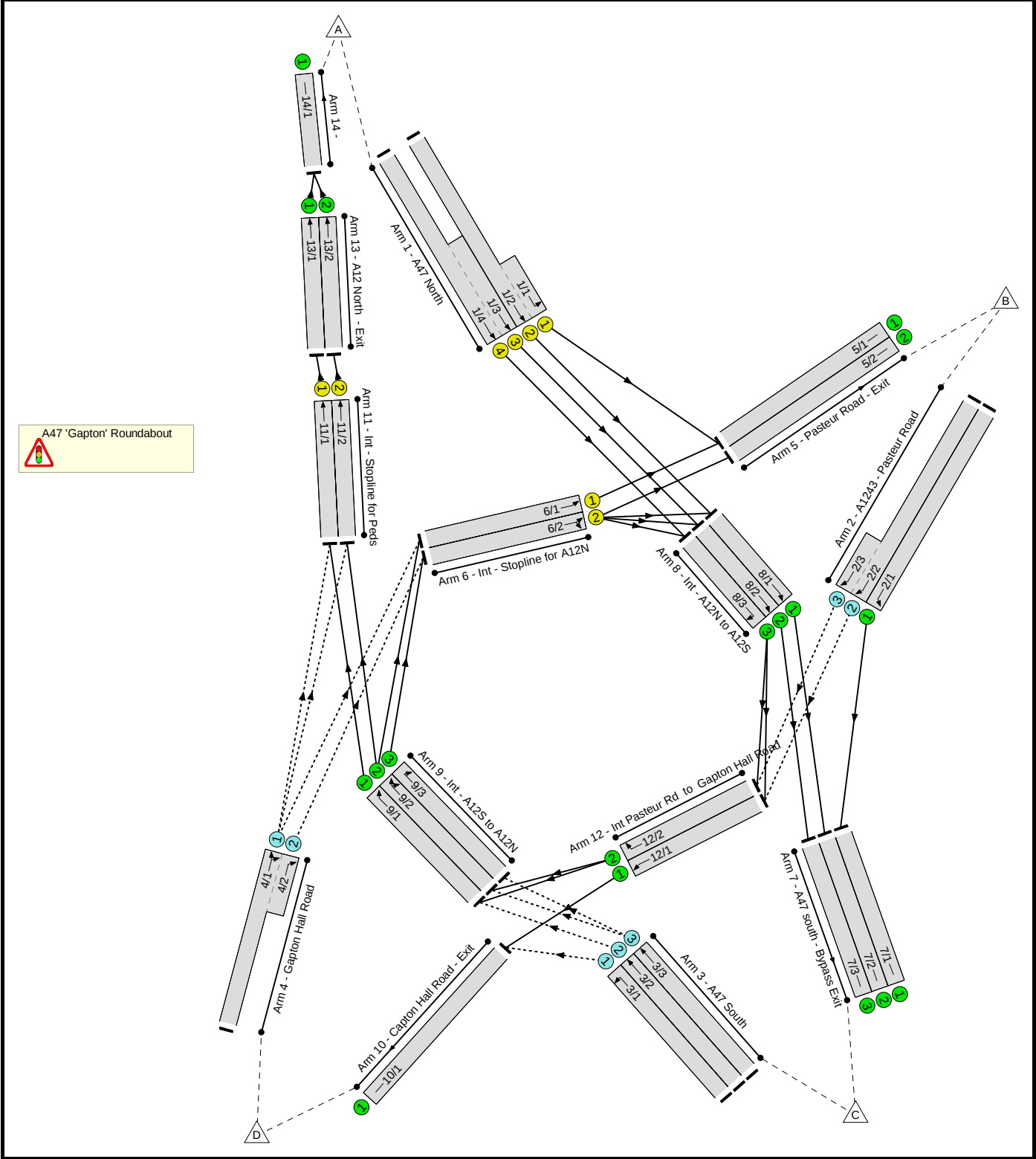


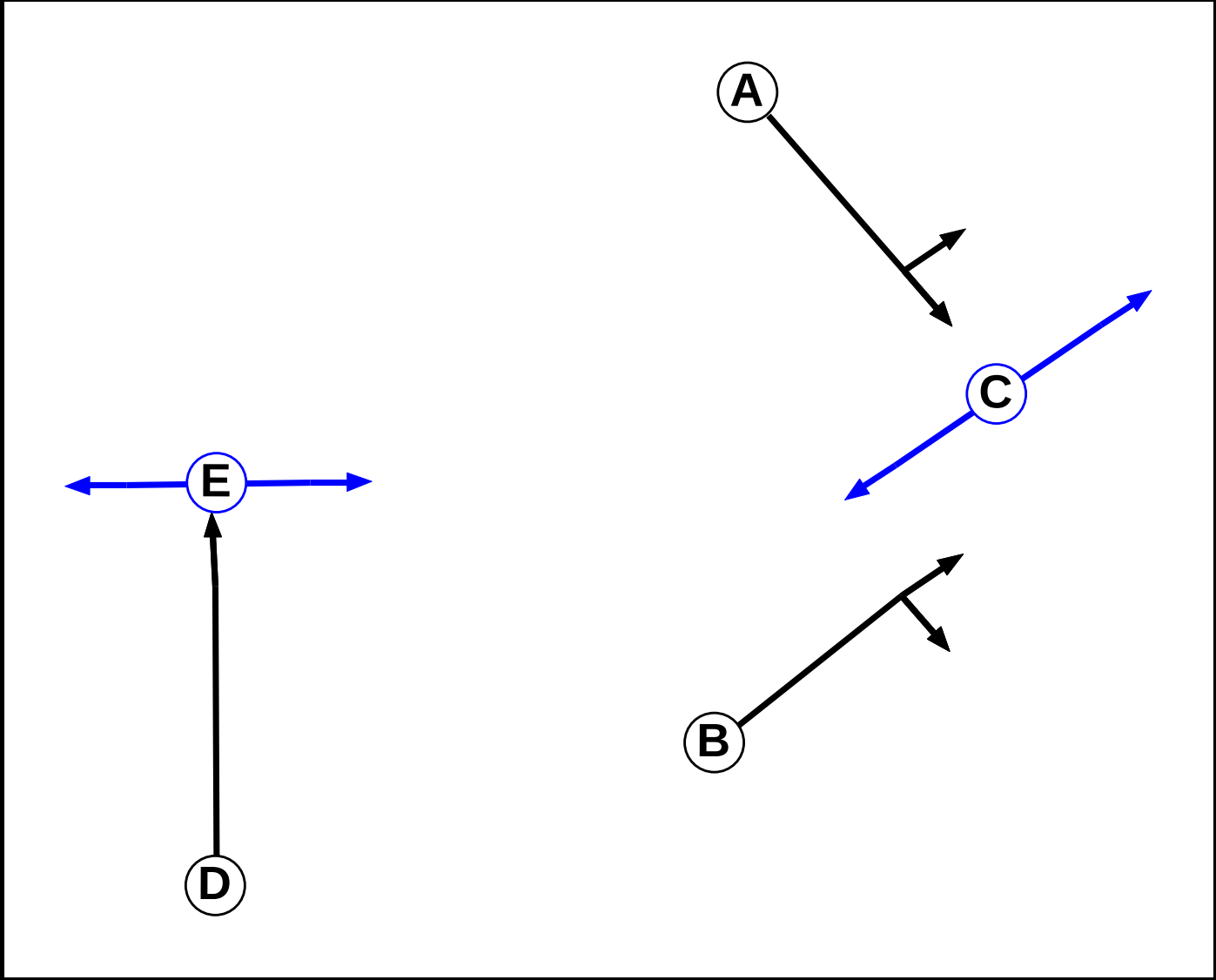
Full Input Data And Results**User and Project Details**

Project:	Norfolk Vanguard
Title:	A47 Gapton Roundabout
Location:	
Client:	Vattenfall Wind Power Limited
Site Ref(s):	J1
Date Started:	23.01.2018
Model Purpose:	To demonstrate junction capacity on existing layout.
Additional detail:	
File name:	J1 - Gapton Hall Roundabout.lsg3x
Author:	Ryan Eldon
Company:	Royal HaskoningDHV
Address:	

Network Layout Diagram



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	Pedestrian	1		7	7
D	Traffic	2		7	7
E	Pedestrian	2		7	7

Phase Intergreens Matrix

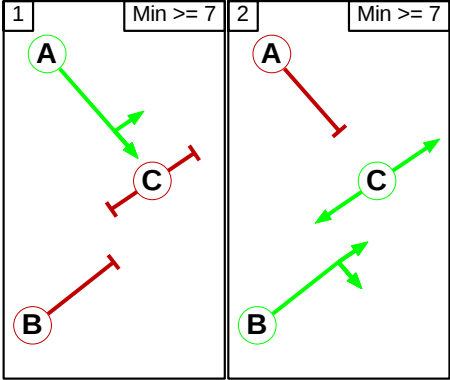
Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		8	7	-	-
	B	5		-	-	-
	C	5	-		-	-
	D	-	-	-		7
	E	-	-	-	12	

Phases in Stage

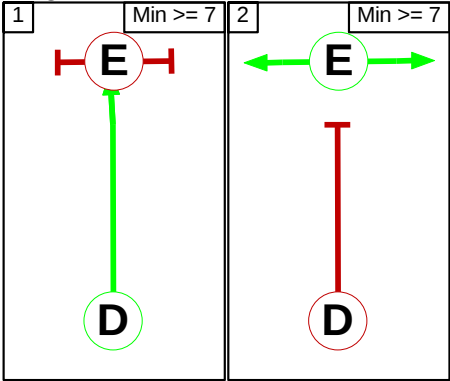
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B C
2	1	D
2	2	E

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Full Input Data And Results

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		
From Stage		1	2
	1		8
	2	5	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		7
	2	12	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A47 'Gapton' Roundabout											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min 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)
2/2 (A1243 - Pasteur Road)	12/1 (Ahead)	1439	0	8/1	1.09	All	-	-	-	-	-
				8/2	1.09	All					
				8/3	1.09	All					
2/3 (A1243 - Pasteur Road)	12/2 (Ahead)	1439	0	8/1	1.09	All	-	-	-	-	-
				8/2	1.09	All					
				8/3	1.09	All					
3/1 (A47 South)	10/1 (Left)	1439	0	12/1	1.09	All	-	-	-	-	-
3/2 (A47 South)	9/1 (Ahead)	1439	0	12/1	1.09	All	-	-	-	-	-
				12/2	1.09	All					
				12/1	1.09	All					
3/3 (A47 South)	9/2 (Ahead)	1439	0	12/2	1.09	All	-	-	-	-	-
				12/1	1.09	All					
				12/2	1.09	All					
4/1 (Gapton Hall Road)	9/3 (Ahead)	1439	0	12/1	1.09	All	-	-	-	-	-
				12/2	1.09	All					
				9/1	1.09	All					
4/2 (Gapton Hall Road)	6/1 (Right)	1439	0	9/2	1.09	All	-	-	-	-	-
				9/3	1.09	All					
				9/1	1.09	All					
4/3 (Gapton Hall Road)	11/1 (Ahead)	1439	0	9/1	1.09	All	-	-	-	-	-
				9/2	1.09	All					
				9/3	1.09	All					
4/4 (Gapton Hall Road)	11/2 (Ahead)	1439	0	9/1	1.09	All	-	-	-	-	-
				9/2	1.09	All					
				9/3	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A47 'Gapton' Roundabout												
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 (A47 North)	U	A	2	3	5.4	Geom	-	3.70	0.00	Y	Arm 5 Left	37.50
1/2 (A47 North)	U	A	2	3	8.7	Geom	-	3.68	0.00	N	Arm 8 Ahead	Inf
1/3 (A47 North)	U	A	2	3	9.2	Geom	-	3.68	0.00	N	Arm 8 Ahead	Inf
1/4 (A47 North)	U	A	2	3	60.0	Geom	-	3.68	0.00	Y	Arm 8 Ahead	Inf
2/1 (A1243 - Pasteur Road)	U		2	3	60.0	Geom	-	4.35	0.00	Y	Arm 7 Left	60.00
2/2 (A1243 - Pasteur Road)	O		2	3	60.0	Geom	-	3.30	0.00	Y	Arm 12 Ahead	Inf
2/3 (A1243 - Pasteur Road)	O		2	3	5.2	Geom	-	3.30	0.00	N	Arm 12 Ahead	Inf
3/1 (A47 South)	O		2	3	11.5	Geom	-	3.60	0.00	Y	Arm 10 Left	20.43
3/2 (A47 South)	O		2	3	60.0	Geom	-	3.65	0.00	N	Arm 9 Ahead	Inf
3/3 (A47 South)	O		2	3	60.0	Geom	-	3.65	0.00	N	Arm 9 Ahead	Inf
4/1 (Gapton Hall Road)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 6 Right Arm 11 Ahead	Inf Inf
4/2 (Gapton Hall Road)	O		2	3	5.2	Geom	-	3.10	0.00	N	Arm 6 Right	Inf
5/1 (Pasteur Road - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (Pasteur Road - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Int - Stopline for A12N)	U	B	2	3	8.9	Geom	-	3.25	0.00	Y	Arm 5 Ahead	Inf
6/2 (Int - Stopline for A12N)	U	B	2	3	8.9	Geom	-	3.25	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Right	Inf
7/1 (A47 south - Bypass Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A47 south - Bypass Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

7/3 (A47 south - Bypass Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Int - A12N to A12S)	U		2	3	7.5	Inf	-	-	-	-	-	-
8/2 (Int - A12N to A12S)	U		2	3	7.5	Inf	-	-	-	-	-	-
8/3 (Int - A12N to A12S)	U		2	3	7.5	Inf	-	-	-	-	-	-
9/1 (Int - A12S to A12N)	U		2	3	6.1	Inf	-	-	-	-	-	-
9/2 (Int - A12S to A12N)	U		2	3	6.1	Inf	-	-	-	-	-	-
9/3 (Int - A12S to A12N)	U		2	3	6.1	Inf	-	-	-	-	-	-
10/1 (Capton Hall Road - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (Int - Stopline for Peds)	U	D	2	3	2.6	User	1800	-	-	-	-	-
11/2 (Int - Stopline for Peds)	U	D	2	3	2.6	User	1800	-	-	-	-	-
12/1 (Int Pasteur Rd to Gapton Hall Road)	U		2	3	8.7	Inf	-	-	-	-	-	-
12/2 (Int Pasteur Rd to Gapton Hall Road)	U		2	3	8.7	Inf	-	-	-	-	-	-
13/1 (A12 North - Exit)	U		2	3	2.6	User	1800	-	-	-	-	-
13/2 (A12 North - Exit)	U		2	3	2.6	User	1800	-	-	-	-	-
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
4: '2022 Future Year - PM Peak'	16:30	17:30	01:00	
6: '2022 Future Year + Development - PM Peak'	16:30	17:30	01:00	

Scenario 4: '2022 Future Year PM' (FG4: '2022 Future Year - PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
Origin	A	0	225	1123	408	1756
	B	274	0	788	431	1493
	C	1010	446	0	100	1556
	D	472	233	43	0	748
	Tot.	1756	904	1954	939	5553

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2022 Future Year PM
Junction: A47 'Gapton' Roundabout	
1/1 (short)	225
1/2 (with short)	787(In) 562(Out)
1/3 (short)	561
1/4 (with short)	969(In) 408(Out)
2/1	788
2/2 (with short)	705(In) 431(Out)
2/3 (short)	274
3/1	100
3/2	728
3/3	728
4/1 (with short)	748(In) 485(Out)
4/2 (short)	263
5/1	537
5/2	367
6/1	312
6/2	410
7/1	788
7/2	583
7/3	583
8/1	583
8/2	583
8/3	408
9/1	779
9/2	804
9/3	147
10/1	939
11/1	934
11/2	822
12/1	839
12/2	274
13/1	934
13/2	822
14/1	1756

Full Input Data And Results

Lane Saturation Flows

Junction: A47 'Gapton' Roundabout								
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 (A47 North)	3.70	0.00	Y	Arm 5 Left	37.50	100.0 %	1909	1909
1/2 (A47 North)	3.68	0.00	N	Arm 8 Ahead	Inf	100.0 %	2123	2123
1/3 (A47 North)	3.68	0.00	N	Arm 8 Ahead	Inf	100.0 %	2123	2123
1/4 (A47 North)	3.68	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1983	1983
2/1 (A1243 - Pasteur Road)	4.35	0.00	Y	Arm 7 Left	60.00	100.0 %	2000	2000
2/2 (A1243 - Pasteur Road)	3.30	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1945	1945
2/3 (A1243 - Pasteur Road)	3.30	0.00	N	Arm 12 Ahead	Inf	100.0 %	2085	2085
3/1 (A47 South)	3.60	0.00	Y	Arm 10 Left	20.43	100.0 %	1840	1840
3/2 (A47 South)	3.65	0.00	N	Arm 9 Ahead	Inf	100.0 %	2120	2120
3/3 (A47 South)	3.65	0.00	N	Arm 9 Ahead	Inf	100.0 %	2120	2120
4/1 (Gapton Hall Road)	3.25	0.00	Y	Arm 6 Right Arm 11 Ahead	Inf Inf	2.7 % 97.3 %	1940	1940
4/2 (Gapton Hall Road)	3.10	0.00	N	Arm 6 Right	Inf	100.0 %	2065	2065
5/1 (Pasteur Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Pasteur Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Int - Stopline for A12N)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
6/2 (Int - Stopline for A12N)	3.25	0.00	Y	Arm 5 Ahead Arm 8 Right	Inf Inf	89.5 % 10.5 %	1940	1940
7/1 (A47 south - Bypass Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A47 south - Bypass Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A47 south - Bypass Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Int - A12N to A12S Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Int - A12N to A12S Lane 2)	Infinite Saturation Flow						Inf	Inf
8/3 (Int - A12N to A12S Lane 3)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

9/1 (Int - A12S to A12N Lane 1)	Infinite Saturation Flow	Inf	Inf
9/2 (Int - A12S to A12N Lane 2)	Infinite Saturation Flow	Inf	Inf
9/3 (Int - A12S to A12N Lane 3)	Infinite Saturation Flow	Inf	Inf
10/1 (Capton Hall Road - Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/1 (Int - Stopline for Peds Lane 1)	This lane uses a directly entered Saturation Flow	1800	1800
11/2 (Int - Stopline for Peds Lane 2)	This lane uses a directly entered Saturation Flow	1800	1800
12/1 (Int Pasteur Rd to Capton Hall Road Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (Int Pasteur Rd to Capton Hall Road Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (A12 North - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1800	1800
13/2 (A12 North - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1800	1800
14/1	Infinite Saturation Flow	Inf	Inf

Scenario 6: '2022 Future Year plus Development PM' (FG6: '2022 Future Year + Development - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	225	1213	408	1846
	B	274	0	788	431	1493
	C	1095	446	0	100	1641
	D	472	233	43	0	748
	Tot.	1841	904	2044	939	5728

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2022 Future Year plus Development PM
Junction: A47 'Gapton' Roundabout	
1/1 (short)	225
1/2 (with short)	835(In) 610(Out)
1/3 (short)	603
1/4 (with short)	1011(In) 408(Out)
2/1	788
2/2 (with short)	705(In) 431(Out)
2/3 (short)	274
3/1	100
3/2	770
3/3	771
4/1 (with short)	748(In) 498(Out)
4/2 (short)	250
5/1	580
5/2	324
6/1	355
6/2	367
7/1	788
7/2	631
7/3	625
8/1	631
8/2	625
8/3	408
9/1	819
9/2	879
9/3	117
10/1	939
11/1	980
11/2	861
12/1	839
12/2	274
13/1	980
13/2	861
14/1	1841

Full Input Data And Results

Lane Saturation Flows

Junction: A47 'Gapton' Roundabout								
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 (A47 North)	3.70	0.00	Y	Arm 5 Left	37.50	100.0 %	1909	1909
1/2 (A47 North)	3.68	0.00	N	Arm 8 Ahead	Inf	100.0 %	2123	2123
1/3 (A47 North)	3.68	0.00	N	Arm 8 Ahead	Inf	100.0 %	2123	2123
1/4 (A47 North)	3.68	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1983	1983
2/1 (A1243 - Pasteur Road)	4.35	0.00	Y	Arm 7 Left	60.00	100.0 %	2000	2000
2/2 (A1243 - Pasteur Road)	3.30	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1945	1945
2/3 (A1243 - Pasteur Road)	3.30	0.00	N	Arm 12 Ahead	Inf	100.0 %	2085	2085
3/1 (A47 South)	3.60	0.00	Y	Arm 10 Left	20.43	100.0 %	1840	1840
3/2 (A47 South)	3.65	0.00	N	Arm 9 Ahead	Inf	100.0 %	2120	2120
3/3 (A47 South)	3.65	0.00	N	Arm 9 Ahead	Inf	100.0 %	2120	2120
4/1 (Gapton Hall Road)	3.25	0.00	Y	Arm 6 Right Arm 11 Ahead	Inf Inf	5.2 % 94.8 %	1940	1940
4/2 (Gapton Hall Road)	3.10	0.00	N	Arm 6 Right	Inf	100.0 %	2065	2065
5/1 (Pasteur Road - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Pasteur Road - Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Int - Stopline for A12N)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
6/2 (Int - Stopline for A12N)	3.25	0.00	Y	Arm 5 Ahead Arm 8 Right	Inf Inf	88.3 % 11.7 %	1940	1940
7/1 (A47 south - Bypass Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A47 south - Bypass Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A47 south - Bypass Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (Int - A12N to A12S Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Int - A12N to A12S Lane 2)	Infinite Saturation Flow						Inf	Inf
8/3 (Int - A12N to A12S Lane 3)	Infinite Saturation Flow						Inf	Inf

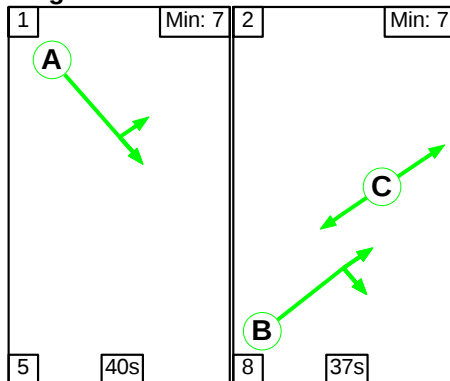
Full Input Data And Results

9/1 (Int - A12S to A12N Lane 1)	Infinite Saturation Flow	Inf	Inf
9/2 (Int - A12S to A12N Lane 2)	Infinite Saturation Flow	Inf	Inf
9/3 (Int - A12S to A12N Lane 3)	Infinite Saturation Flow	Inf	Inf
10/1 (Capton Hall Road - Exit Lane 1)	Infinite Saturation Flow	Inf	Inf
11/1 (Int - Stopline for Peds Lane 1)	This lane uses a directly entered Saturation Flow	1800	1800
11/2 (Int - Stopline for Peds Lane 2)	This lane uses a directly entered Saturation Flow	1800	1800
12/1 (Int Pasteur Rd to Capton Hall Road Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (Int Pasteur Rd to Capton Hall Road Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (A12 North - Exit Lane 1)	This lane uses a directly entered Saturation Flow	1800	1800
13/2 (A12 North - Exit Lane 2)	This lane uses a directly entered Saturation Flow	1800	1800
14/1	Infinite Saturation Flow	Inf	Inf

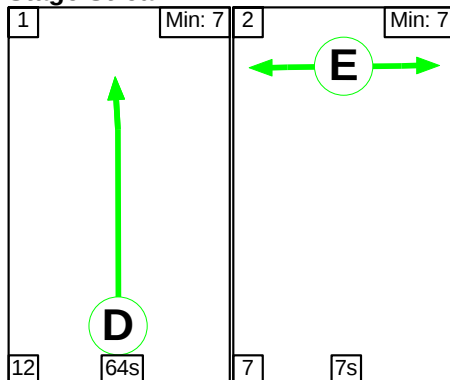
Scenario 4: '2022 Future Year PM' (FG4: '2022 Future Year - PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

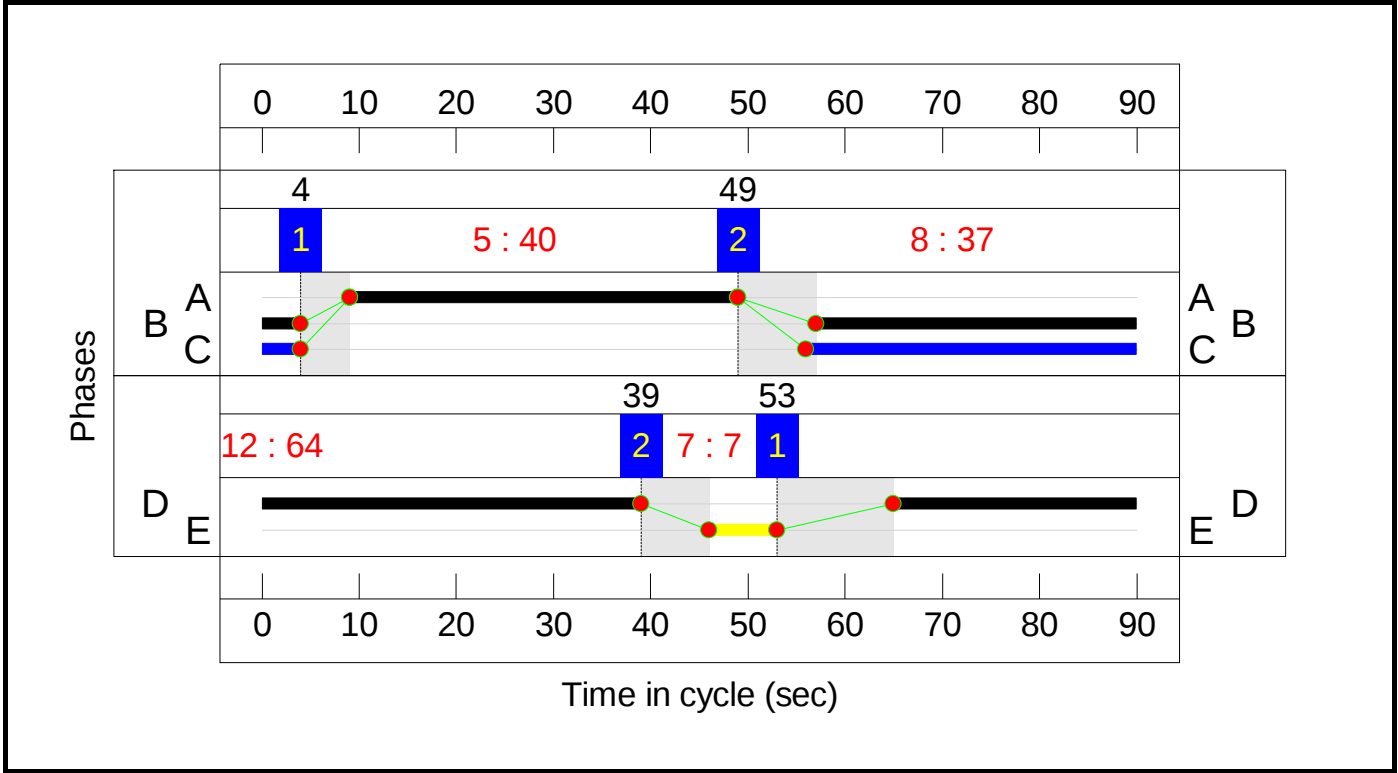
Stage Stream: 1

Stage	1	2
Duration	40	37
Change Point	4	49

Stage Stream: 2

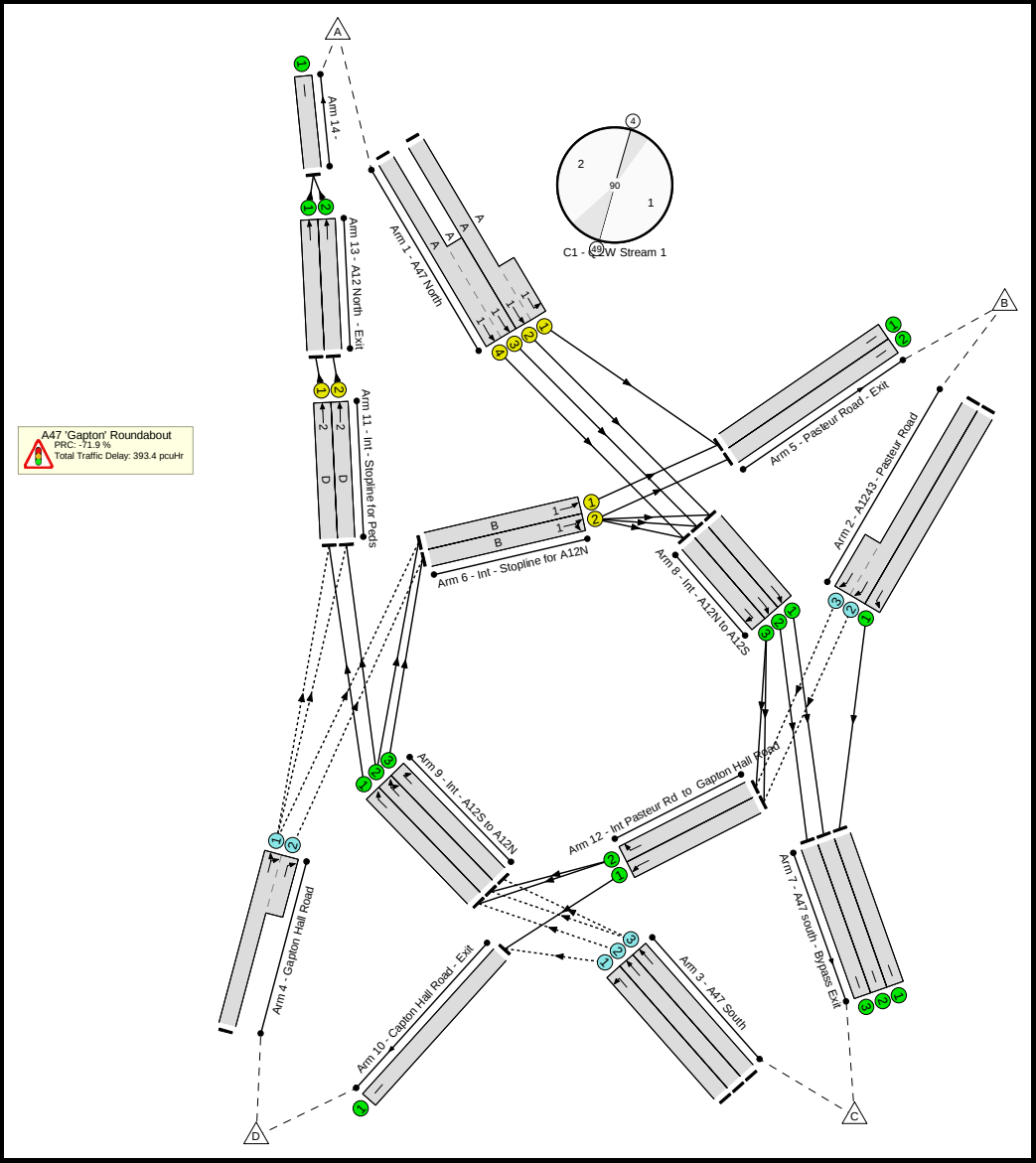
Stage	1	2
Duration	64	7
Change Point	53	39

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A47 Gapton Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	154.7%
A47 'Gapton' Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	154.7%
1/2+1/1	A47 North Left Ahead	U	1	N/A	A		1	40	-	787	2123:1909	749+300	75.0 : 75.0%
1/4+1/3	A47 North Ahead	U	1	N/A	A		1	40	-	969	1983:2123	517+711	78.9 : 78.9%
2/1	A1243 - Pasteur Road Left	U	N/A	N/A	-		-	-	-	788	2000	2000	39.4%
2/2+2/3	A1243 - Pasteur Road Ahead	O	N/A	N/A	-		-	-	-	705	1945:2085	717+456	60.1 : 60.1%
3/1	A47 South Left	O	N/A	N/A	-		-	-	-	100	1840	593	16.9%
3/2	A47 South Ahead	O	N/A	N/A	-		-	-	-	728	2120	470	154.7%
3/3	A47 South Ahead	O	N/A	N/A	-		-	-	-	728	2120	470	154.7%
4/1+4/2	Gapton Hall Road Right Ahead	O	N/A	N/A	-		-	-	-	748	1940:2065	395+214	122.6 : 122.6%
5/1	Pasteur Road - Exit	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
5/2	Pasteur Road - Exit	U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
6/1	Int - Stopline for A12N Ahead	U	1	N/A	B		1	37	-	312	1940	819	24.9%
6/2	Int - Stopline for A12N Ahead Right	U	1	N/A	B		1	37	-	410	1940	819	37.8%
7/1	A47 south - Bypass Exit	U	N/A	N/A	-		-	-	-	788	Inf	Inf	0.0%
7/2	A47 south - Bypass Exit	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
7/3	A47 south - Bypass Exit	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%

Full Input Data And Results

8/1	Int - A12N to A12S Ahead	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
8/2	Int - A12N to A12S Ahead	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
8/3	Int - A12N to A12S Right	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
9/1	Int - A12S to A12N Ahead	U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
9/2	Int - A12S to A12N Right Ahead	U	N/A	N/A	-		-	-	-	804	Inf	Inf	0.0%
9/3	Int - A12S to A12N Right	U	N/A	N/A	-		-	-	-	147	Inf	Inf	0.0%
10/1	Capton Hall Road - Exit	U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
11/1	Int - Stopline for Peds Ahead	U	2	N/A	D		1	64	-	934	1800	1300	49.8%
11/2	Int - Stopline for Peds Ahead	U	2	N/A	D		1	64	-	822	1800	1300	51.1%
12/1	Int Pasteur Rd to Capton Hall Road Ahead	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
12/2	Int Pasteur Rd to Capton Hall Road Right	U	N/A	N/A	-		-	-	-	274	Inf	Inf	0.0%
13/1	A12 North - Exit Ahead	U	N/A	N/A	-		-	-	-	934	1800	1800	36.0%
13/2	A12 North - Exit Ahead	U	N/A	N/A	-		-	-	-	822	1800	1800	36.9%
14/1		U	N/A	N/A	-		-	-	-	1756	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: A47 Gapton Roundabout	-	-	3671	0	0	54.8	338.6	0.0	393.4	-	-	-	-
A47 'Gapton' Roundabout	-	-	3671	0	0	54.8	338.6	0.0	393.4	-	-	-	-
1/2+1/1	787	787	-	-	-	4.0	1.5	-	5.5	25.2	13.4	1.5	14.8
1/4+1/3	969	969	-	-	-	4.8	1.8	-	6.6	24.5	11.9	1.8	13.7
2/1	788	788	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/2+2/3	705	705	1410	0	0	2.7	0.8	-	3.4	17.5	7.5	0.8	8.3
3/1	100	100	100	0	0	0.0	0.1	-	0.1	5.2	0.5	0.1	0.6
3/2	728	470	470	0	0	15.4	130.2	-	145.5	719.7	54.6	130.2	184.8
3/3	728	470	470	0	0	15.4	130.2	-	145.5	719.7	54.6	130.2	184.8
4/1+4/2	748	610	1220	0	0	9.0	71.7	-	80.7	388.4	29.7	71.7	101.4
5/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	204	204	-	-	-	1.0	0.2	-	1.2	21.2	4.0	0.2	4.2
6/2	309	309	-	-	-	1.3	0.3	-	1.6	18.2	4.4	0.3	4.7
7/1	788	788	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/3	95	95	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	939	939	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	648	648	-	-	-	0.7	0.5	-	1.2	6.7	4.2	0.5	4.7

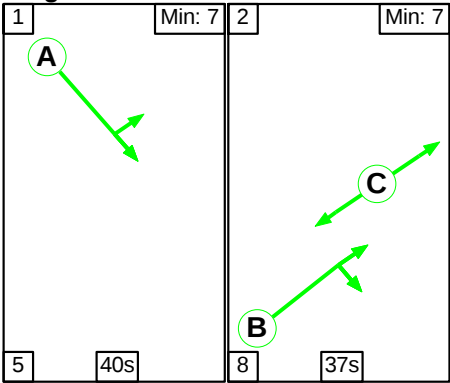
Full Input Data And Results

11/2	664	664	-	-	-	0.5	0.5	-	1.1	5.8	2.9	0.5	3.4
12/1	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	648	648	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
13/2	664	664	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
14/1	1312	1312	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - QEW			Stream: 1 PRC for Signalled Lanes (%):		14.1	Total Delay for Signalled Lanes (pcuHr):			14.87	Cycle Time (s):		90	
C1 - QEW			Stream: 2 PRC for Signalled Lanes (%):		76.3	Total Delay for Signalled Lanes (pcuHr):			2.28	Cycle Time (s):		90	
			PRC Over All Lanes (%):		-71.9	Total Delay Over All Lanes(pcuHr):			393.38				

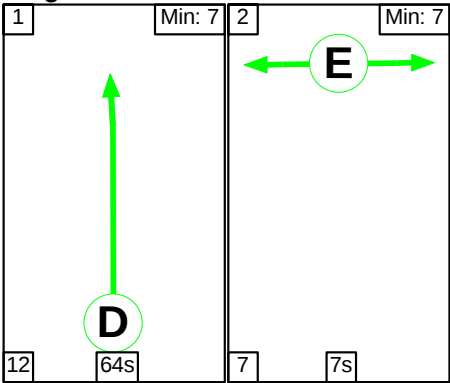
Full Input Data And Results
Scenario 6: '2022 Future Year plus Development PM' (FG6: '2022 Future Year + Development - PM Peak', Plan 1:
'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

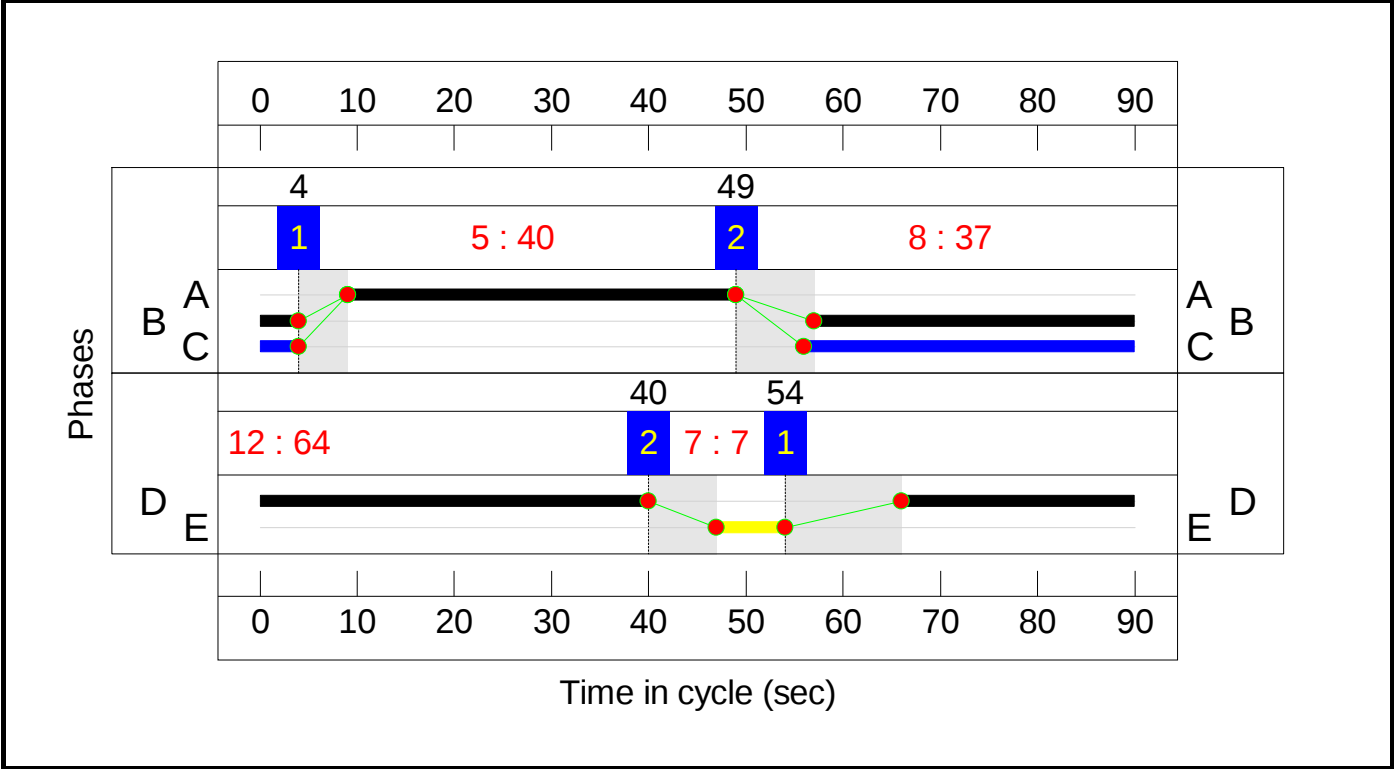
Stage Stream: 1

Stage	1	2
Duration	40	37
Change Point	4	49

Stage Stream: 2

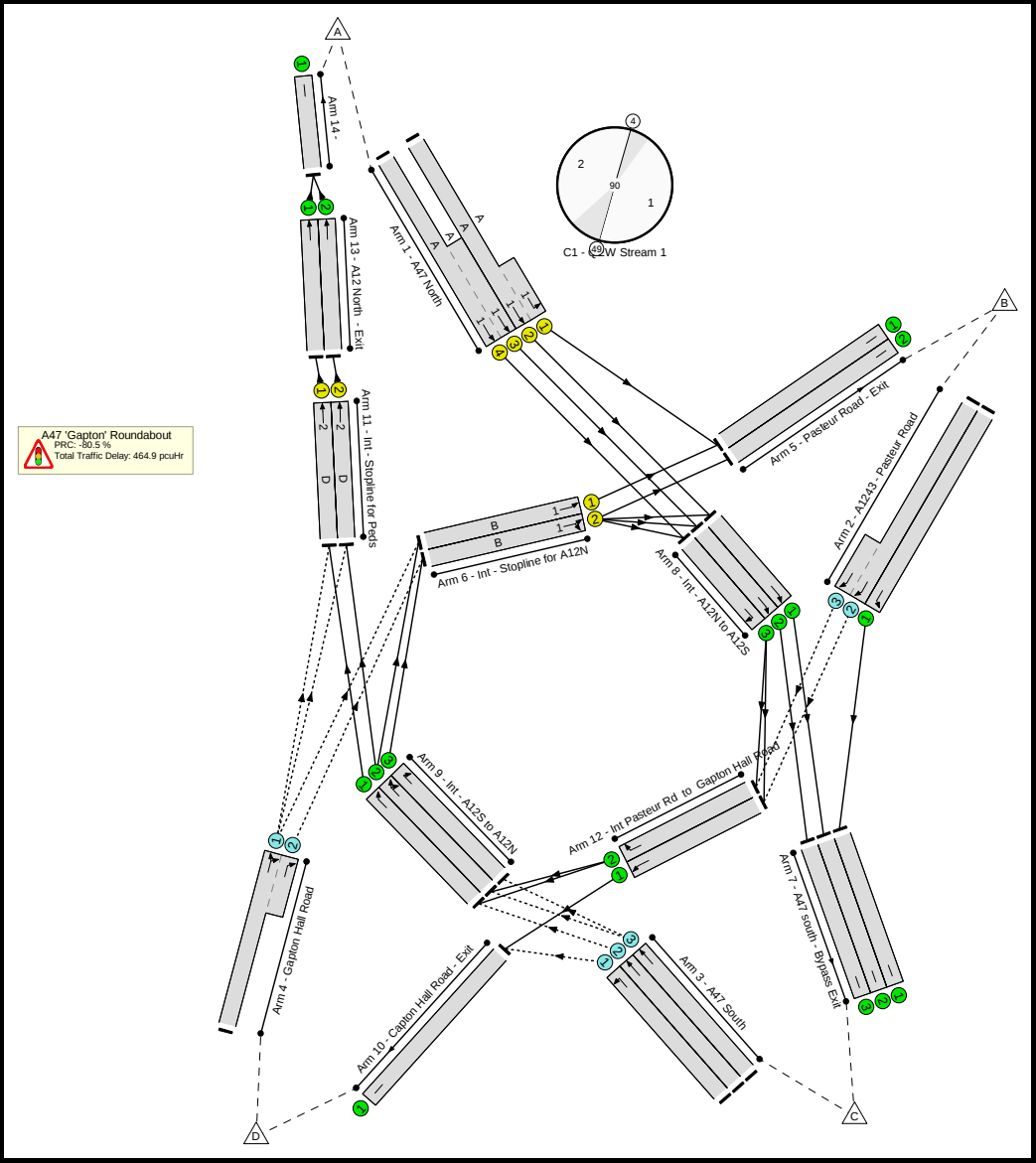
Stage	1	2
Duration	64	7
Change Point	54	40

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: A47 Gapton Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	162.4%
A47 'Gapton' Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	162.4%
1/2+1/1	A47 North Left Ahead	U	1	N/A	A		1	40	-	835	2123:1909	763+281	80.0 : 80.0%
1/4+1/3	A47 North Ahead	U	1	N/A	A		1	40	-	1011	1983:2123	488+722	83.5 : 83.5%
2/1	A1243 - Pasteur Road Left	U	N/A	N/A	-		-	-	-	788	2000	2000	39.4%
2/2+2/3	A1243 - Pasteur Road Ahead	O	N/A	N/A	-		-	-	-	705	1945:2085	726+462	59.4 : 59.4%
3/1	A47 South Left	O	N/A	N/A	-		-	-	-	100	1840	589	17.0%
3/2	A47 South Ahead	O	N/A	N/A	-		-	-	-	770	2120	475	162.2%
3/3	A47 South Ahead	O	N/A	N/A	-		-	-	-	771	2120	475	162.4%
4/1+4/2	Gapton Hall Road Right Ahead	O	N/A	N/A	-		-	-	-	748	1940:2065	372+187	133.8 : 133.8%
5/1	Pasteur Road - Exit	U	N/A	N/A	-		-	-	-	580	Inf	Inf	0.0%
5/2	Pasteur Road - Exit	U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%
6/1	Int - Stopline for A12N Ahead	U	1	N/A	B		1	37	-	355	1940	819	27.1%
6/2	Int - Stopline for A12N Ahead Right	U	1	N/A	B		1	37	-	367	1940	819	31.6%
7/1	A47 south - Bypass Exit	U	N/A	N/A	-		-	-	-	788	Inf	Inf	0.0%
7/2	A47 south - Bypass Exit	U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
7/3	A47 south - Bypass Exit	U	N/A	N/A	-		-	-	-	625	Inf	Inf	0.0%

Full Input Data And Results

8/1	Int - A12N to A12S Ahead	U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
8/2	Int - A12N to A12S Ahead	U	N/A	N/A	-		-	-	-	625	Inf	Inf	0.0%
8/3	Int - A12N to A12S Right	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
9/1	Int - A12S to A12N Ahead	U	N/A	N/A	-		-	-	-	819	Inf	Inf	0.0%
9/2	Int - A12S to A12N Right Ahead	U	N/A	N/A	-		-	-	-	879	Inf	Inf	0.0%
9/3	Int - A12S to A12N Right	U	N/A	N/A	-		-	-	-	117	Inf	Inf	0.0%
10/1	Capton Hall Road - Exit	U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
11/1	Int - Stopline for Peds Ahead	U	2	N/A	D		1	64	-	980	1800	1300	49.5%
11/2	Int - Stopline for Peds Ahead	U	2	N/A	D		1	64	-	861	1800	1300	50.6%
12/1	Int Pasteur Rd to Capton Hall Road Ahead	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
12/2	Int Pasteur Rd to Capton Hall Road Right	U	N/A	N/A	-		-	-	-	274	Inf	Inf	0.0%
13/1	A12 North - Exit Ahead	U	N/A	N/A	-		-	-	-	980	1800	1800	35.8%
13/2	A12 North - Exit Ahead	U	N/A	N/A	-		-	-	-	861	1800	1800	36.5%
14/1		U	N/A	N/A	-		-	-	-	1841	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: A47 Gapton Roundabout	-	-	3578	0	0	62.5	402.3	0.0	464.9	-	-	-	-
A47 'Gapton' Roundabout	-	-	3578	0	0	62.5	402.3	0.0	464.9	-	-	-	-
1/2+1/1	835	835	-	-	-	4.5	2.0	-	6.4	27.7	15.2	2.0	17.1
1/4+1/3	1011	1011	-	-	-	5.1	2.5	-	7.6	27.1	14.0	2.5	16.5
2/1	788	788	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/2+2/3	705	705	1410	0	0	2.7	0.7	-	3.4	17.3	7.3	0.7	8.0
3/1	100	100	100	0	0	0.1	0.1	-	0.2	5.8	0.5	0.1	0.6
3/2	770	475	475	0	0	17.8	148.9	-	166.7	779.4	57.8	148.9	206.7
3/3	771	475	475	0	0	17.8	149.4	-	167.3	781.0	57.8	149.4	207.3
4/1+4/2	748	559	1118	0	0	11.3	96.4	-	107.7	518.1	30.8	96.4	127.1
5/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	227	227	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	222	222	-	-	-	1.1	0.2	-	1.3	21.6	4.4	0.2	4.6
6/2	259	259	-	-	-	0.9	0.2	-	1.1	15.8	3.3	0.2	3.6
7/1	788	788	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	627	627	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	627	627	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	524	524	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/3	72	72	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	939	939	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	644	644	-	-	-	0.7	0.5	-	1.2	6.7	4.5	0.5	5.0

Full Input Data And Results

[illegible]