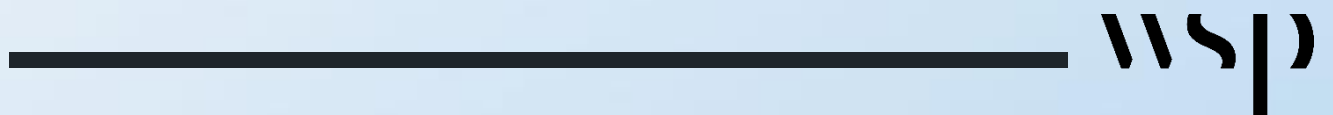
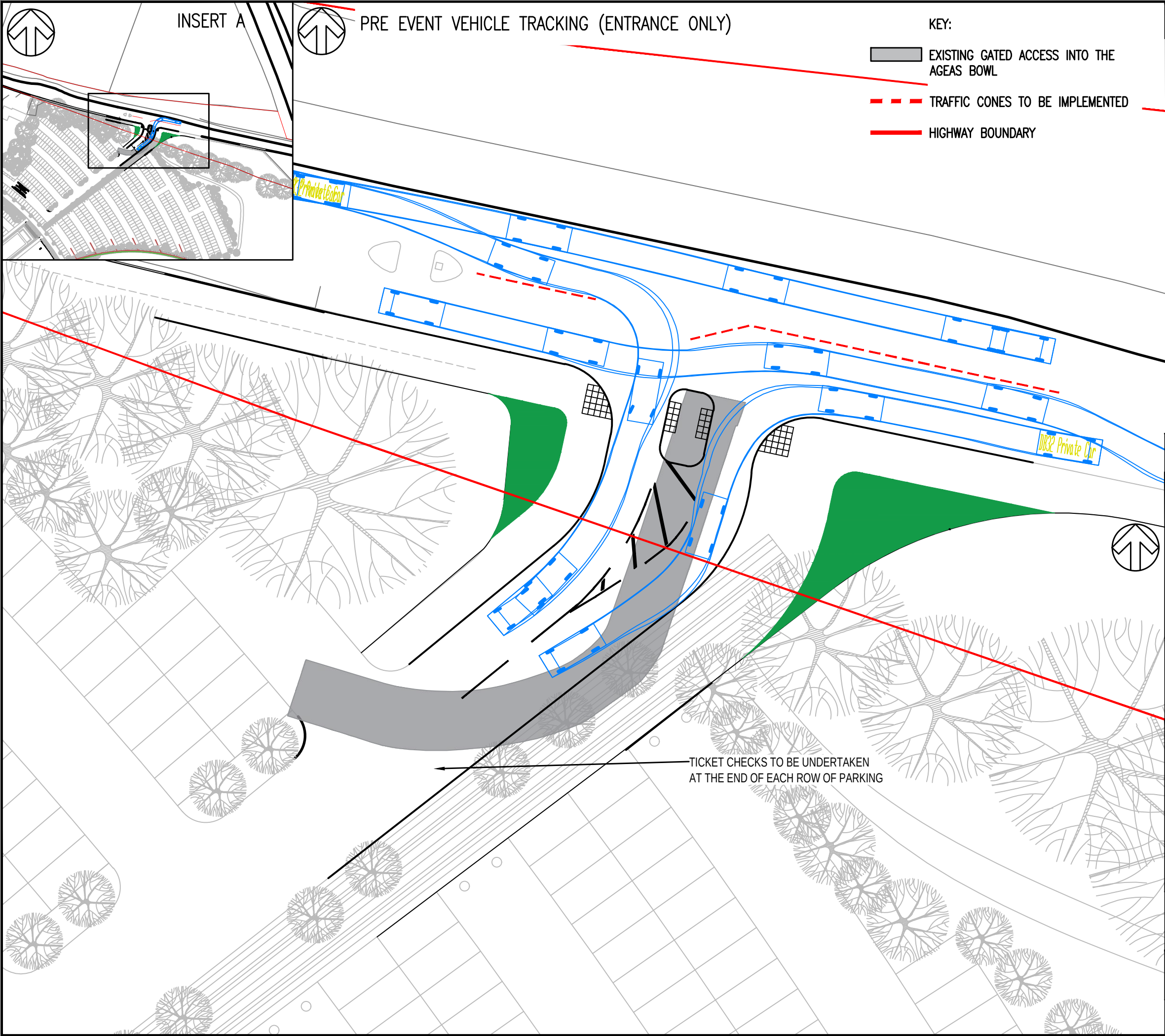


Appendix D

Event Day Car Park Access



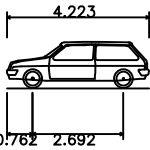
File name \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\700735XX\70073579 - AGEAS BOWL MASTERPLAN\03 WIP\TP TRANSPORT PLANNING\02 CAD BIM MODEL\3579-SK-102.DWG, printed on 27 February 2023 14:08:32, by Moss, Philip



KEY:

- EXISTING GATED ACCESS INTO THE AGEAS BOWL
- TRAFFIC CONES TO BE IMPLEMENTED
- HIGHWAY BOUNDARY

DO NOT SCALE



DB32 Private Car
Overall Length 4.223m
Overall Width 1.715m
Overall Body Height 1.392m
Min Body Ground Clearance 0.233m
Max Track Width 1.629m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.780m

Driving Speed – 10mph

UNTIL TECHNICAL APPROVAL HAS BEEN OBTAINED FROM THE RELEVANT LOCAL AUTHORITIES OR STATUTORY BODIES, IT SHOULD BE UNDERSTOOD THAT ALL DRAWINGS ARE ISSUED AS PRELIMINARY AND NOT FOR CONSTRUCTION. SHOULD THE CONTRACTOR AND / OR EMPLOYER COMMENCE WORK PRIOR TO APPROVAL BEING GIVEN, IT IS ENTIRELY AT THEIR OWN RISK

A	20/01/2023	HL	FIRST ISSUE	PM	CW
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S2 - FOR INFORMATION



Grosvenor House, 2 Grosvenor Square, Southampton, SO15 2BE, UK
T+ 44 (0) 2380 101 700
wsp.com

CLIENT: LAND AND DEVELOPMENT ADVISORY

ARCHITECT: CALDERPEEL ARCHITECTS

PROJECT: AGEAS BOWL MASTERPLAN

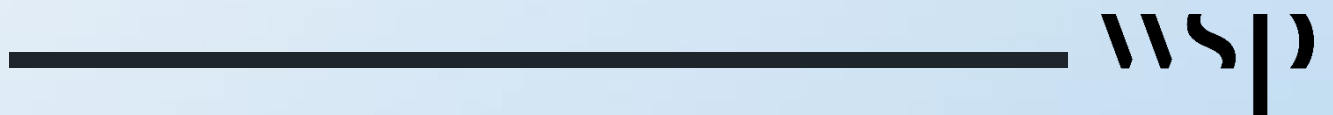
TITLE: ACCESS TO THE EVENT DAY CAR PARK

SCALE @ A3: 1:250	CHECKED: PM	APPROVED: CW
PROJECT No: 70073579	DESIGNED: PM	DRAWN: HL
DRAWING No: 3579-SK-102	DATE: January 22	REV: A

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Appendix E

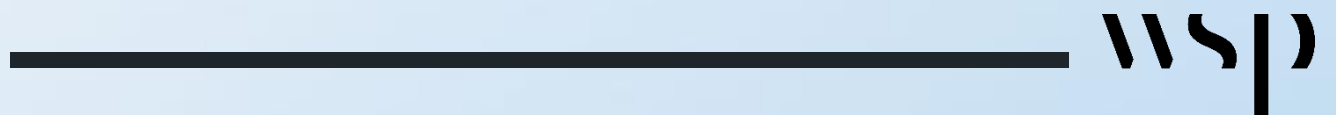
Road Safety Audit and Road Safety Response



TBC

Appendix F

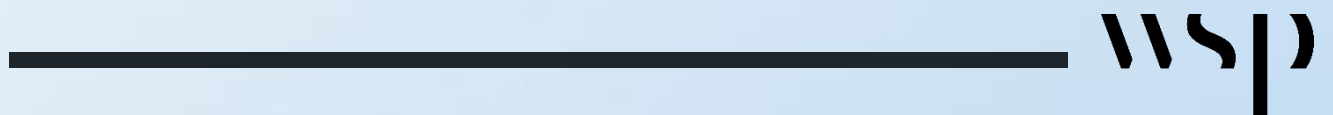
Swept Path Analysis



TBC

Appendix G

Botley Road, Marshall Drive Modelling Results

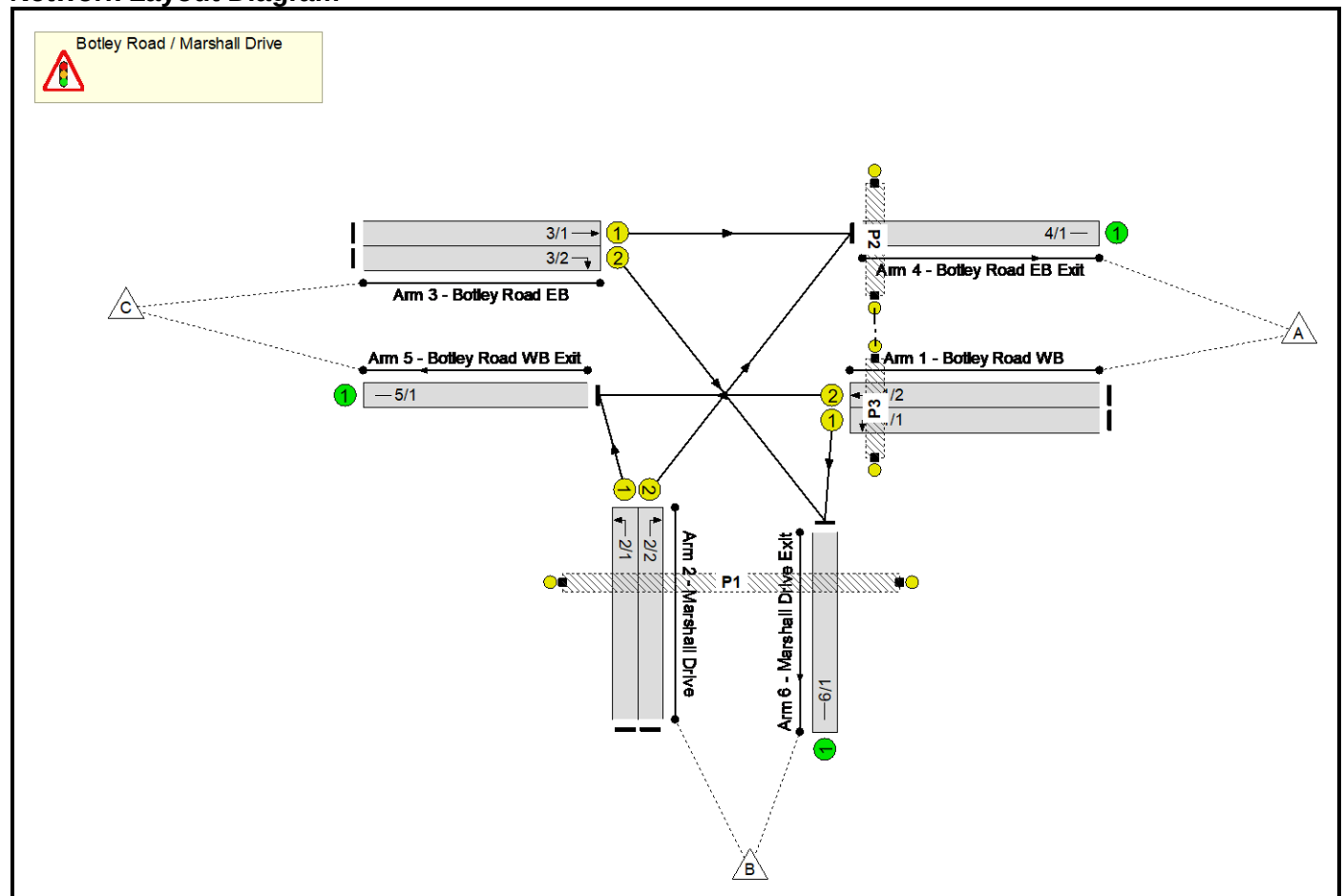


Full Input Data And Results
Full Input Data And Results

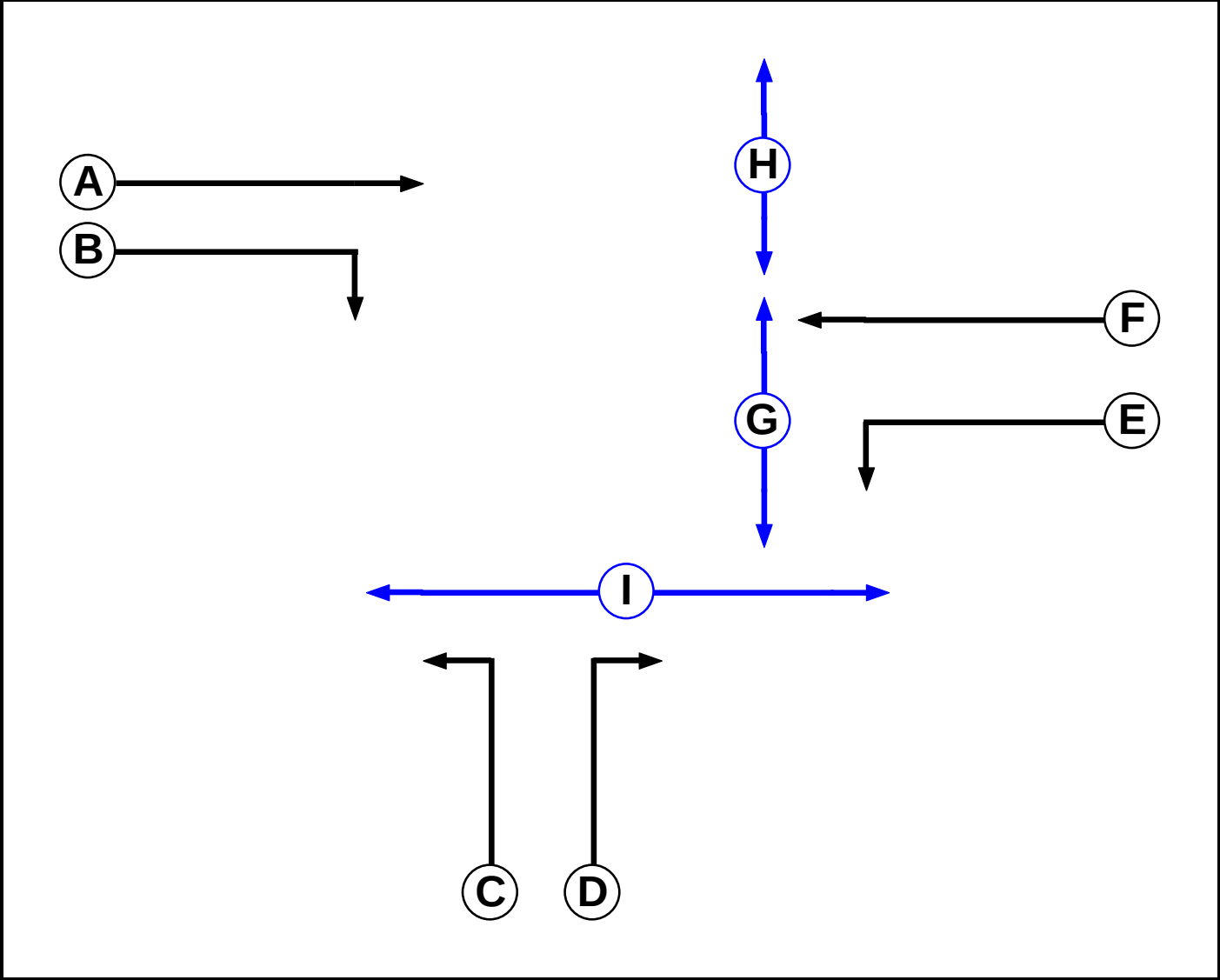
User and Project Details

Project:	Ageas Bowl Masterplan
Title:	Marshall Drive / Botley Road
Location:	
Additional detail:	
File name:	Marshall Drive_Botley Road.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

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

Full Input Data And Results

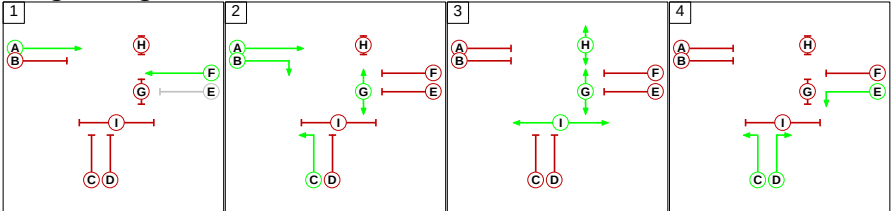
Phase Intergreens Matrix

		Starting Phase								
Terminating Phase		A	B	C	D	E	F	G	H	I
	A		-	-	5	-	-	-	8	-
	B	-		-	5	6	6	-	-	8
	C	-	-		-	-	6	-	-	5
	D	6	6	-		-	6	-	8	5
	E	-	6	-	-		-	6	-	6
	F	-	5	7	7	-		5	-	8
	G	-	-	-	-	6	6		-	-
	H	6	-	10	6	-	-	-		-
	I	-	12	10	10	12	12	-	-	

Phases in Stage

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

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
	2	6		6
	3	12	12	
4	6	6	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Botley Road / Marshall Drive
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Botley Road / Marshall Drive												
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 (Botley Road WB)	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	5.00
1/2 (Botley Road WB)	U	F	2	3	60.0	Geom	-	3.25	0.00	N	Arm 5 Ahead	Inf
2/1 (Marshall Drive)	U	C	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 5 Left	5.00
2/2 (Marshall Drive)	U	D	2	3	60.0	Geom	-	3.60	0.00	N	Arm 4 Right	10.00
3/1 (Botley Road EB)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
3/2 (Botley Road EB)	U	B	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Right	10.00
4/1 (Botley Road EB Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Botley Road WB Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Marshall Drive Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Baseline AM'	08:00	09:00	01:00	
2: '2021 Baseline PM'	17:00	18:00	01:00	
3: '2021 Baseline AM + Dev'	08:00	09:00	01:00	
4: '2021 Baseline PM + Dev'	17:00	18:00	01:00	
5: '2027 Baseline AM'	08:00	09:00	01:00	
6: '2027 Baseline PM'	17:00	18:00	01:00	
7: '2027 Baseline AM + Dev'	08:00	09:00	01:00	
8: '2027 Baseline PM + Dev'	17:00	18:00	01:00	

Scenario 1: '2021 Baseline AM' (FG1: '2021 Baseline AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	128	712	840
	B	60	0	54	114
	C	696	83	0	779
	Tot.	756	211	766	1733

Traffic Lane Flows

Lane	Scenario 1: 2021 Baseline AM
Junction: Botley Road / Marshall Drive	
1/1	128
1/2	712
2/1	54
2/2	60
3/1	696
3/2	83
4/1	756
5/1	766
6/1	211

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2021 Baseline PM' (FG2: '2021 Baseline PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	126	723	849
	B	100	0	83	183
	C	470	77	0	547
	Tot.	570	203	806	1579

Traffic Lane Flows

Lane	Scenario 2: 2021 Baseline PM
Junction: Botley Road / Marshall Drive	
1/1	126
1/2	723
2/1	83
2/2	100
3/1	470
3/2	77
4/1	570
5/1	806
6/1	203

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2021 Baseline AM + Dev' (FG3: '2021 Baseline AM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	156	712	868
	B	107	0	105	212
	C	696	113	0	809
	Tot.	803	269	817	1889

Traffic Lane Flows

Lane	Scenario 3: 2021 Baseline AM + Dev
Junction: Botley Road / Marshall Drive	
1/1	156
1/2	712
2/1	105
2/2	107
3/1	696
3/2	113
4/1	803
5/1	817
6/1	269

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2021 Baseline PM + Dev' (FG4: '2021 Baseline PM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	166	723	889
	B	127	0	112	239
	C	470	121	0	591
	Tot.	597	287	835	1719

Traffic Lane Flows

Lane	Scenario 4: 2021 Baseline PM + Dev
Junction: Botley Road / Marshall Drive	
1/1	166
1/2	723
2/1	112
2/2	127
3/1	470
3/2	121
4/1	597
5/1	835
6/1	287

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2027 Baseline AM' (FG5: '2027 Baseline AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	138	798	936
	B	65	0	58	123
	C	767	90	0	857
	Tot.	832	228	856	1916

Traffic Lane Flows

Lane	Scenario 5: 2027 Baseline AM
Junction: Botley Road / Marshall Drive	
1/1	138
1/2	798
2/1	58
2/2	65
3/1	767
3/2	90
4/1	832
5/1	856
6/1	228

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2027 Baseline PM' (FG6: '2027 Baseline PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	137	793	930
	B	108	0	90	198
	C	525	84	0	609
	Tot.	633	221	883	1737

Traffic Lane Flows

Lane	Scenario 6: 2027 Baseline PM
Junction: Botley Road / Marshall Drive	
1/1	137
1/2	793
2/1	90
2/2	108
3/1	525
3/2	84
4/1	633
5/1	883
6/1	221

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2027 Baseline AM + Dev' (FG7: '2027 Baseline AM + Dev', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

		Destination			
Origin		A	B	C	Tot.
	A	0	166	825	991
	B	112	0	110	222
	C	780	120	0	900
	Tot.	892	286	935	2113

Traffic Lane Flows

Lane	Scenario 7: 2027 Baseline AM + Dev
Junction: Botley Road / Marshall Drive	
1/1	166
1/2	825
2/1	110
2/2	112
3/1	780
3/2	120
4/1	892
5/1	935
6/1	286

Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2027 Baseline PM + Dev' (FG8: '2027 Baseline PM + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

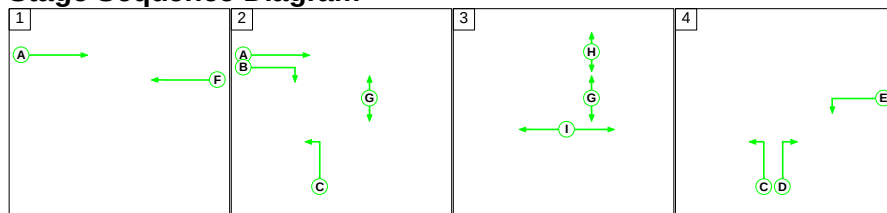
	Destination				
		A	B	C	Tot.
	A	0	177	804	981
	B	135	0	119	254
	C	541	128	0	669
	Tot.	676	305	923	1904

Traffic Lane Flows

Lane	Scenario 8: 2027 Baseline PM + Dev
Junction: Botley Road / Marshall Drive	
1/1	177
1/2	804
2/1	119
2/2	135
3/1	541
3/2	128
4/1	676
5/1	923
6/1	305

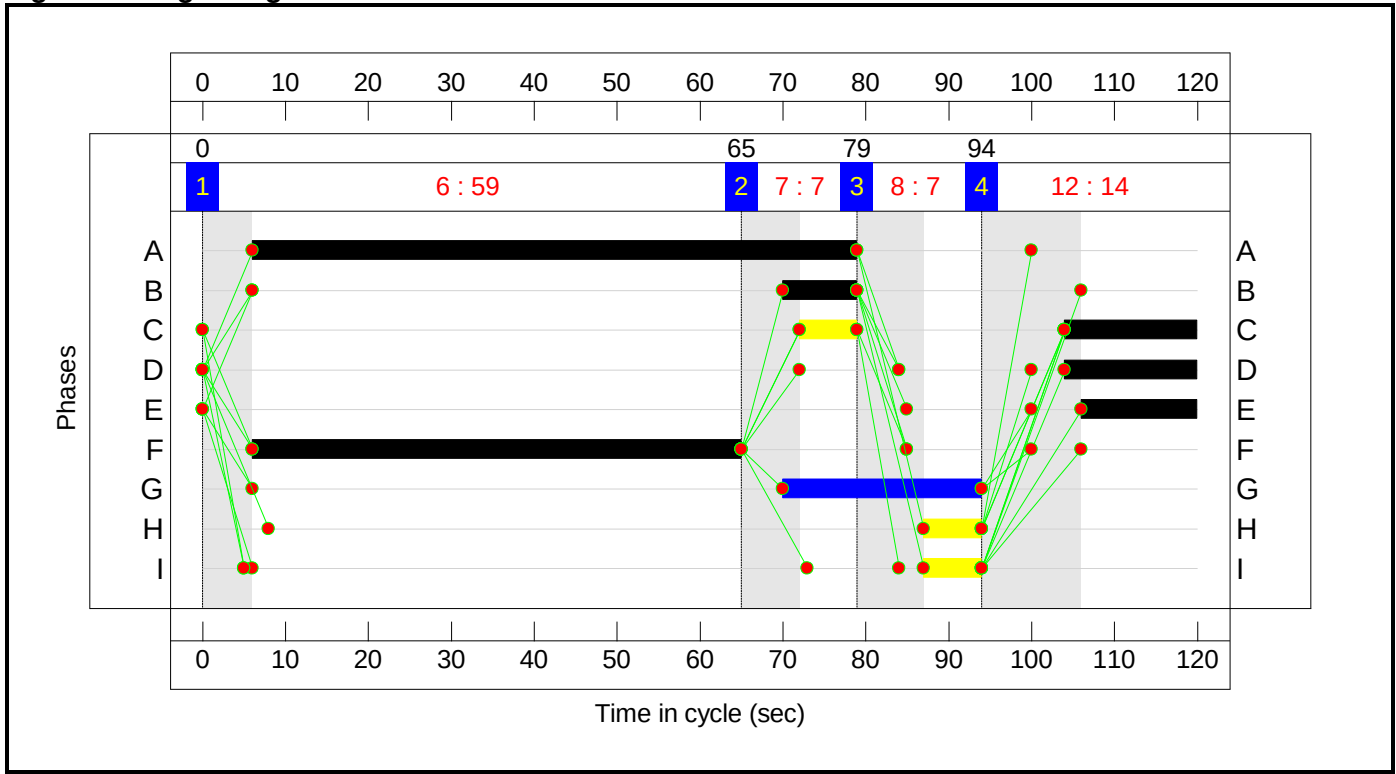
Lane Saturation Flows

Junction: Botley Road / Marshall Drive								
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 (Botley Road WB)	3.00	0.00	Y	Arm 6 Left	5.00	100.0 %	1473	1473
1/2 (Botley Road WB)	3.25	0.00	N	Arm 5 Ahead	Inf	100.0 %	2080	2080
2/1 (Marshall Drive)	3.60	0.00	Y	Arm 5 Left	5.00	100.0 %	1519	1519
2/2 (Marshall Drive)	3.60	0.00	N	Arm 4 Right	10.00	100.0 %	1839	1839
3/1 (Botley Road EB)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Botley Road EB)	3.50	0.00	N	Arm 6 Right	10.00	100.0 %	1830	1830
4/1 (Botley Road EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Botley Road WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Marshall Drive Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2021 Baseline AM' (FG1: '2021 Baseline AM', Plan 1: 'Network Control Plan 1')**Stage Sequence Diagram****Stage Timings**

Stage	1	2	3	4
Duration	59	7	7	14
Change Point	0	65	79	94

Signal Timings Diagram

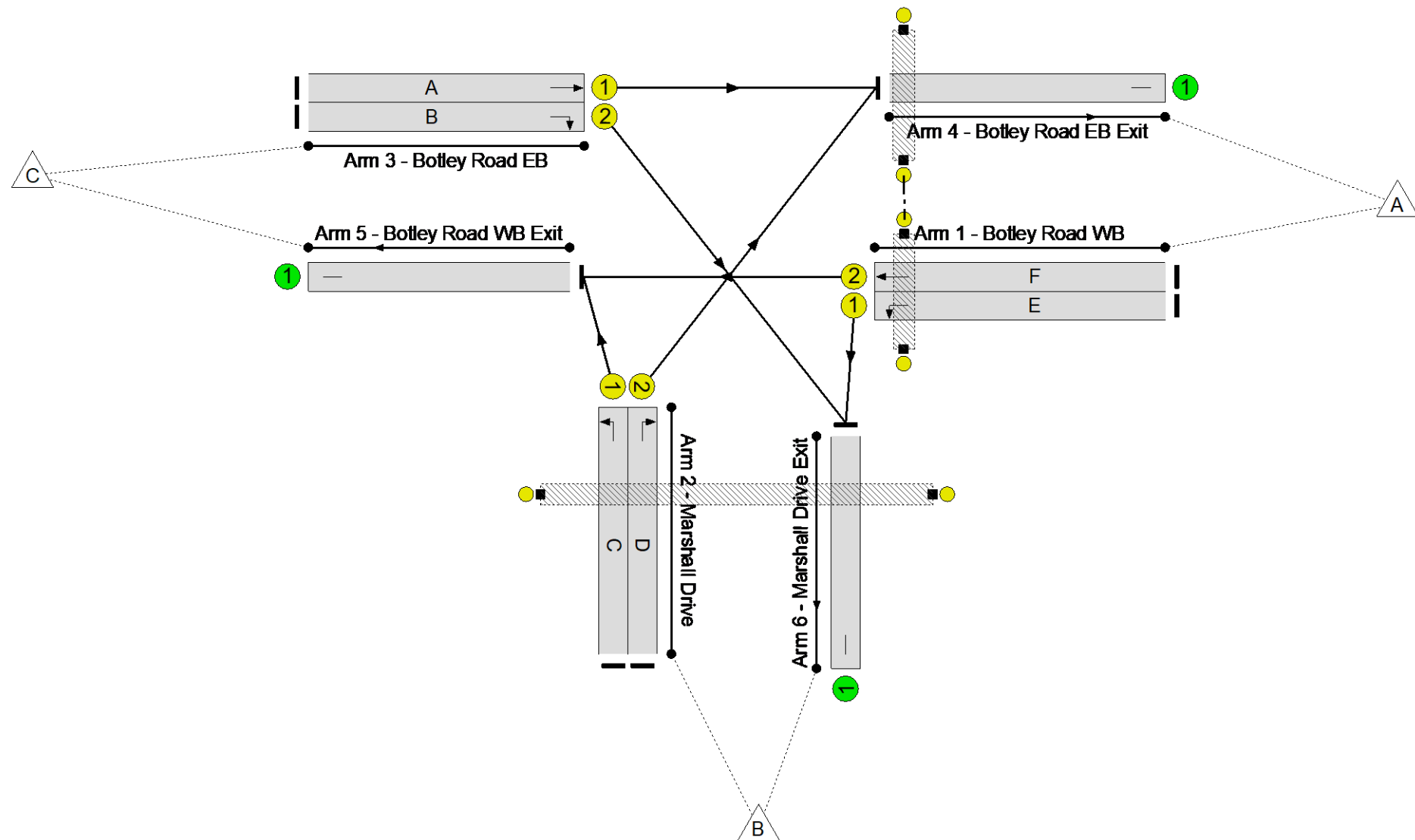


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results


Botley Road / Marshall Drive
 PRC: 29.5 %
 Total Traffic Delay: 15.0 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	69.5%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	69.5%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	14	-	128	1473	184	69.5%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	59	-	712	2080	1040	68.5%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	23	-	54	1519	316	17.1%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	16	-	60	1839	261	23.0%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	73	-	696	1965	1212	57.4%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	9	-	83	1830	152	54.4%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	756	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	211	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	24	-	0	-	0	0.0%

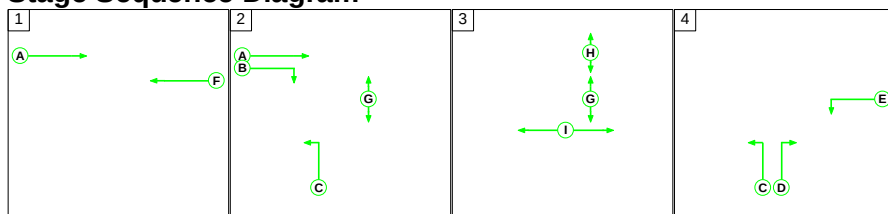
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Marshall Drive / Botley Road	-	-	0	0	0	11.3	3.7	0.0	15.0	-	-	-	-
Botley Road / Marshall Drive	-	-	0	0	0	11.3	3.7	0.0	15.0	-	-	-	-
1/1	128	128	-	-	-	1.8	1.1	-	2.9	81.2	4.1	1.1	5.2
1/2	712	712	-	-	-	4.5	1.1	-	5.6	28.3	18.0	1.1	19.1
2/1	54	54	-	-	-	0.4	0.1	-	0.5	31.2	1.1	0.1	1.2
2/2	60	60	-	-	-	0.8	0.1	-	0.9	54.7	1.8	0.1	1.9
3/1	696	696	-	-	-	2.6	0.7	-	3.3	17.1	13.7	0.7	14.4
3/2	83	83	-	-	-	1.2	0.6	-	1.8	78.3	2.7	0.6	3.2
4/1	756	756	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	211	211	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 29.5 Total Delay for Signalled Lanes (pcuHr): 14.97 Cycle Time (s): 120 PRC Over All Lanes (%): 29.5 Total Delay Over All Lanes(pcuHr): 14.97													

Full Input Data And Results

Scenario 2: '2021 Baseline PM' (FG2: '2021 Baseline PM', Plan 1: 'Network Control Plan 1')

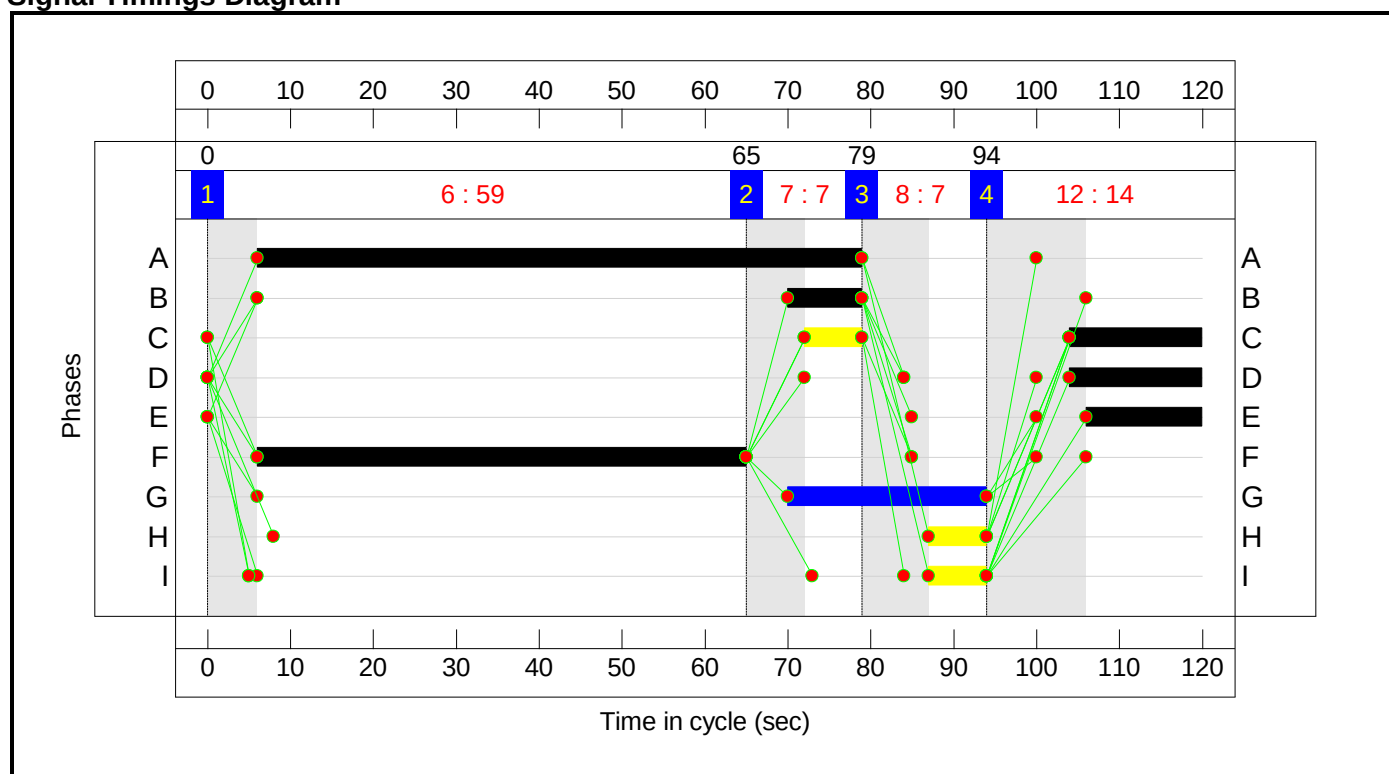
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	59	7	7	14
Change Point	0	65	79	94

Signal Timings Diagram

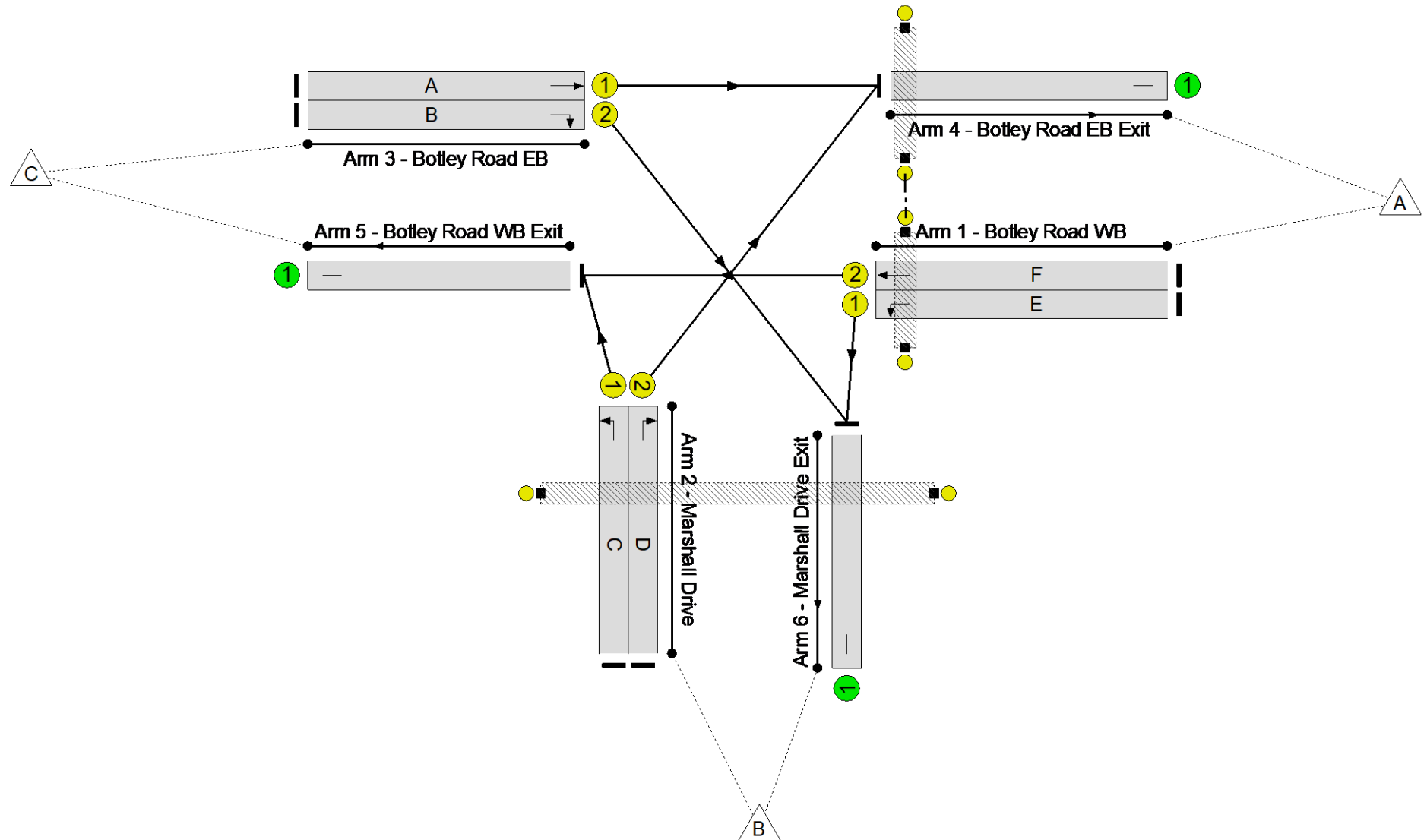


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Botley Road / Marshall Drive
 PRC: 29.5 %
 Total Traffic Delay: 14.4 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	69.5%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	69.5%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	14	-	126	1473	184	68.4%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	59	-	723	2080	1040	69.5%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	23	-	83	1519	316	26.2%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	16	-	100	1839	261	38.4%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	73	-	470	1965	1212	38.8%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	9	-	77	1830	152	50.5%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	203	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	24	-	0	-	0	0.0%

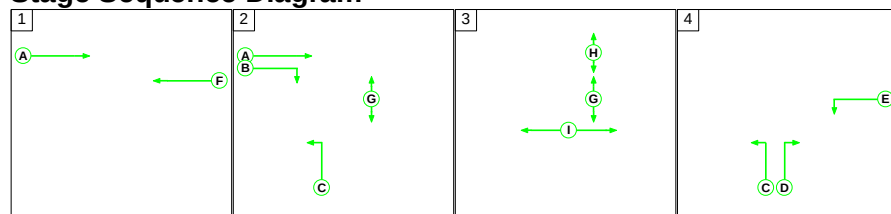
Full Input Data And Results

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Full Input Data And Results

Scenario 3: '2021 Baseline AM + Dev' (FG3: '2021 Baseline AM + Dev', Plan 1: 'Network Control Plan 1')

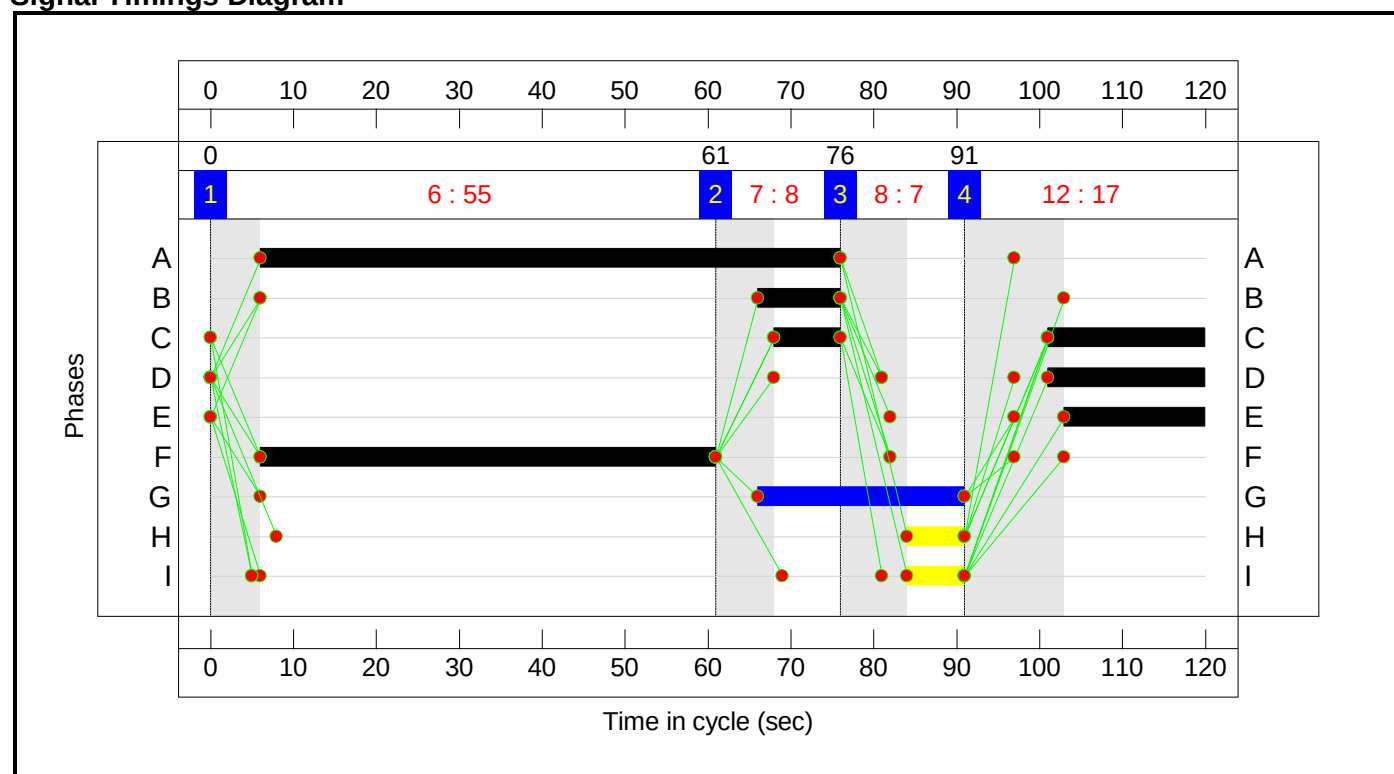
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	55	8	7	17
Change Point	0	61	76	91

Signal Timings Diagram

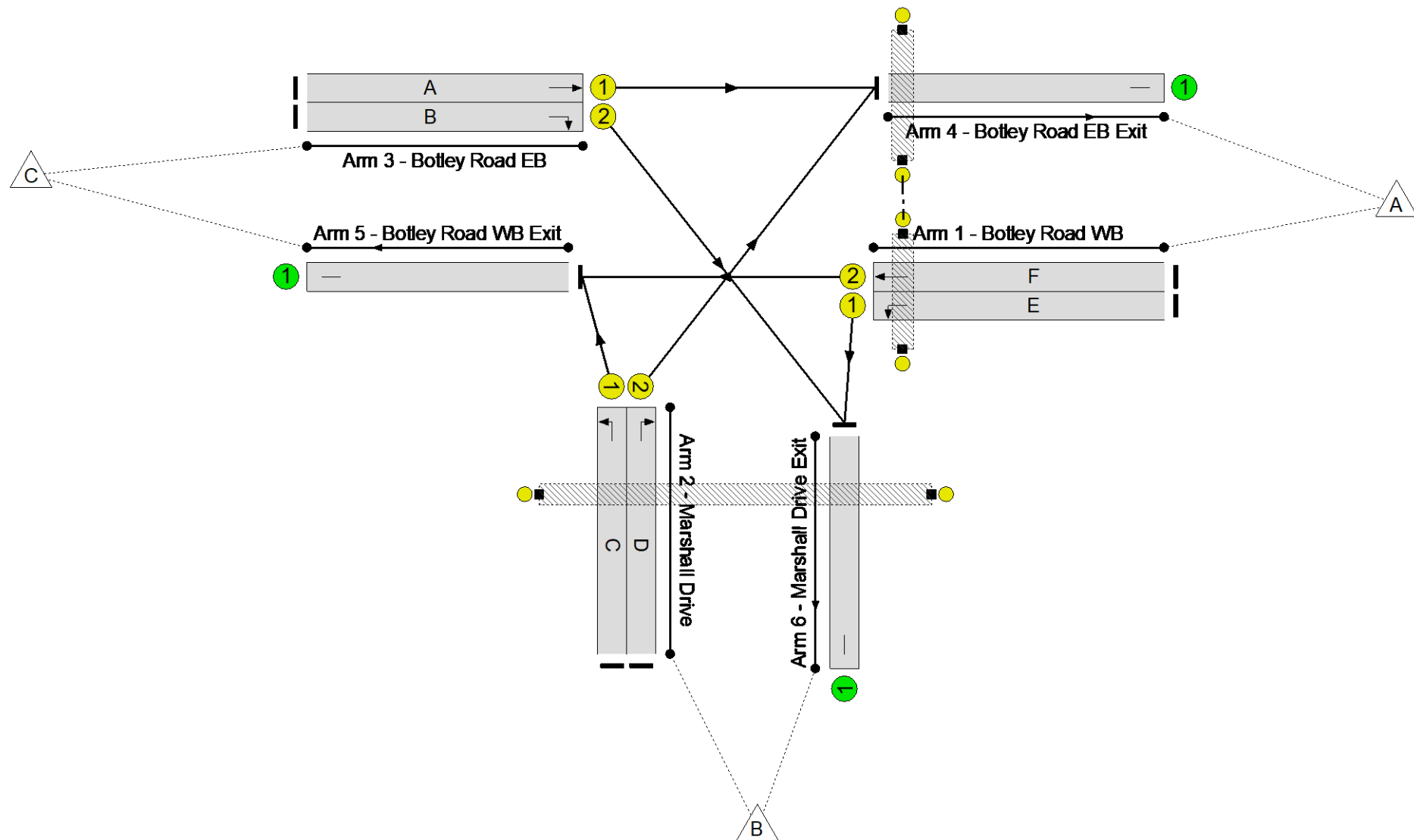


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Botley Road / Marshall Drive
 PRC: 22.7 %
 Total Traffic Delay: 18.6 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	73.4%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	73.4%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	17	-	156	1473	221	70.6%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	55	-	712	2080	971	73.4%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	27	-	105	1519	367	28.6%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	19	-	107	1839	307	34.9%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	70	-	696	1965	1163	59.9%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	10	-	113	1830	168	67.4%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	817	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	25	-	0	-	0	0.0%

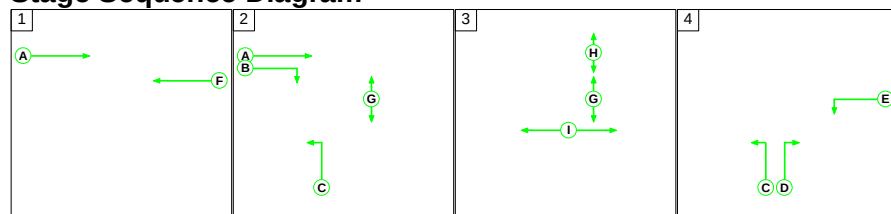
Full Input Data And Results

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Full Input Data And Results

Scenario 4: '2021 Baseline PM + Dev' (FG4: '2021 Baseline PM + Dev', Plan 1: 'Network Control Plan 1')

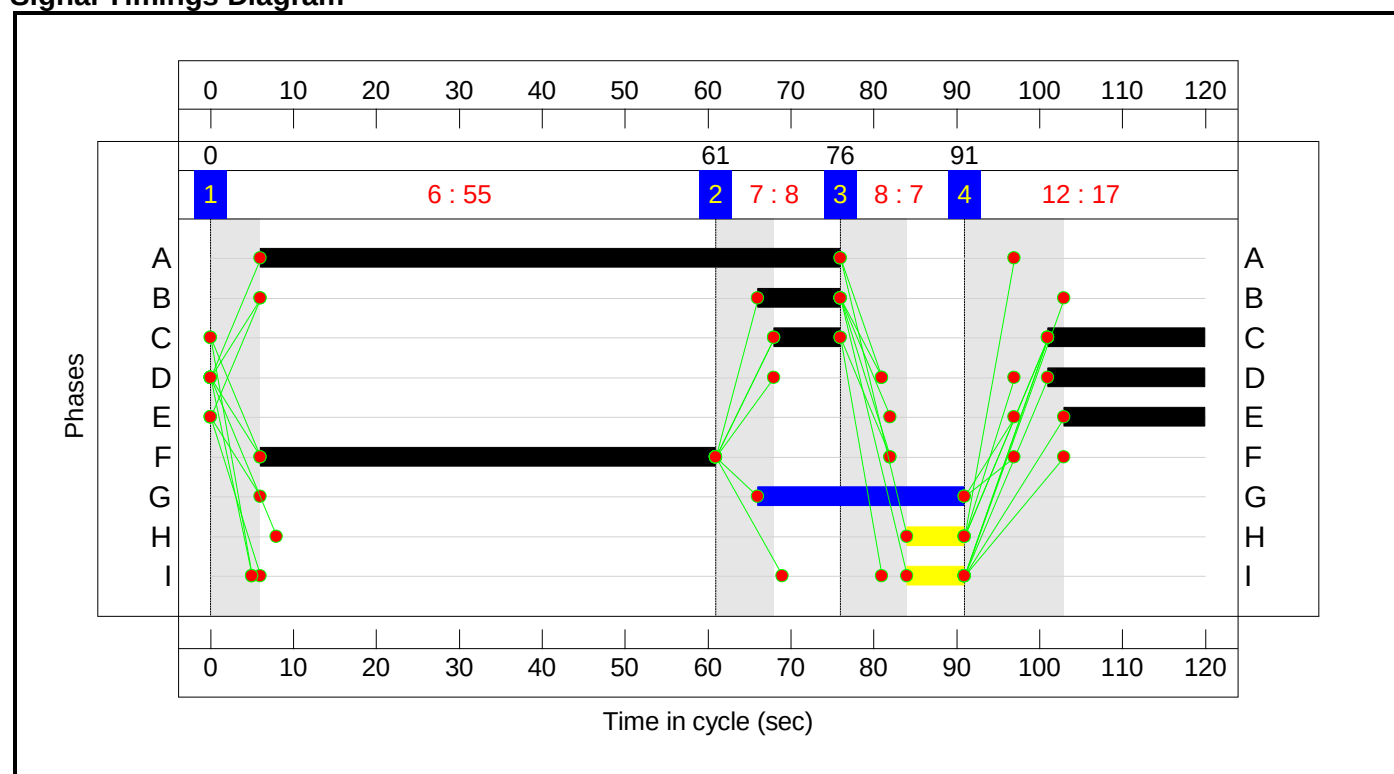
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	55	8	7	17
Change Point	0	61	76	91

Signal Timings Diagram

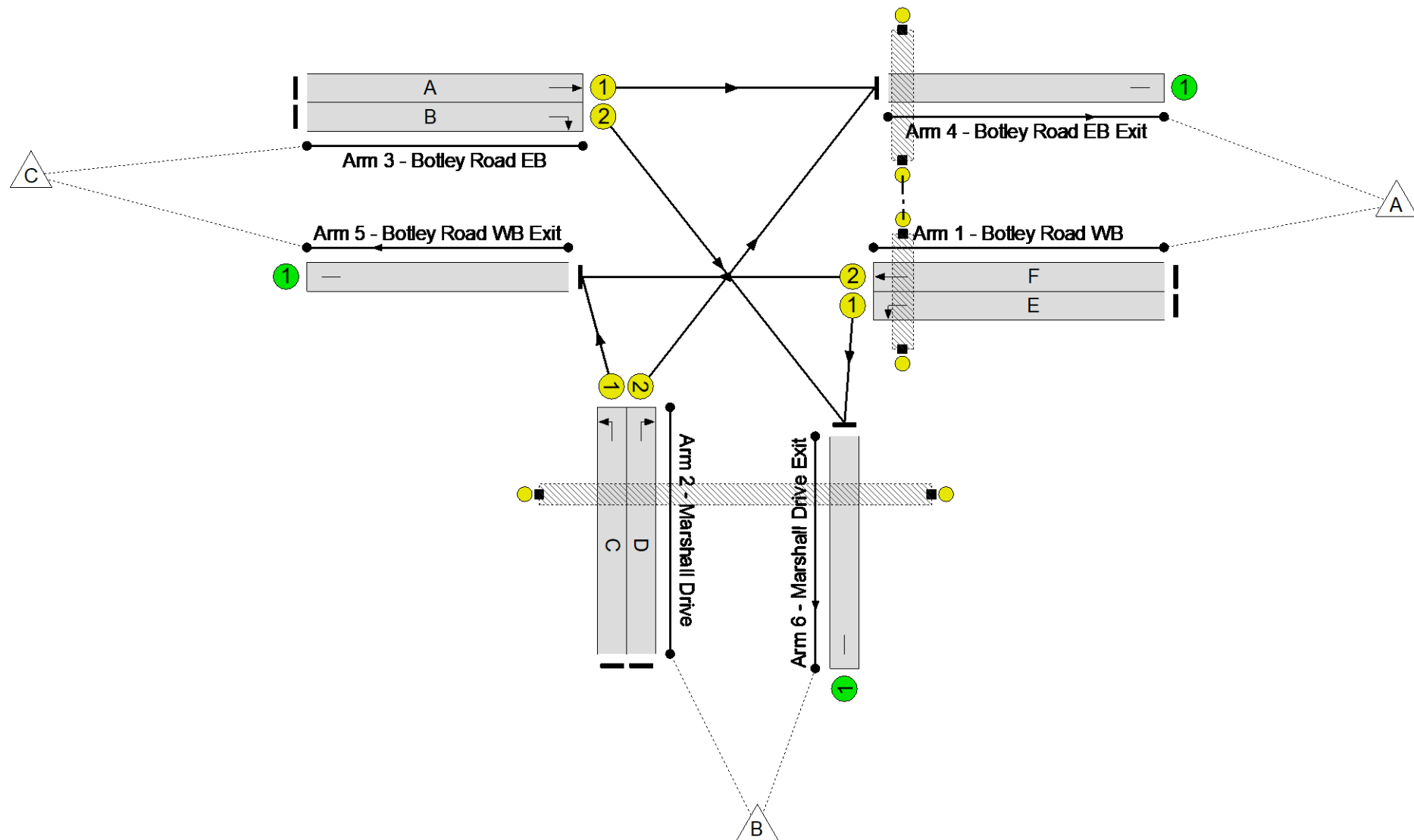


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results


Botley Road / Marshall Drive
 PRC: 19.8 %
 Total Traffic Delay: 18.3 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	17	-	166	1473	221	75.1%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	55	-	723	2080	971	74.5%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	27	-	112	1519	367	30.5%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	19	-	127	1839	307	41.4%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	70	-	470	1965	1163	40.4%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	10	-	121	1830	168	72.1%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	835	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	287	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	25	-	0	-	0	0.0%

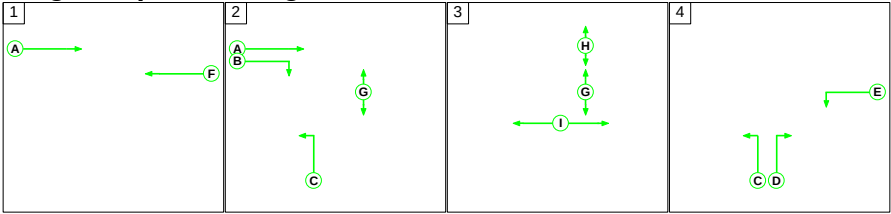
Full Input Data And Results

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Full Input Data And Results

Scenario 5: '2027 Baseline AM' (FG5: '2027 Baseline AM', Plan 1: 'Network Control Plan 1')

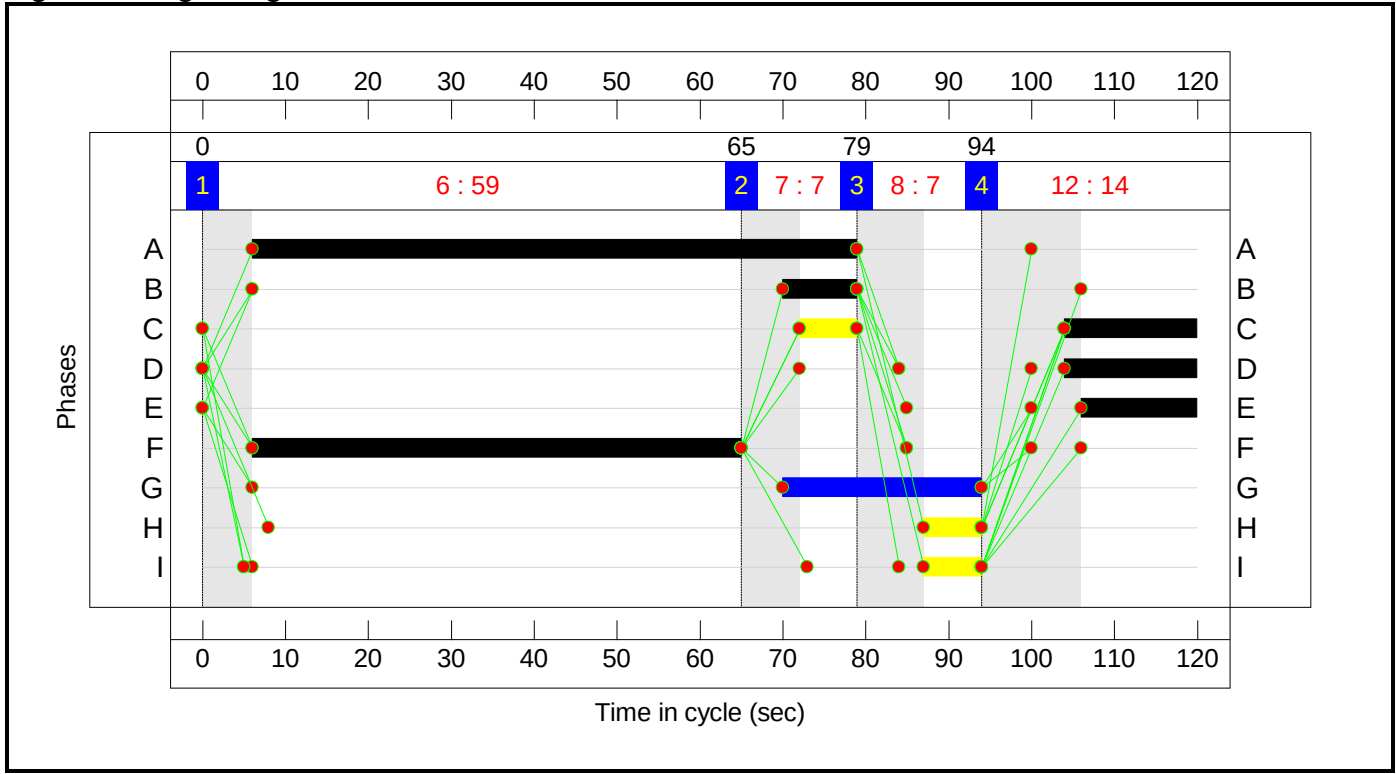
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	59	7	7	14
Change Point	0	65	79	94

Signal Timings Diagram

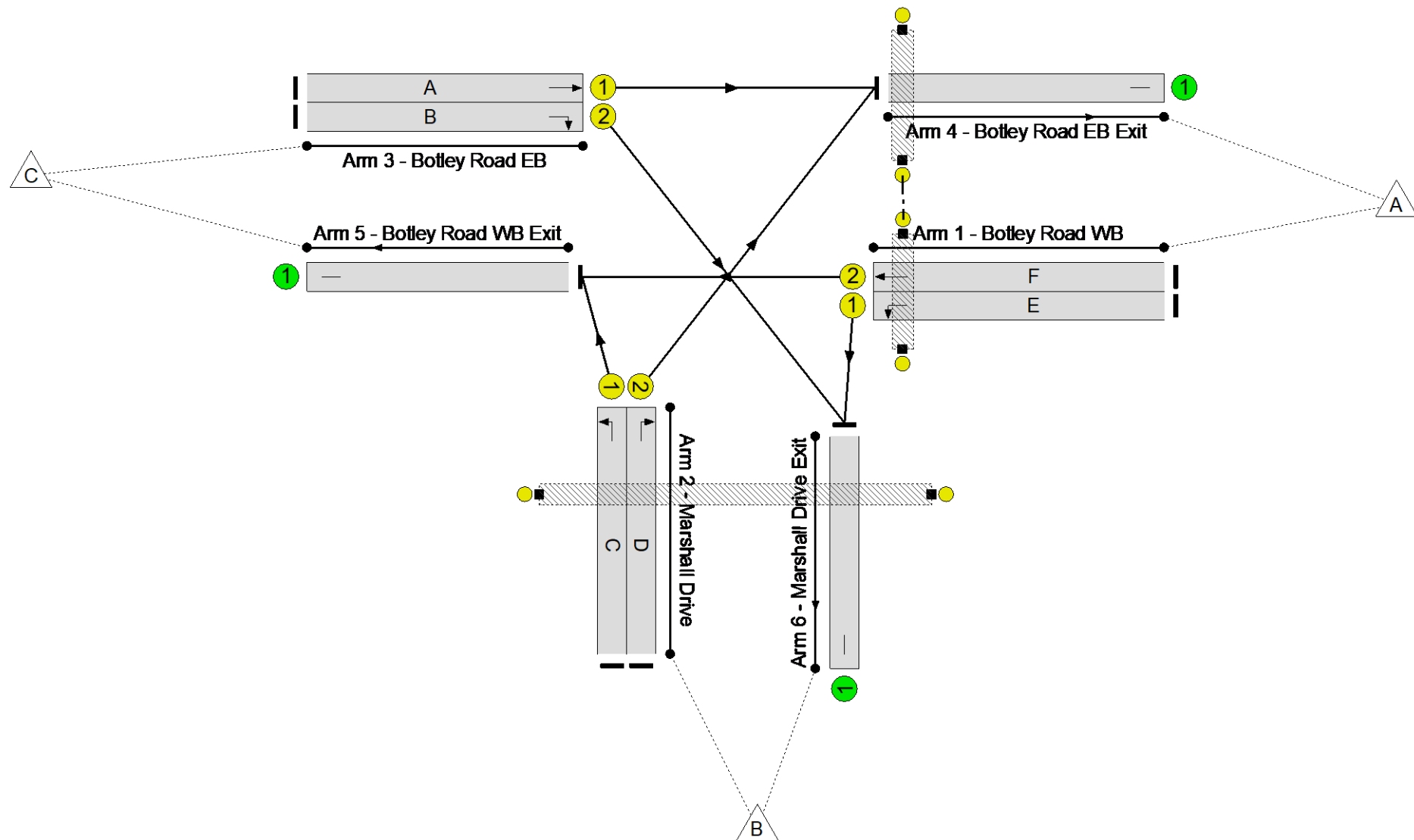


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results


Botley Road / Marshall Drive
 PRC: 17.3 %
 Total Traffic Delay: 17.8 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	76.7%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	76.7%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	14	-	138	1473	184	74.9%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	59	-	798	2080	1040	76.7%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	23	-	58	1519	316	18.3%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	16	-	65	1839	261	24.9%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	73	-	767	1965	1212	63.3%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	9	-	90	1830	152	59.0%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	856	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	24	-	0	-	0	0.0%

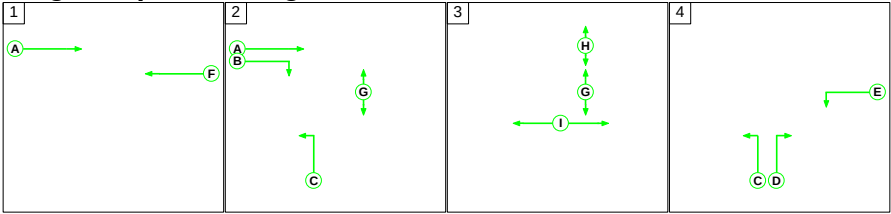
Full Input Data And Results

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Full Input Data And Results

Scenario 6: '2027 Baseline PM' (FG6: '2027 Baseline PM', Plan 1: 'Network Control Plan 1')

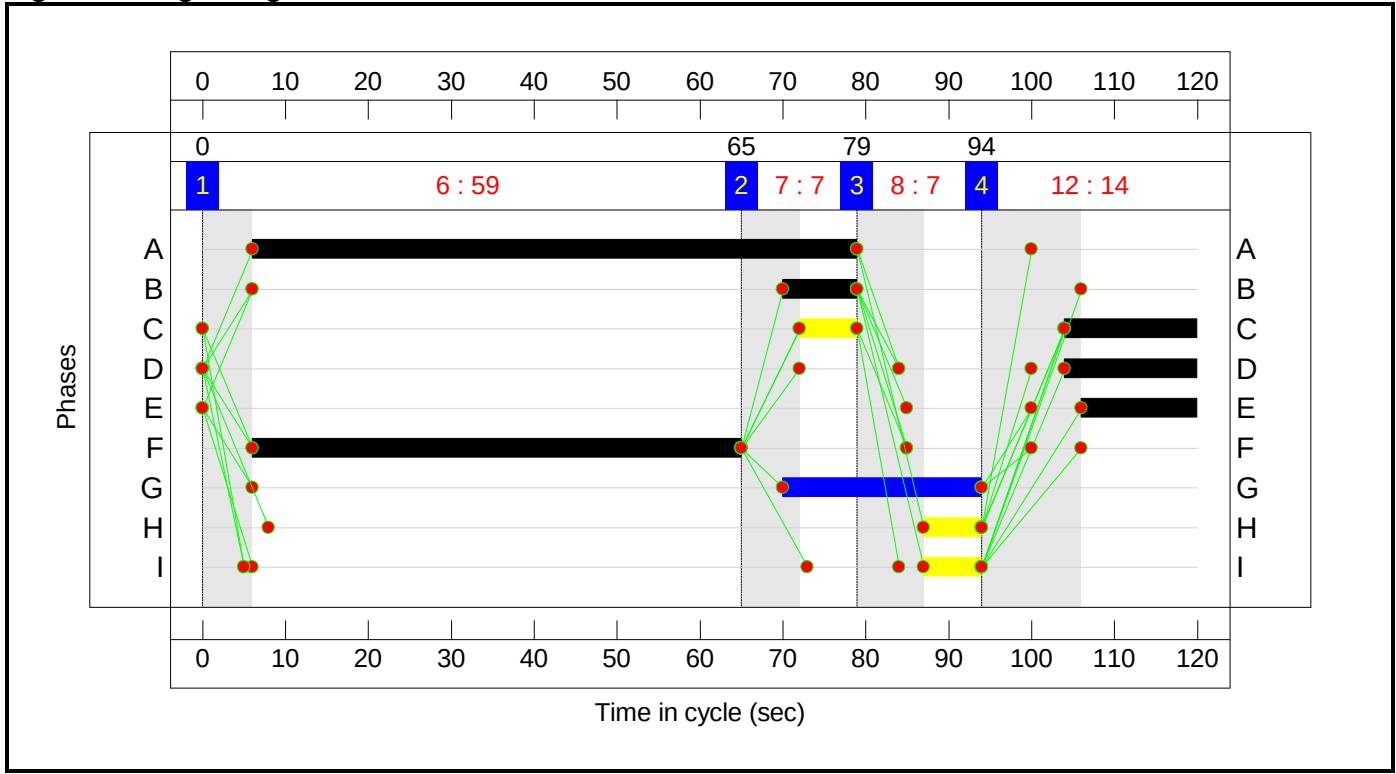
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	59	7	7	14
Change Point	0	65	79	94

Signal Timings Diagram

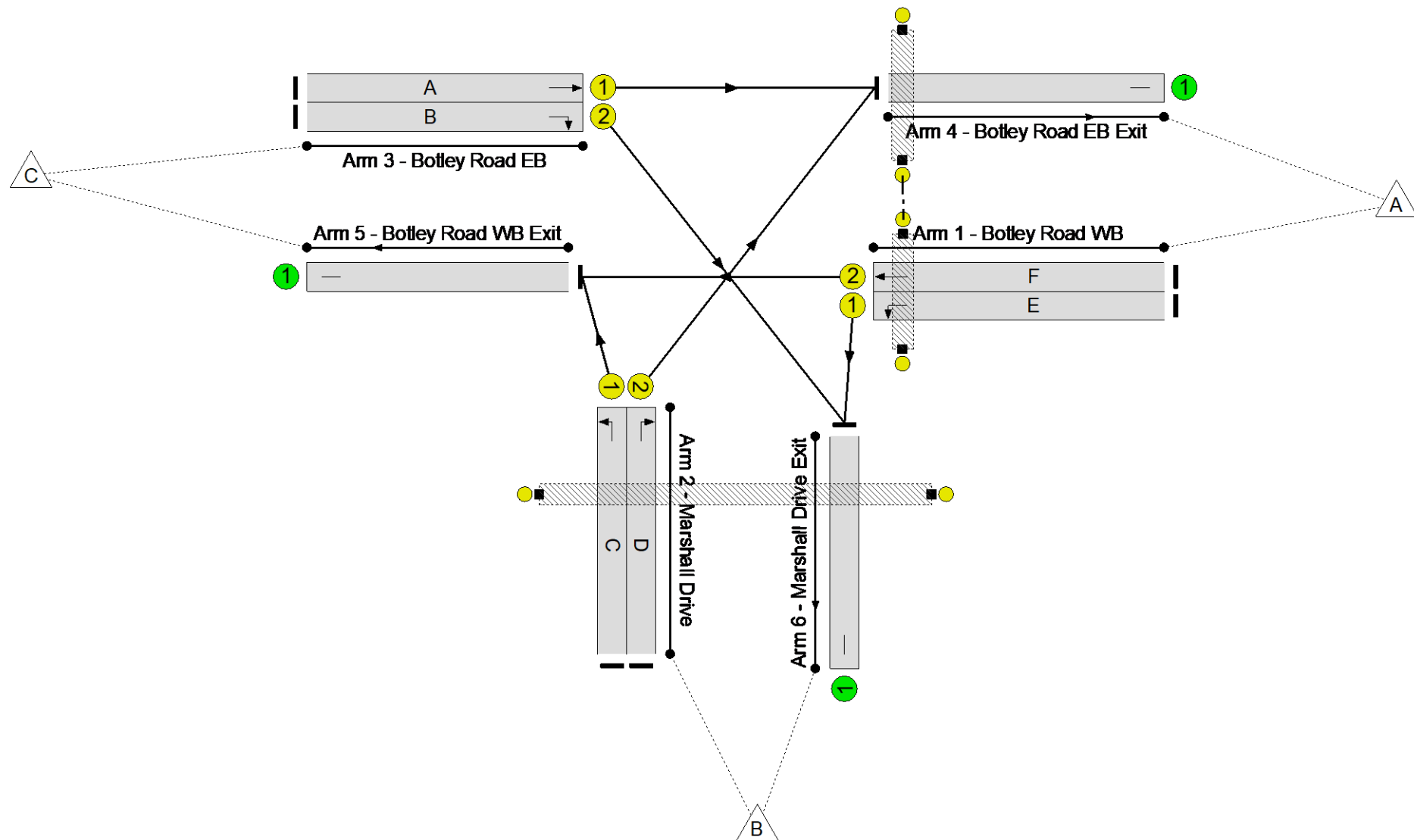


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results


Botley Road / Marshall Drive
 PRC: 18.0 %
 Total Traffic Delay: 16.8 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	76.3%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	76.3%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	14	-	137	1473	184	74.4%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	59	-	793	2080	1040	76.3%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	23	-	90	1519	316	28.4%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	16	-	108	1839	261	41.5%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	73	-	525	1965	1212	43.3%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	9	-	84	1830	152	55.1%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	633	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	221	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	24	-	0	-	0	0.0%

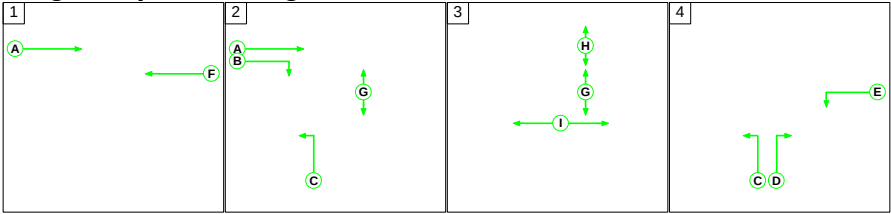
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 7: '2027 Baseline AM + Dev' (FG7: '2027 Baseline AM + Dev', Plan 1: 'Network Control Plan 1')

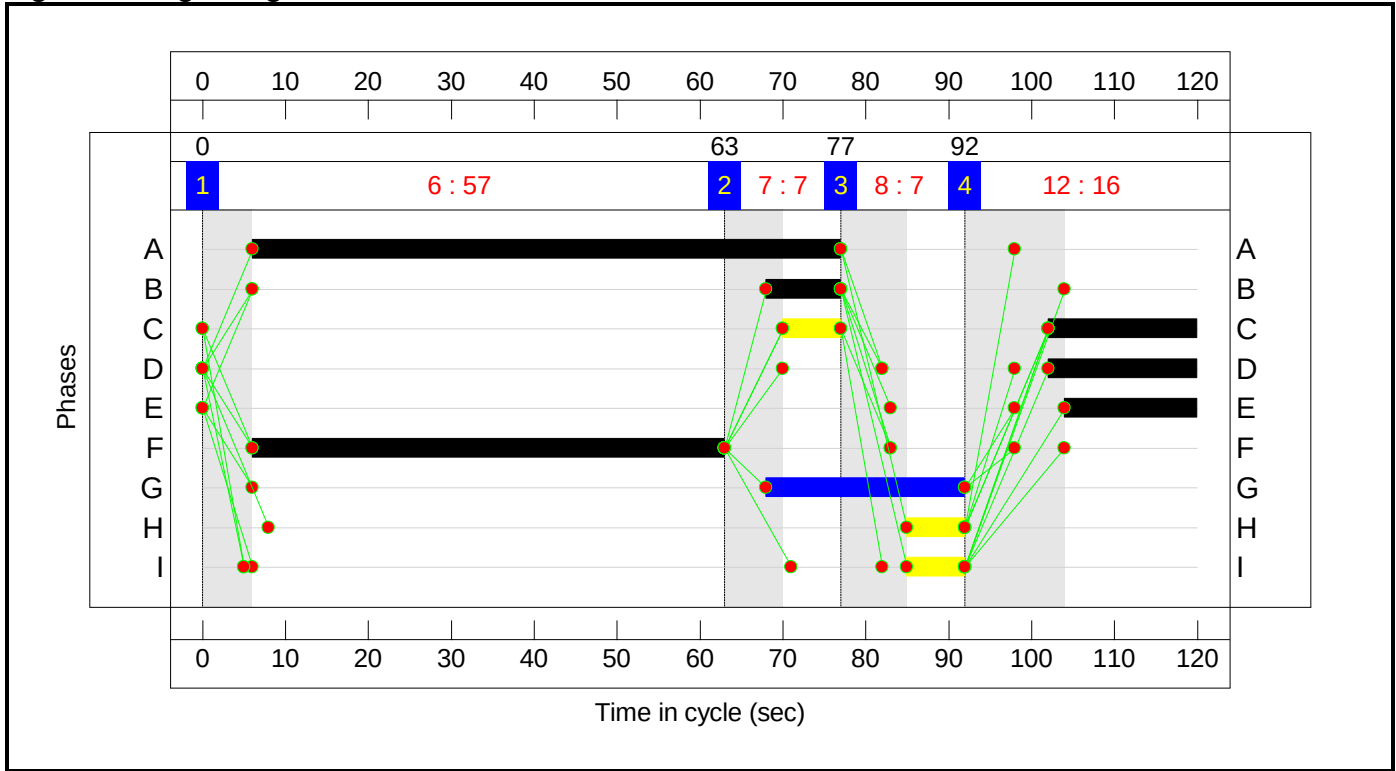
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	57	7	7	16
Change Point	0	63	77	92

Signal Timings Diagram

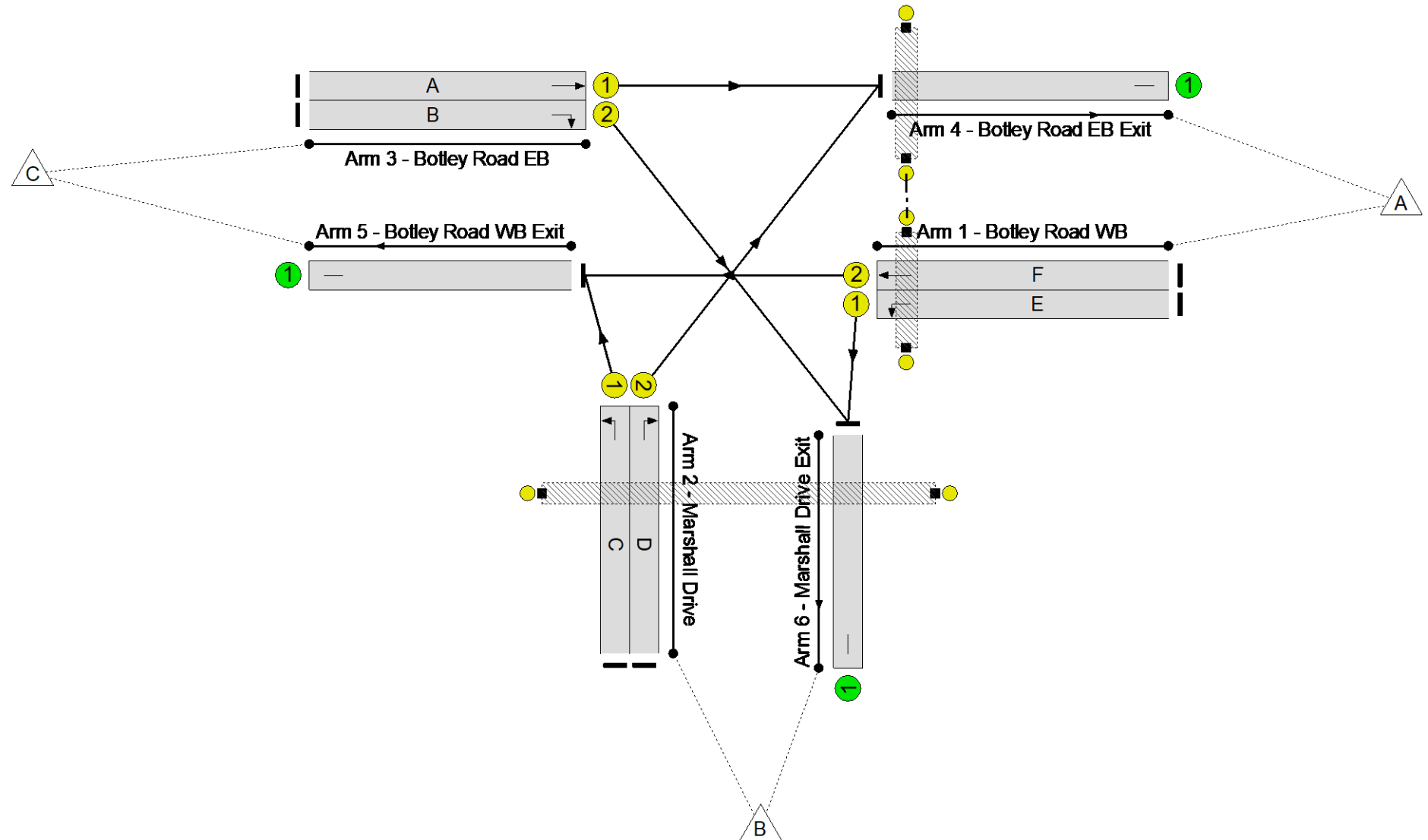


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

 **Botley Road / Marshall Drive**
PRC: 9.7 %
Total Traffic Delay: 23.0 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

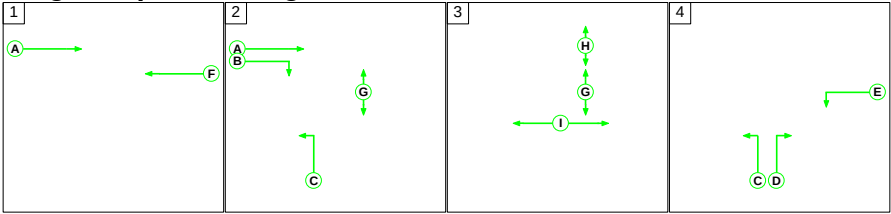
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	82.1%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	82.1%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	16	-	166	1473	209	79.5%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	57	-	825	2080	1005	82.1%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	25	-	110	1519	342	32.2%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	18	-	112	1839	291	38.5%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	71	-	780	1965	1179	66.2%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	9	-	120	1830	152	78.7%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	892	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	24	-	0	-	0	0.0%

Full Input Data And Results

[illegible]

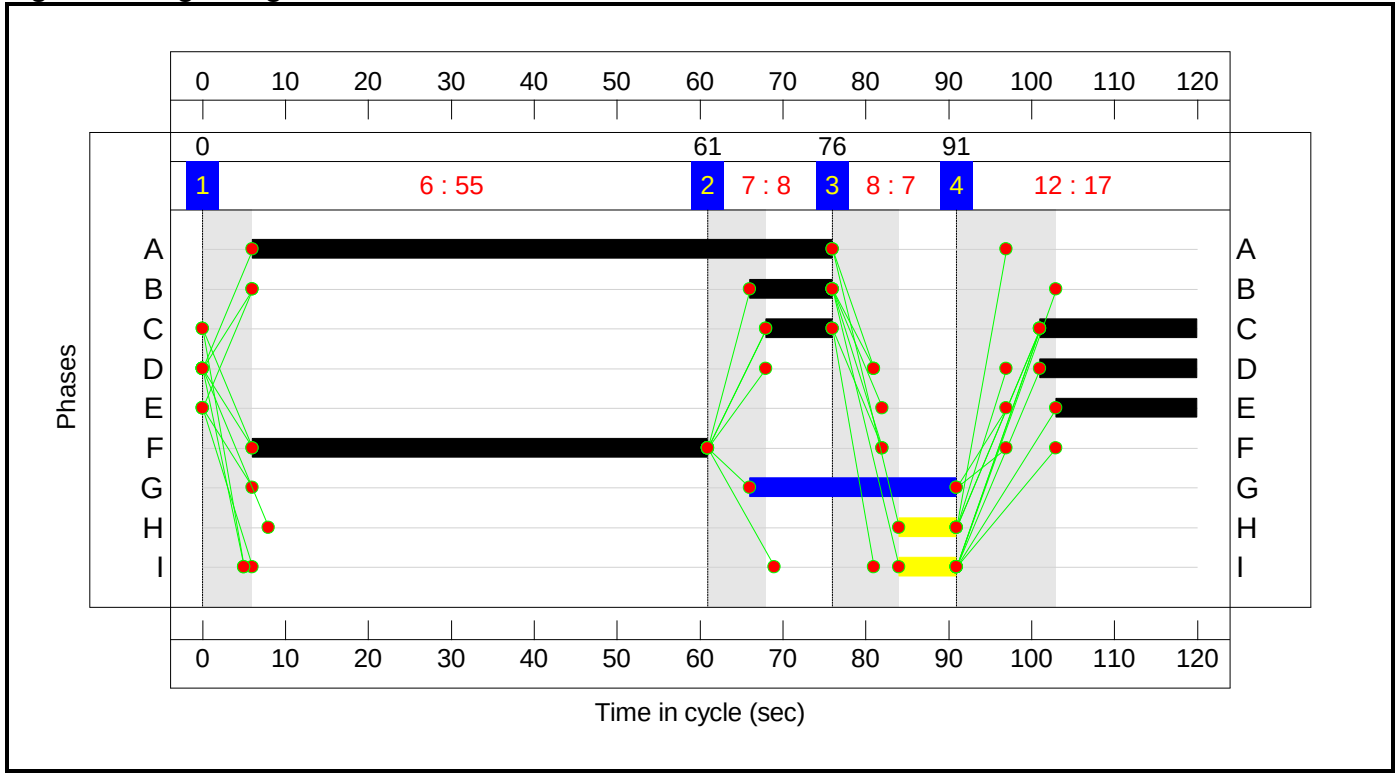
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	55	8	7	17
Change Point	0	61	76	91

Signal Timings Diagram

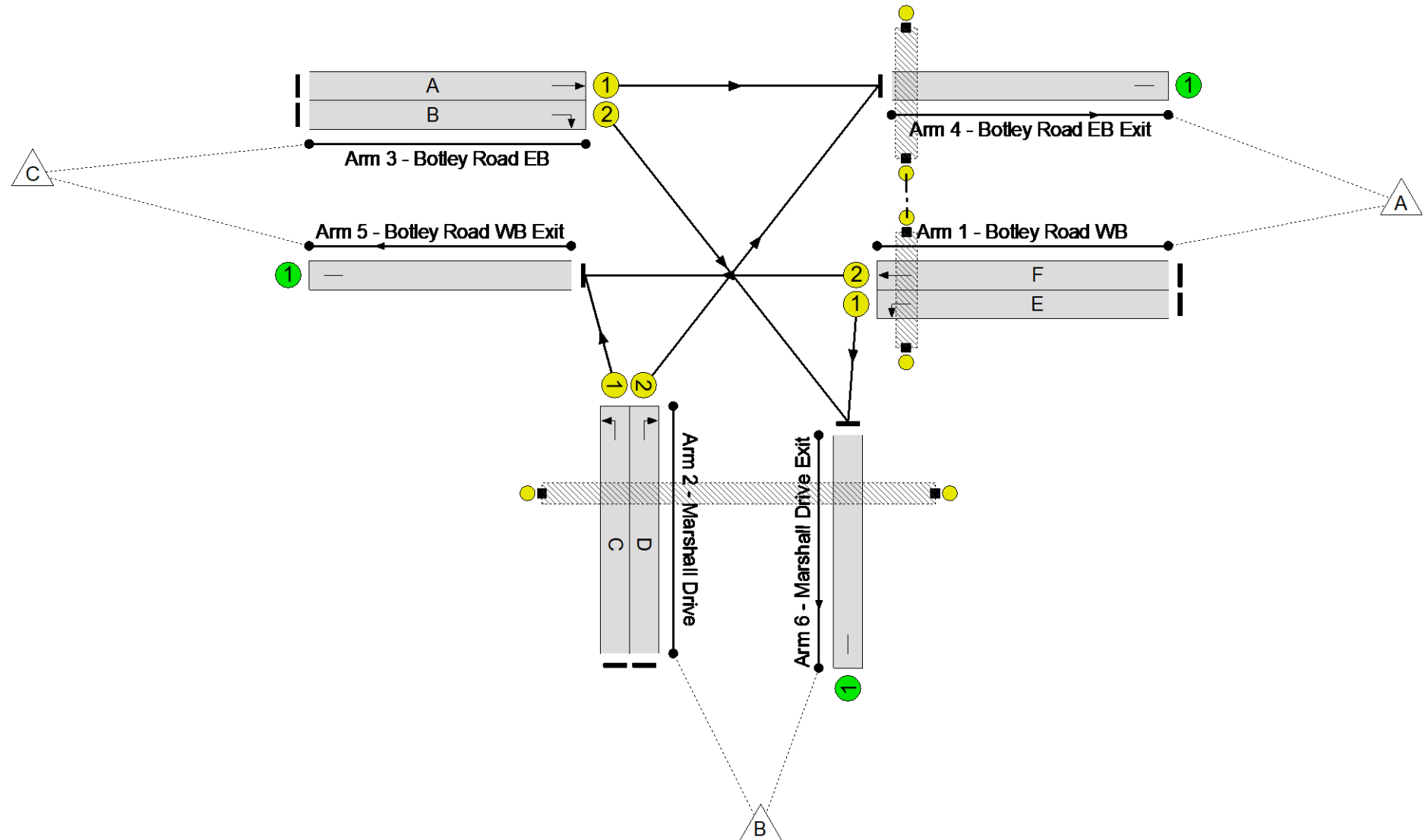


Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Botley Road / Marshall Drive
 PRC: 8.7 %
 Total Traffic Delay: 21.8 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

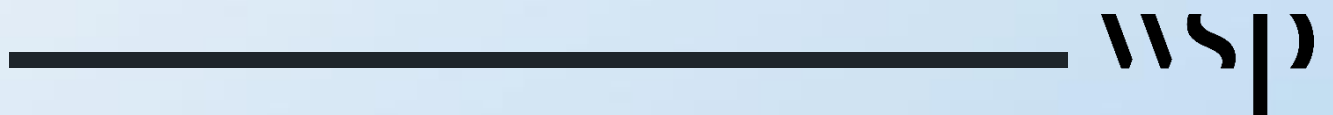
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Marshall Drive / Botley Road	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
Botley Road / Marshall Drive	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
1/1	Botley Road WB Left	U	N/A	N/A	E		1	17	-	177	1473	221	80.1%
1/2	Botley Road WB Ahead	U	N/A	N/A	F		1	55	-	804	2080	971	82.8%
2/1	Marshall Drive Left	U	N/A	N/A	C		2	27	-	119	1519	367	32.4%
2/2	Marshall Drive Right	U	N/A	N/A	D		1	19	-	135	1839	307	44.0%
3/1	Botley Road EB Ahead	U	N/A	N/A	A		1	70	-	541	1965	1163	46.5%
3/2	Botley Road EB Right	U	N/A	N/A	B		1	10	-	128	1830	168	76.3%
4/1	Botley Road EB Exit	U	N/A	N/A	-		-	-	-	676	Inf	Inf	0.0%
5/1	Botley Road WB Exit	U	N/A	N/A	-		-	-	-	923	Inf	Inf	0.0%
6/1	Marshall Drive Exit	U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
Ped Link: P1	Marshall Drive	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P2	Botley Road	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P3	Botley Road	-	N/A	-	G		1	25	-	0	-	0	0.0%

Full Input Data And Results

[illegible]

Appendix H

Event Day Car Park Junction Model Outputs



Junctions 9									
PICADY 9 - Priority Intersection Module									
Version: 9.5.1.7462 © Copyright TRL Limited, 2019									
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk									
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: New Car Park Access Junction backup.j9

Path: \\uk.wspgroup.com\central data\Projects\700735xx\70073579 - Ageas Bowl Masterplan\03 WIP\TP Transport Planning\01 Analysis & Calcs\Masterplan Application\New Access J9

Report generation date: 29/03/2023 15:56:07

»2027 Event Day, AM
 »2027 Event Day, PM
 »2027 Non-Event Day, AM
 »2027 Non-Event Day, PM
 »2027 Event Day 2, AM
 »2027 Event Day 2, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2027 Event Day									
Stream B-AC	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
Stream C-AB		1.5	7.99	0.44	A		0.1	7.70	0.05	A
	2027 Non-Event Day									
Stream B-AC	D3	0.0	0.00	0.00	A	D4	0.0	0.00	0.00	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 Event Day 2									
Stream B-AC	D5	0.0	0.00	0.00	A	D6	0.0	0.00	0.00	A
Stream C-AB		2.1	8.58	0.51	A		0.5	8.20	0.32	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	21/01/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\UKMXB100
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
----------------	-------------	---------------------	-----------------------	------------	---------------------	-------------------	---------------------

m	kph	PCU	PCU	perHour	s	-Min	perMin
---	-----	-----	-----	---------	---	------	--------

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2027 Event Day	AM	ONE HOUR	08:00	09:30	15
D2	2027 Event Day	PM	ONE HOUR	17:00	18:30	15
D3	2027 Non-Event Day	AM	ONE HOUR	08:00	09:30	15
D4	2027 Non-Event Day	PM	ONE HOUR	17:00	18:30	15
D5	2027 Event Day 2	AM	ONE HOUR	08:00	09:30	15
D6	2027 Event Day 2	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2027 Event Day, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A3035 Botley Road E		Major
B	Ageas Bowl New Car Park Access		Minor
C	A3035 Botley Road W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.00			210.0	✓	1.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.40	190	160

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	712	0.118	0.299	0.188	0.428
B-C	826	0.116	0.292	-	-
C-B	696	0.246	0.246	-	-

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

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

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

Traffic Demand

Demand Set Details

--	--	--	--	--	--	--

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2027 Event Day	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1047	100.000
B		✓	0	100.000
C		✓	991	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	164	883
	B	0	0	0
	C	827	164	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.44	7.99	1.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	429	0.000	0	0.0	0.000	A
C-AB	161	655	0.246	160	0.4	7.254	A
C-A	585			585			
A-B	123			123			
A-C	665			665			

08:15 - 08:30

Stream	Total Demand	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised
--------	--------------	----------	-----	------------	-----------	-----------	--------------

	(PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
B-AC	0	352	0.000	0	0.0	0.000	A
C-AB	222	700	0.318	221	0.7	7.528	A
C-A	668			668			
A-B	147			147			
A-C	794			794			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	233	0.000	0	0.0	0.000	A
C-AB	356	811	0.438	352	1.4	7.888	A
C-A	736			736			
A-B	181			181			
A-C	972			972			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	232	0.000	0	0.0	0.000	A
C-AB	356	811	0.438	355	1.5	7.994	A
C-A	736			736			
A-B	181			181			
A-C	972			972			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	351	0.000	0	0.0	0.000	A
C-AB	222	700	0.318	226	0.7	7.662	A
C-A	668			668			
A-B	147			147			
A-C	794			794			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	428	0.000	0	0.0	0.000	A
C-AB	161	655	0.246	162	0.4	7.340	A
C-A	585			585			
A-B	123			123			
A-C	665			665			

2027 Event Day, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2027 Event Day	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	867	100.000
B		✓	0	100.000
C		✓	591	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	23	844
	B	0	0	0
	C	568	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.05	7.70	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	515	0.000	0	0.0	0.000	A
C-AB	18	549	0.032	18	0.0	6.775	A
C-A	427			427			
A-B	17			17			
A-C	635			635			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	464	0.000	0	0.0	0.000	A
C-AB	22	525	0.041	21	0.0	7.153	A
C-A	510			510			
A-B	21			21			
A-C	759			759			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	391	0.000	0	0.0	0.000	A
C-AB	27	495	0.055	27	0.1	7.692	A
C-A	623			623			
A-B	25			25			
A-C	929			929			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	391	0.000	0	0.0	0.000	A
C-AB	27	495	0.055	27	0.1	7.696	A
C-A	623			623			
A-B	25			25			
A-C	929			929			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	464	0.000	0	0.0	0.000	A
C-AB	22	525	0.041	22	0.0	7.158	A
C-A	510			510			
A-B	21			21			
A-C	759			759			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	515	0.000	0	0.0	0.000	A
C-AB	18	549	0.032	18	0.0	6.782	A
C-A	427			427			
A-B	17			17			
A-C	635			635			

2027 Non-Event Day, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027 Non-Event Day	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	883	100.000
B		✓	0	100.000
C		✓	827	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	0	883
	B	0	0	0
	C	827	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	487	0.000	0	0.0	0.000	A
C-AB	0	1064	0.000	0	0.0	0.000	A
C-A	623			623			
A-B	0			0			
A-C	665			665			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	428	0.000	0	0.0	0.000	A
C-AB	0	1001	0.000	0	0.0	0.000	A
C-A	743			743			
A-B	0			0			
A-C	794			794			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	342	0.000	0	0.0	0.000	A
C-AB	0	913	0.000	0	0.0	0.000	A
C-A	911			911			
A-B	0			0			
A-C	972			972			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	342	0.000	0	0.0	0.000	A
C-AB	0	913	0.000	0	0.0	0.000	A
C-A	911			911			
A-B	0			0			
A-C	972			972			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	428	0.000	0	0.0	0.000	A
C-AB	0	1001	0.000	0	0.0	0.000	A
C-A	743			743			
A-B	0			0			
A-C	794			794			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	487	0.000	0	0.0	0.000	A
C-AB	0	1064	0.000	0	0.0	0.000	A
C-A	623			623			
A-B	0			0			
A-C	665			665			

2027 Non-Event Day, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Non-Event Day	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	844	100.000
B		✓	0	100.000
C		✓	568	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	844
	B	0	0	0
	C	568	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	523	0.000	0	0.0	0.000	A
C-AB	0	1078	0.000	0	0.0	0.000	A
C-A	428			428			
A-B	0			0			
A-C	635			635			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	473	0.000	0	0.0	0.000	A
C-AB	0	1018	0.000	0	0.0	0.000	A
C-A	511			511			
A-B	0			0			
A-C	759			759			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	403	0.000	0	0.0	0.000	A
C-AB	0	934	0.000	0	0.0	0.000	A
C-A	625			625			
A-B	0			0			
A-C	929			929			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	403	0.000	0	0.0	0.000	A
C-AB	0	934	0.000	0	0.0	0.000	A
C-A	625			625			
A-B	0			0			
A-C	929			929			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	473	0.000	0	0.0	0.000	A
C-AB	0	1018	0.000	0	0.0	0.000	A
C-A	511			511			
A-B	0			0			
A-C	759			759			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	523	0.000	0	0.0	0.000	A
C-AB	0	1078	0.000	0	0.0	0.000	A
C-A	428			428			
A-B	0			0			
A-C	635			635			

2027 Event Day 2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Event Day 2	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1070	100.000
B		✓	0	100.000
C		✓	1014	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	187	883
	B	0	0	0
	C	827	187	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.51	8.58	2.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	420	0.000	0	0.0	0.000	A
C-AB	191	674	0.283	189	0.5	7.406	A
C-A	573			573			
A-B	141			141			
A-C	665			665			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	341	0.000	0	0.0	0.000	A
C-AB	268	731	0.366	266	0.9	7.761	A
C-A	644			644			
A-B	168			168			
A-C	794			794			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	216	0.000	0	0.0	0.000	A
C-AB	440	868	0.507	436	2.1	8.401	A
C-A	676			676			
A-B	206			206			
A-C	972			972			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	214	0.000	0	0.0	0.000	A
C-AB	440	868	0.507	440	2.1	8.583	A
C-A	676			676			
A-B	206			206			
A-C	972			972			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	339	0.000	0	0.0	0.000	A
C-AB	268	731	0.366	273	1.0	7.978	A
C-A	644			644			
A-B	168			168			
A-C	794			794			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	419	0.000	0	0.0	0.000	A
C-AB	191	674	0.283	192	0.5	7.522	A
C-A	573			573			
A-B	141			141			
A-C	665			665			

2027 Event Day 2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Event Day 2	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	187	100.000
B		✓	0	100.000
C		✓	187	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0	187	0
	B	0	0	0
	C	0	187	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.32	8.20	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	712	0.000	0	0.0	0.000	A
C-AB	141	661	0.213	140	0.3	6.893	A
C-A	0			0			
A-B	141			141			
A-C	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	701	0.000	0	0.0	0.000	A
C-AB	168	654	0.257	168	0.3	7.396	A
C-A	0			0			
A-B	168			168			
A-C	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	686	0.000	0	0.0	0.000	A
C-AB	206	645	0.319	205	0.5	8.182	A
C-A	0			0			
A-B	206			206			
A-C	0			0			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	686	0.000	0	0.0	0.000	A
C-AB	206	645	0.319	206	0.5	8.199	A
C-A	0			0			
A-B	206			206			
A-C	0			0			

18:00 - 18:15

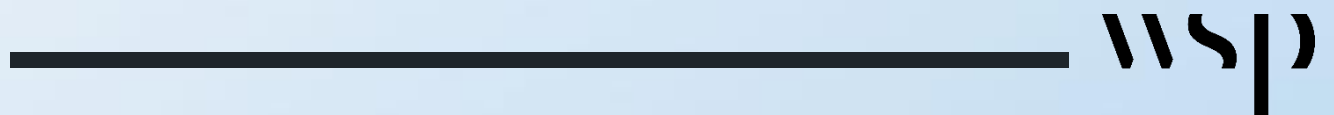
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	701	0.000	0	0.0	0.000	A
C-AB	168	654	0.257	169	0.3	7.419	A
C-A	0			0			
A-B	168			168			
A-C	0			0			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	712	0.000	0	0.0	0.000	A
C-AB	141	661	0.213	141	0.3	6.928	A
C-A	0			0			
A-B	141			141			
A-C	0			0			

Appendix I

Thorneydown TA Assumptions



6. ASSESSMENT METHODOLOGY

6.1. INTRODUCTION

- 6.1.1. This section investigates the number of vehicular trips likely to be generated by the proposed temporary car park on event days, and assesses the distribution of these trips throughout the local road network.
- 6.1.2. It is important to note that the proposed temporary car park is not intended to be used continuously throughout the year, but sporadically to cater for events between April and October being hosted at the Ageas Bowl. As the proposed temporary car park is not intended to be used more than 12 times a year, the impact event traffic has upon the local road network cannot be considered as severe in the long term. In addition, not all events will be held on week day, which is generally when the highway network experiences the greatest levels of usage. For example, based on Table 2 there will be two concerts held on a weekend plus up to five international cricket games per year, which could account approximately 50% of the car parks use.
- 6.1.3. It is also important to note that the purpose of the development proposal from the transport perspective is to provide a temporary car park facility that replaces the previous facility at Peace Haven. The implementation of the proposed temporary car park is not intended to impact upon the number of visitors to the Ageas Bowl.

6.2. VEHICULAR TRIP GENERATION

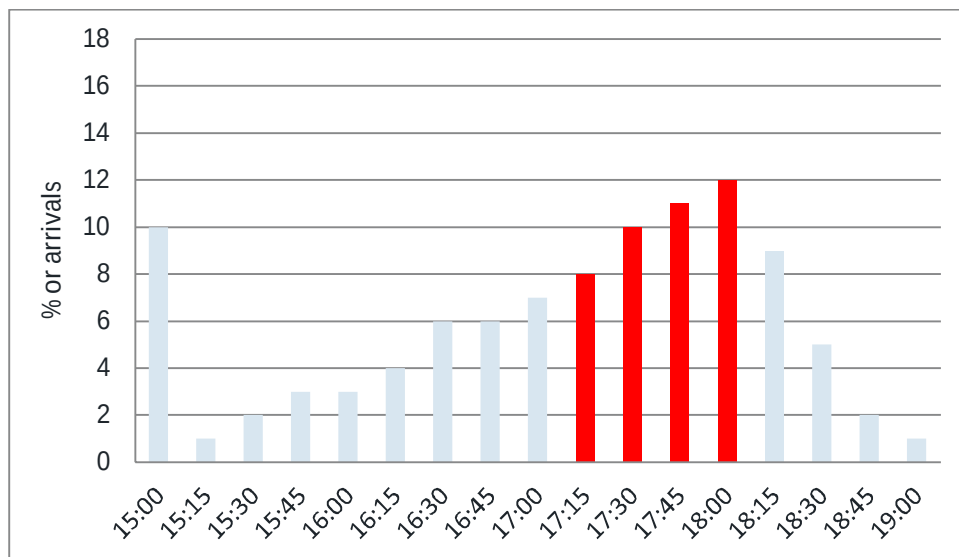
- 6.2.1. As outlined in the development proposals, it is anticipated that the proposed temporary car park will cater for approximately 1,300 vehicles and be used only on event days where the capacity exceeds 15,000 spectators. Out of the 1,300 spaces, 900 will be provided as a replacement to those being lost at the Peace Haven Park and Stride site. This proposed temporary car park is also intended to account for lost Park and Ride provisions at the Hamble Lane, Bursledon site. Taking account of approximate attendances presented in **Table 2**, this means that the proposed temporary car-park will only be used for the following events:
- International Cricket; and
 - Concerts.
- 6.2.2. For T20 games, where the attendances are approximately 7,000, the proposed temporary car park will not be used, with the Ageas Bowl instead using existing car parking facilities. This means the development proposals will not generate any additional trips for these events.
- 6.2.3. To calculate the trip generation associated with the temporary car park a review has been undertaken of ticket holder post-code information and arrival patterns provided by Hampshire Cricket Club for previous events held at the Ageas Bowl. This review allowed WSP to estimate the number of vehicles arriving at the Ageas Bowl, when they arrived and the likely route choice from origin, as explained in further detail in **Section 5.2**. In all cases, however, it has been assumed that the car park will reach its full capacity of 1,300 vehicles.
- 6.2.4. When calculating trip generation, the like-for-like replacement of spaces from the Peace Haven park-and-stride site has been taken into account, along with the fact that these spaces will continue to be accessed via Botley Road. Therefore to avoid double counting of ingress trip generation, an assessment has only been undertaken of the 400 cars that will enter the site via A27 Moorgreen

Road. This is because the 900 vehicles that enter the site via Botley Road / Marshall Drive already use Botley Road to access the Peace Haven car park in the existing situation and therefore the proposed access arrangements / traffic conditions do not alter existing trip generation at this location.

ARRIVAL PROFILES

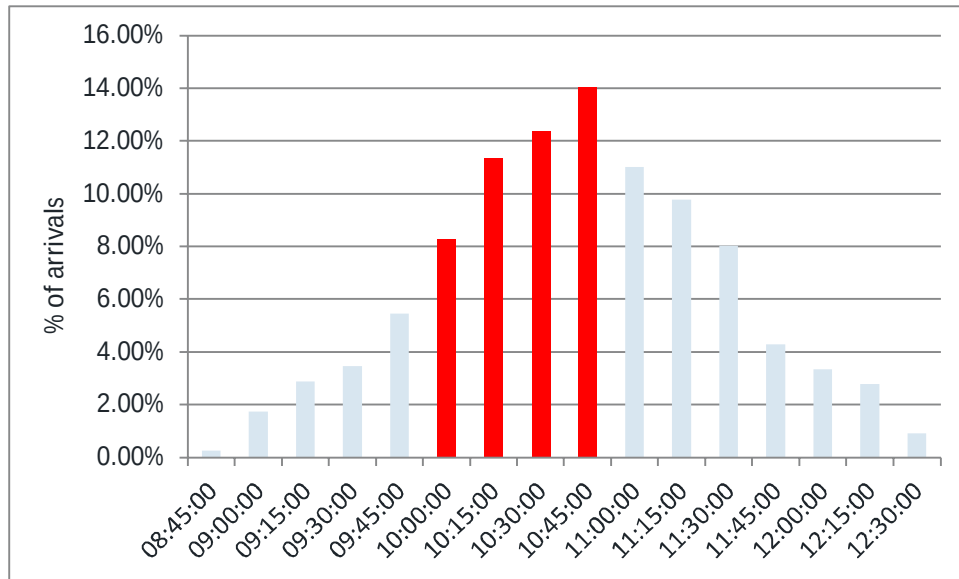
- 6.2.5. Arrival times are distributed normally over the ingress period. As such, the arrival pattern for the car park will be spread over the ingress period, with the maximum arrival rate in any one hour period considerably less than the total car park occupancy. The distribution of arrival times over the various ingress periods have been supplied by the Ageas Bowl and based upon ticket entry times.
- 6.2.6. Approximate attendee arrival times for concerts are outline in **Figure 5**.

Figure 5 – Concert arrival profile



- 6.2.7. Approximate spectator arrival times for Test Match Day One are presented in **Figure 6**.

Figure 6 – Test Match arrival profile



- 6.2.8.** Analysis of previous ticket entry data in **Figure 5** and **Figure 6** found the following peak hours for spectator arrivals:
- International Cricket Match: 10:00 – 11:00, which accounted for 46.8% of total spectators arriving at the car park; and
 - Concert: 17:15 – 18:15, which accounted for 41.0% of total spectators arriving at the car park.
- 6.2.9.** These percentages were applied to the car park capacity (1,300 vehicles) in order to estimate the total number of vehicles arriving within the peak hour. Applying the directional split estimated from post code data to the number of peak hour arrivals gave the estimated peak hour demand for each car park entrance.
- 6.2.10.** An outline of the expected peak hour demand for each access of the proposed temporary car park is provided within Table 6.

Table 6 – Entry trip generation

		Entry Distribution	
		International Cricket (10:00 – 11:00)	Concert (17:15 – 18:15)
Peak Hour Arrivals (% of total)		46.08% (600 vehicles)	41.00% (533 vehicles)
Directional Split	North Entrance (Marshall Drive)	415 vehicles	369 vehicles
	West Entrance (A27 Moorhill Road)	185 vehicles	164 vehicles

EGRESS PROFILES

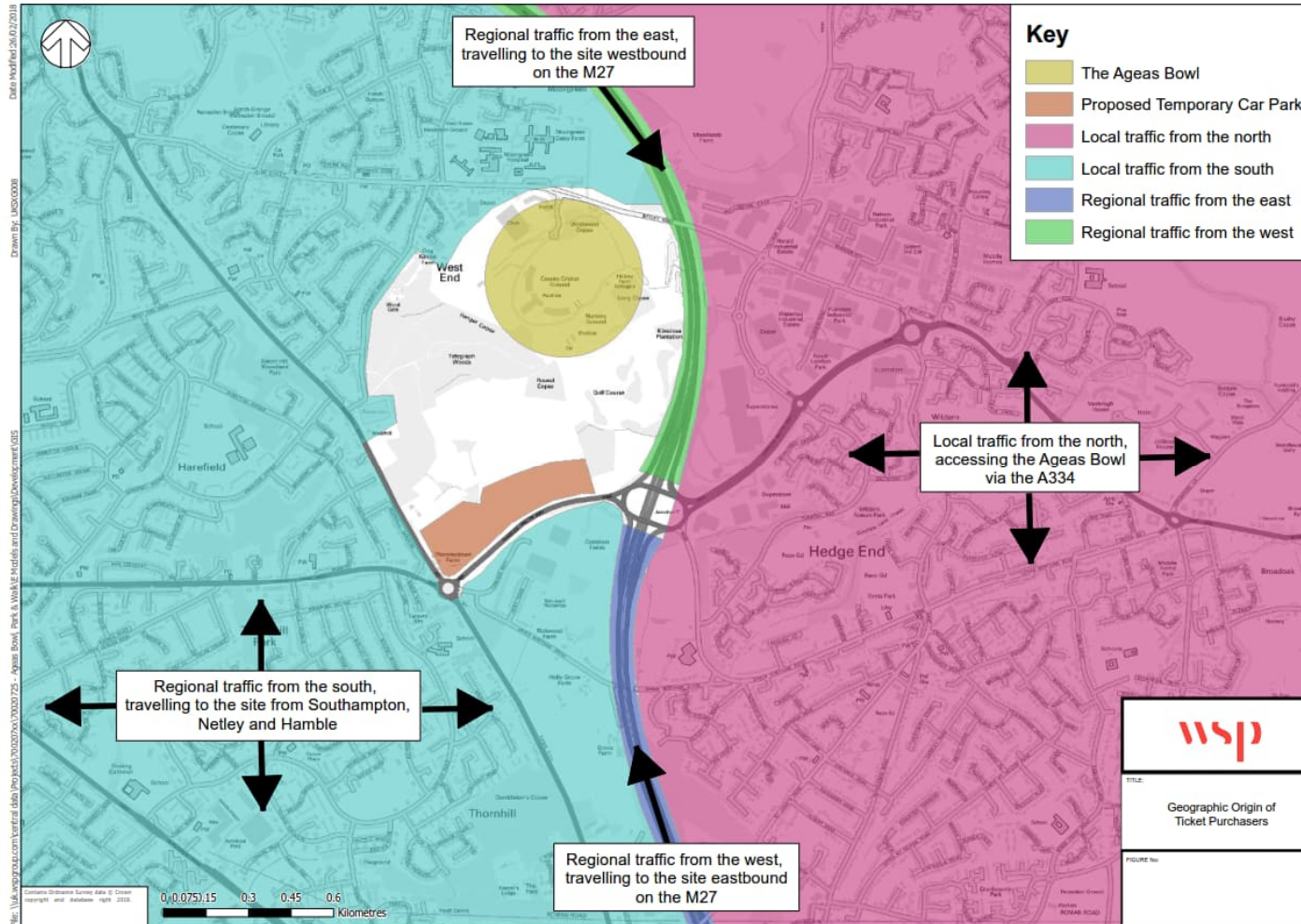
- 6.2.11. For egress trip generation, it has been assumed that all 1,300 vehicles within the temporary car park exit via the A27 Moorgreen Road. To provide a robust assessment, while also taking into account early departures, it has been assumed that 1,000 vehicles exit the site in one-hour after an event has ended. This is the equivalent of 17 vehicles per minute exiting the site.
- 6.2.12. It is proposed that the entirety of traffic leaving the proposed temporary car park will exit via the A27 Moorhill Road access on a left out only basis.
- 6.2.13. In terms of outbound journeys, the same geographic distribution was used as for inbound journeys, given that it is reasonable to assume that vehicles would leave in same direction from which they originated.

6.3. DISTRIBUTION AND ASSIGNMENT

DISTRIBUTION AND ASSIGNMENT OF ARRIVALS

- 6.3.1. The average geographic distribution of ticket purchasers was calculated based upon the home postcodes of ticket purchasers for the following past events held at the Ageas Bowl:
 - England v West Indies ODI (Friday 29th September 2017);
 - England v Pakistan ODI (Wednesday 24th August 2016); and
 - England v Sri Lanka ODI (Tuesday 5th July 2016).
- 6.3.2. All UK non-mainland home postcodes were excluded from analysis on the basis that these spectators would not travel to the venue by car. Furthermore, all UK mainland postcodes that were located within a 2km radius of a railway station were excluded from analysis under the assumption that these spectators would travel via rail and ride services.
- 6.3.3. The remaining postcodes were then sorted into four categories based upon the route they were likely to take to the Ageas Bowl. The four categories are outlined in **Figure 7**, and can be described as follows:
 - Traffic from the west (those travelling to the Ageas Bowl eastbound on the M27);
 - Traffic from the north (those travelling to the Ageas Bowl on the local road network via the A334);
 - Traffic from the east (those travelling to the Ageas Bowl westbound on the M27); and
 - Traffic from the south (those travelling to the Ageas Bowl on the local road network from Southampton, Netley and Hamble).
- 6.3.4. Postcode data was unavailable for concert and International Test Match events and thus the average geographic distribution of ticket purchasers from the aforementioned ODI's has been used for all scenarios.

Figure 7 – Geographic origin of ticket purchasers





6.4. TRAFFIC COUNT DATA

- 6.4.1. WSP commissioned Traffic Survey Partners Ltd to undertake Manual Classified Count (MCC) surveys at Kanes Hill Roundabout. Traffic surveys were undertaken in order to gain an understanding of the current operation of the local road network in the area surrounding the proposed A27 Moorhill Road access.
- 6.4.2. The MCC surveys were undertaken for the following dates / time periods:
- Friday 29th September 2017:
 - 10:00 – 12:00;
 - 17:00 – 19:00; and
 - 22:00 – 23:45.
 - Saturday 30th September 2017:
 - 10:00 – 12:00;
 - 17:00 – 19:00; and
 - 22:00 – 23:45.
- 6.4.3. It should be noted that a One Day International cricket match (England v West Indies) was held at the Ageas Bowl on Friday 29th September 2017. Traffic surveys were undertaken on an event day in order to undertake a robust assessment of the possible impact on the road network through the double counting of event day traffic.
- 6.4.4. Queue lengths were also captured for all arms of the junction in question at one minute intervals during all periods surveyed. The full results of the MCC surveys and queue length surveys are included in **Appendix B**.
- 6.4.5. An Automatic Traffic Count (ATC) survey was commissioned for A334 Charles Watts Way for a continuous seven day period commencing on Friday 29th September 2017. The full results of the ATC survey have been included in **Appendix C**. The ATC data provides the number of vehicles and the speeds over the full survey period. Speeds were recorded for vehicles travelling in both directions and 85th percentile speeds for all vehicles over each hour.
- 6.4.6. The ATC data was examined in order to identify any variations in daily observed counts and to establish traffic flow conditions on a typical day. It was found that the data captured by MCC broadly aligns with that found in the ATC.

6.5. ASSESSMENT PERIODS

- 6.5.1. Following the analysis outlined above, both the ingress and egress periods of an international cricket match and a concert have been assessed. The assessment time periods are outlined in **Table 7**.

Table 7 – Assessment Time Periods

	Ingress		Egress	
	International Cricket	Concert	International Cricket	Concert

Weekday	10:00 – 11:00	17:15 – 18:15	18:00 – 19:00	22:00 – 23:00
Weekend day	10:00 – 11:00	17:15 – 18:15	18:00 – 19:00	22:00 – 23:00

6.6. BACKGROUND TRAFFIC GROWTH

- 6.6.1. Observed 2017 traffic flows were converted into forecast 2018 and 2027 future year traffic flows using calculated TEMPRO growth factors for the relevant census ward (Eastleigh 009: E02004720). The TEMPRO growth factors used in this assessment are outlined in **Table 8**.

Table 8 – TEMPRO growth factors

Growth Factor	Weekday			Saturday
	Inter Peak	PM Peak	Off Peak	All Day
2017 – 2018	1.015515	1.014264	1.012562	1.014314
2017 - 2027	1.148256	1.134342	1.125237	1.139509

6.7. ADDITIONAL BACKGROUND EVENT TRAFFIC

- 6.7.1. In order to conduct a robust assessment the additional traffic generated by additional on-site car parks was added to the calculated traffic flow.
- 6.7.2. As discussed in paragraph **3.2.3**, on-site car parks are generally reserved for VIP's, Golden Debentures, hospitality guests and accessible parking. The proposals put forward within this report do not impact upon the current function of existing on-site car parks and as such all vehicles accessing these facilities will enter via the north entrance as is currently the case.
- 6.7.3. Analysis of data collated from previous international cricket event TMP's found that the highest typical demand placed upon on-site car parks is 580 vehicles. The arrival profiles set out in
- 6.7.4. **Table 6** and the geographic distribution discussed in **Section 6.2** were applied to estimate traffic generated by on-site parking and its likely route. This additional traffic was then added to calculated traffic flow and traffic generated by the proposed temporary car park before being assessed.

6.8. SENSITIVITY TESTS

- 6.8.1. In order to ensure a robust assessment, junction assessments have been undertaken for both a scenario in which smart ticketing is in place, and one in which the origin of traffic entering the car park follows the average geographic distribution of ticket purchasers.
- 6.8.2. Undertaking an assessment of a scenario in which the entry point used by arriving traffic is not managed by smart ticketing allows for a robust assessment of the possible impact event traffic may have on the local road network.