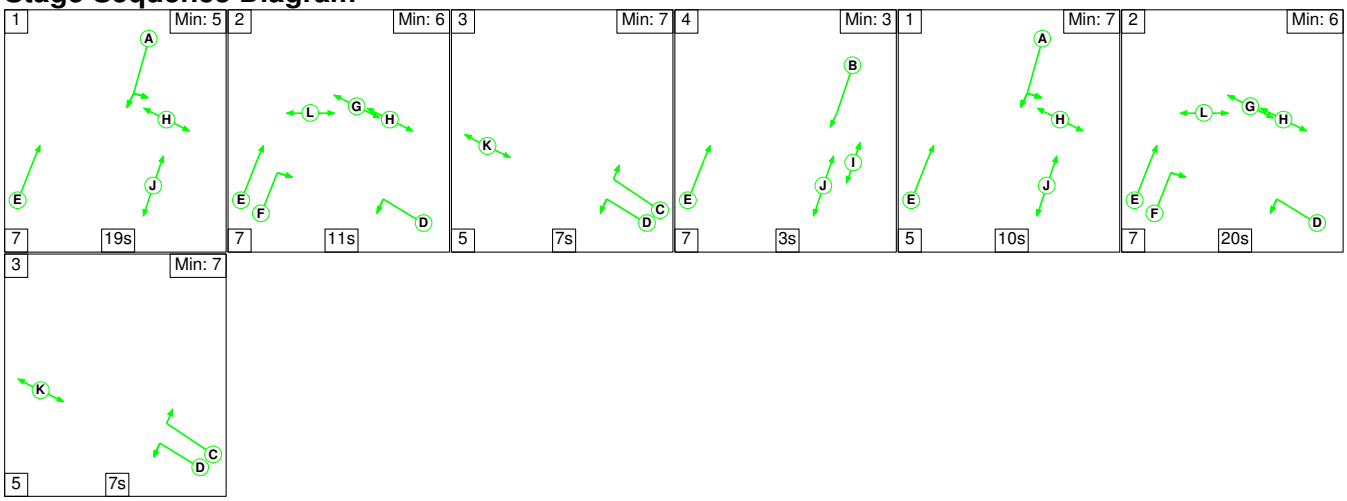
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**39**	**0**	**0**	**11.1**	**5.4**	**0.0**	**16.5**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**11.1**	**5.4**	**0.0**	**16.5**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	1.0	0.7	-	1.7	91.7	2.2	0.7	2.9
1/2	318	318	-	-	-	1.8	0.9	-	2.7	30.2	4.8	0.9	5.7
1/3	319	319	-	-	-	1.8	0.9	-	2.7	30.2	4.8	0.9	5.7
2/1	530	530	-	-	-	1.6	0.7	-	2.2	15.3	6.3	0.7	7.0
2/2	16	16	-	-	-	0.1	0.0	-	0.1	30.5	0.2	0.0	0.3
3/2+3/1	837	837	-	-	-	1.0	0.7	-	1.8	7.6	6.9	0.7	7.7
3/3+3/4	759	759	-	-	-	3.8	1.0	-	4.8	22.5	5.5	1.0	6.5
4/1	23	23	23	0	0	0.0	0.0	-	0.0	5.0	0.0	0.0	0.0
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	313	313	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	322	322	8	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	834	834	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	630	630	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 37.0 Total Delay for Signalled Lanes (pcuHr): 15.97 Cycle Time (s): 120
PRC Over All Lanes (%): 37.0 Total Delay Over All Lanes(pcuHr): 16.54

Full Input Data And Results

Scenario 10: 'Sat 2017 Future Base' (FG4: 'Sat 2017 Future Base', Plan 2: 'Network Control Plan 2')

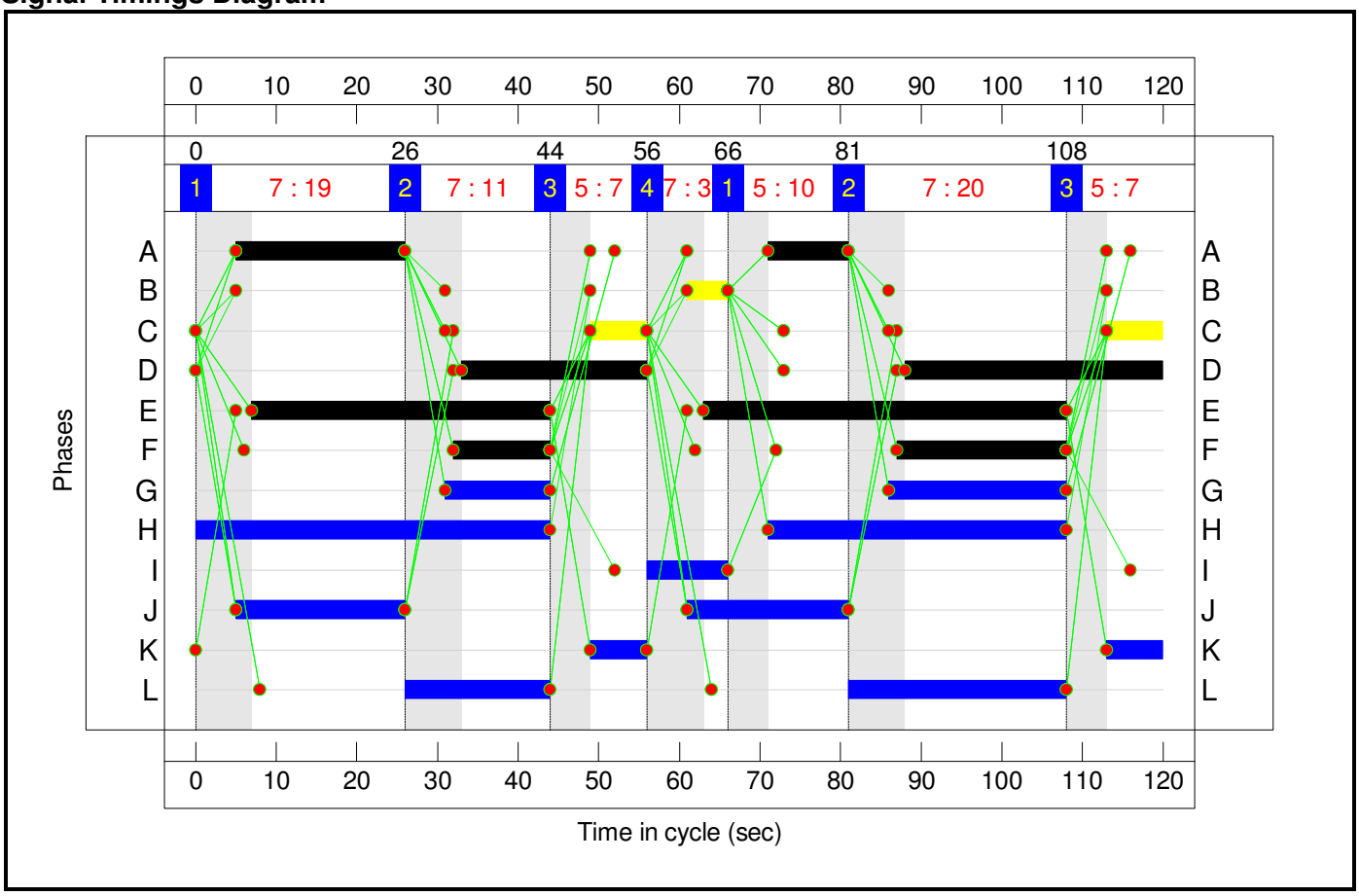
Stage Sequence Diagram



Stage Timings

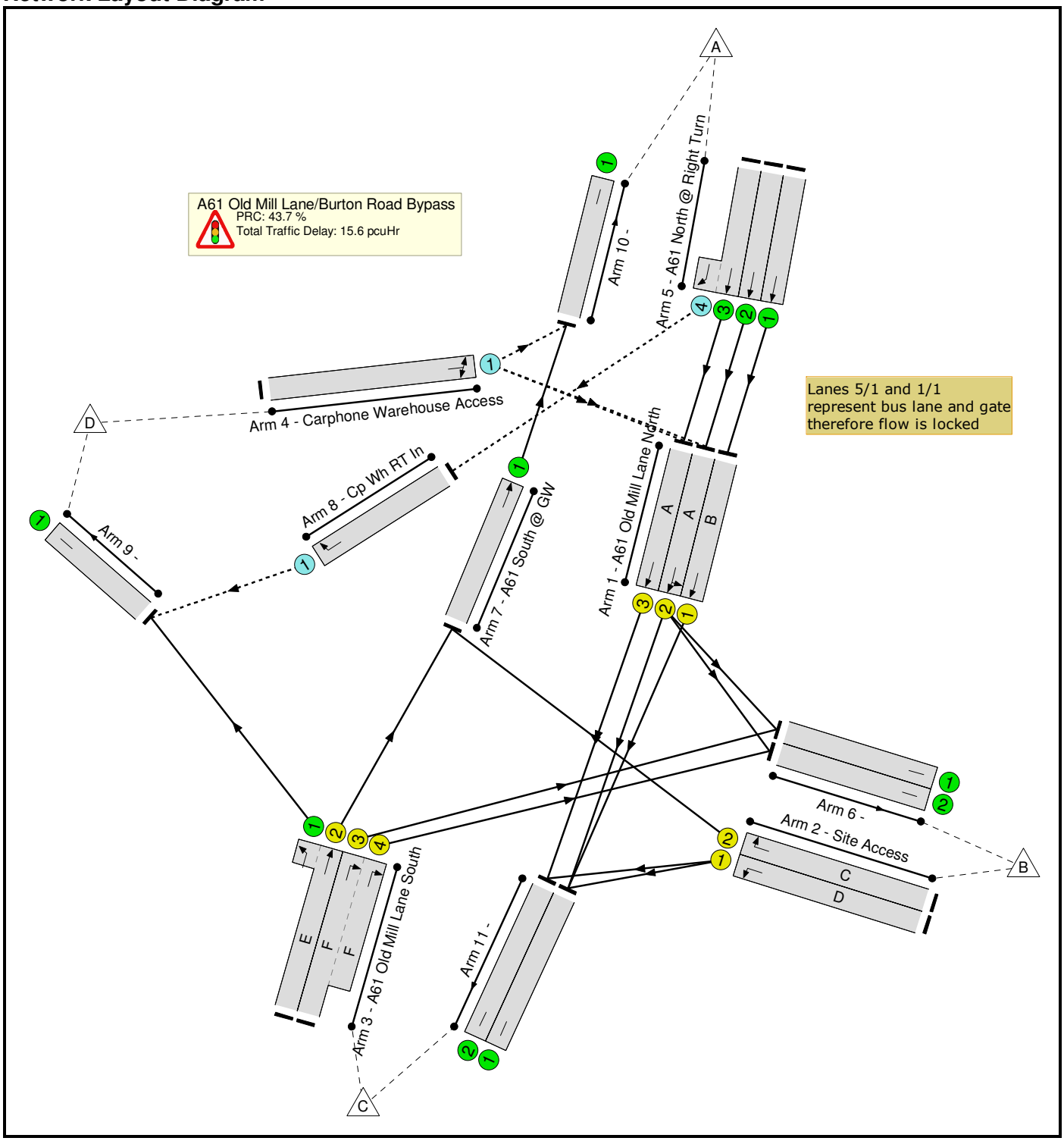
Stage	1	2	3	4	1	2	3
Duration	19	11	7	3	10	20	7
Change Point	0	26	44	56	66	81	108

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.7%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.7%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	55	1985	99	55.4%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		2	31	-	340	1976	543	62.6%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		2	31	-	342	1985	546	62.7%
2/1	Site Access Left	U	N/A	N/A	D		2	55	-	532	1892	899	59.2%
2/2	Site Access Right	U	N/A	N/A	C		2	14	-	33	1933	258	12.8%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		2	82	-	751	2015:1919	1420	52.9%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		2	33	-	669	1879:1867	1093	61.2%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	26	1797	390	6.7%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	334	1985	1985	16.8%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	345	1985:1709	1977	17.5%
6/1		U	N/A	N/A	-		-	-	-	352	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	763	2105	2105	36.2%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	777	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%

Full Input Data And Results

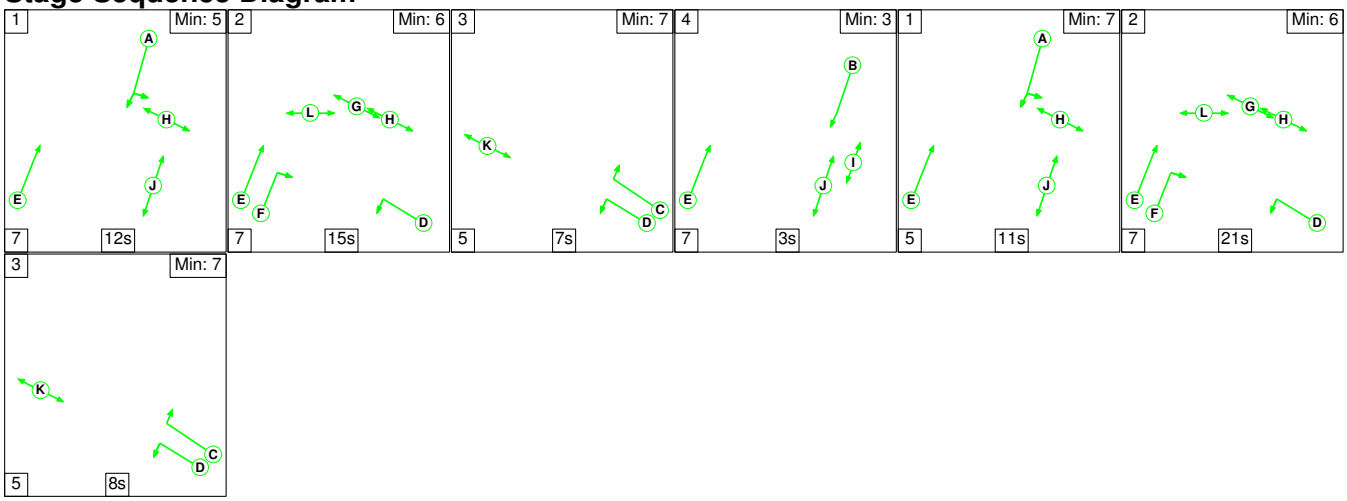
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**44**	**0**	**0**	**10.7**	**5.0**	**0.0**	**15.6**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**10.7**	**5.0**	**0.0**	**15.6**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.9	0.6	-	1.5	95.3	1.8	0.6	2.4
1/2	340	340	-	-	-	1.8	0.8	-	2.6	27.8	5.0	0.8	5.8
1/3	342	342	-	-	-	1.8	0.8	-	2.6	27.8	5.0	0.8	5.9
2/1	532	532	-	-	-	1.7	0.7	-	2.4	16.4	6.5	0.7	7.2
2/2	33	33	-	-	-	0.2	0.1	-	0.3	31.1	0.5	0.1	0.6
3/2+3/1	751	751	-	-	-	0.9	0.6	-	1.4	6.9	6.0	0.6	6.5
3/3+3/4	669	669	-	-	-	3.4	0.8	-	4.2	22.6	4.9	0.8	5.6
4/1	26	26	26	0	0	0.0	0.0	-	0.0	4.9	0.0	0.0	0.0
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	334	334	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	345	345	9	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	352	352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	763	763	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	629	629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 43.7 Total Delay for Signalled Lanes (pcuHr): 15.06 Cycle Time (s): 120
PRC Over All Lanes (%): 43.7 Total Delay Over All Lanes(pcuHr): 15.61

Full Input Data And Results

Scenario 11: 'Fri 2017 Future Base+Dev DC' (FG5: 'Fri 2017 Future Base+Dev', Plan 2: 'Network Control Plan 2')

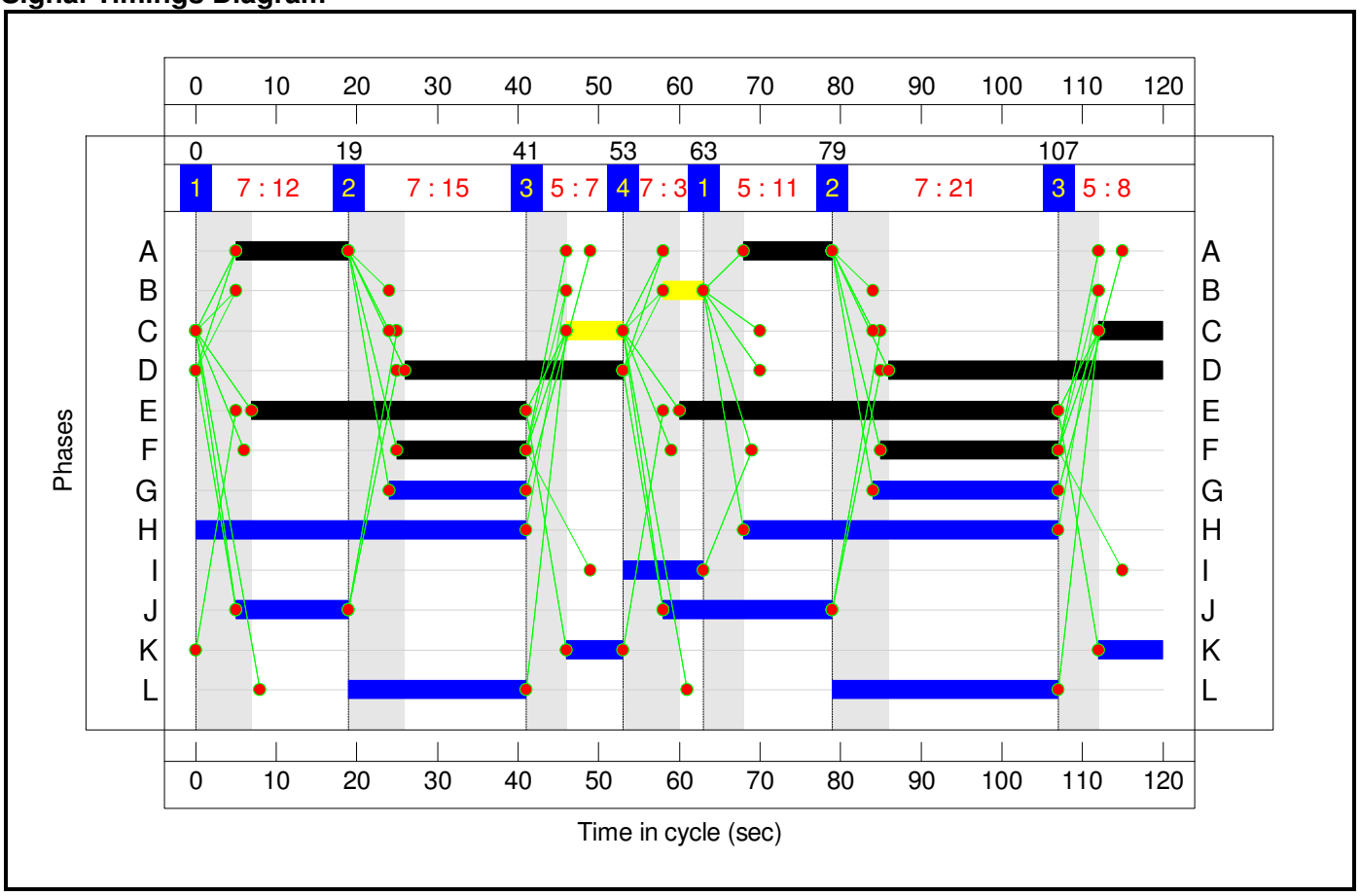
Stage Sequence Diagram



Stage Timings

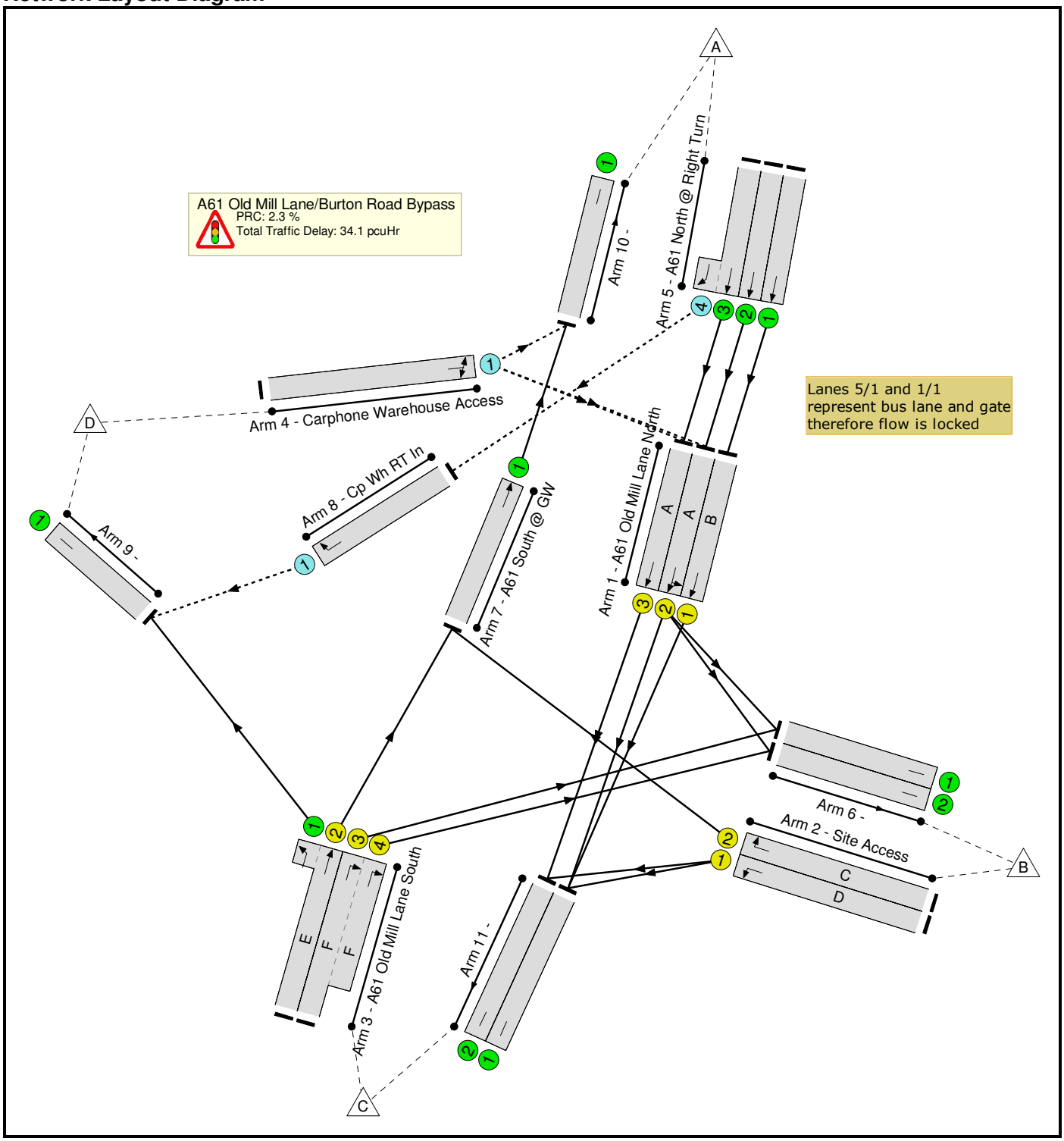
Stage	1	2	3	4	1	2	3
Duration	12	15	7	3	11	21	8
Change Point	0	19	41	53	63	79	107

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	68	1985	99	68.5%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		2	25	-	378	1922	432	87.4%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		2	25	-	393	1985	447	88.0%
2/1	Site Access Left	U	N/A	N/A	D		2	61	-	834	1892	993	84.0%
2/2	Site Access Right	U	N/A	N/A	C		2	15	-	237	1933	274	86.5%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		2	81	-	735	2015:1919	1403	52.4%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		2	38	-	1082	1879:1867	1249	86.7%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	23	1795	331	7.0%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	68	1985	1985	3.4%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	375	1985	1985	18.9%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	394	1985:1709	1979	19.9%
6/1		U	N/A	N/A	-		-	-	-	667	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	953	2105	2105	45.3%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	8	Inf	843	0.9%
9/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	810	Inf	Inf	0.0%

Full Input Data And Results

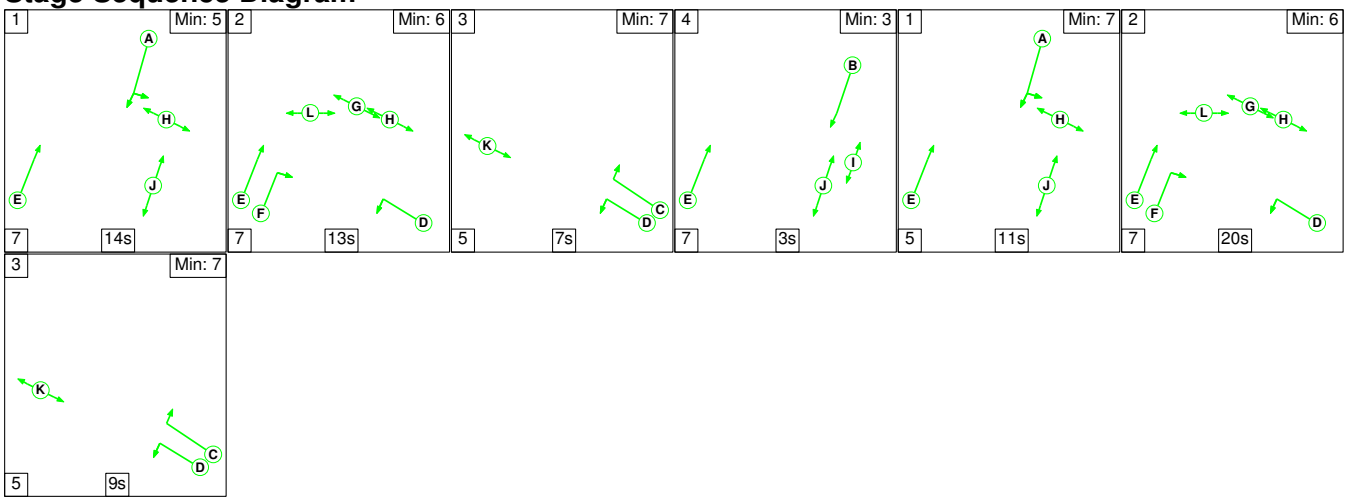
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**39**	**0**	**0**	**17.0**	**17.1**	**0.0**	**34.1**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**39**	**0**	**0**	**17.0**	**17.1**	**0.0**	**34.1**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	1.1	1.0	-	2.1	110.1	2.2	1.0	3.3
1/2	378	378	-	-	-	2.4	3.1	-	5.5	52.1	6.2	3.1	9.3
1/3	393	393	-	-	-	2.5	3.3	-	5.7	52.4	6.4	3.3	9.7
2/1	834	834	-	-	-	2.8	2.5	-	5.4	23.2	13.2	2.5	15.7
2/2	237	237	-	-	-	1.7	2.8	-	4.5	68.0	4.3	2.8	7.1
3/2+3/1	735	735	-	-	-	0.9	0.5	-	1.4	7.1	5.9	0.5	6.4
3/3+3/4	1082	1082	-	-	-	5.7	3.1	-	8.8	29.3	9.0	3.1	12.2
4/1	23	23	23	0	0	0.0	0.0	-	0.0	5.9	0.0	0.0	0.1
5/1	68	68	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	375	375	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	394	394	8	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	667	667	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	953	953	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
8/1	8	8	8	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	810	810	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 2.3 Total Delay for Signalled Lanes (pcuHr): 33.38 Cycle Time (s): 120
PRC Over All Lanes (%): 2.3 Total Delay Over All Lanes(pcuHr): 34.09

Full Input Data And Results

Scenario 12: 'Sat 2017 Future Base+Dev DC' (FG6: 'Sat 2017 Future Base+Dev', Plan 2: 'Network Control Plan 2')

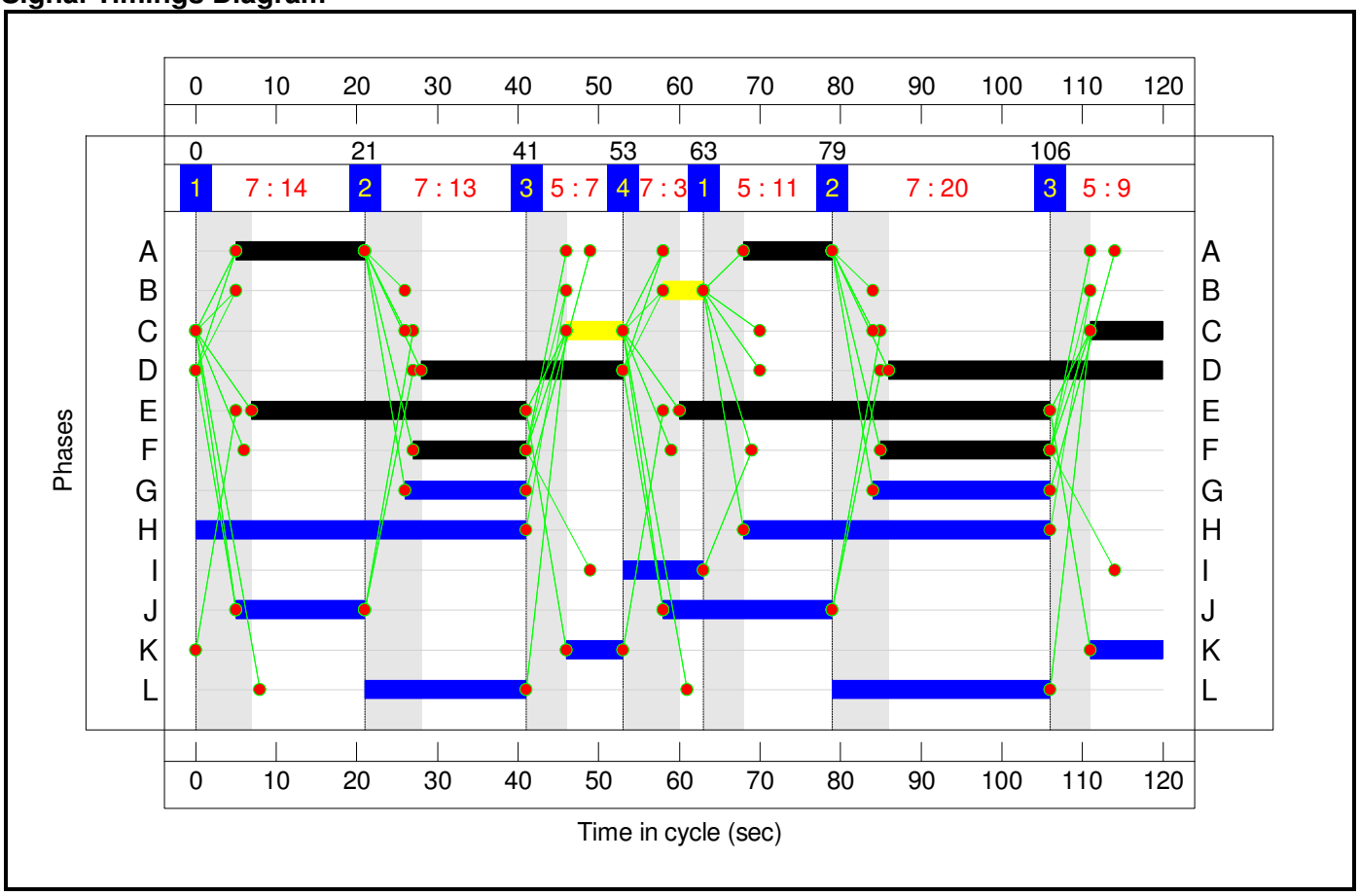
Stage Sequence Diagram



Stage Timings

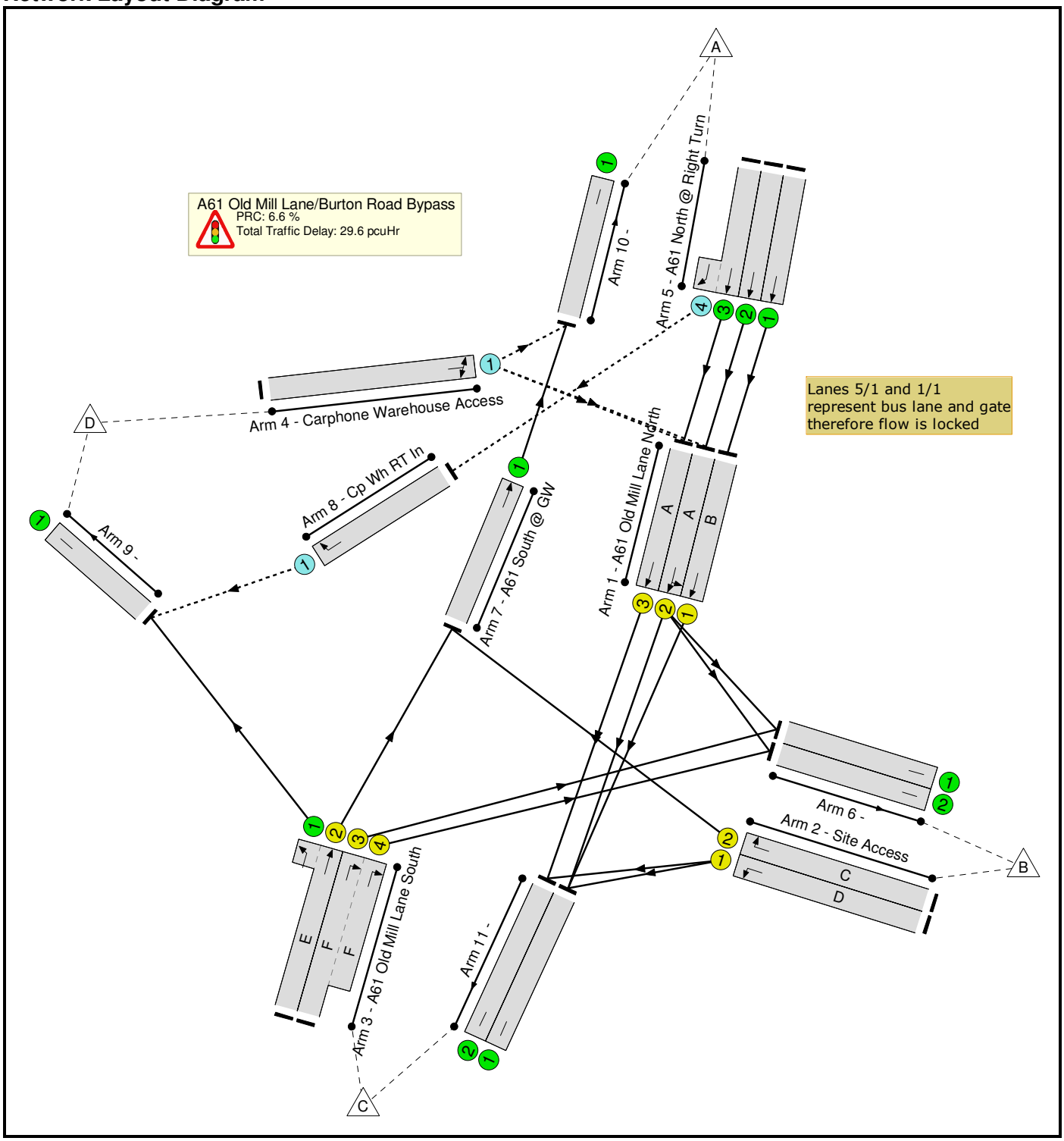
Stage	1	2	3	4	1	2	3
Duration	14	13	7	3	11	20	9
Change Point	0	21	41	53	63	79	106

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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.4%**
A61 Old Mill Lane/Burton Road Bypass	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.4%**
1/1	A61 Old Mill Lane North Ahead	U	N/A	N/A	B		1	5	-	55	1985	99	55.4%
1/2	A61 Old Mill Lane North Left Ahead	U	N/A	N/A	A		2	27	-	391	1925	465	84.0%
1/3	A61 Old Mill Lane North Ahead	U	N/A	N/A	A		2	27	-	405	1985	480	84.4%
2/1	Site Access Left	U	N/A	N/A	D		2	59	-	798	1892	962	83.0%
2/2	Site Access Right	U	N/A	N/A	C		2	16	-	235	1933	290	81.0%
3/2+3/1	A61 Old Mill Lane South Ahead Left	U	N/A	N/A	E -		2	80	-	651	2015:1919	1387	46.9%
3/3+3/4	A61 Old Mill Lane South Right	U	N/A	N/A	F		2	35	-	964	1879:1867	1155	83.5%
4/1	Carphone Warehouse Access Right Left	O	N/A	N/A	-		-	-	-	26	1797	343	7.6%
5/1	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	55	1985	1985	2.8%
5/2	A61 North @ Right Turn Ahead	U	N/A	N/A	-		-	-	-	386	1985	1985	19.4%
5/3+5/4	A61 North @ Right Turn Ahead Right	U+O	N/A	N/A	-		-	-	-	407	1985:1709	1978	20.6%
6/1		U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%

Full Input Data And Results

6/2		U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%
7/1	A61 South @ GW Ahead	U	N/A	N/A	-		-	-	-	865	2105	2105	41.1%
8/1	Cp Wh RT In Right	O	N/A	N/A	-		-	-	-	9	Inf	843	1.1%
9/1		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	879	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	804	Inf	Inf	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: A61 Old Mill Lane/Burton Road Bypass - Proposed Mitigation	**-**	**-**	**44**	**0**	**0**	**16.0**	**13.5**	**0.0**	**29.6**	**-**	**-**	**-**	**-**
A61 Old Mill Lane/Burton Road Bypass	**-**	**-**	**44**	**0**	**0**	**16.0**	**13.5**	**0.0**	**29.6**	**-**	**-**	**-**	**-**
1/1	55	55	-	-	-	0.9	0.6	-	1.5	95.3	1.8	0.6	2.4
1/2	391	391	-	-	-	2.4	2.5	-	4.8	44.4	6.2	2.5	8.7
1/3	405	405	-	-	-	2.4	2.5	-	5.0	44.2	6.4	2.5	9.0
2/1	798	798	-	-	-	2.8	2.4	-	5.2	23.3	12.2	2.4	14.6
2/2	235	235	-	-	-	1.6	2.0	-	3.6	55.6	4.2	2.0	6.2
3/2+3/1	651	651	-	-	-	0.8	0.4	-	1.2	6.8	5.2	0.4	5.7
3/3+3/4	964	964	-	-	-	5.2	2.5	-	7.6	28.5	7.7	2.5	10.1
4/1	26	26	26	0	0	0.0	0.0	-	0.0	5.7	0.0	0.0	0.1
5/1	55	55	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
5/2	386	386	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/3+5/4	407	407	9	0	0	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	601	601	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	865	865	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	9	9	9	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
9/1	30	30	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	879	879	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	804	804	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 6.6 Total Delay for Signalled Lanes (pcuHr): 28.92 Cycle Time (s): 120
PRC Over All Lanes (%): 6.6 Total Delay Over All Lanes(pcuHr): 29.58

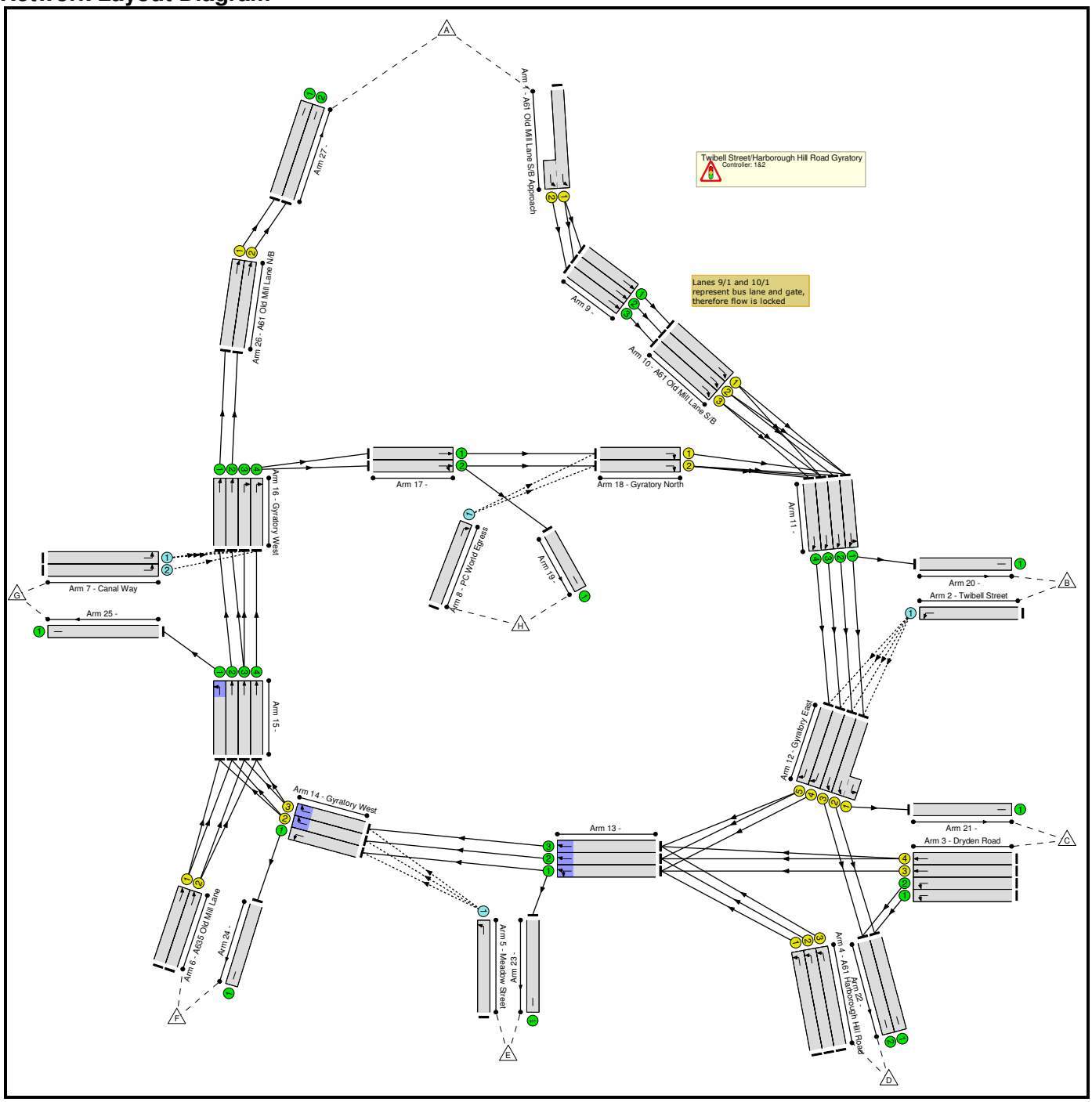
A61 Harborough Hill/Old Mill Lane Gyratory

Full Input Data And Results

User and Project Details

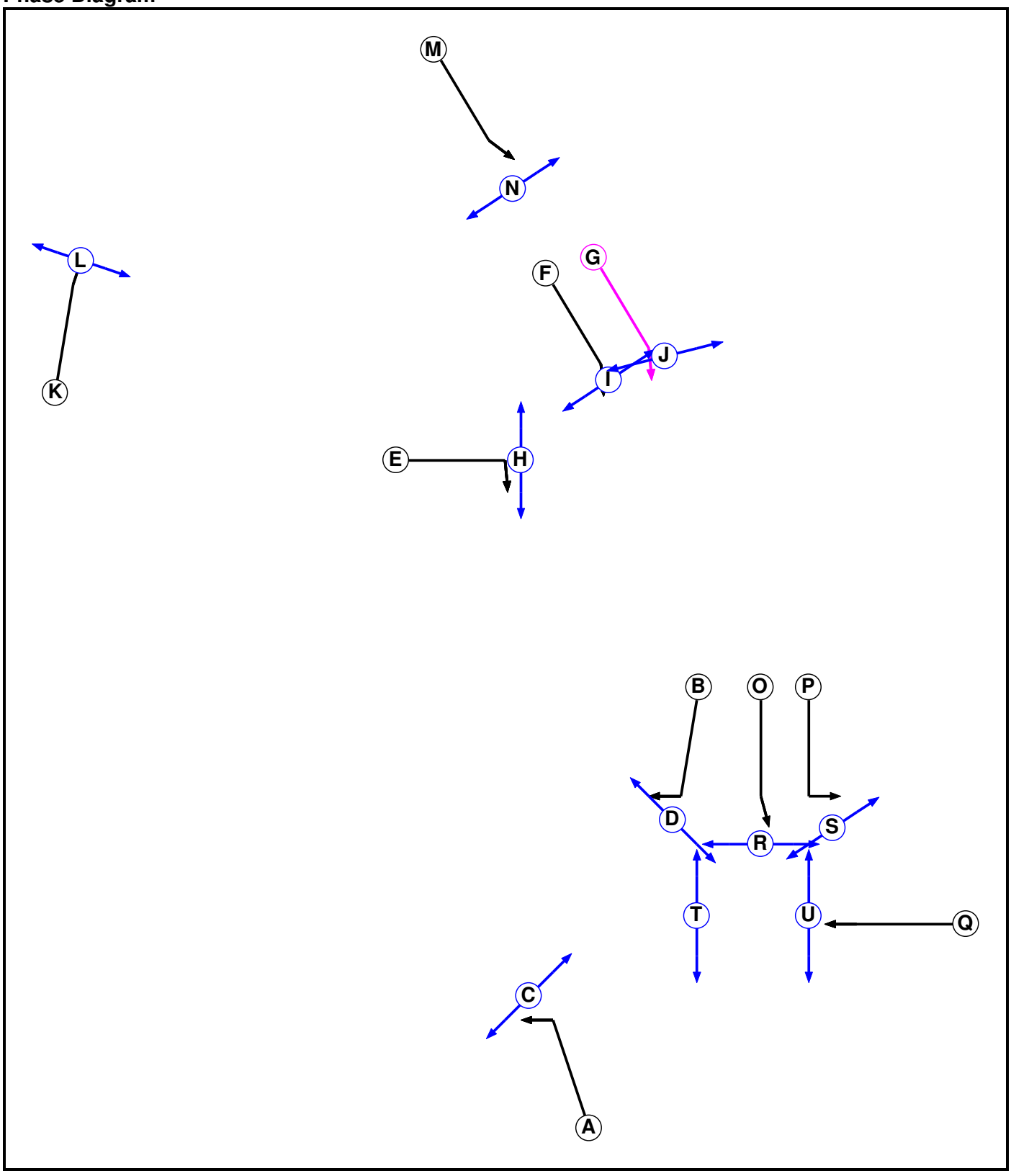
Project:	**90095 Barnsley**
Title:	**Twibwell Street/Harborough Hill Road Gyratory**
Location:	Barnsley
File name:	Twibwell St_Harborough Hill Rd Gyratory_RR67_revised staging.lsg3x
Author:	D Stoddart
Company:	Curtins
Address:	Manchester
Notes:	

Network Layout Diagram



C1

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		5	5
D	Pedestrian	1		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Bus	2		5	5
H	Pedestrian	2		5	5
I	Pedestrian	2		5	5
J	Pedestrian	2		5	5
K	Traffic	3		7	7
L	Pedestrian	3		5	5
M	Traffic	4		7	7
N	Pedestrian	4		5	5
O	Traffic	1		7	7
P	Traffic	1		7	7
Q	Traffic	1		7	7
R	Pedestrian	1		6	6
S	Pedestrian	1		6	6
T	Pedestrian	1		6	6
U	Pedestrian	1		6	6

Full Input Data And Results

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
A		5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-
B	5		-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-
C	11	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D	-	9	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E	-	-	-	-		5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
F	-	-	-	-	5		5	-	5	-	-	-	-	-	-	-	-	-	-	-	-
G	-	-	-	-	5	5		-	-	5	-	-	-	-	-	-	-	-	-	-	-
H	-	-	-	-	7	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
I	-	-	-	-	-	7	-	-		-	-	-	-	-	-	-	-	-	-	-	-
J	-	-	-	-	-	-	6	-	-		-	-	-	-	-	-	-	-	-	-	-
K	-	-	-	-	-	-	-	-	-	-		5	-	-	-	-	-	-	-	-	-
L	-	-	-	-	-	-	-	-	-	-	0		-	-	-	-	-	-	-	-	-
M	-	-	-	-	-	-	-	-	-	-	-	-		5	-	-	-	-	-	-	-
N	-	-	-	-	-	-	-	-	-	-	-	-	0		-	-	-	-	-	-	-
O	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	5	5	-	-	-
P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	5	-	-
Q	7	7	-	-	-	-	-	-	-	-	-	-	-	-	5	-		-	-	6	5
R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-		-	-	-
S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-		-	-
T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-		-
U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	

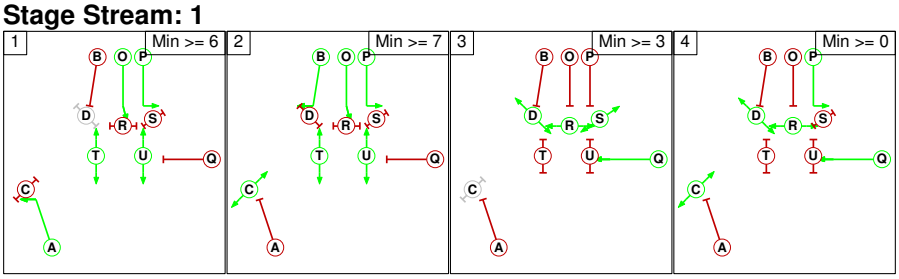
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A O P T U
1	2	B C O P T U
1	3	D Q R S
1	4	C D P Q R
2	1	E I J
2	2	G H I
2	3	F J
3	1	K
3	2	L
4	1	M
4	2	N

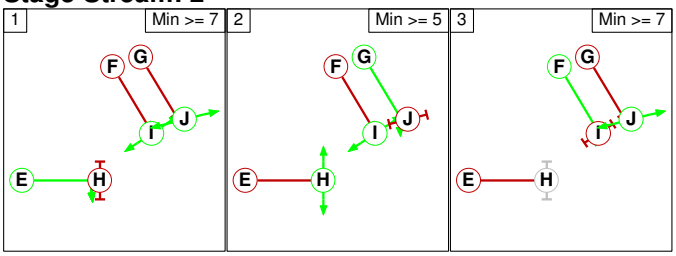
Full Input Data And Results

Stage Diagram

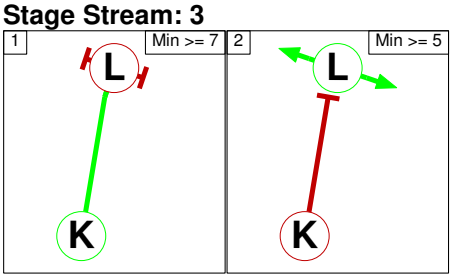
Stage Stream: 1



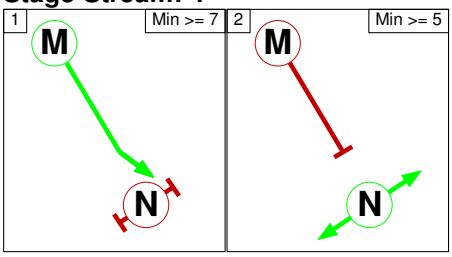
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Stage Stream: 3

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

Stage Stream: 4

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

Full Input Data And Results

Prohibited Stage Change

Stage Stream: 1

From Stage \ To Stage	1	2	3	4
1		5	8	8
2	11		8	8
3	8	9		7
4	11	9	5	

Stage Stream: 2

From Stage \ To Stage	1	2	3
1		6	7
2	7		7
3	5	6	

Stage Stream: 3

From Stage \ To Stage	1	2
1		5
2	2	

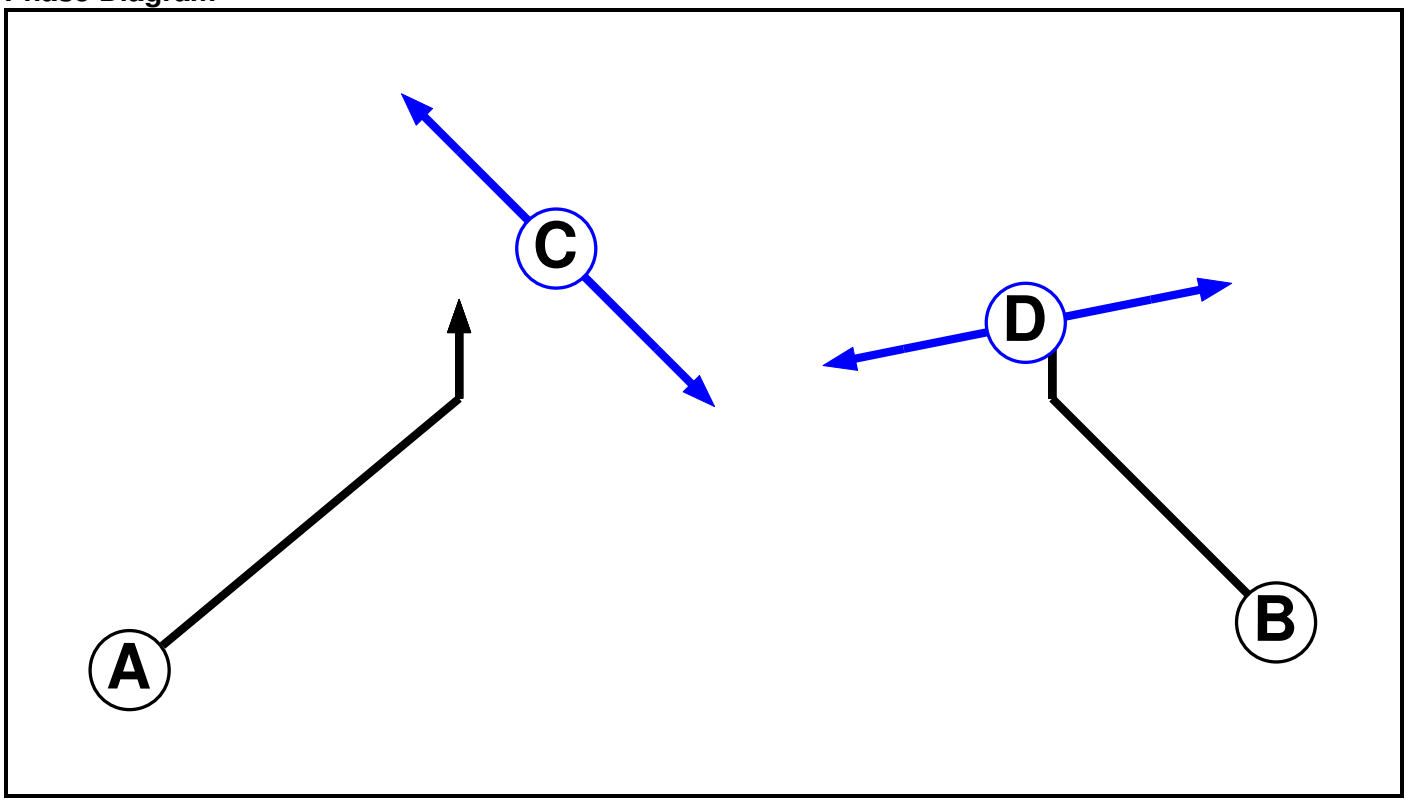
Stage Stream: 4

From Stage \ To Stage	1	2
1		5
2	2	

Full Input Data And Results

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Pedestrian		5	5
D	Pedestrian		5	5

Phase Intergreens Matrix

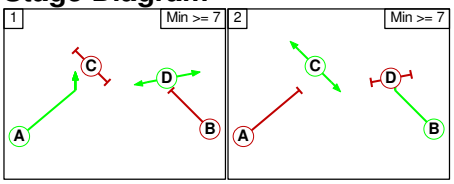
	Starting Phase				
Terminating Phase		A	B	C	D
	A		5	5	-
	B	5		-	5
	C	7	-		-
	D	-	8	-	

Phases in Stage

Stage No.	Phases in Stage
1	A D
2	B C

Full Input Data And Results

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage	
		1	2
From Stage	1		8
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Twibell Street/Harborough Hill Road Gyratory

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/1 (Twibell Street)	12/2 (Left)	715	11/1	0.22	11/1	-	-	-	-	-
			11/2	0.22	11/2					
			11/3	0.22	11/3					
			11/4	0.22	11/4					
	12/3 (Left)	715	11/1	0.22	11/1					
			11/2	0.22	11/2					
			11/3	0.22	11/3					
			11/4	0.22	11/4					
	12/4 (Left)	715	11/1	0.22	11/1					
			11/2	0.22	11/2					
			11/3	0.22	11/3					
			11/4	0.22	11/4					
	12/5 (Left)	715	11/1	0.22	11/1					
			11/2	0.22	11/2					
			11/3	0.22	11/3					
			11/4	0.22	11/4					
5/1 (Meadow Street)	14/1 (Left)	715	13/1	0.22	13/1	-	-	-	-	-
			13/2	0.22	13/2					
			13/3	0.22	13/3					
	14/2 (Left)	715	13/1	0.22	13/1					
			13/2	0.22	13/2					
			13/3	0.22	13/3					
	14/3 (Left)	715	13/1	0.22	13/1					

Full Input Data And Results

			13/2	0.22	13/2					
			13/3	0.22	13/3					
7/1 (Canal Way)	16/1 (Left)	715	15/2	0.22	15/2	-	-	-	-	-
			15/3	0.22	15/3					
			15/4	0.22	15/4					
	16/2 (Left)	715	15/2	0.22	15/2					
			15/3	0.22	15/3					
			15/4	0.22	15/4					
	16/3 (Left)	715	15/2	0.22	15/2					
			15/3	0.22	15/3					
			15/4	0.22	15/4					
7/2 (Canal Way)	16/4 (Left)	1000	15/2	0.33	15/2	-	-	-	-	-
			15/3	0.33	15/3					
			15/4	0.33	15/4					
8/1 (PC World Egress)	18/1 (Right)	850	17/1	0.35	17/1	-	-	-	-	-
			17/2	0.35	17/2					
	18/2 (Right)	850	17/1	0.35	17/1					
			17/2	0.35	17/2					

Full Input Data And Results

Lane Input Data

Junction: Twibell Street/Harborough Hill Road Gyratory												
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 (A61 Old Mill Lane S/B Approach)	U	M	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 9 Left	Inf
1/2 (A61 Old Mill Lane S/B Approach)	U	M	2	3	3.5	Geom	-	3.25	0.00	Y	Arm 9 Left	Inf
2/1 (Twibell Street)	O		2	3	60.0	Geom	-	5.00	0.00	Y	Arm 12 Left	30.00
3/1 (Dryden Road)	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 22 Left	30.00
3/2 (Dryden Road)	U		2	3	60.0	Geom	-	3.00	0.00	Y	Arm 22 Left	30.00
3/3 (Dryden Road)	U	Q	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
3/4 (Dryden Road)	U	Q	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
4/1 (A61 Harborough Hill Road)	U	A	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 13 Left	Inf
4/2 (A61 Harborough Hill Road)	U	A	2	3	60.0	Geom	-	3.90	0.00	N	Arm 13 Left	Inf
4/3 (A61 Harborough Hill Road)	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 13 Left	Inf
5/1 (Meadow Street)	O		2	3	60.0	Geom	-	3.37	0.00	Y	Arm 14 Left	30.00
6/1 (A635 Old Mill Lane)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 15 Ahead	Inf
6/2 (A635 Old Mill Lane)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 15 Ahead	Inf
7/1 (Canal Way)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 16 Left	30.00
7/2 (Canal Way)	O		2	3	60.0	Geom	-	3.50	0.00	N	Arm 16 Left	30.00
8/1 (PC World Egress)	O		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 18 Right	Inf
9/1	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 10 Ahead	Inf
9/2	U		2	3	60.0	Geom	-	3.25	0.00	N	Arm 10 Ahead	Inf

Full Input Data And Results

9/3	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 10 Ahead	Inf
10/1 (A61 Old Mill Lane S/B)	U	G	2	3	7.7	Geom	-	3.75	0.00	Y	Arm 11 Ahead	Inf
10/2 (A61 Old Mill Lane S/B)	U	F	2	3	7.9	Geom	-	3.25	0.00	N	Arm 11 Ahead	Inf
10/3 (A61 Old Mill Lane S/B)	U	F	2	3	8.2	Geom	-	3.25	0.00	Y	Arm 11 Ahead	Inf
11/1	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 12 Ahead	Inf
											Arm 20 Left	Inf
11/2	U		2	3	60.0	Geom	-	3.25	0.00	N	Arm 12 Ahead	Inf
11/3	U		2	3	60.0	Geom	-	3.25	0.00	N	Arm 12 Ahead	Inf
11/4	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 12 Ahead	Inf
12/1 (Gyratory East)	U	P	2	3	2.6	Geom	-	3.50	0.00	Y	Arm 21 Left	Inf
12/2 (Gyratory East)	U	O	2	3	19.8	Geom	-	3.50	0.00	Y	Arm 22 Ahead	Inf
12/3 (Gyratory East)	U	O	2	3	21.9	Geom	-	3.75	0.00	Y	Arm 22 Ahead	Inf
12/4 (Gyratory East)	U	B	2	3	21.2	Geom	-	4.00	0.00	Y	Arm 13 Right	Inf
12/5 (Gyratory East)	U	B	2	3	19.8	Geom	-	4.00	0.00	Y	Arm 13 Right	Inf
13/1	U		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 14 Ahead	Inf
											Arm 23 Left	30.00
13/2	U		2	3	60.0	Geom	-	3.50	0.00	N	Arm 14 Ahead	Inf
13/3	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 14 Ahead	Inf
14/1 (Gyratory West)	U		2	3	33.9	Geom	-	4.00	0.00	Y	Arm 24 Left	Inf
14/2 (Gyratory West)	U	B	2	3	19.3	Geom	-	3.75	0.00	Y	Arm 15 Right	Inf
14/3 (Gyratory West)	U	B	2	3	18.6	Geom	-	3.75	0.00	Y	Arm 15 Right	Inf
15/1	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 25 Left	30.00

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15/2	U		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 16 Ahead	Inf
15/3	U		2	3	60.0	Geom	-	3.75	0.00	N	Arm 16 Ahead	Inf
15/4	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 16 Ahead	Inf
16/1 (Gyratory West)	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 26 Ahead	Inf
16/2 (Gyratory West)	U		2	3	60.0	Geom	-	3.50	0.00	N	Arm 26 Ahead	Inf
16/3 (Gyratory West)	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 17 Right	Inf
16/4 (Gyratory West)	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 17 Right	Inf
17/1	U		2	3	60.0	Geom	-	3.75	0.00	Y	Arm 18 Ahead	Inf
17/2	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm 18 Ahead	Inf
											Arm 19 Right	30.00
18/1 (Gyratory North)	U	E	2	3	21.7	Geom	-	3.50	0.00	Y	Arm 11 Right	Inf
18/2 (Gyratory North)	U	E	2	3	20.9	Geom	-	3.50	0.00	Y	Arm 11 Right	Inf
19/1	U		2	3	60.0	Inf	-	-	-	-	-	-
20/1	U		2	3	60.0	Inf	-	-	-	-	-	-
21/1	U		2	3	60.0	Inf	-	-	-	-	-	-
22/1	U		2	3	60.0	Inf	-	-	-	-	-	-
22/2	U		2	3	60.0	Inf	-	-	-	-	-	-
23/1	U		2	3	60.0	Inf	-	-	-	-	-	-
24/1	U		2	3	60.0	Inf	-	-	-	-	-	-
25/1	U		2	3	60.0	Inf	-	-	-	-	-	-
26/1 (A61 Old Mill Lane N/B)	U	K	2	3	23.8	Geom	-	3.50	0.00	Y	Arm 27 Ahead	Inf
26/2 (A61 Old Mill Lane N/B)	U	K	2	3	23.8	Geom	-	3.75	0.00	Y	Arm 27 Ahead	Inf
27/1	U		2	3	60.0	Inf	-	-	-	-	-	-
27/2	U		2	3	60.0	Inf	-	-	-	-	-	-

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Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Fri 2011 Obs'	15:45	16:45	01:00	
2: 'Sat 2011 Obs'	12:30	13:30	01:00	
3: 'Fri 2012 Future Base'	15:45	16:45	01:00	
4: 'Sat 2012 Future Base'	12:30	13:30	01:00	
5: 'Fri 2017 Future Base'	15:45	16:45	01:00	
6: 'Sat 2017 Future Base'	12:30	13:30	01:00	
7: 'Fri 2017 Future Base+Dev'	15:45	16:45	01:00	
8: 'Sat 2017 Future Base+Dev'	12:30	13:30	01:00	

Scenario 1: 'Fri 2011 Obs' (FG1: 'Fri 2011 Obs', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	8	14	94	595	0	306	176	4	1197
	B	0	0	7	22	0	6	0	6	41
	C	44	0	0	95	1	30	16	1	187
	D	581	15	68	35	14	143	220	9	1085
	E	4	1	0	2	0	8	4	0	19
	F	594	5	56	130	5	2	287	0	1079
	G	107	1	21	154	0	160	0	0	443
	H	2	3	1	3	5	0	1	0	15
	Tot.	1340	39	247	1036	25	655	704	20	4066

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Traffic Lane Flows

Lane	Scenario 1: Fri 2011 Obs
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1197(In) 761(Out)
1/2 (short)	436
2/1	41
3/1	70
3/2	25
3/3	31
3/4	61
4/1	157
4/2	456
4/3	472
5/1	19
6/1	545
6/2	534
7/1	196
7/2	247
8/1	15
9/1	73
9/2	688
9/3	436
10/1	73
10/2	688
10/3	436
11/1	611
11/2	587
11/3	478
11/4	191
12/1 (short)	247
12/2 (with short)	594(In) 347(Out)
12/3	594
12/4	484
12/5	197
13/1	672
13/2	656
13/3	530
14/1	655
14/2	660
14/3	537
15/1	704

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15/2	501
15/3	940
15/4	131
16/1	570
16/2	770
16/3	297
16/4	378
17/1	297
17/2	378
18/1	303
18/2	367
19/1	20
20/1	39
21/1	247
22/1	417
22/2	619
23/1	25
24/1	655
25/1	704
26/1	570
26/2	770
27/1	570
27/2	770

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Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	93.6 %	1990	1990

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				Arm 20 Left	Inf	6.4 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	96.3 %	2011	2011
				Arm 23 Left	30.00	3.7 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	94.7 %	1960	1960
				Arm 19 Right	30.00	5.3 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

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18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Sat 2011 Obs' (FG2: 'Sat 2011 Obs', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	24	21	99	476	4	353	201	4	1182
	B	5	0	10	31	0	3	4	0	53
	C	90	3	0	156	2	68	38	0	357
	D	495	18	106	16	2	111	224	10	982
	E	1	0	2	1	0	10	1	0	15
	F	432	8	86	68	0	3	264	8	869
	G	143	5	37	179	0	149	0	2	515
	H	4	4	0	5	11	0	2	0	26
	Tot.	1194	59	340	932	19	697	734	24	3999

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Traffic Lane Flows

Lane	Scenario 2: Sat 2011 Obs
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1182(In) 654(Out)
1/2 (short)	528
2/1	53
3/1	105
3/2	51
3/3	70
3/4	131
4/1	113
4/2	441
4/3	428
5/1	15
6/1	442
6/2	427
7/1	235
7/2	280
8/1	26
9/1	58
9/2	596
9/3	528
10/1	58
10/2	596
10/3	528
11/1	590
11/2	544
11/3	520
11/4	235
12/1 (short)	340
12/2 (with short)	569(In) 229(Out)
12/3	547
12/4	523
12/5	244
13/1	706
13/2	698
13/3	546
14/1	697
14/2	699
14/3	550
15/1	734

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15/2	407
15/3	892
15/4	85
16/1	505
16/2	689
16/3	340
16/4	365
17/1	340
17/2	365
18/1	349
18/2	358
19/1	24
20/1	59
21/1	340
22/1	334
22/2	598
23/1	19
24/1	697
25/1	734
26/1	505
26/2	689
27/1	505
27/2	689

Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	90.0 %	1990	1990

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				Arm 20 Left	Inf	10.0 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	97.3 %	2012	2012
				Arm 23 Left	30.00	2.7 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	93.4 %	1959	1959
				Arm 19 Right	30.00	6.6 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Fri 2012 Future Base' (FG3: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	0	29	94	604	0	313	177	4	1221
	B	0	0	18	57	0	15	0	6	96
	C	44	0	0	95	1	30	16	1	187
	D	590	34	68	35	14	144	221	9	1115
	E	4	2	0	2	0	8	4	0	20
	F	602	11	56	131	5	2	288	0	1095
	G	107	2	21	155	0	161	0	0	446
	H	2	7	1	3	5	0	1	0	19
	Tot.	1349	85	258	1082	25	673	707	20	4199

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Traffic Lane Flows

Lane	Scenario 3: Fri 2012 Future Base
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1221(In) 785(Out)
1/2 (short)	436
2/1	96
3/1	71
3/2	24
3/3	31
3/4	61
4/1	158
4/2	471
4/3	486
5/1	20
6/1	554
6/2	541
7/1	195
7/2	251
8/1	19
9/1	73
9/2	712
9/3	436
10/1	73
10/2	712
10/3	436
11/1	637
11/2	618
11/3	486
11/4	184
12/1 (short)	258
12/2 (with short)	608(In) 350(Out)
12/3	637
12/4	501
12/5	190
13/1	690
13/2	665
13/3	543
14/1	673
14/2	669
14/3	551
15/1	707

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15/2	516
15/3	955
15/4	137
16/1	561
16/2	788
16/3	317
16/4	388
17/1	317
17/2	388
18/1	327
18/2	377
19/1	20
20/1	85
21/1	258
22/1	421
22/2	661
23/1	25
24/1	673
25/1	707
26/1	561
26/2	788
27/1	561
27/2	788

Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	86.7 %	1990	1990

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				Arm 20 Left	Inf	13.3 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	96.4 %	2011	2011
				Arm 23 Left	30.00	3.6 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	94.8 %	1960	1960
				Arm 19 Right	30.00	5.2 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Sat 2012 Future Base' (FG4: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	2	48	99	489	4	364	202	4	1212
	B	12	0	25	74	0	7	10	0	128
	C	90	7	0	157	2	68	38	0	362
	D	508	41	106	16	2	112	225	10	1020
	E	1	0	2	1	0	10	1	0	15
	F	444	19	86	68	0	3	265	8	893
	G	144	13	37	180	0	150	0	2	526
	H	4	10	0	5	11	0	2	0	32
	Tot.	1205	138	355	990	19	714	743	24	4188

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Sat 2012 Future Base
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1212(In) 694(Out)
1/2 (short)	518
2/1	128
3/1	103
3/2	54
3/3	70
3/4	135
4/1	114
4/2	455
4/3	451
5/1	15
6/1	449
6/2	444
7/1	234
7/2	292
8/1	32
9/1	58
9/2	636
9/3	518
10/1	58
10/2	636
10/3	518
11/1	650
11/2	577
11/3	532
11/4	214
12/1 (short)	355
12/2 (with short)	600(In) 245(Out)
12/3	588
12/4	539
12/5	236
13/1	723
13/2	711
13/3	566
14/1	714
14/2	712
14/3	570
15/1	743

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15/2	418
15/3	923
15/4	91
16/1	493
16/2	712
16/3	370
16/4	383
17/1	370
17/2	383
18/1	384
18/2	377
19/1	24
20/1	138
21/1	355
22/1	348
22/2	642
23/1	19
24/1	714
25/1	743
26/1	493
26/2	712
27/1	493
27/2	712

Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	78.8 %	1990	1990

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				Arm 20 Left	Inf	21.2 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	97.4 %	2012	2012
				Arm 23 Left	30.00	2.6 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	93.7 %	1959	1959
				Arm 19 Right	30.00	6.3 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Fri 2017 Future Base' (FG5: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	0	30	98	628	0	323	184	4	1267
	B	0	0	19	59	0	16	0	6	100
	C	46	0	0	99	1	31	17	1	195
	D	613	35	71	37	15	150	230	9	1160
	E	4	2	0	2	0	8	4	0	20
	F	623	11	59	136	5	2	300	0	1136
	G	112	2	22	161	0	167	0	0	464
	H	2	7	1	3	5	0	1	0	19
	Tot.	1400	87	270	1125	26	697	736	20	4361

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Fri 2017 Future Base
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1267(In) 814(Out)
1/2 (short)	453
2/1	100
3/1	74
3/2	25
3/3	32
3/4	64
4/1	165
4/2	489
4/3	506
5/1	20
6/1	574
6/2	562
7/1	197
7/2	267
8/1	19
9/1	73
9/2	741
9/3	453
10/1	73
10/2	741
10/3	453
11/1	690
11/2	615
11/3	502
11/4	191
12/1 (short)	270
12/2 (with short)	663(In) 393(Out)
12/3	633
12/4	518
12/5	197
13/1	715
13/2	691
13/3	565
14/1	697
14/2	695
14/3	573
15/1	736

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15/2	533
15/3	1010
15/4	125
16/1	598
16/2	802
16/3	340
16/4	392
17/1	340
17/2	392
18/1	350
18/2	381
19/1	20
20/1	87
21/1	270
22/1	467
22/2	658
23/1	26
24/1	697
25/1	736
26/1	598
26/2	802
27/1	598
27/2	802

Full Input Data And Results

Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	87.4 %	1990	1990

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				Arm 20 Left	Inf	12.6 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	96.4 %	2011	2011
				Arm 23 Left	30.00	3.6 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	94.9 %	1960	1960
				Arm 19 Right	30.00	5.1 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

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18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Sat 2017 Future Base' (FG6: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	2	50	104	510	4	377	211	4	1262
	B	13	0	26	77	0	7	10	0	133
	C	94	7	0	164	2	71	40	0	378
	D	529	43	110	17	2	116	235	10	1062
	E	1	0	2	1	0	10	1	0	15
	F	460	20	90	71	0	3	277	8	929
	G	150	14	39	188	0	156	0	2	549
	H	4	10	0	5	12	0	2	0	33
	Tot.	1253	144	371	1033	20	740	776	24	4361

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Sat 2017 Future Base
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1262(In) 722(Out)
1/2 (short)	540
2/1	133
3/1	106
3/2	58
3/3	73
3/4	141
4/1	118
4/2	472
4/3	472
5/1	15
6/1	472
6/2	457
7/1	243
7/2	306
8/1	33
9/1	58
9/2	664
9/3	540
10/1	58
10/2	664
10/3	540
11/1	682
11/2	599
11/3	552
11/4	223
12/1 (short)	371
12/2 (with short)	629(In) 258(Out)
12/3	611
12/4	559
12/5	246
13/1	750
13/2	739
13/3	592
14/1	740
14/2	740
14/3	596
15/1	776

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15/2	436
15/3	960
15/4	93
16/1	540
16/2	713
16/3	386
16/4	399
17/1	386
17/2	399
18/1	400
18/2	394
19/1	24
20/1	144
21/1	371
22/1	364
22/2	669
23/1	20
24/1	740
25/1	776
26/1	540
26/2	713
27/1	540
27/2	713

Full Input Data And Results

Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	78.9 %	1990	1990

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				Arm 20 Left	Inf	21.1 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	97.3 %	2012	2012
				Arm 23 Left	30.00	2.7 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	94.0 %	1959	1959
				Arm 19 Right	30.00	6.0 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

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18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Fri 2017 Future Base+Dev' (FG7: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	0	6	98	810	6	447	104	4	1475
	B	0	0	3	7	0	2	0	1	13
	C	46	0	0	99	1	31	17	1	195
	D	813	5	71	37	15	136	186	9	1272
	E	4	0	0	2	0	8	4	0	18
	F	751	1	59	121	5	2	279	0	1218
	G	33	0	22	117	0	146	0	0	318
	H	2	1	1	3	5	0	1	0	13
	Tot.	1649	13	254	1196	32	772	591	15	4522

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Fri 2017 Future Base+Dev
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1475(In) 972(Out)
1/2 (short)	503
2/1	13
3/1	65
3/2	34
3/3	32
3/4	64
4/1	151
4/2	573
4/3	548
5/1	18
6/1	614
6/2	604
7/1	120
7/2	198
8/1	13
9/1	79
9/2	893
9/3	503
10/1	79
10/2	893
10/3	503
11/1	689
11/2	665
11/3	611
11/4	111
12/1 (short)	254
12/2 (with short)	686(In) 432(Out)
12/3	665
12/4	613
12/5	112
13/1	796
13/2	697
13/3	600
14/1	772
14/2	701
14/3	606
15/1	591

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15/2	724
15/3	1083
15/4	127
16/1	743
16/2	906
16/3	278
16/4	325
17/1	278
17/2	325
18/1	283
18/2	318
19/1	15
20/1	13
21/1	254
22/1	497
22/2	699
23/1	32
24/1	772
25/1	591
26/1	743
26/2	906
27/1	743
27/2	906

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Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	98.1 %	1990	1990

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				Arm 20 Left	Inf	1.9 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	96.0 %	2011	2011
				Arm 23 Left	30.00	4.0 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	95.4 %	1960	1960
				Arm 19 Right	30.00	4.6 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

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18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Sat 2017 Future Base+Dev' (FG8: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination								
		A	B	C	D	E	F	G	H	Tot.
Origin	A	2	9	104	676	10	491	135	4	1431
	B	2	0	3	12	0	1	1	0	19
	C	94	1	0	164	2	71	40	0	372
	D	715	8	110	17	2	103	194	10	1159
	E	1	0	2	1	0	10	1	0	15
	F	579	3	90	58	0	3	257	8	998
	G	77	2	39	147	0	137	0	2	404
	H	4	1	0	5	12	0	2	0	24
	Tot.	1474	24	348	1080	26	816	630	24	4422

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Sat 2017 Future Base+Dev
Junction: Twibell Street/Harborough Hill Road Gyratory	
1/1 (with short)	1431(In) 847(Out)
1/2 (short)	584
2/1	19
3/1	98
3/2	66
3/3	73
3/4	135
4/1	105
4/2	541
4/3	513
5/1	15
6/1	505
6/2	493
7/1	154
7/2	250
8/1	24
9/1	58
9/2	789
9/3	584
10/1	58
10/2	789
10/3	584
11/1	681
11/2	592
11/3	653
11/4	147
12/1 (short)	348
12/2 (with short)	671(In) 323(Out)
12/3	593
12/4	654
12/5	150
13/1	832
13/2	729
13/3	610
14/1	816
14/2	730
14/3	614
15/1	630

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15/2	605
15/3	1021
15/4	86
16/1	653
16/2	821
16/3	306
16/4	336
17/1	306
17/2	336
18/1	312
18/2	330
19/1	24
20/1	24
21/1	348
22/1	421
22/2	659
23/1	26
24/1	816
25/1	630
26/1	653
26/2	821
27/1	653
27/2	821

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Lane Saturation Flows

Junction: Twibell Street/Harborough Hill Road Gyratory								
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 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
1/2 (A61 Old Mill Lane S/B Approach)	3.25	0.00	Y	Arm 9 Left	Inf	100.0 %	1940	1940
2/1 (Twibell Street)	5.00	0.00	Y	Arm 12 Left	30.00	100.0 %	2014	2014
3/1 (Dryden Road)	3.25	0.00	Y	Arm 22 Left	30.00	100.0 %	1848	1848
3/2 (Dryden Road)	3.00	0.00	Y	Arm 22 Left	30.00	100.0 %	1824	1824
3/3 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
3/4 (Dryden Road)	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
4/1 (A61 Harborough Hill Road)	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
4/2 (A61 Harborough Hill Road)	3.90	0.00	N	Arm 13 Left	Inf	100.0 %	2145	2145
4/3 (A61 Harborough Hill Road)	4.00	0.00	Y	Arm 13 Left	Inf	100.0 %	2015	2015
5/1 (Meadow Street)	3.37	0.00	Y	Arm 14 Left	30.00	100.0 %	1859	1859
6/1 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
6/2 (A635 Old Mill Lane)	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/1 (Canal Way)	3.50	0.00	Y	Arm 16 Left	30.00	100.0 %	1871	1871
7/2 (Canal Way)	3.50	0.00	N	Arm 16 Left	30.00	100.0 %	2005	2005
8/1 (PC World Egress)	4.00	0.00	Y	Arm 18 Right	Inf	100.0 %	2015	2015
9/1	3.75	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1990	1990
9/2	3.25	0.00	N	Arm 10 Ahead	Inf	100.0 %	2080	2080
9/3	3.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1940	1940
10/1 (A61 Old Mill Lane S/B)	3.75	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1990	1990
10/2 (A61 Old Mill Lane S/B)	3.25	0.00	N	Arm 11 Ahead	Inf	100.0 %	2080	2080
10/3 (A61 Old Mill Lane S/B)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
11/1	3.75	0.00	Y	Arm 12 Ahead	Inf	96.5 %	1990	1990

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				Arm 20 Left	Inf	3.5 %		
11/2	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/3	3.25	0.00	N	Arm 12 Ahead	Inf	100.0 %	2080	2080
11/4	3.25	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1940	1940
12/1 (Gyratory East)	3.50	0.00	Y	Arm 21 Left	Inf	100.0 %	1965	1965
12/2 (Gyratory East)	3.50	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1965	1965
12/3 (Gyratory East)	3.75	0.00	Y	Arm 22 Ahead	Inf	100.0 %	1990	1990
12/4 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
12/5 (Gyratory East)	4.00	0.00	Y	Arm 13 Right	Inf	100.0 %	2015	2015
13/1	4.00	0.00	Y	Arm 14 Ahead	Inf	96.9 %	2012	2012
				Arm 23 Left	30.00	3.1 %		
13/2	3.50	0.00	N	Arm 14 Ahead	Inf	100.0 %	2105	2105
13/3	3.50	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1965	1965
14/1 (Gyratory West)	4.00	0.00	Y	Arm 24 Left	Inf	100.0 %	2015	2015
14/2 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
14/3 (Gyratory West)	3.75	0.00	Y	Arm 15 Right	Inf	100.0 %	1990	1990
15/1	3.75	0.00	Y	Arm 25 Left	30.00	100.0 %	1895	1895
15/2	4.00	0.00	Y	Arm 16 Ahead	Inf	100.0 %	2015	2015
15/3	3.75	0.00	N	Arm 16 Ahead	Inf	100.0 %	2130	2130
15/4	3.75	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1990	1990
16/1 (Gyratory West)	3.75	0.00	Y	Arm 26 Ahead	Inf	100.0 %	1990	1990
16/2 (Gyratory West)	3.50	0.00	N	Arm 26 Ahead	Inf	100.0 %	2105	2105
16/3 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
16/4 (Gyratory West)	3.75	0.00	Y	Arm 17 Right	Inf	100.0 %	1990	1990
17/1	3.75	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1990	1990
17/2	3.50	0.00	Y	Arm 18 Ahead	Inf	92.9 %	1958	1958
				Arm 19 Right	30.00	7.1 %		
18/1 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965

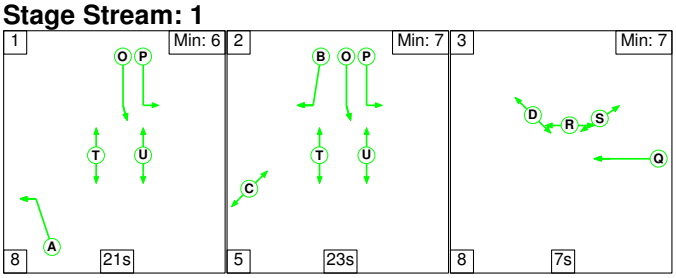
Full Input Data And Results

18/2 (Gyratory North)	3.50	0.00	Y	Arm 11 Right	Inf	100.0 %	1965	1965
19/1	Infinite Saturation Flow						Inf	Inf
20/1	Infinite Saturation Flow						Inf	Inf
21/1	Infinite Saturation Flow						Inf	Inf
22/1	Infinite Saturation Flow						Inf	Inf
22/2	Infinite Saturation Flow						Inf	Inf
23/1	Infinite Saturation Flow						Inf	Inf
24/1	Infinite Saturation Flow						Inf	Inf
25/1	Infinite Saturation Flow						Inf	Inf
26/1 (A61 Old Mill Lane N/B)	3.50	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1965	1965
26/2 (A61 Old Mill Lane N/B)	3.75	0.00	Y	Arm 27 Ahead	Inf	100.0 %	1990	1990
27/1	Infinite Saturation Flow						Inf	Inf
27/2	Infinite Saturation Flow						Inf	Inf

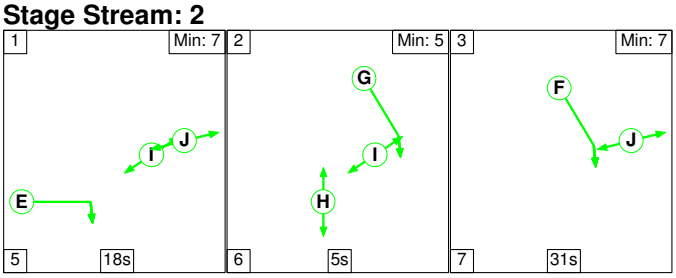
Scenario 1: 'Fri 2011 Obs' (FG1: 'Fri 2011 Obs', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

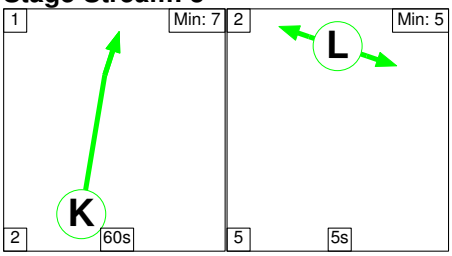
Stage Stream: 1



Stage Stream: 2

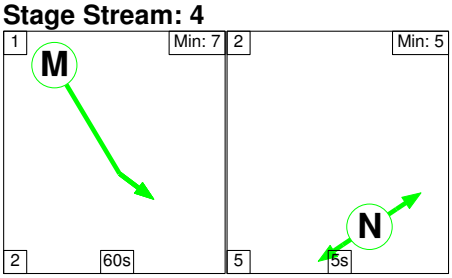


Stage Stream: 3



Full Input Data And Results

Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	21	23	7
Change Point	58	15	43

Stage Stream: 2

Stage	1	2	3
Duration	18	5	31
Change Point	45	68	7

Stage Stream: 3

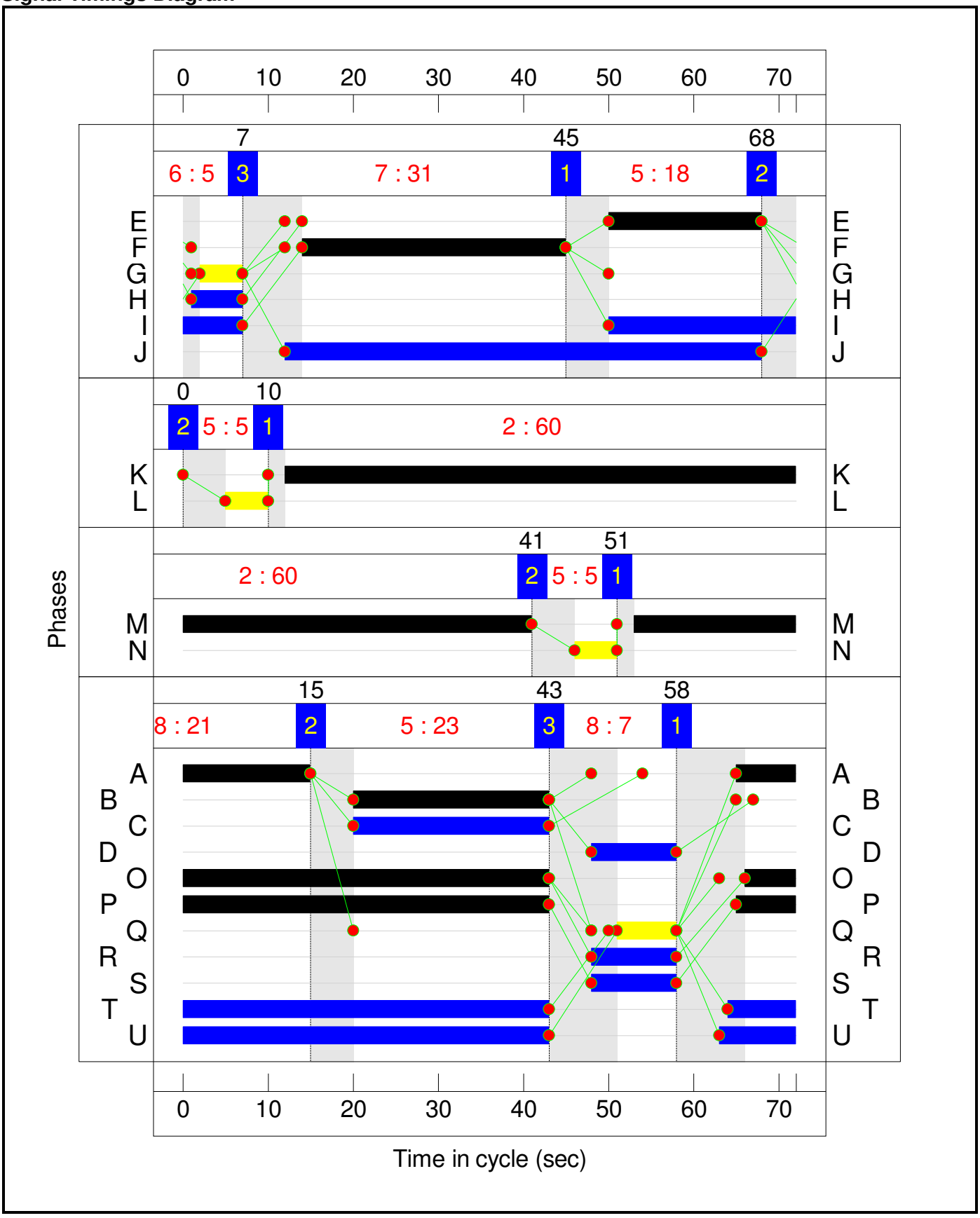
Stage	1	2
Duration	60	5
Change Point	10	0

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	51	41

Full Input Data And Results

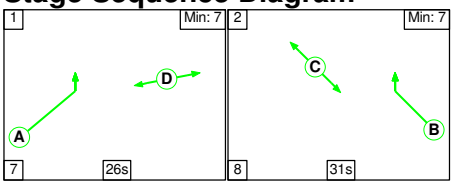
Signal Timings Diagram



Full Input Data And Results

C2

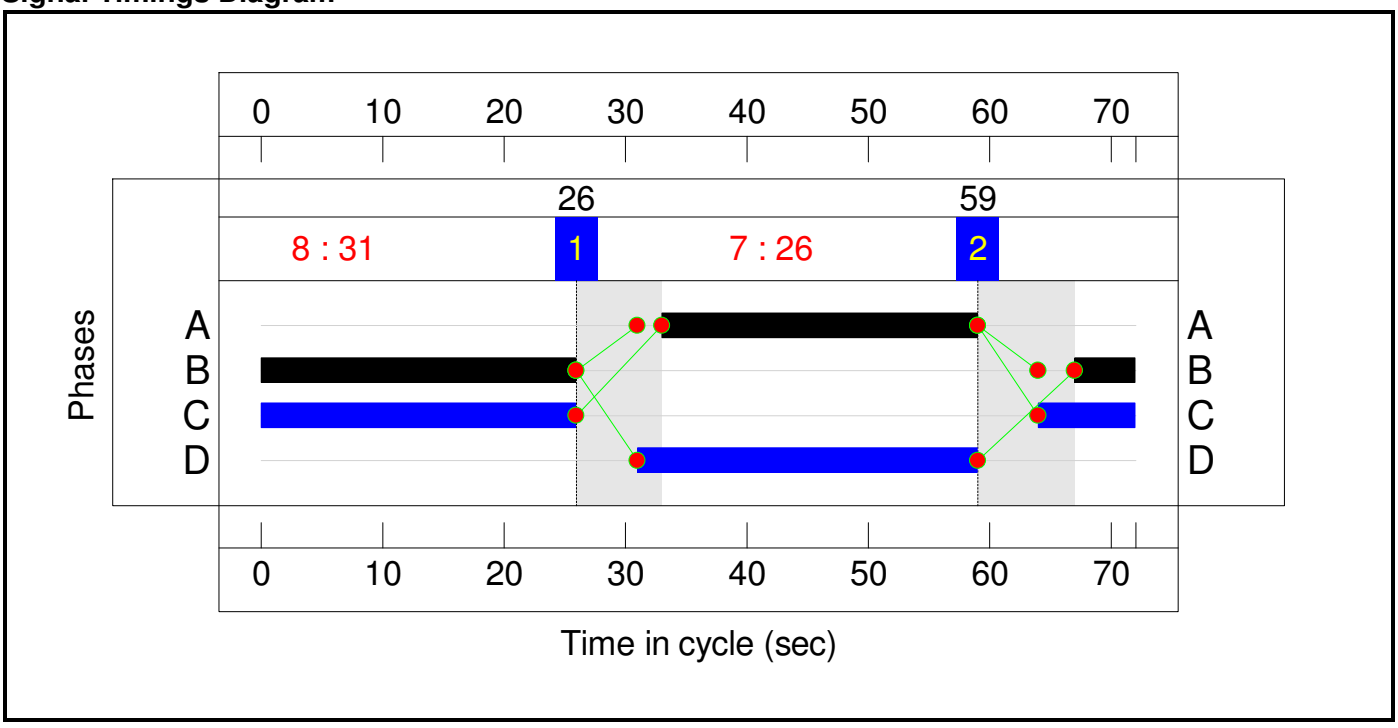
Stage Sequence Diagram



Stage Timings

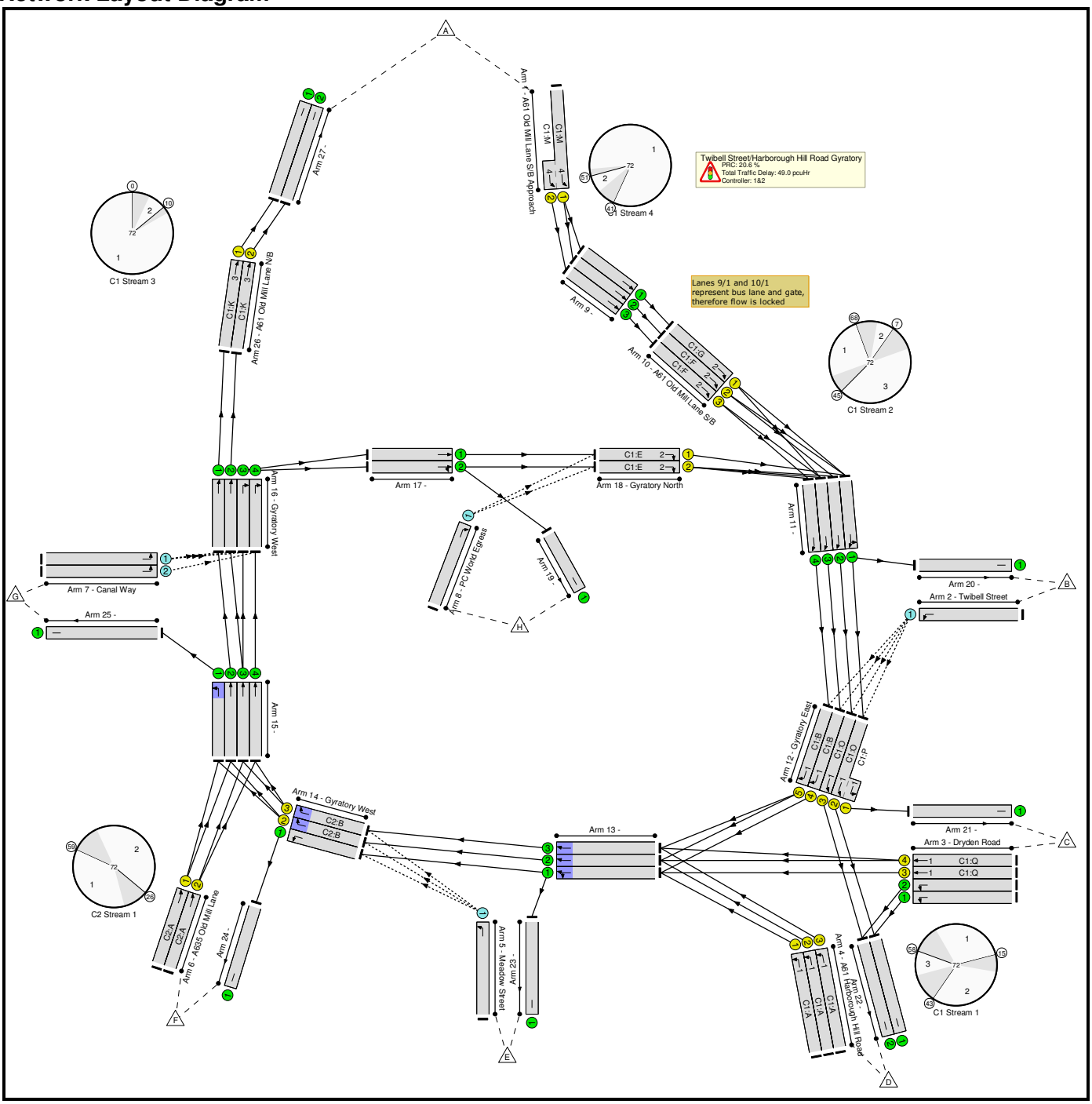
Stage	1	2
Duration	26	31
Change Point	26	59

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.6%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.6%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1197	1940:1940	1747	68.5%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	41	2014	340	12.1%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	70	1848	1848	3.8%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	25	1824	1824	1.4%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	31	1965	218	14.2%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	61	1965	218	27.9%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	157	2005	640	24.5%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	456	2145	685	66.5%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	472	2015	644	73.3%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	19	1859	354	5.4%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	26	-	545	1965	737	74.0%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	26	-	534	1965	737	72.5%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	196	1871	369	53.1%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	247	2005	481	51.4%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	15	2015	614	2.4%
9/1	Ahead	U	N/A	N/A	-		-	-	-	73	1990	1990	3.7%
9/2	Ahead	U	N/A	N/A	-		-	-	-	688	2080	2080	33.1%
9/3	Ahead	U	N/A	N/A	-		-	-	-	436	1940	1940	22.5%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	73	1990	166	44.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	31	-	688	2080	924	74.4%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	31	-	436	1940	862	50.6%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	611	1990	1990	30.7%
11/2	Ahead	U	N/A	N/A	-		-	-	-	587	2080	2080	28.2%
11/3	Ahead	U	N/A	N/A	-		-	-	-	478	2080	2080	23.0%
11/4	Ahead	U	N/A	N/A	-		-	-	-	191	1940	1940	9.8%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	594	1965:1965	1465	40.5%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	594	1990	1382	43.0%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	23	-	484	2015	672	72.1%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	23	-	197	2015	672	29.3%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	672	2011	2011	33.4%
13/2	Ahead	U	N/A	N/A	-		-	-	-	656	2105	2105	31.2%
13/3	Ahead	U	N/A	N/A	-		-	-	-	530	1965	1965	27.0%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	655	2015	2015	32.5%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	31	-	660	1990	884	74.6%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	31	-	537	1990	884	60.7%
15/1	Left	U	N/A	N/A	-		-	-	-	704	1895	1895	37.2%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	501	2015	2015	24.9%
15/3	Ahead	U	N/A	N/A	-		-	-	-	940	2130	2130	44.1%
15/4	Ahead	U	N/A	N/A	-		-	-	-	131	1990	1990	6.6%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	570	1990	1990	28.6%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	770	2105	2105	36.6%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	297	1990	1990	14.9%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	378	1990	1990	19.0%
17/1	Ahead	U	N/A	N/A	-		-	-	-	297	1990	1990	14.9%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	378	1960	1960	19.3%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	18	-	303	1965	519	58.4%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	18	-	367	1965	519	70.8%
19/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	39	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	247	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	619	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	655	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	704	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	570	1965	1665	34.2%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	770	1990	1686	45.7%
27/1		U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	770	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**518**	**0**	**0**	**28.2**	**20.8**	**0.0**	**49.0**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**518**	**0**	**0**	**28.2**	**20.8**	**0.0**	**49.0**	**-**	**-**	**-**	**-**
1/1+1/2	1197	1197	-	-	-	0.4	1.1	-	1.5	4.5	4.2	1.1	5.2
2/1	41	41	41	0	0	0.0	0.1	-	0.1	7.7	0.2	0.1	0.2
3/1	70	70	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	25	25	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	31	31	-	-	-	0.2	0.1	-	0.3	38.5	0.6	0.1	0.6
3/4	61	61	-	-	-	0.5	0.2	-	0.7	40.8	1.1	0.2	1.3
4/1	157	157	-	-	-	0.8	0.2	-	1.0	21.8	2.3	0.2	2.5
4/2	456	456	-	-	-	2.7	1.0	-	3.7	29.0	7.9	1.0	8.8
4/3	472	472	-	-	-	2.9	1.4	-	4.2	32.1	8.3	1.4	9.6
5/1	19	19	19	0	0	0.0	0.0	-	0.0	7.0	0.1	0.0	0.1
6/1	545	545	-	-	-	2.9	1.4	-	4.3	28.7	9.4	1.4	10.8
6/2	534	534	-	-	-	2.9	1.3	-	4.2	28.1	9.0	1.3	10.3
7/1	196	196	196	0	0	0.1	0.6	-	0.7	12.2	1.1	0.6	1.7
7/2	247	247	247	0	0	0.2	0.5	-	0.7	10.4	1.5	0.5	2.0
8/1	15	15	15	0	0	0.0	0.0	-	0.0	3.0	0.0	0.0	0.0
9/1	73	73	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	688	688	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/3	436	436	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
10/1	73	73	-	-	-	0.6	0.4	-	1.0	49.3	1.4	0.4	1.8
10/2	688	688	-	-	-	2.9	1.4	-	4.3	22.7	11.3	1.4	12.7
10/3	436	436	-	-	-	1.6	0.5	-	2.1	17.5	6.2	0.5	6.7
11/1	611	611	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2

Full Input Data And Results

11/2	587	587	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	478	478	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
11/4	191	191	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/2+12/1	594	594	-	-	-	0.4	0.3	-	0.8	4.8	2.4	0.3	2.7
12/3	594	594	-	-	-	0.7	0.4	-	1.1	6.6	5.3	0.4	5.6
12/4	484	484	-	-	-	2.3	1.3	-	3.6	26.4	8.4	1.3	9.7
12/5	197	197	-	-	-	0.5	0.2	-	0.7	12.7	0.9	0.2	1.1
13/1	672	672	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
13/2	656	656	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.3
13/3	530	530	-	-	-	0.0	0.2	-	0.2	1.3	0.1	0.2	0.3
14/1	655	655	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
14/2	660	660	-	-	-	1.6	1.5	-	3.1	16.7	4.3	1.5	5.7
14/3	537	537	-	-	-	0.3	0.8	-	1.0	7.0	1.3	0.8	2.0
15/1	704	704	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
15/2	501	501	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
15/3	940	940	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/4	131	131	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	570	570	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/2	770	770	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
16/3	297	297	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	378	378	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	297	297	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	378	378	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	303	303	-	-	-	1.5	0.7	-	2.2	26.1	4.8	0.7	5.5
18/2	367	367	-	-	-	2.0	1.2	-	3.2	30.9	5.6	1.2	6.8
19/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	39	39	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	417	417	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

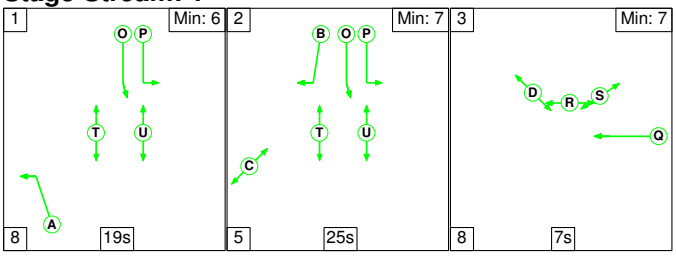
23/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	570	570	-	-	-	0.0	0.3	-	0.3	1.9	0.6	0.3	0.8
26/2	770	770	-	-	-	0.1	0.4	-	0.5	2.3	1.2	0.4	1.7
27/1	570	570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	770	770	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	22.7	Total Delay for Signalled Lanes (pcuHr):	15.97	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	20.9	Total Delay for Signalled Lanes (pcuHr):	12.81	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	97.1	Total Delay for Signalled Lanes (pcuHr):	0.80	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	31.3	Total Delay for Signalled Lanes (pcuHr):	1.51	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	20.6	Total Delay for Signalled Lanes (pcuHr):	12.63	Cycle Time (s):	72
	PRC Over All Lanes (%):	20.6	Total Delay Over All Lanes(pcuHr):	48.99		

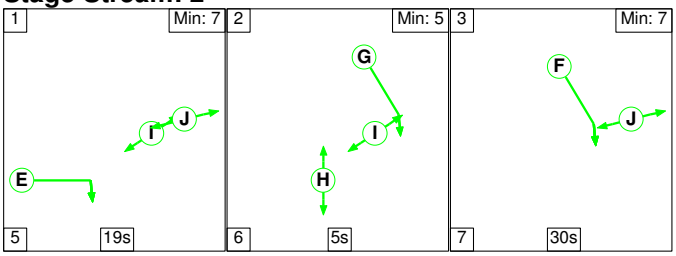
Full Input Data And Results
Scenario 2: 'Sat 2011 Obs' (FG2: 'Sat 2011 Obs', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

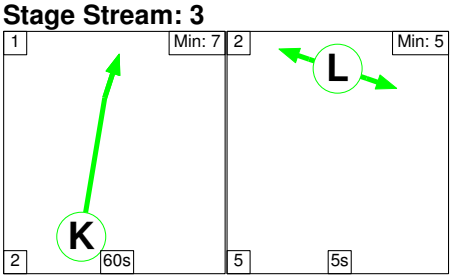
Stage Stream: 1



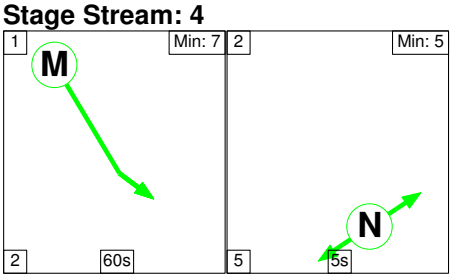
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	19	25	7
Change Point	0	27	57

Stage Stream: 2

Stage	1	2	3
Duration	19	5	30
Change Point	58	10	21

Stage Stream: 3

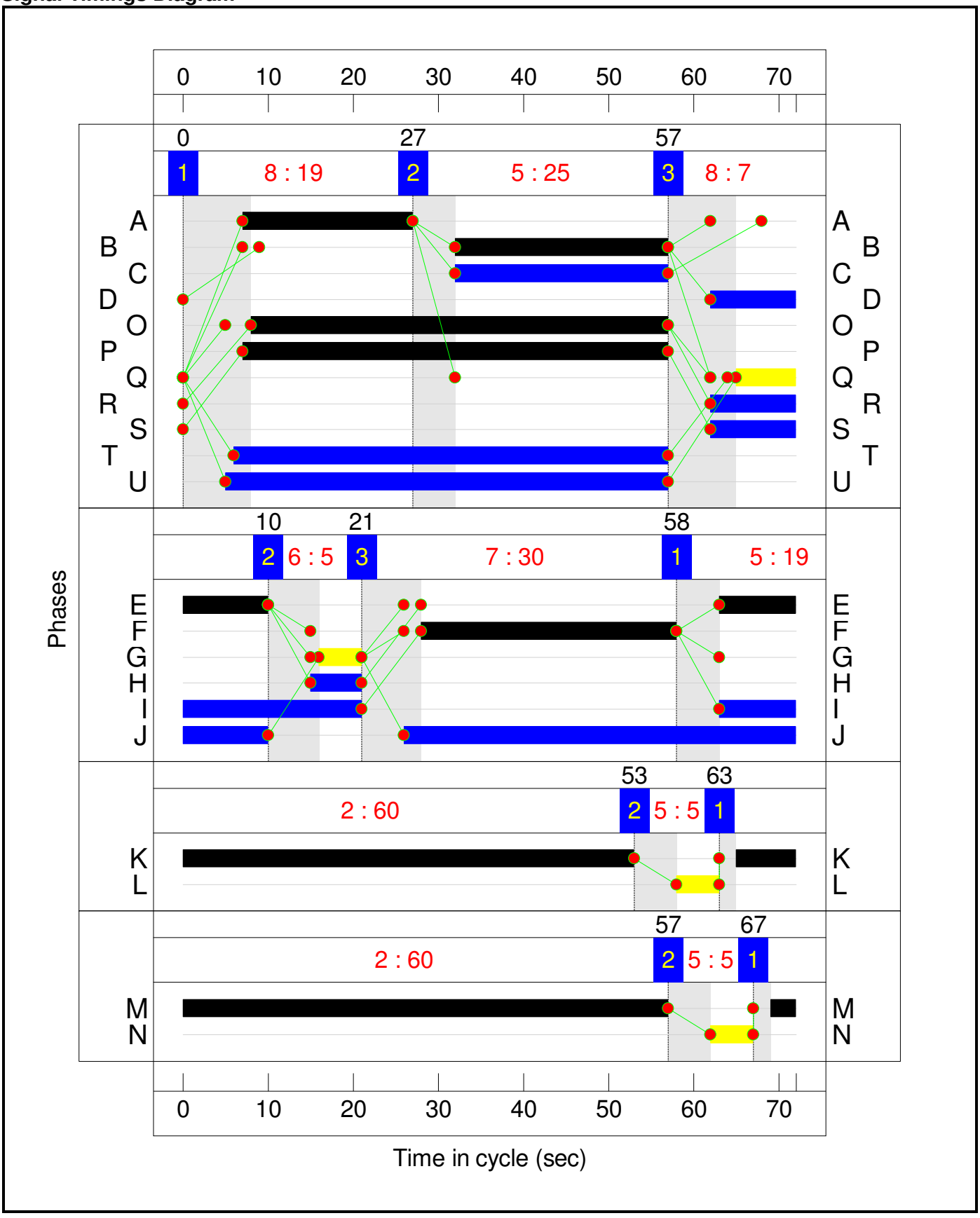
Stage	1	2
Duration	60	5
Change Point	63	53

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	67	57

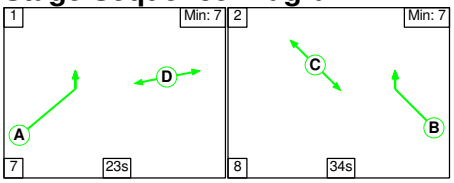
Signal Timings Diagram



Full Input Data And Results

C2

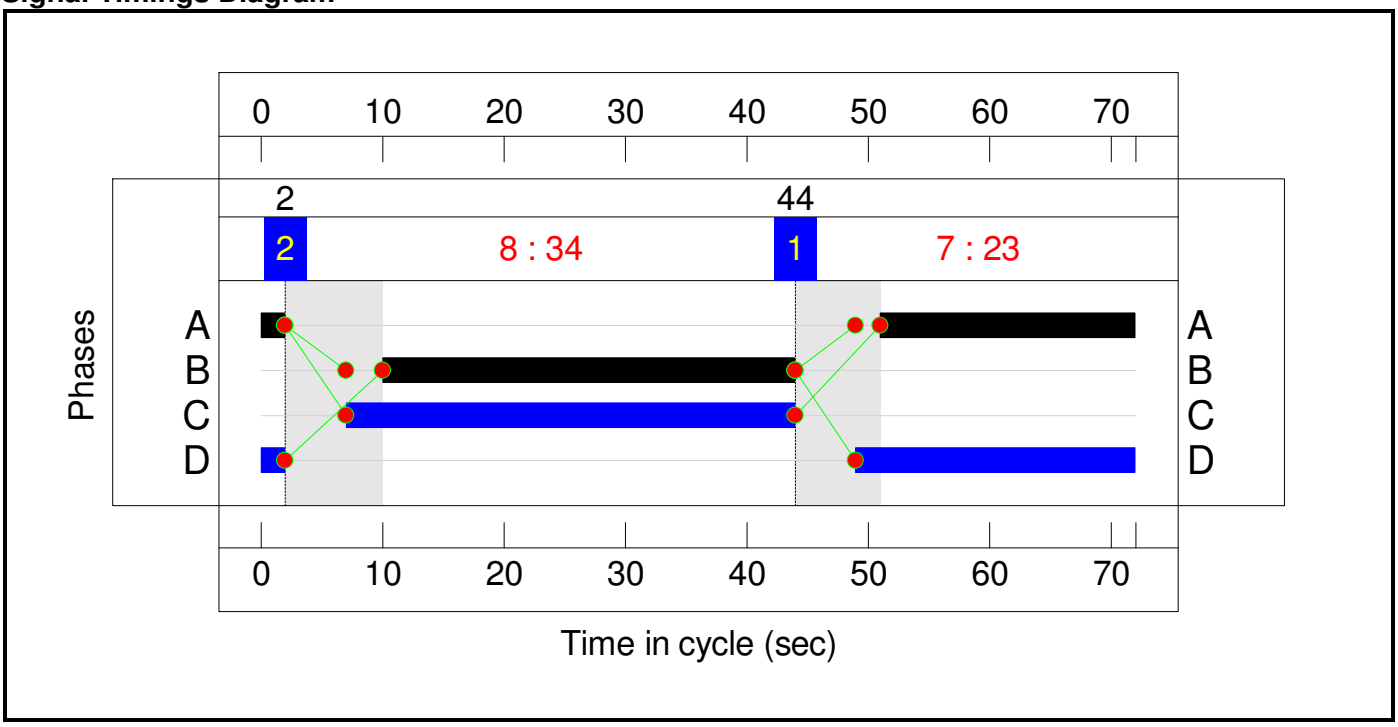
Stage Sequence Diagram



Stage Timings

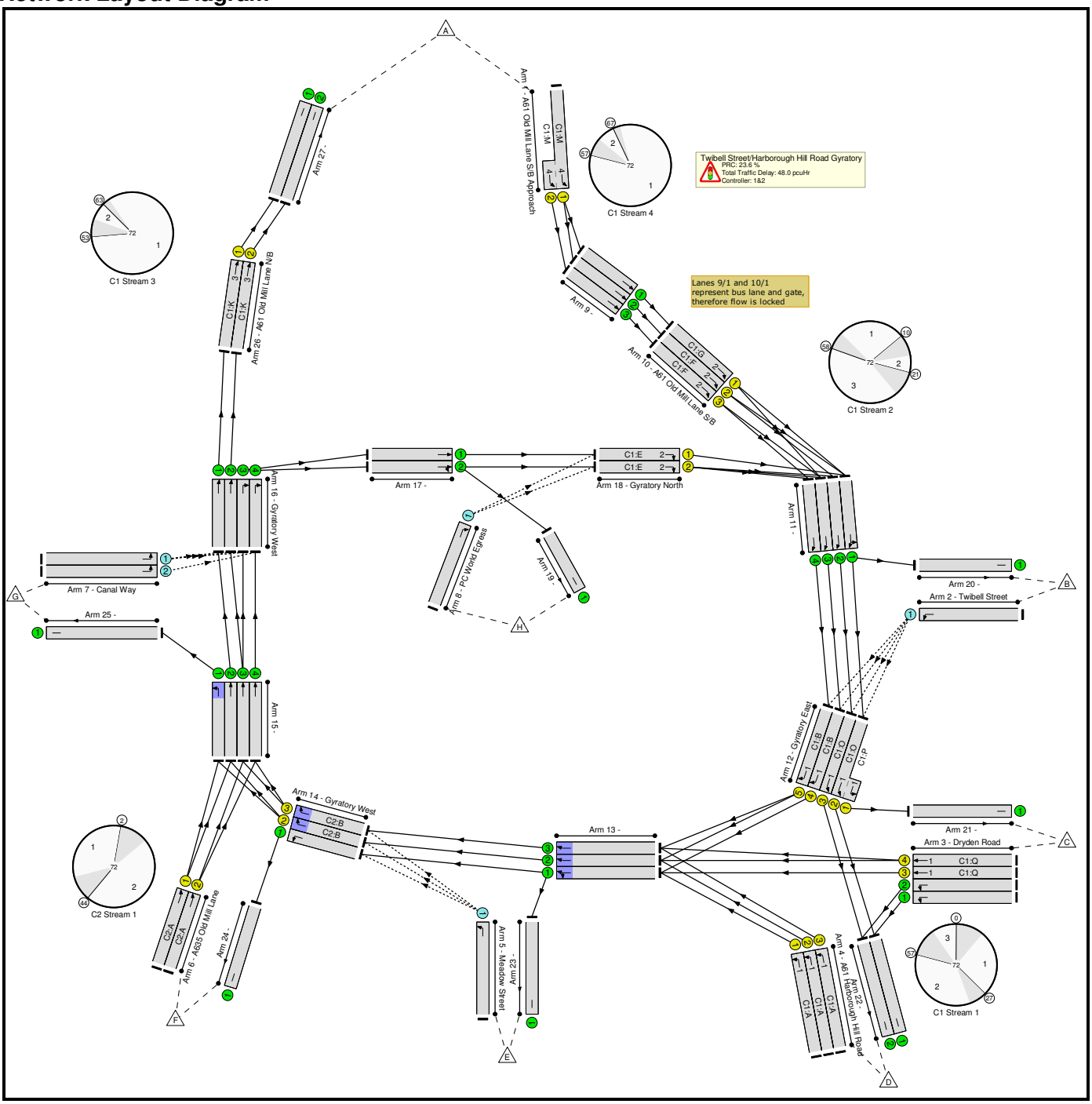
Stage	1	2
Duration	23	34
Change Point	44	2

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.8%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.8%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1182	1940:1940	1789	66.1%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	53	2014	345	15.4%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	105	1848	1848	5.7%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	51	1824	1824	2.8%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	70	1965	218	32.1%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	131	1965	218	60.0%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	113	2005	585	19.3%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	441	2145	626	70.5%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	428	2015	588	72.8%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	15	1859	326	4.6%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	23	-	442	1965	655	67.5%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	23	-	427	1965	655	65.2%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	235	1871	410	57.3%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	280	2005	543	51.6%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	26	2015	603	4.3%
9/1	Ahead	U	N/A	N/A	-		-	-	-	58	1990	1990	2.9%
9/2	Ahead	U	N/A	N/A	-		-	-	-	596	2080	2080	28.7%
9/3	Ahead	U	N/A	N/A	-		-	-	-	528	1940	1940	27.2%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	58	1990	166	35.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	30	-	596	2080	896	66.6%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	30	-	528	1940	835	63.2%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	590	1990	1990	29.6%
11/2	Ahead	U	N/A	N/A	-		-	-	-	544	2080	2080	26.2%
11/3	Ahead	U	N/A	N/A	-		-	-	-	520	2080	2080	25.0%
11/4	Ahead	U	N/A	N/A	-		-	-	-	235	1940	1940	12.1%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	569	1965:1965	1487	38.3%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	547	1990	1382	39.6%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	25	-	523	2015	728	71.9%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	25	-	244	2015	728	33.5%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	706	2012	2012	35.1%
13/2	Ahead	U	N/A	N/A	-		-	-	-	698	2105	2105	33.2%
13/3	Ahead	U	N/A	N/A	-		-	-	-	546	1965	1965	27.8%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	697	2015	2015	34.6%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	34	-	699	1990	967	72.3%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	34	-	550	1990	967	56.9%
15/1	Left	U	N/A	N/A	-		-	-	-	734	1895	1895	38.7%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	407	2015	2015	20.2%
15/3	Ahead	U	N/A	N/A	-		-	-	-	892	2130	2130	41.9%
15/4	Ahead	U	N/A	N/A	-		-	-	-	85	1990	1990	4.3%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	505	1990	1990	25.4%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	689	2105	2105	32.7%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	340	1990	1990	17.1%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	365	1990	1990	18.3%
17/1	Ahead	U	N/A	N/A	-		-	-	-	340	1990	1990	17.1%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	365	1959	1959	18.6%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	19	-	349	1965	546	63.9%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	19	-	358	1965	546	65.6%
19/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	59	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	340	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	334	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	697	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	734	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	505	1965	1665	30.3%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	689	1990	1686	40.9%
27/1		U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	689	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**609**	**0**	**0**	**27.9**	**20.2**	**0.0**	**48.0**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**609**	**0**	**0**	**27.9**	**20.2**	**0.0**	**48.0**	**-**	**-**	**-**	**-**
1/1+1/2	1182	1182	-	-	-	0.4	1.0	-	1.4	4.2	2.9	1.0	3.9
2/1	53	53	53	0	0	0.0	0.1	-	0.1	8.5	0.3	0.1	0.3
3/1	105	105	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	51	51	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	70	70	-	-	-	0.6	0.2	-	0.8	41.6	1.3	0.2	1.5
3/4	131	131	-	-	-	1.1	0.7	-	1.8	50.8	2.5	0.7	3.2
4/1	113	113	-	-	-	0.6	0.1	-	0.7	23.0	1.7	0.1	1.8
4/2	441	441	-	-	-	2.8	1.2	-	4.0	32.4	7.8	1.2	9.0
4/3	428	428	-	-	-	2.7	1.3	-	4.0	34.0	7.6	1.3	8.9
5/1	15	15	15	0	0	0.0	0.0	-	0.0	7.1	0.1	0.0	0.1
6/1	442	442	-	-	-	2.5	1.0	-	3.6	29.0	7.5	1.0	8.5
6/2	427	427	-	-	-	2.4	0.9	-	3.4	28.3	7.2	0.9	8.2
7/1	235	235	235	0	0	0.1	0.7	-	0.8	11.6	1.2	0.7	1.8
7/2	280	280	280	0	0	0.1	0.5	-	0.7	8.6	1.4	0.5	1.9
8/1	26	26	26	0	0	0.0	0.0	-	0.0	3.1	0.0	0.0	0.0
9/1	58	58	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	596	596	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
9/3	528	528	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
10/1	58	58	-	-	-	0.5	0.3	-	0.7	46.5	1.1	0.3	1.3
10/2	596	596	-	-	-	2.5	1.0	-	3.5	21.1	9.4	1.0	10.4
10/3	528	528	-	-	-	2.2	0.9	-	3.0	20.7	8.2	0.9	9.1
11/1	590	590	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2

Full Input Data And Results

11/2	544	544	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	520	520	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/4	235	235	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/2+12/1	569	569	-	-	-	0.4	0.3	-	0.7	4.2	4.4	0.3	4.7
12/3	547	547	-	-	-	0.5	0.3	-	0.9	5.8	4.5	0.3	4.9
12/4	523	523	-	-	-	2.2	1.3	-	3.4	23.5	6.9	1.3	8.2
12/5	244	244	-	-	-	0.6	0.3	-	0.8	12.5	1.2	0.3	1.4
13/1	706	706	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
13/2	698	698	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.3
13/3	546	546	-	-	-	0.0	0.2	-	0.2	1.3	0.1	0.2	0.2
14/1	697	697	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
14/2	699	699	-	-	-	1.5	1.3	-	2.8	14.5	4.9	1.3	6.1
14/3	550	550	-	-	-	0.2	0.7	-	0.9	5.9	2.0	0.7	2.7
15/1	734	734	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
15/2	407	407	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
15/3	892	892	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/4	85	85	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	505	505	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/2	689	689	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/3	340	340	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	365	365	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	340	340	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	365	365	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	349	349	-	-	-	1.8	0.9	-	2.7	27.8	5.7	0.9	6.6
18/2	358	358	-	-	-	1.9	0.9	-	2.9	29.1	5.5	0.9	6.5
19/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	59	59	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	334	334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

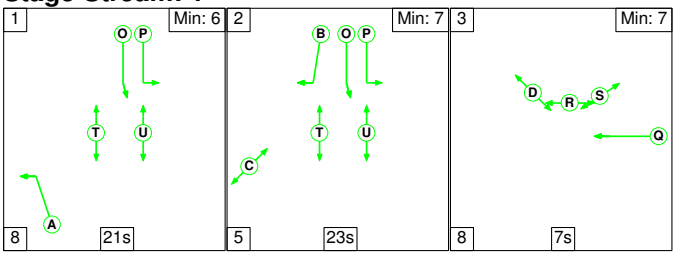
23/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	734	734	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	505	505	-	-	-	0.1	0.2	-	0.3	2.0	0.8	0.2	1.0
26/2	689	689	-	-	-	0.1	0.3	-	0.4	2.1	0.8	0.3	1.2
27/1	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	689	689	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	23.6	Total Delay for Signalled Lanes (pcuHr):	17.19	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	35.2	Total Delay for Signalled Lanes (pcuHr):	12.86	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	120.2	Total Delay for Signalled Lanes (pcuHr):	0.67	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	36.2	Total Delay for Signalled Lanes (pcuHr):	1.37	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	24.6	Total Delay for Signalled Lanes (pcuHr):	10.63	Cycle Time (s):	72
	PRC Over All Lanes (%):	23.6	Total Delay Over All Lanes(pcuHr):	48.05		

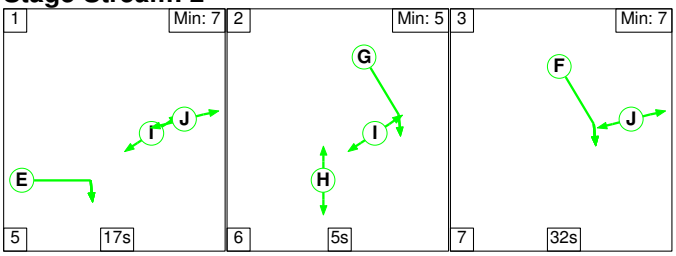
Full Input Data And Results
Scenario 3: 'Fri 2012 Future Base' (FG3: 'Fri 2012 Future Base', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

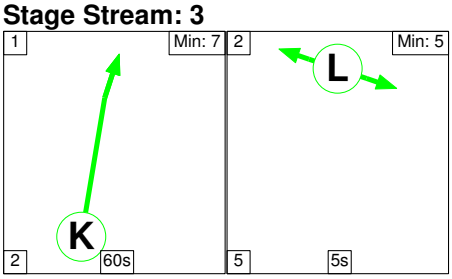
Stage Stream: 1



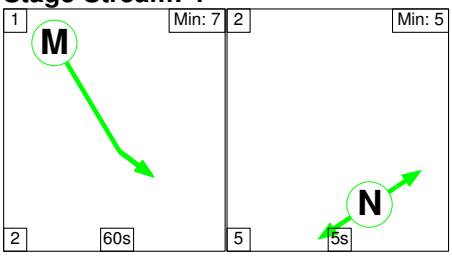
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	21	23	7
Change Point	58	15	43

Stage Stream: 2

Stage	1	2	3
Duration	17	5	32
Change Point	46	68	7

Stage Stream: 3

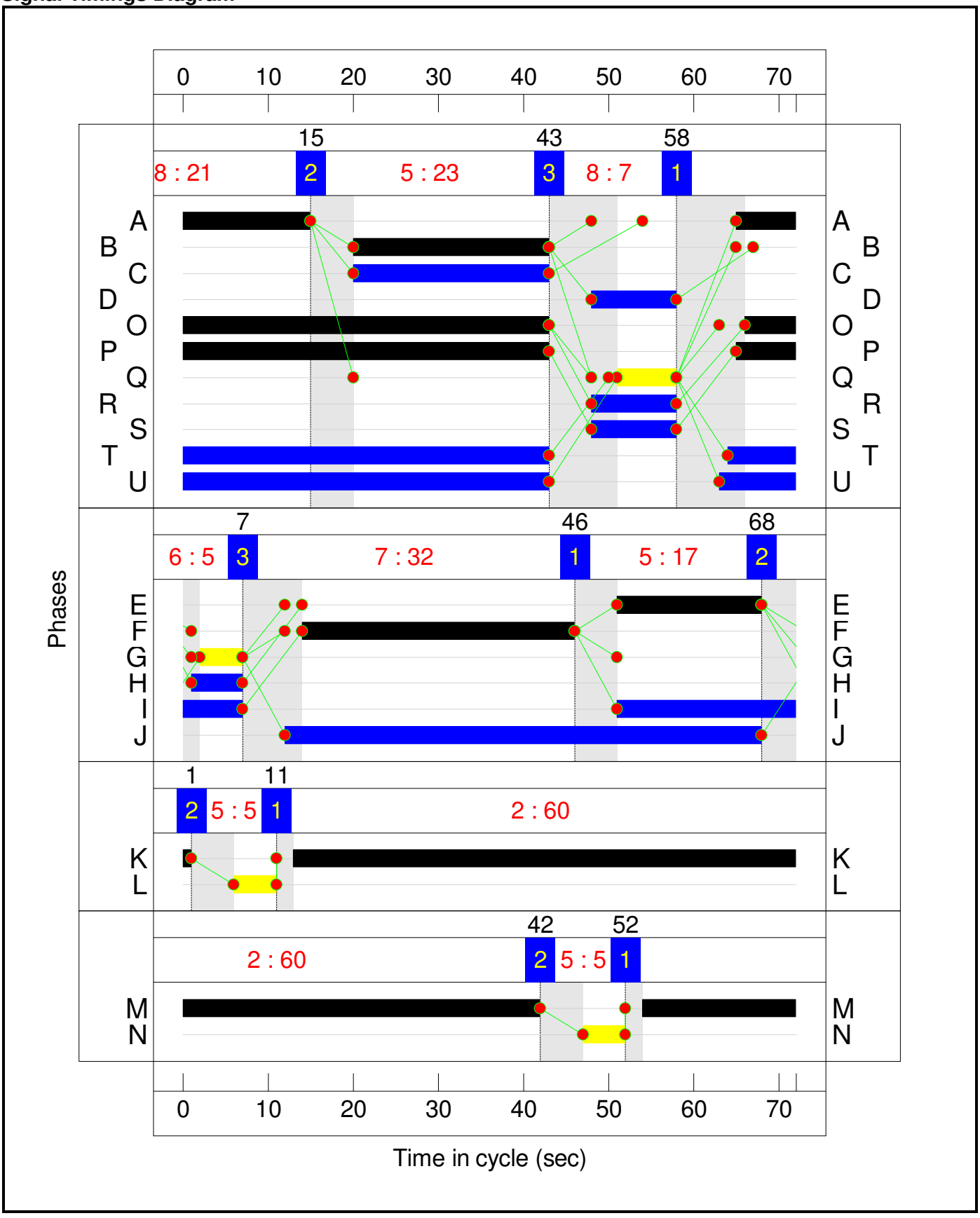
Stage	1	2
Duration	60	5
Change Point	11	1

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	52	42

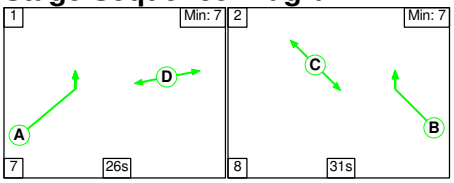
Signal Timings Diagram



Full Input Data And Results

C2

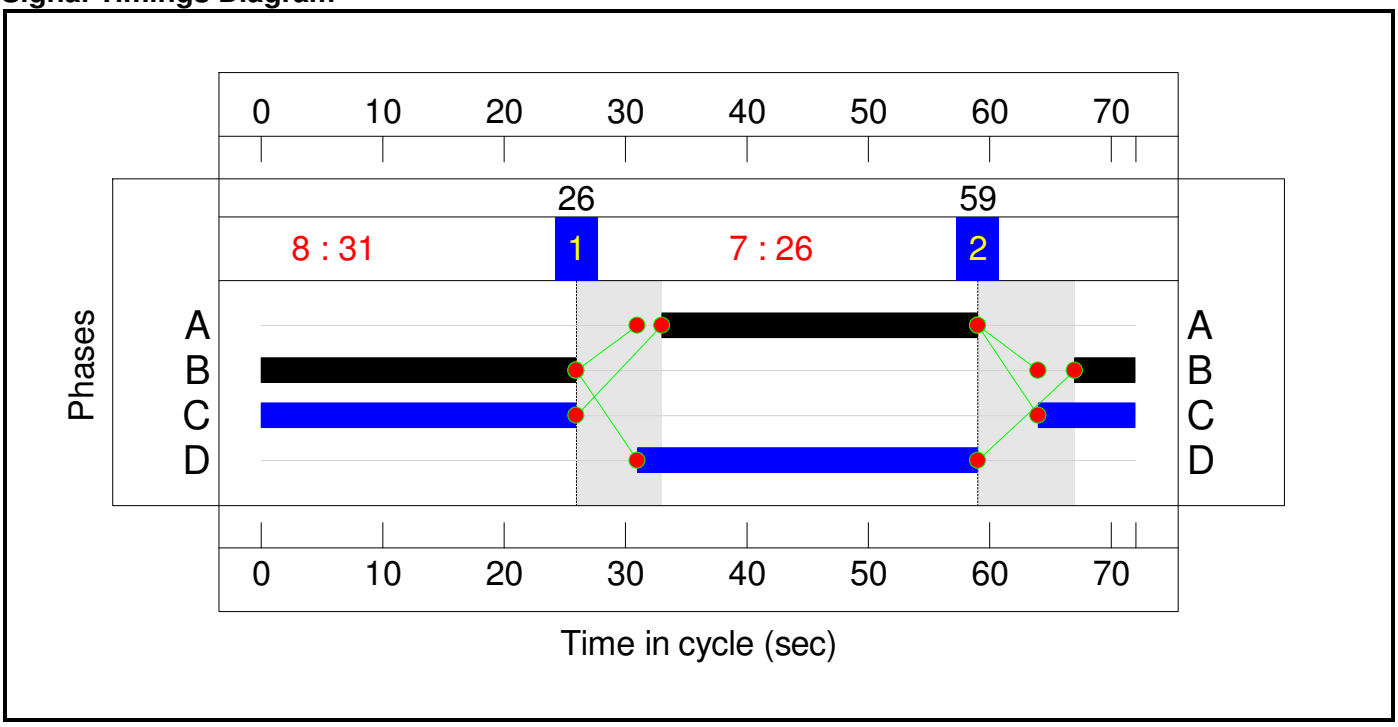
Stage Sequence Diagram



Stage Timings

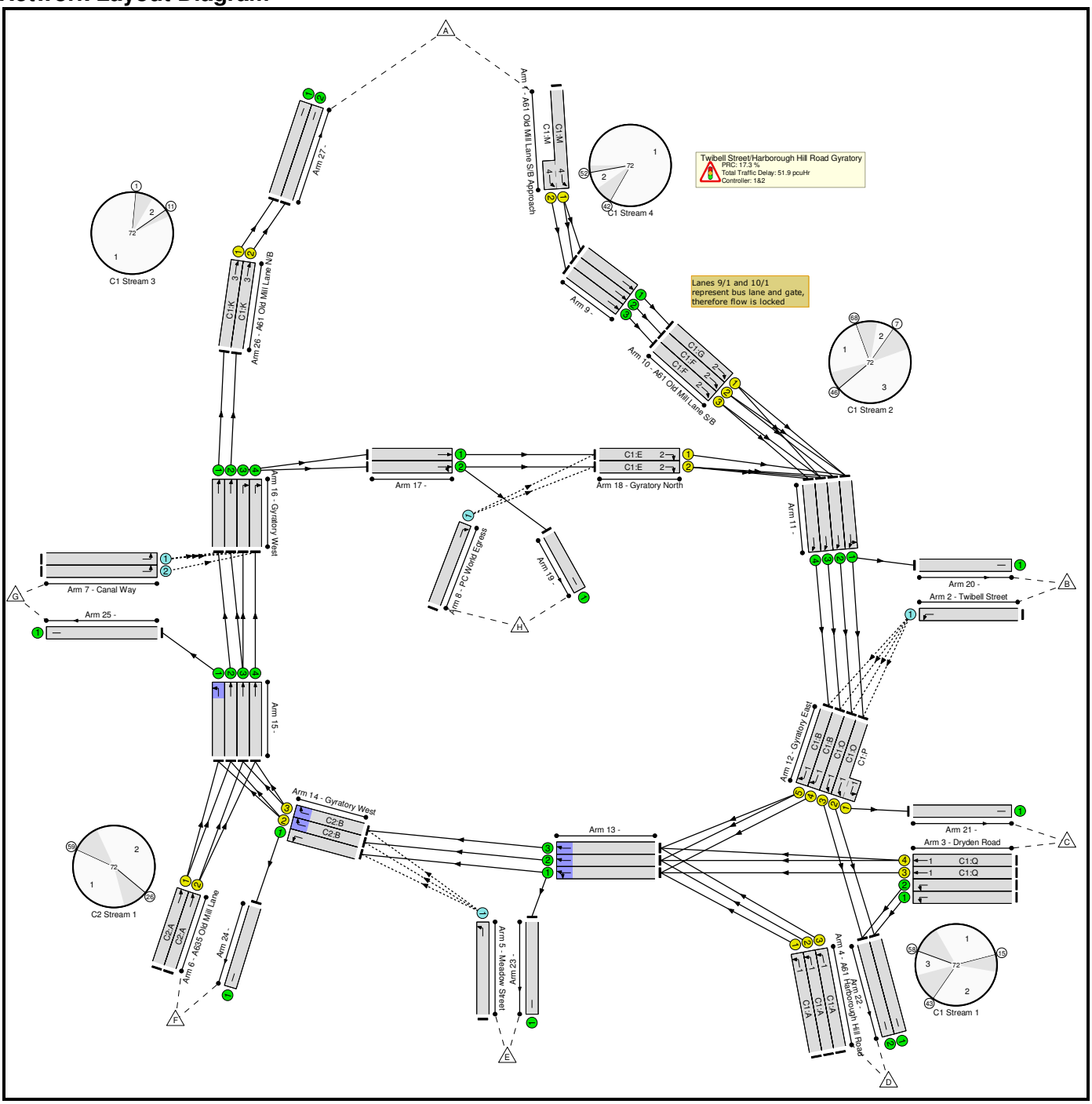
Stage	1	2
Duration	26	31
Change Point	26	59

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.7%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.7%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1221	1940:1940	1744	70.0%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	96	2014	333	28.8%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	71	1848	1848	3.8%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	24	1824	1824	1.3%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	31	1965	218	14.2%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	61	1965	218	27.9%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	158	2005	640	24.7%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	471	2145	685	68.7%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	486	2015	644	75.5%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	20	1859	347	5.8%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	26	-	554	1965	737	75.2%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	26	-	541	1965	737	73.4%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	195	1871	361	54.0%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	251	2005	469	53.5%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	19	2015	603	3.1%
9/1	Ahead	U	N/A	N/A	-		-	-	-	73	1990	1990	3.7%
9/2	Ahead	U	N/A	N/A	-		-	-	-	712	2080	2080	34.2%
9/3	Ahead	U	N/A	N/A	-		-	-	-	436	1940	1940	22.5%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	73	1990	166	44.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	32	-	712	2080	953	74.7%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	32	-	436	1940	889	49.0%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	637	1990	1990	32.0%
11/2	Ahead	U	N/A	N/A	-		-	-	-	618	2080	2080	29.7%
11/3	Ahead	U	N/A	N/A	-		-	-	-	486	2080	2080	23.4%
11/4	Ahead	U	N/A	N/A	-		-	-	-	184	1940	1940	9.5%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	608	1965:1965	1469	41.4%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	637	1990	1382	46.1%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	23	-	501	2015	672	74.6%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	23	-	190	2015	672	28.3%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	690	2011	2011	34.3%
13/2	Ahead	U	N/A	N/A	-		-	-	-	665	2105	2105	31.6%
13/3	Ahead	U	N/A	N/A	-		-	-	-	543	1965	1965	27.6%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	673	2015	2015	33.4%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	31	-	669	1990	884	75.6%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	31	-	551	1990	884	62.3%
15/1	Left	U	N/A	N/A	-		-	-	-	707	1895	1895	37.3%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	516	2015	2015	25.6%
15/3	Ahead	U	N/A	N/A	-		-	-	-	955	2130	2130	44.8%
15/4	Ahead	U	N/A	N/A	-		-	-	-	137	1990	1990	6.9%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	561	1990	1990	28.2%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	788	2105	2105	37.4%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	317	1990	1990	15.9%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	388	1990	1990	19.5%
17/1	Ahead	U	N/A	N/A	-		-	-	-	317	1990	1990	15.9%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	388	1960	1960	19.8%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	17	-	327	1965	491	66.6%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	17	-	377	1965	491	76.7%
19/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	85	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	673	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	707	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	561	1965	1665	33.7%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	788	1990	1686	46.7%
27/1		U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	788	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**581**	**0**	**0**	**29.2**	**22.7**	**0.0**	**51.9**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**581**	**0**	**0**	**29.2**	**22.7**	**0.0**	**51.9**	**-**	**-**	**-**	**-**
1/1+1/2	1221	1221	-	-	-	0.4	1.2	-	1.6	4.7	4.9	1.2	6.0
2/1	96	96	96	0	0	0.1	0.2	-	0.3	10.1	0.6	0.2	0.8
3/1	71	71	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	24	24	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	31	31	-	-	-	0.2	0.1	-	0.3	38.5	0.6	0.1	0.6
3/4	61	61	-	-	-	0.5	0.2	-	0.7	40.8	1.1	0.2	1.3
4/1	158	158	-	-	-	0.8	0.2	-	1.0	21.8	2.3	0.2	2.5
4/2	471	471	-	-	-	2.8	1.1	-	3.9	29.7	8.1	1.1	9.2
4/3	486	486	-	-	-	3.0	1.5	-	4.5	33.2	8.6	1.5	10.2
5/1	20	20	20	0	0	0.0	0.0	-	0.0	7.3	0.1	0.0	0.1
6/1	554	554	-	-	-	3.0	1.5	-	4.5	29.3	9.5	1.5	11.0
6/2	541	541	-	-	-	2.9	1.4	-	4.3	28.5	9.3	1.4	10.7
7/1	195	195	195	0	0	0.1	0.6	-	0.7	12.9	1.1	0.6	1.7
7/2	251	251	251	0	0	0.2	0.6	-	0.8	11.4	1.5	0.6	2.1
8/1	19	19	19	0	0	0.0	0.0	-	0.0	3.1	0.0	0.0	0.0
9/1	73	73	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	712	712	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
9/3	436	436	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
10/1	73	73	-	-	-	0.6	0.4	-	1.0	49.3	1.4	0.4	1.8
10/2	712	712	-	-	-	2.9	1.5	-	4.4	22.0	11.7	1.5	13.1
10/3	436	436	-	-	-	1.5	0.5	-	2.0	16.5	6.1	0.5	6.5
11/1	637	637	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2

Full Input Data And Results

11/2	618	618	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	486	486	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
11/4	184	184	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/2+12/1	608	608	-	-	-	0.5	0.4	-	0.8	5.0	2.2	0.4	2.6
12/3	637	637	-	-	-	0.8	0.4	-	1.2	7.0	5.9	0.4	6.3
12/4	501	501	-	-	-	2.4	1.4	-	3.8	27.5	9.0	1.4	10.4
12/5	190	190	-	-	-	0.5	0.2	-	0.7	13.2	0.9	0.2	1.1
13/1	690	690	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
13/2	665	665	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.3
13/3	543	543	-	-	-	0.0	0.2	-	0.2	1.3	0.1	0.2	0.3
14/1	673	673	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
14/2	669	669	-	-	-	1.6	1.5	-	3.1	16.8	4.1	1.5	5.7
14/3	551	551	-	-	-	0.3	0.8	-	1.1	7.2	1.3	0.8	2.1
15/1	707	707	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
15/2	516	516	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
15/3	955	955	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/4	137	137	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	561	561	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/2	788	788	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
16/3	317	317	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	388	388	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	317	317	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	388	388	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	327	327	-	-	-	1.8	1.0	-	2.8	30.5	5.6	1.0	6.6
18/2	377	377	-	-	-	2.1	1.6	-	3.7	35.3	6.1	1.6	7.7
19/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	85	85	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

23/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	673	673	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	561	561	-	-	-	0.0	0.3	-	0.3	1.8	0.4	0.3	0.6
26/2	788	788	-	-	-	0.1	0.4	-	0.5	2.4	1.3	0.4	1.8
27/1	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	788	788	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	19.2	Total Delay for Signalled Lanes (pcuHr):	16.94	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	17.3	Total Delay for Signalled Lanes (pcuHr):	13.82	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	92.6	Total Delay for Signalled Lanes (pcuHr):	0.81	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	28.5	Total Delay for Signalled Lanes (pcuHr):	1.61	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	19.0	Total Delay for Signalled Lanes (pcuHr):	13.01	Cycle Time (s):	72
	PRC Over All Lanes (%):	17.3	Total Delay Over All Lanes(pcuHr):	51.88		

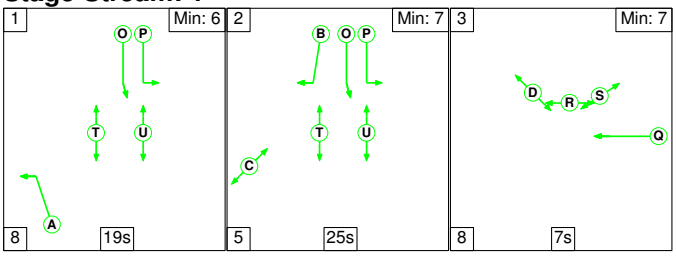
Full Input Data And Results

Scenario 4: 'Sat 2012 Future Base' (FG4: 'Sat 2012 Future Base', Plan 1: 'Network Control Plan 1')

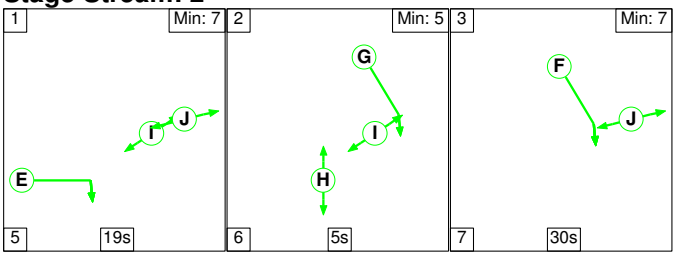
C1

Stage Sequence Diagram

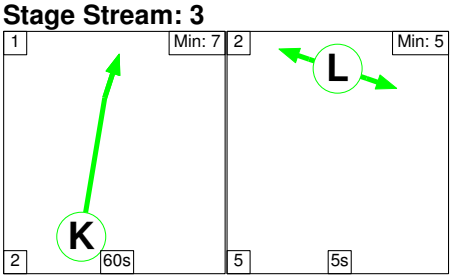
Stage Stream: 1



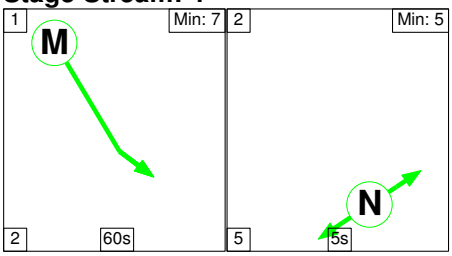
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	19	25	7
Change Point	0	27	57

Stage Stream: 2

Stage	1	2	3
Duration	19	5	30
Change Point	56	8	19

Stage Stream: 3

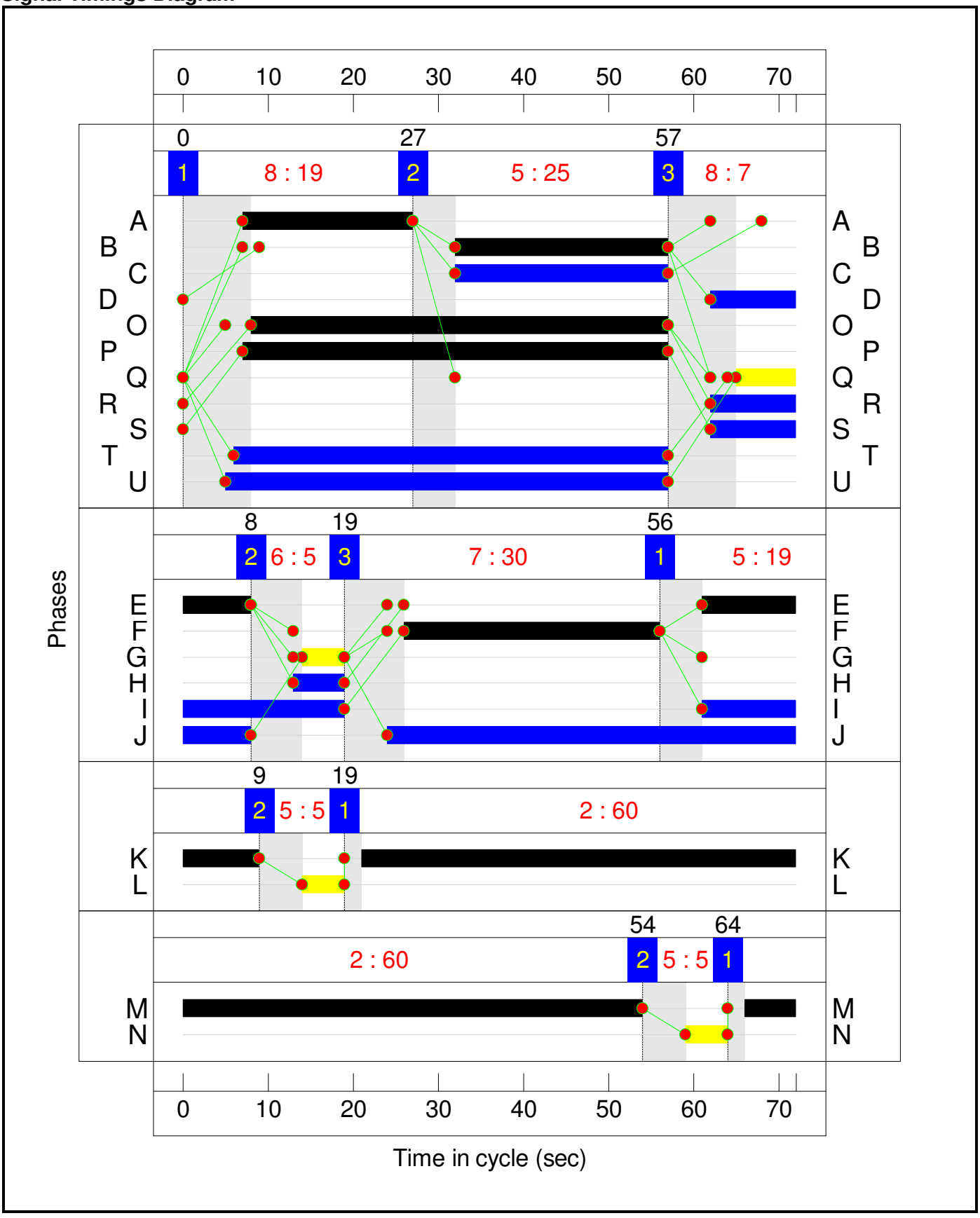
Stage	1	2
Duration	60	5
Change Point	19	9

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	64	54

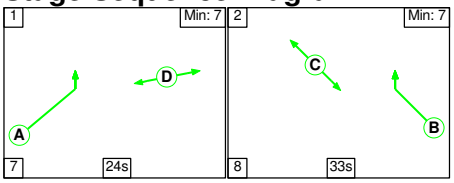
Signal Timings Diagram



Full Input Data And Results

C2

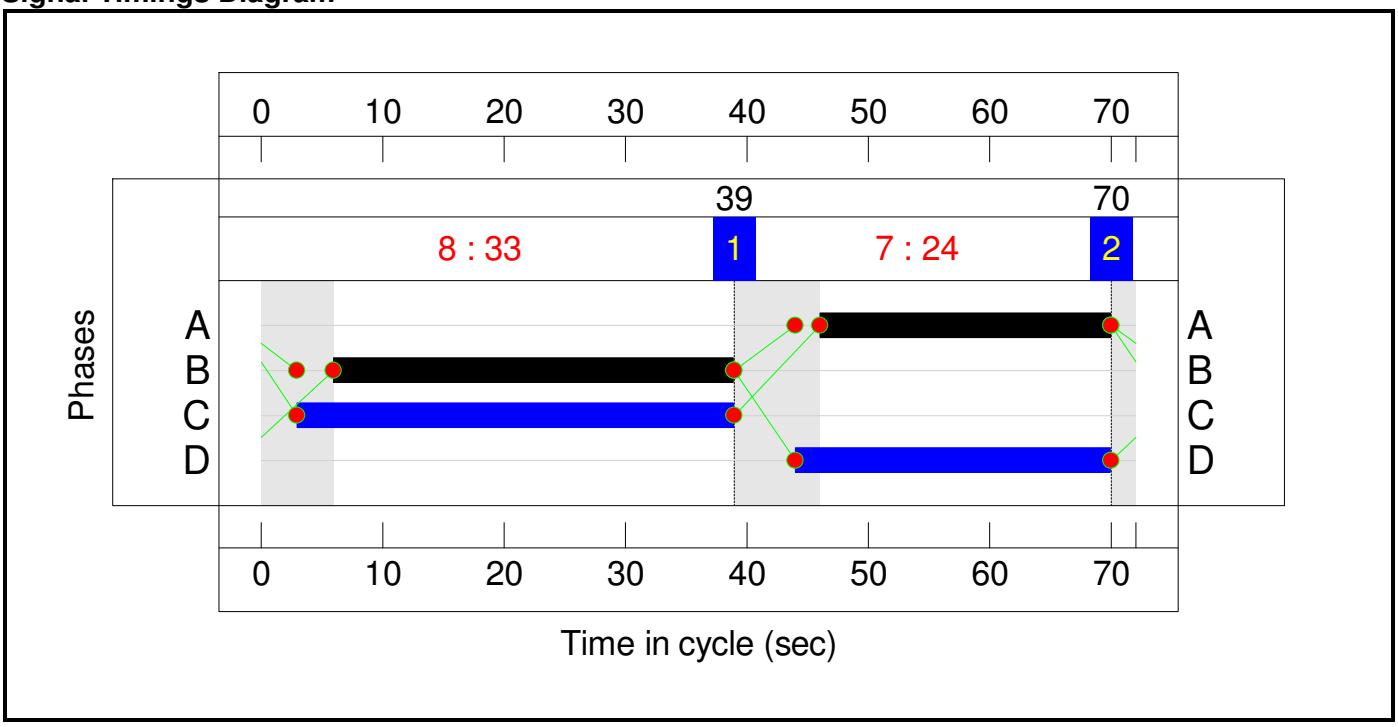
Stage Sequence Diagram



Stage Timings

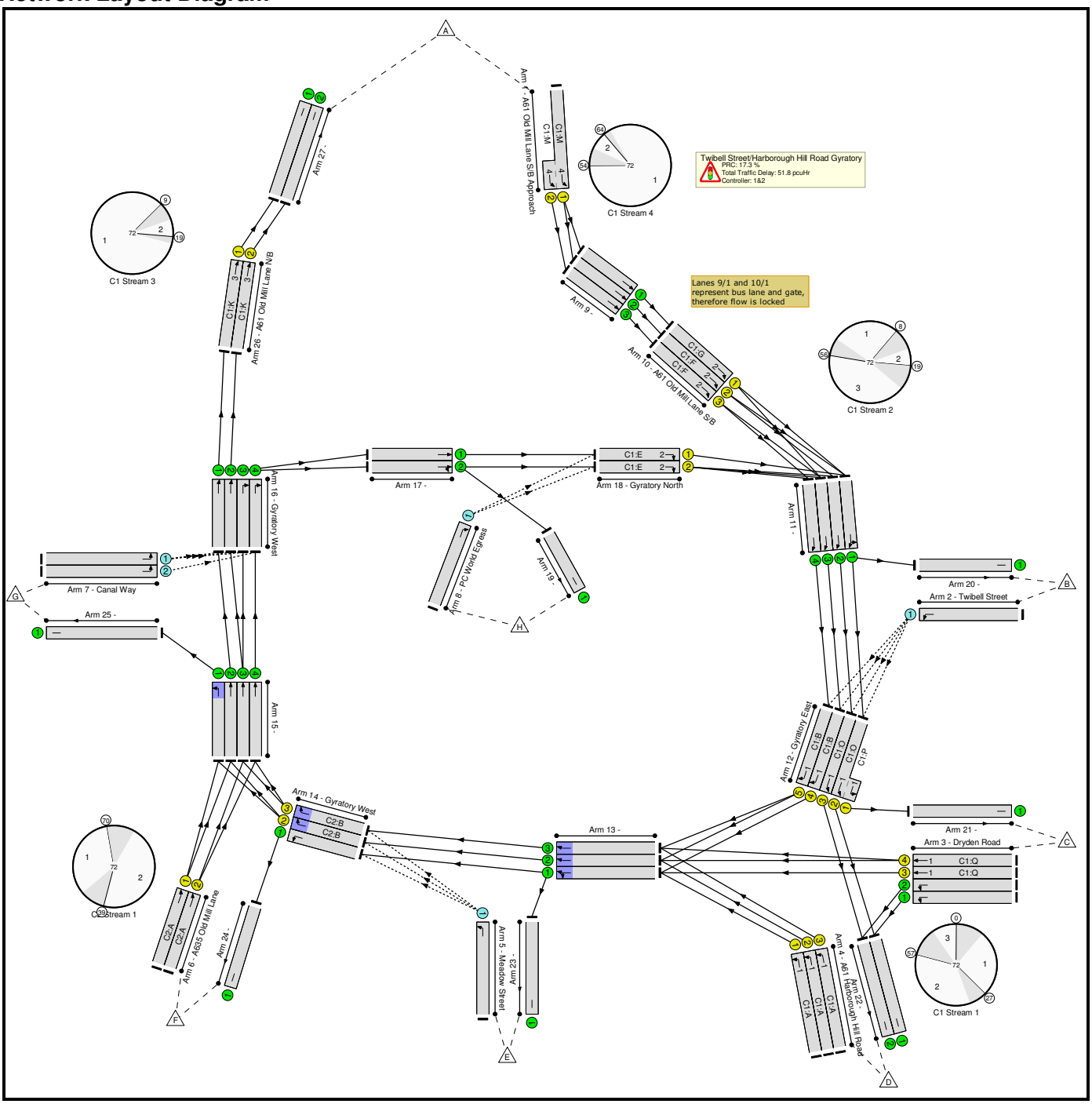
Stage	1	2
Duration	24	33
Change Point	39	70

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.7%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.7%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1212	1940:1940	1778	68.2%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	128	2014	335	38.2%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	103	1848	1848	5.6%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	54	1824	1824	3.0%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	70	1965	218	32.1%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	135	1965	218	61.8%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	114	2005	585	19.5%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	455	2145	626	72.7%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	451	2015	588	76.7%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	15	1859	317	4.7%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	24	-	449	1965	682	65.8%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	24	-	444	1965	682	65.1%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	234	1871	400	58.5%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	292	2005	527	55.4%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	32	2015	586	5.5%
9/1	Ahead	U	N/A	N/A	-		-	-	-	58	1990	1990	2.9%
9/2	Ahead	U	N/A	N/A	-		-	-	-	636	2080	2080	30.6%
9/3	Ahead	U	N/A	N/A	-		-	-	-	518	1940	1940	26.7%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	58	1990	166	35.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	30	-	636	2080	896	71.0%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	30	-	518	1940	835	62.0%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	650	1990	1990	32.7%
11/2	Ahead	U	N/A	N/A	-		-	-	-	577	2080	2080	27.7%
11/3	Ahead	U	N/A	N/A	-		-	-	-	532	2080	2080	25.6%
11/4	Ahead	U	N/A	N/A	-		-	-	-	214	1940	1940	11.0%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	600	1965:1965	1490	40.3%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	588	1990	1382	42.5%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	25	-	539	2015	728	74.1%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	25	-	236	2015	728	32.4%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	723	2012	2012	35.9%
13/2	Ahead	U	N/A	N/A	-		-	-	-	711	2105	2105	33.8%
13/3	Ahead	U	N/A	N/A	-		-	-	-	566	1965	1965	28.8%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	714	2015	2015	35.4%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	33	-	712	1990	940	75.8%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	33	-	570	1990	940	60.7%
15/1	Left	U	N/A	N/A	-		-	-	-	743	1895	1895	39.2%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	418	2015	2015	20.7%
15/3	Ahead	U	N/A	N/A	-		-	-	-	923	2130	2130	43.3%
15/4	Ahead	U	N/A	N/A	-		-	-	-	91	1990	1990	4.6%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	493	1990	1990	24.8%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	712	2105	2105	33.8%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	370	1990	1990	18.6%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	383	1990	1990	19.2%
17/1	Ahead	U	N/A	N/A	-		-	-	-	370	1990	1990	18.6%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	383	1959	1959	19.6%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	19	-	384	1965	546	70.4%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	19	-	377	1965	546	69.1%
19/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	138	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	493	1965	1665	29.6%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	712	1990	1686	42.2%
27/1		U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	712	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**701**	**0**	**0**	**29.4**	**22.4**	**0.0**	**51.8**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**701**	**0**	**0**	**29.4**	**22.4**	**0.0**	**51.8**	**-**	**-**	**-**	**-**
1/1+1/2	1212	1212	-	-	-	0.4	1.1	-	1.5	4.4	3.3	1.1	4.3
2/1	128	128	128	0	0	0.1	0.3	-	0.4	12.1	0.8	0.3	1.1
3/1	103	103	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	54	54	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	70	70	-	-	-	0.6	0.2	-	0.8	41.6	1.3	0.2	1.5
3/4	135	135	-	-	-	1.1	0.8	-	1.9	51.8	2.5	0.8	3.3
4/1	114	114	-	-	-	0.6	0.1	-	0.7	23.0	1.7	0.1	1.8
4/2	455	455	-	-	-	2.9	1.3	-	4.2	33.3	8.1	1.3	9.4
4/3	451	451	-	-	-	2.9	1.6	-	4.5	36.1	8.1	1.6	9.8
5/1	15	15	15	0	0	0.0	0.0	-	0.0	7.5	0.1	0.0	0.1
6/1	449	449	-	-	-	2.5	1.0	-	3.4	27.5	7.5	1.0	8.4
6/2	444	444	-	-	-	2.4	0.9	-	3.4	27.3	7.4	0.9	8.3
7/1	234	234	234	0	0	0.1	0.7	-	0.8	12.4	1.2	0.7	1.9
7/2	292	292	292	0	0	0.2	0.6	-	0.8	9.8	1.5	0.6	2.2
8/1	32	32	32	0	0	0.0	0.0	-	0.0	3.2	0.0	0.0	0.0
9/1	58	58	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	636	636	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
9/3	518	518	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
10/1	58	58	-	-	-	0.5	0.3	-	0.7	46.5	1.1	0.3	1.3
10/2	636	636	-	-	-	2.7	1.2	-	4.0	22.4	10.4	1.2	11.6
10/3	518	518	-	-	-	2.1	0.8	-	2.9	20.4	7.9	0.8	8.7
11/1	650	650	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2

Full Input Data And Results

11/2	577	577	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	532	532	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/4	214	214	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/2+12/1	600	600	-	-	-	0.5	0.3	-	0.9	5.2	5.4	0.3	5.7
12/3	588	588	-	-	-	0.7	0.4	-	1.0	6.3	5.2	0.4	5.6
12/4	539	539	-	-	-	2.2	1.4	-	3.7	24.4	8.4	1.4	9.8
12/5	236	236	-	-	-	0.6	0.2	-	0.8	12.1	1.1	0.2	1.4
13/1	723	723	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
13/2	711	711	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
13/3	566	566	-	-	-	0.0	0.2	-	0.2	1.3	0.1	0.2	0.3
14/1	714	714	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
14/2	712	712	-	-	-	1.8	1.5	-	3.3	16.7	5.2	1.5	6.8
14/3	570	570	-	-	-	0.3	0.8	-	1.0	6.4	0.8	0.8	1.5
15/1	743	743	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/2	418	418	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
15/3	923	923	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/4	91	91	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	493	493	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/2	712	712	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
16/3	370	370	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	383	383	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	370	370	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	383	383	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	384	384	-	-	-	2.0	1.2	-	3.2	29.8	6.9	1.2	8.0
18/2	377	377	-	-	-	2.1	1.1	-	3.2	30.2	6.1	1.1	7.2
19/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	138	138	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

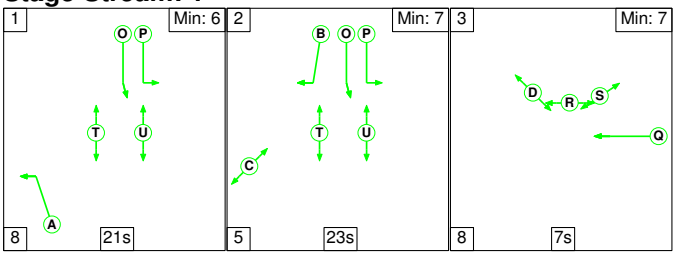
23/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	743	743	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	493	493	-	-	-	0.0	0.2	-	0.3	1.9	0.5	0.2	0.7
26/2	712	712	-	-	-	0.1	0.4	-	0.4	2.2	1.7	0.4	2.0
27/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	712	712	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	17.3	Total Delay for Signalled Lanes (pcuHr):	18.54	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	26.7	Total Delay for Signalled Lanes (pcuHr):	13.98	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	113.1	Total Delay for Signalled Lanes (pcuHr):	0.70	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	32.0	Total Delay for Signalled Lanes (pcuHr):	1.48	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	18.8	Total Delay for Signalled Lanes (pcuHr):	11.12	Cycle Time (s):	72
	PRC Over All Lanes (%):	17.3	Total Delay Over All Lanes(pcuHr):	51.80		

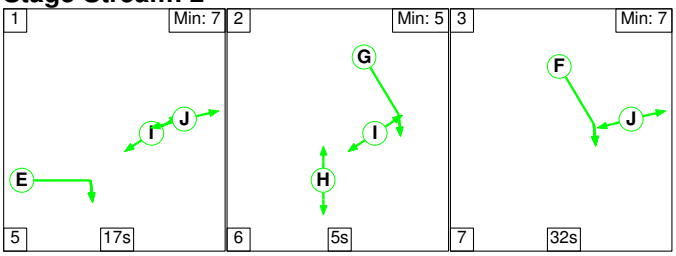
Full Input Data And Results
Scenario 5: 'Fri 2017 Future Base' (FG5: 'Fri 2017 Future Base', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

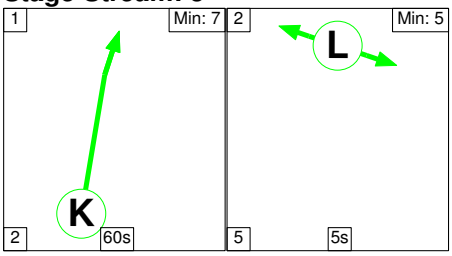
Stage Stream: 1



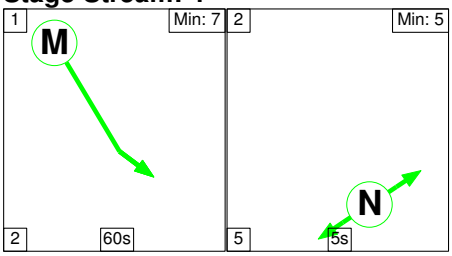
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	21	23	7
Change Point	58	15	43

Stage Stream: 2

Stage	1	2	3
Duration	17	5	32
Change Point	14	36	47

Stage Stream: 3

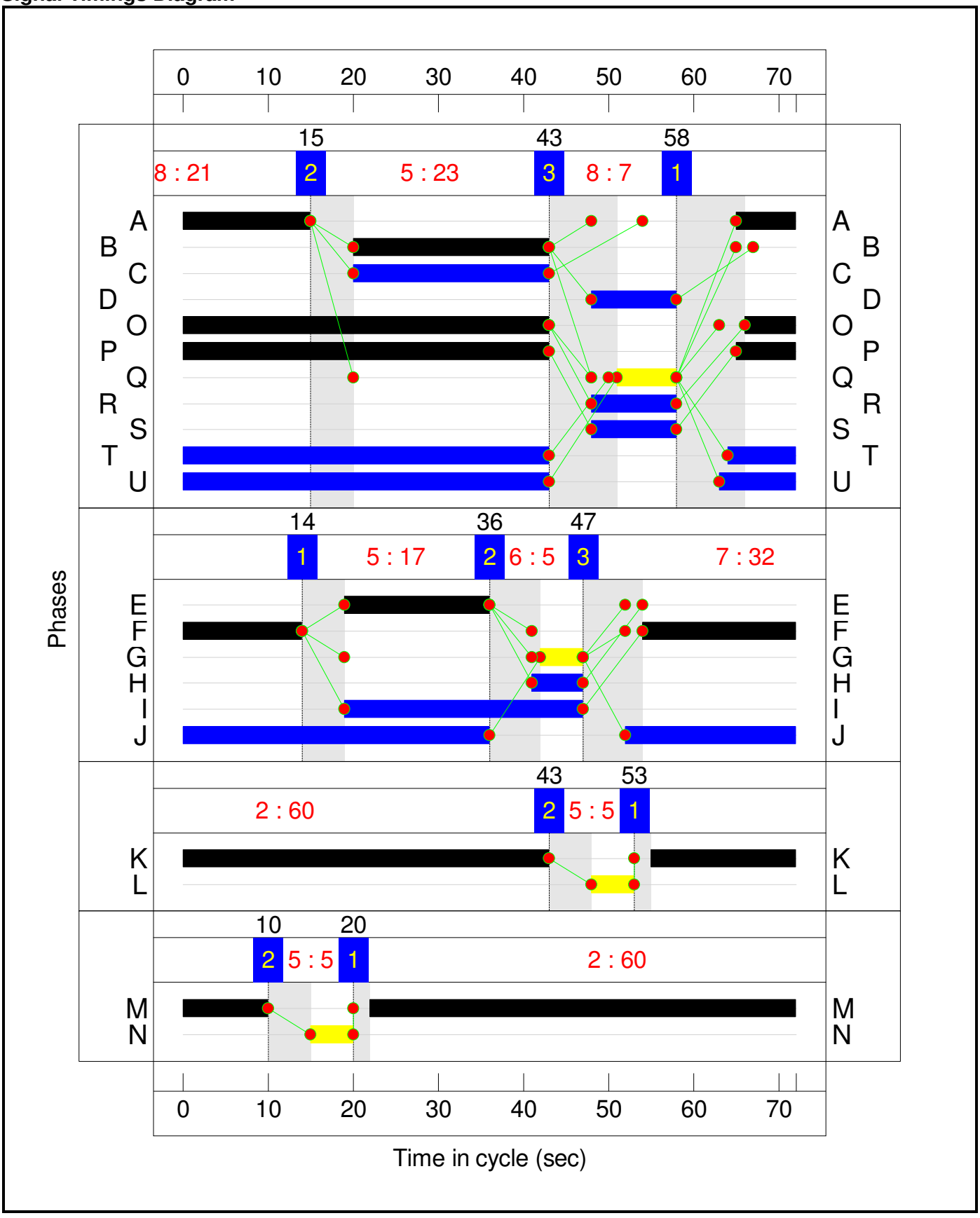
Stage	1	2
Duration	60	5
Change Point	53	43

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	20	10

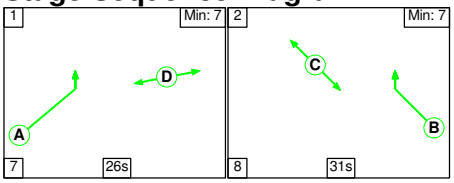
Signal Timings Diagram



Full Input Data And Results

C2

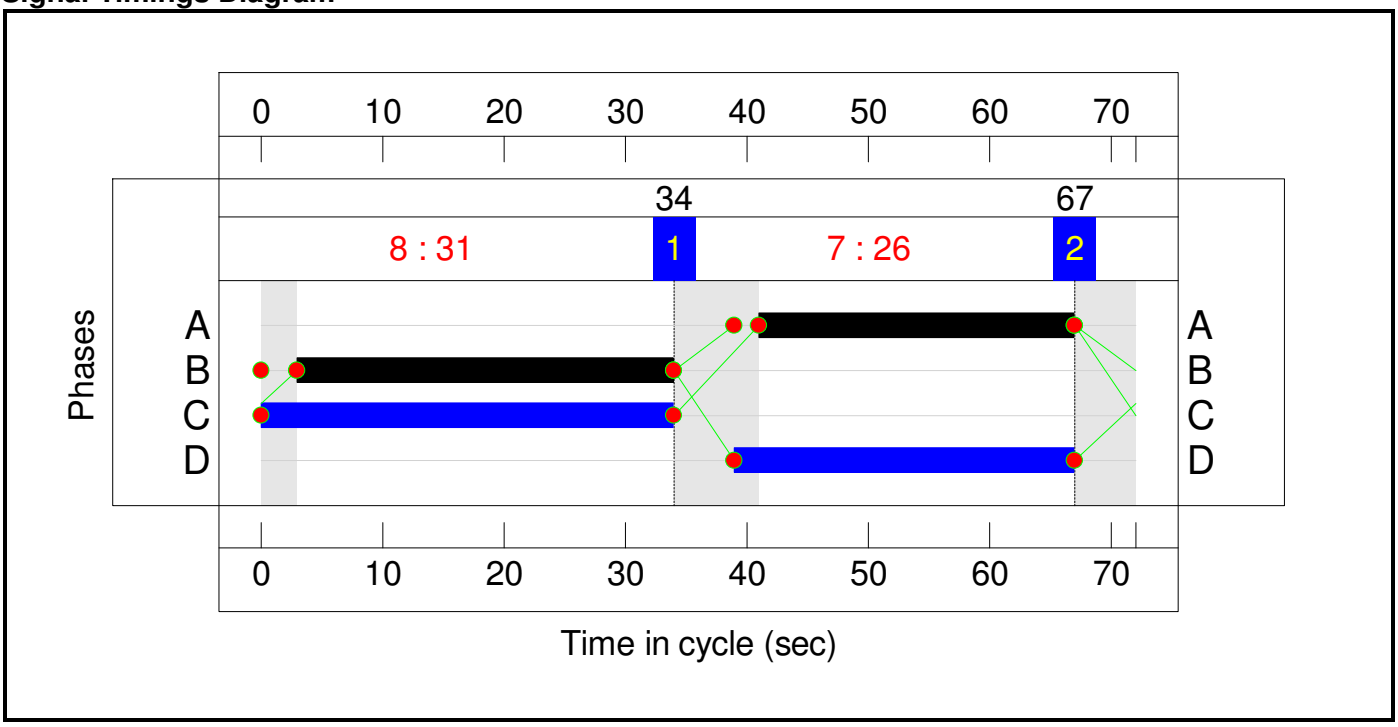
Stage Sequence Diagram



Stage Timings

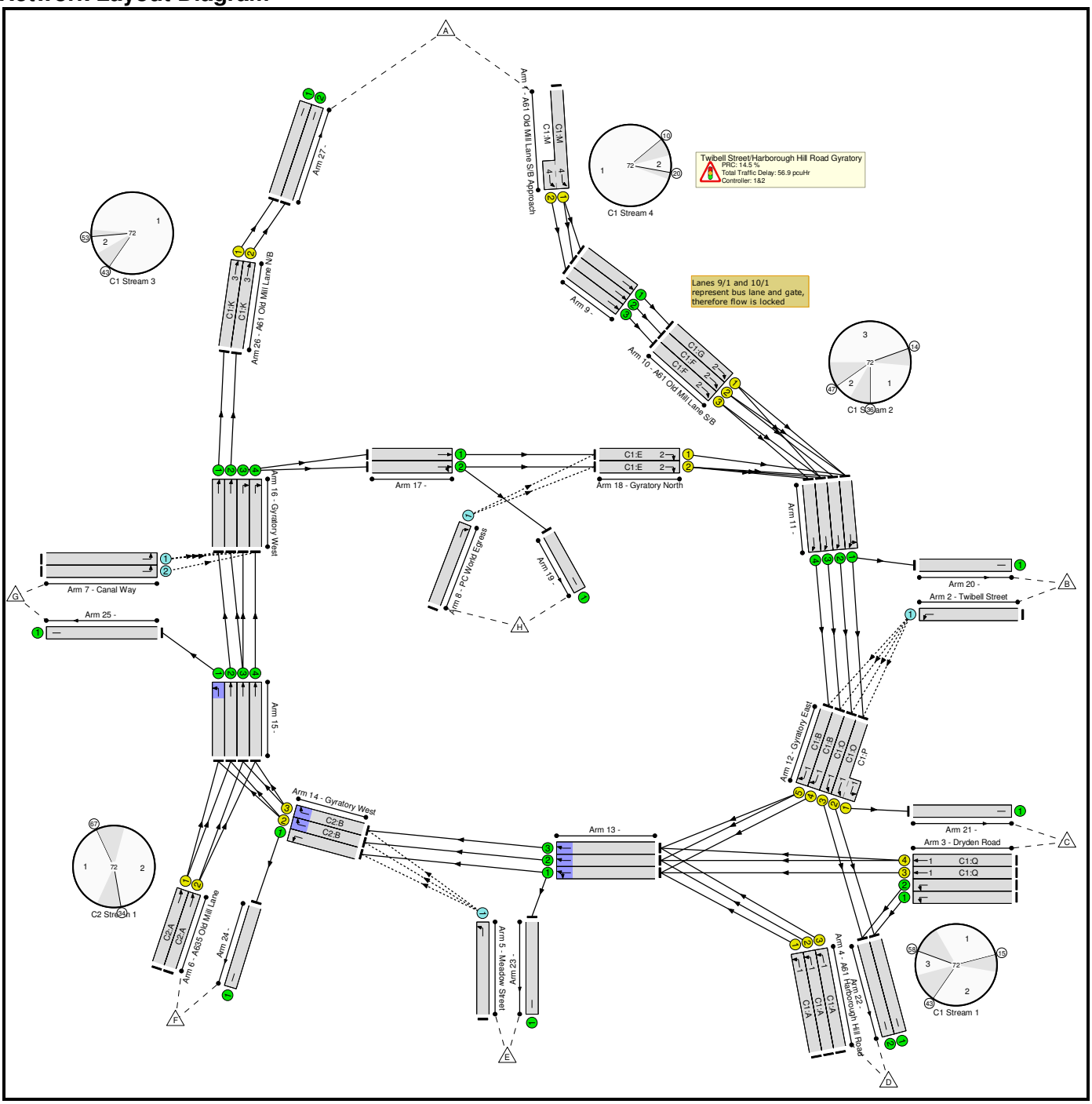
Stage	1	2
Duration	26	31
Change Point	34	67

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.6%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.6%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1267	1940:1940	1744	72.7%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	100	2014	321	31.2%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	74	1848	1848	4.0%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	25	1824	1824	1.4%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	32	1965	218	14.7%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	64	1965	218	29.3%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	165	2005	640	25.8%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	489	2145	685	71.4%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	22	-	506	2015	644	78.6%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	20	1859	337	5.9%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	26	-	574	1965	737	77.9%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	26	-	562	1965	737	76.3%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	197	1871	348	56.6%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	267	2005	450	59.4%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	19	2015	594	3.2%
9/1	Ahead	U	N/A	N/A	-		-	-	-	73	1990	1990	3.7%
9/2	Ahead	U	N/A	N/A	-		-	-	-	741	2080	2080	35.6%
9/3	Ahead	U	N/A	N/A	-		-	-	-	453	1940	1940	23.4%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	73	1990	166	44.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	32	-	741	2080	953	77.7%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	32	-	453	1940	889	50.9%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	690	1990	1990	34.7%
11/2	Ahead	U	N/A	N/A	-		-	-	-	615	2080	2080	29.6%
11/3	Ahead	U	N/A	N/A	-		-	-	-	502	2080	2080	24.1%
11/4	Ahead	U	N/A	N/A	-		-	-	-	191	1940	1940	9.8%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	663	1965:1965	1462	45.4%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	633	1990	1382	45.8%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	23	-	518	2015	672	77.1%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	23	-	197	2015	672	29.3%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	715	2011	2011	35.6%
13/2	Ahead	U	N/A	N/A	-		-	-	-	691	2105	2105	32.8%
13/3	Ahead	U	N/A	N/A	-		-	-	-	565	1965	1965	28.8%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	697	2015	2015	34.6%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	31	-	695	1990	884	78.6%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	31	-	573	1990	884	64.8%
15/1	Left	U	N/A	N/A	-		-	-	-	736	1895	1895	38.8%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	533	2015	2015	26.5%
15/3	Ahead	U	N/A	N/A	-		-	-	-	1010	2130	2130	47.4%
15/4	Ahead	U	N/A	N/A	-		-	-	-	125	1990	1990	6.3%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	598	1990	1990	30.1%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	802	2105	2105	38.1%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	340	1990	1990	17.1%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	392	1990	1990	19.7%
17/1	Ahead	U	N/A	N/A	-		-	-	-	340	1990	1990	17.1%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	392	1960	1960	20.0%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	17	-	350	1965	491	71.2%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	17	-	381	1965	491	77.6%
19/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	697	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	736	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	598	1965	1665	35.9%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	802	1990	1686	47.6%
27/1		U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	802	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**603**	**0**	**0**	**31.4**	**25.5**	**0.0**	**56.9**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**603**	**0**	**0**	**31.4**	**25.5**	**0.0**	**56.9**	**-**	**-**	**-**	**-**
1/1+1/2	1267	1267	-	-	-	0.5	1.3	-	1.8	5.1	5.3	1.3	6.6
2/1	100	100	100	0	0	0.1	0.2	-	0.3	11.1	0.6	0.2	0.8
3/1	74	74	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	25	25	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	32	32	-	-	-	0.3	0.1	-	0.3	38.6	0.6	0.1	0.7
3/4	64	64	-	-	-	0.5	0.2	-	0.7	41.1	1.2	0.2	1.4
4/1	165	165	-	-	-	0.8	0.2	-	1.0	22.0	2.4	0.2	2.6
4/2	489	489	-	-	-	2.9	1.2	-	4.2	30.7	8.6	1.2	9.8
4/3	506	506	-	-	-	3.1	1.8	-	4.9	35.0	9.1	1.8	10.9
5/1	20	20	20	0	0	0.0	0.0	-	0.0	7.7	0.1	0.0	0.1
6/1	574	574	-	-	-	3.2	1.7	-	4.9	30.7	10.0	1.7	11.8
6/2	562	562	-	-	-	3.1	1.6	-	4.7	29.8	9.8	1.6	11.4
7/1	197	197	197	0	0	0.2	0.6	-	0.8	14.7	1.2	0.6	1.9
7/2	267	267	267	0	0	0.3	0.7	-	1.1	14.2	1.9	0.7	2.6
8/1	19	19	19	0	0	0.0	0.0	-	0.0	3.1	0.0	0.0	0.0
9/1	73	73	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	741	741	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
9/3	453	453	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
10/1	73	73	-	-	-	0.6	0.4	-	1.0	49.2	1.4	0.4	1.8
10/2	741	741	-	-	-	3.1	1.7	-	4.8	23.3	12.4	1.7	14.1
10/3	453	453	-	-	-	1.6	0.5	-	2.1	16.7	6.3	0.5	6.8
11/1	690	690	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

Full Input Data And Results

11/2	615	615	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	502	502	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
11/4	191	191	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/2+12/1	663	663	-	-	-	0.4	0.4	-	0.8	4.6	1.3	0.4	1.7
12/3	633	633	-	-	-	0.2	0.4	-	0.6	3.6	1.8	0.4	2.2
12/4	518	518	-	-	-	2.8	1.7	-	4.4	30.6	8.1	1.7	9.8
12/5	197	197	-	-	-	1.0	0.2	-	1.2	22.3	3.8	0.2	4.0
13/1	715	715	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
13/2	691	691	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.3
13/3	565	565	-	-	-	0.0	0.2	-	0.2	1.3	0.1	0.2	0.3
14/1	697	697	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
14/2	695	695	-	-	-	1.5	1.8	-	3.3	17.1	11.1	1.8	12.9
14/3	573	573	-	-	-	0.3	0.9	-	1.2	7.5	1.8	0.9	2.7
15/1	736	736	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
15/2	533	533	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
15/3	1010	1010	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
15/4	125	125	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	598	598	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/2	802	802	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
16/3	340	340	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	392	392	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	340	340	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	392	392	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	350	350	-	-	-	2.1	1.2	-	3.3	34.5	6.1	1.2	7.3
18/2	381	381	-	-	-	2.8	1.7	-	4.4	42.0	6.7	1.7	8.4
19/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

23/1	26	26	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	598	598	-	-	-	0.0	0.3	-	0.3	1.9	0.7	0.3	0.9
26/2	802	802	-	-	-	0.0	0.5	-	0.5	2.2	0.7	0.5	1.2
27/1	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	14.5	Total Delay for Signalled Lanes (pcuHr):	18.26	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	15.8	Total Delay for Signalled Lanes (pcuHr):	15.68	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	89.2	Total Delay for Signalled Lanes (pcuHr):	0.81	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	23.9	Total Delay for Signalled Lanes (pcuHr):	1.80	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	14.5	Total Delay for Signalled Lanes (pcuHr):	14.03	Cycle Time (s):	72
	PRC Over All Lanes (%):	14.5	Total Delay Over All Lanes(pcuHr):	56.93		

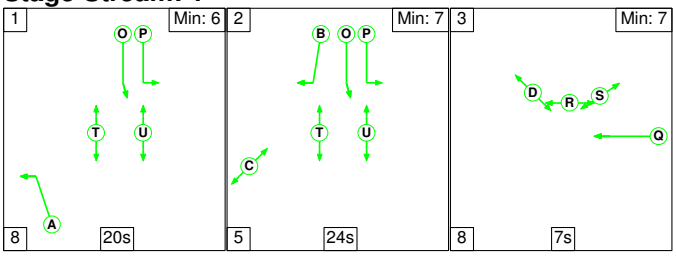
Full Input Data And Results

Scenario 6: 'Sat 2017 Future Base' (FG6: 'Sat 2017 Future Base', Plan 1: 'Network Control Plan 1')

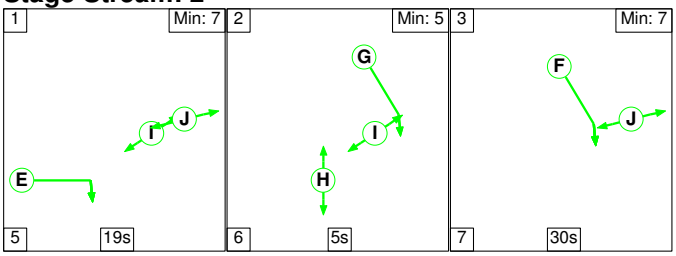
C1

Stage Sequence Diagram

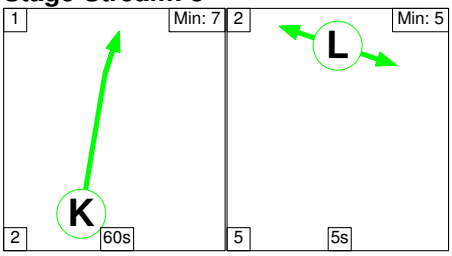
Stage Stream: 1



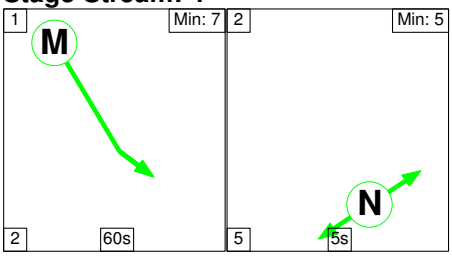
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	20	24	7
Change Point	0	28	57

Stage Stream: 2

Stage	1	2	3
Duration	19	5	30
Change Point	56	8	19

Stage Stream: 3

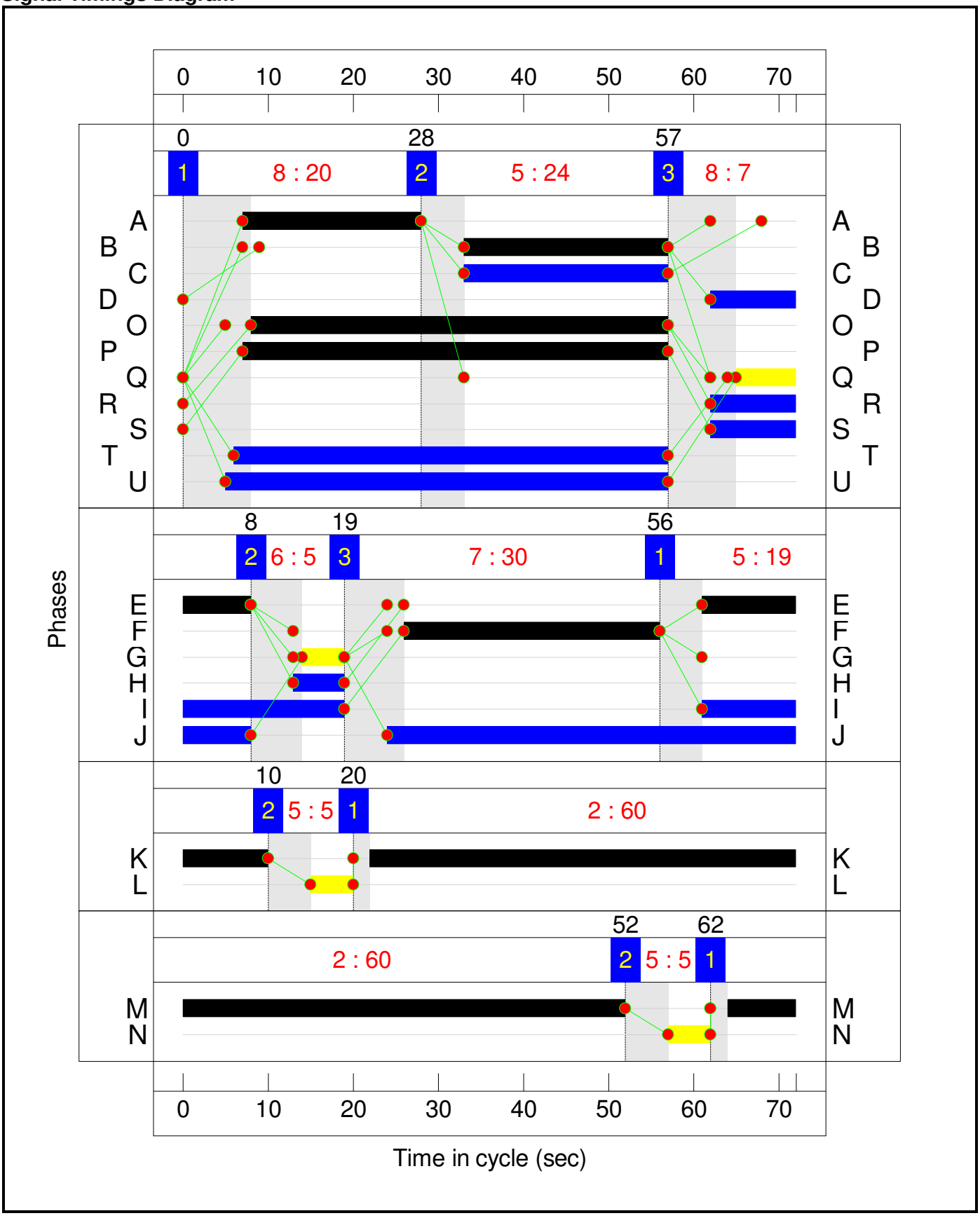
Stage	1	2
Duration	60	5
Change Point	20	10

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	62	52

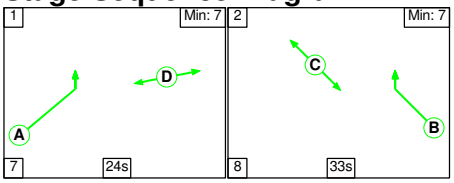
Signal Timings Diagram



Full Input Data And Results

C2

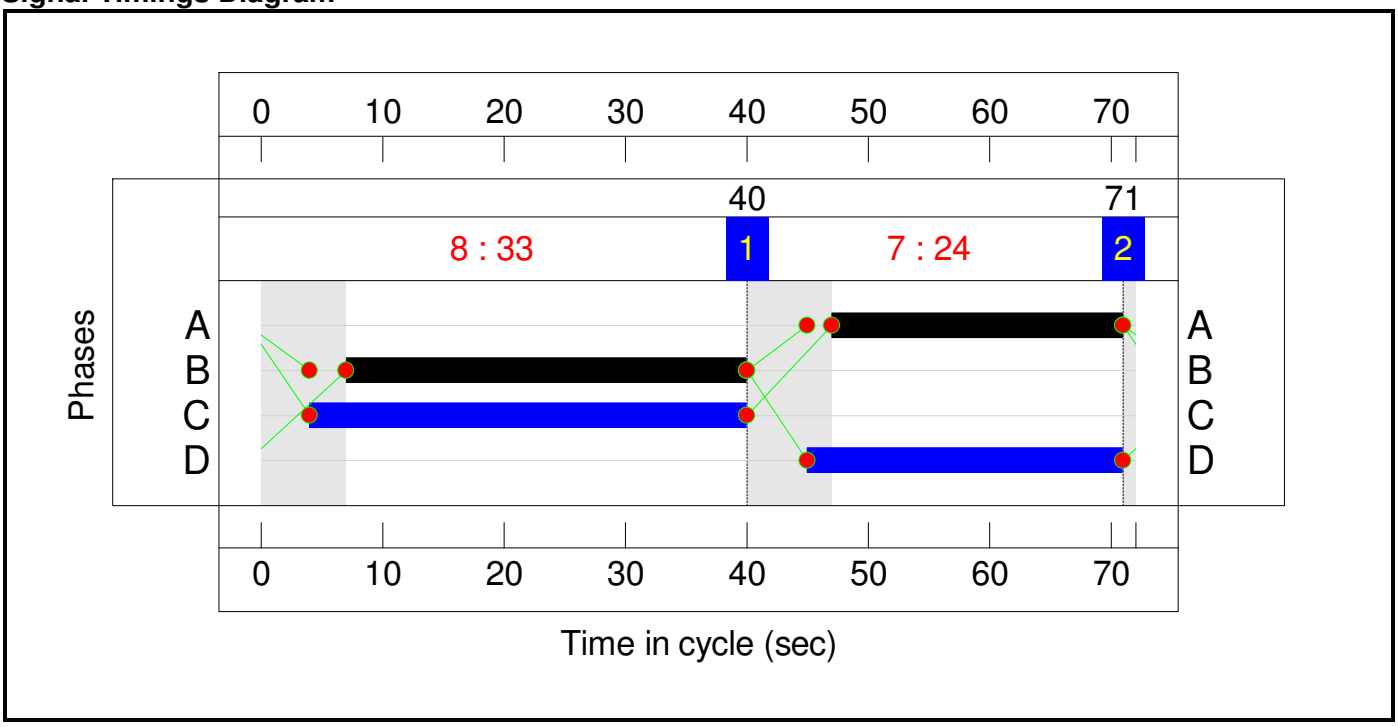
Stage Sequence Diagram



Stage Timings

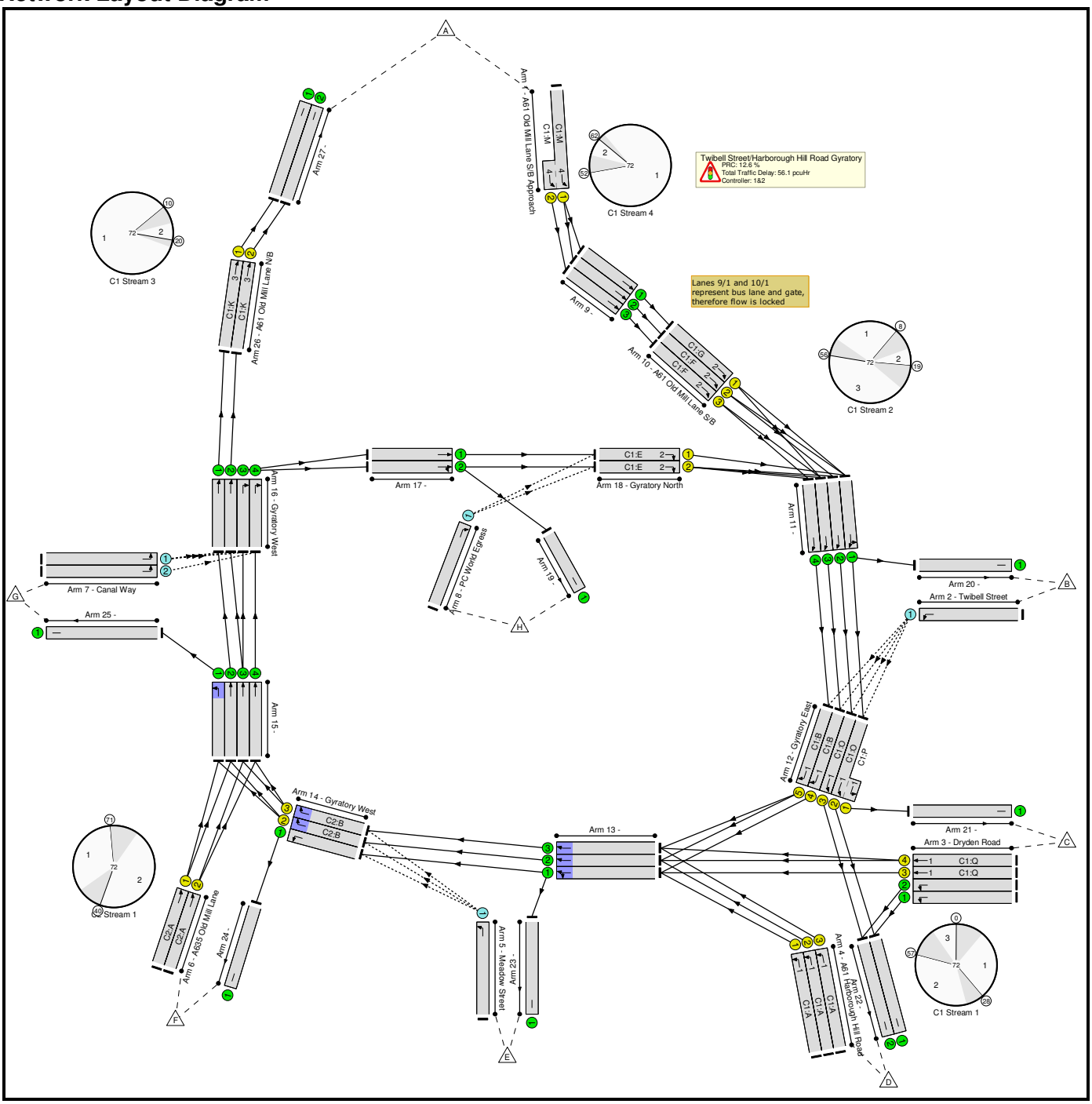
Stage	1	2
Duration	24	33
Change Point	40	71

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.9%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.9%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1262	1940:1940	1778	71.0%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	133	2014	320	41.6%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	106	1848	1848	5.7%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	58	1824	1824	3.2%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	73	1965	218	33.4%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	141	1965	218	64.6%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	21	-	118	2005	613	19.3%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	21	-	472	2145	655	72.0%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	21	-	472	2015	616	76.7%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	15	1859	301	5.0%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	24	-	472	1965	682	69.2%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	24	-	457	1965	682	67.0%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	243	1871	387	62.7%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	306	2005	508	60.2%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	33	2015	575	5.7%
9/1	Ahead	U	N/A	N/A	-		-	-	-	58	1990	1990	2.9%
9/2	Ahead	U	N/A	N/A	-		-	-	-	664	2080	2080	31.9%
9/3	Ahead	U	N/A	N/A	-		-	-	-	540	1940	1940	27.8%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	58	1990	166	35.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	30	-	664	2080	896	74.1%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	30	-	540	1940	835	64.6%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	682	1990	1990	34.3%
11/2	Ahead	U	N/A	N/A	-		-	-	-	599	2080	2080	28.8%
11/3	Ahead	U	N/A	N/A	-		-	-	-	552	2080	2080	26.5%
11/4	Ahead	U	N/A	N/A	-		-	-	-	223	1940	1940	11.5%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	629	1965:1965	1490	42.2%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	611	1990	1382	44.2%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	24	-	559	2015	700	79.9%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	24	-	246	2015	700	35.2%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	750	2012	2012	37.3%
13/2	Ahead	U	N/A	N/A	-		-	-	-	739	2105	2105	35.1%
13/3	Ahead	U	N/A	N/A	-		-	-	-	592	1965	1965	30.1%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	740	2015	2015	36.7%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	33	-	740	1990	940	78.7%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	33	-	596	1990	940	63.4%
15/1	Left	U	N/A	N/A	-		-	-	-	776	1895	1895	40.9%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	436	2015	2015	21.6%
15/3	Ahead	U	N/A	N/A	-		-	-	-	960	2130	2130	45.1%
15/4	Ahead	U	N/A	N/A	-		-	-	-	93	1990	1990	4.7%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	540	1990	1990	27.1%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	713	2105	2105	33.9%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	386	1990	1990	19.4%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	399	1990	1990	20.1%
17/1	Ahead	U	N/A	N/A	-		-	-	-	386	1990	1990	19.4%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	399	1959	1959	20.4%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	19	-	400	1965	546	73.3%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	19	-	394	1965	546	72.2%
19/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	144	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	364	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	669	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	740	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	776	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	540	1965	1665	32.4%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	713	1990	1686	42.3%
27/1		U	N/A	N/A	-		-	-	-	540	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	713	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**730**	**0**	**0**	**31.0**	**25.1**	**0.0**	**56.1**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**730**	**0**	**0**	**31.0**	**25.1**	**0.0**	**56.1**	**-**	**-**	**-**	**-**
1/1+1/2	1262	1262	-	-	-	0.4	1.2	-	1.7	4.7	3.4	1.2	4.6
2/1	133	133	133	0	0	0.1	0.4	-	0.5	13.6	0.9	0.4	1.3
3/1	106	106	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	58	58	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	73	73	-	-	-	0.6	0.3	-	0.9	41.9	1.3	0.3	1.6
3/4	141	141	-	-	-	1.2	0.9	-	2.1	53.4	2.7	0.9	3.6
4/1	118	118	-	-	-	0.6	0.1	-	0.7	22.1	1.7	0.1	1.9
4/2	472	472	-	-	-	2.9	1.3	-	4.2	31.9	8.4	1.3	9.7
4/3	472	472	-	-	-	3.0	1.6	-	4.6	34.9	8.5	1.6	10.1
5/1	15	15	15	0	0	0.0	0.0	-	0.0	7.9	0.1	0.0	0.1
6/1	472	472	-	-	-	2.6	1.1	-	3.8	28.7	8.0	1.1	9.1
6/2	457	457	-	-	-	2.5	1.0	-	3.5	27.9	7.7	1.0	8.7
7/1	243	243	243	0	0	0.1	0.8	-	1.0	14.3	1.4	0.8	2.2
7/2	306	306	306	0	0	0.2	0.8	-	1.0	11.4	1.8	0.8	2.5
8/1	33	33	33	0	0	0.0	0.0	-	0.0	3.3	0.0	0.0	0.0
9/1	58	58	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	664	664	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/3	540	540	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
10/1	58	58	-	-	-	0.5	0.3	-	0.7	46.4	1.1	0.3	1.3
10/2	664	664	-	-	-	2.9	1.4	-	4.3	23.5	11.1	1.4	12.5
10/3	540	540	-	-	-	2.3	0.9	-	3.2	21.1	8.4	0.9	9.3
11/1	682	682	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

Full Input Data And Results

11/2	599	599	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	552	552	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/4	223	223	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
12/2+12/1	629	629	-	-	-	0.6	0.4	-	1.0	5.5	5.7	0.4	6.1
12/3	611	611	-	-	-	0.7	0.4	-	1.1	6.5	5.5	0.4	5.9
12/4	559	559	-	-	-	2.5	1.9	-	4.4	28.5	9.6	1.9	11.5
12/5	246	246	-	-	-	0.6	0.3	-	0.9	12.9	1.2	0.3	1.5
13/1	750	750	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
13/2	739	739	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
13/3	592	592	-	-	-	0.0	0.2	-	0.2	1.3	0.1	0.2	0.3
14/1	740	740	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
14/2	740	740	-	-	-	1.9	1.8	-	3.7	18.1	5.6	1.8	7.4
14/3	596	596	-	-	-	0.3	0.9	-	1.1	6.8	0.9	0.9	1.8
15/1	776	776	-	-	-	0.0	0.3	-	0.3	1.6	0.1	0.3	0.4
15/2	436	436	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
15/3	960	960	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
15/4	93	93	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	540	540	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/2	713	713	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
16/3	386	386	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	399	399	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	386	386	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	399	399	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
18/1	400	400	-	-	-	2.1	1.3	-	3.4	30.9	7.2	1.3	8.5
18/2	394	394	-	-	-	2.2	1.3	-	3.5	31.6	6.2	1.3	7.4
19/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	364	364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	669	669	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

23/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	740	740	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	776	776	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	540	540	-	-	-	0.1	0.2	-	0.3	2.0	0.7	0.2	0.9
26/2	713	713	-	-	-	0.1	0.4	-	0.4	2.2	1.7	0.4	2.1
27/1	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	713	713	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	12.6	Total Delay for Signalled Lanes (pcuHr):	19.79	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	21.4	Total Delay for Signalled Lanes (pcuHr):	15.13	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	112.8	Total Delay for Signalled Lanes (pcuHr):	0.74	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	26.8	Total Delay for Signalled Lanes (pcuHr):	1.66	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	14.3	Total Delay for Signalled Lanes (pcuHr):	12.14	Cycle Time (s):	72
	PRC Over All Lanes (%):	12.6	Total Delay Over All Lanes(pcuHr):	56.09		

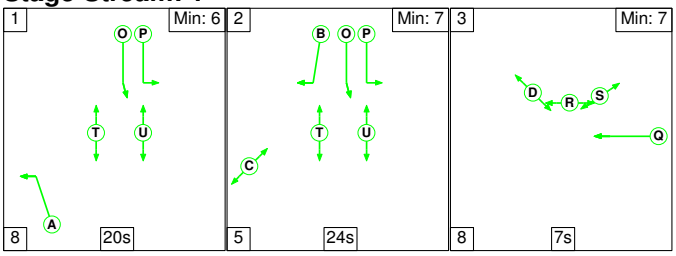
Full Input Data And Results

Scenario 7: 'Fri 2017 Future Base+Dev' (FG7: 'Fri 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

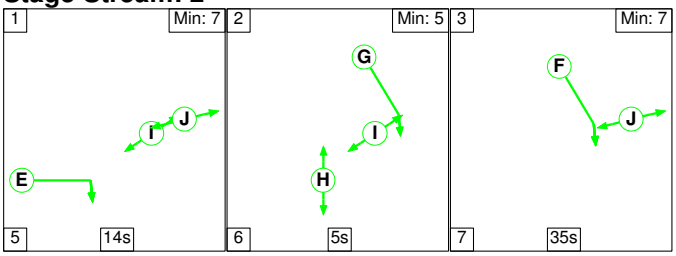
C1

Stage Sequence Diagram

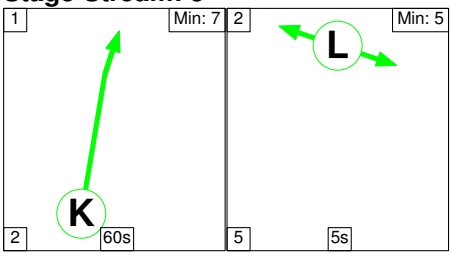
Stage Stream: 1



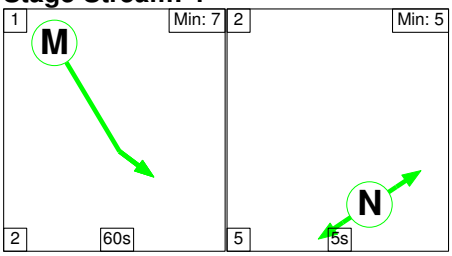
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	20	24	7
Change Point	58	14	43

Stage Stream: 2

Stage	1	2	3
Duration	14	5	35
Change Point	17	36	47

Stage Stream: 3

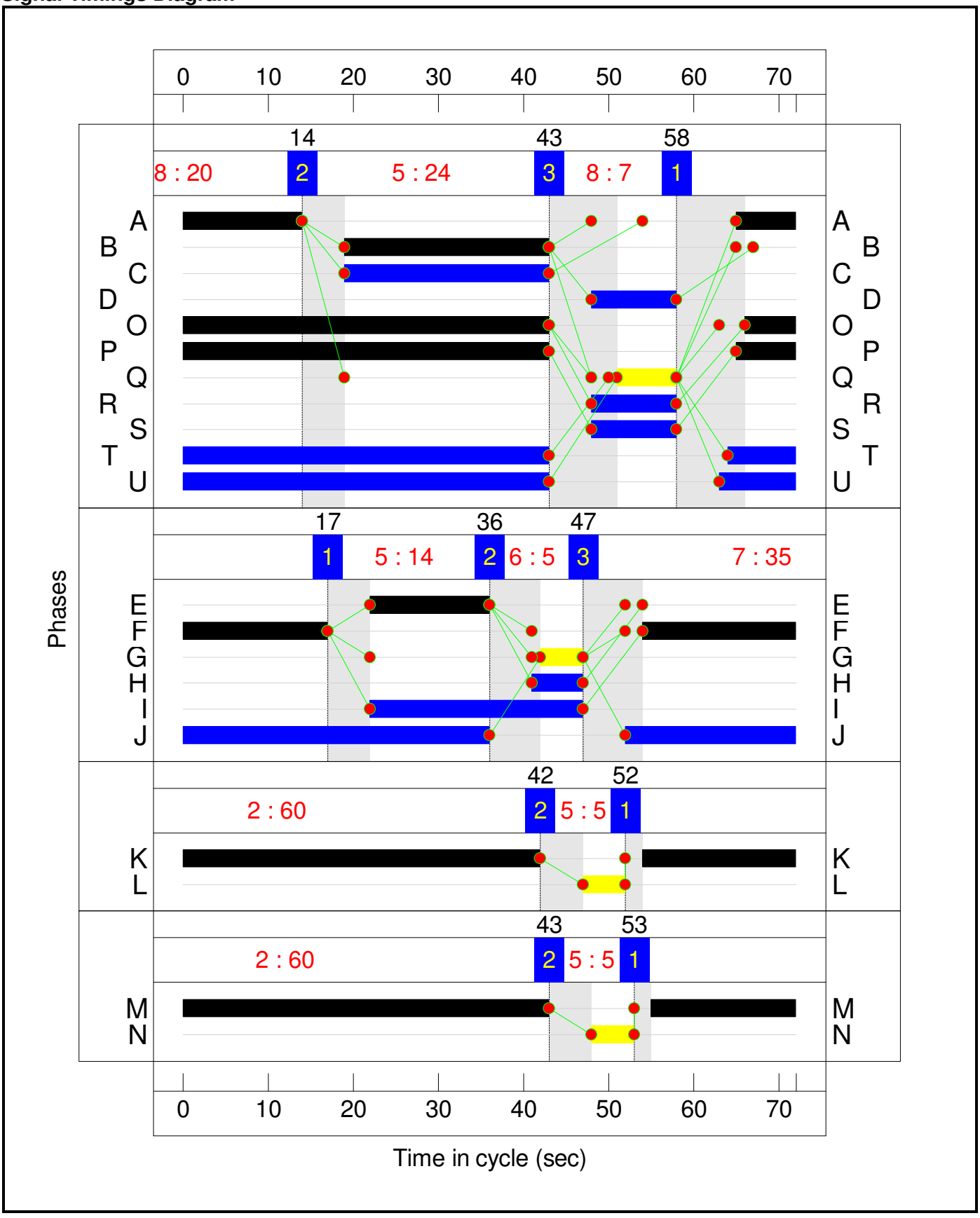
Stage	1	2
Duration	60	5
Change Point	52	42

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	53	43

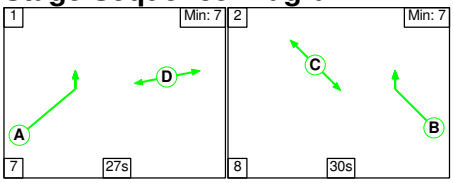
Signal Timings Diagram



Full Input Data And Results

C2

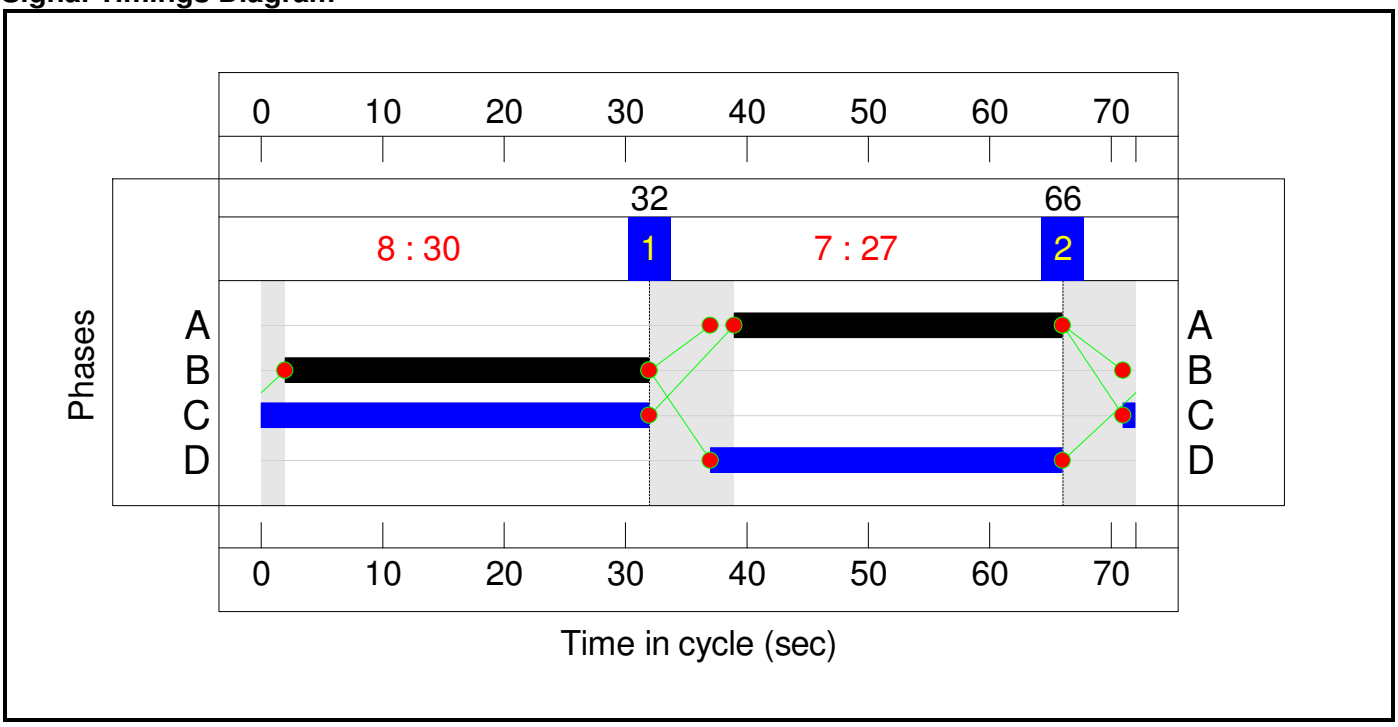
Stage Sequence Diagram



Stage Timings

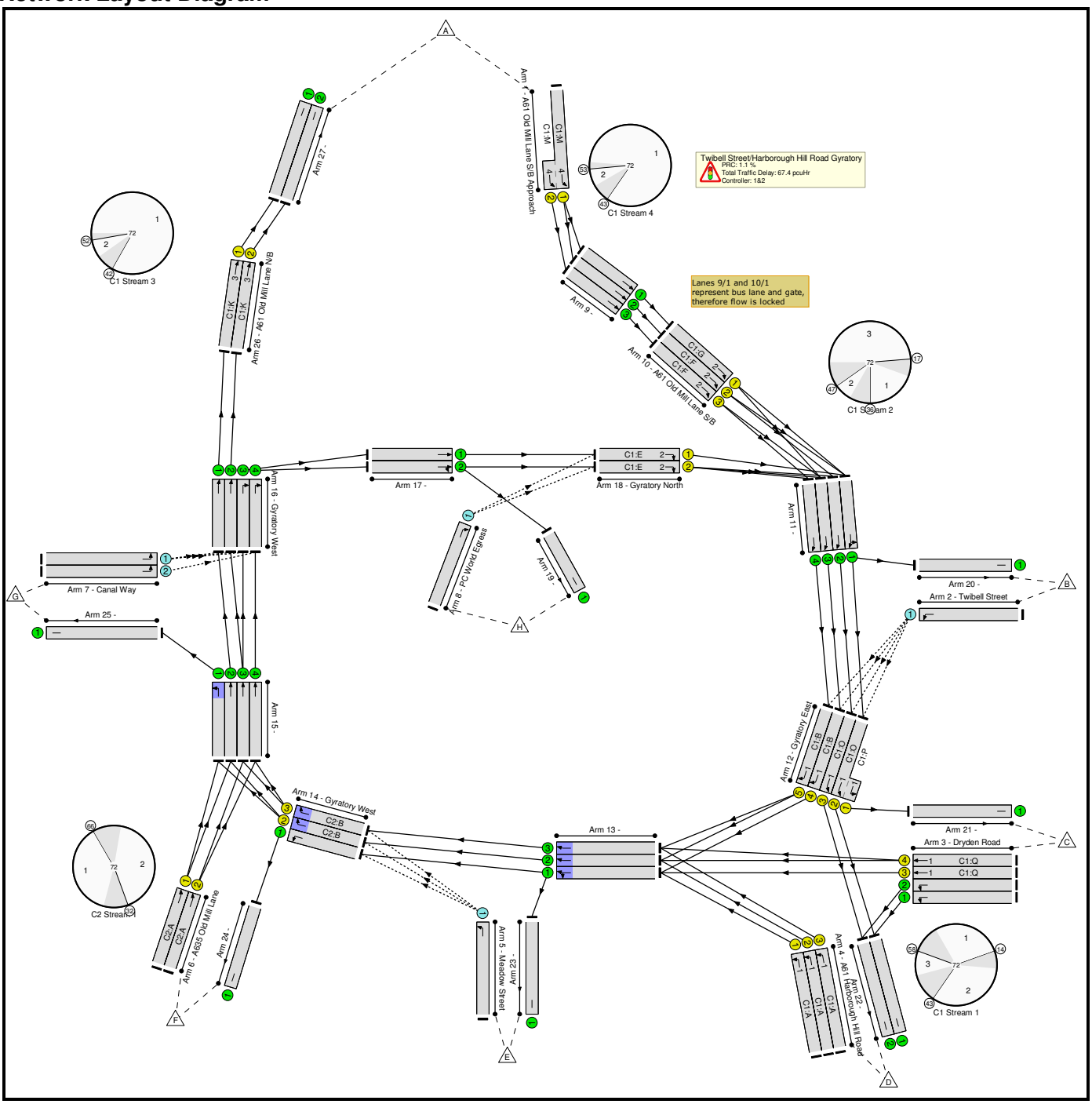
Stage	1	2
Duration	27	30
Change Point	32	66

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.0%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.0%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1475	1940:1940	1737	84.9%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	13	2014	291	4.5%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	65	1848	1848	3.5%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	34	1824	1824	1.9%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	32	1965	218	14.7%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	64	1965	218	29.3%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	21	-	151	2005	613	24.6%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	21	-	573	2145	655	87.4%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	21	-	548	2015	616	89.0%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	18	1859	318	5.7%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	27	-	614	1965	764	80.3%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	27	-	604	1965	764	79.0%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	120	1871	291	41.3%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	198	2005	375	52.7%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	13	2015	639	2.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	79	1990	1990	4.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	893	2080	2080	42.9%
9/3	Ahead	U	N/A	N/A	-		-	-	-	503	1940	1940	25.9%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	79	1990	166	47.6%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	35	-	893	2080	1040	85.9%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	35	-	503	1940	970	51.9%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	689	1990	1990	34.6%
11/2	Ahead	U	N/A	N/A	-		-	-	-	665	2080	2080	32.0%
11/3	Ahead	U	N/A	N/A	-		-	-	-	611	2080	2080	29.4%
11/4	Ahead	U	N/A	N/A	-		-	-	-	111	1940	1940	5.7%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	686	1965:1965	1449	47.4%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	665	1990	1382	48.1%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	24	-	613	2015	700	87.6%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	24	-	112	2015	700	16.0%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	796	2011	2011	39.6%
13/2	Ahead	U	N/A	N/A	-		-	-	-	697	2105	2105	33.1%
13/3	Ahead	U	N/A	N/A	-		-	-	-	600	1965	1965	30.5%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	772	2015	2015	38.3%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	30	-	701	1990	857	81.8%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	30	-	606	1990	857	70.7%
15/1	Left	U	N/A	N/A	-		-	-	-	591	1895	1895	31.2%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	724	2015	2015	35.9%
15/3	Ahead	U	N/A	N/A	-		-	-	-	1083	2130	2130	50.8%
15/4	Ahead	U	N/A	N/A	-		-	-	-	127	1990	1990	6.4%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	743	1990	1990	37.3%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	906	2105	2105	43.0%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	278	1990	1990	14.0%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	325	1990	1990	16.3%
17/1	Ahead	U	N/A	N/A	-		-	-	-	278	1990	1990	14.0%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	325	1960	1960	16.6%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	14	-	283	1965	409	69.1%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	14	-	318	1965	409	77.7%
19/1		U	N/A	N/A	-		-	-	-	15	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	497	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	772	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	743	1965	1665	44.6%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	906	1990	1686	53.7%
27/1		U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	906	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**362**	**0**	**0**	**32.6**	**34.8**	**0.0**	**67.4**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**362**	**0**	**0**	**32.6**	**34.8**	**0.0**	**67.4**	**-**	**-**	**-**	**-**
1/1+1/2	1475	1475	-	-	-	0.8	2.8	-	3.5	8.6	10.9	2.8	13.7
2/1	13	13	13	0	0	0.0	0.0	-	0.0	7.9	0.0	0.0	0.1
3/1	65	65	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	34	34	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	32	32	-	-	-	0.3	0.1	-	0.3	38.6	0.6	0.1	0.7
3/4	64	64	-	-	-	0.5	0.2	-	0.7	41.1	1.2	0.2	1.4
4/1	151	151	-	-	-	0.8	0.2	-	1.0	22.7	2.3	0.2	2.4
4/2	573	573	-	-	-	3.8	3.2	-	7.0	43.9	10.8	3.2	14.0
4/3	548	548	-	-	-	3.6	3.7	-	7.3	47.9	10.4	3.7	14.0
5/1	18	18	18	0	0	0.0	0.0	-	0.0	8.7	0.1	0.0	0.1
6/1	614	614	-	-	-	3.3	2.0	-	5.3	31.2	10.7	2.0	12.7
6/2	604	604	-	-	-	3.3	1.8	-	5.1	30.4	10.6	1.8	12.4
7/1	120	120	120	0	0	0.1	0.4	-	0.5	14.0	0.7	0.4	1.1
7/2	198	198	198	0	0	0.3	0.6	-	0.9	16.0	1.4	0.6	1.9
8/1	13	13	13	0	0	0.0	0.0	-	0.0	2.9	0.0	0.0	0.0
9/1	79	79	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	893	893	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
9/3	503	503	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
10/1	79	79	-	-	-	0.6	0.5	-	1.1	50.1	1.5	0.5	1.9
10/2	893	893	-	-	-	3.4	2.9	-	6.3	25.6	15.3	2.9	18.2
10/3	503	503	-	-	-	1.5	0.5	-	2.1	14.8	6.1	0.5	6.6
11/1	689	689	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

Full Input Data And Results

11/2	665	665	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/3	611	611	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/4	111	111	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/2+12/1	686	686	-	-	-	0.4	0.4	-	0.9	4.7	1.2	0.4	1.6
12/3	665	665	-	-	-	0.2	0.5	-	0.6	3.5	1.4	0.5	1.9
12/4	613	613	-	-	-	3.5	3.3	-	6.8	39.9	10.8	3.3	14.1
12/5	112	112	-	-	-	0.5	0.1	-	0.5	17.6	1.9	0.1	2.0
13/1	796	796	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
13/2	697	697	-	-	-	0.0	0.2	-	0.3	1.3	0.1	0.2	0.3
13/3	600	600	-	-	-	0.0	0.2	-	0.2	1.4	0.1	0.2	0.3
14/1	772	772	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
14/2	701	701	-	-	-	0.6	2.2	-	2.8	14.6	1.7	2.2	3.9
14/3	606	606	-	-	-	0.2	1.2	-	1.4	8.2	1.3	1.2	2.5
15/1	591	591	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
15/2	724	724	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
15/3	1083	1083	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
15/4	127	127	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	743	743	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
16/2	906	906	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
16/3	278	278	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	325	325	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	278	278	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	325	325	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	283	283	-	-	-	2.1	1.1	-	3.2	40.6	5.1	1.1	6.2
18/2	318	318	-	-	-	2.6	1.7	-	4.3	48.4	5.7	1.7	7.4
19/1	15	15	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	13	13	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

23/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	772	772	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	591	591	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	743	743	-	-	-	0.0	0.4	-	0.5	2.2	1.1	0.4	1.5
26/2	906	906	-	-	-	0.1	0.6	-	0.6	2.5	1.3	0.6	1.9
27/1	743	743	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	1.1	Total Delay for Signalled Lanes (pcuHr):	25.19	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	4.8	Total Delay for Signalled Lanes (pcuHr):	16.98	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	67.5	Total Delay for Signalled Lanes (pcuHr):	1.09	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	6.0	Total Delay for Signalled Lanes (pcuHr):	3.53	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	10.0	Total Delay for Signalled Lanes (pcuHr):	14.64	Cycle Time (s):	72
	PRC Over All Lanes (%):	1.1	Total Delay Over All Lanes(pcuHr):	67.40		

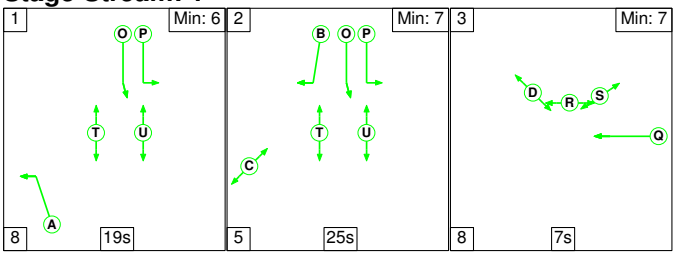
Full Input Data And Results

Scenario 8: 'Sat 2017 Future Base+Dev' (FG8: 'Sat 2017 Future Base+Dev', Plan 1: 'Network Control Plan 1')

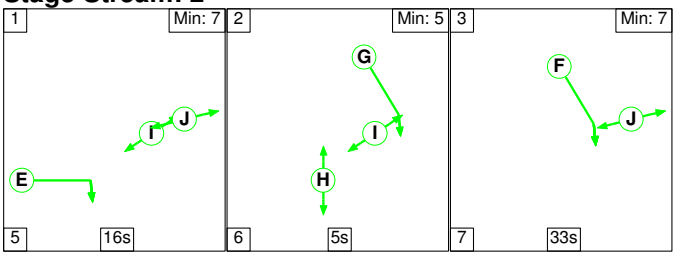
C1

Stage Sequence Diagram

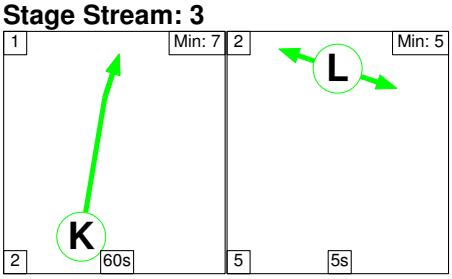
Stage Stream: 1



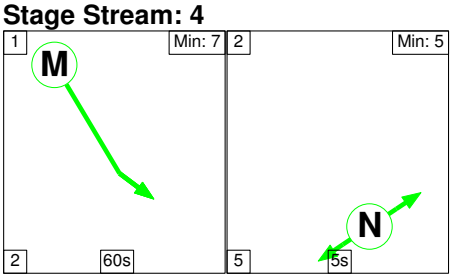
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	19	25	7
Change Point	0	27	57

Stage Stream: 2

Stage	1	2	3
Duration	16	5	33
Change Point	31	52	63

Stage Stream: 3

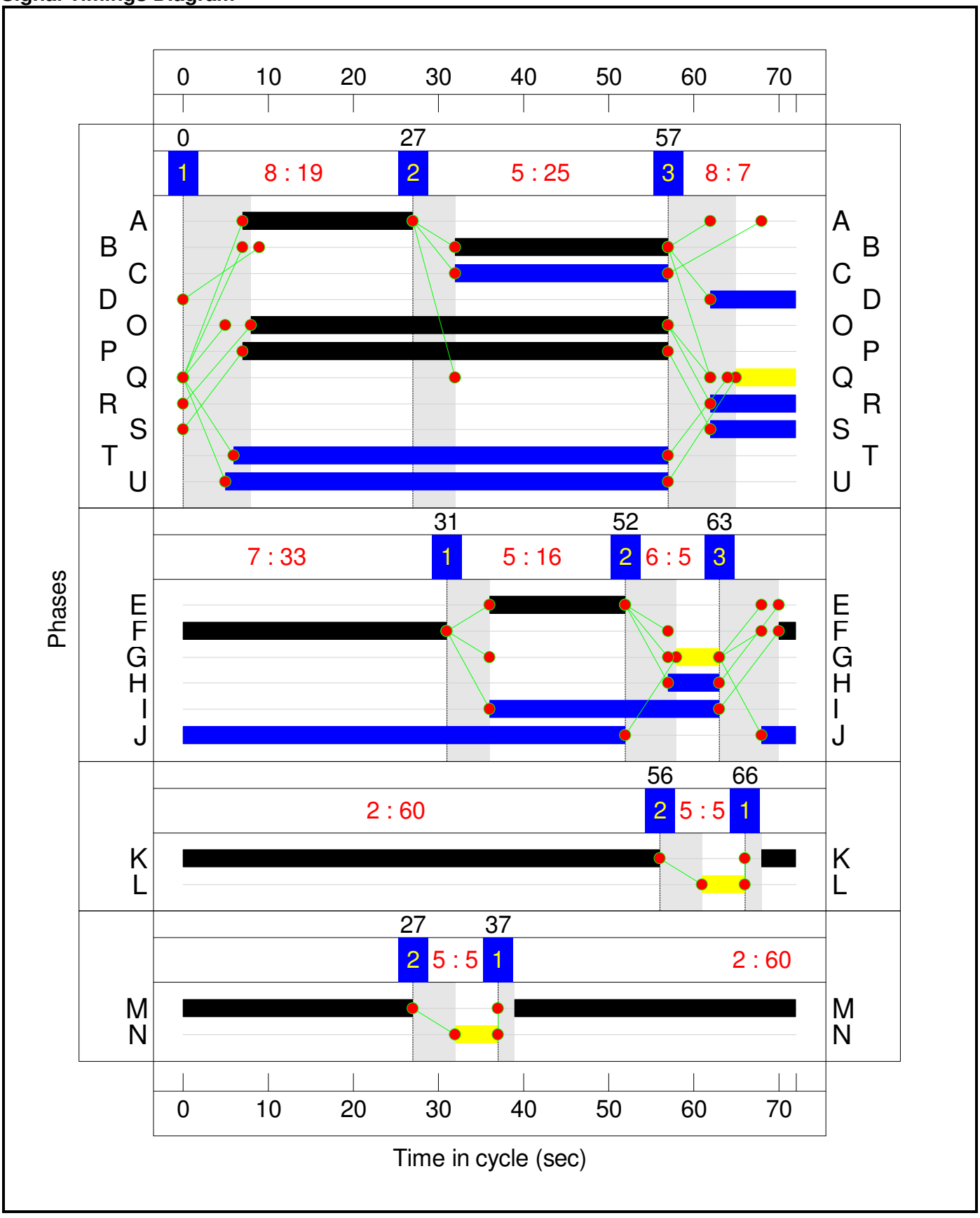
Stage	1	2
Duration	60	5
Change Point	66	56

Full Input Data And Results

Stage Stream: 4

Stage	1	2
Duration	60	5
Change Point	37	27

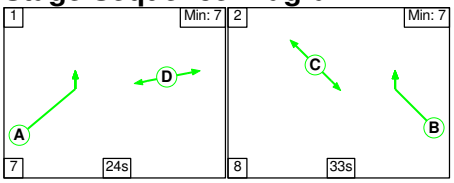
Signal Timings Diagram



Full Input Data And Results

C2

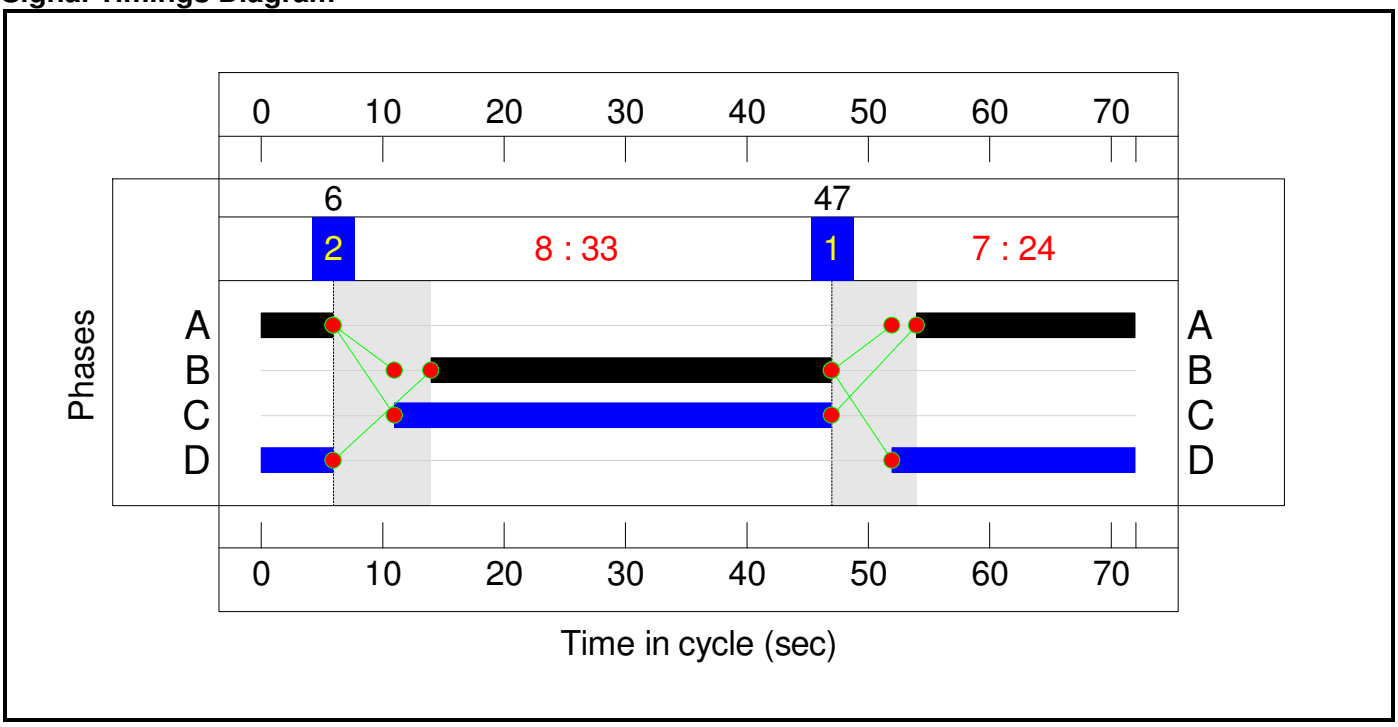
Stage Sequence Diagram



Stage Timings

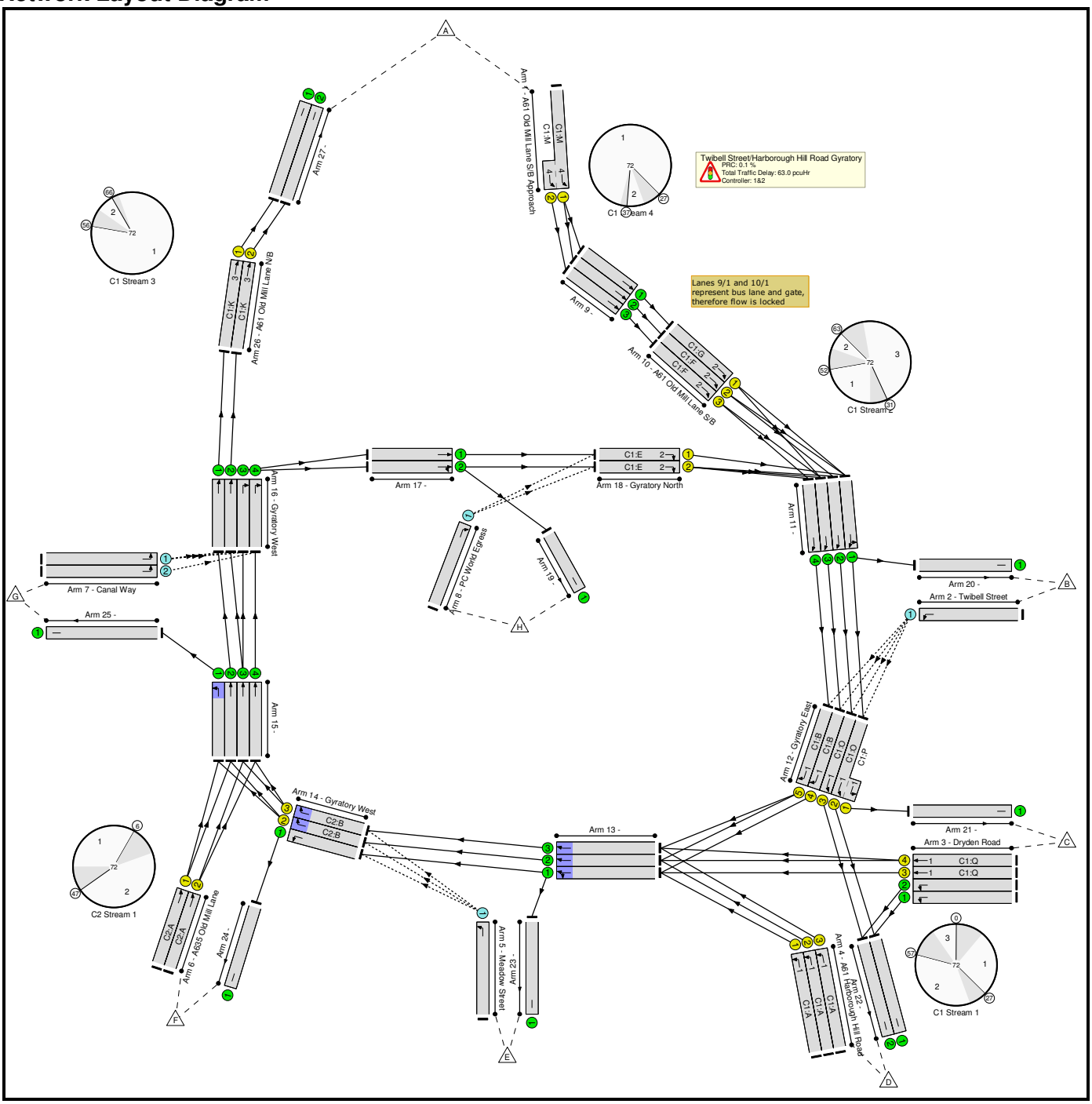
Stage	1	2
Duration	24	33
Change Point	47	6

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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.9%**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.9%**
1/1+1/2	A61 Old Mill Lane S/B Approach Left	U	1:4	N/A	C1:M		1	60	-	1431	1940:1940	1768	81.0%
2/1	Twibell Street Left	O	N/A	N/A	-		-	-	-	19	2014	304	6.3%
3/1	Dryden Road Left	U	N/A	N/A	-		-	-	-	98	1848	1848	5.3%
3/2	Dryden Road Left	U	N/A	N/A	-		-	-	-	66	1824	1824	3.6%
3/3	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	73	1965	218	33.4%
3/4	Dryden Road Ahead	U	1:1	N/A	C1:Q		1	7	-	135	1965	218	61.8%
4/1	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	105	2005	585	18.0%
4/2	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	541	2145	626	86.5%
4/3	A61 Harborough Hill Road Left	U	1:1	N/A	C1:A		1	20	-	513	2015	588	87.3%
5/1	Meadow Street Left	O	N/A	N/A	-		-	-	-	15	1859	290	5.2%
6/1	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	24	-	505	1965	682	74.0%
6/2	A635 Old Mill Lane Ahead	U	N/A	N/A	C2:A		1	24	-	493	1965	682	72.3%
7/1	Canal Way Left	O	N/A	N/A	-		-	-	-	154	1871	338	45.5%
7/2	Canal Way Left	O	N/A	N/A	-		-	-	-	250	2005	443	56.5%

Full Input Data And Results

8/1	PC World Egress Right	O	N/A	N/A	-		-	-	-	24	2015	625	3.8%
9/1	Ahead	U	N/A	N/A	-		-	-	-	58	1990	1990	2.9%
9/2	Ahead	U	N/A	N/A	-		-	-	-	789	2080	2080	37.9%
9/3	Ahead	U	N/A	N/A	-		-	-	-	584	1940	1940	30.1%
10/1	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:G		1	5	-	58	1990	166	35.0%
10/2	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	33	-	789	2080	982	80.3%
10/3	A61 Old Mill Lane S/B Ahead	U	1:2	N/A	C1:F		1	33	-	584	1940	916	63.7%
11/1	Ahead Left	U	N/A	N/A	-		-	-	-	681	1990	1990	34.2%
11/2	Ahead	U	N/A	N/A	-		-	-	-	592	2080	2080	28.5%
11/3	Ahead	U	N/A	N/A	-		-	-	-	653	2080	2080	31.4%
11/4	Ahead	U	N/A	N/A	-		-	-	-	147	1940	1940	7.6%
12/2+12/1	Gyratory East Left Ahead	U	1:1	N/A	C1:O C1:P		1	49:50	-	671	1965:1965	1511	44.4%
12/3	Gyratory East Ahead	U	1:1	N/A	C1:O		1	49	-	593	1990	1382	42.9%
12/4	Gyratory East Right	U	1:1	N/A	C1:B		1	25	-	654	2015	728	89.9%
12/5	Gyratory East Right	U	1:1	N/A	C1:B		1	25	-	150	2015	728	20.6%
13/1	Ahead Left	U	N/A	N/A	-		-	-	-	832	2012	2012	41.4%
13/2	Ahead	U	N/A	N/A	-		-	-	-	729	2105	2105	34.6%
13/3	Ahead	U	N/A	N/A	-		-	-	-	610	1965	1965	31.0%
14/1	Gyratory West Left	U	N/A	N/A	-		-	-	-	816	2015	2015	40.5%
14/2	Gyratory West Right	U	N/A	N/A	C2:B		1	33	-	730	1990	940	77.7%
14/3	Gyratory West Right	U	N/A	N/A	C2:B		1	33	-	614	1990	940	65.3%
15/1	Left	U	N/A	N/A	-		-	-	-	630	1895	1895	33.2%

Full Input Data And Results

15/2	Ahead	U	N/A	N/A	-		-	-	-	605	2015	2015	30.0%
15/3	Ahead	U	N/A	N/A	-		-	-	-	1021	2130	2130	47.9%
15/4	Ahead	U	N/A	N/A	-		-	-	-	86	1990	1990	4.3%
16/1	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	653	1990	1990	32.8%
16/2	Gyratory West Ahead	U	N/A	N/A	-		-	-	-	821	2105	2105	39.0%
16/3	Gyratory West Right	U	N/A	N/A	-		-	-	-	306	1990	1990	15.4%
16/4	Gyratory West Right	U	N/A	N/A	-		-	-	-	336	1990	1990	16.9%
17/1	Ahead	U	N/A	N/A	-		-	-	-	306	1990	1990	15.4%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	336	1958	1958	17.2%
18/1	Gyratory North Right	U	1:2	N/A	C1:E		1	16	-	312	1965	464	67.2%
18/2	Gyratory North Right	U	1:2	N/A	C1:E		1	16	-	330	1965	464	71.1%
19/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
20/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
21/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
22/1		U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
22/2		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
23/1		U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
24/1		U	N/A	N/A	-		-	-	-	816	Inf	Inf	0.0%
25/1		U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%
26/1	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	653	1965	1665	39.2%
26/2	A61 Old Mill Lane N/B Ahead	U	1:3	N/A	C1:K		1	60	-	821	1990	1686	48.7%
27/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
27/2		U	N/A	N/A	-		-	-	-	821	Inf	Inf	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: Twibwell Street/Harborough Hill Road Gyratory	**-**	**-**	**462**	**0**	**0**	**31.7**	**31.3**	**0.0**	**63.0**	**-**	**-**	**-**	**-**
Twibell Street/Harborough Hill Road Gyratory	**-**	**-**	**462**	**0**	**0**	**31.7**	**31.3**	**0.0**	**63.0**	**-**	**-**	**-**	**-**
1/1+1/2	1431	1431	-	-	-	0.6	2.1	-	2.7	6.8	7.5	2.1	9.6
2/1	19	19	19	0	0	0.0	0.0	-	0.0	9.0	0.1	0.0	0.1
3/1	98	98	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/2	66	66	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/3	73	73	-	-	-	0.6	0.3	-	0.9	41.9	1.3	0.3	1.6
3/4	135	135	-	-	-	1.1	0.8	-	1.9	51.8	2.5	0.8	3.3
4/1	105	105	-	-	-	0.6	0.1	-	0.7	22.8	1.5	0.1	1.7
4/2	541	541	-	-	-	3.6	3.0	-	6.6	44.0	10.2	3.0	13.2
4/3	513	513	-	-	-	3.5	3.2	-	6.6	46.4	9.7	3.2	12.9
5/1	15	15	15	0	0	0.0	0.0	-	0.0	8.8	0.1	0.0	0.1
6/1	505	505	-	-	-	2.9	1.4	-	4.3	30.6	8.8	1.4	10.2
6/2	493	493	-	-	-	2.8	1.3	-	4.1	29.9	8.5	1.3	9.8
7/1	154	154	154	0	0	0.1	0.4	-	0.5	12.2	0.9	0.4	1.3
7/2	250	250	250	0	0	0.3	0.6	-	0.9	13.4	1.7	0.6	2.3
8/1	24	24	24	0	0	0.0	0.0	-	0.0	3.0	0.0	0.0	0.0
9/1	58	58	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
9/2	789	789	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
9/3	584	584	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
10/1	58	58	-	-	-	0.5	0.3	-	0.7	46.2	1.1	0.3	1.3
10/2	789	789	-	-	-	3.2	2.0	-	5.2	23.7	13.4	2.0	15.4
10/3	584	584	-	-	-	2.1	0.9	-	3.0	18.4	8.8	0.9	9.6
11/1	681	681	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

Full Input Data And Results

11/2	592	592	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/3	653	653	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/4	147	147	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
12/2+12/1	671	671	-	-	-	0.5	0.4	-	0.9	4.9	1.7	0.4	2.1
12/3	593	593	-	-	-	0.2	0.4	-	0.6	3.6	1.1	0.4	1.5
12/4	654	654	-	-	-	3.6	4.0	-	7.6	41.7	11.9	4.0	15.9
12/5	150	150	-	-	-	0.5	0.1	-	0.7	15.6	2.6	0.1	2.7
13/1	832	832	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
13/2	729	729	-	-	-	0.0	0.3	-	0.3	1.3	0.1	0.3	0.3
13/3	610	610	-	-	-	0.0	0.2	-	0.2	1.4	0.1	0.2	0.3
14/1	816	816	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
14/2	730	730	-	-	-	0.6	1.7	-	2.3	11.3	2.0	1.7	3.7
14/3	614	614	-	-	-	0.2	0.9	-	1.1	6.7	1.9	0.9	2.8
15/1	630	630	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
15/2	605	605	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
15/3	1021	1021	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
15/4	86	86	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	653	653	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
16/2	821	821	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
16/3	306	306	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
16/4	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/1	306	306	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
17/2	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
18/1	312	312	-	-	-	1.8	1.0	-	2.9	32.9	5.2	1.0	6.2
18/2	330	330	-	-	-	2.3	1.2	-	3.5	38.2	5.3	1.2	6.5
19/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
22/2	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

23/1	26	26	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25/1	630	630	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26/1	653	653	-	-	-	0.0	0.3	-	0.4	2.0	0.7	0.3	1.0
26/2	821	821	-	-	-	0.0	0.5	-	0.5	2.3	0.8	0.5	1.2
27/1	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
27/2	821	821	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	0.1	Total Delay for Signalled Lanes (pcuHr):	26.43	Cycle Time (s):	72
C1	Stream: 2 PRC for Signalled Lanes (%):	12.0	Total Delay for Signalled Lanes (pcuHr):	15.27	Cycle Time (s):	72
C1	Stream: 3 PRC for Signalled Lanes (%):	84.8	Total Delay for Signalled Lanes (pcuHr):	0.88	Cycle Time (s):	72
C1	Stream: 4 PRC for Signalled Lanes (%):	11.2	Total Delay for Signalled Lanes (pcuHr):	2.69	Cycle Time (s):	72
C2	PRC for Signalled Lanes (%):	15.9	Total Delay for Signalled Lanes (pcuHr):	11.82	Cycle Time (s):	72
	PRC Over All Lanes (%):	0.1	Total Delay Over All Lanes(pcuHr):	63.05		

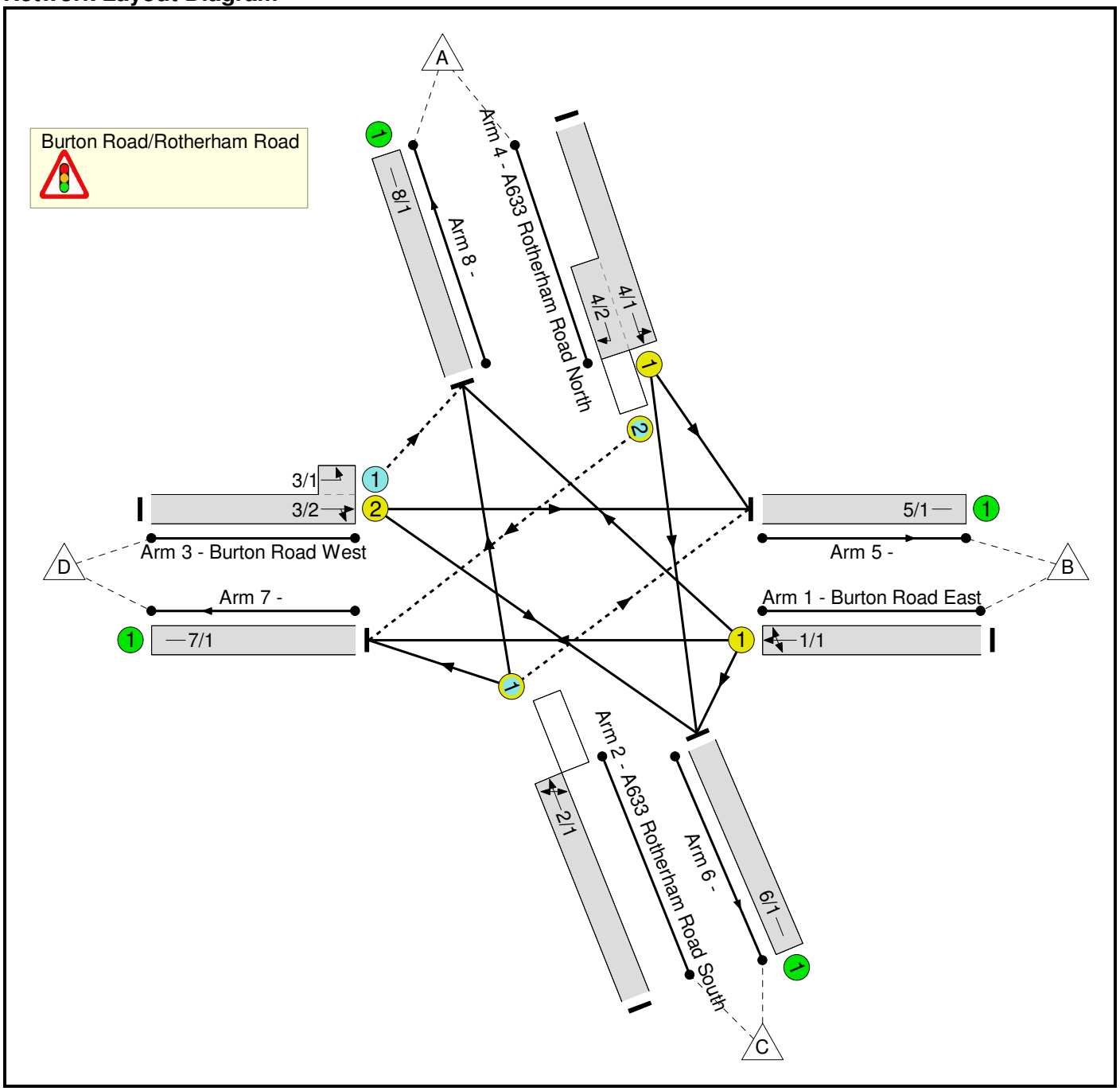
Burton Road/Rotherham Road

Full Input Data And Results

User and Project Details

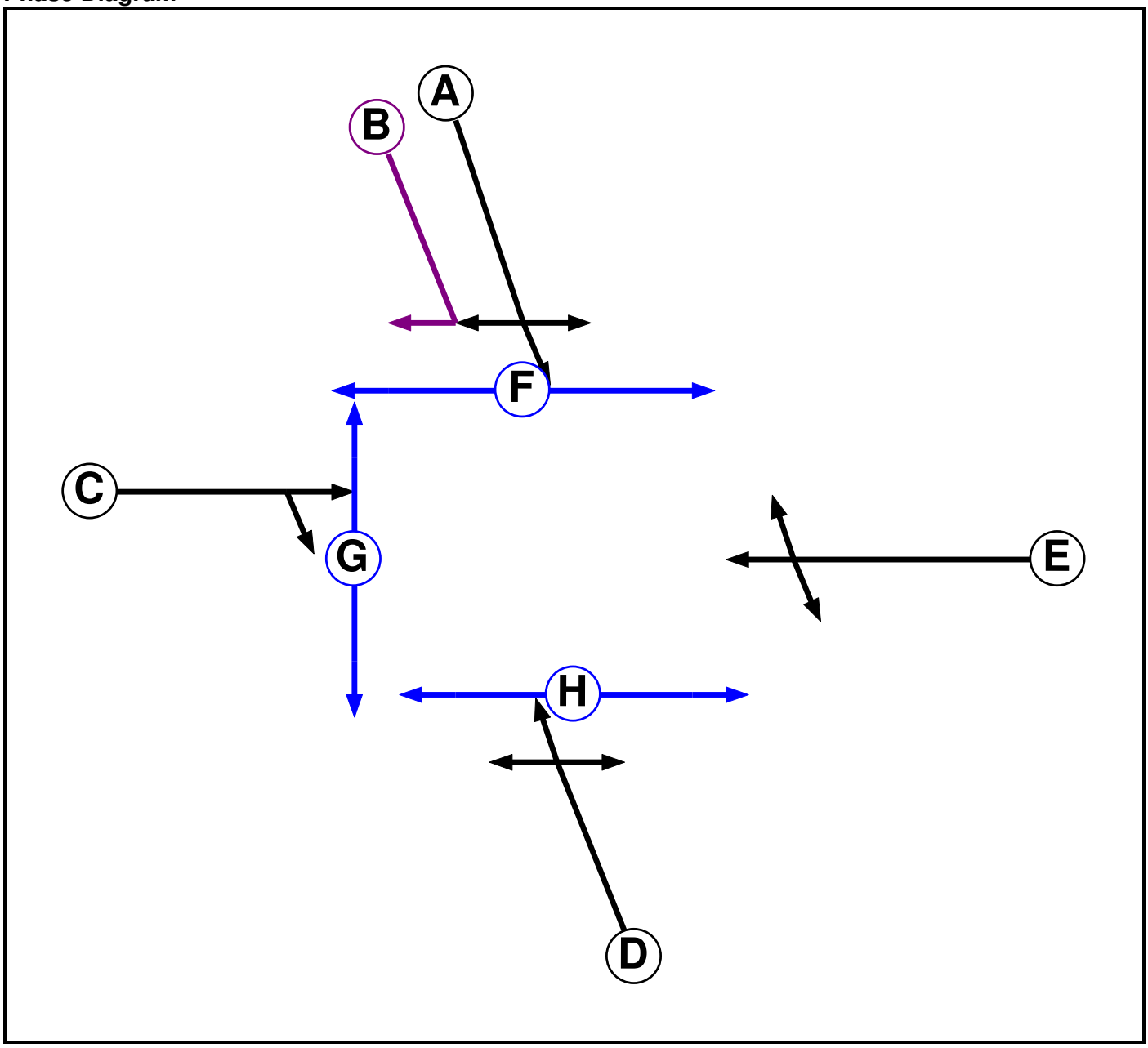
Project:	**Proposed Food Store, Barnsley**
Title:	**Burton Road/Rotherham Road**
Location:	Barnsley
File name:	Burton Rd_Rotherham Rd.lsg3x
Author:	D Stoddart
Company:	Curtins Consulting
Address:	Manchester
Notes:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Ind. Arrow	A	5	5
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7

Full Input Data And Results

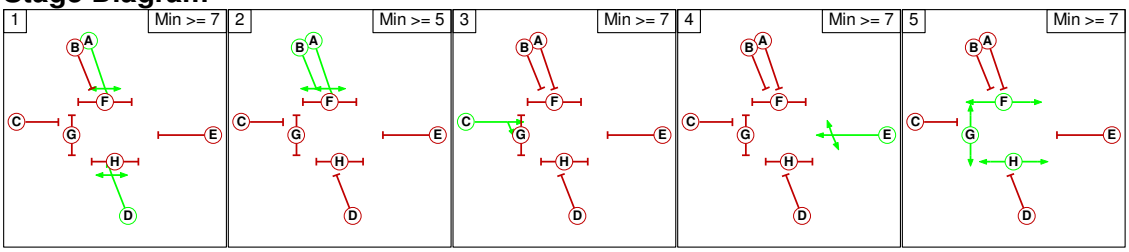
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H
A		-	5	-	5	6	6	7
B	-		5	5	5	6	6	7
C	5	5		6	6	6	6	7
D	-	4	6		5	7	7	6
E	6	6	6	6		6	7	6
F	5	5	6	5	5		-	-
G	6	6	5	5	5	-		-
H	5	5	5	6	5	-	-	

Phases in Stage

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

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
1		4	6	5	7
2	5		5	5	7
3	6	5		6	7
4	6	6	6		7
5	6	6	6	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Burton Road/Rotherham Road

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/1 (A633 Rotherham Road South)	5/1 (Right)	1439	4/1	1.09	4/1	4.00	4.00	0.50	4	4.00
3/1 (Burton Road West)	8/1 (Left)	715	1/1	0.22	1/1	-	-	-	-	-
			2/1	0.22	2/1					
4/2 (A633 Rotherham Road North)	7/1 (Right)	1439	2/1	1.09	2/1	3.00	-	0.50	3	3.00

Full Input Data And Results

Lane Input Data

Junction: Burton Road/Rotherham Road												
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 (Burton Road East)	U	E	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 6 Left	15.00
											Arm 7 Ahead	Inf
											Arm 8 Right	30.00
2/1 (A633 Rotherham Road South)	O	D	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 5 Right	25.00
											Arm 7 Left	30.00
											Arm 8 Ahead	Inf
3/1 (Burton Road West)	O		2	3	1.9	Geom	-	4.00	0.00	Y	Arm 8 Left	30.00
3/2 (Burton Road West)	U	C	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	25.00
4/1 (A633 Rotherham Road North)	U	A	2	3	60.0	Geom	-	2.40	0.00	Y	Arm 5 Left	25.00
											Arm 6 Ahead	Inf
4/2 (A633 Rotherham Road North)	O	A B	2	3	5.0	Geom	-	2.60	0.00	Y	Arm 7 Right	20.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Fri 2011 Obs'	15:45	16:45	01:00	
2: 'Sat 2011 Obs'	12:30	13:30	01:00	
3: 'Fri 2012 Base'	15:45	16:45	01:00	
4: 'Sat 2012 Base'	12:30	13:30	01:00	
5: 'Fri 2017 Base'	15:45	16:45	01:00	
6: 'Sat 2017 Base'	12:30	13:30	01:00	
7: 'Fri 2017 Base+Dev'	15:45	16:45	01:00	
8: 'Sat 2017 Base+Dev'	12:30	13:30	01:00	

Scenario 1: 'Fri 2011 Obs' (FG1: 'Fri 2011 Obs', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	80	316	4	400
	B	102	0	19	411	532
	C	276	36	0	44	356
	D	13	368	46	0	427
	Tot.	391	484	381	459	1715

Traffic Lane Flows

Lane	Scenario 1: Fri 2011 Obs
Junction: Burton Road/Rotherham Road	
1/1	532
2/1	356
3/1 (short)	13
3/2 (with short)	427(In) 414(Out)
4/1 (with short)	400(In) 396(Out)
4/2 (short)	4
5/1	484
6/1	381
7/1	459
8/1	391

Full Input Data And Results

Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	3.6 %	1969	1969
				Arm 7 Ahead	Inf	77.3 %		
				Arm 8 Right	30.00	19.2 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	10.1 %	1981	1981
				Arm 7 Left	30.00	12.4 %		
				Arm 8 Ahead	Inf	77.5 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	88.9 %	1977	1977
				Arm 6 Right	25.00	11.1 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	20.2 %	1833	1833
				Arm 6 Ahead	Inf	79.8 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Sat 2011 Obs' (FG2: 'Sat 2011 Obs', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	86	241	2	329
	B	113	0	34	383	530
	C	280	39	0	35	354
	D	6	369	36	0	411
	Tot.	399	494	311	420	1624

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Sat 2011 Obs
Junction: Burton Road/Rotherham Road	
1/1	530
2/1	354
3/1 (short)	6
3/2 (with short)	411(In) 405(Out)
4/1 (with short)	329(In) 327(Out)
4/2 (short)	2
5/1	494
6/1	311
7/1	420
8/1	399

Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	6.4 %	1962	1962
				Arm 7 Ahead	Inf	72.3 %		
				Arm 8 Right	30.00	21.3 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	11.0 %	1982	1982
				Arm 7 Left	30.00	9.9 %		
				Arm 8 Ahead	Inf	79.1 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	91.1 %	1979	1979
				Arm 6 Right	25.00	8.9 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	26.3 %	1826	1826
				Arm 6 Ahead	Inf	73.7 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'Fri 2012 Base' (FG3: 'Fri 2012 Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	80	317	8	405
	B	102	0	19	420	541
	C	277	36	0	50	363
	D	17	371	51	0	439
	Tot.	396	487	387	478	1748

Traffic Lane Flows

Lane	Scenario 3: Fri 2012 Base
Junction: Burton Road/Rotherham Road	
1/1	541
2/1	363
3/1 (short)	17
3/2 (with short)	439(In) 422(Out)
4/1 (with short)	405(In) 397(Out)
4/2 (short)	8
5/1	487
6/1	387
7/1	478
8/1	396

Full Input Data And Results

Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	3.5 %	1970	1970
				Arm 7 Ahead	Inf	77.6 %		
				Arm 8 Right	30.00	18.9 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	9.9 %	1980	1980
				Arm 7 Left	30.00	13.8 %		
				Arm 8 Ahead	Inf	76.3 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	87.9 %	1976	1976
				Arm 6 Right	25.00	12.1 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	20.2 %	1833	1833
				Arm 6 Ahead	Inf	79.8 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Sat 2012 Base' (FG4: 'Sat 2012 Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	86	242	9	337
	B	114	0	34	399	547
	C	281	39	0	45	365
	D	14	377	46	0	437
	Tot.	409	502	322	453	1686

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Sat 2012 Base
Junction: Burton Road/Rotherham Road	
1/1	547
2/1	365
3/1 (short)	14
3/2 (with short)	437(In) 423(Out)
4/1 (with short)	337(In) 328(Out)
4/2 (short)	9
5/1	502
6/1	322
7/1	453
8/1	409

Lane Saturation Flows

Junction: Burton Road/Rotherham Road

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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	6.2 %	1962	1962
				Arm 7 Ahead	Inf	72.9 %		
				Arm 8 Right	30.00	20.8 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	10.7 %	1980	1980
				Arm 7 Left	30.00	12.3 %		
				Arm 8 Ahead	Inf	77.0 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	89.1 %	1977	1977
				Arm 6 Right	25.00	10.9 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	26.2 %	1826	1826
				Arm 6 Ahead	Inf	73.8 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'Fri 2017 Base' (FG5: 'Fri 2017 Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	84	331	8	423
	B	106	0	20	438	564
	C	289	38	0	52	379
	D	18	387	53	0	458
	Tot.	413	509	404	498	1824

Traffic Lane Flows

Lane	Scenario 5: Fri 2017 Base
Junction: Burton Road/Rotherham Road	
1/1	564
2/1	379
3/1 (short)	18
3/2 (with short)	458(In) 440(Out)
4/1 (with short)	423(In) 415(Out)
4/2 (short)	8
5/1	509
6/1	404
7/1	498
8/1	413

Full Input Data And Results

Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	3.5 %	1970	1970
				Arm 7 Ahead	Inf	77.7 %		
				Arm 8 Right	30.00	18.8 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	10.0 %	1980	1980
				Arm 7 Left	30.00	13.7 %		
				Arm 8 Ahead	Inf	76.3 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	88.0 %	1976	1976
				Arm 6 Right	25.00	12.0 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	20.2 %	1833	1833
				Arm 6 Ahead	Inf	79.8 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Sat 2017 Base' (FG6: 'Sat 2017 Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	90	252	9	351
	B	118	0	35	416	569
	C	294	41	0	47	382
	D	14	393	47	0	454
	Tot.	426	524	334	472	1756

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Sat 2017 Base
Junction: Burton Road/Rotherham Road	
1/1	569
2/1	382
3/1 (short)	14
3/2 (with short)	454(In) 440(Out)
4/1 (with short)	351(In) 342(Out)
4/2 (short)	9
5/1	524
6/1	334
7/1	472
8/1	426

Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	6.2 %	1963	1963
				Arm 7 Ahead	Inf	73.1 %		
				Arm 8 Right	30.00	20.7 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	10.7 %	1980	1980
				Arm 7 Left	30.00	12.3 %		
				Arm 8 Ahead	Inf	77.0 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	89.3 %	1977	1977
				Arm 6 Right	25.00	10.7 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	26.3 %	1826	1826
				Arm 6 Ahead	Inf	73.7 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: 'Fri 2017 Base+Dev' (FG7: 'Fri 2017 Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	84	326	72	482
	B	106	0	16	474	596
	C	288	38	0	130	456
	D	58	421	102	0	581
	Tot.	452	543	444	676	2115

Traffic Lane Flows

Lane	Scenario 7: Fri 2017 Base+Dev
Junction: Burton Road/Rotherham Road	
1/1	596
2/1	456
3/1 (short)	58
3/2 (with short)	581(In) 523(Out)
4/1 (with short)	482(In) 410(Out)
4/2 (short)	72
5/1	543
6/1	444
7/1	676
8/1	452

Full Input Data And Results

Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	2.7 %	1972	1972
				Arm 7 Ahead	Inf	79.5 %		
				Arm 8 Right	30.00	17.8 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	8.3 %	1967	1967
				Arm 7 Left	30.00	28.5 %		
				Arm 8 Ahead	Inf	63.2 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	80.5 %	1967	1967
				Arm 6 Right	25.00	19.5 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	20.5 %	1832	1832
				Arm 6 Ahead	Inf	79.5 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Sat 2017 Base+Dev' (FG8: 'Sat 2017 Base+Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	90	248	69	407
	B	118	0	32	443	593
	C	293	41	0	119	453
	D	57	423	100	0	580
	Tot.	468	554	380	631	2033

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Sat 2017 Base+Dev
Junction: Burton Road/Rotherham Road	
1/1	593
2/1	453
3/1 (short)	57
3/2 (with short)	580(In) 523(Out)
4/1 (with short)	407(In) 338(Out)
4/2 (short)	69
5/1	554
6/1	380
7/1	631
8/1	468

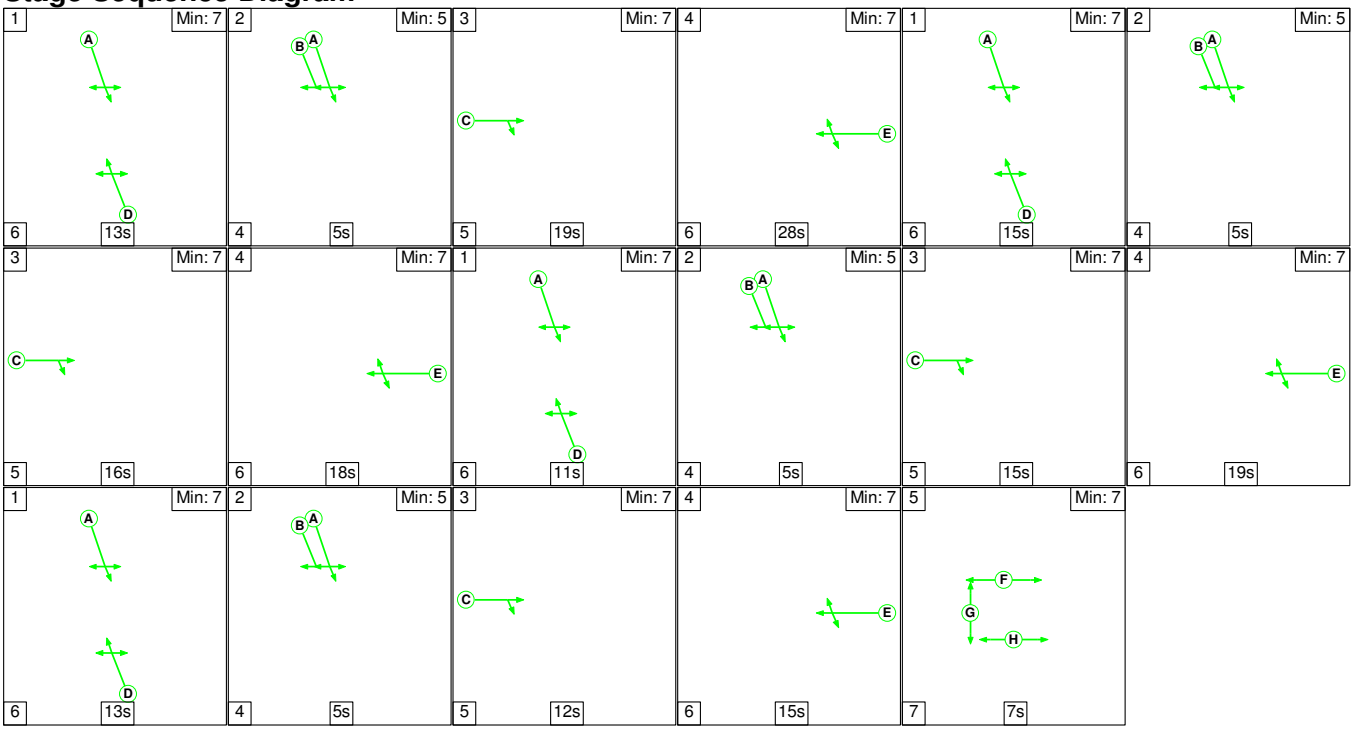
Lane Saturation Flows

Junction: Burton Road/Rotherham Road								
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 (Burton Road East)	3.80	0.00	Y	Arm 6 Left	15.00	5.4 %	1965	1965
				Arm 7 Ahead	Inf	74.7 %		
				Arm 8 Right	30.00	19.9 %		
2/1 (A633 Rotherham Road South)	3.90	0.00	Y	Arm 5 Right	25.00	9.1 %	1968	1968
				Arm 7 Left	30.00	26.3 %		
				Arm 8 Ahead	Inf	64.7 %		
3/1 (Burton Road West)	4.00	0.00	Y	Arm 8 Left	30.00	100.0 %	1919	1919
3/2 (Burton Road West)	3.75	0.00	Y	Arm 5 Ahead	Inf	80.9 %	1967	1967
				Arm 6 Right	25.00	19.1 %		
4/1 (A633 Rotherham Road North)	2.40	0.00	Y	Arm 5 Left	25.00	26.6 %	1826	1826
				Arm 6 Ahead	Inf	73.4 %		
4/2 (A633 Rotherham Road North)	2.60	0.00	Y	Arm 7 Right	20.00	100.0 %	1744	1744
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'Fri 2011 Obs' (FG1: 'Fri 2011 Obs', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

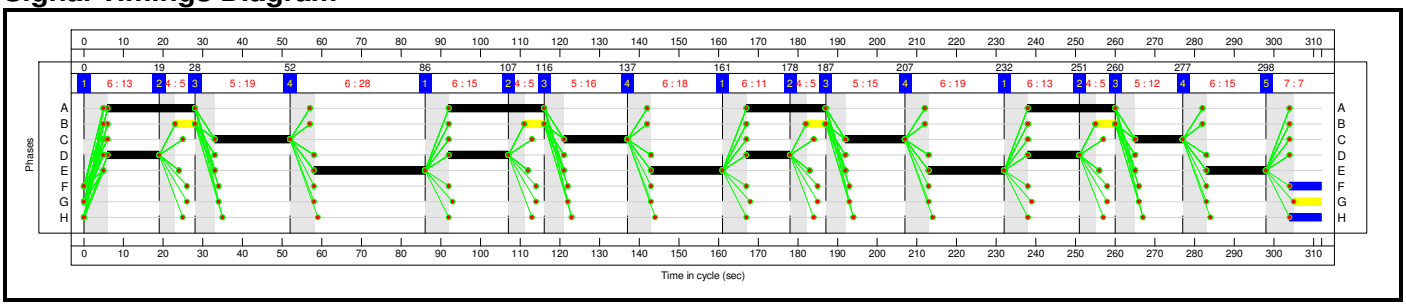


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	13	5	19	28	15	5	16	18	11	5
Change Point	0	19	28	52	86	107	116	137	161	178

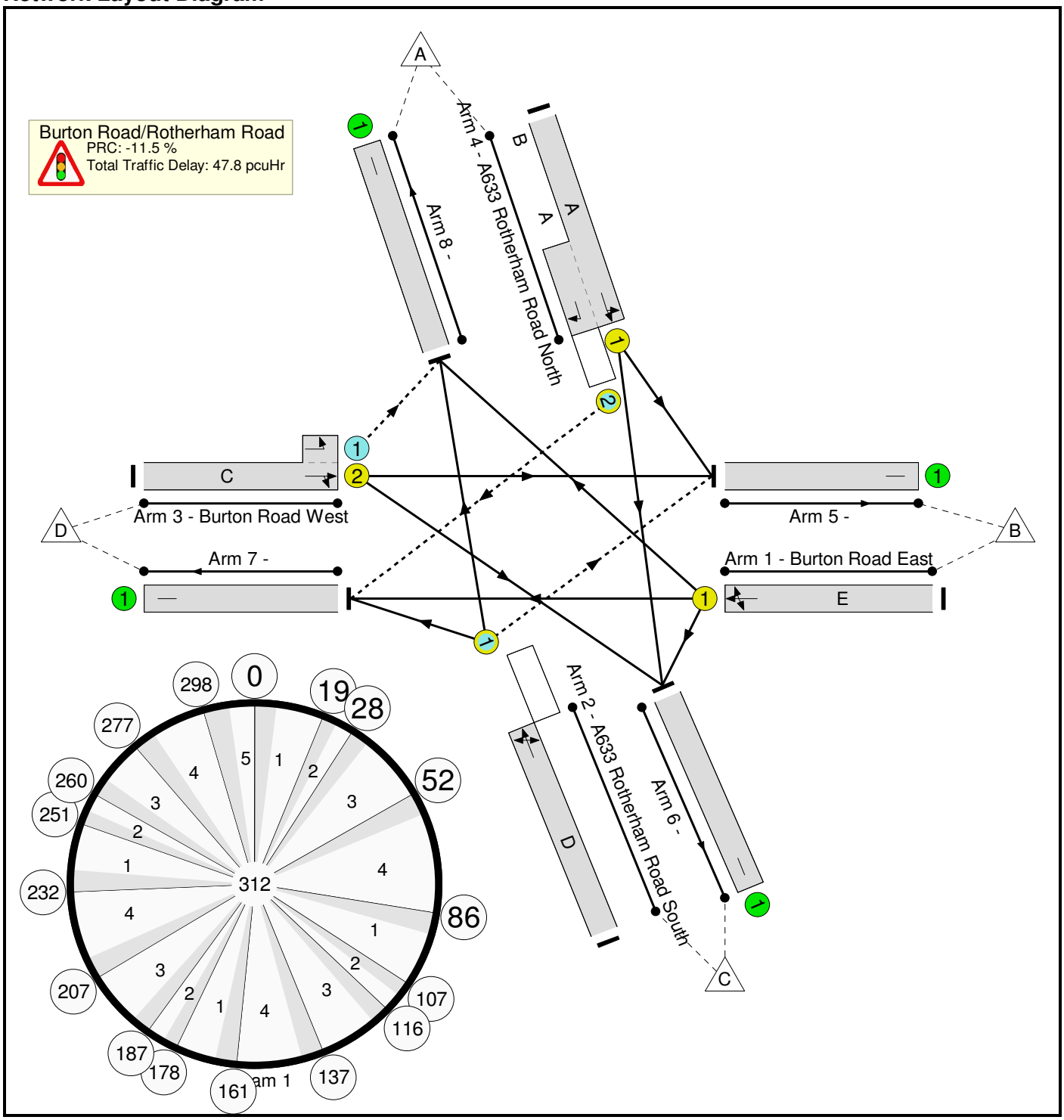
Stage	3	4	1	2	3	4	5			
Duration	15	19	13	5	12	15	7			
Change Point	187	207	232	251	260	277	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**100.4%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**100.4%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	80	-	532	1969	530	100.4%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	52	-	356	1981	356	100.1%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	62	-	427	1977:1919	431	99.0%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	88	20	400	1833:1744	538	74.3%
5/1		U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	381	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	391	Inf	Inf	0.0%

Full Input Data And Results

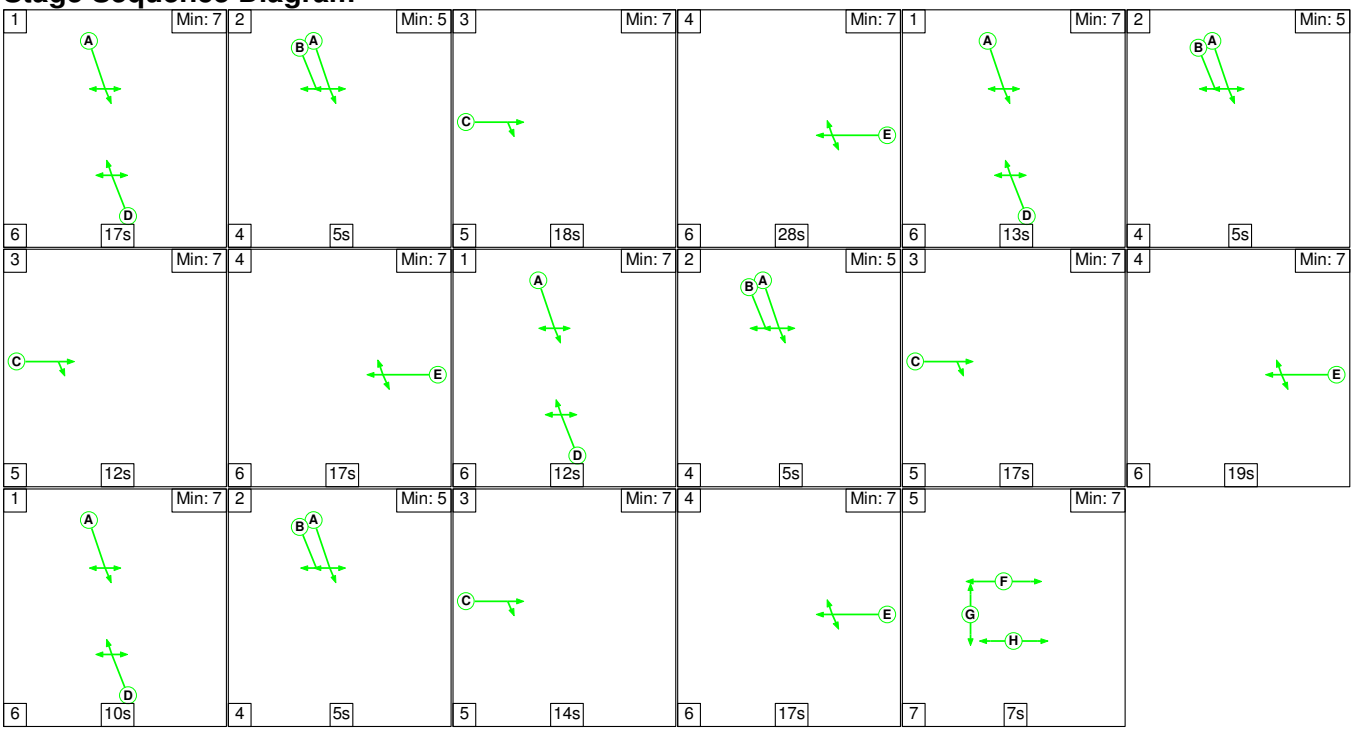
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Burton Road/Rotherham Road	**-**	**-**	**37**	**16**	**0**	**15.4**	**32.3**	**0.1**	**47.8**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**37**	**16**	**0**	**15.4**	**32.3**	**0.1**	**47.8**	**-**	**-**	**-**	**-**
1/1	532	530	-	-	-	5.2	12.0	-	17.2	116.4	16.2	12.0	28.2
2/1	356	356	36	0	0	3.4	9.5	0.1	13.1	132.1	8.9	9.5	18.5
3/2+3/1	427	427	1	12	0	4.0	9.3	-	13.3	112.0	11.2	9.3	20.5
4/1+4/2	400	400	0	4	0	2.8	1.4	0.0	4.2	37.8	8.8	1.4	10.3
5/1	484	484	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	381	381	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -11.5 Total Delay for Signalled Lanes (pcuHr): 47.75 Cycle Time (s): 312
PRC Over All Lanes (%): -11.5 Total Delay Over All Lanes(pcuHr): 47.75

Full Input Data And Results

Scenario 2: 'Sat 2011 Obs' (FG2: 'Sat 2011 Obs', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

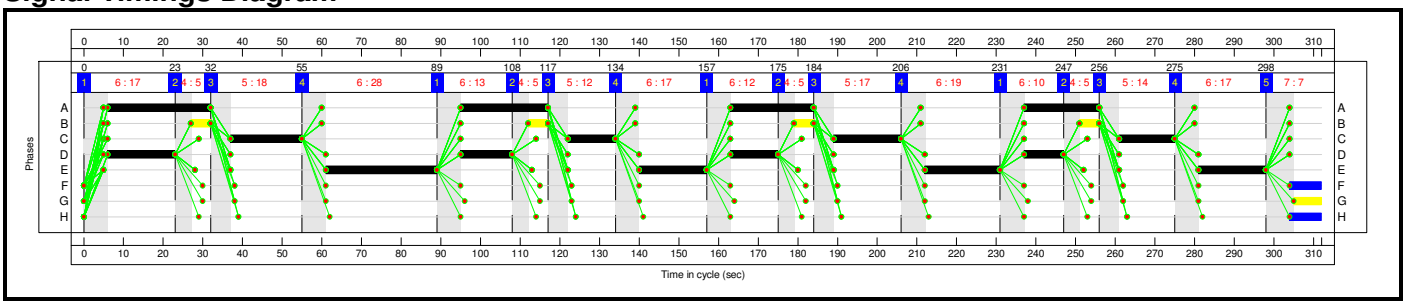


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	17	5	18	28	13	5	12	17	12	5
Change Point	0	23	32	55	89	108	117	134	157	175

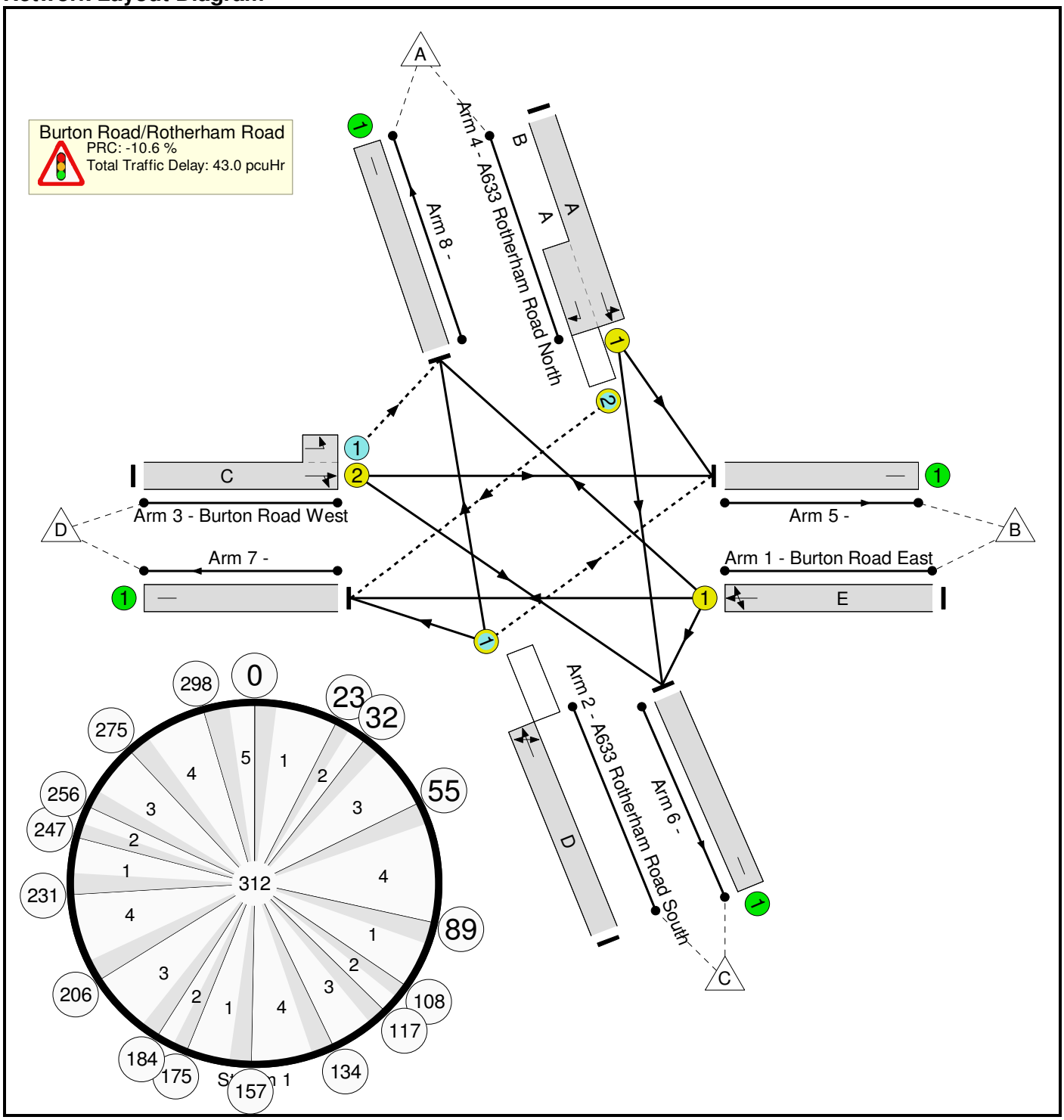
Stage	3	4	1	2	3	4	5			
Duration	17	19	10	5	14	17	7			
Change Point	184	206	231	247	256	275	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.5%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.5%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	81	-	530	1962	535	99.2%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	52	-	354	1982	356	99.5%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	61	-	411	1979:1919	418	98.2%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	88	20	329	1826:1744	536	61.3%
5/1		U	N/A	N/A	-		-	-	-	494	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	311	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	420	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	399	Inf	Inf	0.0%

Full Input Data And Results

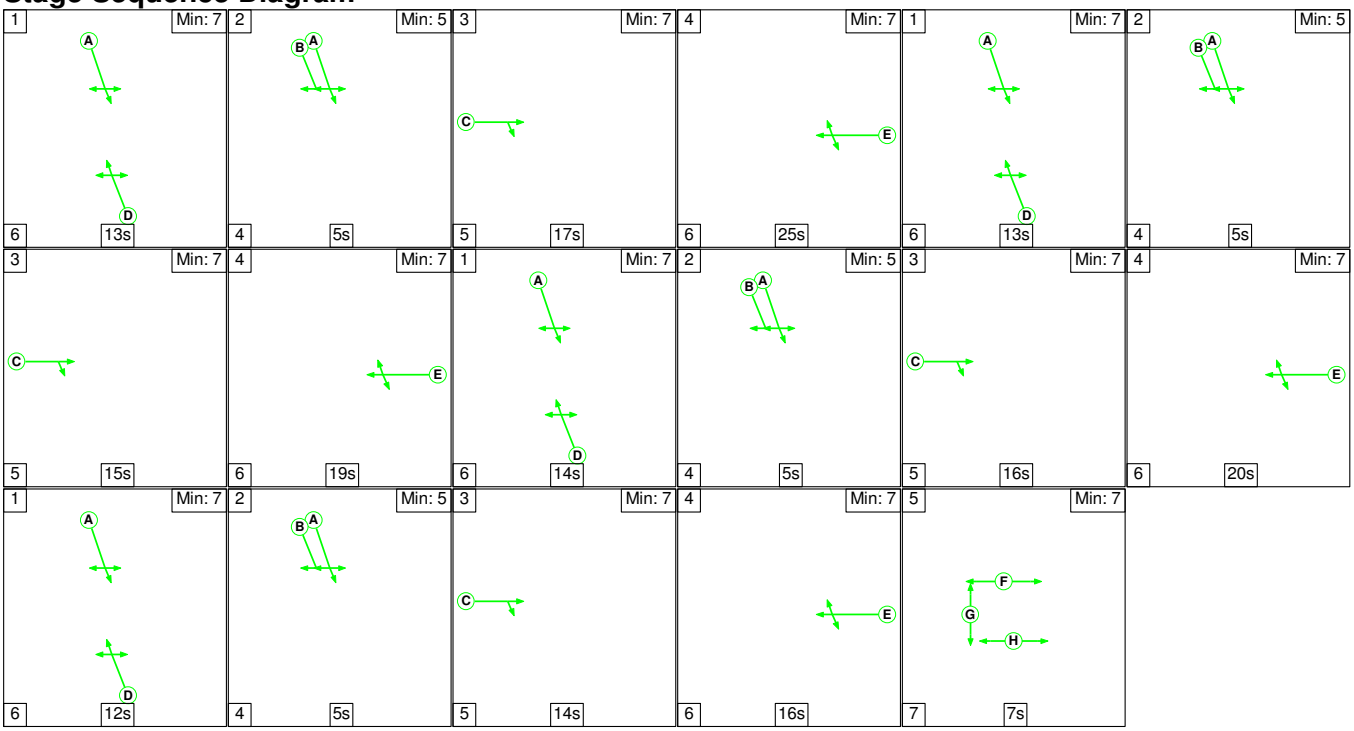
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Burton Road/Rotherham Road	**-**	**-**	**40**	**7**	**0**	**14.2**	**28.7**	**0.1**	**43.0**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**40**	**7**	**0**	**14.2**	**28.7**	**0.1**	**43.0**	**-**	**-**	**-**	**-**
1/1	530	530	-	-	-	4.5	10.4	-	14.9	101.2	15.3	10.4	25.7
2/1	354	354	39	0	0	3.6	9.0	0.1	12.7	128.9	9.7	9.0	18.6
3/2+3/1	411	411	1	5	0	3.9	8.5	-	12.4	108.5	17.2	8.5	25.7
4/1+4/2	329	329	0	2	0	2.2	0.8	0.0	3.0	32.7	6.8	0.8	7.6
5/1	494	494	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	311	311	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	420	420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	399	399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -10.6 Total Delay for Signalled Lanes (pcuHr): 42.95 Cycle Time (s): 312
PRC Over All Lanes (%): -10.6 Total Delay Over All Lanes(pcuHr): 42.95

Full Input Data And Results

Scenario 3: 'Fri 2012 Base' (FG3: 'Fri 2012 Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

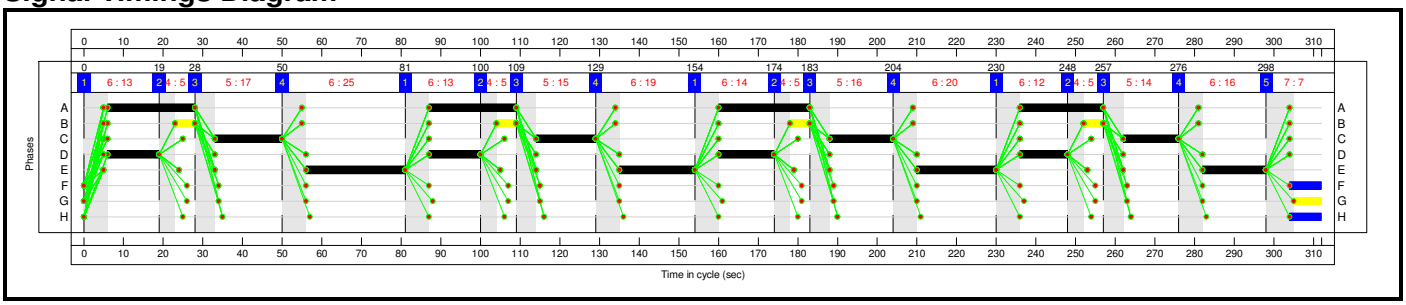


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	13	5	17	25	13	5	15	19	14	5
Change Point	0	19	28	50	81	100	109	129	154	174

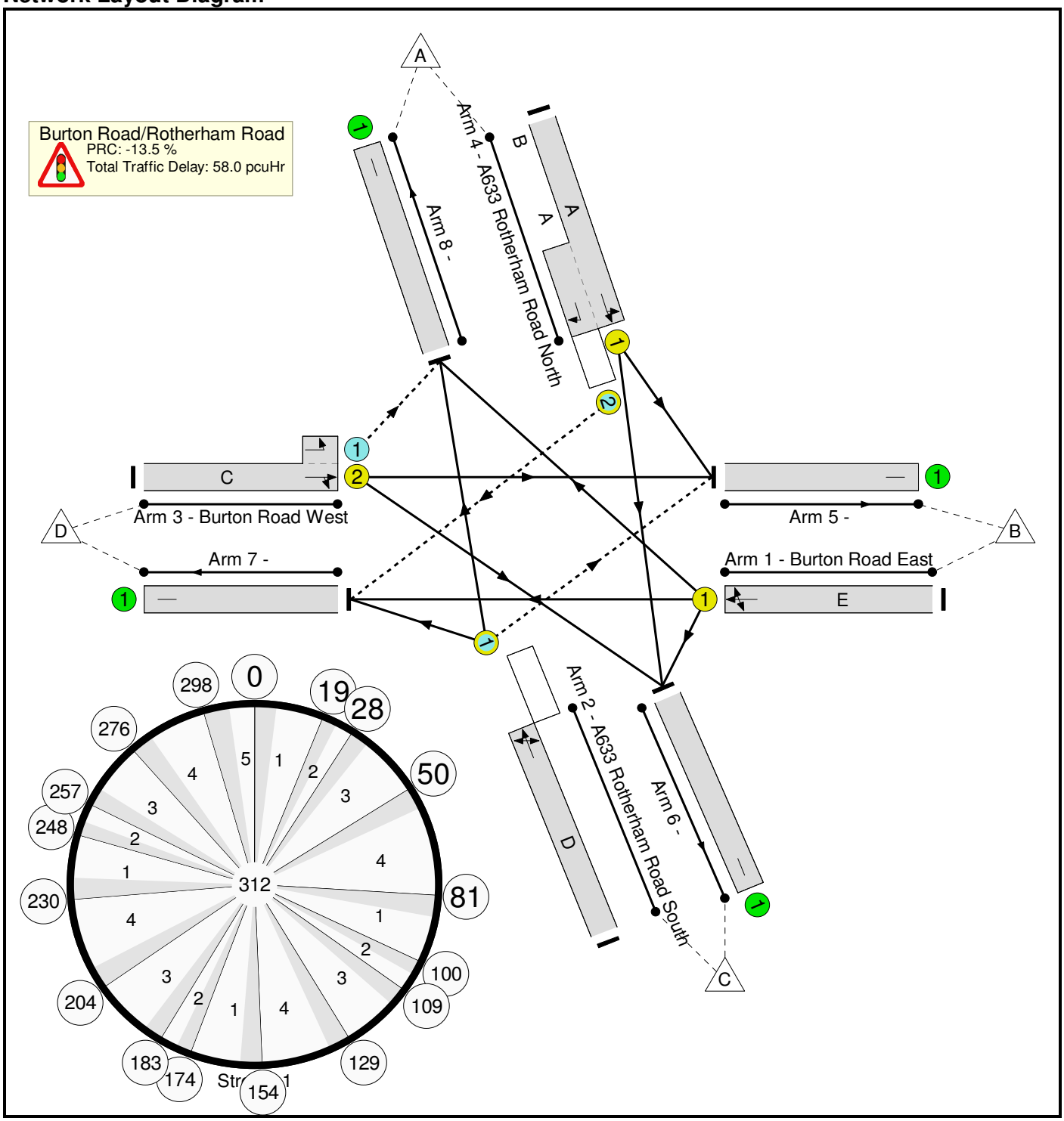
Stage	3	4	1	2	3	4	5			
Duration	16	20	12	5	14	16	7			
Change Point	183	204	230	248	257	276	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.1%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.1%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	80	-	541	1970	530	102.0%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	52	-	363	1980	355	102.1%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	62	-	439	1976:1919	435	101.0%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	88	20	405	1833:1744	541	74.9%
5/1		U	N/A	N/A	-		-	-	-	487	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	387	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	478	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	396	Inf	Inf	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: Burton Road/Rotherham Road	**-**	**-**	**36**	**24**	**0**	**18.6**	**39.3**	**0.1**	**58.0**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**36**	**24**	**0**	**18.6**	**39.3**	**0.1**	**58.0**	**-**	**-**	**-**	**-**
1/1	541	530	-	-	-	6.3	14.6	-	20.9	138.8	16.1	14.6	30.7
2/1	363	355	35	0	0	4.9	11.6	0.1	16.6	164.4	9.8	11.6	21.4
3/2+3/1	439	435	0	16	0	4.6	11.6	-	16.3	133.3	11.2	11.6	22.8
4/1+4/2	405	405	0	8	0	2.8	1.5	0.0	4.3	38.1	8.6	1.5	10.0
5/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	386	386	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -13.5
PRC Over All Lanes (%): -13.5

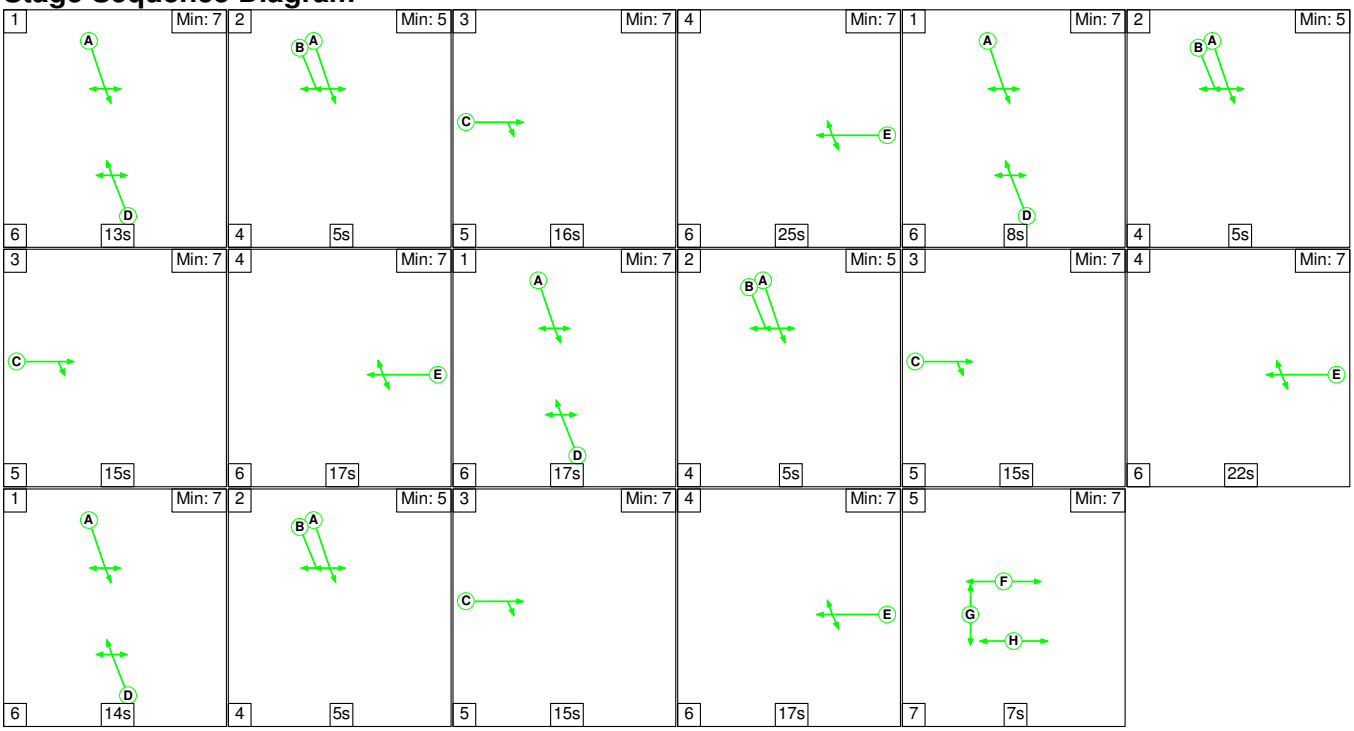
Total Delay for Signalled Lanes (pcuHr): 57.98
Total Delay Over All Lanes(pcuHr): 57.98

Cycle Time (s): 312

Full Input Data And Results

Scenario 4: 'Sat 2012 Base' (FG4: 'Sat 2012 Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

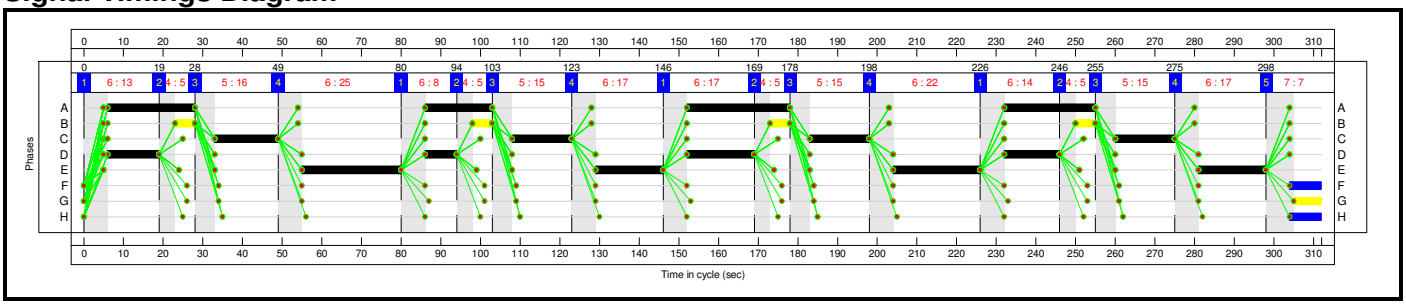


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	13	5	16	25	8	5	15	17	17	5
Change Point	0	19	28	49	80	94	103	123	146	169

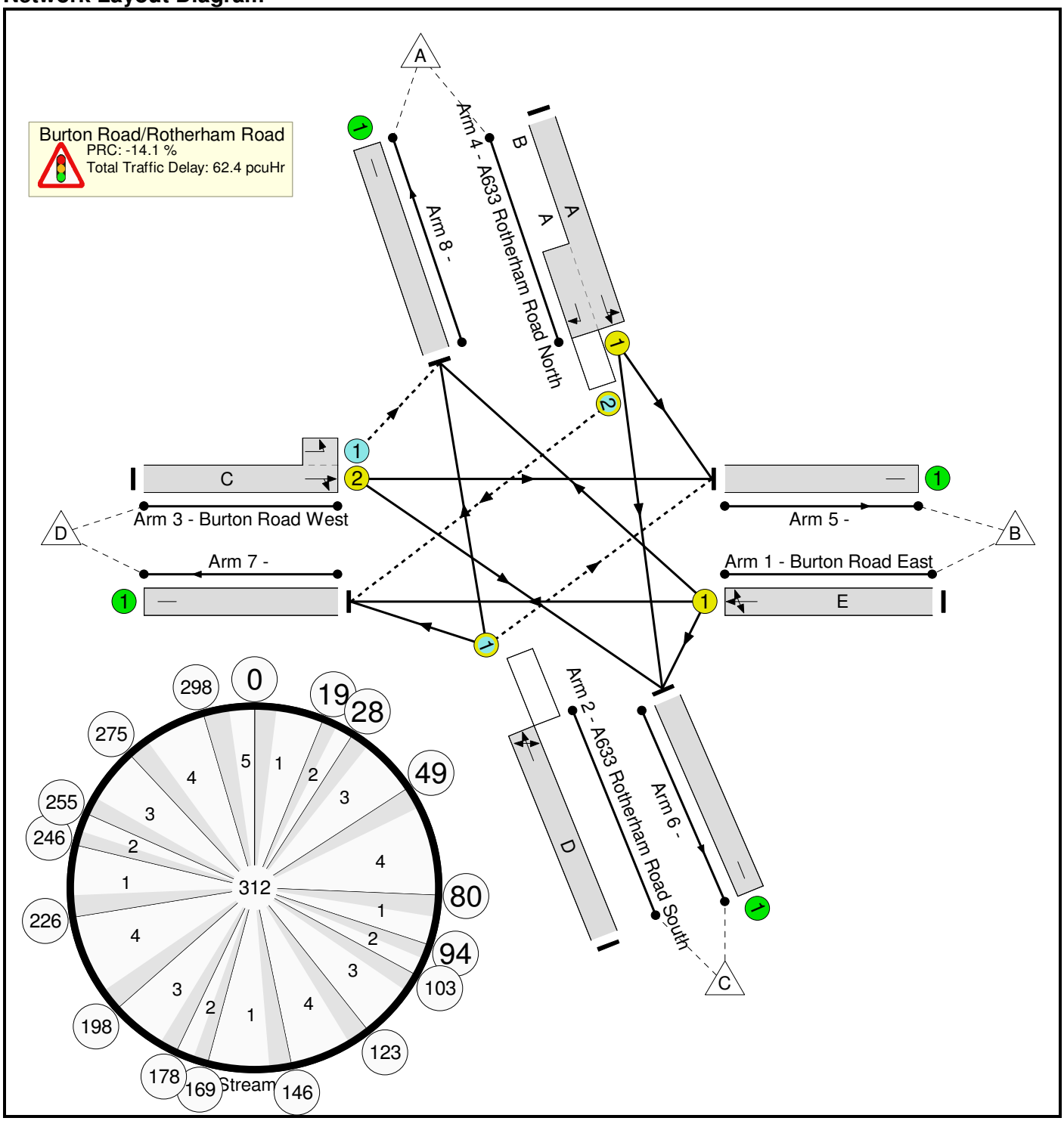
Stage	3	4	1	2	3	4	5			
Duration	15	22	14	5	15	17	7			
Change Point	178	198	226	246	255	275	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.7%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**102.7%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	81	-	547	1962	535	102.3%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	52	-	365	1980	355	102.7%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	61	-	437	1977:1919	426	102.7%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	88	20	337	1826:1744	541	62.3%
5/1		U	N/A	N/A	-		-	-	-	502	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	453	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%

Full Input Data And Results

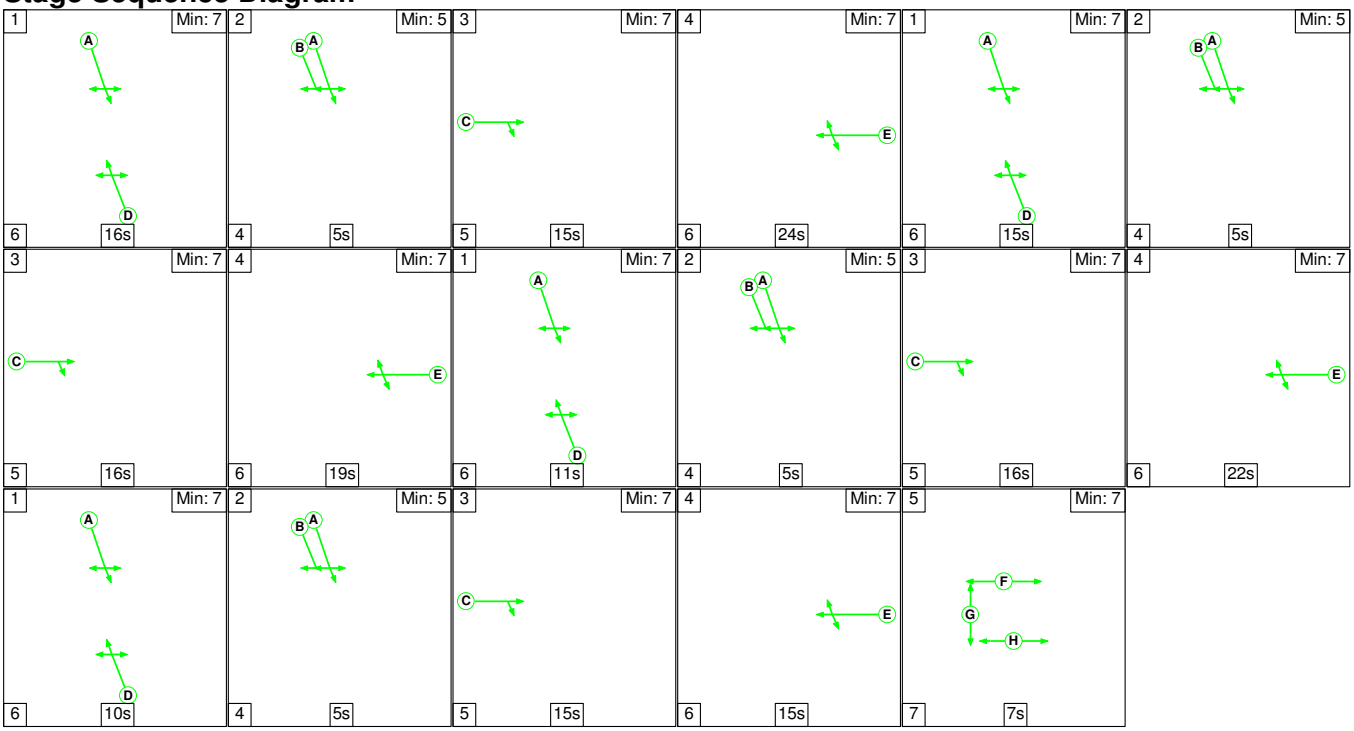
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Burton Road/Rotherham Road	**-**	**-**	**38**	**22**	**0**	**20.3**	**42.0**	**0.1**	**62.4**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**38**	**22**	**0**	**20.3**	**42.0**	**0.1**	**62.4**	**-**	**-**	**-**	**-**
1/1	547	535	-	-	-	6.8	15.2	-	22.0	144.7	16.5	15.2	31.7
2/1	365	355	38	0	0	5.6	12.3	0.1	17.9	176.9	12.0	12.3	24.3
3/2+3/1	437	426	0	14	0	5.7	13.7	-	19.4	159.7	43.3	13.7	57.0
4/1+4/2	337	337	0	9	0	2.2	0.8	0.0	3.1	32.8	6.9	0.8	7.7
5/1	491	491	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	399	399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -14.1 Total Delay for Signalled Lanes (pcuHr): 62.39 Cycle Time (s): 312
PRC Over All Lanes (%): -14.1 Total Delay Over All Lanes(pcuHr): 62.39

Full Input Data And Results

Scenario 5: 'Fri 2017 Base' (FG5: 'Fri 2017 Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

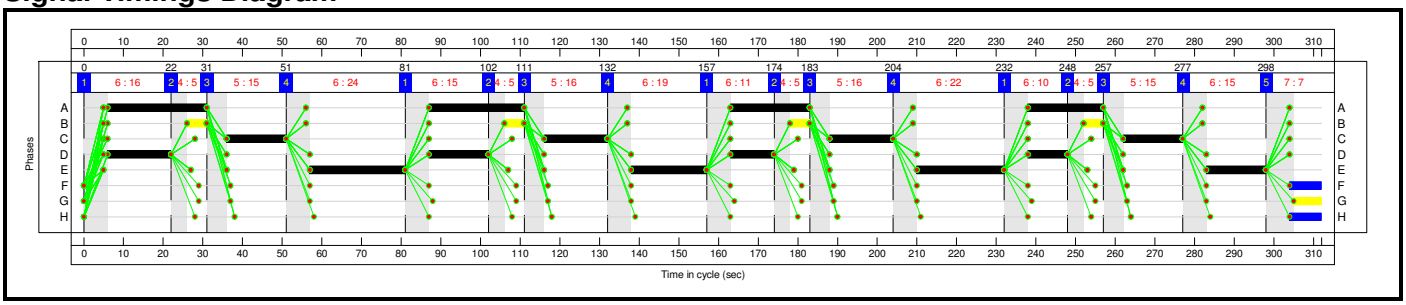


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	16	5	15	24	15	5	16	19	11	5
Change Point	0	22	31	51	81	102	111	132	157	174

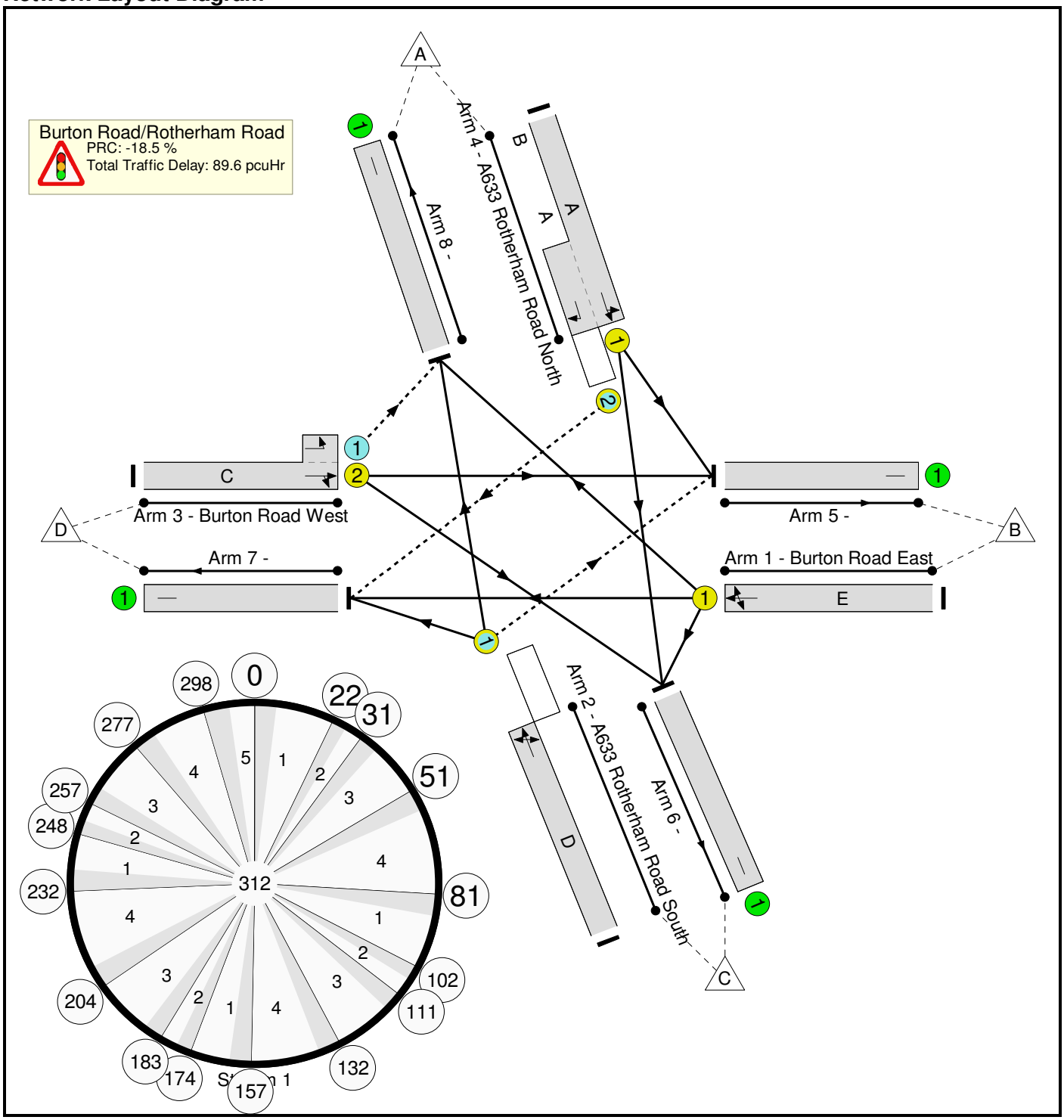
Stage	3	4	1	2	3	4	5			
Duration	16	22	10	5	15	15	7			
Change Point	183	204	232	248	257	277	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**106.6%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**106.6%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	80	-	564	1970	530	106.3%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	52	-	379	1980	355	106.6%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	62	-	458	1976:1919	435	105.3%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	88	20	423	1833:1744	540	78.3%
5/1		U	N/A	N/A	-		-	-	-	509	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	404	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	413	Inf	Inf	0.0%

Full Input Data And Results

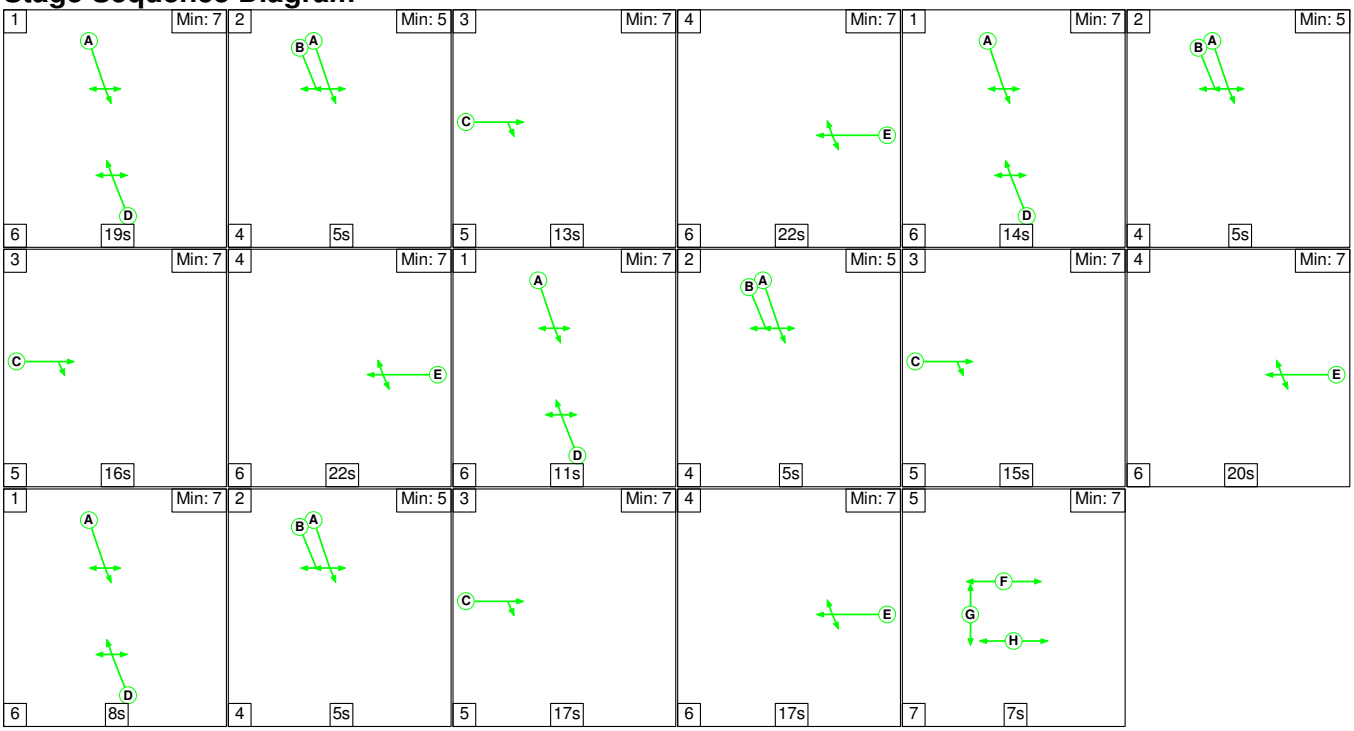
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Burton Road/Rotherham Road	**-**	**-**	**36**	**25**	**0**	**29.6**	**59.9**	**0.1**	**89.6**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**36**	**25**	**0**	**29.6**	**59.9**	**0.1**	**89.6**	**-**	**-**	**-**	**-**
1/1	564	530	-	-	-	10.5	23.0	-	33.4	213.3	19.5	23.0	42.5
2/1	379	355	36	0	0	8.4	17.3	0.1	25.8	245.1	13.8	17.3	31.1
3/2+3/1	458	435	0	17	0	7.8	17.9	-	25.7	201.6	83.6	17.9	101.5
4/1+4/2	423	423	0	8	0	3.0	1.7	0.0	4.7	40.2	9.0	1.7	10.7
5/1	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	400	400	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	388	388	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -18.5 Total Delay for Signalled Lanes (pcuHr): 89.59 Cycle Time (s): 312
PRC Over All Lanes (%): -18.5 Total Delay Over All Lanes(pcuHr): 89.59

Full Input Data And Results

Scenario 6: 'Sat 2017 Base' (FG6: 'Sat 2017 Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

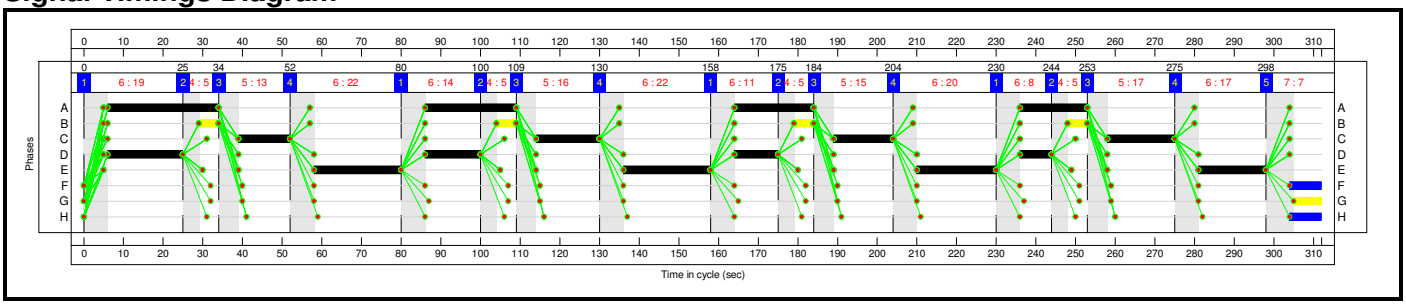


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	19	5	13	22	14	5	16	22	11	5
Change Point	0	25	34	52	80	100	109	130	158	175

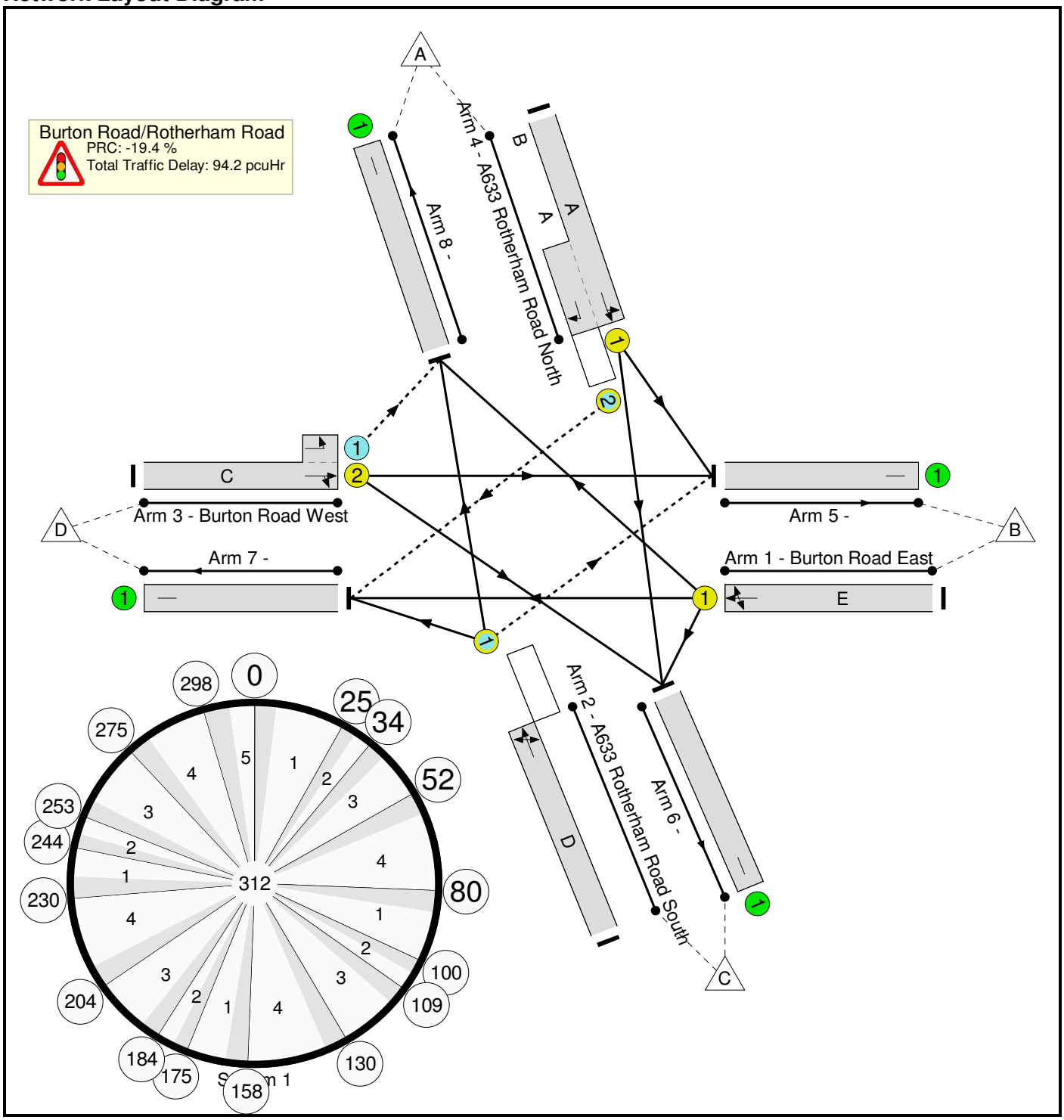
Stage	3	4	1	2	3	4	5			
Duration	15	20	8	5	17	17	7			
Change Point	184	204	230	244	253	275	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**107.5%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**107.5%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	81	-	569	1963	535	106.4%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	52	-	382	1980	355	107.5%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	61	-	454	1977:1919	425	106.8%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	88	20	351	1826:1744	541	64.9%
5/1		U	N/A	N/A	-		-	-	-	524	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	334	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	426	Inf	Inf	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: Burton Road/Rotherham Road	**-**	**-**	**38**	**22**	**0**	**31.4**	**62.8**	**0.1**	**94.2**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**38**	**22**	**0**	**31.4**	**62.8**	**0.1**	**94.2**	**-**	**-**	**-**	**-**
1/1	569	535	-	-	-	10.5	23.2	-	33.7	213.3	19.0	23.2	42.3
2/1	382	355	38	0	0	9.3	18.5	0.1	27.9	262.7	15.9	18.5	34.4
3/2+3/1	454	425	0	13	0	9.2	20.1	-	29.4	233.0	83.0	20.1	103.1
4/1+4/2	351	351	0	9	0	2.3	0.9	0.0	3.3	33.7	7.6	0.9	8.5
5/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	329	329	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	398	398	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -19.4
PRC Over All Lanes (%): -19.4

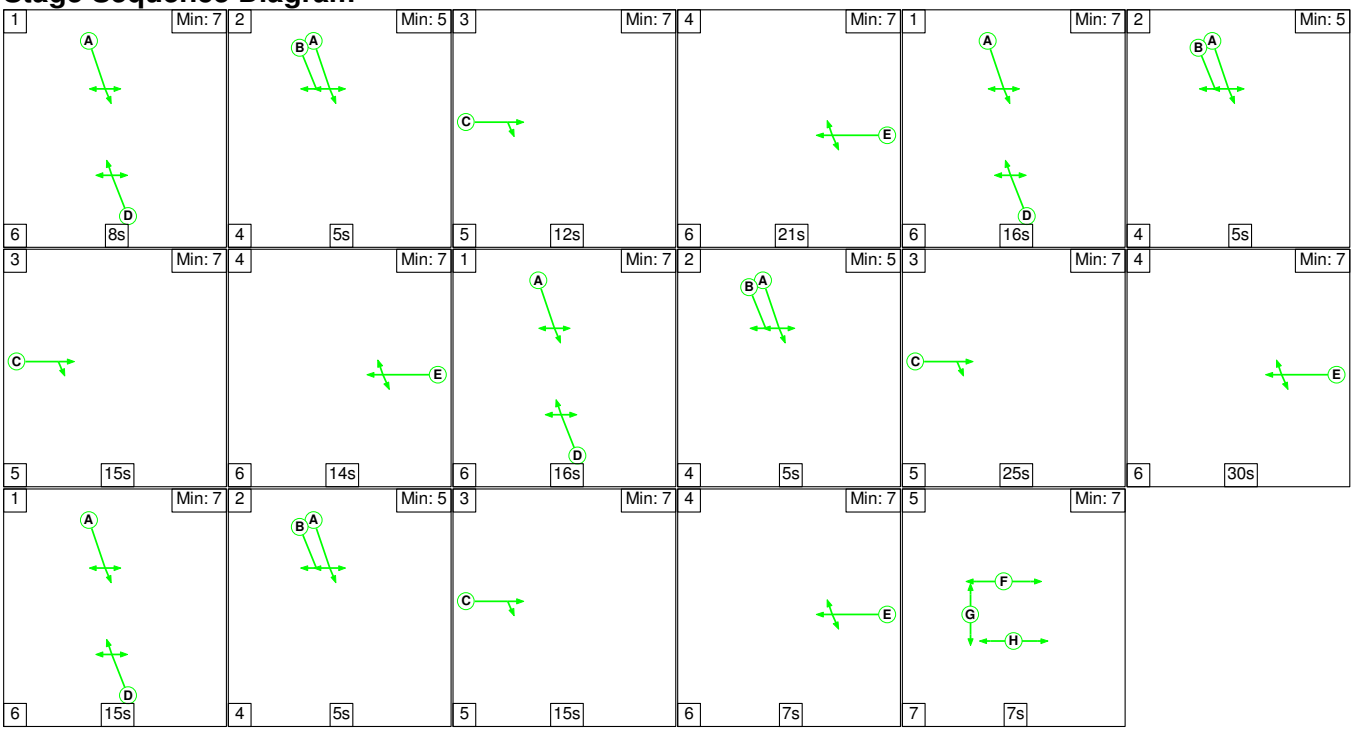
Total Delay for Signalled Lanes (pcuHr): 94.25
Total Delay Over All Lanes(pcuHr): 94.25

Cycle Time (s): 312

Full Input Data And Results

Scenario 7: 'Fri 2017 Base+Dev' (FG7: 'Fri 2017 Base+Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

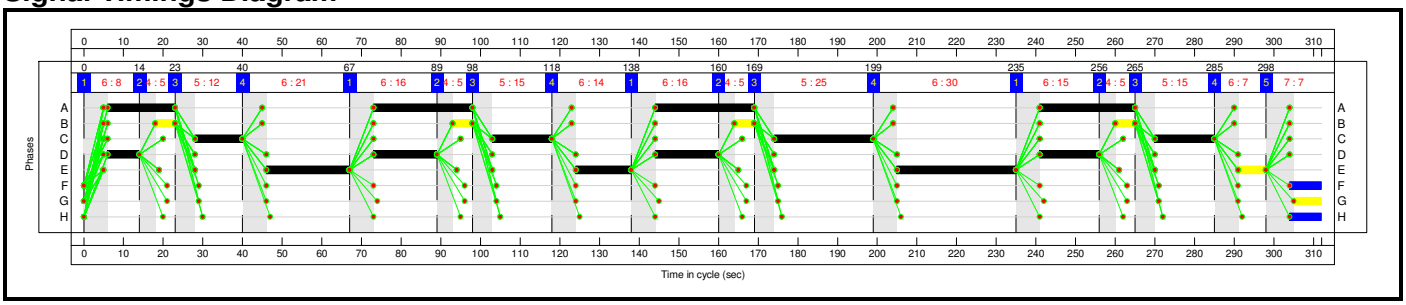


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	8	5	12	21	16	5	15	14	16	5
Change Point	0	14	23	40	67	89	98	118	138	160

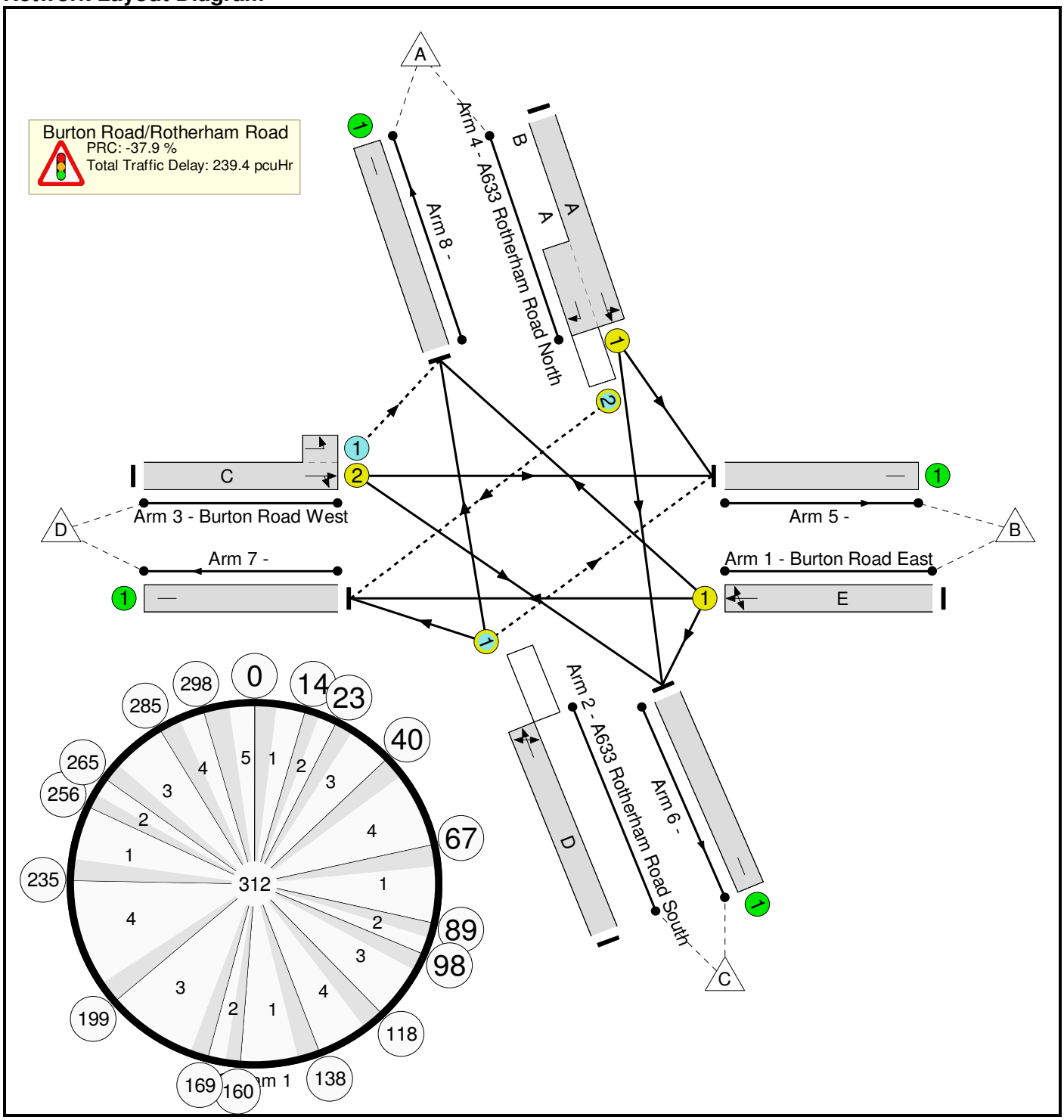
Stage	3	4	1	2	3	4	5			
Duration	25	30	15	5	15	7	7			
Change Point	169	199	235	256	265	285	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**124.1%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**124.1%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	72	-	596	1972	480	124.1%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	55	-	456	1967	372	122.6%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	67	-	581	1967:1919	471	123.3%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	91	20	482	1832:1744	592	81.4%
5/1		U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	676	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	452	Inf	Inf	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: Burton Road/Rotherham Road	**-**	**-**	**27**	**114**	**9**	**74.7**	**164.4**	**0.3**	**239.4**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**27**	**114**	**9**	**74.7**	**164.4**	**0.3**	**239.4**	**-**	**-**	**-**	**-**
1/1	596	480	-	-	-	26.8	60.3	-	87.1	526.0	39.6	60.3	99.9
2/1	456	372	27	0	4	19.3	44.6	0.1	63.9	504.6	26.7	44.6	71.3
3/2+3/1	581	471	0	47	0	25.3	57.4	-	82.7	512.7	143.9	57.4	201.3
4/1+4/2	482	482	0	67	5	3.4	2.1	0.2	5.6	42.2	11.7	2.1	13.8
5/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	422	422	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	560	560	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -37.9
PRC Over All Lanes (%): -37.9

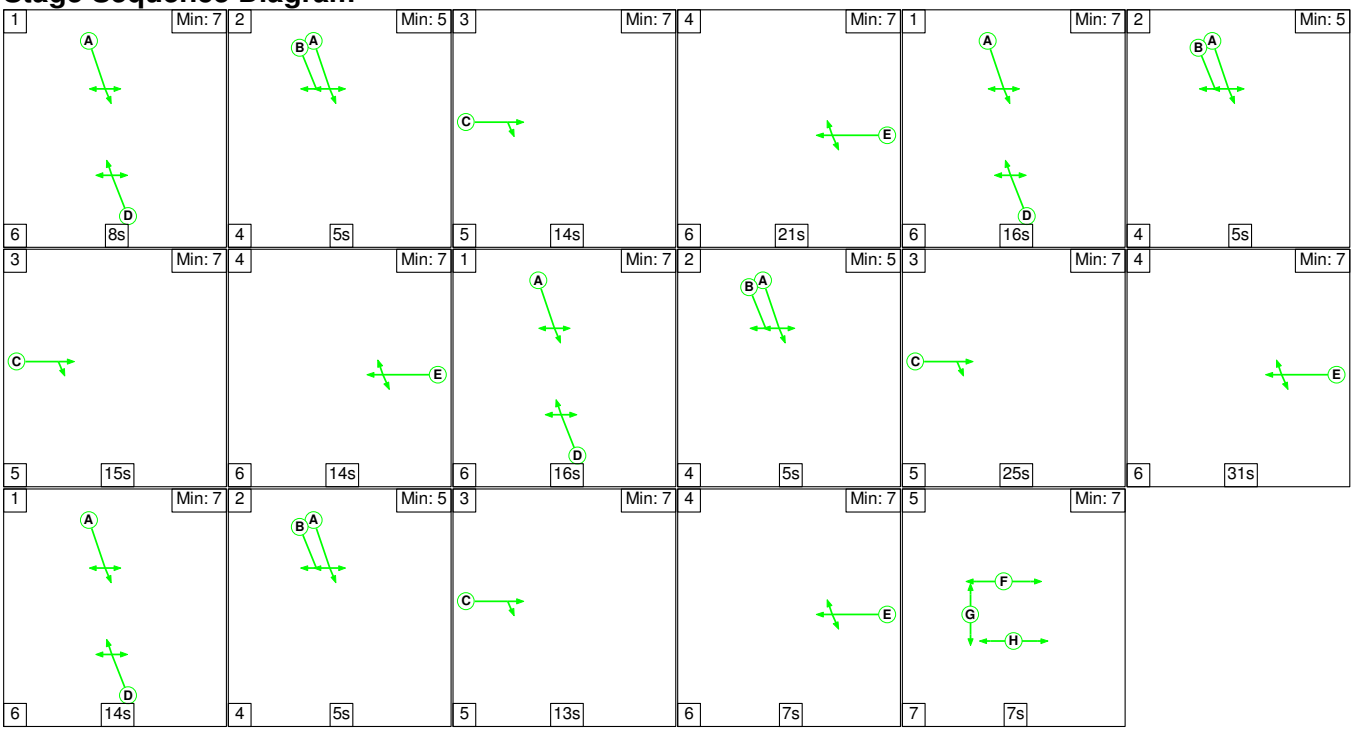
Total Delay for Signalled Lanes (pcuHr): 239.40
Total Delay Over All Lanes(pcuHr): 239.40

Cycle Time (s): 312

Full Input Data And Results

Scenario 8: 'Sat 2017 Base+Dev' (FG8: 'Sat 2017 Base+Dev', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

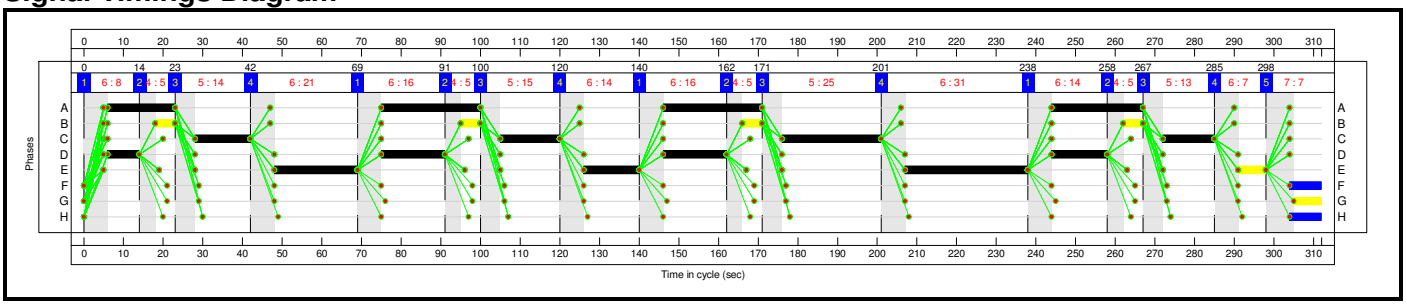


Stage Timings

Stage	1	2	3	4	1	2	3	4	1	2
Duration	8	5	14	21	16	5	15	14	16	5
Change Point	0	14	23	42	69	91	100	120	140	162

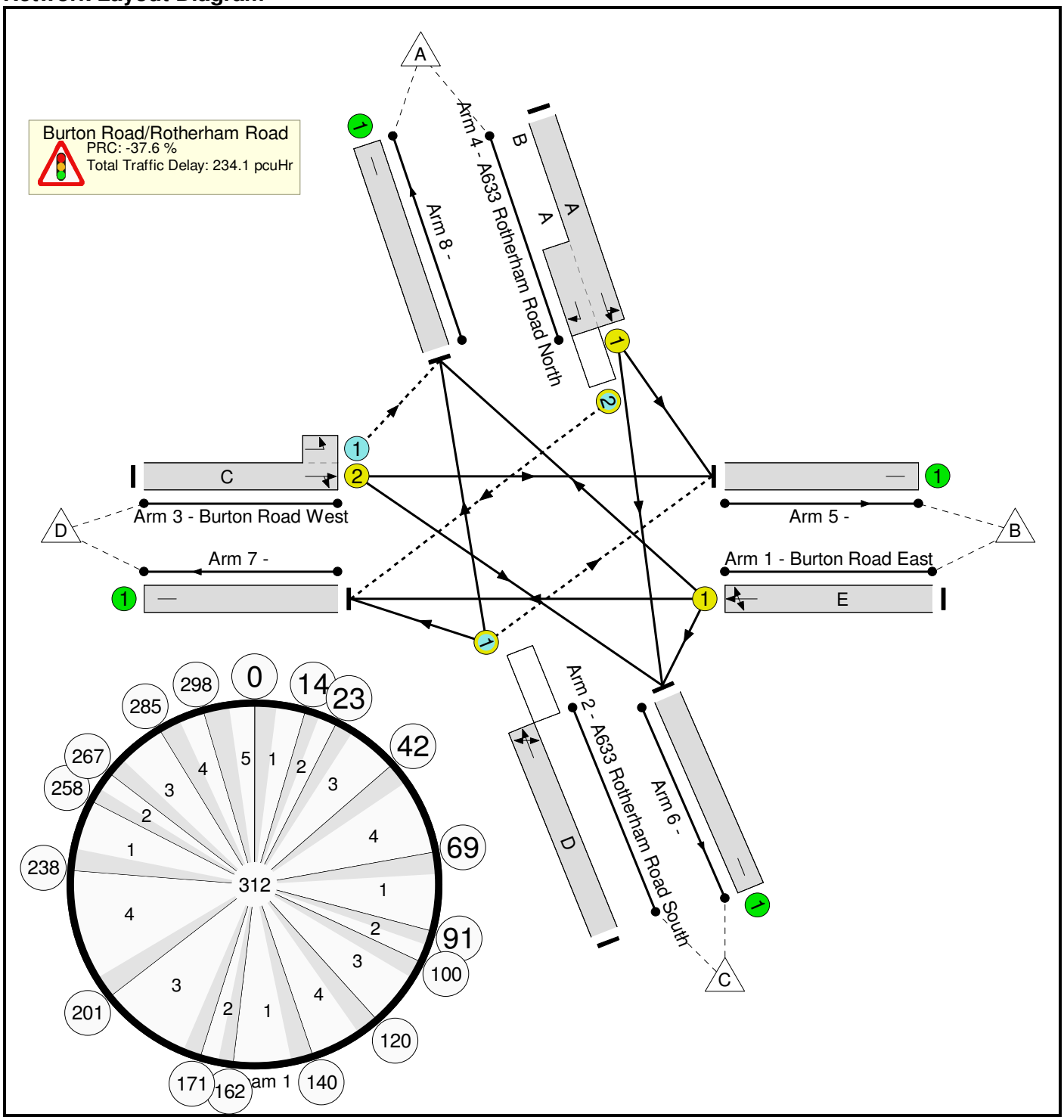
Stage	3	4	1	2	3	4	5			
Duration	25	31	14	5	13	7	7			
Change Point	171	201	238	258	267	285	298			

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: Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**123.8%**
Burton Road/Rotherham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**123.8%**
1/1	Burton Road East Left Ahead Right	U	N/A	N/A	E		4	73	-	593	1965	485	122.3%
2/1	A633 Rotherham Road South Right Left Ahead	O	N/A	N/A	D		4	54	-	453	1968	366	123.8%
3/2+3/1	Burton Road West Ahead Right Left	U+O	N/A	N/A	C -		4	67	-	580	1967:1919	471	123.1%
4/1+4/2	A633 Rotherham Road North Left Ahead Right	U+O	N/A	N/A	A	B	4	90	20	407	1826:1744	591	68.8%
5/1		U	N/A	N/A	-		-	-	-	554	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	380	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	468	Inf	Inf	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: Burton Road/Rotherham Road	**-**	**-**	**33**	**113**	**3**	**73.1**	**160.8**	**0.2**	**234.1**	**-**	**-**	**-**	**-**
Burton Road/Rotherham Road	**-**	**-**	**33**	**113**	**3**	**73.1**	**160.8**	**0.2**	**234.1**	**-**	**-**	**-**	**-**
1/1	593	485	-	-	-	25.2	56.6	-	81.9	496.9	38.4	56.6	95.0
2/1	453	366	33	0	0	19.9	46.0	0.1	66.0	524.3	27.2	46.0	73.3
3/2+3/1	580	471	0	46	0	25.3	57.0	-	82.3	510.8	143.4	57.0	200.4
4/1+4/2	407	407	0	66	3	2.7	1.1	0.2	4.0	35.2	9.2	1.1	10.2
5/1	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -37.6
PRC Over All Lanes (%): -37.6

Total Delay for Signalled Lanes (pcuHr): 234.11
Total Delay Over All Lanes(pcuHr): 234.11

Cycle Time (s): 312