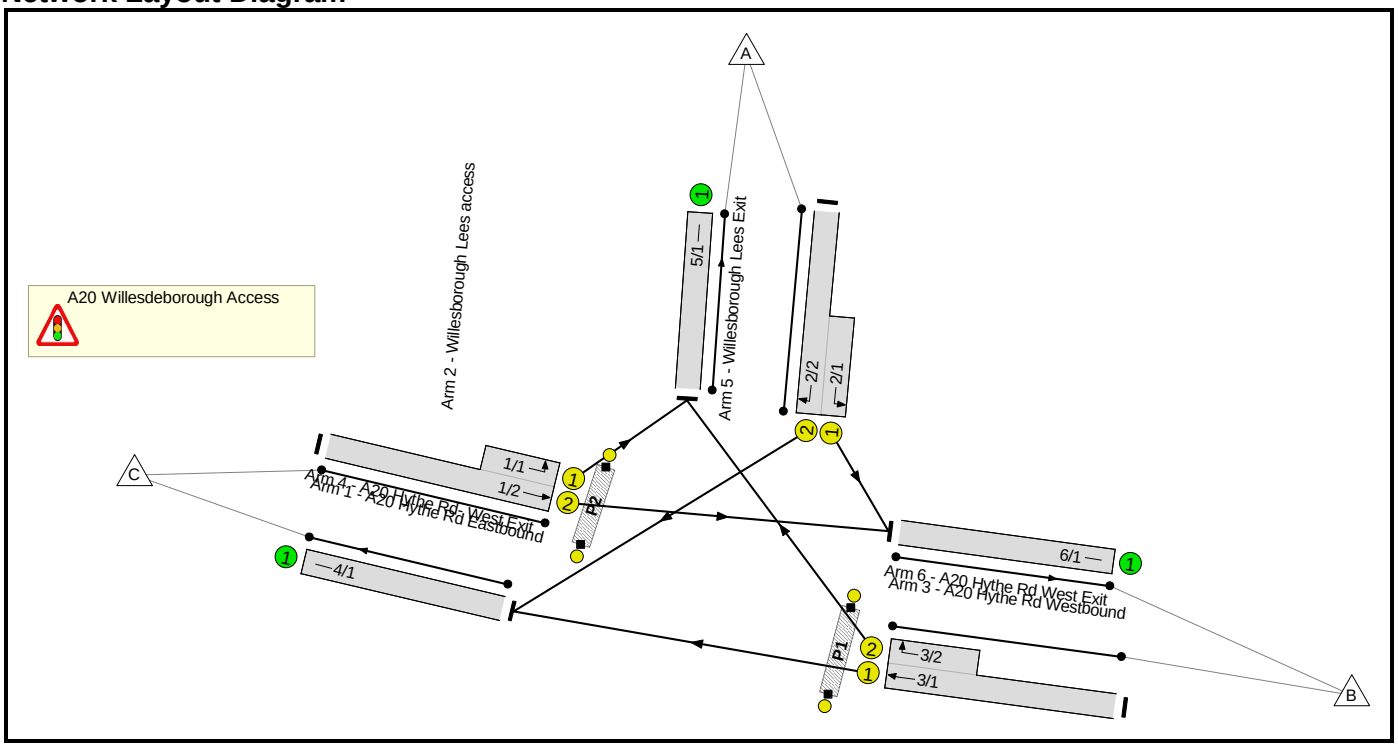
APPENDIX F Baseline modelling outputs

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**A20 Hythe Rd/ Willesborough Lees access**
Location:	
Additional detail:	
File name:	A20 Willesborough Lees_Base Model.lsg3x
Author:	
Company:	ARCADIS UK
Address:	

Network Layout 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	Pedestrian		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7

Full Input Data And Results

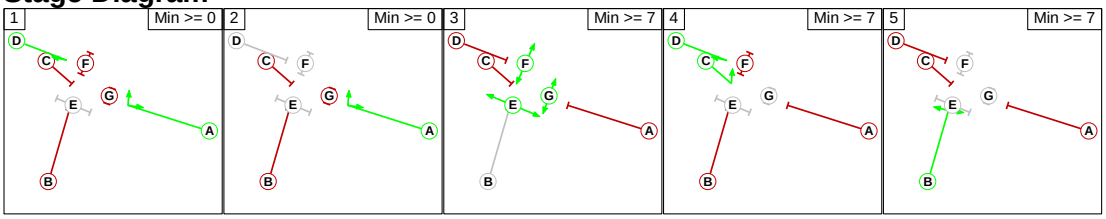
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G
A		8	5	-	-	-	19
B	5		5	5	-	-	-
C	6	5		-	-	9	-
D	-	5	-		-	9	-
E	-	-	-	-		-	-
F	-	-	8	8	-		-
G	8	-	-	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Traffic Flows, Desired

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

Desired Flow :

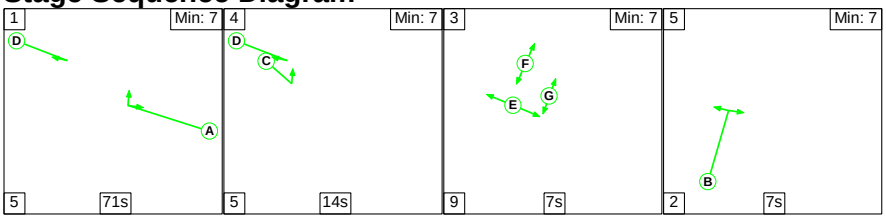
Origin \ Destination	A	B	C	Tot.
A	0	41	24	65
B	46	0	752	798
C	15	734	0	749
Tot.	61	775	776	1612

Full Input Data And Results

Scenario 2: 'Base PM' (FG2: 'PM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	30	12	42
	B	63	0	603	666
	C	40	847	0	887
	Tot.	103	877	615	1595

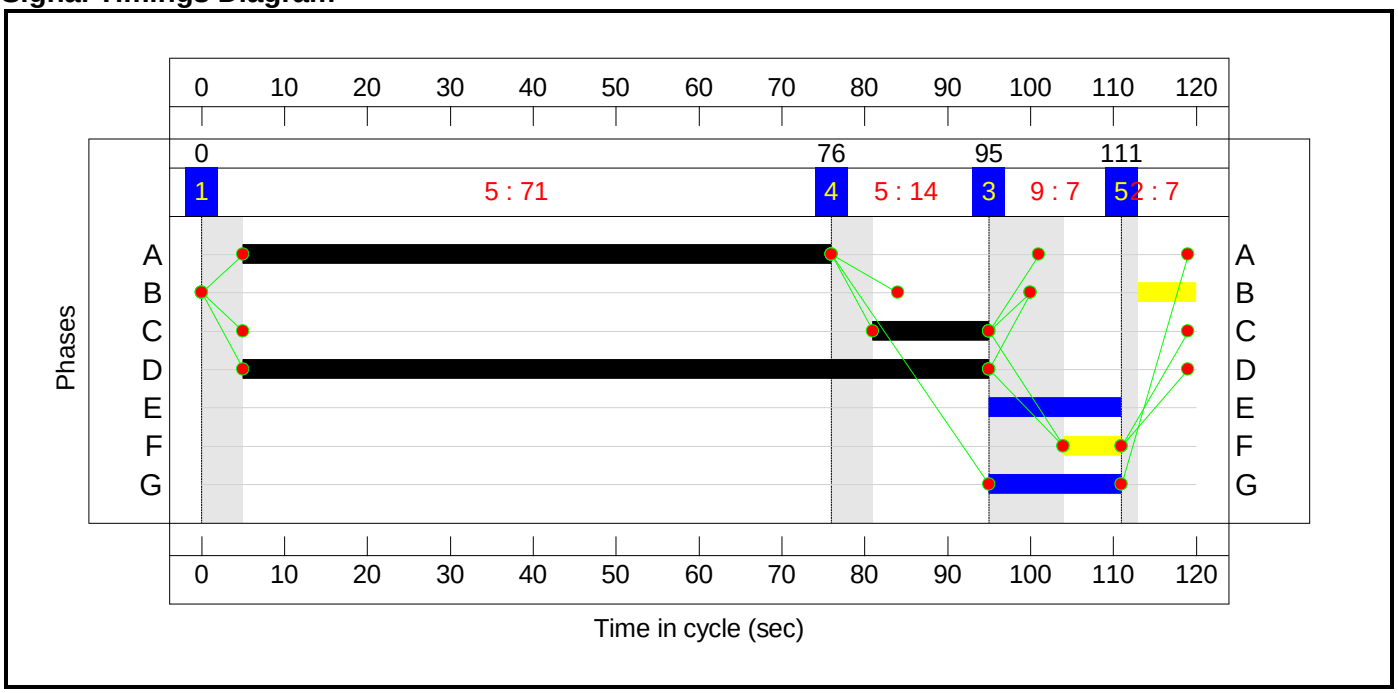
Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings

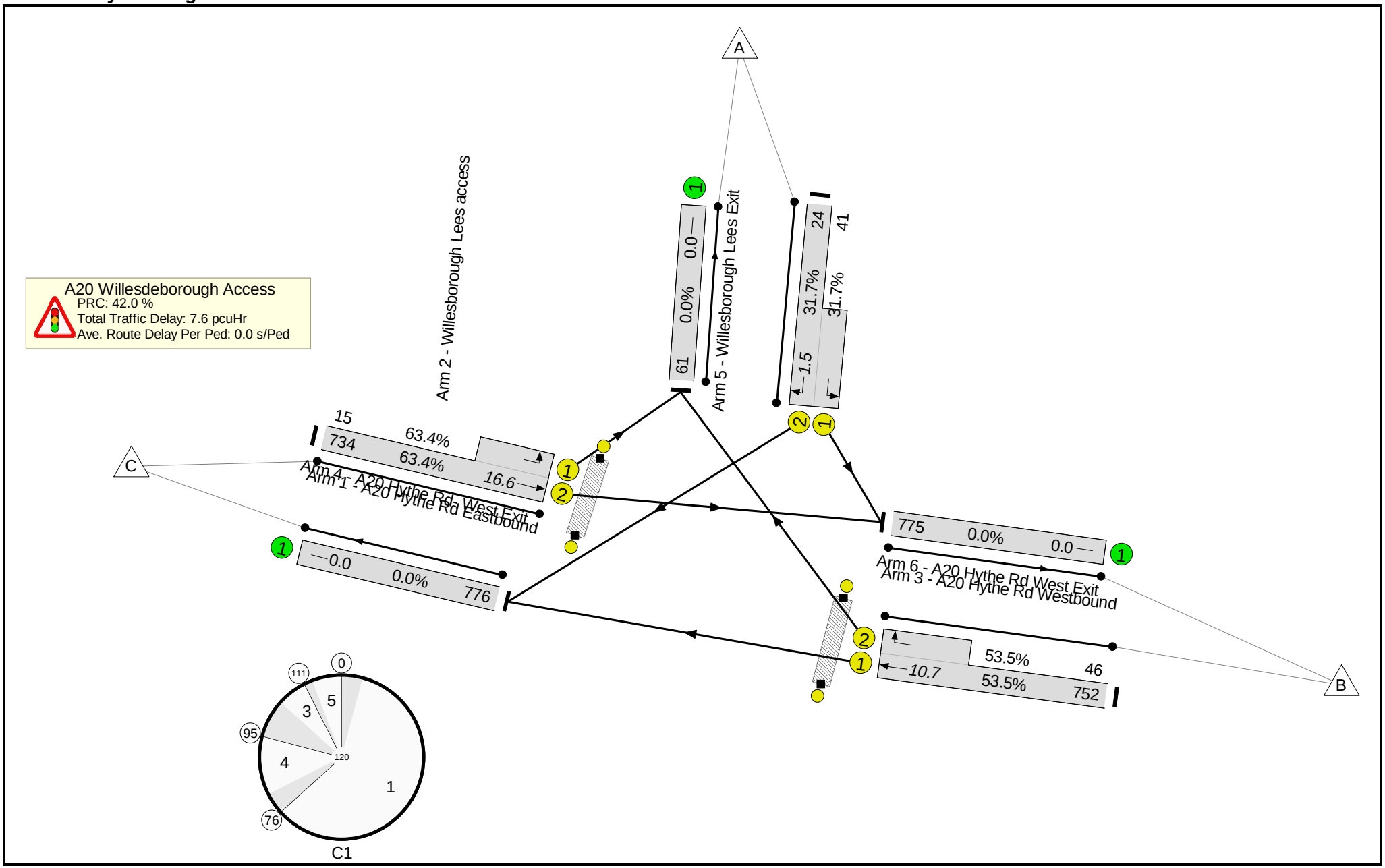
Stage	1	4	3	5
Duration	71	14	7	7
Change Point	0	76	95	111

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: A20 Hythe Rd/ Willesborough Lees access	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**63.4%**	**-**
A20 Willesdeborough Access	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**63.4%**	**-**
1/2+1/1	A20 Hythe Rd Eastbound Left Ahead	U	71	-	749	1940:1940	1158+24	63.4 : 63.4%	749
2/2+2/1	Willesborough Lees access Right Left	U	7	-	65	1940:1940	76+129	31.7 : 31.7%	65
3/1+3/2	A20 Hythe Rd Westbound Ahead Right	U	90:14	-	798	1940:1940	1405+86	53.5 : 53.5%	798
4/1	A20 Hythe Rd- West Exit	U	-	-	776	Inf	Inf	0.0%	776
5/1	Willesborough Lees Exit	U	-	-	61	Inf	Inf	0.0%	61
6/1	A20 Hythe Rd West Exit	U	-	-	775	Inf	Inf	0.0%	775
Ped Link: P1	Unnamed Ped Link	-	7	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	16	-	0	-	0	0.0%	0

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: A20 Hythe Rd/ Willesborough Lees access	**-**	**0**	**6.0**	**1.7**	**7.6**	**-**	**-**	**-**	**-**
A20 Willesdeborough Access	**-**	**0**	**6.0**	**1.7**	**7.6**	**-**	**-**	**-**	**-**
1/2+1/1	749	-	3.2	0.9	4.1	19.6	15.7	0.9	16.6
2/2+2/1	65	-	1.0	0.2	1.2	66.1	1.3	0.2	1.5
3/1+3/2	798	-	1.8	0.6	2.4	10.7	10.1	0.6	10.7
4/1	776	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	61	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	775	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	-	-	-	-	-
Ped Link: P2	0	-	-	-	-	-	-	-	-

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	42.0	Total Delay for Signalled Lanes (pcuHr):	7.64	Cycle Time (s):	120
	PRC Over All Lanes (%):	42.0	Total Delay Over All Lanes(pcuHr):	7.64		

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: A20 Hythe Rd/ Willesborough Lees access	-	-	-	-	-	-	-	**71.3%**	-
A20 Willesdeborough Access	-	-	-	-	-	-	-	**71.3%**	-
1/2+1/1	A20 Hythe Rd Eastbound Left Ahead	U	81	-	887	1940:1940	1188+56	71.3 : 71.3%	887
2/2+2/1	Willesborough Lees access Right Left	U	7	-	42	1940:1940	48+119	25.1 : 25.1%	42
3/1+3/2	A20 Hythe Rd Westbound Ahead Right	U	100:14	-	666	1940:1940	1388+145	43.5 : 43.5%	666
4/1	A20 Hythe Rd- West Exit	U	-	-	615	Inf	Inf	0.0%	615
5/1	Willesborough Lees Exit	U	-	-	103	Inf	Inf	0.0%	103
6/1	A20 Hythe Rd West Exit	U	-	-	877	Inf	Inf	0.0%	877
Ped Link: P1	Unnamed Ped Link	-	7	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	16	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: A20 Hythe Rd/ Willesborough Lees access	**-**	**0**	**6.3**	**1.8**	**8.0**	**-**	**-**	**-**	**-**
A20 Willesdeborough Access	**-**	**0**	**6.3**	**1.8**	**8.0**	**-**	**-**	**-**	**-**
1/2+1/1	887	-	3.9	1.2	5.1	20.7	20.7	1.2	22.0
2/2+2/1	42	-	0.7	0.2	0.8	72.4	1.0	0.2	1.2
3/1+3/2	666	-	1.7	0.4	2.1	11.3	7.0	0.4	7.4
4/1	615	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	103	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	877	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	-	-	-	-	-
Ped Link: P2	0	-	-	-	-	-	-	-	-

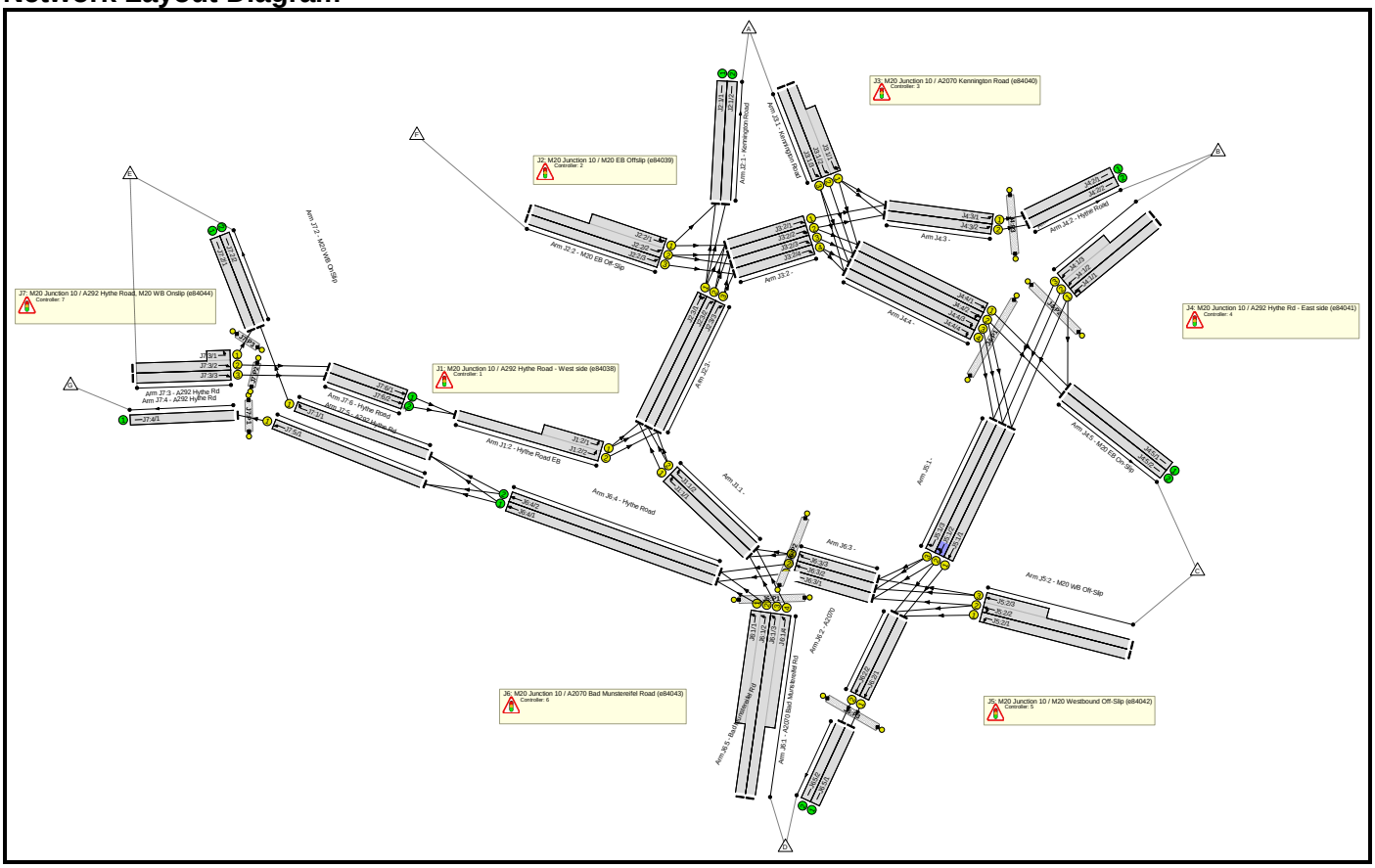
C1 PRC for Signalled Lanes (%): 26.2 Total Delay for Signalled Lanes (pcuHr): 8.04 Cycle Time (s): 130
PRC Over All Lanes (%): 26.2 Total Delay Over All Lanes(pcuHr): 8.04

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**J1 M20Junction 10**
Location:	
Additional detail:	
File name:	J1 M20 Junction 10 v3 2018.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Network Layout Diagram



C1 - e84038

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		3	3

Full Input Data And Results

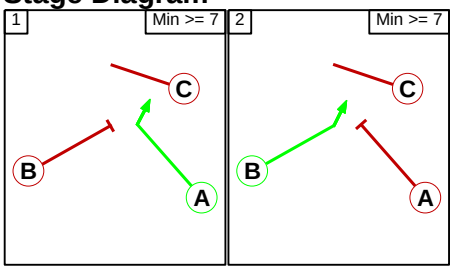
Phase Intergreens Matrix

Terminating Phase	Starting Phase			
		A	B	C
A			6	3
B	6			3
C	2	2		

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

C2 - e84039

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		3	3

Phase Intergreens Matrix

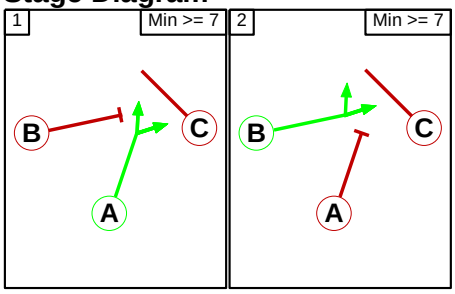
Terminating Phase	Starting Phase			
		A	B	C
A			6	3
B	7			3
C	2	2		

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Full Input Data And Results

Stage Diagram



Phase Delays

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

C3 - e84040

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		3	3

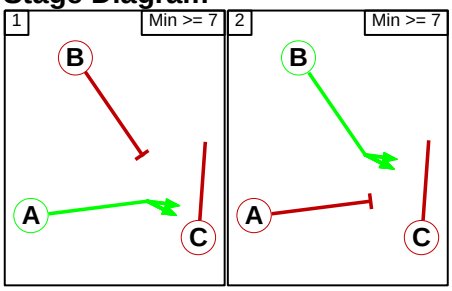
Phase Intergreens Matrix

	Starting Phase			
Terminating Phase		A	B	C
	A		6	3
	B	7		3
	C	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

Full Input Data And Results

C4 - e84041

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	1
B	Traffic	1		7	0
C	Pedestrian	1		7	7
D	Pedestrian	1		7	7
E	Traffic	2		7	7
F	Pedestrian	2		6	6
G	Dummy	1		3	3
H	Dummy	2		3	3

Phase Intergreens Matrix

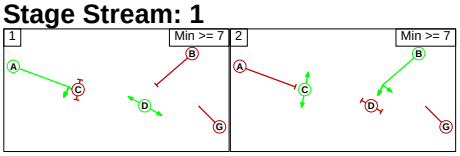
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H
A		6	6	-	-	-	3	-
B	7		-	7	-	-	3	-
C	14	-		-	-	-	3	-
D	-	12	-		-	-	3	-
E	-	-	-	-		5	-	3
F	-	-	-	-	9		-	3
G	2	2	-	-	-	-		-
H	-	-	-	-	2	2	-	

Phases in Stage

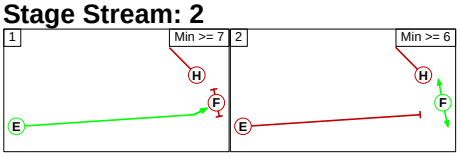
Stream	Stage No.	Phases in Stage
1	1	A D
1	2	B C
2	1	E
2	2	F

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
1	2	A	Losing	6	6
2	1	B	Losing	7	7

Stage Stream: 2

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

C5 - e84042

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		3	3

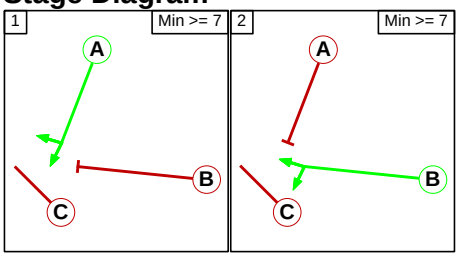
Phase Intergreens Matrix

		Starting Phase		
		A	B	C
Terminating Phase	A		6	3
	B	7		3
	C	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

Full Input Data And Results

C6 - e84043

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	0
B	Traffic	1		7	0
C	Pedestrian	1		7	7
D	Pedestrian	1		7	7
E	Traffic	2		7	7
F	Pedestrian	2		6	6
G	Dummy	1		3	3
H	Dummy	2		3	3

Phase Intergreens Matrix

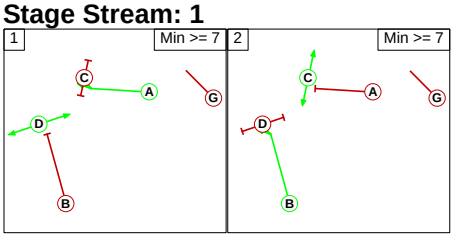
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H
A		7	7	-	-	-	3	-
B	7		-	7	-	-	3	-
C	12	-		-	-	-	3	-
D	-	14	-		-	-	3	-
E	-	-	-	-		5	-	3
F	-	-	-	-	10		-	3
G	2	2	-	-	-	-		-
H	-	-	-	-	2	2	-	

Phases in Stage

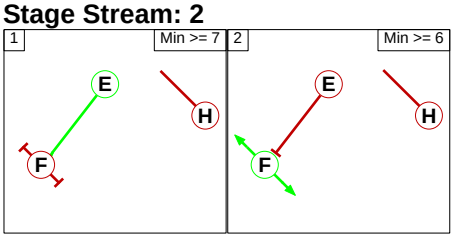
Stream	Stage No.	Phases in Stage
1	1	A D
1	2	B C
2	1	E
2	2	F

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
1	2	A	Losing	7	7
2	1	B	Losing	7	7

Stage Stream: 2

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

C7 - e84044

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	Pedestrian		5	5
E	Pedestrian		5	5
F	Pedestrian		5	5
G	Dummy		3	3

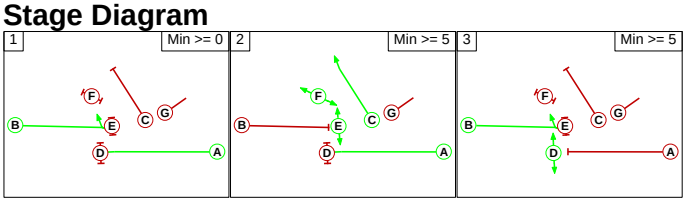
Phase Intergreens Matrix

		Starting Phase						
		A	B	C	D	E	F	G
Terminating Phase	A		-	-	7	-	-	3
	B	-		5	-	5	5	3
	C	-	7		-	-	-	3
	D	7	-	-		-	-	3
	E	-	7	-	-		-	3
	F	-	7	-	-	-		3
	G	2	2	2	2	2	2	

Phases in Stage

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

Stage Diagram



Full Input Data And Results

Phase Delays

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

Traffic Flows, Desired

Scenario 1: 'Base AM ' (FG1: 'AM Peak 2018', Plan 1: 'Network Control Plan 1')
Desired Flow :

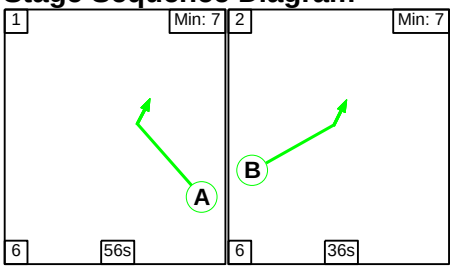
		Destination							
		A	B	C	D	E	F	G	Tot.
Origin	A	0	33	57	102	196	0	12	400
	B	57	0	79	274	460	0	34	904
	C	190	30	0	568	0	0	240	1028
	D	265	236	429	0	475	0	44	1449
	E	57	101	143	38	360	0	0	699
	F	216	273	0	683	0	0	43	1215
	G	0	0	0	0	0	0	0	0
	Tot.	785	673	708	1665	1491	0	373	5695

Scenario 2: 'Base PM' (FG2: 'PM Peak 2018', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination							
		A	B	C	D	E	F	G	Tot.
Origin	A	0	82	136	167	207	0	47	639
	B	60	0	92	272	303	0	76	803
	C	73	22	0	538	0	0	121	754
	D	177	269	533	0	562	0	176	1717
	E	31	168	143	55	261	0	0	658
	F	119	326	0	883	0	0	154	1482
	G	0	0	0	0	0	0	0	0
	Tot.	460	867	904	1915	1333	0	574	6053

Scenario 1: 'Base AM ' (FG1: 'AM Peak 2018', Plan 1: 'Network Control Plan 1')
C1 - e84038

Stage Sequence Diagram

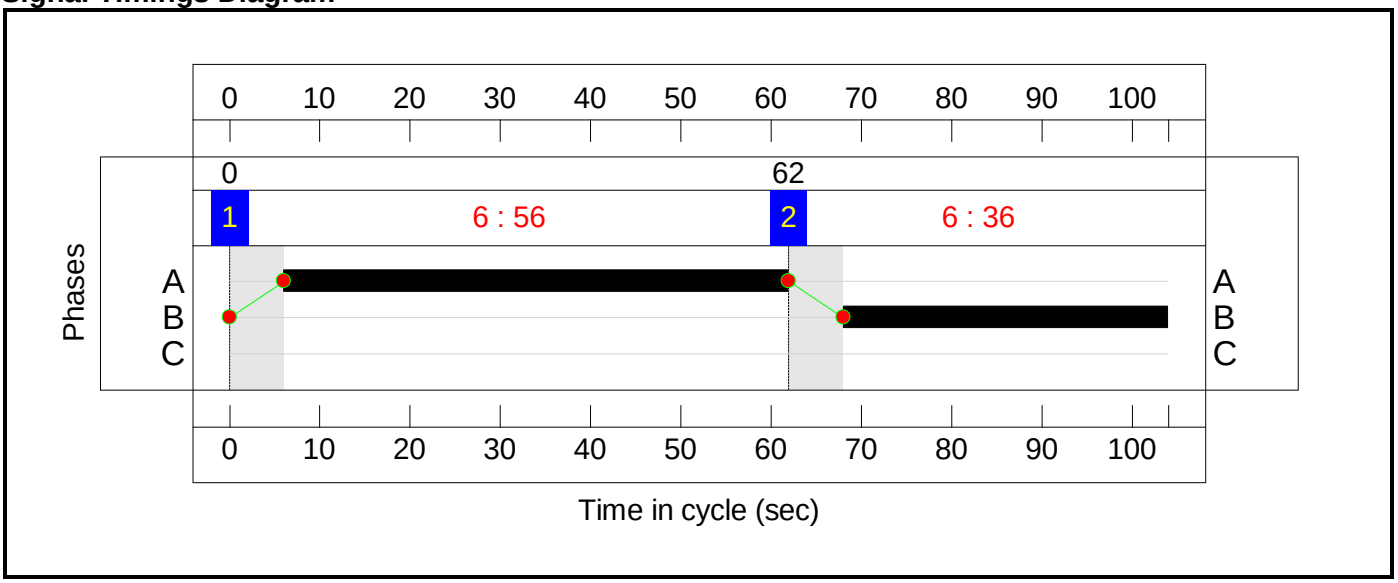


Stage Timings

Stage	1	2
Duration	56	36
Change Point	0	62

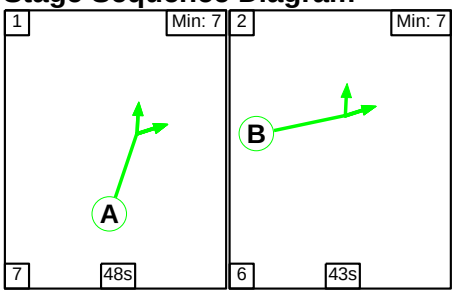
Full Input Data And Results

Signal Timings Diagram



C2 - e84039

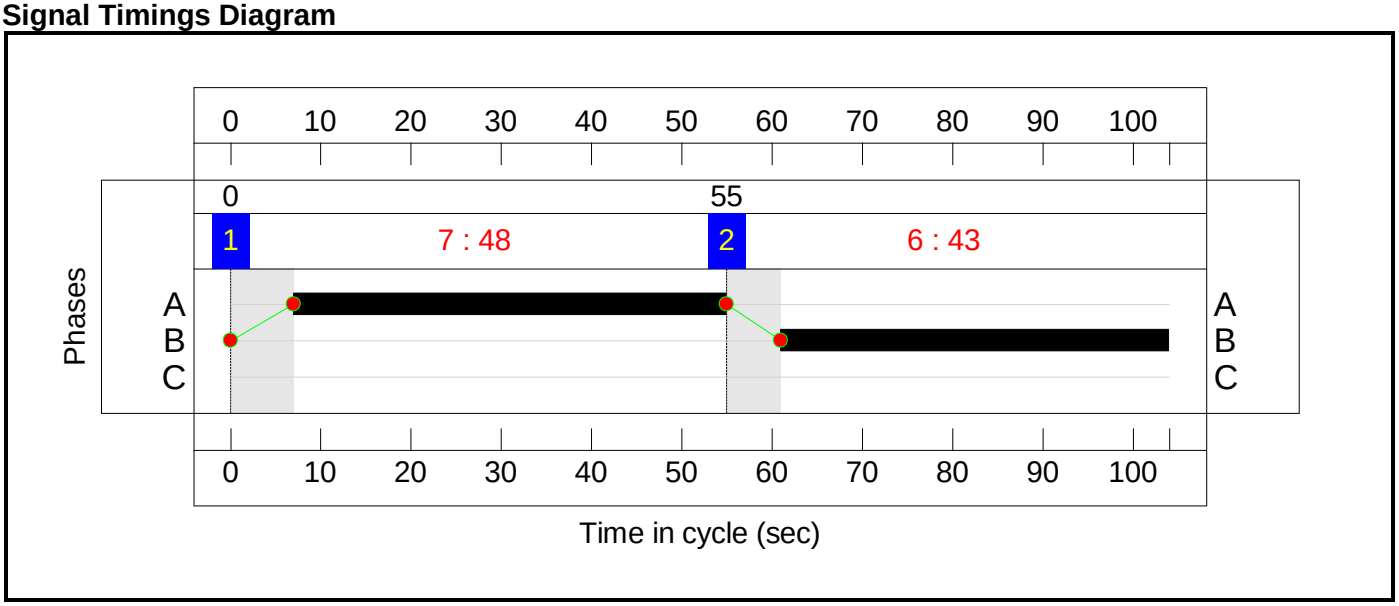
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	48	43
Change Point	0	55

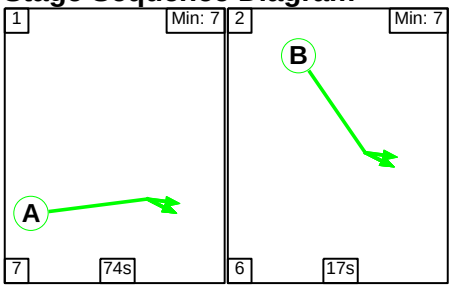
Signal Timings Diagram



Full Input Data And Results

C3 - e84040

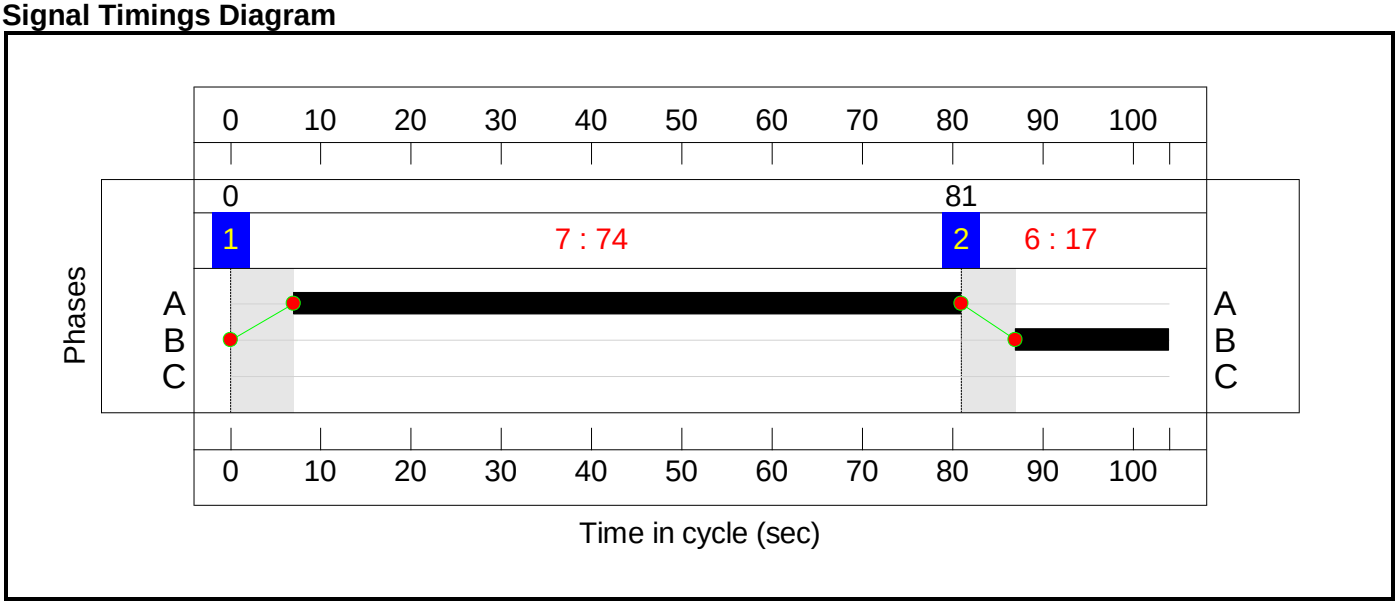
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	74	17
Change Point	0	81

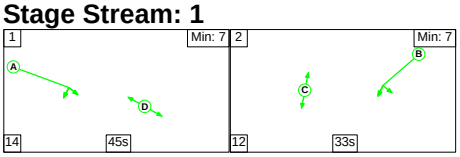
Signal Timings Diagram



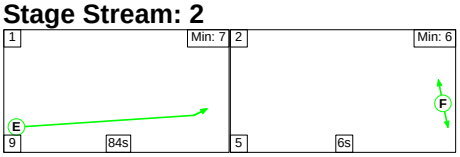
C4 - e84041

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

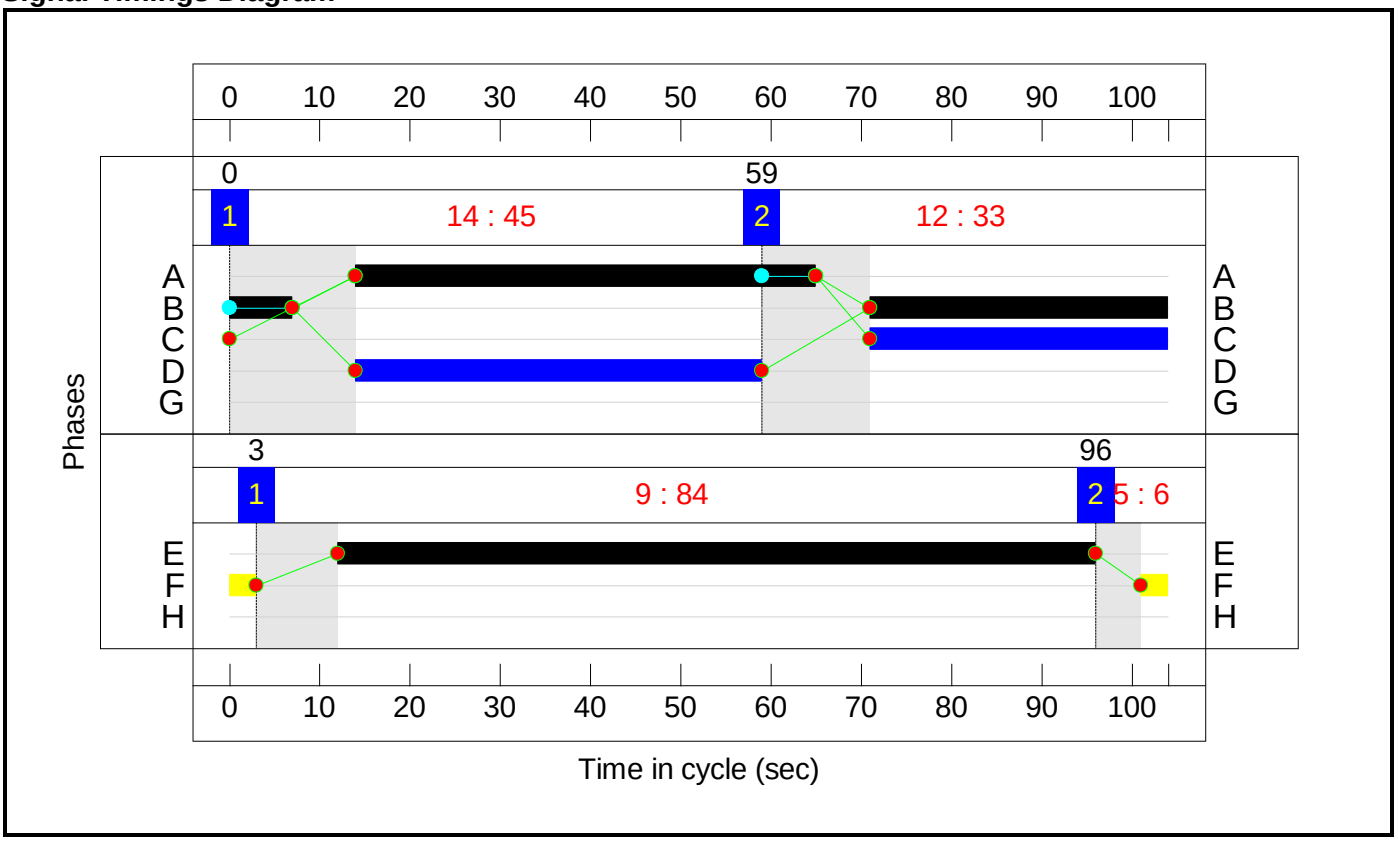
Stage	1	2
Duration	45	33
Change Point	0	59

Full Input Data And Results

Stage Stream: 2

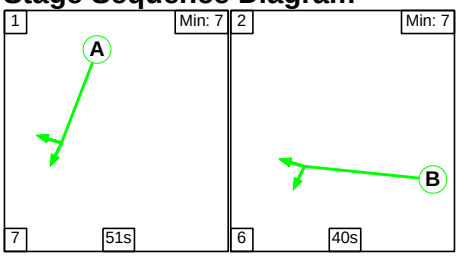
Stage	1	2
Duration	84	6
Change Point	3	96

Signal Timings Diagram



C5 - e84042

Stage Sequence Diagram

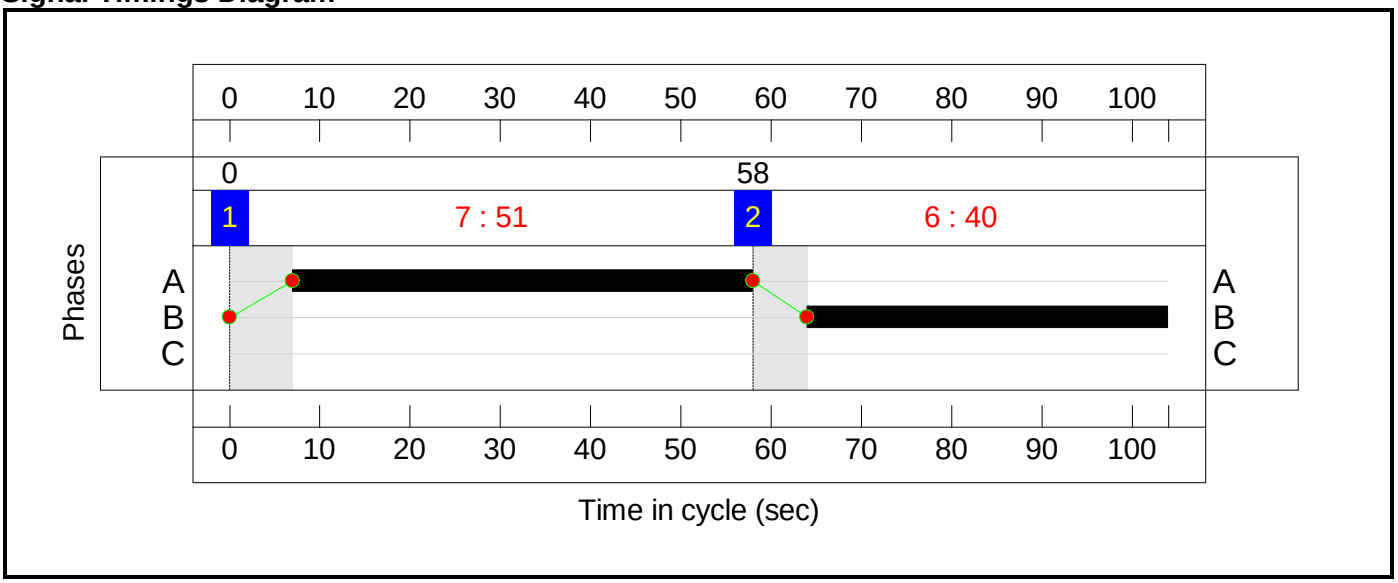


Stage Timings

Stage	1	2
Duration	51	40
Change Point	0	58

Full Input Data And Results

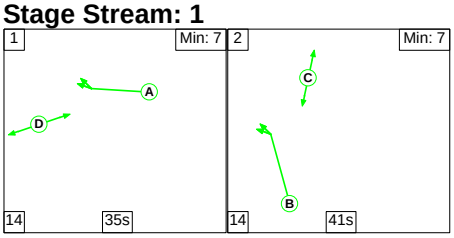
Signal Timings Diagram



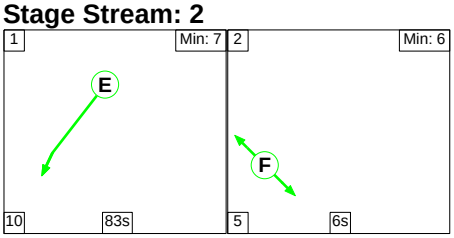
C6 - e84043

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

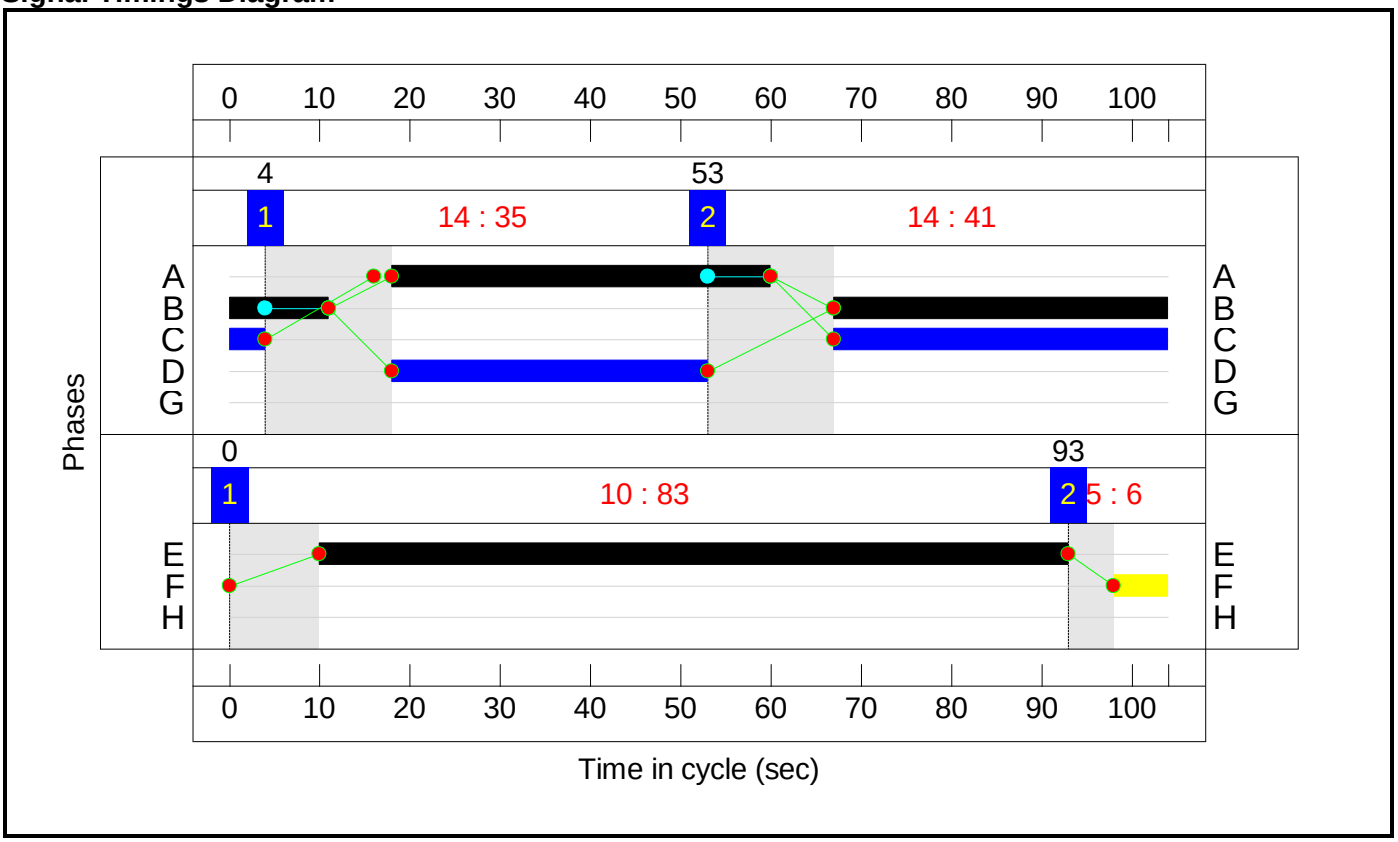
Stage	1	2
Duration	35	41
Change Point	4	53

Stage Stream: 2

Stage	1	2
Duration	83	6
Change Point	0	93

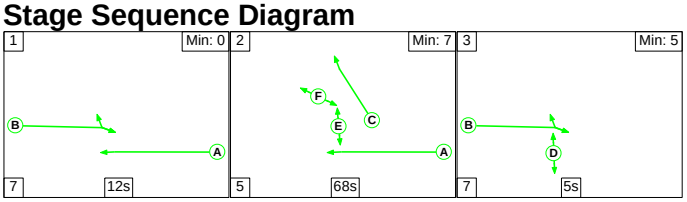
Full Input Data And Results

Signal Timings Diagram



C7 - e84044

Stage Sequence Diagram

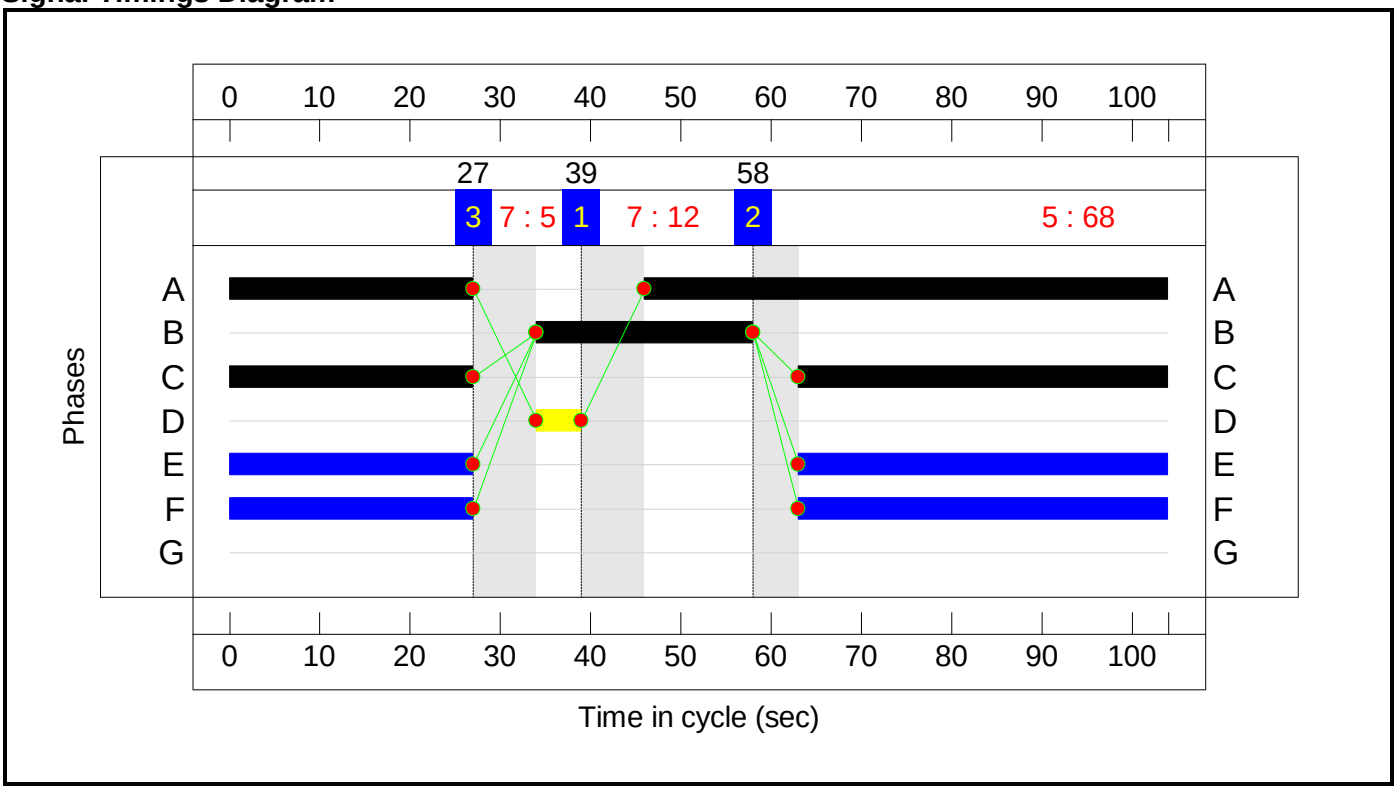


Stage Timings

Stage	1	2	3
Duration	12	68	5
Change Point	39	58	27

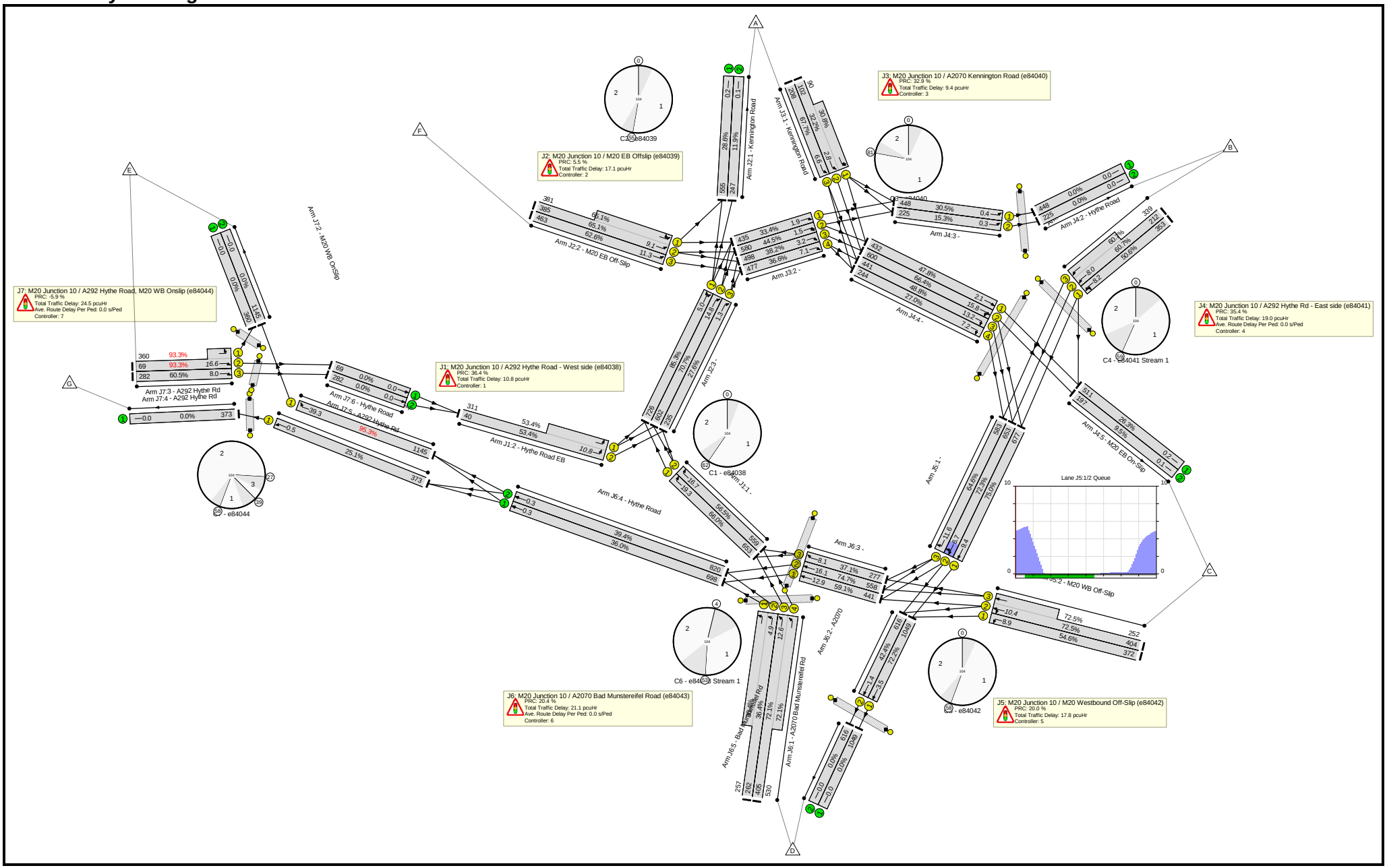
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Network Results

Scenario 1: 'Base AM ' (FG1: 'AM Peak 2018', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J1 M20Junction 10	-	-	-	-	-	-	-	**95.3%**	-
J1: M20 Junction 10 / A292 Hythe Road - West side (e84038)	-	-	-	-	-	-	-	**66.0%**	-
1/1	Right	U	56	-	653	1806	990	66.0%	653
1/2	Right	U	56	-	559	1806	990	56.5%	559
2/2+2/1	Hythe Road EB Left	U	36	-	351	1767:1737	75+583	53.4 : 53.4%	351
J2: M20 Junction 10 / M20 EB Offslip (e84039)	-	-	-	-	-	-	-	**85.3%**	-
1/1	Kennington Road	U	-	-	555	1940	1940	28.6%	555
1/2	Kennington Road	U	-	-	247	2080	2080	11.9%	247
2/2+2/1	M20 EB Off-Slip Ahead Left	U	43	-	766	1804:1796	591+585	65.1 : 65.1%	766
2/3	M20 EB Off-Slip Ahead	U	43	-	463	1747	739	62.6%	463
3/1	Right Ahead	U	48	-	726	1806	851	85.3%	726
3/2	Right	U	48	-	602	1806	851	70.7%	602
3/3	Right	U	48	-	235	1806	851	27.6%	235
J3: M20 Junction 10 / A2070 Kennington Road (e84040)	-	-	-	-	-	-	-	**67.7%**	-
1/2+1/1	Kennington Road Left Ahead	U	17	-	192	1828:1762	316+292	32.2 : 30.8%	192
1/3	Kennington Road Ahead	U	17	-	208	1775	307	67.7%	208
2/1	Ahead	U	74	-	435	1806	1302	33.4%	435
2/2	Ahead Ahead2	U	74	-	580	1806	1302	44.5%	580
2/3	Ahead	U	74	-	498	1806	1302	38.2%	498
2/4	Ahead	U	74	-	477	1806	1302	36.6%	477
J4: M20 Junction 10 / A292 Hythe Rd - East side (e84041)	-	-	-	-	-	-	-	**66.4%**	-

Full Input Data And Results

1/1	Hythe Road SB Ahead Left	U	40	-	353	1768	697	50.6%	353
1/2+1/3	Hythe Road SB Ahead	U	40	-	551	1841:1796	349+558	60.7 : 60.7%	551
2/1	Hythe Road	U	-	-	448	Inf	Inf	0.0%	448
2/2	Hythe Road	U	-	-	225	Inf	Inf	0.0%	225
3/1	Ahead	U	84	-	448	1800	1471	30.5%	448
3/2	Ahead	U	84	-	225	1800	1471	15.3%	225
4/1	Ahead	U	51	-	432	1806	903	47.8%	432
4/2	Right Ahead	U	51	-	600	1806	903	66.4%	600
4/3	Right	U	51	-	441	1806	903	48.8%	441
4/4	Right	U	51	-	244	1806	903	27.0%	244
5/1	M20 EB On-Slip	U	-	-	511	1940	1940	26.3%	511
5/2	M20 EB On-Slip	U	-	-	197	2080	2080	9.5%	197
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J5: M20 Junction 10 / M20 Westbound Off-Slip (e84042)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**75.0%**	**-**
1/1	Ahead	U	51	-	677	1806	903	75.0%	677
1/2	Ahead Right	U	51	-	653	1806	903	72.3%	653
1/3	Right	U	51	-	583	1806	903	64.6%	583
2/1	M20 WB Off-Slip Left	U	40	-	372	1729	682	54.6%	372
2/2+2/3	M20 WB Off-Slip Left Ahead	U	40	-	656	1751:1784	557+347	72.5 : 72.5%	656
J6: M20 Junction 10 / A2070 Bad Munstereifel Road (e84043)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.7%**	**-**
1/2+1/1	A2070 Bad Munstereifel Rd Left	U	48	-	519	1798:1798	719+706	36.4 : 36.4%	519
1/3+1/4	A2070 Bad Munstereifel Rd Left	U	48	-	935	1798:1798	562+735	72.1 : 72.1%	935
2/1	A2070 Ahead	U	83	-	1049	1800	1454	72.2%	1049

Full Input Data And Results

2/2	A2070 Ahead	U	83	-	616	1800	1454	42.4%	616
3/1	Ahead	U	42	-	441	1806	747	59.1%	441
3/2	Ahead	U	42	-	558	1806	747	74.7%	558
3/3	Ahead	U	42	-	277	1806	747	37.1%	277
4/1	Hythe Road Ahead Ahead2	U	-	-	698	1940	1940	36.0%	698
4/2	Hythe Road Ahead Ahead2	U	-	-	820	2080	2080	39.4%	820
5/1	Bad Munstereifel Rd	U	-	-	1049	Inf	Inf	0.0%	1049
5/2	Bad Munstereifel Rd	U	-	-	616	Inf	Inf	0.0%	616
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J7: M20 Junction 10 / A292 Hythe Road, M20 WB Onslip (e84044)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**95.3%**	**-**
1/1	M20 WB OnSlip Right	U	68	-	1145	1811	1202	95.3%	1145
2/1	M20 WB OnSlip	U	-	-	360	Inf	Inf	0.0%	360
2/2	M20 WB OnSlip	U	-	-	1145	Inf	Inf	0.0%	1145
3/2+3/1	A292 Hythe Rd Left Ahead	U	24	-	429	1940:1741	74+386	93.3 : 93.3%	429
3/3	A292 Hythe Rd Ahead	U	24	-	282	1940	466	60.5%	282
4/1	A292 Hythe Rd	U	-	-	373	Inf	Inf	0.0%	373
5/1	A292 Hythe Rd Ahead	U	85	-	373	1800	1488	25.1%	373
6/1	Hythe Road Ahead	U	-	-	69	Inf	Inf	0.0%	69
6/2	Hythe Road Ahead	U	-	-	282	Inf	Inf	0.0%	282
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J1 M20Junction 10	**-**	**0**	**78.9**	**40.7**	**119.7**	**-**	**-**	**-**	**-**
J1: M20 Junction 10 / A292 Hythe Road - West side (e84038)	**-**	**0**	**8.6**	**2.2**	**10.8**	**-**	**-**	**-**	**-**
1/1	653	-	3.6	1.0	4.6	25.3	18.4	1.0	19.3
1/2	559	-	4.8	0.6	5.5	35.3	16.1	0.6	16.7
2/2+2/1	351	-	0.1	0.6	0.7	7.1	10.2	0.6	10.8
J2: M20 Junction 10 / M20 EB Offslip (e84039)	**-**	**0**	**10.9**	**6.2**	**17.1**	**-**	**-**	**-**	**-**
1/1	555	-	0.0	0.2	0.2	1.3	0.0	0.2	0.2
1/2	247	-	0.0	0.1	0.1	1.0	0.0	0.1	0.1
2/2+2/1	766	-	4.7	0.9	5.6	26.4	8.1	0.9	9.1
2/3	463	-	3.0	0.8	3.9	30.0	10.4	0.8	11.3
3/1	726	-	0.5	2.8	3.3	16.5	2.2	2.8	5.0
3/2	602	-	2.3	1.2	3.5	21.2	13.6	1.2	14.8
3/3	235	-	0.3	0.2	0.5	7.3	1.2	0.2	1.3
J3: M20 Junction 10 / A2070 Kennington Road (e84040)	**-**	**0**	**6.9**	**2.5**	**9.4**	**-**	**-**	**-**	**-**
1/2+1/1	192	-	2.0	0.2	2.2	41.9	2.6	0.2	2.8
1/3	208	-	2.3	1.0	3.4	58.1	5.6	1.0	6.6
2/1	435	-	0.3	0.3	0.5	4.5	1.7	0.3	1.9
2/2	580	-	0.2	0.4	0.6	3.7	1.1	0.4	1.5
2/3	498	-	0.5	0.3	0.8	6.1	2.9	0.3	3.2
2/4	477	-	1.6	0.3	1.9	14.0	6.8	0.3	7.1
J4: M20 Junction 10 / A292 Hythe Rd - East side (e84041)	**-**	**0**	**15.1**	**3.9**	**19.0**	**-**	**-**	**-**	**-**
1/1	353	-	2.3	0.5	2.8	29.1	7.6	0.5	8.2
1/2+1/3	551	-	3.5	0.8	4.3	27.8	7.3	0.8	8.0
2/1	448	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/2	225	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

3/1	448	-	0.0	0.2	0.2	1.9	0.1	0.2	0.4
3/2	225	-	0.0	0.1	0.1	2.0	0.2	0.1	0.3
4/1	432	-	0.4	0.5	0.8	6.8	1.7	0.5	2.1
4/2	600	-	3.8	1.0	4.8	28.5	14.8	1.0	15.8
4/3	441	-	3.4	0.5	3.9	31.7	12.7	0.5	13.2
4/4	244	-	1.7	0.2	1.8	27.3	7.0	0.2	7.2
5/1	511	-	0.0	0.2	0.2	1.3	0.0	0.2	0.2
5/2	197	-	0.0	0.1	0.1	1.0	0.0	0.1	0.1
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf
J5: M20 Junction 10 / M20 Westbound Off-Slip (e84042)	**-**	**0**	**12.2**	**5.6**	**17.8**	**-**	**-**	**-**	**-**
1/1	677	-	1.7	1.5	3.2	16.9	7.9	1.5	9.4
1/2	653	-	1.4	1.3	2.7	14.8	5.4	1.3	6.7
1/3	583	-	2.3	0.9	3.2	19.5	10.7	0.9	11.6
2/1	372	-	2.5	0.6	3.1	30.1	8.3	0.6	8.9
2/2+2/3	656	-	4.3	1.3	5.6	31.0	9.1	1.3	10.4
J6: M20 Junction 10 / A2070 Bad Munstereifel Road (e84043)	**-**	**0**	**14.8**	**6.3**	**21.1**	**-**	**-**	**-**	**-**
1/2+1/1	519	-	2.5	0.3	2.7	19.0	4.7	0.3	4.9
1/3+1/4	935	-	5.1	1.3	6.4	24.8	11.3	1.3	12.6
2/1	1049	-	0.2	1.3	1.5	5.3	2.2	1.3	3.5
2/2	616	-	0.1	0.4	0.5	2.9	1.1	0.4	1.4
3/1	441	-	3.3	0.7	4.0	32.8	12.1	0.7	12.9
3/2	558	-	0.7	1.5	2.2	13.9	14.6	1.5	16.1
3/3	277	-	2.9	0.3	3.2	41.1	7.8	0.3	8.1
4/1	698	-	0.0	0.3	0.3	1.4	0.0	0.3	0.3
4/2	820	-	0.0	0.3	0.3	1.4	0.0	0.3	0.3
5/1	1049	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/2	616	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf
J7: M20 Junction 10 / A292 Hythe Road, M20 WB Onslip (e84044)	**-**	**0**	**10.4**	**14.0**	**24.5**	**-**	**-**	**-**	**-**
1/1	1145	-	3.1	7.9	11.1	34.7	31.4	7.9	39.3
2/1	360	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/2	1145	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/2+3/1	429	-	4.5	5.2	9.7	81.5	11.4	5.2	16.6
3/3	282	-	2.8	0.8	3.5	44.8	7.2	0.8	8.0
4/1	373	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	373	-	0.0	0.2	0.2	1.9	0.3	0.2	0.5
6/1	69	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/2	282	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf

C1 - e84038		PRC for Signalled Lanes (%):	36.4	Total Delay for Signalled Lanes (pcuHr):	10.76	Cycle Time (s):	104
C2 - e84039		PRC for Signalled Lanes (%):	5.5	Total Delay for Signalled Lanes (pcuHr):	16.81	Cycle Time (s):	104
C3 - e84040		PRC for Signalled Lanes (%):	32.9	Total Delay for Signalled Lanes (pcuHr):	9.43	Cycle Time (s):	104
C4 - e84041	Stream: 1	PRC for Signalled Lanes (%):	35.4	Total Delay for Signalled Lanes (pcuHr):	18.40	Cycle Time (s):	104
C4 - e84041	Stream: 2	PRC for Signalled Lanes (%):	195.5	Total Delay for Signalled Lanes (pcuHr):	0.36	Cycle Time (s):	104
C5 - e84042		PRC for Signalled Lanes (%):	20.0	Total Delay for Signalled Lanes (pcuHr):	17.78	Cycle Time (s):	104
C6 - e84043	Stream: 1	PRC for Signalled Lanes (%):	20.4	Total Delay for Signalled Lanes (pcuHr):	18.50	Cycle Time (s):	104
C6 - e84043	Stream: 2	PRC for Signalled Lanes (%):	24.7	Total Delay for Signalled Lanes (pcuHr):	2.02	Cycle Time (s):	104
C7 - e84044		PRC for Signalled Lanes (%):	-5.9	Total Delay for Signalled Lanes (pcuHr):	24.48	Cycle Time (s):	104
		PRC Over All Lanes (%):	-5.9	Total Delay Over All Lanes(pcuHr):	119.66		

Full Input Data And Results

Scenario 2: 'Base PM' (FG2: 'PM Peak 2018', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J1 M20Junction 10	-	-	-	-	-	-	-	**86.7%**	-
J1: M20 Junction 10 / A292 Hythe Road - West side (e84038)	-	-	-	-	-	-	-	**63.1%**	-
1/1	Right	U	58	-	598	1806	1025	58.4%	598
1/2	Right	U	58	-	539	1806	1025	52.6%	539
2/2+2/1	Hythe Road EB Left	U	34	-	401	1767:1737	89+546	63.1 : 63.1%	401
J2: M20 Junction 10 / M20 EB Offslip (e84039)	-	-	-	-	-	-	-	**82.0%**	-
1/1	Kennington Road	U	-	-	334	1940	1940	17.2%	334
1/2	Kennington Road	U	-	-	133	2080	2080	6.4%	133
2/2+2/1	M20 EB Off-Slip Ahead Left	U	42	-	894	1804:1796	600+490	82.0 : 82.0%	894
2/3	M20 EB Off-Slip Ahead	U	42	-	588	1747	722	81.4%	588
3/1	Right Ahead	U	49	-	694	1806	868	79.9%	694
3/2	Right	U	49	-	622	1806	868	71.6%	622
3/3	Right	U	49	-	222	1806	868	25.6%	222
J3: M20 Junction 10 / A2070 Kennington Road (e84040)	-	-	-	-	-	-	-	**70.9%**	-
1/2+1/1	Kennington Road Left Ahead	U	20	-	385	1828:1762	273+356	61.3 : 61.3%	385
1/3	Kennington Road Ahead	U	20	-	254	1775	358	70.9%	254
2/1	Ahead	U	71	-	653	1806	1250	52.2%	653
2/2	Ahead Ahead2	U	71	-	641	1806	1250	51.3%	641
2/3	Ahead	U	71	-	624	1806	1250	49.9%	624
2/4	Ahead	U	71	-	635	1806	1250	50.8%	635
J4: M20 Junction 10 / A292 Hythe Rd - East side (e84041)	-	-	-	-	-	-	-	**76.4%**	-
1/1	Hythe Road SB Ahead Left	U	24	-	257	1768	425	60.5%	257

Full Input Data And Results

1/2+1/3	Hythe Road SB Ahead	U	24	-	546	1841:1796	339+376	76.4 : 76.4%	546
2/1	Hythe Road	U	-	-	653	Inf	Inf	0.0%	653
2/2	Hythe Road	U	-	-	214	Inf	Inf	0.0%	214
3/1	Ahead	U	84	-	653	1800	1471	44.4%	653
3/2	Ahead	U	84	-	214	1800	1471	14.5%	214
4/1	Ahead	U	67	-	645	1806	1181	54.6%	645
4/2	Right Ahead	U	67	-	791	1806	1181	67.0%	791
4/3	Right	U	67	-	592	1806	1181	50.1%	592
4/4	Right	U	67	-	297	1806	1181	25.2%	297
5/1	M20 EB On-Slip	U	-	-	737	1940	1940	38.0%	737
5/2	M20 EB On-Slip	U	-	-	167	2080	2080	8.0%	167
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J5: M20 Junction 10 / M20 Westbound Off-Slip (e84042)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**78.9%**	**-**
1/1	Ahead	U	65	-	789	1806	1146	68.8%	789
1/2	Ahead Right	U	65	-	851	1806	1146	74.3%	851
1/3	Right	U	65	-	584	1806	1146	51.0%	584
2/1	M20 WB Off-Slip Left	U	26	-	306	1729	449	68.2%	306
2/2+2/3	M20 WB Off-Slip Left Ahead	U	26	-	448	1751:1784	427+141	78.9 : 78.9%	448
J6: M20 Junction 10 / A2070 Bad Munstereifel Road (e84043)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**75.3%**	**-**
1/2+1/1	A2070 Bad Munstereifel Rd Left	U	49	-	738	1798:1798	723+727	50.9 : 50.9%	738
1/3+1/4	A2070 Bad Munstereifel Rd Left	U	49	-	982	1798:1798	611+740	72.7 : 72.7%	982
2/1	A2070 Ahead	U	83	-	1095	1800	1454	75.3%	1095
2/2	A2070 Ahead	U	83	-	820	1800	1454	56.4%	820
3/1	Ahead	U	41	-	368	1806	729	50.5%	368

Full Input Data And Results

3/2	Ahead	U	41	-	540	1806	729	74.0%	540
3/3	Ahead	U	41	-	155	1806	729	21.3%	155
4/1	Hythe Road Ahead Ahead2	U	-	-	738	1940	1940	38.0%	738
4/2	Hythe Road Ahead Ahead2	U	-	-	908	2080	2080	43.7%	908
5/1	Bad Munstereifel Rd	U	-	-	1095	Inf	Inf	0.0%	1095
5/2	Bad Munstereifel Rd	U	-	-	820	Inf	Inf	0.0%	820
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J7: M20 Junction 10 / A292 Hythe Road, M20 WB Onslip (e84044)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**86.7%**	**-**
1/1	M20 WB OnSlip Right	U	70	-	1072	1811	1236	86.7%	1072
2/1	M20 WB OnSlip	U	-	-	261	Inf	Inf	0.0%	261
2/2	M20 WB OnSlip	U	-	-	1072	Inf	Inf	0.0%	1072
3/2+3/1	A292 Hythe Rd Left Ahead	U	22	-	342	1940:1741	105+338	77.2 : 77.2%	342
3/3	A292 Hythe Rd Ahead	U	22	-	320	1940	429	74.6%	320
4/1	A292 Hythe Rd	U	-	-	574	Inf	Inf	0.0%	574
5/1	A292 Hythe Rd Ahead	U	85	-	574	1800	1488	38.6%	574
6/1	Hythe Road Ahead	U	-	-	81	Inf	Inf	0.0%	81
6/2	Hythe Road Ahead	U	-	-	320	Inf	Inf	0.0%	320
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J1 M20Junction 10	**-**	**0**	**85.4**	**38.7**	**124.1**	**-**	**-**	**-**	**-**
J1: M20 Junction 10 / A292 Hythe Road - West side (e84038)	**-**	**0**	**10.7**	**2.1**	**12.8**	**-**	**-**	**-**	**-**
1/1	598	-	4.8	0.7	5.5	33.0	17.0	0.7	17.7
1/2	539	-	5.6	0.6	6.1	41.0	15.6	0.6	16.1
2/2+2/1	401	-	0.3	0.9	1.2	10.8	15.1	0.9	15.9
J2: M20 Junction 10 / M20 EB Offslip (e84039)	**-**	**0**	**13.4**	**7.9**	**21.2**	**-**	**-**	**-**	**-**
1/1	334	-	0.0	0.1	0.1	1.1	0.0	0.1	0.1
1/2	133	-	0.0	0.0	0.0	0.9	0.0	0.0	0.0
2/2+2/1	894	-	5.9	2.2	8.2	32.9	11.3	2.2	13.6
2/3	588	-	4.4	2.1	6.5	40.0	14.9	2.1	17.0
3/1	694	-	0.6	1.9	2.5	13.1	4.1	1.9	6.0
3/2	622	-	2.1	1.3	3.4	19.7	16.6	1.3	17.9
3/3	222	-	0.3	0.2	0.5	7.7	1.6	0.2	1.8
J3: M20 Junction 10 / A2070 Kennington Road (e84040)	**-**	**0**	**14.2**	**4.1**	**18.2**	**-**	**-**	**-**	**-**
1/2+1/1	385	-	4.0	0.8	4.8	44.6	5.7	0.8	6.5
1/3	254	-	2.7	1.2	3.9	55.5	6.8	1.2	8.0
2/1	653	-	1.2	0.5	1.7	9.4	7.5	0.5	8.1
2/2	641	-	0.2	0.5	0.7	3.9	0.8	0.5	1.3
2/3	624	-	2.3	0.5	2.8	16.4	9.6	0.5	10.1
2/4	635	-	3.8	0.5	4.3	24.4	13.4	0.5	13.9
J4: M20 Junction 10 / A292 Hythe Rd - East side (e84041)	**-**	**0**	**15.2**	**5.5**	**20.7**	**-**	**-**	**-**	**-**
1/1	257	-	2.5	0.8	3.3	45.7	6.6	0.8	7.3
1/2+1/3	546	-	5.4	1.6	6.9	45.8	7.5	1.6	9.1
2/1	653	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/2	214	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

3/1	653	-	0.1	0.4	0.5	2.5	1.5	0.4	1.9
3/2	214	-	0.0	0.1	0.1	1.5	0.1	0.1	0.2
4/1	645	-	0.9	0.6	1.5	8.6	5.0	0.6	5.6
4/2	791	-	3.4	1.0	4.4	19.9	18.9	1.0	19.9
4/3	592	-	1.8	0.5	2.3	13.9	14.6	0.5	15.1
4/4	297	-	1.2	0.2	1.4	16.7	6.2	0.2	6.4
5/1	737	-	0.0	0.3	0.3	1.5	0.0	0.3	0.3
5/2	167	-	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf
J5: M20 Junction 10 / M20 Westbound Off-Slip (e84042)	**-**	**0**	**11.1**	**5.9**	**17.0**	**-**	**-**	**-**	**-**
1/1	789	-	1.3	1.1	2.4	10.8	7.7	1.1	8.8
1/2	851	-	1.6	1.4	3.0	12.7	8.7	1.4	10.1
1/3	584	-	1.1	0.5	1.6	10.0	9.2	0.5	9.7
2/1	306	-	2.9	1.1	4.0	47.1	7.9	1.1	9.0
2/2+2/3	448	-	4.2	1.8	6.1	48.6	8.9	1.8	10.7
J6: M20 Junction 10 / A2070 Bad Munstereifel Road (e84043)	**-**	**0**	**11.4**	**6.7**	**18.2**	**-**	**-**	**-**	**-**
1/2+1/1	738	-	3.6	0.5	4.1	20.2	6.9	0.5	7.4
1/3+1/4	982	-	5.3	1.3	6.6	24.2	11.5	1.3	12.8
2/1	1095	-	0.3	1.5	1.8	5.9	4.5	1.5	6.0
2/2	820	-	0.2	0.6	0.9	3.8	1.7	0.6	2.3
3/1	368	-	0.8	0.5	1.3	12.3	3.6	0.5	4.1
3/2	540	-	0.5	1.4	1.9	12.6	3.6	1.4	5.0
3/3	155	-	0.8	0.1	0.9	21.2	3.1	0.1	3.2
4/1	738	-	0.0	0.3	0.3	1.5	0.0	0.3	0.3
4/2	908	-	0.0	0.4	0.4	1.5	0.0	0.4	0.4
5/1	1095	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/2	820	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf
J7: M20 Junction 10 / A292 Hythe Road, M20 WB Onslip (e84044)	**-**	**0**	**9.4**	**6.5**	**15.9**	**-**	**-**	**-**	**-**
1/1	1072	-	2.4	3.1	5.6	18.7	25.2	3.1	28.4
2/1	261	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/2	1072	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/2+3/1	342	-	3.5	1.6	5.2	54.2	8.0	1.6	9.7
3/3	320	-	3.4	1.4	4.8	53.9	8.6	1.4	10.1
4/1	574	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	574	-	0.1	0.3	0.4	2.6	1.6	0.3	1.9
6/1	81	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/2	320	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf

C1 - e84038		PRC for Signalled Lanes (%):	42.5	Total Delay for Signalled Lanes (pcuHr):	12.83	Cycle Time (s):	104
C2 - e84039		PRC for Signalled Lanes (%):	9.7	Total Delay for Signalled Lanes (pcuHr):	21.10	Cycle Time (s):	104
C3 - e84040		PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	18.22	Cycle Time (s):	104
C4 - e84041	Stream: 1	PRC for Signalled Lanes (%):	17.9	Total Delay for Signalled Lanes (pcuHr):	19.77	Cycle Time (s):	104
C4 - e84041	Stream: 2	PRC for Signalled Lanes (%):	102.8	Total Delay for Signalled Lanes (pcuHr):	0.55	Cycle Time (s):	104
C5 - e84042		PRC for Signalled Lanes (%):	14.1	Total Delay for Signalled Lanes (pcuHr):	17.04	Cycle Time (s):	104
C6 - e84043	Stream: 1	PRC for Signalled Lanes (%):	21.6	Total Delay for Signalled Lanes (pcuHr):	14.81	Cycle Time (s):	104
C6 - e84043	Stream: 2	PRC for Signalled Lanes (%):	19.5	Total Delay for Signalled Lanes (pcuHr):	2.67	Cycle Time (s):	104
C7 - e84044		PRC for Signalled Lanes (%):	3.8	Total Delay for Signalled Lanes (pcuHr):	15.92	Cycle Time (s):	104
		PRC Over All Lanes (%):	3.8	Total Delay Over All Lanes(pcuHr):	124.11		

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J2_M20 J11 B2048 A20_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J2 M20-J11-A20
Report generation date: 20/11/2018 15:26:18

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[a]Base, AM
[a]Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.5	2.87	0.34	A	0.5	3.57	0.34	A
Arm B	0.7	2.19	0.40	A	0.5	1.92	0.32	A
Arm C	0.2	4.05	0.15	A	0.1	3.25	0.13	A
Arm D	0.4	3.44	0.28	A	0.8	4.22	0.45	A
Arm E	0.3	3.09	0.24	A	0.5	4.16	0.32	A

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	J2 Otterpool Park_Base Model AM PEAK
Location	M20 J11, B2068-A20
Site number	
Date	27/06/2017
Version	
Status	Base Model
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	A, B, C, D, E	2.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	M20 OffSlip Westbound	
B	A20 Ashford Road	
C	Services	
D	M20 OffSlip Eastbound	
E	B2068	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	5.38	7.20	28.0	64.6	226.8	21.0	
B	5.44	9.46	29.3	41.6	223.0	23.0	
C	3.98	7.14	27.1	28.9	223.0	41.0	
D	5.53	6.09	25.5	49.2	226.0	18.0	
E	3.08	6.63	25.5	41.4	223.0	31.0	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	540	105.00
B	240	49.60
C	1140	33.90
D	720	108.00
E	720	42.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	1.028	2740
B	1.195	3327
C	0.788	2390
D	0.926	2432
E	0.843	2324

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	596	100.000
B		ONE HOUR	✓	983	100.000
C		ONE HOUR	✓	144	100.000
D		ONE HOUR	✓	373	100.000
E		ONE HOUR	✓	326	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		$	%	&	'	(
From	$	5	434	49	1	107
	%	305	55	37	403	183
	&	47	17	0	72	8
	'	1	266	26	1	79
	(	132	109	7	78	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		$	%	&	'	(
From	$	0	5	31	0	7
	%	12	9	3	6	2
	&	26	0	0	36	13
	'	100	9	42	0	9
	(	2	4	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.34	2.87	0.5	A	547	820
B	0.40	2.19	0.7	A	902	1353
C	0.15	4.05	0.2	A	132	198
D	0.28	3.44	0.4	A	342	513
E	0.24	3.09	0.3	A	299	449

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	449	112	420	2115	0.212	448	368	0.0	0.3	2.158	A
B	740	185	206	2845	0.260	739	662	0.0	0.4	1.709	A
C	108	27	855	1312	0.083	108	89	0.0	0.1	2.991	A
D	281	70	546	1686	0.167	280	417	0.0	0.2	2.559	A
E	245	61	543	1755	0.140	245	283	0.0	0.2	2.382	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	536	134	502	2029	0.264	535	440	0.3	0.4	2.410	A
B	884	221	246	2793	0.316	883	791	0.4	0.5	1.884	A
C	129	32	1022	1201	0.108	129	107	0.1	0.1	3.359	A
D	335	84	653	1589	0.211	335	499	0.2	0.3	2.870	A
E	293	73	650	1657	0.177	293	339	0.2	0.2	2.638	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	656	164	615	1912	0.343	656	539	0.4	0.5	2.863	A
B	1082	271	301	2724	0.397	1082	969	0.5	0.7	2.191	A
C	159	40	1252	1048	0.151	158	131	0.1	0.2	4.043	A
D	411	103	800	1456	0.282	410	611	0.3	0.4	3.439	A
E	359	90	795	1523	0.236	359	415	0.2	0.3	3.090	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	656	164	615	1912	0.343	656	539	0.5	0.5	2.866	A
B	1082	271	302	2723	0.397	1082	970	0.7	0.7	2.193	A
C	159	40	1253	1048	0.151	159	131	0.2	0.2	4.048	A
D	411	103	800	1456	0.282	411	611	0.4	0.4	3.444	A
E	359	90	796	1523	0.236	359	415	0.3	0.3	3.092	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	536	134	503	2028	0.264	536	441	0.5	0.4	2.415	A
B	884	221	247	2793	0.316	884	793	0.7	0.5	1.886	A
C	129	32	1024	1200	0.108	130	107	0.2	0.1	3.364	A
D	335	84	654	1588	0.211	336	499	0.4	0.3	2.875	A
E	293	73	651	1656	0.177	293	339	0.3	0.2	2.641	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	449	112	421	2113	0.212	449	369	0.4	0.3	2.165	A
B	740	185	206	2844	0.260	740	664	0.5	0.4	1.711	A
C	108	27	857	1310	0.083	109	90	0.1	0.1	2.995	A
D	281	70	548	1685	0.167	281	418	0.3	0.2	2.564	A
E	245	61	545	1754	0.140	246	284	0.2	0.2	2.389	A

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	A, B, C, D, E	3.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	540	105.00
B	240	49.60
C	1140	33.90
D	720	108.00
E	720	42.00

Slope / Intercept / Capacity

[same as above]

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)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	482	100.000
B		ONE HOUR	✓	807	100.000
C		ONE HOUR	✓	145	100.000
D		ONE HOUR	✓	636	100.000
E		ONE HOUR	✓	363	100.000

Origin-Destination Data

Demand (Veh/hr)

		To					
			$	%	&	'	(
From	$	5	325	57	0	95
	%	353	63	38	237	116
	&	48	27	0	57	13
	'	1	475	52	9	99
	(	110	159	10	84	0

Vehicle Mix

Heavy Vehicle Percentages

		To					
			$	%	&	'	(
From	$	20	7	40	0	0
	%	3	0	8	4	0
	&	33	7	0	21	8
	'	0	3	52	0	5
	(	3	1	20	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.34	3.57	0.5	A	442	663
B	0.32	1.92	0.5	A	741	1111
C	0.13	3.25	0.1	A	133	200
D	0.45	4.22	0.8	A	584	875
E	0.32	4.16	0.5	A	333	500

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	363	91	660	1845	0.197	362	388	0.0	0.2	2.426	A
B	608	152	234	2914	0.209	606	787	0.0	0.3	1.560	A
C	109	27	723	1490	0.073	109	118	0.0	0.1	2.606	A
D	479	120	541	1781	0.269	477	291	0.0	0.4	2.760	A
E	273	68	776	1581	0.173	272	243	0.0	0.2	2.750	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	433	108	789	1717	0.252	433	465	0.2	0.3	2.804	A
B	725	181	280	2851	0.255	725	942	0.3	0.3	1.693	A
C	130	33	864	1395	0.093	130	141	0.1	0.1	2.844	A
D	572	143	647	1685	0.339	571	348	0.4	0.5	3.230	A
E	326	82	928	1448	0.225	326	290	0.2	0.3	3.209	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	531	133	966	1542	0.344	530	569	0.3	0.5	3.557	A
B	889	222	343	2765	0.321	888	1153	0.3	0.5	1.917	A
C	160	40	1058	1266	0.126	159	173	0.1	0.1	3.252	A
D	700	175	792	1554	0.450	699	426	0.5	0.8	4.202	A
E	400	100	1136	1265	0.316	399	355	0.3	0.5	4.148	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	531	133	968	1540	0.345	531	569	0.5	0.5	3.565	A
B	889	222	344	2764	0.321	889	1155	0.5	0.5	1.918	A
C	160	40	1059	1266	0.126	160	173	0.1	0.1	3.254	A
D	700	175	793	1554	0.451	700	426	0.8	0.8	4.216	A
E	400	100	1137	1264	0.316	400	356	0.5	0.5	4.163	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	433	108	792	1714	0.253	434	465	0.5	0.3	2.815	A
B	725	181	281	2849	0.255	726	945	0.5	0.3	1.694	A
C	130	33	866	1395	0.093	131	141	0.1	0.1	2.849	A
D	572	143	648	1684	0.339	573	348	0.8	0.5	3.242	A
E	326	82	930	1446	0.226	327	291	0.5	0.3	3.221	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	363	91	663	1842	0.197	363	390	0.3	0.2	2.435	A
B	608	152	235	2912	0.209	608	791	0.3	0.3	1.561	A
C	109	27	725	1489	0.073	109	118	0.1	0.1	2.611	A
D	479	120	542	1779	0.269	479	292	0.5	0.4	2.770	A
E	273	68	778	1579	0.173	274	243	0.3	0.2	2.760	A

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J3_A20 Ashford Rd Swan Ln_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J3 A20 Ashford Rd - Swan Ln
Report generation date: 20/11/2018 15:35:37

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-ACD	0.0	8.16	0.02	A	0.0	0.00	0.00	A
Stream A-BCD	0.1	6.54	0.05	A	0.1	7.32	0.12	A
Stream D-ABC	0.6	14.83	0.40	B	0.4	12.62	0.29	B
Stream C-ABD	0.0	6.52	0.00	A	0.0	6.39	0.01	A

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	J3 Otterpool Park_Base Model
Location	A20 Ashford Road - Swan Ln
Site number	
Date	27/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J3 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J3 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	3.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Ashford Road Westbound		Major
B	Private Access		Minor
C	A20 Ashford Road Eastbound		Major
D	Swan Ln		Minor

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)
A	6.90			120.0	✓	1.00
C	6.90			120.0	✓	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	2.20	35	35
D	One lane	2.70	23	43

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	643	-	-	-	-	-	-	0.240	0.342	0.240	-	-	-
1	B-A	466	0.081	0.206	0.206	-	-	-	0.130	0.294	-	0.206	0.206	0.103
1	B-C	594	0.088	0.221	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	466	0.081	0.206	0.206	-	-	-	0.130	0.294	0.130	-	-	-
1	B-D, offside lane	466	0.081	0.206	0.206	-	-	-	0.130	0.294	0.130	-	-	-
1	C-B	643	0.240	0.240	0.342	-	-	-	-	-	-	-	-	-
1	D-A	631	-	-	-	-	-	-	0.235	-	0.093	-	-	-
1	D-B, nearside lane	491	0.137	0.137	0.310	-	-	-	0.217	0.217	0.086	-	-	-
1	D-B, offside lane	491	0.137	0.137	0.310	-	-	-	0.217	0.217	0.086	-	-	-
1	D-C	491	-	0.137	0.310	0.109	0.217	0.217	0.217	0.217	0.086	-	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J3 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	314	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	290	100.000
D		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	0	290	24
	%	2	0	5	0
	&	214	2	0	74
	'	42	0	102	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	6	0
	%	0	0	0	0
	&	7	0	0	3
	'	7	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.02	8.16	0.0	A	6	10
A-BCD	0.05	6.54	0.1	A	22	34
A-B					0	0
A-C					266	399
D-ABC	0.40	14.83	0.6	B	132	198
C-ABD	0.00	6.52	0.0	A	2	3
C-D					68	102
C-A					196	295

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	5	1	482	0.011	5	0.0	0.0	7.549	A
A-BCD	18	5	595	0.031	18	0.0	0.0	6.243	A
A-B	0	0			0				
A-C	218	55			218				
D-ABC	108	27	436	0.249	107	0.0	0.3	10.913	B
C-ABD	2	0.38	582	0.003	1	0.0	0.0	6.196	A
C-D	56	14			56				
C-A	161	40			161				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	6	2	468	0.013	6	0.0	0.0	7.794	A
A-BCD	22	5	587	0.037	22	0.0	0.0	6.371	A
A-B	0	0			0				
A-C	260	65			260				
D-ABC	129	32	421	0.307	129	0.3	0.4	12.298	B
C-ABD	2	0.45	571	0.003	2	0.0	0.0	6.327	A
C-D	67	17			67				
C-A	192	48			192				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	8	2	449	0.017	8	0.0	0.0	8.162	A
A-BCD	27	7	577	0.047	27	0.0	0.1	6.543	A
A-B	0	0			0				
A-C	319	80			319				
D-ABC	159	40	401	0.395	158	0.4	0.6	14.733	B
C-ABD	2	0.55	555	0.004	2	0.0	0.0	6.516	A
C-D	81	20			81				
C-A	236	59			236				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	8	2	449	0.017	8	0.0	0.0	8.163	A
A-BCD	27	7	577	0.047	27	0.1	0.1	6.543	A
A-B	0	0			0				
A-C	319	80			319				
D-ABC	159	40	401	0.395	159	0.6	0.6	14.826	B
C-ABD	2	0.55	555	0.004	2	0.0	0.0	6.517	A
C-D	81	20			81				
C-A	236	59			236				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	6	2	468	0.013	6	0.0	0.0	7.797	A
A-BCD	22	5	587	0.037	22	0.1	0.0	6.372	A
A-B	0	0			0				
A-C	260	65			260				
D-ABC	129	32	421	0.307	130	0.6	0.5	12.403	B
C-ABD	2	0.45	571	0.003	2	0.0	0.0	6.328	A
C-D	67	17			67				
C-A	192	48			192				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	5	1	482	0.011	5	0.0	0.0	7.554	A
A-BCD	18	5	595	0.031	18	0.0	0.0	6.248	A
A-B	0	0			0				
A-C	218	55			218				
D-ABC	108	27	436	0.249	109	0.5	0.3	11.030	B
C-ABD	2	0.38	582	0.003	2	0.0	0.0	6.199	A
C-D	56	14			56				
C-A	161	40			161				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	2.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J3 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	271	100.000
B		ONE HOUR	✓	2	100.000
C		ONE HOUR	✓	412	100.000
D		ONE HOUR	✓	105	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	2	211	58
	%	1	0	1	0
	&	278	3	0	131
	'	34	0	71	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	2	0
	%	0	0	100	0
	&	4	0	0	1
	'	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.12	7.32	0.1	A	55	83
A-B					2	3
A-C					192	287
D-ABC	0.29	12.62	0.4	B	96	145
C-ABD	0.01	6.39	0.0	A	3	4
C-D					120	180
C-A					255	383

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	332	0.000	0	0.0	0.0	0.000	A
A-BCD	45	11	579	0.077	44	0.0	0.1	6.727	A
A-B	1	0.37			1				
A-C	158	39			158				
D-ABC	79	20	442	0.179	78	0.0	0.2	9.871	A
C-ABD	2	0.57	591	0.004	2	0.0	0.0	6.119	A
C-D	99	25			99				
C-A	209	52			209				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	319	0.000	0	0.0	0.0	0.000	A
A-BCD	54	13	570	0.095	54	0.1	0.1	6.975	A
A-B	2	0.45			2				
A-C	188	47			188				
D-ABC	94	24	425	0.222	94	0.2	0.3	10.876	B
C-ABD	3	0.68	580	0.005	3	0.0	0.0	6.230	A
C-D	118	29			118				
C-A	250	62			250				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	302	0.000	0	0.0	0.0	0.000	A
A-BCD	67	17	559	0.120	67	0.1	0.1	7.311	A
A-B	2	0.54			2				
A-C	229	57			229				
D-ABC	116	29	401	0.288	115	0.3	0.4	12.575	B
C-ABD	3	0.83	567	0.006	3	0.0	0.0	6.388	A
C-D	144	36			144				
C-A	306	77			306				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	302	0.000	0	0.0	0.0	0.000	A
A-BCD	67	17	559	0.120	67	0.1	0.1	7.317	A
A-B	2	0.54			2				
A-C	229	57			229				
D-ABC	116	29	401	0.288	116	0.4	0.4	12.616	B
C-ABD	3	0.83	567	0.006	3	0.0	0.0	6.388	A
C-D	144	36			144				
C-A	306	77			306				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	319	0.000	0	0.0	0.0	0.000	A
A-BCD	54	13	570	0.094	54	0.1	0.1	6.979	A
A-B	2	0.45			2				
A-C	188	47			188				
D-ABC	94	24	425	0.222	95	0.4	0.3	10.927	B
C-ABD	3	0.68	580	0.005	3	0.0	0.0	6.231	A
C-D	118	29			118				
C-A	250	62			250				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	332	0.000	0	0.0	0.0	0.000	A
A-BCD	45	11	579	0.077	45	0.1	0.1	6.738	A
A-B	1	0.37			1				
A-C	158	39			158				
D-ABC	79	20	442	0.179	79	0.3	0.2	9.936	A
C-ABD	2	0.57	590	0.004	2	0.0	0.0	6.123	A
C-D	99	25			99				
C-A	209	52			209				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J4_A20 Ashford Rd Stone Hill_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J4 A20 Ashford Rd - Stone Hill
Report generation date: 20/11/2018 15:37:04

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[a]Base, AM
[a]Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.3	12.17	0.24	B	0.2	11.26	0.14	B
Stream C-AB	0.0	7.01	0.00	A	0.0	6.78	0.01	A

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	J4 Otterpool Park_Base Model
Location	A20 Ashford Road - Stone Hill
Site number	
Date	10/07/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J4 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J4 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Ashford Road Westbound		Major
B	Stone Hill		Minor
C	A20 Ashford Road Eastbound		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	6.10			71.0	✓	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	2.60	111	19

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	502	0.091	0.230	0.145	0.329
1	B-C	610	0.093	0.235	-	-
1	C-B	615	0.237	0.237	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J4 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	374	100.000
B		ONE HOUR	✓	84	100.000
C		ONE HOUR	✓	209	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	63	311
	%	76	0	8
	&	208	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	2	4
	%	0	0	0
	&	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.24	12.17	0.3	B	77	116
C-AB	0.00	7.01	0.0	A	0.92	1
C-A					191	286
A-B					58	87
A-C					285	428

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	63	16	427	0.148	63	0.0	0.2	9.858	A
C-AB	0.75	0.19	546	0.001	0.75	0.0	0.0	6.601	A
C-A	157	39			157				
A-B	47	12			47				
A-C	234	59			234				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	76	19	411	0.184	75	0.2	0.2	10.724	B
C-AB	0.90	0.22	533	0.002	0.90	0.0	0.0	6.768	A
C-A	187	47			187				
A-B	57	14			57				
A-C	280	70			280				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	92	23	388	0.238	92	0.2	0.3	12.136	B
C-AB	1	0.28	514	0.002	1	0.0	0.0	7.014	A
C-A	229	57			229				
A-B	69	17			69				
A-C	342	86			342				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	92	23	388	0.238	92	0.3	0.3	12.168	B
C-AB	1	0.28	514	0.002	1	0.0	0.0	7.014	A
C-A	229	57			229				
A-B	69	17			69				
A-C	342	86			342				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	76	19	411	0.184	76	0.3	0.2	10.760	B
C-AB	0.90	0.22	533	0.002	0.90	0.0	0.0	6.771	A
C-A	187	47			187				
A-B	57	14			57				
A-C	280	70			280				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	63	16	427	0.148	63	0.2	0.2	9.907	A
C-AB	0.75	0.19	546	0.001	0.75	0.0	0.0	6.601	A
C-A	157	39			157				
A-B	47	12			47				
A-C	234	59			234				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J4 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	315	100.000
B		ONE HOUR	✓	49	100.000
C		ONE HOUR	✓	391	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	51	264
	%	45	0	4
	&	386	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	2	1
	%	0	0	0
	&	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.14	11.26	0.2	B	45	67
C-AB	0.01	6.78	0.0	A	5	7
C-A					354	531
A-B					47	70
A-C					242	363

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	37	9	417	0.089	37	0.0	0.1	9.459	A
C-AB	4	0.94	560	0.007	4	0.0	0.0	6.470	A
C-A	291	73			291				
A-B	38	10			38				
A-C	199	50			199				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	44	11	399	0.111	44	0.1	0.1	10.145	B
C-AB	5	1	550	0.008	5	0.0	0.0	6.599	A
C-A	347	87			347				
A-B	46	11			46				
A-C	237	59			237				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	54	13	374	0.144	54	0.1	0.2	11.249	B
C-AB	6	1	536	0.010	6	0.0	0.0	6.782	A
C-A	425	106			425				
A-B	56	14			56				
A-C	291	73			291				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	54	13	374	0.144	54	0.2	0.2	11.260	B
C-AB	6	1	536	0.010	6	0.0	0.0	6.782	A
C-A	425	106			425				
A-B	56	14			56				
A-C	291	73			291				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	44	11	399	0.111	44	0.2	0.1	10.163	B
C-AB	5	1	550	0.008	5	0.0	0.0	6.599	A
C-A	347	87			347				
A-B	46	11			46				
A-C	237	59			237				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	37	9	417	0.089	37	0.1	0.1	9.483	A
C-AB	4	0.94	560	0.007	4	0.0	0.0	6.470	A
C-A	291	73			291				
A-B	38	10			38				
A-C	199	50			199				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J5_A20 Station Rd Church Rd_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J5 A20-Station Rd-Church Rd
Report generation date: 20/11/2018 15:38:00

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-ACD	0.6	12.95	0.36	B	0.7	14.34	0.42	B
Stream A-BCD	0.0	5.78	0.02	A	0.0	6.31	0.03	A
Stream D-ABC	0.5	15.24	0.33	C	0.3	14.82	0.22	B
Stream C-ABD	0.2	6.54	0.18	A	0.2	6.29	0.16	A

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	J5 Otterpool Park Base Model
Location	A20 Hythe Road / Station Road / Church Road
Site number	
Date	14/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J5 A20-Station Rd AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J5 A20-Station Rd PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Hythe Road Westbound		Major
B	Station Road		Minor
C	A20 Hythe Road Eastbound		Major
D	Church Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.70		✓	3.80	150.0	✓	6.00
C	6.70		✓	3.80	150.0	✓	6.00

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	3.00	28	18
D	One lane	3.00	19	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	776	-	-	-	-	-	-	0.291	0.416	0.291	-	-	-
1	B-A	496	0.088	0.221	0.221	-	-	-	0.139	0.316	-	0.221	0.221	0.111
1	B-C	635	0.094	0.239	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	496	0.088	0.221	0.221	-	-	-	0.139	0.316	0.139	-	-	-
1	B-D, offside lane	496	0.088	0.221	0.221	-	-	-	0.139	0.316	0.139	-	-	-
1	C-B	776	0.291	0.291	0.416	-	-	-	-	-	-	-	-	-
1	D-A	635	-	-	-	-	-	-	0.239	-	0.094	-	-	-
1	D-B, nearside lane	493	0.138	0.138	0.314	-	-	-	0.220	0.220	0.087	-	-	-
1	D-B, offside lane	493	0.138	0.138	0.314	-	-	-	0.220	0.220	0.087	-	-	-
1	D-C	493	-	0.138	0.314	0.110	0.220	0.220	0.220	0.220	0.087	-	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J5 A20-Station Rd AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	297	100.000
B		ONE HOUR	✓	145	100.000
C		ONE HOUR	✓	380	100.000
D		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	47	241	9
	%	26	0	94	25
	&	199	108	0	73
	'	14	20	73	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	4	4	0
	%	8	0	4	4
	&	7	1	0	3
	'	0	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.36	12.95	0.6	B	133	200
A-BCD	0.02	5.78	0.0	A	8	12
A-B					43	65
A-C					221	332
D-ABC	0.33	15.24	0.5	C	98	147
C-ABD	0.18	6.54	0.2	A	99	149
C-D					67	100
C-A					183	274

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	109	27	475	0.230	108	0.0	0.3	9.765	A
A-BCD	7	2	678	0.010	7	0.0	0.0	5.358	A
A-B	35	9			35				
A-C	181	45			181				
D-ABC	81	20	402	0.200	80	0.0	0.2	11.116	B
C-ABD	81	20	700	0.116	81	0.0	0.1	5.805	A
C-D	55	14			55				
C-A	150	37			150				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	130	33	460	0.284	130	0.3	0.4	10.901	B
A-BCD	8	2	659	0.012	8	0.0	0.0	5.527	A
A-B	42	11			42				
A-C	217	54			217				
D-ABC	96	24	382	0.252	96	0.2	0.3	12.559	B
C-ABD	97	24	687	0.141	97	0.1	0.2	6.097	A
C-D	66	16			66				
C-A	179	45			179				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	160	40	438	0.365	159	0.4	0.6	12.883	B
A-BCD	10	2	633	0.016	10	0.0	0.0	5.775	A
A-B	52	13			52				
A-C	265	66			265				
D-ABC	118	29	354	0.333	117	0.3	0.5	15.150	C
C-ABD	119	30	669	0.178	119	0.2	0.2	6.541	A
C-D	80	20			80				
C-A	219	55			219				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	160	40	438	0.365	160	0.6	0.6	12.947	B
A-BCD	10	2	633	0.016	10	0.0	0.0	5.776	A
A-B	52	13			52				
A-C	265	66			265				
D-ABC	118	29	354	0.333	118	0.5	0.5	15.239	C
C-ABD	119	30	669	0.178	119	0.2	0.2	6.544	A
C-D	80	20			80				
C-A	219	55			219				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	130	33	460	0.284	131	0.6	0.4	10.975	B
A-BCD	8	2	659	0.012	8	0.0	0.0	5.530	A
A-B	42	11			42				
A-C	217	54			217				
D-ABC	96	24	382	0.252	97	0.5	0.3	12.653	B
C-ABD	97	24	687	0.141	97	0.2	0.2	6.104	A
C-D	66	16			66				
C-A	179	45			179				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	109	27	475	0.230	110	0.4	0.3	9.855	A
A-BCD	7	2	678	0.010	7	0.0	0.0	5.361	A
A-B	35	9			35				
A-C	181	45			181				
D-ABC	81	20	402	0.200	81	0.3	0.3	11.223	B
C-ABD	81	20	700	0.116	81	0.2	0.1	5.817	A
C-D	55	14			55				
C-A	150	37			150				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	3.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J5 A20-Station Rd PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	294	100.000
B		ONE HOUR	✓	162	100.000
C		ONE HOUR	✓	526	100.000
D		ONE HOUR	✓	63	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	40	236	18
	%	36	0	94	32
	&	329	96	0	101
	'	7	15	41	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	1	0
	%	0	0	2	3
	&	3	0	0	0
	'	0	13	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.42	14.34	0.7	B	149	223
A-BCD	0.03	6.31	0.0	A	17	25
A-B					37	55
A-C					217	325
D-ABC	0.22	14.82	0.3	B	58	87
C-ABD	0.16	6.29	0.2	A	88	132
C-D					93	139
C-A					302	453

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	122	30	473	0.258	121	0.0	0.3	10.185	B
A-BCD	14	3	649	0.021	13	0.0	0.0	5.662	A
A-B	30	8			30				
A-C	178	44			178				
D-ABC	47	12	369	0.128	47	0.0	0.1	11.141	B
C-ABD	72	18	709	0.102	72	0.0	0.1	5.645	A
C-D	76	19			76				
C-A	248	62			248				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	146	36	455	0.320	145	0.3	0.5	11.606	B
A-BCD	16	4	625	0.026	16	0.0	0.0	5.917	A
A-B	36	9			36				
A-C	212	53			212				
D-ABC	57	14	345	0.164	56	0.1	0.2	12.450	B
C-ABD	86	22	696	0.124	86	0.1	0.1	5.902	A
C-D	91	23			91				
C-A	296	74			296				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	178	45	429	0.415	177	0.5	0.7	14.232	B
A-BCD	20	5	590	0.034	20	0.0	0.0	6.307	A
A-B	44	11			44				
A-C	260	65			260				
D-ABC	69	17	312	0.222	69	0.2	0.3	14.774	B
C-ABD	106	26	678	0.156	106	0.1	0.2	6.284	A
C-D	111	28			111				
C-A	362	91			362				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	178	45	429	0.415	178	0.7	0.7	14.336	B
A-BCD	20	5	590	0.034	20	0.0	0.0	6.308	A
A-B	44	11			44				
A-C	260	65			260				
D-ABC	69	17	312	0.222	69	0.3	0.3	14.825	B
C-ABD	106	26	678	0.156	106	0.2	0.2	6.286	A
C-D	111	28			111				
C-A	362	91			362				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	146	36	455	0.320	147	0.7	0.5	11.714	B
A-BCD	16	4	624	0.026	16	0.0	0.0	5.921	A
A-B	36	9			36				
A-C	212	53			212				
D-ABC	57	14	345	0.164	57	0.3	0.2	12.506	B
C-ABD	86	22	696	0.124	86	0.2	0.1	5.907	A
C-D	91	23			91				
C-A	296	74			296				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	122	30	473	0.258	122	0.5	0.4	10.298	B
A-BCD	14	3	649	0.021	14	0.0	0.0	5.666	A
A-B	30	8			30				
A-C	178	44			178				
D-ABC	47	12	369	0.129	48	0.2	0.1	11.210	B
C-ABD	72	18	709	0.102	72	0.1	0.1	5.654	A
C-D	76	19			76				
C-A	248	62			248				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J6_A20 Mersham_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J6 A20-Mersham
Report generation date: 20/11/2018 15:39:02

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.4	11.59	0.31	B	0.2	9.75	0.20	A
Stream C-AB	0.2	8.25	0.19	A	0.2	7.56	0.18	A

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	J6 Otterpool Park_Base Model
Location	A20 Hythe Road - Mersham
Site number	
Date	19/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J6 A20-Mersham AM Peak	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J6 A20-Mersham PM Peak	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Hythe Road Westbound		Major
B	Mersham		Minor
C	A20 Hythe Road Eastbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.68		✓	3.00	130.0	✓	9.00

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	2.86	62	64

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	522	0.084	0.212	0.134	0.303
1	B-C	655	0.089	0.224	-	-
1	C-B	706	0.242	0.242	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J6 A20-Mersham AM Peak	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	528	100.000
B		ONE HOUR	✓	128	100.000
C		ONE HOUR	✓	522	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	24	504
	%	21	0	107
	&	428	94	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	3
	%	5	0	3
	&	3	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.31	11.59	0.4	B	117	176
C-AB	0.19	8.25	0.2	A	86	129
C-A					393	589
A-B					22	33
A-C					462	694

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	96	24	503	0.191	95	0.0	0.2	8.804	A
C-AB	71	18	584	0.121	70	0.0	0.1	7.004	A
C-A	322	81			322				
A-B	18	5			18				
A-C	379	95			379				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	115	29	482	0.239	115	0.2	0.3	9.795	A
C-AB	85	21	565	0.150	84	0.1	0.2	7.484	A
C-A	385	96			385				
A-B	22	5			22				
A-C	453	113			453				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	141	35	452	0.312	140	0.3	0.4	11.547	B
C-AB	103	26	540	0.192	103	0.2	0.2	8.244	A
C-A	471	118			471				
A-B	26	7			26				
A-C	555	139			555				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	141	35	452	0.312	141	0.4	0.4	11.586	B
C-AB	103	26	540	0.192	103	0.2	0.2	8.252	A
C-A	471	118			471				
A-B	26	7			26				
A-C	555	139			555				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	115	29	482	0.239	116	0.4	0.3	9.839	A
C-AB	85	21	565	0.150	85	0.2	0.2	7.495	A
C-A	385	96			385				
A-B	22	5			22				
A-C	453	113			453				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	96	24	503	0.191	97	0.3	0.2	8.859	A
C-AB	71	18	584	0.121	71	0.2	0.1	7.022	A
C-A	322	81			322				
A-B	18	5			18				
A-C	379	95			379				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J6 A20-Mersham PM Peak	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	445	100.000
B		ONE HOUR	✓	82	100.000
C		ONE HOUR	✓	654	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	23	422
	%	18	0	64
	&	559	95	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	1
	%	0	0	2
	&	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.20	9.75	0.2	A	75	113
C-AB	0.18	7.56	0.2	A	87	131
C-A					513	769
A-B					21	32
A-C					387	581

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	62	15	511	0.121	61	0.0	0.1	7.995	A
C-AB	72	18	618	0.116	71	0.0	0.1	6.577	A
C-A	421	105			421				
A-B	17	4			17				
A-C	318	79			318				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	74	18	490	0.150	74	0.1	0.2	8.647	A
C-AB	85	21	602	0.142	85	0.1	0.2	6.962	A
C-A	503	126			503				
A-B	21	5			21				
A-C	379	95			379				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	90	23	460	0.196	90	0.2	0.2	9.733	A
C-AB	105	26	580	0.180	104	0.2	0.2	7.557	A
C-A	615	154			615				
A-B	25	6			25				
A-C	465	116			465				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	90	23	460	0.196	90	0.2	0.2	9.747	A
C-AB	105	26	580	0.180	105	0.2	0.2	7.563	A
C-A	615	154			615				
A-B	25	6			25				
A-C	465	116			465				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	74	18	490	0.150	74	0.2	0.2	8.661	A
C-AB	85	21	602	0.142	86	0.2	0.2	6.970	A
C-A	503	126			503				
A-B	21	5			21				
A-C	379	95			379				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	62	15	511	0.121	62	0.2	0.1	8.023	A
C-AB	72	18	618	0.116	72	0.2	0.1	6.594	A
C-A	421	105			421				
A-B	17	4			17				
A-C	318	79			318				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J7A_Kennington Rd The Street_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J7A Kennington Rd - The St
Report generation date: 20/11/2018 15:40:09

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-ACD	0.0	0.00	0.00	A	0.0	8.22	0.01	A
Stream A-BCD	0.4	9.15	0.26	A	0.5	10.96	0.32	B
Stream D-ABC	0.2	12.23	0.15	B	0.1	10.08	0.11	B
Stream C-ABD	0.0	7.64	0.00	A	0.0	6.23	0.00	A

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	J7A Otterpool Park_Base Model
Location	Kennington Rd - The St
Site number	
Date	12/07/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J7A Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J7A Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Right-Left Stagger	Two-way	1.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A2070 Kennington Rd Northbound		Major
B	The Street Eastbound		Minor
C	A2070 Kennington Rd Southbound		Major
D	The Street Westbound		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.20	✓	2.69	✓	2.80	100.0	✓	4.00
C	6.20	✓	2.69	✓	2.80	100.0	✓	2.00

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	2.50	37	77
D	One lane	2.61	99	41

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	673	-	-	-	0.259	0.259	0.259	-	0.259	-	-
1	B-AD	531	0.090	0.229	-	-	-	0.144	0.327	0.144	0.090	0.229
1	B-C	639	0.097	0.245	-	-	-	-	-	-	0.097	0.245
1	C-B	673	0.259	0.259	-	-	-	-	-	-	0.259	0.259
1	D-A	624	-	-	-	0.240	0.095	0.240	-	0.095	-	-
1	D-BC	540	0.146	0.146	0.332	0.232	0.092	0.232	-	0.092	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J7A Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	797	100.000
B		ONE HOUR	✓	2	100.000
C		ONE HOUR	✓	458	100.000
D		ONE HOUR	✓	48	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	1	669	127
	%	1	0	0	1
	&	394	2	0	62
	'	24	1	23	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	1	2
	%	0	0	0	0
	&	2	0	0	2
	'	8	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.00	0.00	0.0	A	0	0
A-BCD	0.26	9.15	0.4	A	117	175
A-B					0.92	1
A-C					613	920
D-ABC	0.15	12.23	0.2	B	44	66
C-ABD	0.00	7.64	0.0	A	2	3
C-D					57	85
C-A					362	542

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	422	0.000	0	0.0	0.0	0.000	A
A-BCD	96	24	572	0.167	95	0.0	0.2	7.539	A
A-B	0.75	0.19			0.75				
A-C	504	126			504				
D-ABC	36	9	420	0.086	36	0.0	0.1	9.365	A
C-ABD	2	0.38	537	0.003	1	0.0	0.0	6.725	A
C-D	47	12			47				
C-A	297	74			297				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	390	0.000	0	0.0	0.0	0.000	A
A-BCD	114	29	555	0.206	114	0.2	0.3	8.159	A
A-B	0.90	0.22			0.90				
A-C	601	150			601				
D-ABC	43	11	390	0.111	43	0.1	0.1	10.367	B
C-ABD	2	0.45	510	0.004	2	0.0	0.0	7.079	A
C-D	56	14			56				
C-A	354	89			354				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	346	0.000	0	0.0	0.0	0.000	A
A-BCD	141	35	534	0.264	140	0.3	0.4	9.136	A
A-B	1	0.27			1				
A-C	736	184			736				
D-ABC	53	13	347	0.152	53	0.1	0.2	12.211	B
C-ABD	2	0.55	474	0.005	2	0.0	0.0	7.635	A
C-D	68	17			68				
C-A	434	108			434				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	346	0.000	0	0.0	0.0	0.000	A
A-BCD	141	35	534	0.264	141	0.4	0.4	9.154	A
A-B	1	0.27			1				
A-C	736	184			736				
D-ABC	53	13	347	0.152	53	0.2	0.2	12.232	B
C-ABD	2	0.55	474	0.005	2	0.0	0.0	7.635	A
C-D	68	17			68				
C-A	434	108			434				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	390	0.000	0	0.0	0.0	0.000	A
A-BCD	114	29	555	0.206	115	0.4	0.3	8.181	A
A-B	0.90	0.22			0.90				
A-C	601	150			601				
D-ABC	43	11	390	0.111	43	0.2	0.1	10.390	B
C-ABD	2	0.45	510	0.004	2	0.0	0.0	7.080	A
C-D	56	14			56				
C-A	354	89			354				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	0	0	422	0.000	0	0.0	0.0	0.000	A
A-BCD	96	24	572	0.167	96	0.3	0.2	7.573	A
A-B	0.75	0.19			0.75				
A-C	504	126			504				
D-ABC	36	9	420	0.086	36	0.1	0.1	9.393	A
C-ABD	2	0.38	537	0.003	2	0.0	0.0	6.725	A
C-D	47	12			47				
C-A	297	74			297				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Right-Left Stagger	Two-way	1.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J7A Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	454	100.000
B		ONE HOUR	✓	5	100.000
C		ONE HOUR	✓	676	100.000
D		ONE HOUR	✓	40	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	8	307	139
	%	2	0	3	0
	&	610	2	0	64
	'	32	1	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	1	0
	%	0	0	0	0
	&	1	0	0	0
	'	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.01	8.22	0.0	A	5	7
A-BCD	0.32	10.96	0.5	B	128	192
A-B					7	11
A-C					281	422
D-ABC	0.11	10.08	0.1	B	37	55
C-ABD	0.00	6.23	0.0	A	2	3
C-D					59	88
C-A					560	840

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	4	0.94	492	0.008	4	0.0	0.0	7.365	A
A-BCD	105	26	541	0.194	104	0.0	0.2	8.223	A
A-B	6	2			6				
A-C	231	58			231				
D-ABC	30	8	469	0.064	30	0.0	0.1	8.197	A
C-ABD	2	0.38	610	0.002	1	0.0	0.0	5.918	A
C-D	48	12			48				
C-A	459	115			459				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	4	1	472	0.010	4	0.0	0.0	7.697	A
A-BCD	125	31	516	0.243	125	0.2	0.3	9.206	A
A-B	7	2			7				
A-C	276	69			276				
D-ABC	36	9	441	0.082	36	0.1	0.1	8.887	A
C-ABD	2	0.45	597	0.003	2	0.0	0.0	6.044	A
C-D	58	14			58				
C-A	548	137			548				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	6	1	443	0.012	5	0.0	0.0	8.224	A
A-BCD	154	39	483	0.320	154	0.3	0.5	10.923	B
A-B	9	2			9				
A-C	337	84			337				
D-ABC	44	11	401	0.110	44	0.1	0.1	10.079	B
C-ABD	2	0.55	580	0.004	2	0.0	0.0	6.226	A
C-D	70	18			70				
C-A	672	168			672				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	6	1	443	0.012	6	0.0	0.0	8.224	A
A-BCD	154	39	483	0.320	154	0.5	0.5	10.962	B
A-B	9	2			9				
A-C	337	84			337				
D-ABC	44	11	401	0.110	44	0.1	0.1	10.084	B
C-ABD	2	0.55	580	0.004	2	0.0	0.0	6.226	A
C-D	70	18			70				
C-A	672	168			672				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	4	1	472	0.010	5	0.0	0.0	7.698	A
A-BCD	125	31	516	0.243	126	0.5	0.3	9.248	A
A-B	7	2			7				
A-C	276	69			276				
D-ABC	36	9	441	0.082	36	0.1	0.1	8.901	A
C-ABD	2	0.45	597	0.003	2	0.0	0.0	6.046	A
C-D	58	14			58				
C-A	548	137			548				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	4	0.94	492	0.008	4	0.0	0.0	7.366	A
A-BCD	105	26	541	0.194	105	0.3	0.2	8.271	A
A-B	6	2			6				
A-C	231	58			231				
D-ABC	30	8	469	0.064	30	0.1	0.1	8.214	A
C-ABD	2	0.38	610	0.002	2	0.0	0.0	5.921	A
C-D	48	12			48				
C-A	459	115			459				

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J7B_A20 Hythe Rd The St_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J7B A20Hythe Rd-The Street
Report generation date: 20/11/2018 15:27:32

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a Base, AM
a Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	2.1	10.88	0.68	B	1.3	8.42	0.56	A
Arm B	0.4	5.03	0.30	A	0.9	5.83	0.46	A
Arm C	0.7	3.51	0.41	A	1.2	4.56	0.54	A
Arm D	0.9	14.44	0.48	B	1.3	23.45	0.56	C

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	J7B Otterpool Park_Base Model AM PEAK
Location	A20 Hythe Road - The St
Site number	
Date	27/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	7.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A20 Hythe Road Westbound	
B	Tesco Access	
C	A20 Hythe Road Eastbound	
D	The Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.66	4.26	19.8	46.4	37.5	32.0	
B	3.68	6.04	21.9	7.7	37.5	37.0	
C	3.76	7.19	21.8	23.6	37.5	28.0	
D	3.00	3.00	0.0	14.2	37.5	36.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.573	1301
B	0.571	1478
C	0.683	1857
D	0.468	872

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	627	100.000
B		ONE HOUR	✓	279	100.000
C		ONE HOUR	✓	660	100.000
D		ONE HOUR	✓	212	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	2	105	520	0
	%	67	1	211	0
	&	440	214	6	0
	'	39	34	139	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	3	3	0
	%	1	0	3	0
	&	4	1	0	0
	'	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.68	10.88	2.1	B	575	863
B	0.30	5.03	0.4	A	256	384
C	0.41	3.51	0.7	A	606	908
D	0.48	14.44	0.9	B	195	292

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	472	118	295	1098	0.430	469	411	0.0	0.7	5.694	A
B	210	53	499	1157	0.181	209	265	0.0	0.2	3.792	A
C	497	124	52	1768	0.281	495	655	0.0	0.4	2.825	A
D	160	40	548	605	0.264	158	0	0.0	0.4	8.057	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	564	141	354	1066	0.529	562	492	0.7	1.1	7.130	A
B	251	63	598	1101	0.228	251	318	0.2	0.3	4.233	A
C	593	148	63	1761	0.337	593	786	0.4	0.5	3.080	A
D	191	48	656	553	0.344	190	0	0.4	0.5	9.888	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	690	173	432	1022	0.676	687	602	1.1	2.0	10.633	B
B	307	77	730	1025	0.300	307	389	0.3	0.4	5.006	A
C	727	182	77	1751	0.415	726	960	0.5	0.7	3.505	A
D	233	58	803	483	0.483	232	0	0.5	0.9	14.247	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	690	173	434	1021	0.676	690	603	2.0	2.1	10.877	B
B	307	77	734	1023	0.300	307	390	0.4	0.4	5.027	A
C	727	182	77	1751	0.415	727	964	0.7	0.7	3.512	A
D	233	58	804	483	0.484	233	0	0.9	0.9	14.438	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	564	141	356	1064	0.530	567	494	2.1	1.1	7.294	A
B	251	63	604	1098	0.229	251	319	0.4	0.3	4.256	A
C	593	148	63	1761	0.337	594	792	0.7	0.5	3.087	A
D	191	48	657	553	0.345	192	0	0.9	0.5	10.028	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	472	118	297	1097	0.430	474	413	1.1	0.8	5.786	A
B	210	53	504	1155	0.182	210	267	0.3	0.2	3.815	A
C	497	124	53	1768	0.281	497	661	0.5	0.4	2.836	A
D	160	40	550	604	0.264	160	0	0.5	0.4	8.129	A

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	7.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	504	100.000
B		ONE HOUR	✓	481	100.000
C		ONE HOUR	✓	844	100.000
D		ONE HOUR	✓	180	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	1	105	398	0
	%	154	0	327	0
	&	500	342	2	0
	'	43	37	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	2	0
	%	1	0	1	0
	&	2	0	0	0
	'	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.56	8.42	1.3	A	462	694
B	0.46	5.83	0.9	A	441	662
C	0.54	4.56	1.2	A	774	1162
D	0.56	23.45	1.3	C	165	248

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	379	95	360	1078	0.352	377	523	0.0	0.5	5.124	A
B	362	91	375	1248	0.290	360	363	0.0	0.4	4.048	A
C	635	159	116	1756	0.362	633	619	0.0	0.6	3.199	A
D	136	34	749	517	0.262	134	0	0.0	0.4	9.366	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	453	113	431	1038	0.437	452	627	0.5	0.8	6.139	A
B	432	108	449	1205	0.359	432	434	0.4	0.6	4.654	A
C	759	190	139	1740	0.436	758	742	0.6	0.8	3.661	A
D	162	40	897	447	0.362	161	0	0.4	0.6	12.543	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	555	139	527	984	0.564	553	767	0.8	1.3	8.318	A
B	530	132	549	1148	0.461	528	531	0.6	0.8	5.797	A
C	929	232	170	1719	0.541	928	907	0.8	1.2	4.540	A
D	198	50	1098	352	0.563	196	0	0.6	1.2	22.622	C

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	555	139	529	982	0.565	555	768	1.3	1.3	8.420	A
B	530	132	551	1147	0.462	530	533	0.8	0.9	5.834	A
C	929	232	171	1719	0.541	929	910	1.2	1.2	4.559	A
D	198	50	1100	351	0.564	198	0	1.2	1.3	23.451	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	453	113	435	1036	0.438	455	629	1.3	0.8	6.224	A
B	432	108	453	1203	0.359	434	437	0.9	0.6	4.687	A
C	759	190	140	1740	0.436	760	747	1.2	0.8	3.682	A
D	162	40	900	446	0.363	165	0	1.3	0.6	12.918	B

17:45 - 18:00

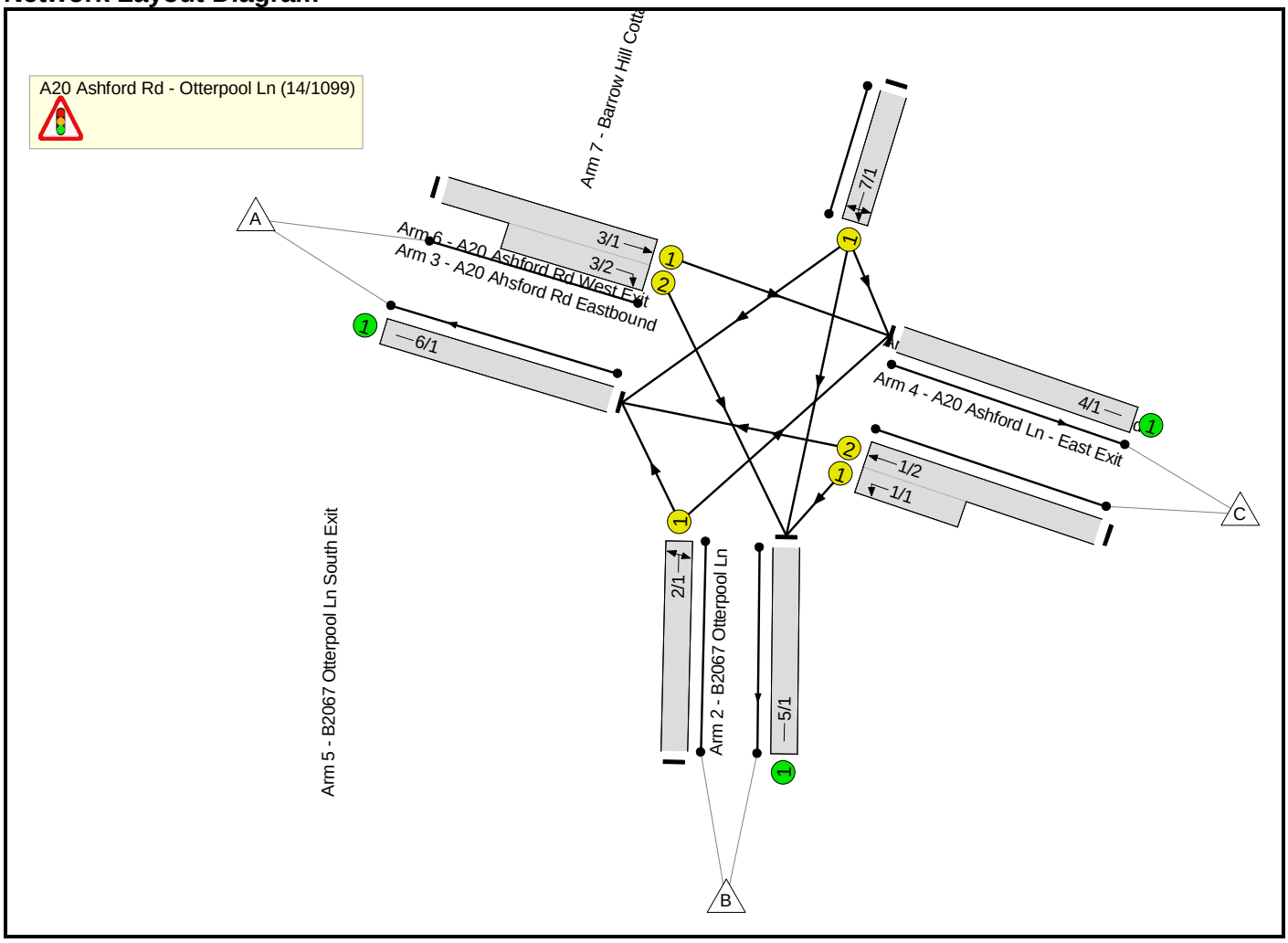
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	379	95	363	1076	0.353	380	526	0.8	0.5	5.182	A
B	362	91	378	1246	0.291	363	365	0.6	0.4	4.079	A
C	635	159	117	1755	0.362	636	624	0.8	0.6	3.220	A
D	136	34	753	515	0.263	136	0	0.6	0.4	9.521	A

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**A20 Ashford Rd/ B2067 Otterpool Ln**
Location:	B2067 Otterpool Ln - A20 Ashford Rd
Additional detail:	
File name:	J8_A20 Ashford Rd Otterpool Ln_Base Model.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		7	7
G	Dummy		3	3
H	Dummy		7	7

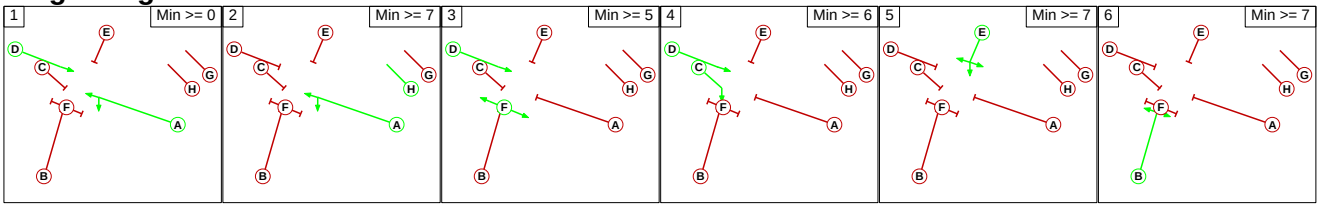
Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		7	7	-	10	9	5	-
	B	7		8	9	11	7	5	7
	C	6	5		-	5	9	3	6
	D	-	5	-		8	-	5	5
	E	5	5	5	5		8	3	5
	F	15	15	15	-	8		15	15
	G	2	2	2	2	2	0		-
	H	-	0	6	5	0	0	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Full Input Data And Results

Traffic Flows, Desired

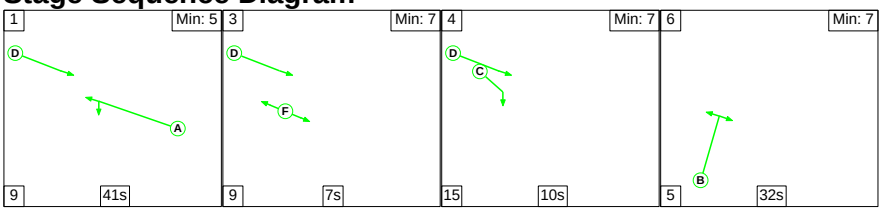
Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	77	188	265
	B	73	0	159	232
	C	207	188	0	395
	Tot.	280	265	347	892

Scenario 2: 'Base PM' (FG2: 'PM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	74	210	284
	B	95	0	245	340
	C	167	79	0	246
	Tot.	262	153	455	870

Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram

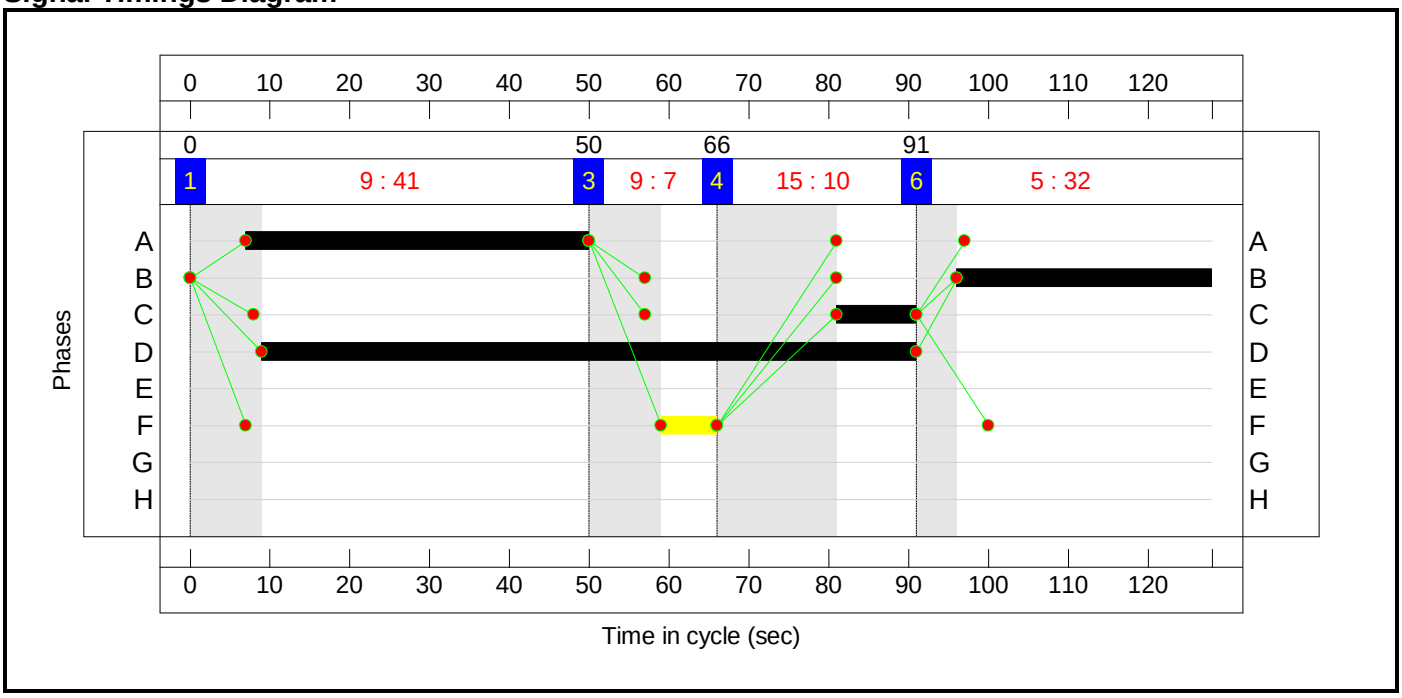


Stage Timings

Stage	1	3	4	6
Duration	41	7	10	32
Change Point	0	50	66	91

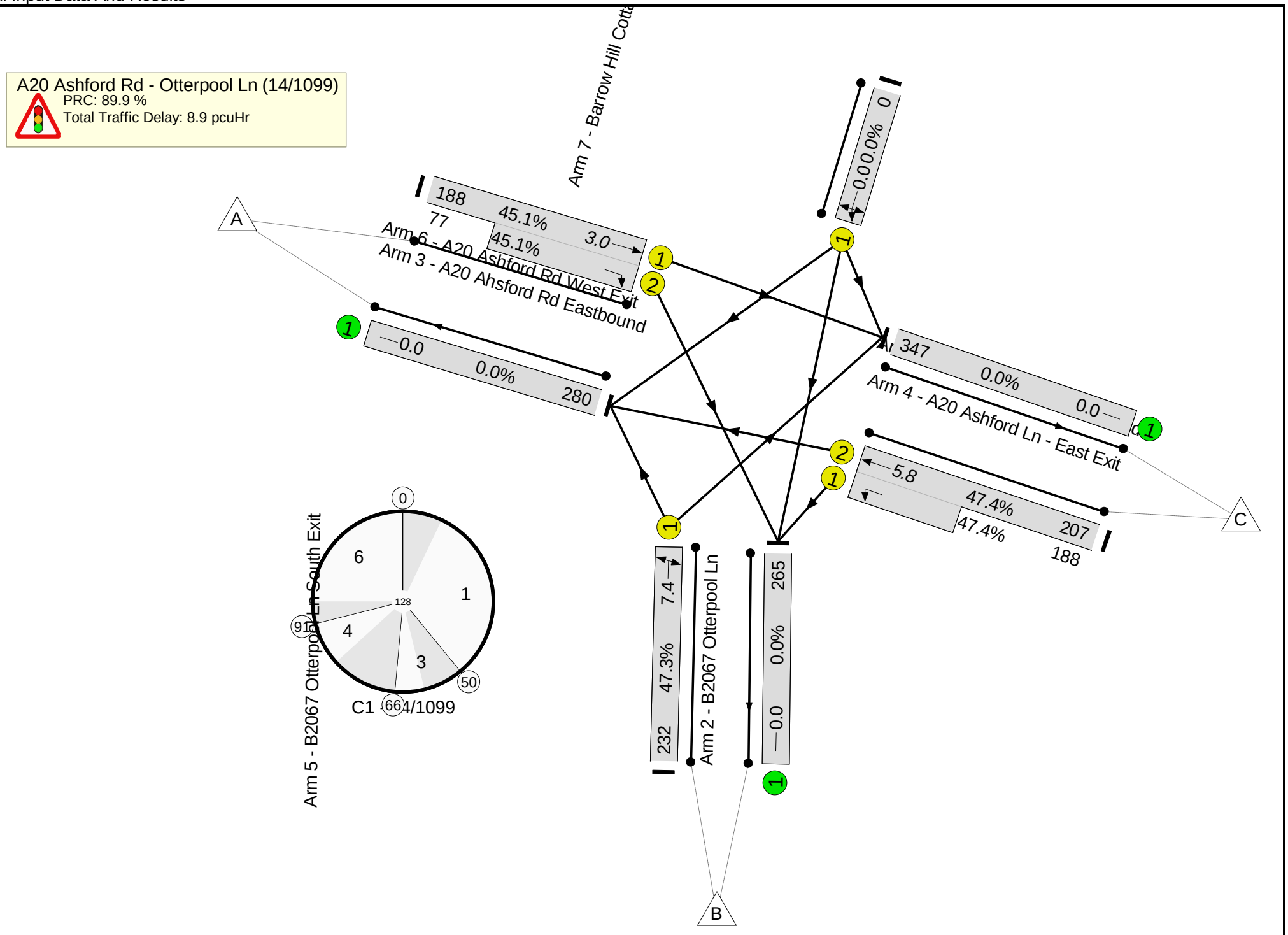
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A20 Ashford Rd - Otterpool Ln (14/1099)
PRC: 89.9 %
Total Traffic Delay: 8.9 pcuHr
Arm 7 - Barrow Hill Cotta
0
0.0
0.0%
188
45.1%
3.0
77
45.1%
Arm 6 - A20 Ashford Rd West Exit
Arm 3 - A20 Ahsford Rd Eastbound
A
0.0
0.0%
280
347
0.0%
0.0
Arm 4 - A20 Ashford Ln - East Exit
C
5.8
47.4%
207
47.4%
188
Arm 5 - B2067 Otterpool Ln South Exit
0
6
1
128
91
4
3
50
66
C1 14/1099
232
47.3%
7.4
Arm 2 - B2067 Otterpool Ln
265
0.0%
0.0
B

Network Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: A20 Ashford Rd/ B2067 Otterpool Ln	-	-	-	-	-	-	-	**47.4%**	-
A20 Ashford Rd - Otterpool Ln (14/1099)	-	-	-	-	-	-	-	**47.4%**	-
1/2+1/1	A20 Ashford Rd Westbound Left Ahead	U	43	-	395	2065:1762	437+397	47.4 : 47.4%	395
2/1	B2067 Otterpool Ln Right Left	U	32	-	232	1904	491	47.3%	232
3/1+3/2	A20 Ahsford Rd Eastbound Ahead Right	U	82:10	-	265	1850:1986	417+171	45.1 : 45.1%	265
4/1	A20 Ashford Ln - East Exit	U	-	-	347	Inf	Inf	0.0%	347
5/1	B2067 Otterpool Ln South Exit	U	-	-	265	Inf	Inf	0.0%	265
6/1	A20 Ashford Rd West Exit	U	-	-	280	Inf	Inf	0.0%	280
7/1	Barrow Hill Cottages Left Ahead Right	U	0	-	0	1800	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: A20 Ashford Rd/ B2067 Otterpool Ln	**-**	**0**	**7.6**	**1.3**	**8.9**	**-**	**-**	**-**	**-**
A20 Ashford Rd - Otterpool Ln (14/1099)	**-**	**0**	**7.6**	**1.3**	**8.9**	**-**	**-**	**-**	**-**
1/2+1/1	395	-	3.4	0.4	3.8	34.8	5.3	0.4	5.8
2/1	232	-	2.6	0.4	3.0	47.1	7.0	0.4	7.4
3/1+3/2	265	-	1.7	0.4	2.1	28.0	2.6	0.4	3.0
4/1	347	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	265	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	280	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1 - 14/1099 PRC for Signalled Lanes (%): 89.9 Total Delay for Signalled Lanes (pcuHr): 8.92 Cycle Time (s): 128
PRC Over All Lanes (%): 89.9 Total Delay Over All Lanes(pcuHr): 8.92

Full Input Data And Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: A20 Ashford Rd/ B2067 Otterpool Ln	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**46.4%**	**-**
A20 Ashford Rd - Otterpool Ln (14/1099)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**46.4%**	**-**
1/2+1/1	A20 Ashford Rd Westbound Left Ahead	U	28	-	246	2065:1762	362+171	46.1 : 46.1%	246
2/1	B2067 Otterpool Ln Right Left	U	49	-	340	1904	732	46.4%	340
3/1+3/2	A20 Ahsford Rd Eastbound Ahead Right	U	67:10	-	284	1899:1986	477+168	44.0 : 44.0%	284
4/1	A20 Ashford Ln - East Exit	U	-	-	455	Inf	Inf	0.0%	455
5/1	B2067 Otterpool Ln South Exit	U	-	-	153	Inf	Inf	0.0%	153
6/1	A20 Ashford Rd West Exit	U	-	-	262	Inf	Inf	0.0%	262
7/1	Barrow Hill Cottages Left Ahead Right	U	0	-	0	1800	-	-	-

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: A20 Ashford Rd/ B2067 Otterpool Ln	**-**	**0**	**7.8**	**1.3**	**9.1**	**-**	**-**	**-**	**-**
A20 Ashford Rd - Otterpool Ln (14/1099)	**-**	**0**	**7.8**	**1.3**	**9.1**	**-**	**-**	**-**	**-**
1/2+1/1	246	-	2.9	0.4	3.3	48.4	5.1	0.4	5.5
2/1	340	-	2.8	0.4	3.3	34.5	9.2	0.4	9.6
3/1+3/2	284	-	2.1	0.4	2.5	32.0	4.0	0.4	4.4
4/1	455	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	153	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	262	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	-	-	-	-	-	-	-	-	-

Full Input Data And Results

C1 - 14/1099	PRC for Signalled Lanes (%):	93.8	Total Delay for Signalled Lanes (pcuHr):	9.10	Cycle Time (s): 130
	PRC Over All Lanes (%):	93.8	Total Delay Over All Lanes(pcuHr):	9.10	

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J9_B2067 Otterpool Ln Aldington Rd_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J9 B2067 Otterpool Ln - Aldington Rd
Report generation date: 20/11/2018 15:41:06

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.3	9.67	0.22	A	0.5	11.59	0.34	B
Stream C-AB	0.2	7.49	0.20	A	0.1	6.45	0.11	A

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	J9 Otterpool Park_Base Model
Location	B2067 Otterpool Ln - Aldington Rd
Site number	
Date	09/08/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J9 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J9 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Aldington Road Westbound		Major
B	B2067 Otterpool Lane		Minor
C	Aldington Road Eastbound		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	6.17			113.0	✓	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	2.44	32	16

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	468	0.085	0.214	0.135	0.306
1	B-C	598	0.091	0.230	-	-
1	C-B	639	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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J9 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	136	100.000
B		ONE HOUR	✓	98	100.000
C		ONE HOUR	✓	161	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	86	50
	%	35	0	63
	&	57	104	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	2
	%	3	0	5
	&	0	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.22	9.67	0.3	A	90	135
C-AB	0.20	7.49	0.2	A	97	145
C-A					51	76
A-B					79	118
A-C					46	69

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	74	18	494	0.149	73	0.0	0.2	8.539	A
C-AB	79	20	602	0.131	78	0.0	0.2	6.868	A
C-A	42	11			42				
A-B	65	16			65				
A-C	38	9			38				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	88	22	488	0.180	88	0.2	0.2	8.989	A
C-AB	95	24	600	0.158	95	0.2	0.2	7.123	A
C-A	50	12			50				
A-B	77	19			77				
A-C	45	11			45				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	108	27	480	0.225	108	0.2	0.3	9.654	A
C-AB	117	29	598	0.196	117	0.2	0.2	7.483	A
C-A	60	15			60				
A-B	95	24			95				
A-C	55	14			55				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	108	27	480	0.225	108	0.3	0.3	9.668	A
C-AB	117	29	598	0.196	117	0.2	0.2	7.492	A
C-A	60	15			60				
A-B	95	24			95				
A-C	55	14			55				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	88	22	488	0.180	88	0.3	0.2	9.009	A
C-AB	95	24	600	0.158	95	0.2	0.2	7.133	A
C-A	50	12			50				
A-B	77	19			77				
A-C	45	11			45				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	74	18	494	0.149	74	0.2	0.2	8.575	A
C-AB	79	20	602	0.131	79	0.2	0.2	6.886	A
C-A	42	11			42				
A-B	65	16			65				
A-C	38	9			38				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	6.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J9 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	75	100.000
B		ONE HOUR	✓	145	100.000
C		ONE HOUR	✓	117	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	29	46
	%	91	0	54
	&	56	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	0
	%	0	0	2
	&	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.34	11.59	0.5	B	133	200
C-AB	0.11	6.45	0.1	A	56	85
C-A					51	76
A-B					27	40
A-C					42	63

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	109	27	482	0.227	108	0.0	0.3	9.602	A
C-AB	46	12	629	0.073	46	0.0	0.1	6.175	A
C-A	42	10			42				
A-B	22	5			22				
A-C	35	9			35				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	130	33	477	0.273	130	0.3	0.4	10.369	B
C-AB	55	14	627	0.088	55	0.1	0.1	6.292	A
C-A	50	12			50				
A-B	26	7			26				
A-C	41	10			41				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	160	40	470	0.339	159	0.4	0.5	11.548	B
C-AB	68	17	626	0.108	68	0.1	0.1	6.452	A
C-A	61	15			61				
A-B	32	8			32				
A-C	51	13			51				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	160	40	470	0.340	160	0.5	0.5	11.588	B
C-AB	68	17	626	0.108	68	0.1	0.1	6.454	A
C-A	61	15			61				
A-B	32	8			32				
A-C	51	13			51				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	130	33	477	0.273	131	0.5	0.4	10.419	B
C-AB	55	14	627	0.088	55	0.1	0.1	6.294	A
C-A	50	12			50				
A-B	26	7			26				
A-C	41	10			41				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	109	27	482	0.227	110	0.4	0.3	9.681	A
C-AB	46	12	629	0.073	46	0.1	0.1	6.183	A
C-A	42	10			42				
A-B	22	5			22				
A-C	35	9			35				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J10_Aldington Rd Stone St_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J10 Aldington Rd - Stone St
Report generation date: 20/11/2018 15:42:17

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[a]Base, AM
[a]Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.6	13.28	0.39	B	1.5	20.29	0.61	C
Stream C-AB	0.0	6.56	0.01	A	0.0	6.09	0.02	A

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	J10 Otterpool Park_Base Model
Location	Aldington Rd - Stone St
Site number	
Date	09/08/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J10 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J10 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Aldington Road Westbound		Major
B	Stone Street		Minor
C	Aldington Road Eastbound		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	6.00			113.0	✓	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	2.50	15	43

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	478	0.087	0.220	0.139	0.315
1	B-C	618	0.095	0.240	-	-
1	C-B	639	0.248	0.248	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J10 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	310	100.000
B		ONE HOUR	✓	157	100.000
C		ONE HOUR	✓	80	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	169	141
	%	115	0	42
	&	74	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	1
	%	0	0	2
	&	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.39	13.28	0.6	B	144	216
C-AB	0.01	6.56	0.0	A	6	8
C-A					68	102
A-B					155	233
A-C					129	194

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	118	30	464	0.255	117	0.0	0.3	10.334	B
C-AB	5	1	582	0.008	4	0.0	0.0	6.235	A
C-A	56	14			56				
A-B	127	32			127				
A-C	106	27			106				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	141	35	455	0.310	141	0.3	0.4	11.420	B
C-AB	5	1	571	0.009	5	0.0	0.0	6.367	A
C-A	67	17			67				
A-B	152	38			152				
A-C	127	32			127				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	173	43	444	0.389	172	0.4	0.6	13.210	B
C-AB	7	2	555	0.012	7	0.0	0.0	6.558	A
C-A	81	20			81				
A-B	186	47			186				
A-C	155	39			155				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	173	43	444	0.389	173	0.6	0.6	13.277	B
C-AB	7	2	555	0.012	7	0.0	0.0	6.558	A
C-A	81	20			81				
A-B	186	47			186				
A-C	155	39			155				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	141	35	455	0.310	142	0.6	0.5	11.505	B
C-AB	5	1	571	0.009	5	0.0	0.0	6.368	A
C-A	67	17			67				
A-B	152	38			152				
A-C	127	32			127				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	118	30	464	0.255	119	0.5	0.3	10.441	B
C-AB	5	1	582	0.008	5	0.0	0.0	6.236	A
C-A	56	14			56				
A-B	127	32			127				
A-C	106	27			106				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J10 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	137	100.000
B		ONE HOUR	✓	254	100.000
C		ONE HOUR	✓	140	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	83	54
	%	204	0	50
	&	127	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	0
	%	0	0	2
	&	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.61	20.29	1.5	C	233	350
C-AB	0.02	6.09	0.0	A	12	18
C-A					116	175
A-B					76	114
A-C					50	74

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	191	48	470	0.407	189	0.0	0.7	12.674	B
C-AB	10	2	615	0.016	10	0.0	0.0	5.944	A
C-A	96	24			96				
A-B	62	16			62				
A-C	41	10			41				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	228	57	464	0.492	227	0.7	0.9	15.086	C
C-AB	12	3	611	0.019	12	0.0	0.0	6.005	A
C-A	114	29			114				
A-B	75	19			75				
A-C	49	12			49				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	280	70	457	0.613	277	0.9	1.5	19.837	C
C-AB	14	4	605	0.024	14	0.0	0.0	6.091	A
C-A	140	35			140				
A-B	91	23			91				
A-C	59	15			59				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	280	70	457	0.613	280	1.5	1.5	20.289	C
C-AB	14	4	605	0.024	14	0.0	0.0	6.091	A
C-A	140	35			140				
A-B	91	23			91				
A-C	59	15			59				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	228	57	464	0.492	231	1.5	1.0	15.536	C
C-AB	12	3	611	0.019	12	0.0	0.0	6.006	A
C-A	114	29			114				
A-B	75	19			75				
A-C	49	12			49				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	191	48	470	0.407	192	1.0	0.7	13.023	B
C-AB	10	2	615	0.016	10	0.0	0.0	5.944	A
C-A	96	24			96				
A-B	62	16			62				
A-C	41	10			41				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J11_A20 Hythe Road_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J11 A20 Ashford Rd-A261 Hyther Rd
Report generation date: 20/11/2018 15:43:25

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-C	2.5	77.35	0.75	F	0.6	22.15	0.39	C
Stream B-A	5.7	88.64	0.87	F	2.4	49.08	0.72	E
Stream C-AB	0.2	7.92	0.18	A	0.5	10.50	0.35	B

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	J11 Otterpool Park_Base Model
Location	A20 Ashford Rd/ A261 Hythe Rd/Stone St
Site number	
Date	07/07/2017
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	bpa76880 [HCL70028]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base	AM	AM PEAK 2017 reviewed	DIRECT	08:00	09:00	60	15	✓
D2	Base	PM	PM PEAK 2017 reviewed	DIRECT	17:00	18:00	60	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	20.39	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Westbound		Major
B	Hythe Road		Minor
C	A20 Eastbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.62		✓	4.30	112.0	✓	7.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	6.31	5.81	5.17	4.47	3.78		2.00	40	48

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.070	0.079	0.200	0.126	0.286
1	B-C	9.655	0.071	0.179	-	-
1	C-B	13.080	0.243	0.243	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base	AM	AM PEAK 2017 reviewed	DIRECT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT		100.000
B		DIRECT		100.000
C		DIRECT		100.000

Origin-Destination Data

Demand (Veh/min)

		To		
		$	%	&
From	$	0.00	185.00	461.00
	%	247.00	0.00	128.00
	&	476.00	102.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	10	10	10
	%	10	10	10
	&	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)
B-C	0.75	77.35	2.5	F	2.13	128.00
B-A	0.87	88.64	5.7	F	4.12	247.00
C-AB	0.18	7.92	0.2	A	1.70	101.97
C-A					7.93	475.83
A-B					3.08	185.06
A-C					7.69	461.14

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	2.13	32.00	3.67	0.581	2.05	0.0	1.3	35.376	E
B-A	4.12	61.75	4.79	0.860	3.85	0.0	4.1	53.933	F
C-AB	1.70	25.49	9.27	0.183	1.68	0.0	0.2	7.890	A
C-A	7.93	118.96			7.93				
A-B	3.08	46.26			3.08				
A-C	7.69	115.29			7.69				

08:15 - 08:30

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	2.13	32.00	3.07	0.694	2.09	1.3	1.9	58.059	F
B-A	4.12	61.75	4.75	0.867	4.06	4.1	4.9	77.487	F
C-AB	1.70	25.49	9.27	0.183	1.70	0.2	0.2	7.920	A
C-A	7.93	118.96			7.93				
A-B	3.08	46.26			3.08				
A-C	7.69	115.29			7.69				

08:30 - 08:45

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	2.13	32.00	2.94	0.727	2.11	1.9	2.3	69.486	F
B-A	4.12	61.75	4.73	0.871	4.09	4.9	5.4	84.454	F
C-AB	1.70	25.49	9.27	0.183	1.70	0.2	0.2	7.920	A
C-A	7.93	118.96			7.93				
A-B	3.08	46.26			3.08				
A-C	7.69	115.29			7.69				

08:45 - 09:00

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	2.13	32.00	2.86	0.747	2.12	2.3	2.5	77.353	F
B-A	4.12	61.75	4.71	0.873	4.10	5.4	5.7	88.639	F
C-AB	1.70	25.49	9.27	0.183	1.70	0.2	0.2	7.920	A
C-A	7.93	118.96			7.93				
A-B	3.08	46.26			3.08				
A-C	7.69	115.29			7.69				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	7.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Base	PM	PM PEAK 2017 reviewed	DIRECT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT		100.000
B		DIRECT		100.000
C		DIRECT		100.000

Origin-Destination Data

Demand (Veh/min)

		To		
		$	%	&
From	$	0.00	338.00	428.00
	%	186.00	0.00	104.00
	&	507.00	185.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	10	10	10
	%	10	10	10
	&	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)
B-C	0.39	22.15	0.6	C	1.73	103.93
B-A	0.72	49.08	2.4	E	3.10	185.87
C-AB	0.35	10.50	0.5	B	3.09	185.17
C-A					8.44	506.63
A-B					5.63	338.09
A-C					7.14	428.11

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	1.73	25.98	4.75	0.365	1.70	0.0	0.6	19.427	C
B-A	3.10	46.47	4.31	0.718	2.95	0.0	2.2	40.720	E
C-AB	3.09	46.29	8.80	0.351	3.05	0.0	0.5	10.376	B
C-A	8.44	126.66			8.44				
A-B	5.63	84.52			5.63				
A-C	7.14	107.03			7.14				

17:15 - 17:30

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	1.73	25.98	4.47	0.387	1.73	0.6	0.6	21.838	C
B-A	3.10	46.47	4.31	0.719	3.09	2.2	2.3	48.153	E
C-AB	3.09	46.29	8.80	0.351	3.09	0.5	0.5	10.499	B
C-A	8.44	126.66			8.44				
A-B	5.63	84.52			5.63				
A-C	7.14	107.03			7.14				

17:30 - 17:45

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	1.73	25.98	4.45	0.389	1.73	0.6	0.6	22.069	C
B-A	3.10	46.47	4.31	0.720	3.09	2.3	2.4	48.828	E
C-AB	3.09	46.29	8.80	0.351	3.09	0.5	0.5	10.501	B
C-A	8.44	126.66			8.44				
A-B	5.63	84.52			5.63				
A-C	7.14	107.03			7.14				

17:45 - 18:00

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	1.73	25.98	4.44	0.390	1.73	0.6	0.6	22.151	C
B-A	3.10	46.47	4.31	0.720	3.10	2.4	2.4	49.084	E
C-AB	3.09	46.29	8.80	0.351	3.09	0.5	0.5	10.501	B
C-A	8.44	126.66			8.44				
A-B	5.63	84.52			5.63				
A-C	7.14	107.03			7.14				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J11_A20 Stone Street_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J11 A20 Ashford Rd-A261 Hyther Rd
Report generation date: 20/11/2018 15:44:22

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-C	0.1	15.58	0.12	C	0.0	8.59	0.03	A
Stream B-A	2.5	36.54	0.72	E	0.6	16.48	0.37	C
Stream C-AB	0.0	7.80	0.02	A	0.0	7.77	0.05	A

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	J11 Otterpool Park A20-Stone St - Base model
Location	A20 Ashford Rd/ A261 Hythe Rd/Stone St
Site number	
Date	06/07/2017
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	bpa76880 [HCL70028]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base	AM	AM 2017 reviewed	DIRECT	08:00	09:00	60	15	✓
D2	Base	PM	PM 2017 reviewed	DIRECT	17:00	18:00	60	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Westbound		Major
B	Stone Street		Minor
C	A20 Eastbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.50		✓	2.40	125.0	✓	3.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	7.49	5.00	3.75	3.07		2.00	32	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.460	0.088	0.222	0.139	0.316
1	B-C	10.397	0.081	0.205	-	-
1	C-B	11.007	0.217	0.217	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base	AM	AM 2017 reviewed	DIRECT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT		100.000
B		DIRECT		100.000
C		DIRECT		100.000

Origin-Destination Data

Demand (Veh/min)

		To		
		$	%	&
From	$	0.00	130.00	459.00
	%	257.00	0.00	31.00
	&	321.00	11.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	10	10	10
	%	10	10	10
	&	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)
B-C	0.12	15.58	0.1	C	0.52	31.00
B-A	0.72	36.54	2.5	E	4.28	257.00
C-AB	0.02	7.80	0.0	A	0.18	10.93
C-A					5.32	319.07
A-B					2.17	130.04
A-C					7.65	459.16

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.52	7.75	4.67	0.111	0.51	0.0	0.1	14.395	B
B-A	4.28	64.25	5.91	0.724	4.13	0.0	2.3	31.429	D
C-AB	0.18	2.73	7.88	0.023	0.18	0.0	0.0	7.794	A
C-A	5.32	79.77			5.32				
A-B	2.17	32.51			2.17				
A-C	7.65	114.79			7.65				

08:15 - 08:30

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.52	7.75	4.39	0.118	0.52	0.1	0.1	15.474	C
B-A	4.28	64.25	5.91	0.724	4.27	2.3	2.5	36.101	E
C-AB	0.18	2.73	7.88	0.023	0.18	0.0	0.0	7.797	A
C-A	5.32	79.77			5.32				
A-B	2.17	32.51			2.17				
A-C	7.65	114.79			7.65				

08:30 - 08:45

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.52	7.75	4.38	0.118	0.52	0.1	0.1	15.548	C
B-A	4.28	64.25	5.91	0.724	4.28	2.5	2.5	36.419	E
C-AB	0.18	2.73	7.88	0.023	0.18	0.0	0.0	7.797	A
C-A	5.32	79.77			5.32				
A-B	2.17	32.51			2.17				
A-C	7.65	114.79			7.65				

08:45 - 09:00

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.52	7.75	4.37	0.118	0.52	0.1	0.1	15.575	C
B-A	4.28	64.25	5.91	0.724	4.28	2.5	2.5	36.540	E
C-AB	0.18	2.73	7.88	0.023	0.18	0.0	0.0	7.797	A
C-A	5.32	79.77			5.32				
A-B	2.17	32.51			2.17				
A-C	7.65	114.79			7.65				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Base	PM	PM 2017 reviewed	DIRECT	17:00	18:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT		100.000
B		DIRECT		100.000
C		DIRECT		100.000

Origin-Destination Data

Demand (Veh/min)

		To		
		$	%	&
From	$	0.00	247.00	285.00
	%	128.00	0.00	12.00
	&	564.00	22.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	10	10	10
	%	10	10	10
	&	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)
B-C	0.03	8.59	0.0	A	0.20	11.98
B-A	0.37	16.48	0.6	C	2.13	127.82
C-AB	0.05	7.77	0.0	A	0.37	22.01
C-A					9.40	564.19
A-B					4.12	247.09
A-C					4.75	285.11

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.20	3.00	7.21	0.028	0.20	0.0	0.0	8.552	A
B-A	2.13	31.95	5.77	0.369	2.09	0.0	0.6	16.152	C
C-AB	0.37	5.50	8.08	0.045	0.36	0.0	0.0	7.768	A
C-A	9.40	141.05			9.40				
A-B	4.12	61.77			4.12				
A-C	4.75	71.28			4.75				

17:15 - 17:30

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.20	3.00	7.19	0.028	0.20	0.0	0.0	8.585	A
B-A	2.13	31.95	5.77	0.369	2.13	0.6	0.6	16.474	C
C-AB	0.37	5.50	8.08	0.045	0.37	0.0	0.0	7.774	A
C-A	9.40	141.05			9.40				
A-B	4.12	61.77			4.12				
A-C	4.75	71.28			4.75				

17:30 - 17:45

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.20	3.00	7.19	0.028	0.20	0.0	0.0	8.586	A
B-A	2.13	31.95	5.77	0.369	2.13	0.6	0.6	16.479	C
C-AB	0.37	5.50	8.08	0.045	0.37	0.0	0.0	7.774	A
C-A	9.40	141.05			9.40				
A-B	4.12	61.77			4.12				
A-C	4.75	71.28			4.75				

17:45 - 18:00

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Capacity (Veh/min)	RFC	Throughput (Veh/min)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	0.20	3.00	7.19	0.028	0.20	0.0	0.0	8.586	A
B-A	2.13	31.95	5.77	0.369	2.13	0.6	0.6	16.478	C
C-AB	0.37	5.50	8.08	0.045	0.37	0.0	0.0	7.774	A
C-A	9.40	141.05			9.40				
A-B	4.12	61.77			4.12				
A-C	4.75	71.28			4.75				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J12_Aldington Rd Lympne Hill_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J12 Aldington Rd - Lympne Hill
Report generation date: 20/11/2018 15:45:32

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.9	12.08	0.47	B	0.2	7.63	0.17	A
Stream C-AB	0.3	7.12	0.22	A	0.9	10.58	0.47	B

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	J12 Otterpool Park_Base Model
Location	Aldington Rd - Lympne Hill
Site number	
Date	09/08/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J12 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J12 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Aldington Road Westbound		Major
B	Lympne Hill		Minor
C	Aldington Road Eastbound		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	6.00			59.0	✓	0.00

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	2.20	34	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	464	0.085	0.214	0.134	0.305
1	B-C	592	0.091	0.230	-	-
1	C-B	608	0.236	0.236	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J12 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	46	100.000
B		ONE HOUR	✓	241	100.000
C		ONE HOUR	✓	182	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	4	42
	%	11	0	230
	&	69	113	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	25	2
	%	18	0	0
	&	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.47	12.08	0.9	B	221	332
C-AB	0.22	7.12	0.3	A	115	173
C-A					52	77
A-B					4	6
A-C					39	58

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	181	45	568	0.319	180	0.0	0.5	9.216	A
C-AB	93	23	634	0.146	92	0.0	0.2	6.630	A
C-A	44	11			44				
A-B	3	0.75			3				
A-C	32	8			32				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	217	54	566	0.383	216	0.5	0.6	10.261	B
C-AB	113	28	639	0.176	112	0.2	0.2	6.829	A
C-A	51	13			51				
A-B	4	1			4				
A-C	38	9			38				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	265	66	563	0.471	264	0.6	0.9	11.995	B
C-AB	141	35	647	0.218	141	0.2	0.3	7.117	A
C-A	59	15			59				
A-B	4	1			4				
A-C	46	12			46				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	265	66	563	0.471	265	0.9	0.9	12.075	B
C-AB	141	35	647	0.218	141	0.3	0.3	7.123	A
C-A	59	15			59				
A-B	4	1			4				
A-C	46	12			46				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	217	54	566	0.383	218	0.9	0.6	10.355	B
C-AB	113	28	640	0.176	113	0.3	0.2	6.841	A
C-A	51	13			51				
A-B	4	1			4				
A-C	38	9			38				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	181	45	568	0.319	182	0.6	0.5	9.332	A
C-AB	93	23	634	0.146	93	0.2	0.2	6.654	A
C-A	44	11			44				
A-B	3	0.75			3				
A-C	32	8			32				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J12 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	40	100.000
B		ONE HOUR	✓	89	100.000
C		ONE HOUR	✓	309	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	5	35
	%	2	0	87
	&	63	246	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	0
	%	0	0	1
	&	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.17	7.63	0.2	A	82	123
C-AB	0.47	10.58	0.9	B	249	374
C-A					34	52
A-B					5	7
A-C					32	48

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	67	17	574	0.117	66	0.0	0.1	7.082	A
C-AB	200	50	633	0.316	198	0.0	0.5	8.256	A
C-A	32	8			32				
A-B	4	0.94			4				
A-C	26	7			26				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	80	20	572	0.140	80	0.1	0.2	7.307	A
C-AB	243	61	638	0.381	242	0.5	0.6	9.098	A
C-A	35	9			35				
A-B	4	1			4				
A-C	31	8			31				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	98	24	570	0.172	98	0.2	0.2	7.627	A
C-AB	304	76	644	0.472	303	0.6	0.9	10.517	B
C-A	36	9			36				
A-B	6	1			6				
A-C	39	10			39				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	98	24	570	0.172	98	0.2	0.2	7.629	A
C-AB	304	76	644	0.472	304	0.9	0.9	10.585	B
C-A	36	9			36				
A-B	6	1			6				
A-C	39	10			39				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	80	20	572	0.140	80	0.2	0.2	7.315	A
C-AB	243	61	638	0.381	244	0.9	0.7	9.181	A
C-A	35	9			35				
A-B	4	1			4				
A-C	31	8			31				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	67	17	574	0.117	67	0.2	0.1	7.100	A
C-AB	200	50	633	0.317	201	0.7	0.5	8.356	A
C-A	32	8			32				
A-B	4	0.94			4				
A-C	26	7			26				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J13_A261 Hythe Rd Aldington Rd_Base.j9
Path: K:\UA008926 Otterpool\F-Reports\Transport\1804 Transport Assessment\APPS\APP F - Baseline modelling outputs\Appendix Base Models\Picady\J13 A261 Hythe Rd - Aldington Rd
Report generation date: 28/11/2018 16:32:31

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.7	17.04	0.42	C	0.5	14.40	0.32	B
Stream C-AB	0.1	5.65	0.04	A	0.2	4.70	0.09	A

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	J13 Otterpool Park_Base Model
Location	A261 Hythe Road / Aldington Road
Site number	
Date	02/11/2017
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J13 Otterpool Park_AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J13 Otterpool Park_PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Hythe Road WB		Major
B	Aldington Rd		Minor
C	Hythe Road EB		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	7.92			100.0	✓	0.00

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	2.20	86	84

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	504	0.084	0.213	0.134	0.304
1	B-C	623	0.087	0.221	-	-
1	C-B	632	0.224	0.224	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J13 Otterpool Park_AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	425	100.000
B		ONE HOUR	✓	138	100.000
C		ONE HOUR	✓	287	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	64	361
	%	124	0	14
	&	273	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	4	4
	%	1	0	24
	&	9	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.42	17.04	0.7	C	127	190
C-AB	0.04	5.65	0.1	A	21	31
C-A					242	364
A-B					59	88
A-C					331	497

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	104	26	406	0.256	103	0.0	0.3	11.800	B
C-AB	15	4	653	0.024	15	0.0	0.0	5.644	A
C-A	201	50			201				
A-B	48	12			48				
A-C	272	68			272				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	124	31	388	0.320	124	0.3	0.5	13.578	B
C-AB	20	5	669	0.030	20	0.0	0.0	5.542	A
C-A	238	60			238				
A-B	58	14			58				
A-C	325	81			325				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	152	38	363	0.419	151	0.5	0.7	16.898	C
C-AB	27	7	693	0.039	27	0.0	0.1	5.408	A
C-A	289	72			289				
A-B	70	18			70				
A-C	397	99			397				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	152	38	363	0.419	152	0.7	0.7	17.043	C
C-AB	27	7	693	0.039	27	0.1	0.1	5.409	A
C-A	289	72			289				
A-B	70	18			70				
A-C	397	99			397				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	124	31	388	0.320	125	0.7	0.5	13.728	B
C-AB	20	5	669	0.030	20	0.1	0.0	5.546	A
C-A	238	60			238				
A-B	58	14			58				
A-C	325	81			325				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	104	26	406	0.256	104	0.5	0.3	11.945	B
C-AB	15	4	653	0.024	15	0.0	0.0	5.645	A
C-A	201	50			201				
A-B	48	12			48				
A-C	272	68			272				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J13 Otterpool Park_PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	363	100.000
B		ONE HOUR	✓	106	100.000
C		ONE HOUR	✓	504	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	91	272
	%	87	0	19
	&	474	30	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	3	3
	%	0	0	14
	&	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.32	14.40	0.5	B	97	146
C-AB	0.09	4.70	0.2	A	58	87
C-A					404	607
A-B					84	125
A-C					250	374

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	80	20	413	0.193	79	0.0	0.2	10.742	B
C-AB	40	10	807	0.050	40	0.0	0.1	4.693	A
C-A	339	85			339				
A-B	69	17			69				
A-C	205	51			205				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	95	24	394	0.242	95	0.2	0.3	12.039	B
C-AB	55	14	845	0.065	54	0.1	0.1	4.551	A
C-A	399	100			399				
A-B	82	20			82				
A-C	245	61			245				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	117	29	367	0.318	116	0.3	0.5	14.335	B
C-AB	79	20	900	0.088	79	0.1	0.2	4.386	A
C-A	476	119			476				
A-B	100	25			100				
A-C	299	75			299				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	117	29	367	0.318	117	0.5	0.5	14.399	B
C-AB	79	20	900	0.088	79	0.2	0.2	4.388	A
C-A	476	119			476				
A-B	100	25			100				
A-C	299	75			299				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	95	24	394	0.242	96	0.5	0.3	12.112	B
C-AB	55	14	846	0.065	55	0.2	0.1	4.555	A
C-A	398	100			398				
A-B	82	20			82				
A-C	245	61			245				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	80	20	413	0.193	80	0.3	0.2	10.828	B
C-AB	41	10	807	0.050	41	0.1	0.1	4.697	A
C-A	339	85			339				
A-B	69	17			69				
A-C	205	51			205				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J14_A261 London Rd Barrack Hill_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J14 A261 London Rd - Barrack Hill
Report generation date: 20/11/2018 15:48:16

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.7	11.73	0.43	B	0.5	10.06	0.31	B
Stream C-AB	0.6	9.45	0.37	A	0.3	8.82	0.23	A

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	J14 Otterpool Park_Base Model
Location	A261 London Rd - Barrack Hill
Site number	
Date	08/08/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J14 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J14 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A261 London Road Eastbound		Major
B	Barrack Hill		Minor
C	A261 London Road Westbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.60	✓	2.70	✓	2.70	85.0	✓	2.00

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	3.50	75	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	603	0.096	0.244	0.153	0.348
1	B-C	708	0.101	0.255	-	-
1	C-B	657	0.237	0.237	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J14 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	397	100.000
B		ONE HOUR	✓	209	100.000
C		ONE HOUR	✓	573	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	37	360
	%	32	0	177
	&	393	180	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	5	6
	%	0	0	1
	&	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.43	11.73	0.7	B	192	288
C-AB	0.37	9.45	0.6	A	177	265
C-A					349	524
A-B					34	51
A-C					330	496

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	157	39	586	0.268	156	0.0	0.4	8.336	A
C-AB	139	35	593	0.235	138	0.0	0.3	7.893	A
C-A	292	73			292				
A-B	28	7			28				
A-C	271	68			271				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	188	47	566	0.332	187	0.4	0.5	9.492	A
C-AB	170	43	592	0.288	170	0.3	0.4	8.527	A
C-A	345	86			345				
A-B	33	8			33				
A-C	324	81			324				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	230	58	537	0.429	229	0.5	0.7	11.654	B
C-AB	220	55	601	0.366	219	0.4	0.6	9.412	A
C-A	411	103			411				
A-B	41	10			41				
A-C	396	99			396				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	230	58	537	0.429	230	0.7	0.7	11.728	B
C-AB	220	55	601	0.366	220	0.6	0.6	9.452	A
C-A	411	103			411				
A-B	41	10			41				
A-C	396	99			396				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	188	47	566	0.332	189	0.7	0.5	9.570	A
C-AB	170	43	592	0.288	171	0.6	0.4	8.578	A
C-A	345	86			345				
A-B	33	8			33				
A-C	324	81			324				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	157	39	586	0.268	158	0.5	0.4	8.414	A
C-AB	139	35	593	0.235	140	0.4	0.3	7.952	A
C-A	292	73			292				
A-B	28	7			28				
A-C	271	68			271				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J14 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	561	100.000
B		ONE HOUR	✓	148	100.000
C		ONE HOUR	✓	453	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	36	525
	%	15	0	133
	&	347	106	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	1
	%	0	0	1
	&	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.31	10.06	0.5	B	136	204
C-AB	0.23	8.82	0.3	A	100	149
C-A					316	474
A-B					33	50
A-C					482	723

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	111	28	576	0.194	110	0.0	0.2	7.725	A
C-AB	81	20	561	0.144	80	0.0	0.2	7.467	A
C-A	260	65			260				
A-B	27	7			27				
A-C	395	99			395				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	133	33	553	0.241	133	0.2	0.3	8.564	A
C-AB	97	24	546	0.178	97	0.2	0.2	8.005	A
C-A	310	78			310				
A-B	32	8			32				
A-C	472	118			472				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	163	41	521	0.313	162	0.3	0.4	10.029	B
C-AB	121	30	529	0.229	121	0.2	0.3	8.807	A
C-A	377	94			377				
A-B	40	10			40				
A-C	578	145			578				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	163	41	521	0.313	163	0.4	0.5	10.059	B
C-AB	121	30	529	0.229	121	0.3	0.3	8.820	A
C-A	377	94			377				
A-B	40	10			40				
A-C	578	145			578				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	133	33	553	0.241	134	0.5	0.3	8.600	A
C-AB	97	24	547	0.178	97	0.3	0.2	8.026	A
C-A	310	78			310				
A-B	32	8			32				
A-C	472	118			472				

18:00 - 18:15

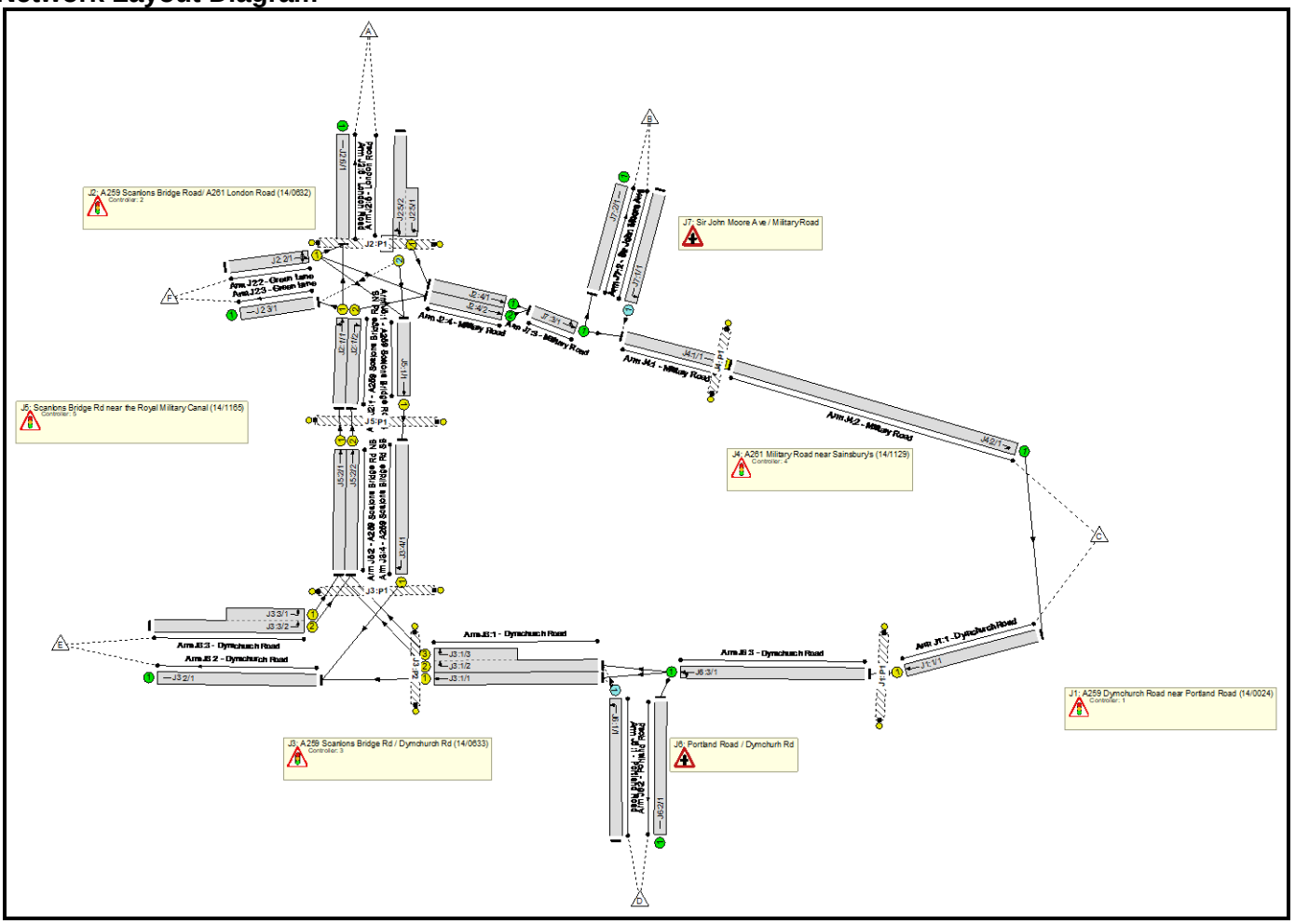
Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	111	28	576	0.194	112	0.3	0.2	7.769	A
C-AB	81	20	562	0.143	81	0.2	0.2	7.491	A
C-A	260	65			260				
A-B	27	7			27				
A-C	395	99			395				

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**J15 A259/ Dymchurch Rd/ Military Rd gyratory**
Location:	Hythe
Additional detail:	
File name:	J15_Scalons Bridge Rd Military Rd Dymchurch Rd_Base Model.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Network Layout Diagram



C1 - 14-0024

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Pedestrian		4	4

Full Input Data And Results

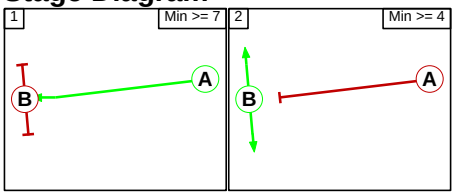
Phase Intergreens Matrix

Terminating Phase	Starting Phase		
		A	B
	A		6
	B	11	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

C2 - 14-0632

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	Dummy		4	4
G	Dummy		12	12

Full Input Data And Results

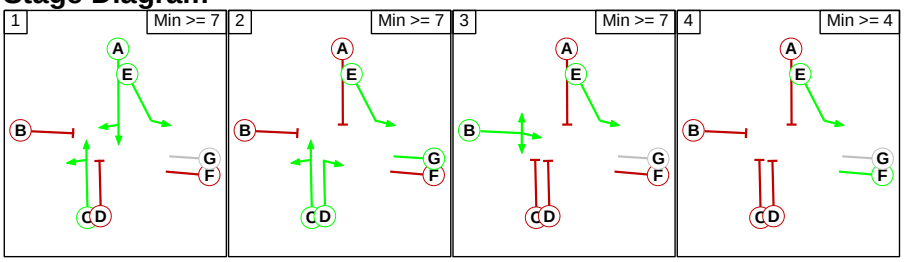
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G
A		6	-	5	-	3	-
B	5		5	5	-	3	-
C	-	6		-	-	3	-
D	5	5	-		-	3	-
E	-	-	-	-		-	-
F	2	2	2	2	-		-
G	-	-	-	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

C3 - 14-0633

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	Dummy		7	7
F	Dummy		1	1

Full Input Data And Results

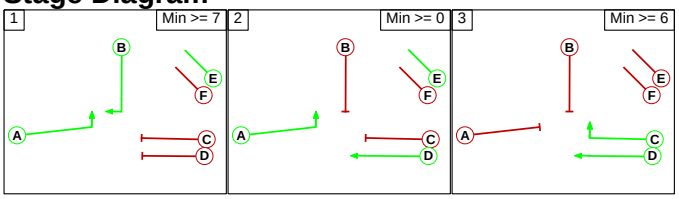
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		-	6	-	-	3
	B	-		6	7	-	3
	C	5	5		-	5	3
	D	-	5	-		-	3
	E	-	-	6	-		3
	F	2	2	2	2	2	

Phases in Stage

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

Stage Diagram



Phase Delays

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

C4 - 14-1129

Phase Input Data

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

Phase Intergreens Matrix

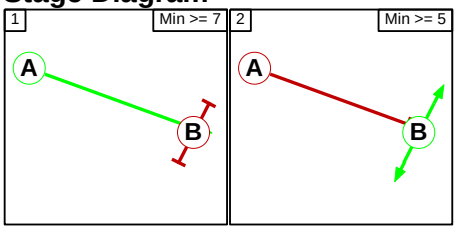
Terminating Phase	Starting Phase		
		A	B
	A		6
	B	7	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Full Input Data And Results

Stage Diagram



Phase Delays

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

C5 - 14-1165

Phase Input Data

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

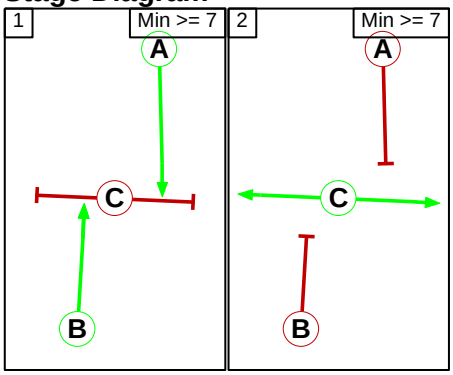
Phase Intergreens Matrix

		Starting Phase		
		A	B	C
Terminating Phase	A		-	6
	B	-		6
	C	7	7	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C

Stage Diagram



Phase Delays

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

Full Input Data And Results

Traffic Flows, Desired

Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

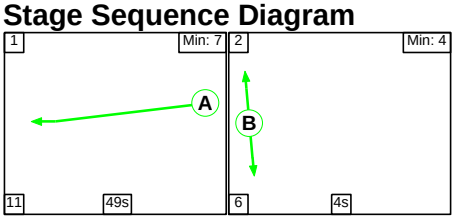
		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	1	48	243	56	192	4	544
	B	24	10	74	18	29	3	158
	C	149	20	91	17	249	9	535
	D	143	16	14	7	84	2	266
	E	284	38	526	49	1	1	899
	F	7	1	20	0	4	0	32
	Tot.	608	133	968	147	559	19	2434

Scenario 2: 'Base PM' (FG2: 'PM PEAK ', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	87	288	27	225	10	637
	B	40	8	146	22	70	1	287
	C	165	46	89	17	429	3	749
	D	72	27	20	11	110	4	244
	E	179	62	413	13	2	3	672
	F	13	1	18	0	4	0	36
	Tot.	469	231	974	90	840	21	2625

Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
C1 - 14-0024

Stage Sequence Diagram

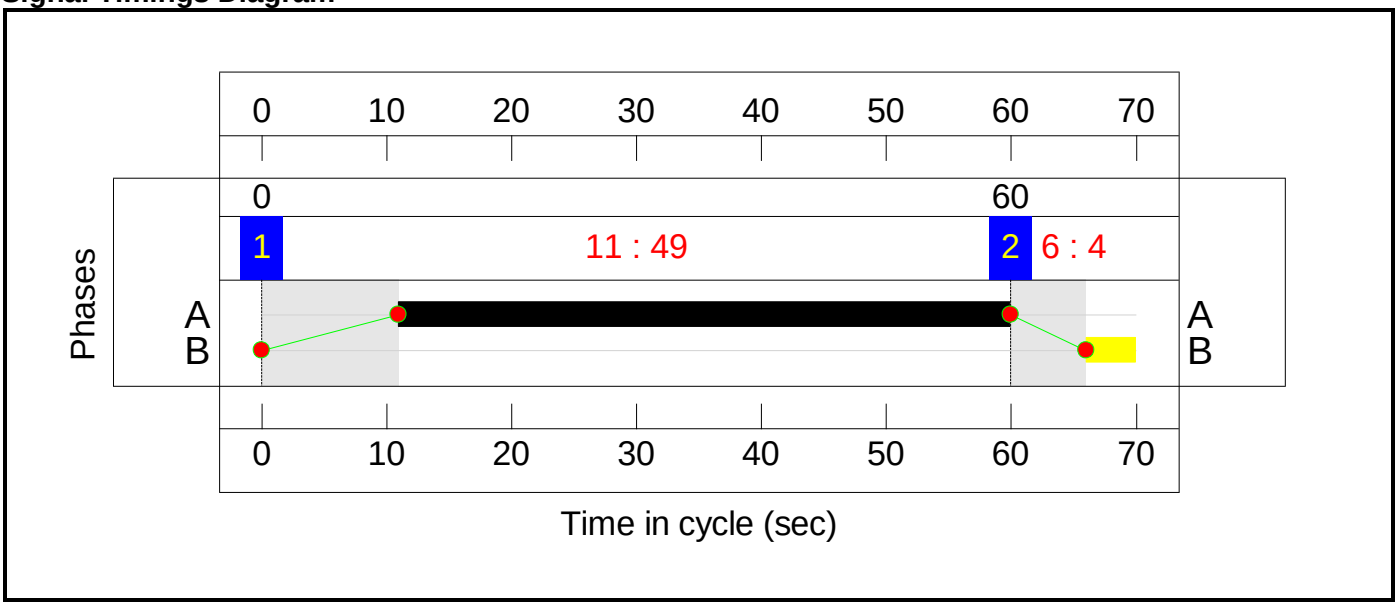


Stage Timings

Stage	1	2
Duration	49	4
Change Point	0	60

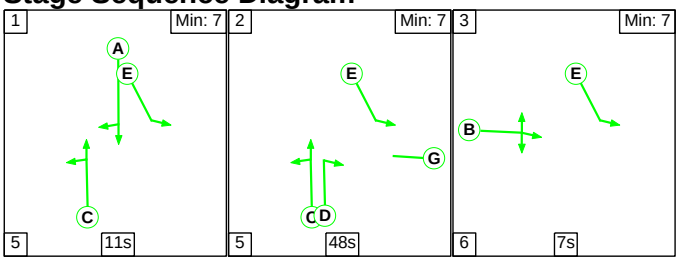
Full Input Data And Results

Signal Timings Diagram



C2 - 14-0632

Stage Sequence Diagram

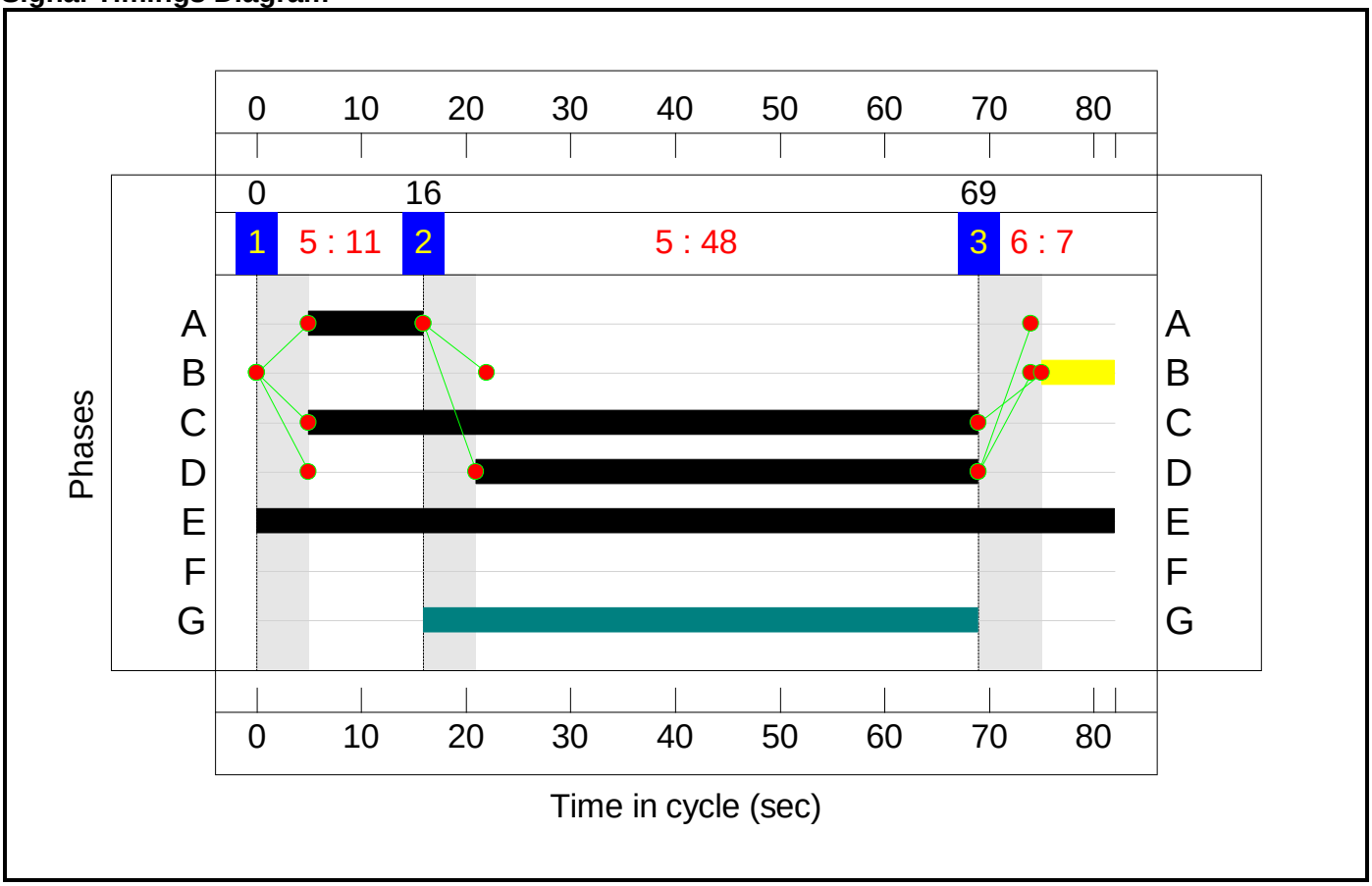


Stage Timings

Stage	1	2	3
Duration	11	48	7
Change Point	0	16	69

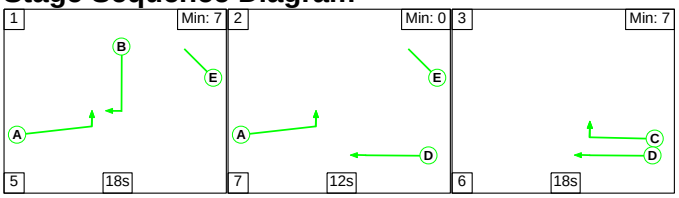
Full Input Data And Results

Signal Timings Diagram



C3 - 14-0633

Stage Sequence Diagram

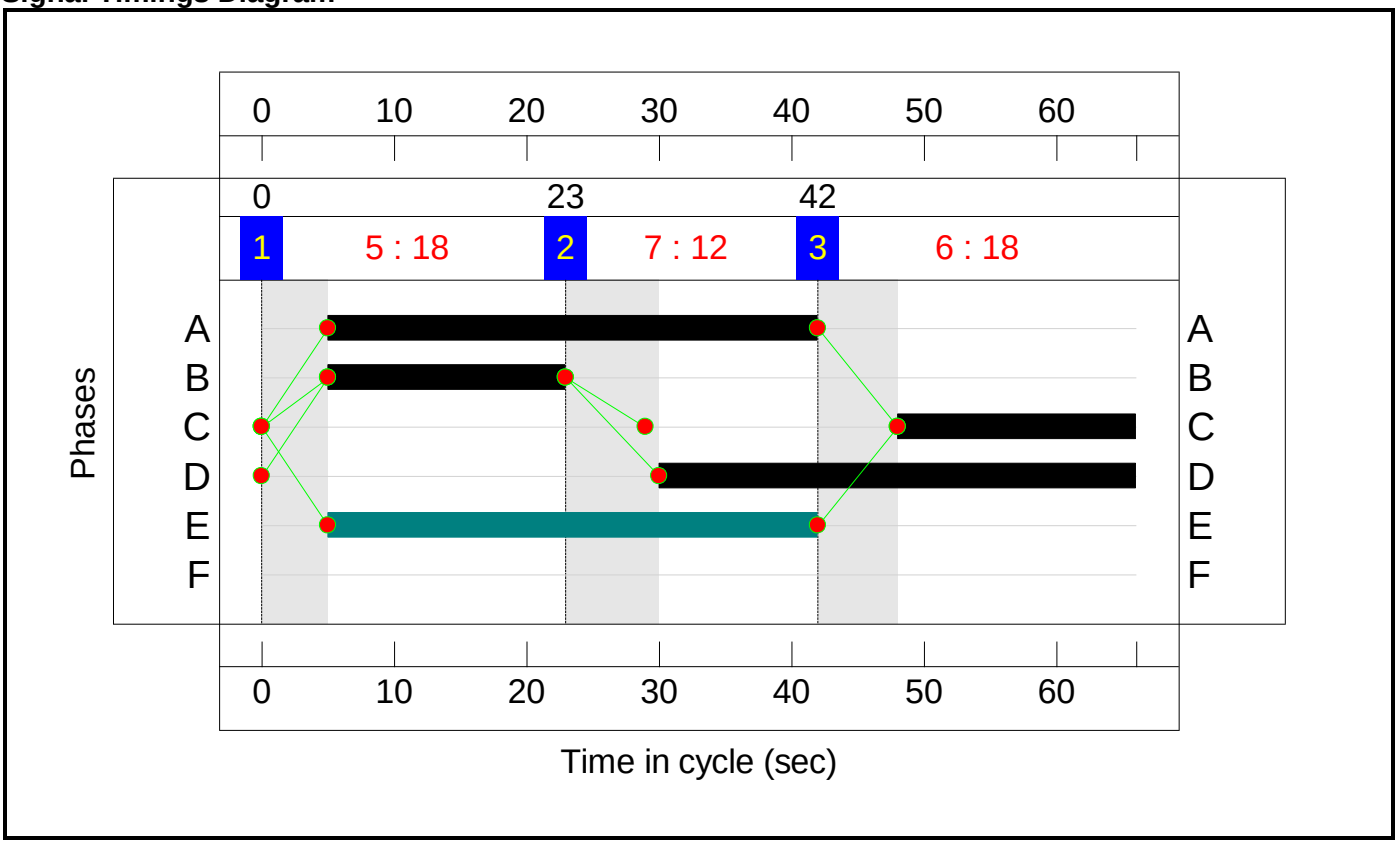


Stage Timings

Stage	1	2	3
Duration	18	12	18
Change Point	0	23	42

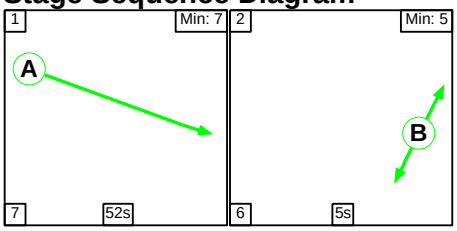
Full Input Data And Results

Signal Timings Diagram



C4 - 14-1129

Stage Sequence Diagram

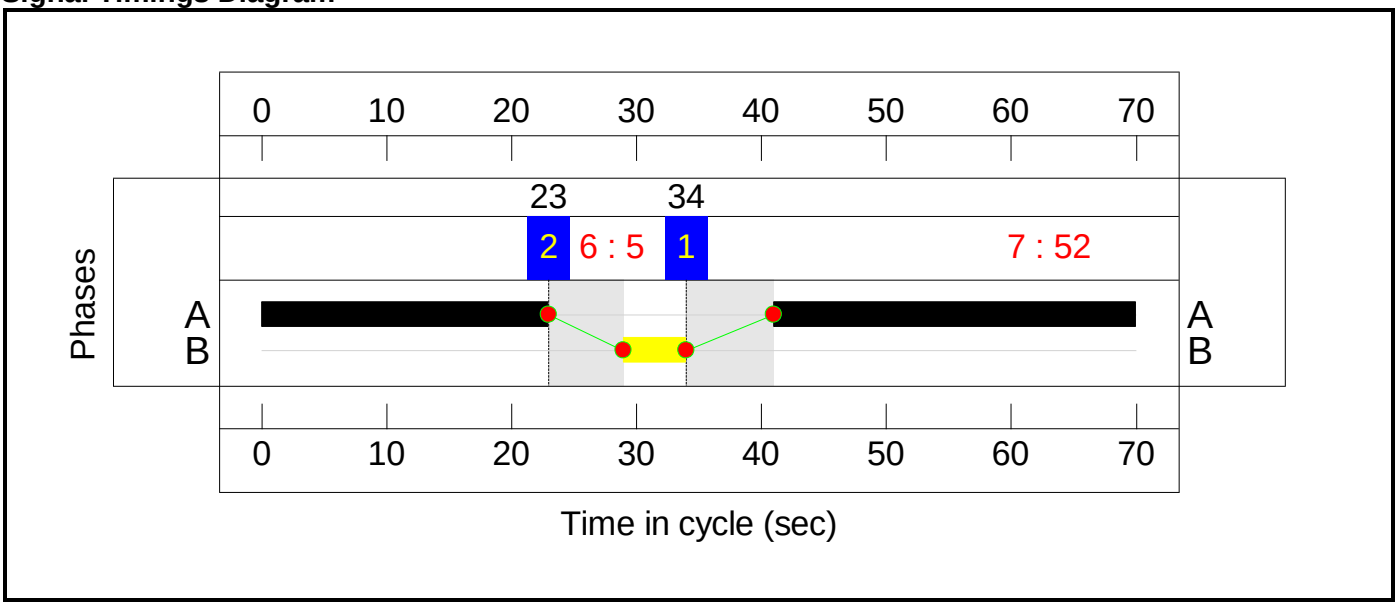


Stage Timings

Stage	1	2
Duration	52	5
Change Point	34	23

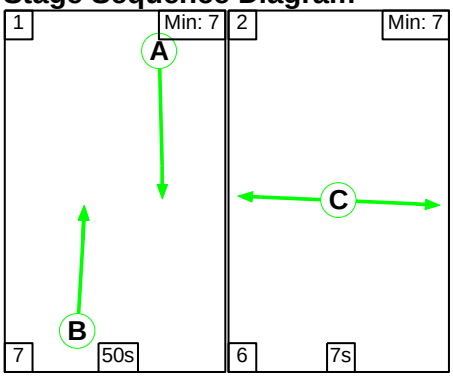
Full Input Data And Results

Signal Timings Diagram



C5 - 14-1165

Stage Sequence Diagram

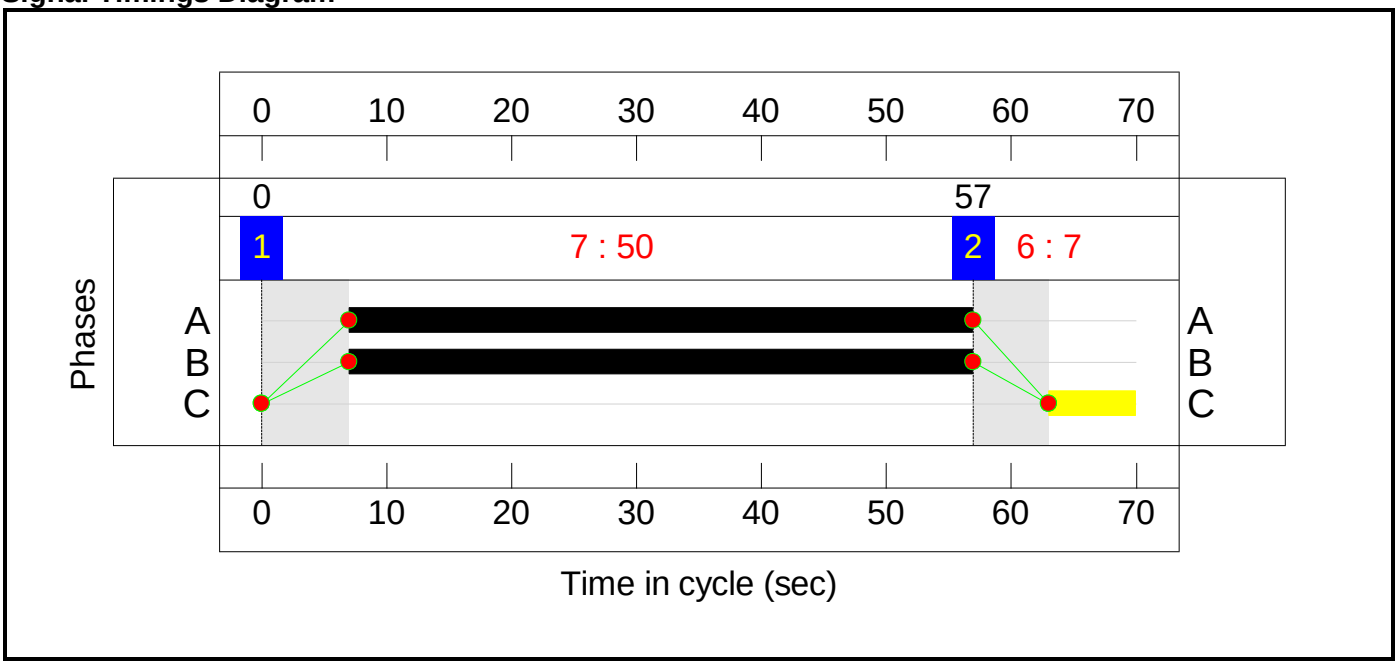


Stage Timings

Stage	1	2
Duration	50	7
Change Point	0	57

Full Input Data And Results

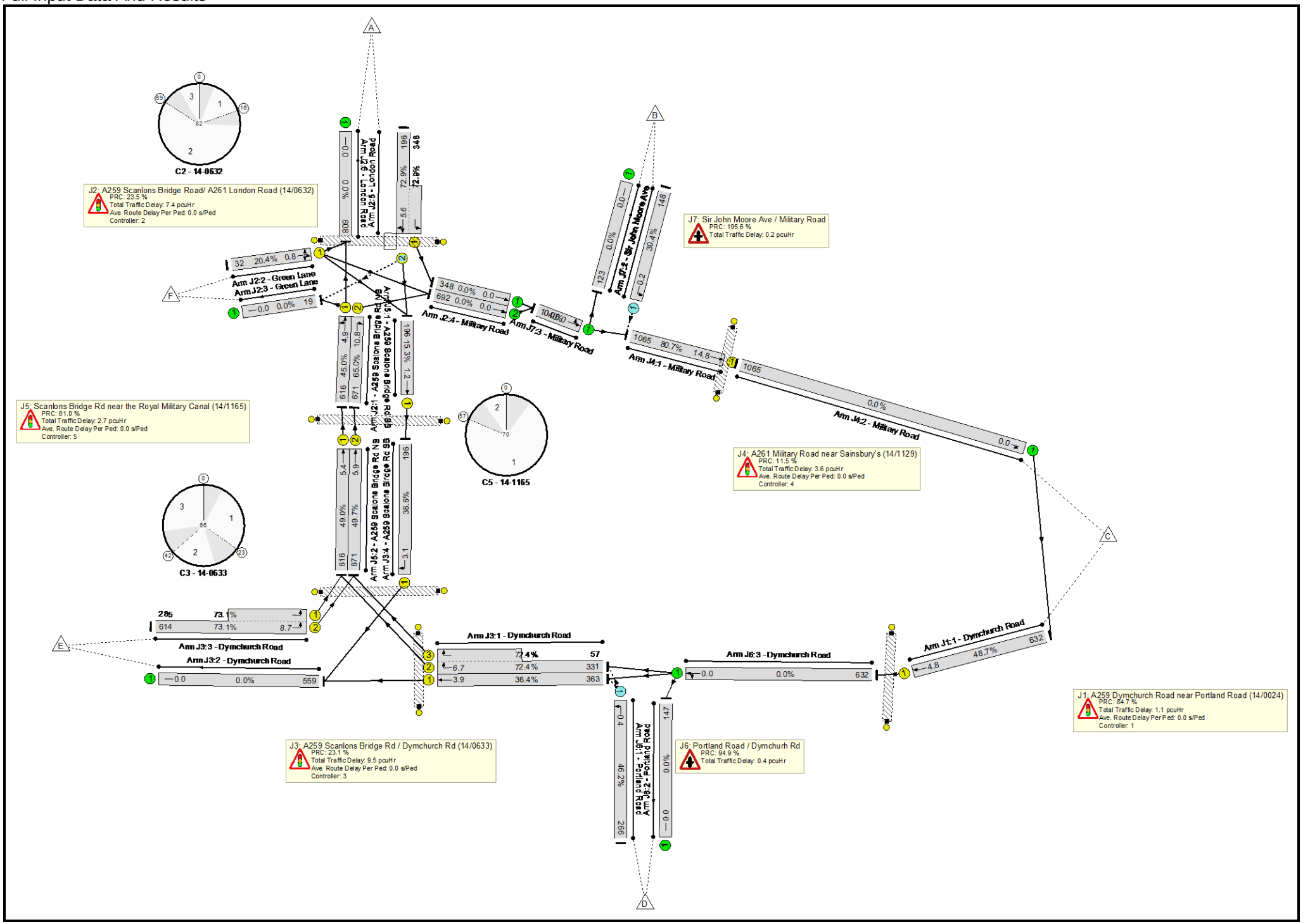
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J15 A259/ Dymchurch Rd/ Military Rd gyratory	-	-	-	-	-	-	-	**80.7%**	-
J1: A259 Dymchurch Road near Portland Road (14/0024)	-	-	-	-	-	-	-	**48.7%**	-
1/1	Dymchurch Road Ahead	U	49	-	632	1816	1297	48.7%	632
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J2: A259 Scanlons Bridge Road/ A261 London Road (14/0632)	-	-	-	-	-	-	-	**72.9%**	-
1/1	A259 Scalons Bridge Rd NB Left Ahead	U	64	-	616	1725	1367	45.0%	616
1/2	A259 Scalons Bridge Rd NB Right	U	48	-	671	1727	1032	65.0%	671
2/1	Green Lane Right Ahead Left	U	7	-	32	1609	157	20.4%	32
3/1	Green Lane	U	-	-	19	Inf	Inf	0.0%	19
4/1	Military Road Ahead	U	-	-	348	Inf	Inf	0.0%	348
4/2	Military Road Ahead	U	-	-	692	Inf	Inf	0.0%	692
5/2+5/1	London Road Ahead Right Left	O+U	11:82	-	544	1871:1807	269+478	72.9 : 72.9%	544
6/1	London Road	U	-	-	608	Inf	Inf	0.0%	608
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J3: A259 Scanlons Bridge Rd / Dymchurch Rd (14/0633)	-	-	-	-	-	-	-	**73.1%**	-
1/1	Dymchurch Road Ahead	U	36	-	363	1780	998	36.4%	363
1/2+1/3	Dymchurch Road Right	U	18	-	388	1589:1707	457+79	72.4 : 72.4%	388
2/1	Dymchurch Road	U	-	-	559	Inf	Inf	0.0%	559
3/2+3/1	Dymchurch Road Left	U	37	-	899	1690:1573	840+390	73.1 : 73.1%	899
4/1	A259 Scalons Birdge Rd SB Right	U	18	-	196	1762	507	38.6%	196

Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J4: A261 Military Road near Sainsbury's (14/1129)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**80.7%**	**-**
1/1	Military Road Ahead	U	52	-	1065	1743	1320	80.7%	1065
2/1	Military Road U-Turn	U	-	-	1065	Inf	Inf	0.0%	1065
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J5: Scanlons Bridge Rd near the Royal Military Canal (14/1165)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**49.7%**	**-**
1/1	A259 Scalons Bridge Rd SB Ahead	U	50	-	196	1762	1284	15.3%	196
2/1	A259 Scalons Bridge Rd NB Ahead	U	50	-	616	1725	1257	49.0%	616
2/2	A259 Scalons Bridge Rd NB Ahead	U	50	-	671	1852	1349	49.7%	671
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J6: Portland Road / Dymchurh Rd	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**46.2%**	**-**
1/1	Portland Road Left	O	-	-	266	1598	576	46.2%	266
2/1	Portland Road	U	-	-	147	Inf	Inf	0.0%	147
3/1	Dymchurch Road Ahead Left	U	-	-	632	Inf	Inf	0.0%	632
J7: Sir John Moore Ave / Military Road	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30.4%**	**-**
1/1	Sir John Moore Ave Left	O	-	-	148	1634	486	30.4%	148
2/1	Sir John Moore Ave	U	-	-	123	Inf	Inf	0.0%	123
3/1	Military Road Ahead Left	U	-	-	1040	Inf	Inf	0.0%	1040

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J15 A259/ Dymchurch Rd/ Military Rd gyratory	**-**	**0**	**14.6**	**10.3**	**24.9**	**-**	**-**	**-**	**-**
J1: A259 Dymchurch Road near Portland Road (14/0024)	**-**	**0**	**0.6**	**0.5**	**1.1**	**-**	**-**	**-**	**-**
1/1	632	-	0.6	0.5	1.1	6.3	4.4	0.5	4.8
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J2: A259 Scanlons Bridge Road/ A261 London Road (14/0632)	**-**	**0**	**4.6**	**2.8**	**7.4**	**-**	**-**	**-**	**-**
1/1	616	-	0.5	0.4	0.9	5.1	4.4	0.4	4.9
1/2	671	-	2.0	0.9	2.9	15.8	9.9	0.9	10.8
2/1	32	-	0.3	0.1	0.4	48.5	0.7	0.1	0.8
3/1	19	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/1	348	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/2	692	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/2+5/1	544	0	1.8	1.3	3.1	20.8	4.2	1.3	5.6
6/1	608	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J3: A259 Scanlons Bridge Rd / Dymchurch Rd (14/0633)	**-**	**0**	**6.2**	**3.2**	**9.5**	**-**	**-**	**-**	**-**
1/1	363	-	0.8	0.3	1.1	10.8	3.6	0.3	3.9
1/2+1/3	388	-	2.2	1.3	3.5	32.5	5.4	1.3	6.7
2/1	559	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/2+3/1	899	-	2.2	1.3	3.5	14.1	7.3	1.3	8.7
4/1	196	-	1.0	0.3	1.3	24.6	2.8	0.3	3.1
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
J4: A261 Military Road near Sainsbury's (14/1129)	**-**	**0**	**1.6**	**2.1**	**3.6**	**-**	**-**	**-**	**-**
1/1	1065	-	1.6	2.1	3.6	12.3	12.7	2.1	14.8
2/1	1065	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J5: Scanlons Bridge Rd near the Royal Military Canal (14/1165)	**-**	**0**	**1.6**	**1.1**	**2.7**	**-**	**-**	**-**	**-**
1/1	196	-	0.2	0.1	0.2	4.6	1.1	0.1	1.2
2/1	616	-	0.7	0.5	1.2	6.8	5.0	0.5	5.4
2/2	671	-	0.8	0.5	1.2	6.7	5.4	0.5	5.9
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J6: Portland Road / Dymchurh Rd	**-**	**0**	**0.0**	**0.4**	**0.4**	**-**	**-**	**-**	**-**
1/1	266	0	0.0	0.4	0.4	5.8	0.0	0.4	0.4
2/1	147	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/1	632	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J7: Sir John Moore Ave / Military Road	**-**	**0**	**0.0**	**0.2**	**0.2**	**-**	**-**	**-**	**-**
1/1	148	0	0.0	0.2	0.2	5.3	0.0	0.2	0.2
2/1	123	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/1	1040	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1 - 14-0024	PRC for Signalled Lanes (%):	84.7	Total Delay for Signalled Lanes (pcuHr):	1.10	Cycle Time (s): 70
C2 - 14-0632	PRC for Signalled Lanes (%):	23.5	Total Delay for Signalled Lanes (pcuHr):	7.41	Cycle Time (s): 82
C3 - 14-0633	PRC for Signalled Lanes (%):	23.1	Total Delay for Signalled Lanes (pcuHr):	9.45	Cycle Time (s): 66
C4 - 14-1129	PRC for Signalled Lanes (%):	11.5	Total Delay for Signalled Lanes (pcuHr):	3.63	Cycle Time (s): 70
C5 - 14-1165	PRC for Signalled Lanes (%):	81.0	Total Delay for Signalled Lanes (pcuHr):	2.66	Cycle Time (s): 70
	PRC Over All Lanes (%):	11.5	Total Delay Over All Lanes(pcuHr):	24.90	

Full Input Data And Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J15 A259/ Dymchurch Rd/ Military Rd gyratory	-	-	-	-	-	-	-	**84.7%**	-
J1: A259 Dymchurch Road near Portland Road (14/0024)	-	-	-	-	-	-	-	**68.8%**	-
1/1	Dymchurch Road Ahead	U	41	-	846	1816	1230	68.8%	846
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J2: A259 Scanlons Bridge Road/ A261 London Road (14/0632)	-	-	-	-	-	-	-	**70.3%**	-
1/1	A259 Scalons Bridge Rd NB Left Ahead	U	48	-	467	1725	1281	36.5%	467
1/2	A259 Scalons Bridge Rd NB Right	U	32	-	594	1727	863	68.8%	594
2/1	Green Lane Right Ahead Left	U	7	-	36	1609	195	18.5%	36
3/1	Green Lane	U	-	-	21	Inf	Inf	0.0%	21
4/1	Military Road Ahead	U	-	-	402	Inf	Inf	0.0%	402
4/2	Military Road Ahead	U	-	-	613	Inf	Inf	0.0%	613
5/2+5/1	London Road Ahead Right Left	O+U	11:66	-	637	1871:1807	334+572	70.3 : 70.3%	637
6/1	London Road	U	-	-	469	Inf	Inf	0.0%	469
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J3: A259 Scanlons Bridge Rd / Dymchurch Rd (14/0633)	-	-	-	-	-	-	-	**58.5%**	-
1/1	Dymchurch Road Ahead	U	39	-	611	1780	1095	55.8%	611
1/2+1/3	Dymchurch Road Right	U	19	-	389	1589:1707	489+178	58.3 : 58.3%	389
2/1	Dymchurch Road	U	-	-	840	Inf	Inf	0.0%	840
3/2+3/1	Dymchurch Road Left	U	35	-	672	1690:1573	838+311	58.5 : 58.5%	672
4/1	A259 Scalons Birdge Rd SB Right	U	14	-	229	1762	407	56.3%	229
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J4: A261 Military Road near Sainsbury's (14/1129)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**84.7%**	**-**
1/1	Military Road Ahead	U	44	-	1071	1743	1265	84.7%	1071
2/1	Military Road U-Turn	U	-	-	1071	Inf	Inf	0.0%	1071
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J5: Scanlons Bridge Rd near the Royal Military Canal (14/1165)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**46.2%**	**-**
1/1	A259 Scalons Bridge Rd SB Ahead	U	42	-	229	1762	1222	18.7%	229
2/1	A259 Scalons Bridge Rd NB Ahead	U	42	-	467	1725	1196	39.0%	467
2/2	A259 Scalons Bridge Rd NB Ahead	U	42	-	594	1852	1284	46.2%	594
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
J6: Portland Road / Dymchurh Rd	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**46.1%**	**-**
1/1	Portland Road Left	O	-	-	244	1598	529	46.1%	244
2/1	Portland Road	U	-	-	90	Inf	Inf	0.0%	90
3/1	Dymchurch Road Ahead Left	U	-	-	846	Inf	Inf	0.0%	846
J7: Sir John Moore Ave / Military Road	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**56.7%**	**-**
1/1	Sir John Moore Ave Left	O	-	-	279	1634	492	56.7%	279
2/1	Sir John Moore Ave	U	-	-	223	Inf	Inf	0.0%	223
3/1	Military Road Ahead Left	U	-	-	1015	Inf	Inf	0.0%	1015

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J15 A259/ Dymchurch Rd/ Military Rd gyratory	**-**	**0**	**15.1**	**11.1**	**26.1**	**-**	**-**	**-**	**-**
J1: A259 Dymchurch Road near Portland Road (14/0024)	**-**	**0**	**1.2**	**1.1**	**2.3**	**-**	**-**	**-**	**-**
1/1	846	-	1.2	1.1	2.3	9.8	7.8	1.1	8.9
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J2: A259 Scanlons Bridge Road/ A261 London Road (14/0632)	**-**	**0**	**4.4**	**2.7**	**7.0**	**-**	**-**	**-**	**-**
1/1	467	-	0.4	0.3	0.7	5.2	3.0	0.3	3.3
1/2	594	-	2.1	1.1	3.2	19.2	8.3	1.1	9.3
2/1	36	-	0.3	0.1	0.4	37.4	0.6	0.1	0.7
3/1	21	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/1	402	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/2	613	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/2+5/1	637	0	1.6	1.2	2.8	16.0	4.0	1.2	5.2
6/1	469	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J3: A259 Scanlons Bridge Rd / Dymchurch Rd (14/0633)	**-**	**0**	**6.2**	**2.7**	**8.9**	**-**	**-**	**-**	**-**
1/1	611	-	1.2	0.6	1.9	11.0	6.4	0.6	7.1
1/2+1/3	389	-	2.0	0.7	2.7	24.8	4.3	0.7	5.0
2/1	840	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/2+3/1	672	-	1.6	0.7	2.3	12.4	5.4	0.7	6.1
4/1	229	-	1.4	0.6	2.0	32.2	3.6	0.6	4.3
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
J4: A261 Military Road near Sainsbury's (14/1129)	**-**	**0**	**1.8**	**2.7**	**4.5**	**-**	**-**	**-**	**-**
1/1	1071	-	1.8	2.7	4.5	15.1	13.1	2.7	15.8
2/1	1071	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J5: Scanlons Bridge Rd near the Royal Military Canal (14/1165)	**-**	**0**	**1.4**	**0.9**	**2.3**	**-**	**-**	**-**	**-**
1/1	229	-	0.2	0.1	0.3	5.2	1.3	0.1	1.5
2/1	467	-	0.5	0.3	0.8	6.5	3.4	0.3	3.7
2/2	594	-	0.7	0.4	1.1	6.9	4.5	0.4	4.9
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
J6: Portland Road / Dymchurh Rd	**-**	**0**	**0.0**	**0.4**	**0.4**	**-**	**-**	**-**	**-**
1/1	244	0	0.0	0.4	0.4	6.3	0.0	0.4	0.4
2/1	90	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/1	846	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J7: Sir John Moore Ave / Military Road	**-**	**0**	**0.0**	**0.7**	**0.7**	**-**	**-**	**-**	**-**
1/1	279	0	0.0	0.7	0.7	8.5	0.9	0.7	1.6
2/1	223	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/1	1015	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1 - 14-0024	PRC for Signalled Lanes (%):	30.9	Total Delay for Signalled Lanes (pcuHr):	2.31	Cycle Time (s): 62
C2 - 14-0632	PRC for Signalled Lanes (%):	28.1	Total Delay for Signalled Lanes (pcuHr):	7.05	Cycle Time (s): 66
C3 - 14-0633	PRC for Signalled Lanes (%):	53.9	Total Delay for Signalled Lanes (pcuHr):	8.91	Cycle Time (s): 65
C4 - 14-1129	PRC for Signalled Lanes (%):	6.3	Total Delay for Signalled Lanes (pcuHr):	4.48	Cycle Time (s): 62
C5 - 14-1165	PRC for Signalled Lanes (%):	94.6	Total Delay for Signalled Lanes (pcuHr):	2.30	Cycle Time (s): 62
	PRC Over All Lanes (%):	6.3	Total Delay Over All Lanes(pcuHr):	26.14	

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J16_A259 Prospect Rd Station Rd_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J16 Prospect Rd - Seabrook Rd - Station Rd - High Street
Report generation date: 20/11/2018 15:28:54

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.6	5.15	0.36	A	0.6	5.44	0.38	A
Arm B	0.7	4.10	0.40	A	1.0	4.82	0.50	A
Arm C	2.2	8.59	0.69	A	2.5	9.47	0.72	A

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	J16 Otterpool Park_Base Model AM PEAK
Location	A259 - High St - Station Rd - Prospect Rd
Site number	
Date	08/08/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	6.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Station Road	
B	A259 Seabrook Rd	
C	Prospect Road	
D	High Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.02	5.90	18.6	23.0	29.1	34.0	
B	2.85	6.90	26.2	49.2	29.1	31.0	
C	2.91	5.20	26.4	46.0	29.1	20.0	
D							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.613	1487
B	0.672	1728
C	0.640	1514
D		

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	361	100.000
B		ONE HOUR	✓	539	100.000
C		ONE HOUR	✓	841	100.000
D					

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	2	117	215	27
	%	145	14	350	30
	&	244	493	56	48
	'	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	1	0
	%	1	0	3	0
	&	0	1	2	6
	'	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.36	5.15	0.6	A	331	497
B	0.40	4.10	0.7	A	495	742
C	0.69	8.59	2.2	A	772	1158
D						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	272	68	422	1219	0.223	271	293	0.0	0.3	3.791	A
B	406	101	225	1541	0.263	404	467	0.0	0.4	3.164	A
C	633	158	164	1394	0.454	630	466	0.0	0.8	4.695	A
D			715				79				

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	325	81	505	1167	0.278	324	351	0.3	0.4	4.266	A
B	485	121	269	1511	0.321	484	560	0.4	0.5	3.503	A
C	756	189	196	1373	0.551	755	558	0.8	1.2	5.807	A
D			856				94				

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	397	99	617	1098	0.362	397	429	0.4	0.6	5.125	A
B	593	148	330	1471	0.403	593	685	0.5	0.7	4.095	A
C	926	231	240	1345	0.688	922	683	1.2	2.1	8.439	A
D			1047				115				

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	397	99	620	1097	0.362	397	430	0.6	0.6	5.146	A
B	593	148	330	1471	0.404	593	687	0.7	0.7	4.104	A
C	926	231	240	1345	0.689	926	684	2.1	2.2	8.587	A
D			1050				116				

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	325	81	509	1165	0.278	325	353	0.6	0.4	4.288	A
B	485	121	270	1510	0.321	485	563	0.7	0.5	3.514	A
C	756	189	196	1373	0.551	760	559	2.2	1.2	5.911	A
D			861				95				

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	272	68	425	1217	0.223	272	295	0.4	0.3	3.811	A
B	406	101	226	1540	0.264	406	471	0.5	0.4	3.179	A
C	633	158	164	1393	0.455	635	468	1.2	0.8	4.757	A
D			720				79				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	7.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	369	100.000
B		ONE HOUR	✓	683	100.000
C		ONE HOUR	✓	876	100.000
D					

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	4	126	224	15
	%	134	26	476	48
	&	229	539	50	58
	'	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	0	0
	%	0	0	1	0
	&	0	1	2	0
	'	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.38	5.44	0.6	A	339	508
B	0.50	4.82	1.0	A	627	941
C	0.72	9.47	2.5	A	804	1206
D						

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	278	69	460	1202	0.231	277	275	0.0	0.3	3.884	A
B	515	129	219	1569	0.328	513	517	0.0	0.5	3.403	A
C	659	165	170	1395	0.473	656	562	0.0	0.9	4.850	A
D			735				91				

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	332	83	551	1146	0.289	331	330	0.3	0.4	4.416	A
B	614	154	263	1540	0.399	614	620	0.5	0.7	3.886	A
C	788	197	204	1373	0.573	786	673	0.9	1.3	6.108	A
D			881				109				

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	406	102	673	1070	0.380	405	403	0.4	0.6	5.407	A
B	752	188	322	1500	0.502	751	757	0.7	1.0	4.796	A
C	964	241	249	1344	0.717	960	823	1.3	2.5	9.256	A
D			1076				133				

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	406	102	676	1069	0.380	406	404	0.6	0.6	5.435	A
B	752	188	322	1500	0.502	752	760	1.0	1.0	4.817	A
C	964	241	250	1344	0.718	964	825	2.5	2.5	9.468	A
D			1081				133				

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	332	83	555	1143	0.290	333	332	0.6	0.4	4.445	A
B	614	154	264	1539	0.399	616	624	1.0	0.7	3.906	A
C	788	197	204	1373	0.574	792	675	2.5	1.4	6.246	A
D			887				109				

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	278	69	464	1200	0.231	278	277	0.4	0.3	3.908	A
B	515	129	221	1568	0.328	515	521	0.7	0.5	3.421	A
C	659	165	171	1394	0.473	661	565	1.4	0.9	4.926	A
D			741				91				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J17_A20 Ashford Rd_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J17 A20-Ashford Rd A20 M20-J11
Report generation date: 20/11/2018 15:54:15

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	1.2	13.94	0.56	B	0.5	9.58	0.34	A
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A

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	J17 Otterpool Park_Base Model
Location	A20 Ashford Road - A20 - M20Junction 11
Site number	
Date	19/06/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J17 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J17 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Southbound		Major
B	A20 Ashford Road		Minor
C	A20 Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	14.18	✓	3.44		180.0		-

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	4.00	100	88

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	657	0.072	0.181	0.114	0.258
1	B-C	747	0.074	0.187	-	-
1	C-B	678	0.169	0.169	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J17 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	869	100.000
B		ONE HOUR	✓	295	100.000
C		ONE HOUR	✓	975	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	244	625
	%	0	0	295
	&	975	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	1	8
	%	0	0	1
	&	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.56	13.94	1.2	B	271	406
C-A					895	1342
C-B	0.00	0.00	0.0	A	0	0
A-B					224	336
A-C					574	860

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	222	56	633	0.351	220	0.0	0.5	8.682	A
C-A	734	184			734				
C-B	0	0	561	0.000	0	0.0	0.0	0.000	A
A-B	184	46			184				
A-C	471	118			471				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	265	66	612	0.434	264	0.5	0.8	10.336	B
C-A	877	219			877				
C-B	0	0	538	0.000	0	0.0	0.0	0.000	A
A-B	219	55			219				
A-C	562	140			562				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	325	81	583	0.557	323	0.8	1.2	13.746	B
C-A	1073	268			1073				
C-B	0	0	506	0.000	0	0.0	0.0	0.000	A
A-B	269	67			269				
A-C	688	172			688				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	325	81	583	0.557	325	1.2	1.2	13.935	B
C-A	1073	268			1073				
C-B	0	0	506	0.000	0	0.0	0.0	0.000	A
A-B	269	67			269				
A-C	688	172			688				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	265	66	612	0.434	267	1.2	0.8	10.498	B
C-A	877	219			877				
C-B	0	0	538	0.000	0	0.0	0.0	0.000	A
A-B	219	55			219				
A-C	562	140			562				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	222	56	633	0.351	223	0.8	0.5	8.811	A
C-A	734	184			734				
C-B	0	0	561	0.000	0	0.0	0.0	0.000	A
A-B	184	46			184				
A-C	471	118			471				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J17 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1020	100.000
B		ONE HOUR	✓	179	100.000
C		ONE HOUR	✓	846	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	328	692
	%	0	0	179
	&	846	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	4
	%	0	0	0
	&	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.34	9.58	0.5	A	164	246
C-A					776	1164
C-B	0.00	0.00	0.0	A	0	0
A-B					301	451
A-C					635	952

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	135	34	628	0.215	134	0.0	0.3	7.265	A
C-A	637	159			637				
C-B	0	0	545	0.000	0	0.0	0.0	0.000	A
A-B	247	62			247				
A-C	521	130			521				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	161	40	605	0.266	161	0.3	0.4	8.095	A
C-A	761	190			761				
C-B	0	0	519	0.000	0	0.0	0.0	0.000	A
A-B	295	74			295				
A-C	622	156			622				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	197	49	573	0.344	196	0.4	0.5	9.546	A
C-A	931	233			931				
C-B	0	0	483	0.000	0	0.0	0.0	0.000	A
A-B	361	90			361				
A-C	762	190			762				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	197	49	573	0.344	197	0.5	0.5	9.578	A
C-A	931	233			931				
C-B	0	0	483	0.000	0	0.0	0.0	0.000	A
A-B	361	90			361				
A-C	762	190			762				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	161	40	605	0.266	162	0.5	0.4	8.131	A
C-A	761	190			761				
C-B	0	0	519	0.000	0	0.0	0.0	0.000	A
A-B	295	74			295				
A-C	622	156			622				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	135	34	628	0.215	135	0.4	0.3	7.307	A
C-A	637	159			637				
C-B	0	0	545	0.000	0	0.0	0.0	0.000	A
A-B	247	62			247				
A-C	521	130			521				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J18_A20 Sandling Rd_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J18 A20 Ashford Rd - Sandling Rd
Report generation date: 20/11/2018 15:55:00

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.9	12.90	0.49	B	0.5	8.47	0.32	A
Stream C-AB	0.4	6.77	0.23	A	0.7	7.87	0.36	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	J18 Otterpool Park_Base Model
Location	A20 Ashfrod Road - Sandling Road
Site number	
Date	19/06/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J18 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J18 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	6.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Sandling Road		Major
B	A20 Ashford Rd NB		Minor
C	A20 Ashford Rd SB		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	7.20			100.0	✓	0.00

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	3.12	41	92

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	543	0.094	0.237	0.149	0.338
1	B-C	690	0.100	0.253	-	-
1	C-B	632	0.232	0.232	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J18 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	174	100.000
B		ONE HOUR	✓	242	100.000
C		ONE HOUR	✓	244	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	52	122
	%	69	0	173
	&	134	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	1
	%	12	0	1
	&	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.49	12.90	0.9	B	222	333
C-AB	0.23	6.77	0.4	A	124	186
C-A					100	150
A-B					48	72
A-C					112	168

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	182	46	567	0.321	180	0.0	0.5	9.263	A
C-AB	98	24	668	0.146	97	0.0	0.2	6.288	A
C-A	86	22			86				
A-B	39	10			39				
A-C	92	23			92				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	218	54	558	0.390	217	0.5	0.6	10.536	B
C-AB	120	30	676	0.178	120	0.2	0.3	6.479	A
C-A	99	25			99				
A-B	47	12			47				
A-C	110	27			110				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	266	67	545	0.489	265	0.6	0.9	12.789	B
C-AB	154	39	687	0.225	154	0.3	0.4	6.761	A
C-A	114	29			114				
A-B	57	14			57				
A-C	134	34			134				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	266	67	545	0.489	266	0.9	0.9	12.897	B
C-AB	155	39	687	0.225	155	0.4	0.4	6.772	A
C-A	114	29			114				
A-B	57	14			57				
A-C	134	34			134				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	218	54	558	0.390	219	0.9	0.7	10.647	B
C-AB	121	30	676	0.178	121	0.4	0.3	6.494	A
C-A	99	25			99				
A-B	47	12			47				
A-C	110	27			110				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	182	46	567	0.321	183	0.7	0.5	9.390	A
C-AB	98	24	669	0.146	98	0.3	0.2	6.315	A
C-A	86	22			86				
A-B	39	10			39				
A-C	92	23			92				

Base, 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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J18 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	97	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	328	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	68	29
	%	28	0	150
	&	148	180	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	0
	%	0	0	0
	&	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.32	8.47	0.5	A	163	245
C-AB	0.36	7.87	0.7	A	206	310
C-A					95	142
A-B					62	94
A-C					27	40

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	134	34	635	0.211	133	0.0	0.3	7.156	A
C-AB	162	40	688	0.235	160	0.0	0.4	6.806	A
C-A	85	21			85				
A-B	51	13			51				
A-C	22	5			22				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	160	40	629	0.254	160	0.3	0.3	7.662	A
C-AB	200	50	700	0.286	200	0.4	0.5	7.198	A
C-A	95	24			95				
A-B	61	15			61				
A-C	26	7			26				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	196	49	621	0.316	196	0.3	0.5	8.449	A
C-AB	257	64	715	0.359	256	0.5	0.7	7.844	A
C-A	104	26			104				
A-B	75	19			75				
A-C	32	8			32				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	196	49	621	0.316	196	0.5	0.5	8.468	A
C-AB	257	64	715	0.360	257	0.7	0.7	7.869	A
C-A	104	26			104				
A-B	75	19			75				
A-C	32	8			32				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	160	40	629	0.254	160	0.5	0.3	7.688	A
C-AB	200	50	700	0.286	201	0.7	0.5	7.238	A
C-A	95	24			95				
A-B	61	15			61				
A-C	26	7			26				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	134	34	635	0.211	134	0.3	0.3	7.198	A
C-AB	162	40	689	0.235	162	0.5	0.4	6.856	A
C-A	85	21			85				
A-B	51	13			51				
A-C	22	5			22				

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J19_A20 Ashford Rd Bargrove_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J19 A20 Ashford Rd-Bargrove
Report generation date: 20/11/2018 15:30:17

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.2	2.69	0.18	A	0.2	2.47	0.13	A
Arm B	0.4	3.09	0.28	A	0.5	3.26	0.32	A
Arm C	0.3	3.10	0.22	A	0.2	3.03	0.19	A
Arm D	0.1	2.61	0.07	A	0.1	2.54	0.06	A

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	J19 Otterpool Park_Base Model AM PEAK
Location	A20 Ashford Road - Bargrove
Site number	
Date	19/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	2.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Beachborough	
B	A20 Ashford Road Westbound	
C	Bargrove	
D	A20 Ashford Road Eastbound	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.46	7.03	21.6	31.6	57.0	13.0	
B	3.30	7.13	20.1	28.9	57.0	39.0	
C	3.42	6.24	22.4	30.4	57.0	23.0	
D	3.88	7.28	16.7	38.7	57.0	38.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.629	1891
B	0.568	1693
C	0.587	1713
D	0.589	1792

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	266	100.000
B		ONE HOUR	✓	412	100.000
C		ONE HOUR	✓	302	100.000
D		ONE HOUR	✓	101	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	1	206	50	9
	%	137	1	169	105
	&	37	248	0	17
	'	5	86	9	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	1	0	1
	%	0	0	1	6
	&	0	4	0	1
	'	6	0	0	100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.18	2.69	0.2	A	244	366
B	0.28	3.09	0.4	A	378	567
C	0.22	3.10	0.3	A	277	416
D	0.07	2.61	0.1	A	93	139

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	200	50	259	1709	0.117	200	135	0.0	0.1	2.385	A
B	310	78	53	1631	0.190	309	406	0.0	0.2	2.722	A
C	227	57	191	1546	0.147	227	171	0.0	0.2	2.727	A
D	76	19	318	1580	0.048	76	99	0.0	0.1	2.393	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	239	60	310	1676	0.143	239	162	0.1	0.2	2.504	A
B	370	93	63	1625	0.228	370	486	0.2	0.3	2.868	A
C	271	68	228	1524	0.178	271	205	0.2	0.2	2.873	A
D	91	23	381	1543	0.059	91	119	0.1	0.1	2.479	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	293	73	380	1632	0.179	293	198	0.2	0.2	2.688	A
B	454	113	77	1617	0.281	453	595	0.3	0.4	3.093	A
C	333	83	279	1494	0.223	332	251	0.2	0.3	3.098	A
D	111	28	466	1492	0.075	111	145	0.1	0.1	2.607	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	293	73	380	1632	0.180	293	198	0.2	0.2	2.688	A
B	454	113	77	1617	0.281	454	596	0.4	0.4	3.093	A
C	333	83	280	1494	0.223	333	251	0.3	0.3	3.098	A
D	111	28	467	1491	0.075	111	145	0.1	0.1	2.607	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	239	60	310	1676	0.143	239	162	0.2	0.2	2.507	A
B	370	93	63	1625	0.228	371	487	0.4	0.3	2.872	A
C	271	68	229	1524	0.178	272	205	0.3	0.2	2.875	A
D	91	23	382	1542	0.059	91	119	0.1	0.1	2.482	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	200	50	260	1709	0.117	200	136	0.2	0.1	2.386	A
B	310	78	53	1631	0.190	310	408	0.3	0.2	2.728	A
C	227	57	191	1546	0.147	228	172	0.2	0.2	2.733	A
D	76	19	319	1579	0.048	76	99	0.1	0.1	2.394	A

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	2.99	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)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	205	100.000
B		ONE HOUR	✓	471	100.000
C		ONE HOUR	✓	259	100.000
D		ONE HOUR	✓	75	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		$	%	&	'
From	$	1	149	49	6
	%	190	2	206	73
	&	46	203	0	10
	'	7	57	10	1

Vehicle Mix

Heavy Vehicle Percentages

		To				
		$	%	&	'
From	$	0	1	0	0
	%	0	0	0	11
	&	0	5	0	0
	'	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.13	2.47	0.2	A	188	282
B	0.32	3.26	0.5	A	432	648
C	0.19	3.03	0.2	A	238	356
D	0.06	2.54	0.1	A	69	103

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	154	39	205	1745	0.088	154	183	0.0	0.1	2.263	A
B	355	89	50	1637	0.217	353	309	0.0	0.3	2.803	A
C	195	49	205	1529	0.128	194	199	0.0	0.1	2.695	A
D	56	14	332	1592	0.035	56	68	0.0	0.0	2.343	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	184	46	245	1719	0.107	184	219	0.1	0.1	2.345	A
B	423	106	60	1631	0.260	423	369	0.3	0.3	2.980	A
C	233	58	245	1506	0.155	233	238	0.1	0.2	2.827	A
D	67	17	397	1553	0.043	67	81	0.0	0.0	2.423	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	226	56	300	1683	0.134	226	268	0.1	0.2	2.469	A
B	519	130	74	1623	0.319	518	452	0.3	0.5	3.255	A
C	285	71	300	1474	0.194	285	292	0.2	0.2	3.028	A
D	83	21	486	1499	0.055	83	99	0.0	0.1	2.540	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	226	56	301	1683	0.134	226	269	0.2	0.2	2.470	A
B	519	130	74	1623	0.319	519	453	0.5	0.5	3.257	A
C	285	71	301	1473	0.194	285	292	0.2	0.2	3.028	A
D	83	21	487	1499	0.055	83	99	0.1	0.1	2.541	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	184	46	246	1718	0.107	184	220	0.2	0.1	2.346	A
B	423	106	60	1631	0.260	424	370	0.5	0.4	2.982	A
C	233	58	246	1505	0.155	233	238	0.2	0.2	2.831	A
D	67	17	398	1552	0.043	67	81	0.1	0.0	2.425	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	154	39	206	1744	0.088	154	184	0.1	0.1	2.265	A
B	355	89	50	1636	0.217	355	310	0.4	0.3	2.809	A
C	195	49	206	1529	0.128	195	200	0.2	0.1	2.701	A
D	56	14	333	1591	0.035	56	68	0.0	0.0	2.345	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J20_M20 J12 Cheriton Interchange_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J20 M20 J12 Cheriton interchange
Report generation date: 20/11/2018 15:31:55

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[a]Base, AM
[a]Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.5	4.68	0.33	A	0.9	5.34	0.47	A
Arm B	0.6	2.05	0.37	A	0.7	2.21	0.42	A
Arm C	1.2	4.57	0.55	A	0.6	3.16	0.37	A
Arm D	0.7	3.93	0.40	A	0.6	3.31	0.36	A

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	J20 Otterpool Park Base Model AM PEAK
Location	M20 J12-Cheriton Interchange
Site number	
Date	27/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	A, B, C, D	3.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	M20 Westbound	
B	B2064 Cheriton	
C	M20 Eastbound	
D	A20 Ashford Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	5.40	6.02	19.8	58.6	179.0	22.0	
B	6.57	8.49	24.9	39.4	167.4	19.0	
C	4.57	6.76	27.6	33.4	179.0	15.0	
D	4.64	6.70	25.1	39.6	179.0	29.0	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	1140	124.00
B	360	44.00
C	660	105.00
D	1020	28.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.831	2252
B	1.171	3303
C	0.961	2540
D	0.851	2525

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	343	100.000
B		ONE HOUR	✓	940	100.000
C		ONE HOUR	✓	872	100.000
D		ONE HOUR	✓	547	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	309	0	34
	%	421	83	249	187
	&	0	521	4	347
	'	14	212	321	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	4	0	3
	%	1	1	3	0
	&	0	1	25	1
	'	7	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.33	4.68	0.5	A	315	472
B	0.37	2.05	0.6	A	863	1294
C	0.55	4.57	1.2	A	800	1200
D	0.40	3.93	0.7	A	502	753

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	258	65	857	1471	0.176	257	327	0.0	0.2	2.964	A
B	708	177	269	2941	0.241	706	844	0.0	0.3	1.611	A
C	656	164	545	1990	0.330	655	431	0.0	0.5	2.692	A
D	412	103	773	1821	0.226	411	427	0.0	0.3	2.550	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	308	77	1025	1335	0.231	308	391	0.2	0.3	3.506	A
B	845	211	322	2878	0.294	845	1010	0.3	0.4	1.769	A
C	784	196	651	1888	0.415	783	516	0.5	0.7	3.253	A
D	492	123	924	1693	0.290	491	510	0.3	0.4	2.995	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	378	94	1254	1148	0.329	377	479	0.3	0.5	4.663	A
B	1035	259	395	2793	0.371	1034	1236	0.4	0.6	2.045	A
C	960	240	798	1748	0.549	958	631	0.7	1.2	4.547	A
D	602	151	1131	1519	0.396	601	624	0.4	0.7	3.918	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	378	94	1256	1147	0.329	378	479	0.5	0.5	4.681	A
B	1035	259	395	2792	0.371	1035	1239	0.6	0.6	2.048	A
C	960	240	798	1747	0.549	960	632	1.2	1.2	4.572	A
D	602	151	1133	1518	0.397	602	625	0.7	0.7	3.932	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	308	77	1028	1332	0.231	309	391	0.5	0.3	3.521	A
B	845	211	323	2877	0.294	846	1014	0.6	0.4	1.774	A
C	784	196	652	1887	0.415	786	517	1.2	0.7	3.274	A
D	492	123	927	1691	0.291	493	512	0.7	0.4	3.004	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	258	65	860	1468	0.176	259	328	0.3	0.2	2.975	A
B	708	177	271	2940	0.241	708	848	0.4	0.3	1.612	A
C	656	164	546	1989	0.330	657	433	0.7	0.5	2.706	A
D	412	103	775	1819	0.226	412	428	0.4	0.3	2.561	A

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	A, B, C, D	3.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	1140	124.00
B	360	44.00
C	660	105.00
D	1020	28.00

Slope / Intercept / Capacity

[same as above]

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)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	535	100.000
B		ONE HOUR	✓	1081	100.000
C		ONE HOUR	✓	600	100.000
D		ONE HOUR	✓	555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	511	7	17
	%	326	164	428	164
	&	0	354	2	244
	'	22	200	333	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	1	14	0
	%	1	0	0	1
	&	0	1	0	2
	'	0	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.47	5.34	0.9	A	491	737
B	0.42	2.21	0.7	A	992	1488
C	0.37	3.16	0.6	A	551	826
D	0.36	3.31	0.6	A	509	764

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	403	101	790	1569	0.257	402	261	0.0	0.3	3.081	A
B	814	203	269	2968	0.274	812	922	0.0	0.4	1.670	A
C	452	113	504	2024	0.223	451	578	0.0	0.3	2.286	A
D	418	104	635	1949	0.214	417	319	0.0	0.3	2.348	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	481	120	945	1440	0.334	481	313	0.3	0.5	3.749	A
B	972	243	322	2905	0.335	971	1104	0.4	0.5	1.861	A
C	539	135	602	1930	0.279	539	692	0.3	0.4	2.587	A
D	499	125	760	1844	0.271	499	382	0.3	0.4	2.675	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	589	147	1157	1264	0.466	588	383	0.5	0.9	5.311	A
B	1190	298	395	2819	0.422	1190	1351	0.5	0.7	2.209	A
C	661	165	737	1801	0.367	660	847	0.4	0.6	3.153	A
D	611	153	930	1700	0.359	610	467	0.4	0.6	3.301	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	589	147	1159	1263	0.467	589	383	0.9	0.9	5.343	A
B	1190	298	395	2818	0.422	1190	1353	0.7	0.7	2.211	A
C	661	165	738	1801	0.367	661	848	0.6	0.6	3.157	A
D	611	153	931	1700	0.360	611	468	0.6	0.6	3.306	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	481	120	947	1439	0.334	483	313	0.9	0.5	3.773	A
B	972	243	323	2904	0.335	973	1107	0.7	0.5	1.864	A
C	539	135	603	1929	0.280	540	693	0.6	0.4	2.592	A
D	499	125	761	1843	0.271	500	382	0.6	0.4	2.682	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	403	101	793	1567	0.257	404	262	0.5	0.3	3.097	A
B	814	203	270	2966	0.274	814	926	0.5	0.4	1.672	A
C	452	113	505	2023	0.223	452	580	0.4	0.3	2.291	A
D	418	104	637	1948	0.215	418	320	0.4	0.3	2.355	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J21A_M20 J13 Castle hill Interchange_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J21A M20 J13 Castle hill Interchange - Churchill Ave
Report generation date: 20/11/2018 15:33:08

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a Base, AM
a Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.8	4.68	0.46	A	0.4	3.35	0.29	A
Arm B	2.9	8.64	0.75	A	1.7	5.21	0.64	A
Arm C	1.0	4.90	0.51	A	1.2	5.14	0.55	A
Arm E	3.7	11.40	0.79	B	2.5	8.06	0.72	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	J21A Otterpool Park_Base Model AM PEAK
Location	J21A M20 J13-Castle hill Interchange
Site number	
Date	27/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J21A	M20 J13 Castle Hill Interchange	Standard Roundabout	A, B, C, D, E	8.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	M20 Westbound Entry Only	
B	Churchill Avenue	
C	Cherry Garden Avenue	
D	M20 Westbound Exit Only	
E	A20 Castle Hill Bridge	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	5.84	10.80	36.1	15.4	60.0	40.0	
B	3.60	9.60	64.0	24.4	60.0	31.0	
C	3.65	8.18	29.6	18.4	60.0	29.0	
D							✓
E	6.40	6.40	0.0	29.6	60.0	48.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.713	2675
B	0.698	2503
C	0.613	2026
D		
E	0.571	1849

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	592	100.000
B		ONE HOUR	✓	1109	100.000
C		ONE HOUR	✓	681	100.000
D					
E		ONE HOUR	✓	1093	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		$	%	&	'	(
From	$	0	127	462	2	1
	%	0	0	424	628	57
	&	0	387	40	0	254
	'	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	(	0	579	513	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		$	%	&	'	(
From	$	0	2	1	0	0
	%	0	0	3	4	6
	&	0	3	3	3	5
	'	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	(	0	4	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.46	4.68	0.8	A	543	815
B	0.75	8.64	2.9	A	1018	1526
C	0.51	4.90	1.0	A	625	937
D						
E	0.79	11.40	3.7	B	1003	1504

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	446	111	1139	1810	0.246	444	0	0.0	0.3	2.634	A
B	835	209	764	1883	0.443	832	819	0.0	0.8	3.416	A
C	513	128	517	1633	0.314	511	1079	0.0	0.5	3.201	A
D			554				473				
E	823	206	320	1603	0.513	819	234	0.0	1.0	4.570	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	532	133	1364	1647	0.323	532	0	0.3	0.5	3.227	A
B	997	249	914	1779	0.560	995	981	0.8	1.3	4.580	A
C	612	153	618	1571	0.390	611	1291	0.5	0.6	3.752	A
D			664				566				
E	983	246	383	1567	0.627	980	280	1.0	1.7	6.111	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	652	163	1665	1428	0.457	650	0	0.5	0.8	4.624	A
B	1221	305	1117	1640	0.745	1215	1198	1.3	2.8	8.351	A
C	750	187	755	1486	0.504	748	1577	0.6	1.0	4.867	A
D			812				691				
E	1203	301	469	1518	0.793	1196	343	1.7	3.6	10.900	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	652	163	1673	1421	0.459	652	0	0.8	0.8	4.677	A
B	1221	305	1122	1637	0.746	1221	1203	2.8	2.9	8.645	A
C	750	187	758	1484	0.505	750	1584	1.0	1.0	4.901	A
D			814				695				
E	1203	301	470	1518	0.793	1203	343	3.6	3.7	11.401	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	532	133	1375	1638	0.325	534	0	0.8	0.5	3.265	A
B	997	249	921	1775	0.562	1003	988	2.9	1.3	4.706	A
C	612	153	623	1567	0.391	614	1301	1.0	0.6	3.782	A
D			666				571				
E	983	246	385	1566	0.627	991	281	3.7	1.7	6.342	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	446	111	1147	1804	0.247	446	0	0.5	0.3	2.652	A
B	835	209	769	1879	0.444	837	825	1.3	0.8	3.461	A
C	513	128	520	1631	0.314	513	1086	0.6	0.5	3.221	A
D			557				476				
E	823	206	322	1602	0.514	825	235	1.7	1.1	4.653	A

Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
J21A	M20 J13 Castle Hill Interchange	Standard Roundabout	A, B, C, D, E	5.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	399	100.000
B		ONE HOUR	✓	1103	100.000
C		ONE HOUR	✓	778	100.000
D					
E		ONE HOUR	✓	1019	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		$	%	&	'	(
From	$	0	65	331	2	1
	%	0	0	443	549	111
	&	0	393	34	0	351
	'	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	(	0	639	378	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		$	%	&	'	(
From	$	0	2	1	0	0
	%	0	0	1	1	2
	&	0	1	0	0	1
	'	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	(	0	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.29	3.35	0.4	A	366	549
B	0.64	5.21	1.7	A	1012	1518
C	0.55	5.14	1.2	A	714	1071
D						
E	0.72	8.06	2.5	A	935	1403

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	300	75	1084	1875	0.160	300	0	0.0	0.2	2.284	A
B	830	208	561	2086	0.398	828	823	0.0	0.7	2.854	A
C	586	146	499	1700	0.345	584	890	0.0	0.5	3.220	A
D			668				415				
E	767	192	320	1654	0.464	764	347	0.0	0.9	4.028	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	359	90	1298	1723	0.208	358	0	0.2	0.3	2.638	A
B	992	248	672	2010	0.493	990	985	0.7	1.0	3.525	A
C	699	175	597	1640	0.427	699	1065	0.5	0.7	3.821	A
D			799				497				
E	916	229	383	1618	0.566	914	416	0.9	1.3	5.104	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	439	110	1586	1518	0.289	439	0	0.3	0.4	3.334	A
B	1214	304	821	1906	0.637	1211	1204	1.0	1.7	5.158	A
C	857	214	730	1558	0.550	855	1302	0.7	1.2	5.107	A
D			978				607				
E	1122	280	469	1569	0.715	1117	509	1.3	2.4	7.892	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	439	110	1592	1514	0.290	439	0	0.4	0.4	3.348	A
B	1214	304	823	1905	0.638	1214	1208	1.7	1.7	5.215	A
C	857	214	732	1557	0.550	857	1306	1.2	1.2	5.142	A
D			980				609				
E	1122	280	470	1568	0.715	1122	510	2.4	2.5	8.055	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	359	90	1306	1717	0.209	359	0	0.4	0.3	2.651	A
B	992	248	675	2008	0.494	995	990	1.7	1.0	3.565	A
C	699	175	600	1638	0.427	701	1070	1.2	0.8	3.850	A
D			802				499				
E	916	229	385	1617	0.567	921	417	2.5	1.3	5.204	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	300	75	1091	1870	0.161	301	0	0.3	0.2	2.296	A
B	830	208	564	2084	0.398	832	828	1.0	0.7	2.875	A
C	586	146	501	1698	0.345	587	894	0.8	0.5	3.242	A
D			671				417				
E	767	192	322	1653	0.464	769	349	1.3	0.9	4.081	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J21B_M20 J13 Castle hill Interchange_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\J21B M20 J13 Castle hill Interchange
Report generation date: 20/11/2018 15:34:11

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[a]Base, AM
[a]Base, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm B	0.3	3.47	0.23	A	0.6	3.95	0.36	A
Arm C	0.9	3.00	0.48	A	1.0	3.33	0.51	A
Arm D	0.0	5.20	0.01	A	0.0	5.23	0.02	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	J21B Otterpool Park_Base Model AM PEAK
Location	M20 J13-Castle hill Interchange
Site number	
Date	27/06/2017
Version	
Status	Draft 1
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	3.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	M20 Eastbound Exit Only	
B	Castle Hill Bridge	
C	M20 Eastbound	
D	Castle Hill	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	5.25	7.52	10.0	72.0	37.5	44.0	
B	3.25	6.03	11.0	23.3	37.5	35.0	
C	5.27	10.71	39.2	24.8	37.5	42.0	
D	3.47	7.77	21.2	21.4	37.5	44.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.696	1963
B	0.591	1435
C	0.829	2650
D	0.645	1758

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	0	100.000
B		ONE HOUR	✓	284	100.000
C		ONE HOUR	✓	1002	100.000
D		ONE HOUR	✓	6	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	0	0	0
	%	282	0	0	2
	&	1	998	0	3
	'	2	4	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	0	0
	%	6	0	0	50
	&	0	3	0	33
	'	0	25	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.00	0.00	0.0	A	0	0
B	0.23	3.47	0.3	A	261	391
C	0.48	3.00	0.9	A	919	1379
D	0.01	5.20	0.0	A	6	8

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	753	1423	0.000	0	214	0.0	0.0	0.000	A
B	214	53	0	1350	0.158	213	753	0.0	0.2	3.164	A
C	754	189	213	2389	0.316	753	0	0.0	0.5	2.198	A
D	5	1	962	956	0.005	4	4	0.0	0.0	3.784	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	900	1317	0.000	0	256	0.0	0.0	0.000	A
B	255	64	0	1350	0.189	255	900	0.2	0.2	3.287	A
C	901	225	255	2353	0.383	900	0	0.5	0.6	2.476	A
D	5	1	1151	847	0.006	5	4	0.0	0.0	4.275	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	1102	1172	0.000	0	314	0.0	0.0	0.000	A
B	313	78	0	1350	0.232	312	1102	0.2	0.3	3.469	A
C	1103	276	312	2304	0.479	1102	0	0.6	0.9	2.993	A
D	7	2	1409	699	0.009	7	5	0.0	0.0	5.196	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	1103	1171	0.000	0	314	0.0	0.0	0.000	A
B	313	78	0	1350	0.232	313	1103	0.3	0.3	3.469	A
C	1103	276	313	2304	0.479	1103	0	0.9	0.9	2.998	A
D	7	2	1410	698	0.009	7	6	0.0	0.0	5.202	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	902	1316	0.000	0	256	0.0	0.0	0.000	A
B	255	64	0	1350	0.189	256	902	0.3	0.2	3.291	A
C	901	225	256	2352	0.383	902	0	0.9	0.6	2.483	A
D	5	1	1153	846	0.006	5	5	0.0	0.0	4.284	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	755	1421	0.000	0	215	0.0	0.0	0.000	A
B	214	53	0	1350	0.158	214	755	0.2	0.2	3.170	A
C	754	189	214	2388	0.316	755	0	0.6	0.5	2.206	A
D	5	1	965	954	0.005	5	4	0.0	0.0	3.792	A

Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	3.54	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)	Run automatically
D2	Base	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	0	100.000
B		ONE HOUR	✓	463	100.000
C		ONE HOUR	✓	1019	100.000
D		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	0	0	0
	%	460	0	0	3
	&	3	1010	0	6
	'	3	9	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	0	0
	%	1	0	0	0
	&	0	1	0	0
	'	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.00	0.00	0.0	A	0	0
B	0.36	3.95	0.6	A	425	637
C	0.51	3.33	1.0	A	935	1403
D	0.02	5.23	0.0	A	11	17

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	765	1425	0.000	0	350	0.0	0.0	0.000	A
B	349	87	0	1421	0.245	347	765	0.0	0.3	3.347	A
C	767	192	347	2336	0.328	765	0	0.0	0.5	2.288	A
D	9	2	1106	1038	0.009	9	7	0.0	0.0	3.499	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	915	1319	0.000	0	419	0.0	0.0	0.000	A
B	416	104	0	1421	0.293	416	915	0.3	0.4	3.581	A
C	916	229	416	2279	0.402	915	0	0.5	0.7	2.637	A
D	11	3	1323	896	0.012	11	8	0.0	0.0	4.066	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	1120	1175	0.000	0	512	0.0	0.0	0.000	A
B	510	127	0	1421	0.359	509	1120	0.4	0.6	3.944	A
C	1122	280	509	2202	0.509	1120	0	0.7	1.0	3.324	A
D	13	3	1620	703	0.019	13	10	0.0	0.0	5.220	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	1122	1174	0.000	0	513	0.0	0.0	0.000	A
B	510	127	0	1421	0.359	510	1122	0.6	0.6	3.949	A
C	1122	280	510	2202	0.510	1122	0	1.0	1.0	3.333	A
D	13	3	1622	701	0.019	13	10	0.0	0.0	5.230	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	918	1318	0.000	0	419	0.0	0.0	0.000	A
B	416	104	0	1421	0.293	417	918	0.6	0.4	3.585	A
C	916	229	417	2279	0.402	917	0	1.0	0.7	2.646	A
D	11	3	1326	894	0.012	11	8	0.0	0.0	4.076	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	0	0	768	1423	0.000	0	351	0.0	0.0	0.000	A
B	349	87	0	1421	0.245	349	768	0.4	0.3	3.360	A
C	767	192	349	2335	0.329	768	0	0.7	0.5	2.297	A
D	9	2	1110	1035	0.009	9	7	0.0	0.0	3.508	A

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J22_A20 Ashford Rd Stone St_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J22 A20 Ashford Rd - Stone St
Report generation date: 20/11/2018 15:55:51

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-AC	0.1	12.53	0.11	B	0.4	16.17	0.28	C
Stream C-AB	0.0	7.29	0.04	A	0.1	7.59	0.05	A

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	J22 Otterpool Park_Base Model
Location	A20 Ashford Rd - Stone St
Site number	
Date	08/08/2017
Version	
Status	Base
Identifier	
Client	
Jobnumber	
Enumerator	dma78191 [C8Z9W0G2]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J22 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓
D2	Base	PM	J22 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Ashford Road Westbound		Major
B	Stone Street		Minor
C	A20 Ashford Road Eastbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.38	✓	2.71	✓	2.70	97.0	✓	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	2.40	78	108

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	555	0.086	0.216	0.136	0.309
1	B-C	650	0.089	0.226	-	-
1	C-B	664	0.231	0.231	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	J22 Otterpool Park AM PEAK	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	662	100.000
B		ONE HOUR	✓	31	100.000
C		ONE HOUR	✓	724	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	26	636
	%	20	0	11
	&	707	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	8
	%	0	0	0
	&	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.11	12.53	0.1	B	28	43
C-AB	0.04	7.29	0.0	A	16	24
C-A					648	972
A-B					24	36
A-C					584	875

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	23	6	408	0.057	23	0.0	0.1	9.341	A
C-AB	13	3	553	0.024	13	0.0	0.0	6.664	A
C-A	532	133			532				
A-B	20	5			20				
A-C	479	120			479				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	28	7	372	0.075	28	0.1	0.1	10.447	B
C-AB	16	4	535	0.030	16	0.0	0.0	6.928	A
C-A	635	159			635				
A-B	23	6			23				
A-C	572	143			572				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	34	9	321	0.106	34	0.1	0.1	12.517	B
C-AB	20	5	513	0.039	20	0.0	0.0	7.293	A
C-A	777	194			777				
A-B	29	7			29				
A-C	700	175			700				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	34	9	321	0.106	34	0.1	0.1	12.530	B
C-AB	20	5	513	0.039	20	0.0	0.0	7.293	A
C-A	777	194			777				
A-B	29	7			29				
A-C	700	175			700				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	28	7	372	0.075	28	0.1	0.1	10.462	B
C-AB	16	4	536	0.030	16	0.0	0.0	6.930	A
C-A	635	159			635				
A-B	23	6			23				
A-C	572	143			572				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	23	6	408	0.057	23	0.1	0.1	9.358	A
C-AB	13	3	553	0.024	13	0.0	0.0	6.668	A
C-A	532	133			532				
A-B	20	5			20				
A-C	479	120			479				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	J22 Otterpool Park PM PEAK	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	767	100.000
B		ONE HOUR	✓	77	100.000
C		ONE HOUR	✓	693	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	29	738
	%	49	0	28
	&	671	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	0	4
	%	0	0	0
	&	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.28	16.17	0.4	C	71	106
C-AB	0.05	7.59	0.1	A	21	32
C-A					615	922
A-B					27	40
A-C					677	1016

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	58	14	399	0.145	57	0.0	0.2	10.515	B
C-AB	17	4	542	0.031	17	0.0	0.0	6.855	A
C-A	505	126			505				
A-B	22	5			22				
A-C	556	139			556				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	69	17	361	0.192	69	0.2	0.2	12.311	B
C-AB	21	5	523	0.040	21	0.0	0.0	7.165	A
C-A	602	151			602				
A-B	26	7			26				
A-C	663	166			663				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	85	21	307	0.276	84	0.2	0.4	16.090	C
C-AB	26	7	501	0.052	26	0.0	0.1	7.585	A
C-A	737	184			737				
A-B	32	8			32				
A-C	813	203			813				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	85	21	307	0.276	85	0.4	0.4	16.167	C
C-AB	26	7	501	0.052	26	0.1	0.1	7.589	A
C-A	737	184			737				
A-B	32	8			32				
A-C	813	203			813				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	69	17	361	0.192	70	0.4	0.2	12.379	B
C-AB	21	5	523	0.040	21	0.1	0.0	7.170	A
C-A	602	151			602				
A-B	26	7			26				
A-C	663	166			663				

18:00 - 18:15

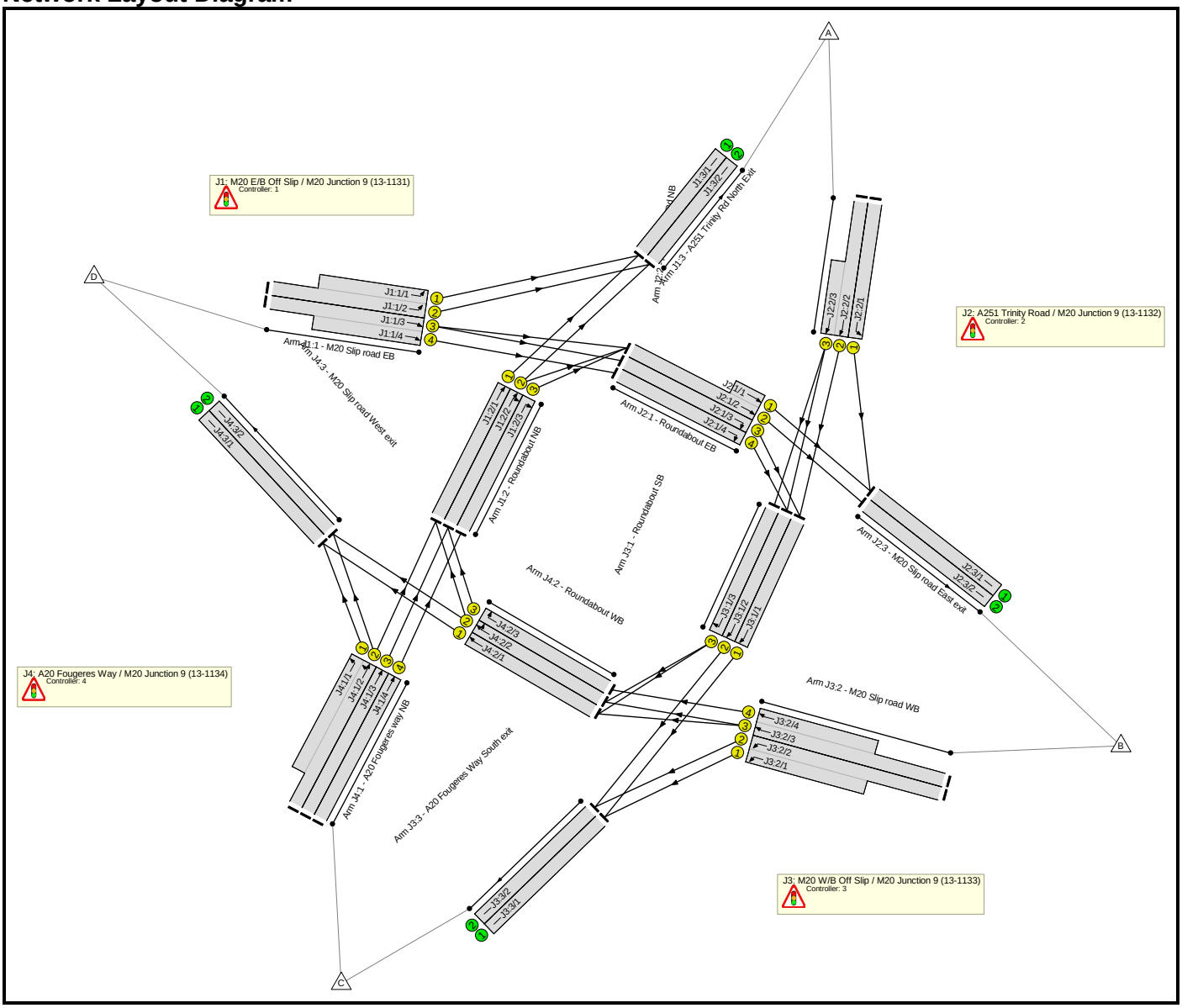
Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	58	14	399	0.145	58	0.2	0.2	10.575	B
C-AB	17	4	542	0.031	17	0.0	0.0	6.861	A
C-A	505	126			505				
A-B	22	5			22				
A-C	556	139			556				

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**J23 M20 Junction 9**
Location:	M20 - Junction 9
Additional detail:	
File name:	J23_M20_Junction 9_Base Model.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Network Layout Diagram



Full Input Data And Results

C1 - 13/1131

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

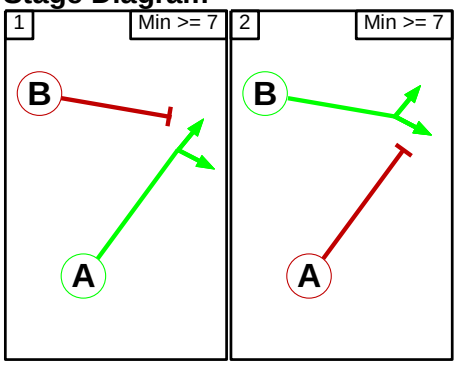
Phase Intergreens Matrix

		Starting Phase	
		A	B
Terminating Phase	A		7
	B	7	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

C2 - 13/1132

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Full Input Data And Results

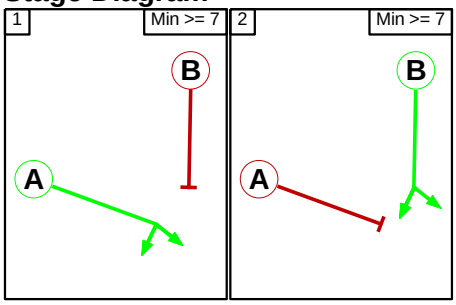
Phase Intergreens Matrix

Terminating Phase	Starting Phase		
		A	B
	A		5
	B	7	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

C3 - 13/1133

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Phase Intergreens Matrix

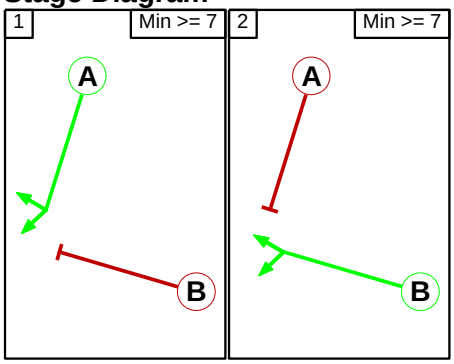
Terminating Phase	Starting Phase		
		A	B
	A		7
	B	7	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Full Input Data And Results

Stage Diagram



Phase Delays

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

C4 - 13/1134

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

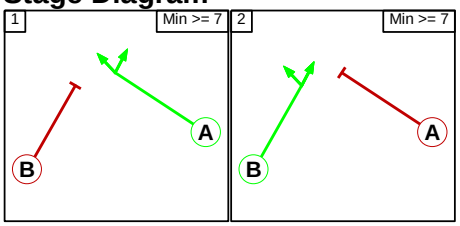
Phase Intergreens Matrix

Terminating Phase	Starting Phase A	Starting Phase B
A		5
B	7	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

Full Input Data And Results

Traffic Flows, Desired

Scenario 1: 'AM PEAK' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

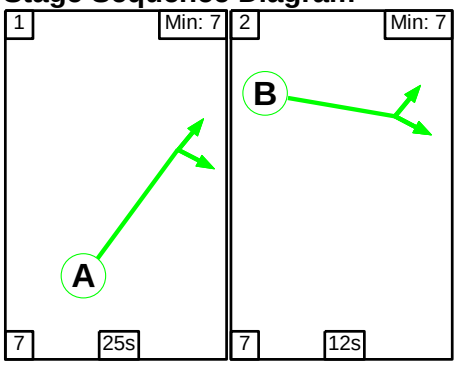
		Destination				
		A	B	C	D	Tot.
Origin	A	0	369	488	147	1004
	B	633	0	766	0	1399
	C	621	603	0	601	1825
	D	223	2	605	0	830
	Tot.	1477	974	1859	748	5058

Scenario 2: 'PM PEAK' (FG2: 'PM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	653	783	151	1587
	B	492	0	554	0	1046
	C	493	669	0	507	1669
	D	171	0	793	0	964
	Tot.	1156	1322	2130	658	5266

Scenario 1: 'AM PEAK' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
C1 - 13/1131

Stage Sequence Diagram

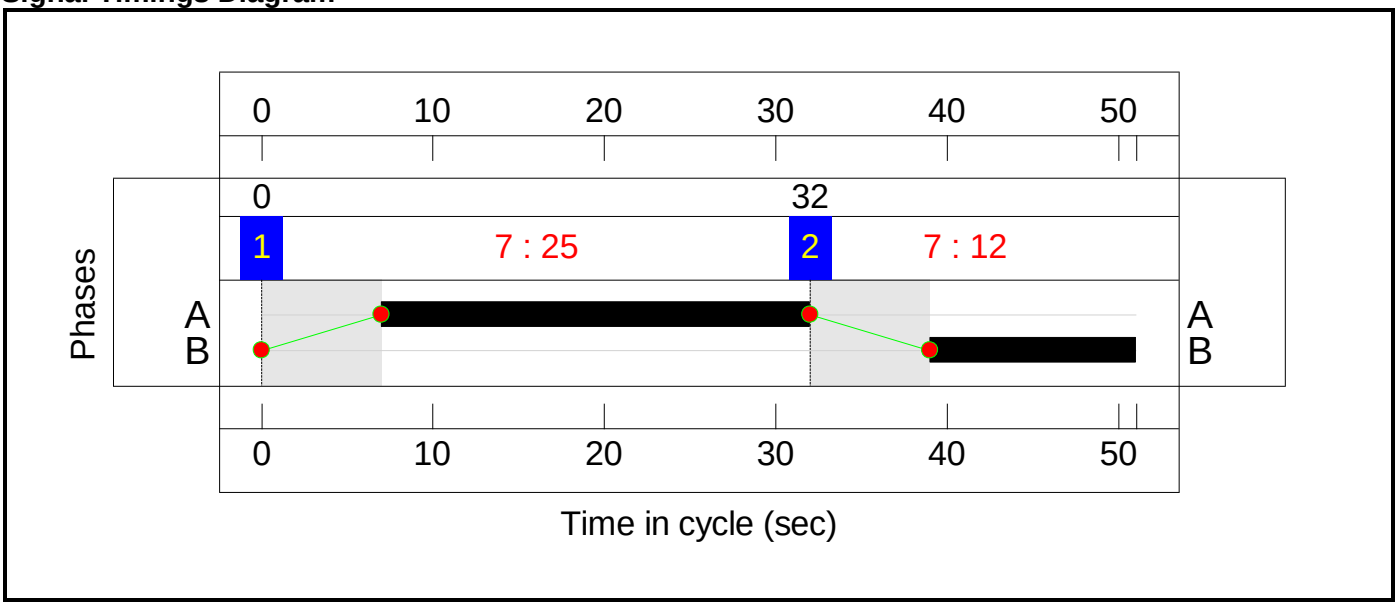


Stage Timings

Stage	1	2
Duration	25	12
Change Point	0	32

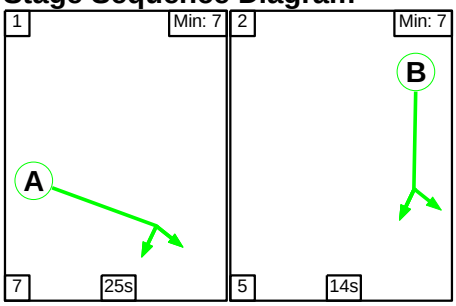
Full Input Data And Results

Signal Timings Diagram



C2 - 13/1132

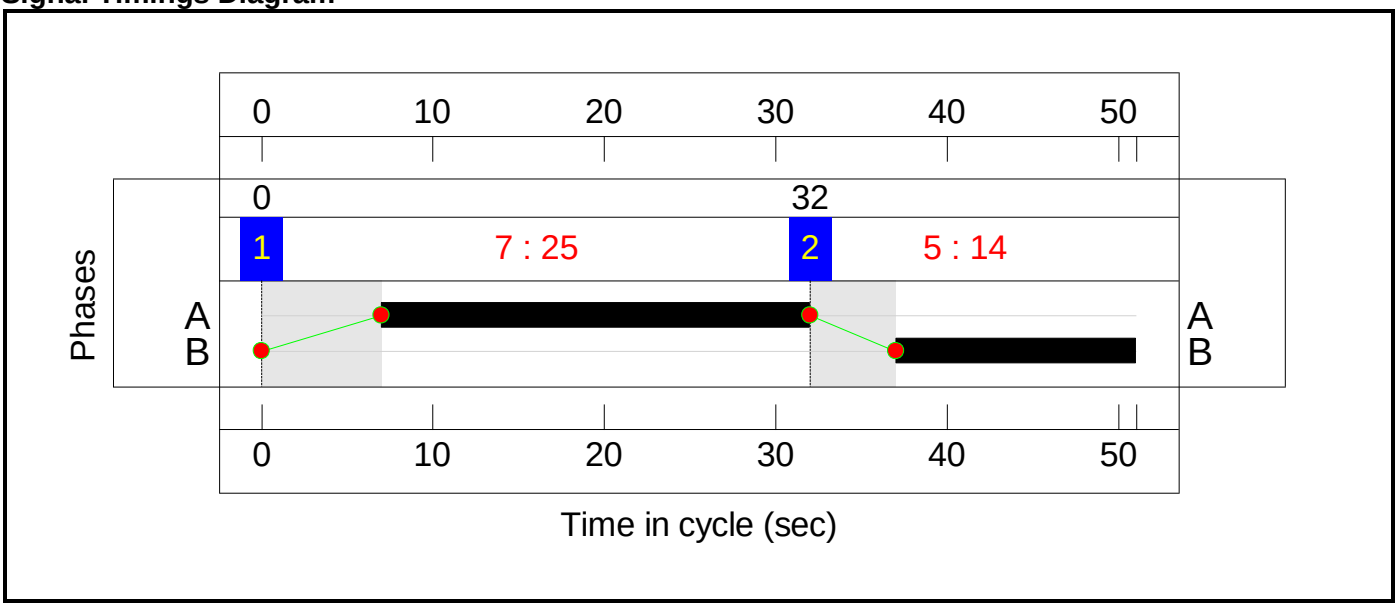
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	25	14
Change Point	0	32

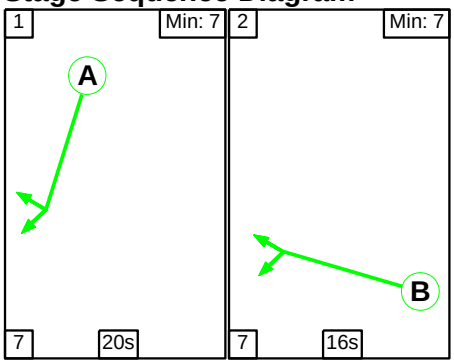
Signal Timings Diagram



Full Input Data And Results

C3 - 13/1133

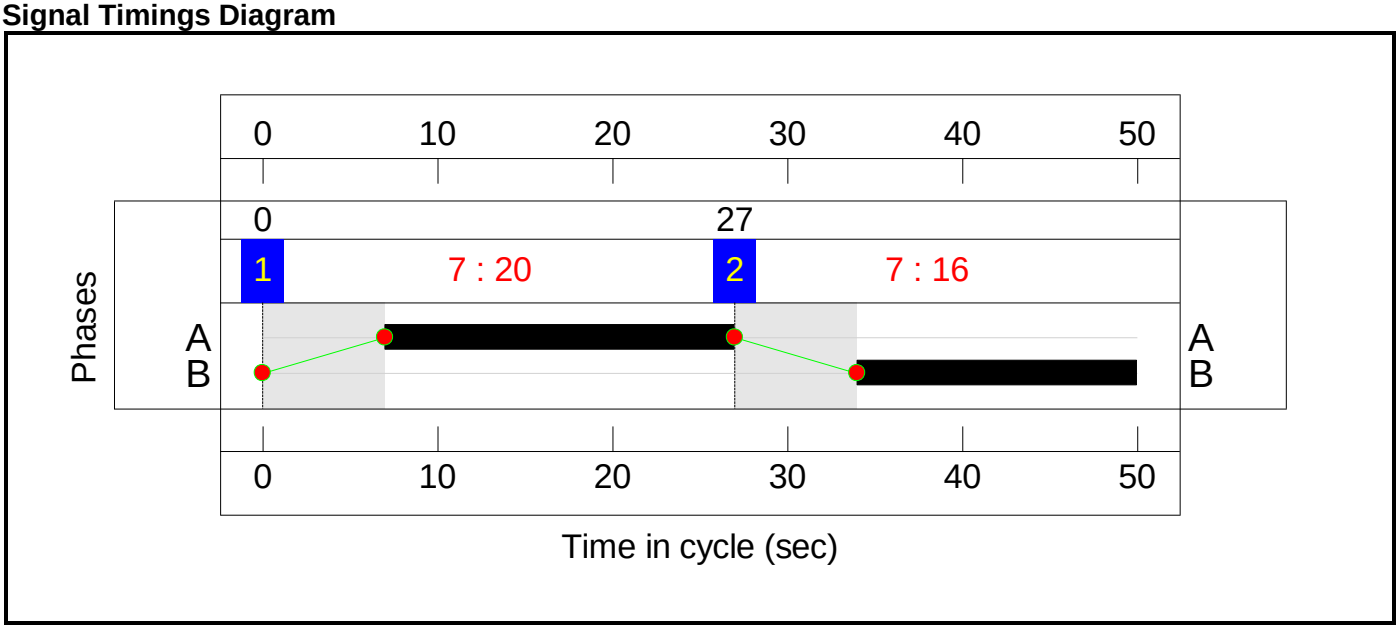
Stage Sequence Diagram



Stage Timings

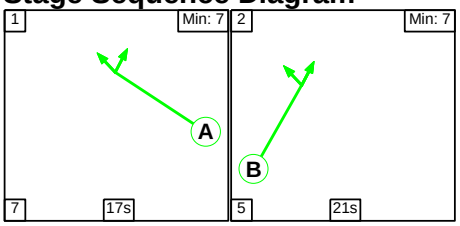
Stage	1	2
Duration	20	16
Change Point	0	27

Signal Timings Diagram



C4 - 13/1134

Stage Sequence Diagram

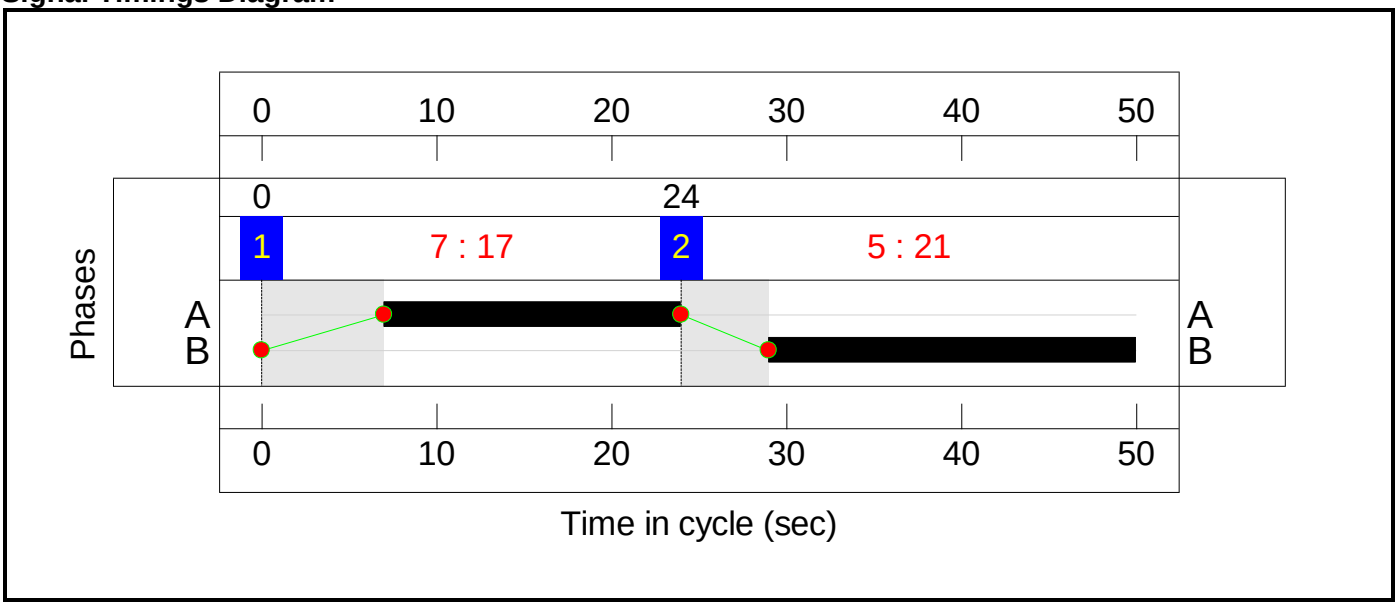


Stage Timings

Stage	1	2
Duration	17	21
Change Point	0	24

Full Input Data And Results

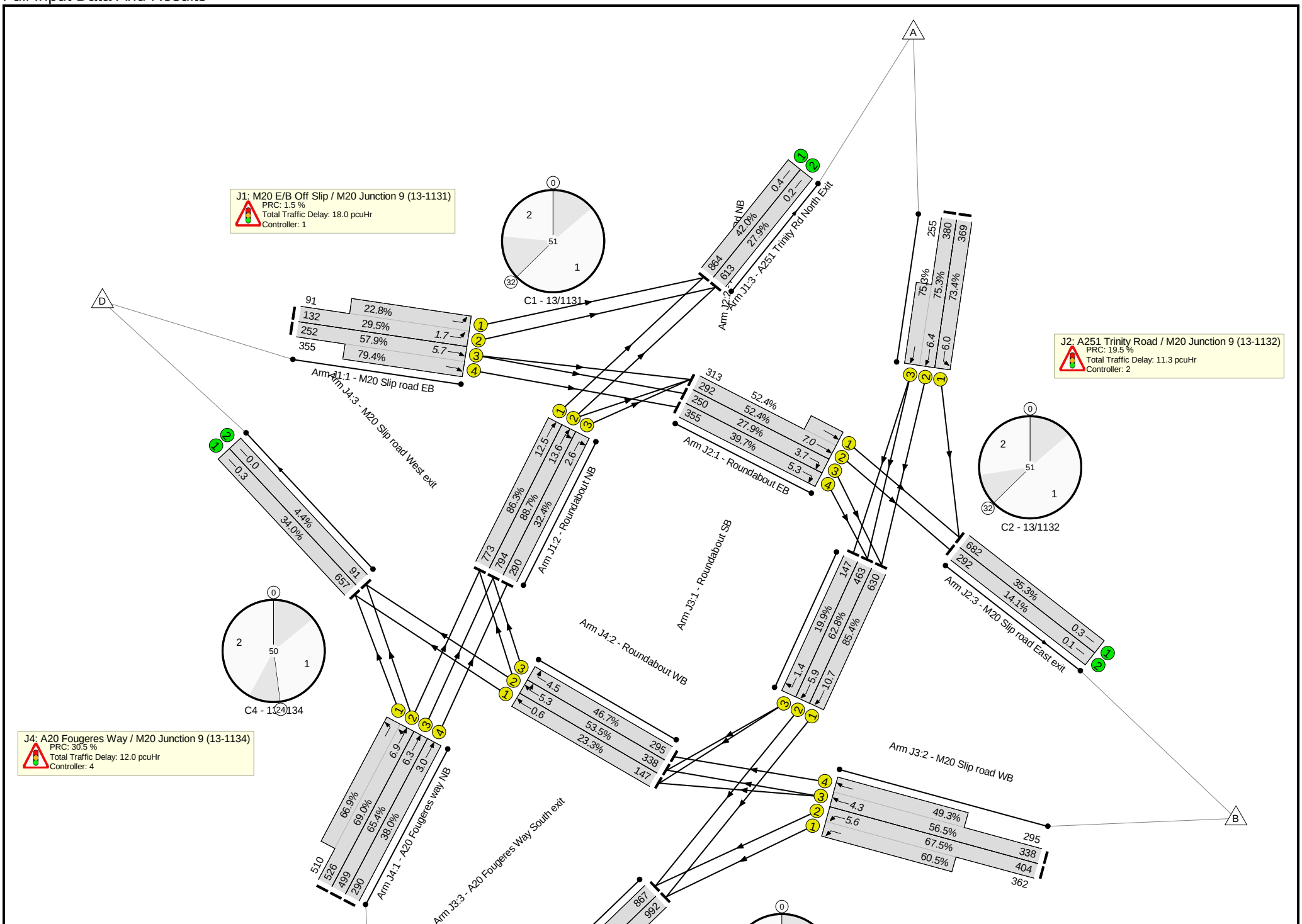
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Scenario 1: 'AM PEAK' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J23 M20 Junction 9	-	-	-	-	-	-	-	**88.7%**	-
J1: M20 E/B Off Slip / M20 Junction 9 (13-1131)	-	-	-	-	-	-	-	**88.7%**	-
1/2+1/1	M20 Slip road EB Left	U	12	-	223	1754:1754	447+400	29.5 : 22.8%	223
1/3+1/4	M20 Slip road EB Ahead	U	12	-	607	1754:1754	435+447	57.9 : 79.4%	607
2/1	Roundabout NB Ahead	U	25	-	773	1756	895	86.3%	773
2/2	Roundabout NB Right Ahead	U	25	-	794	1756	895	88.7%	794
2/3	Roundabout NB Right	U	25	-	290	1756	895	32.4%	290
3/1	A251 Trinity Rd North Exit	U	-	-	864	2055	2055	42.0%	864
3/2	A251 Trinity Rd North Exit	U	-	-	613	2195	2195	27.9%	613
J2: A251 Trinity Road / M20 Junction 9 (13-1132)	-	-	-	-	-	-	-	**75.3%**	-
1/2+1/1	Roundabout EB Ahead	U	25	-	605	1756:1756	557+597	52.4 : 52.4%	605
1/3	Roundabout EB Right	U	25	-	250	1756	895	27.9%	250
1/4	Roundabout EB Right	U	25	-	355	1756	895	39.7%	355
2/1	A251 Trinity Rd NB Left	U	14	-	369	1709	503	73.4%	369
2/2+2/3	A251 Trinity Rd NB Ahead	U	14	-	635	1715:1715	504+338	75.3 : 75.3%	635
3/1	M20 Slip road East exit	U	-	-	682	1932	1932	35.3%	682
3/2	M20 Slip road East exit	U	-	-	292	2072	2072	14.1%	292
J3: M20 W/B Off Slip / M20 Junction 9 (13-1133)	-	-	-	-	-	-	-	**85.4%**	-

Full Input Data And Results

1/1	Roundabout SB Ahead	U	20	-	630	1756	738	85.4%	630
1/2	Roundabout SB Ahead	U	20	-	463	1756	738	62.8%	463
1/3	Roundabout SB Right	U	20	-	147	1756	738	19.9%	147
2/2+2/1	M20 Slip road WB Left	U	16	-	766	1760:1760	598+598	67.5 : 60.5%	766
2/3+2/4	M20 Slip road WB Ahead	U	16	-	633	1760:1760	598+598	56.5 : 49.3%	633
3/1	A20 Fougeres Way South exit	U	-	-	992	1937	1937	51.2%	992
3/2	A20 Fougeres Way South exit	U	-	-	867	2077	2077	41.7%	867
J4: A20 Fougeres Way / M20 Junction 9 (13-1134)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**	**-**
1/2+1/1	A20 Fougeres way NB Ahead Left	U	21	-	1036	1733:1733	763+763	69.0 : 66.9%	1036
1/3	A20 Fougeres way NB Ahead	U	21	-	499	1733	763	65.4%	499
1/4	A20 Fougeres way NB Ahead	U	21	-	290	1733	763	38.0%	290
2/1	Roundabout WB Ahead	U	17	-	147	1756	632	23.3%	147
2/2	Roundabout WB Right Ahead	U	17	-	338	1756	632	53.5%	338
2/3	Roundabout WB Right	U	17	-	295	1756	632	46.7%	295
3/1	M20 Slip road West exit	U	-	-	657	1932	1932	34.0%	657
3/2	M20 Slip road West exit	U	-	-	91	2072	2072	4.4%	91

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J23 M20 Junction 9	**-**	**0**	**34.0**	**22.8**	**56.8**	**-**	**-**	**-**	**-**
J1: M20 E/B Off Slip / M20 Junction 9 (13-1131)	**-**	**0**	**9.3**	**8.7**	**18.0**	**-**	**-**	**-**	**-**
1/2+1/1	223	-	0.9	0.2	1.1	18.1	1.5	0.2	1.7
1/3+1/4	607	-	2.9	1.1	4.0	23.7	4.6	1.1	5.7
2/1	773	-	2.4	3.0	5.4	25.0	9.4	3.0	12.5
2/2	794	-	2.5	3.7	6.1	27.8	9.9	3.7	13.6
2/3	290	-	0.6	0.2	0.8	10.3	2.3	0.2	2.6
3/1	864	-	0.0	0.4	0.4	1.5	0.0	0.4	0.4
3/2	613	-	0.0	0.2	0.2	1.1	0.0	0.2	0.2
J2: A251 Trinity Road / M20 Junction 9 (13-1132)	**-**	**0**	**7.0**	**4.3**	**11.3**	**-**	**-**	**-**	**-**
1/2+1/1	605	-	0.8	0.5	1.3	7.9	6.5	0.5	7.0
1/3	250	-	0.7	0.2	0.9	13.3	3.5	0.2	3.7
1/4	355	-	1.1	0.3	1.4	14.1	5.0	0.3	5.3
2/1	369	-	1.7	1.4	3.0	29.4	4.6	1.4	6.0
2/2+2/3	635	-	2.8	1.5	4.3	24.3	4.9	1.5	6.4
3/1	682	-	0.0	0.3	0.3	1.4	0.0	0.3	0.3
3/2	292	-	0.0	0.1	0.1	1.0	0.0	0.1	0.1
J3: M20 W/B Off Slip / M20 Junction 9 (13-1133)	**-**	**0**	**9.4**	**6.1**	**15.5**	**-**	**-**	**-**	**-**
1/1	630	-	2.3	2.8	5.1	29.0	7.9	2.8	10.7
1/2	463	-	1.5	0.8	2.3	17.9	5.0	0.8	5.9
1/3	147	-	0.4	0.1	0.5	12.3	1.3	0.1	1.4
2/2+2/1	766	-	3.0	0.9	3.9	18.1	4.7	0.9	5.6
2/3+2/4	633	-	2.3	0.6	2.9	16.5	3.8	0.6	4.3
3/1	992	-	0.0	0.5	0.5	1.9	0.0	0.5	0.5
3/2	867	-	0.0	0.4	0.4	1.5	0.0	0.4	0.4

Full Input Data And Results

J4: A20 Fougeres Way / M20 Junction 9 (13-1134)	**-**	**0**	**8.2**	**3.7**	**12.0**	**-**	**-**	**-**	**-**
1/2+1/1	1036	-	3.2	1.1	4.3	14.9	5.8	1.1	6.9
1/3	499	-	1.5	0.9	2.5	17.8	5.4	0.9	6.3
1/4	290	-	0.8	0.3	1.1	13.2	2.7	0.3	3.0
2/1	147	-	0.3	0.2	0.4	9.9	0.5	0.2	0.6
2/2	338	-	1.3	0.6	1.9	20.3	4.7	0.6	5.3
2/3	295	-	1.1	0.4	1.6	19.4	4.1	0.4	4.5
3/1	657	-	0.0	0.3	0.3	1.4	0.0	0.3	0.3
3/2	91	-	0.0	0.0	0.0	0.9	0.0	0.0	0.0

C1 - 13/1131	PRC for Signalled Lanes (%): 1.5	Total Delay for Signalled Lanes (pcuHr): 17.44	Cycle Time (s): 51
C2 - 13/1132	PRC for Signalled Lanes (%): 19.5	Total Delay for Signalled Lanes (pcuHr): 10.94	Cycle Time (s): 51
C3 - 13/1133	PRC for Signalled Lanes (%): 5.4	Total Delay for Signalled Lanes (pcuHr): 14.64	Cycle Time (s): 50
C4 - 13/1134	PRC for Signalled Lanes (%): 30.5	Total Delay for Signalled Lanes (pcuHr): 11.71	Cycle Time (s): 50
	PRC Over All Lanes (%): 1.5	Total Delay Over All Lanes(pcuHr): 56.80	

Full Input Data And Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J23 M20 Junction 9	-	-	-	-	-	-	-	**92.6%**	-
J1: M20 E/B Off Slip / M20 Junction 9 (13-1131)	-	-	-	-	-	-	-	**91.3%**	-
1/2+1/1	M20 Slip road EB Left	U	16	-	171	1754:1754	459+334	21.6 : 21.6%	171
1/3+1/4	M20 Slip road EB Ahead	U	16	-	793	1754:1754	459+459	81.5 : 91.3%	793
2/1	Roundabout NB Ahead	U	35	-	643	1756	973	66.1%	643
2/2	Roundabout NB Right Ahead	U	35	-	624	1756	973	64.2%	624
2/3	Roundabout NB Right	U	35	-	387	1756	973	39.8%	387
3/1	A251 Trinity Rd North Exit	U	-	-	715	2055	2055	34.8%	715
3/2	A251 Trinity Rd North Exit	U	-	-	441	2195	2195	20.1%	441
J2: A251 Trinity Road / M20 Junction 9 (13-1132)	-	-	-	-	-	-	-	**92.0%**	-
1/2+1/1	Roundabout EB Ahead	U	27	-	669	1756:1756	532+388	72.8 : 72.8%	669
1/3	Roundabout EB Right	U	27	-	374	1756	756	49.4%	374
1/4	Roundabout EB Right	U	27	-	419	1756	756	55.4%	419
2/1	A251 Trinity Rd NB Left	U	26	-	653	1709	710	92.0%	653
2/2+2/3	A251 Trinity Rd NB Ahead	U	26	-	934	1715:1715	587+492	86.6 : 86.6%	934
3/1	M20 Slip road East exit	U	-	-	935	1932	1932	48.4%	935
3/2	M20 Slip road East exit	U	-	-	387	2072	2072	18.7%	387
J3: M20 W/B Off Slip / M20 Junction 9 (13-1133)	-	-	-	-	-	-	-	**92.6%**	-
1/1	Roundabout SB Ahead	U	31	-	882	1756	952	92.6%	882

Full Input Data And Results

1/2	Roundabout SB Ahead	U	31	-	694	1756	952	72.9%	694
1/3	Roundabout SB Right	U	31	-	151	1756	952	15.9%	151
2/2+2/1	M20 Slip road WB Left	U	14	-	554	1760:1760	447+447	67.0 : 56.8%	554
2/3+2/4	M20 Slip road WB Ahead	U	14	-	492	1760:1760	447+447	53.9 : 56.1%	492
3/1	A20 Fougeres Way South exit	U	-	-	1136	1937	1937	58.6%	1136
3/2	A20 Fougeres Way South exit	U	-	-	994	2077	2077	47.9%	994
J4: A20 Fougeres Way / M20 Junction 9 (13-1134)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**63.2%**	**-**
1/2+1/1	A20 Fougeres way NB Ahead Left	U	26	-	909	1733:1733	676+793	60.3 : 63.2%	909
1/3	A20 Fougeres way NB Ahead	U	26	-	373	1733	793	47.0%	373
1/4	A20 Fougeres way NB Ahead	U	26	-	387	1733	793	48.8%	387
2/1	Roundabout WB Ahead	U	21	-	151	1756	655	23.1%	151
2/2	Roundabout WB Right Ahead	U	21	-	241	1756	655	36.8%	241
2/3	Roundabout WB Right	U	21	-	251	1756	655	38.3%	251
3/1	M20 Slip road West exit	U	-	-	652	1932	1932	33.7%	652
3/2	M20 Slip road West exit	U	-	-	6	2072	2072	0.3%	6

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J23 M20 Junction 9	**-**	**0**	**40.8**	**28.9**	**69.7**	**-**	**-**	**-**	**-**
J1: M20 E/B Off Slip / M20 Junction 9 (13-1131)	**-**	**0**	**10.4**	**5.8**	**16.2**	**-**	**-**	**-**	**-**
1/2+1/1	171	-	0.9	0.1	1.0	21.6	1.4	0.1	1.5
1/3+1/4	793	-	5.1	3.0	8.1	36.7	7.3	3.0	10.4
2/1	643	-	1.8	1.0	2.8	15.6	8.0	1.0	9.0
2/2	624	-	1.7	0.9	2.6	15.2	7.6	0.9	8.5
2/3	387	-	0.9	0.3	1.2	11.4	4.0	0.3	4.3
3/1	715	-	0.0	0.3	0.3	1.3	0.0	0.3	0.3
3/2	441	-	0.0	0.1	0.1	1.0	0.0	0.1	0.1
J2: A251 Trinity Road / M20 Junction 9 (13-1132)	**-**	**0**	**12.1**	**11.0**	**23.1**	**-**	**-**	**-**	**-**
1/2+1/1	669	-	1.6	1.3	2.9	15.6	10.9	1.3	12.2
1/3	374	-	1.5	0.5	2.0	19.5	6.8	0.5	7.2
1/4	419	-	1.7	0.6	2.4	20.2	7.6	0.6	8.2
2/1	653	-	3.3	4.9	8.2	45.0	11.1	4.9	16.0
2/2+2/3	934	-	4.0	3.1	7.1	27.3	7.5	3.1	10.6
3/1	935	-	0.0	0.5	0.5	1.8	0.0	0.5	0.5
3/2	387	-	0.0	0.1	0.1	1.1	0.0	0.1	0.1
J3: M20 W/B Off Slip / M20 Junction 9 (13-1133)	**-**	**0**	**10.9**	**9.4**	**20.3**	**-**	**-**	**-**	**-**
1/1	882	-	3.0	5.4	8.5	34.6	13.2	5.4	18.7
1/2	694	-	2.0	1.3	3.3	17.1	8.5	1.3	9.8
1/3	151	-	0.3	0.1	0.4	9.0	1.2	0.1	1.3
2/2+2/1	554	-	3.0	0.8	3.8	24.8	4.4	0.8	5.2
2/3+2/4	492	-	2.6	0.6	3.2	23.5	3.6	0.6	4.2
3/1	1136	-	0.0	0.7	0.7	2.2	0.0	0.7	0.7
3/2	994	-	0.0	0.5	0.5	1.7	0.0	0.5	0.5

Full Input Data And Results

J4: A20 Fougeres Way / M20 Junction 9 (13-1134)	**-**	**0**	**7.4**	**2.7**	**10.1**	**-**	**-**	**-**	**-**
1/2+1/1	909	-	3.0	0.8	3.8	15.0	6.3	0.8	7.1
1/3	373	-	1.1	0.4	1.6	15.3	4.1	0.4	4.6
1/4	387	-	1.2	0.5	1.7	15.6	4.4	0.5	4.9
2/1	151	-	0.4	0.1	0.5	12.4	0.8	0.1	0.9
2/2	241	-	0.8	0.3	1.1	16.8	3.9	0.3	4.2
2/3	251	-	0.9	0.3	1.2	16.9	4.1	0.3	4.4
3/1	652	-	0.0	0.3	0.3	1.4	0.0	0.3	0.3
3/2	6	-	0.0	0.0	0.0	0.9	0.0	0.0	0.0

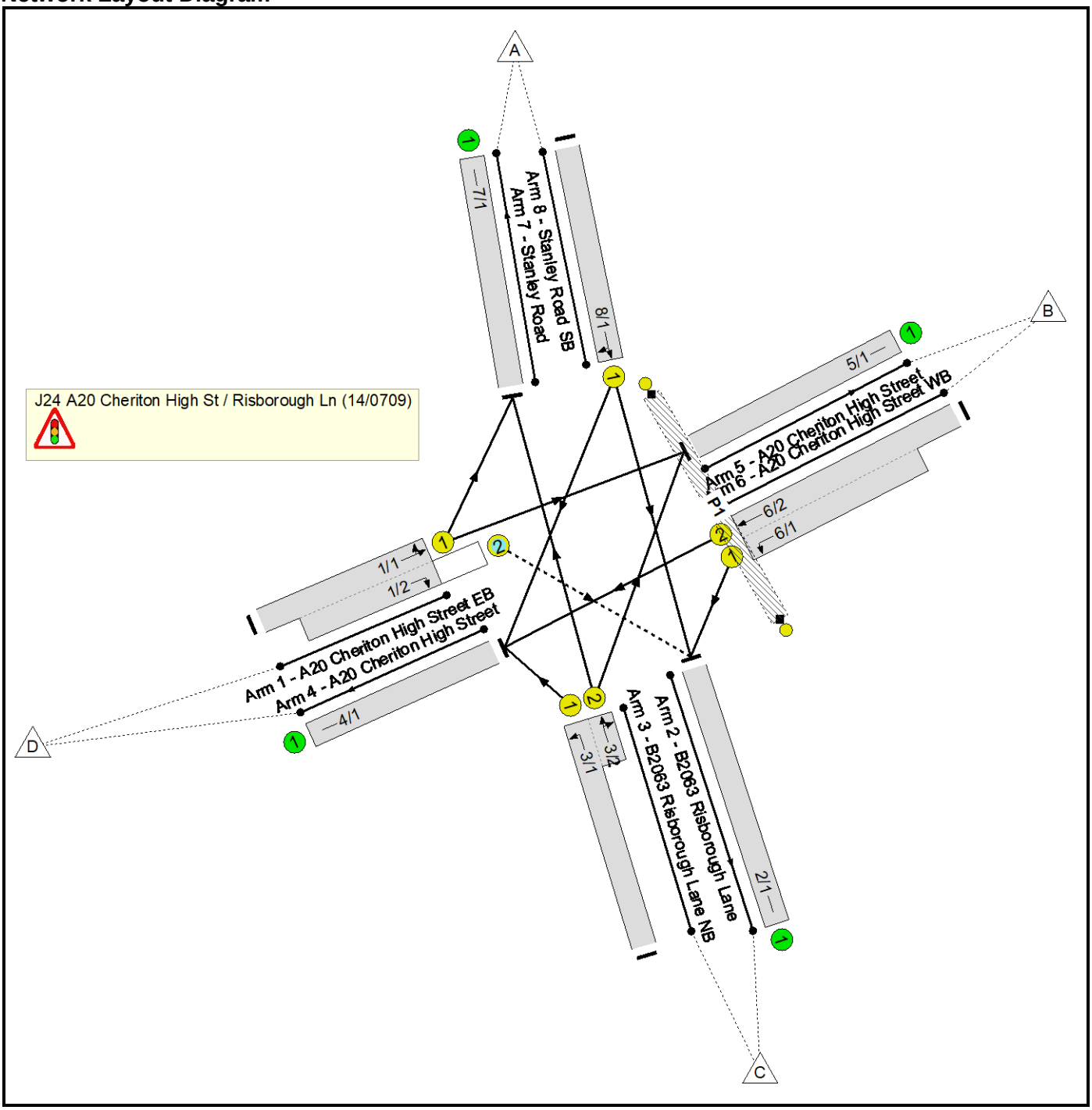
C1 - 13/1131	PRC for Signalled Lanes (%):	-1.5	Total Delay for Signalled Lanes (pcuHr):	15.76	Cycle Time (s):	65
C2 - 13/1132	PRC for Signalled Lanes (%):	-2.2	Total Delay for Signalled Lanes (pcuHr):	22.50	Cycle Time (s):	65
C3 - 13/1133	PRC for Signalled Lanes (%):	-2.9	Total Delay for Signalled Lanes (pcuHr):	19.17	Cycle Time (s):	59
C4 - 13/1134	PRC for Signalled Lanes (%):	42.5	Total Delay for Signalled Lanes (pcuHr):	9.89	Cycle Time (s):	59
	PRC Over All Lanes (%):	-2.9	Total Delay Over All Lanes(pcuHr):	69.72		

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**J24 Cheriton High Street/Risborough Lane**
Location:	
Additional detail:	
File name:	J24_Cheriton High Str-Risborough Ln_Base Model.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		6	6

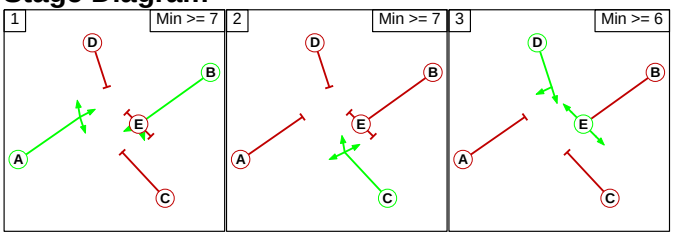
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		-	5	7	9
	B	-		8	5	5
	C	5	5		7	8
	D	7	5	8		-
	E	11	11	11	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Full Input Data And Results

Traffic Flows, Desired

Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

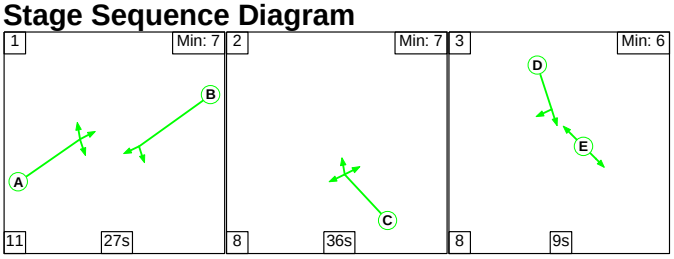
		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	93	44	137
	B	0	0	210	282	492
	C	49	258	0	276	583
	D	14	299	182	0	495
	Tot.	63	557	485	602	1707

Scenario 2: 'Base PM' (FG2: 'PM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	57	28	85
	B	0	0	217	316	533
	C	28	243	0	319	590
	D	20	443	220	0	683
	Tot.	48	686	494	663	1891

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

Stage Sequence Diagram

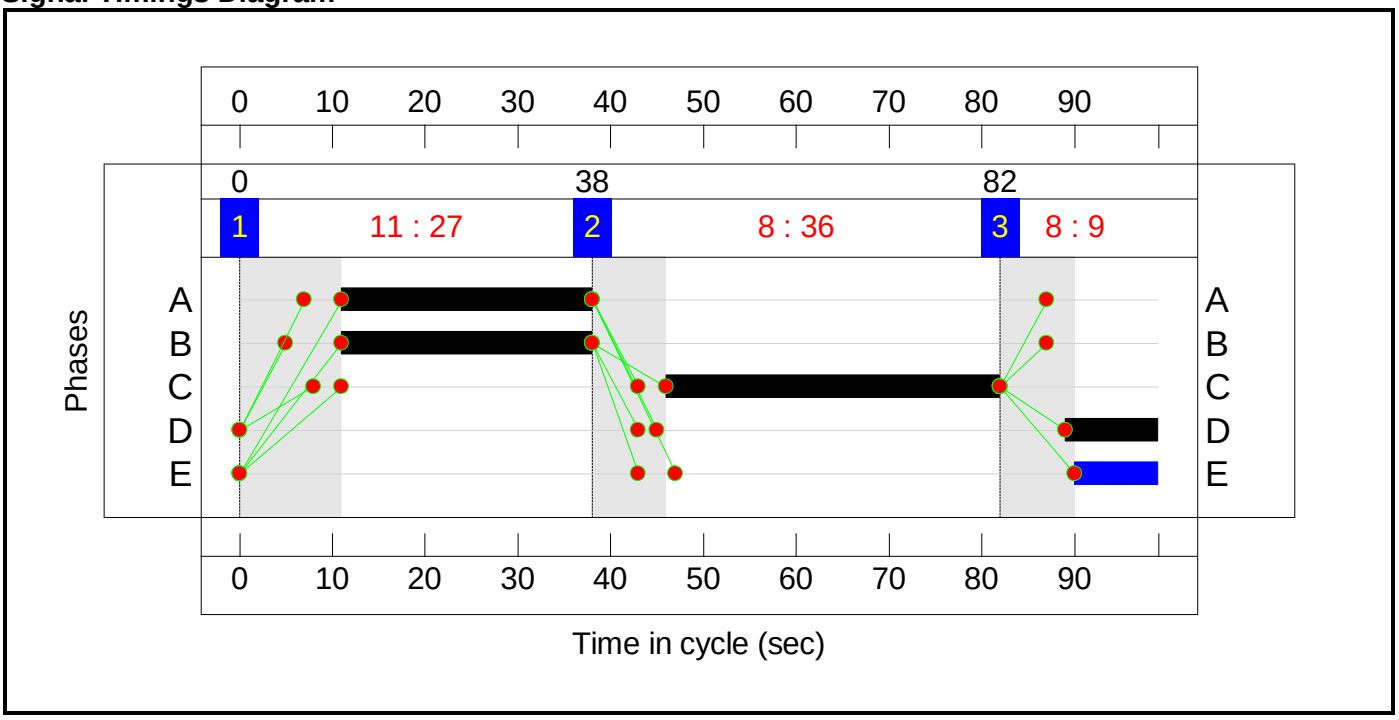


Stage Timings

Stage	1	2	3
Duration	27	36	9
Change Point	0	38	82

Full Input Data And Results

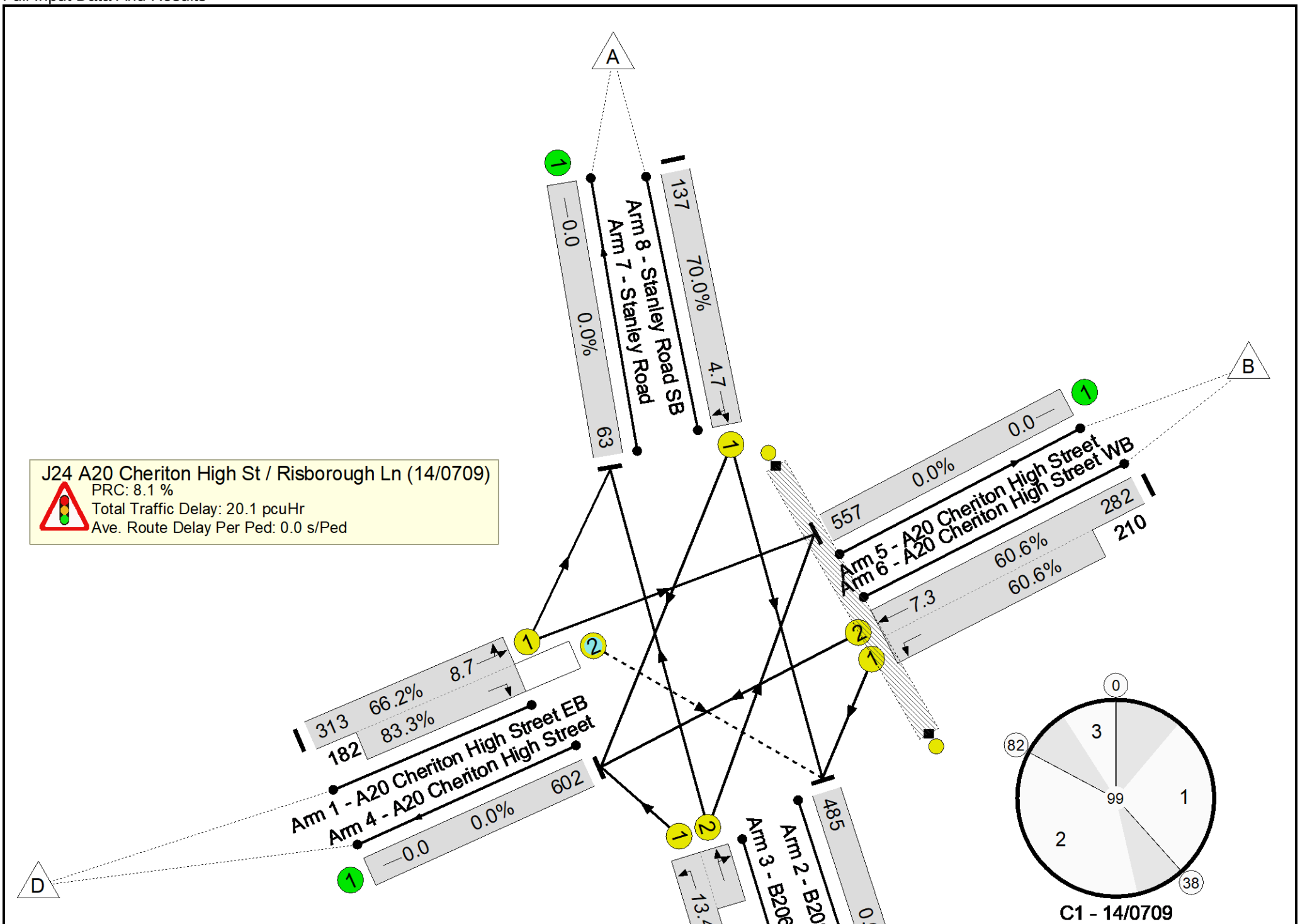
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J24 Cheriton High Street/Risborough Lane	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**83.3%**	**-**
J24 A20 Cheriton High St / Risborough Ln (14/0709)	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**83.3%**	**-**
1/1+1/2	A20 Cheriton High Street EB Right Ahead Left	U+O	27	-	495	1758:1654	473+219	66.2 : 83.3%	495
2/1	B2063 Risborough Lane	U	-	-	485	Inf	Inf	0.0%	485
3/1+3/2	B2063 Risborough Lane NB Left Right Ahead	U	36	-	583	1555:1674	338+375	81.8 : 81.8%	583
4/1	A20 Cheriton High Street	U	-	-	602	Inf	Inf	0.0%	602
5/1	A20 Cheriton High Street	U	-	-	557	Inf	Inf	0.0%	557
6/2+6/1	A20 Cheriton High Street WB Left Ahead	U	27	-	492	1733:1600	465+347	60.6 : 60.6%	492
7/1	Stanley Road	U	-	-	63	Inf	Inf	0.0%	63
8/1	Stanley Road SB Ahead Right	U	10	-	137	1761	196	70.0%	137
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J24 Cheriton High Street/Risborough Lane	**-**	**54**	**14.2**	**5.3**	**20.1**	**-**	**-**	**-**	**-**
J24 A20 Cheriton High St / Risborough Ln (14/0709)	**-**	**54**	**14.2**	**5.3**	**20.1**	**-**	**-**	**-**	**-**
1/1+1/2	495	54	4.3	1.2	6.2	44.9	7.5	1.2	8.7
2/1	485	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/1+3/2	583	-	4.1	2.2	6.3	39.0	11.2	2.2	13.4
4/1	602	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	557	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/2+6/1	492	-	4.1	0.8	4.9	35.5	6.6	0.8	7.3
7/1	63	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/1	137	-	1.6	1.1	2.7	72.0	3.6	1.1	4.7
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf

C1 - 14/0709 PRC for Signalled Lanes (%): 8.1 Total Delay for Signalled Lanes (pcuHr): 20.08 Cycle Time (s): 99
PRC Over All Lanes (%): 8.1 Total Delay Over All Lanes(pcuHr): 20.08

Full Input Data And Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J24 Cheriton High Street/Risborough Lane	-	-	-	-	-	-	-	**87.2%**	-
J24 A20 Cheriton High St / Risborough Ln (14/0709)	-	-	-	-	-	-	-	**87.2%**	-
1/1+1/2	A20 Cheriton High Street EB Right Ahead Left	U+O	40	-	683	1758:1654	544+258	85.1 : 85.1%	683
2/1	B2063 Risborough Lane	U	-	-	494	Inf	Inf	0.0%	494
3/1+3/2	B2063 Risborough Lane NB Left Right Ahead	U	42	-	590	1555:1674	366+311	87.2 : 87.2%	590
4/1	A20 Cheriton High Street	U	-	-	663	Inf	Inf	0.0%	663
5/1	A20 Cheriton High Street	U	-	-	686	Inf	Inf	0.0%	686
6/2+6/1	A20 Cheriton High Street WB Left Ahead	U	40	-	533	1733:1600	514+353	61.5 : 61.5%	533
7/1	Stanley Road	U	-	-	48	Inf	Inf	0.0%	48
8/1	Stanley Road SB Ahead Right	U	7	-	85	1761	123	69.4%	85
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J24 Cheriton High Street/Risborough Lane	**-**	**40**	**16.8**	**7.8**	**25.3**	**-**	**-**	**-**	**-**
J24 A20 Cheriton High St / Risborough Ln (14/0709)	**-**	**40**	**16.8**	**7.8**	**25.3**	**-**	**-**	**-**	**-**
1/1+1/2	683	40	6.2	2.7	9.8	51.4	14.1	2.7	16.8
2/1	494	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/1+3/2	590	-	5.1	3.2	8.2	50.3	14.7	3.2	17.8
4/1	663	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	686	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/2+6/1	533	-	4.2	0.8	5.0	33.8	7.9	0.8	8.7
7/1	48	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/1	85	-	1.2	1.1	2.3	97.7	2.6	1.1	3.7
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf

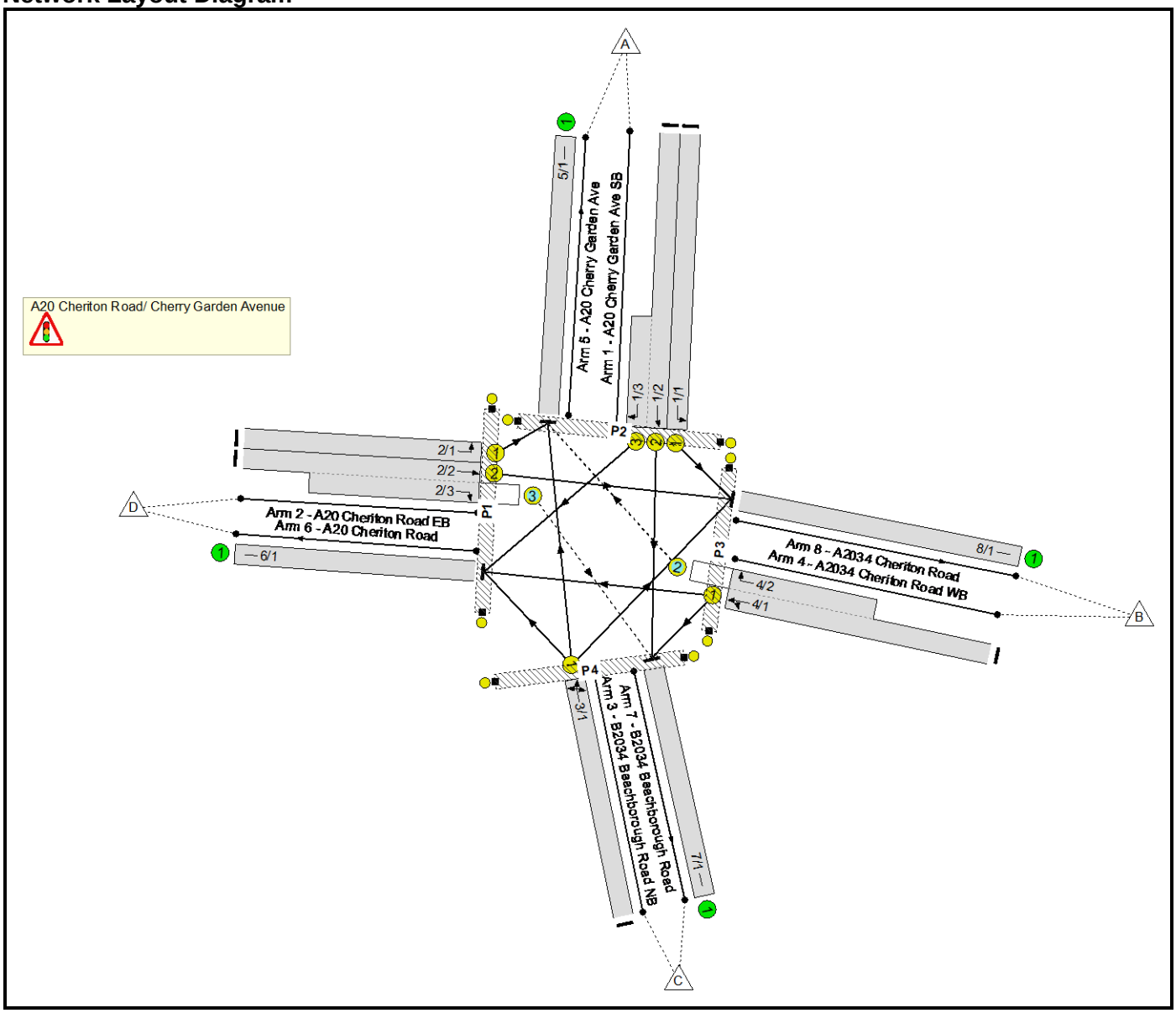
C1 - 14/0709 PRC for Signalled Lanes (%): 3.3 Total Delay for Signalled Lanes (pcuHr): 25.32 Cycle Time (s): 115
PRC Over All Lanes (%): 3.3 Total Delay Over All Lanes(pcuHr): 25.32

Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**J25 B2064 Cheriton High Street/A2034 Cherry Garden Ave**
Location:	
Additional detail:	
File name:	J25_B2064 Cheriton High street-A2034 Cherry Garden Avenue_Base Model.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		3	3
F	Pedestrian		6	6
G	Pedestrian		6	6
H	Pedestrian		7	7
I	Pedestrian		6	6
J	Pedestrian		7	7

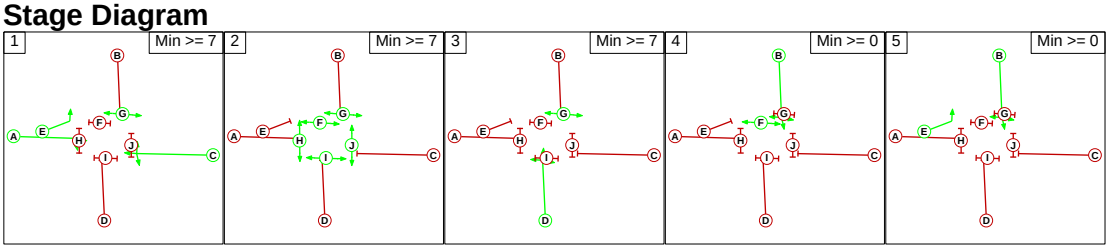
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		10	-	7	-	9	-	9	9	9
B	6		6	9	-	-	6	10	10	10
C	-	10		7	-	9	-	9	9	9
D	6	10	6		6	9	-	9	9	9
E	-	-	-	7		9	-	9	9	9
F	9	-	9	9	9		-	-	-	-
G	-	10	-	-	-	-		-	-	-
H	14	14	14	14	14	-	-		-	-
I	14	14	14	14	14	-	-	-		-
J	14	14	14	14	14	-	-	-	-	

Phases in Stage

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

Stage Diagram



Full Input Data And Results

Phase Delays

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

Traffic Flows, Desired

Scenario 1: 'Base AM' (FG1: 'AM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

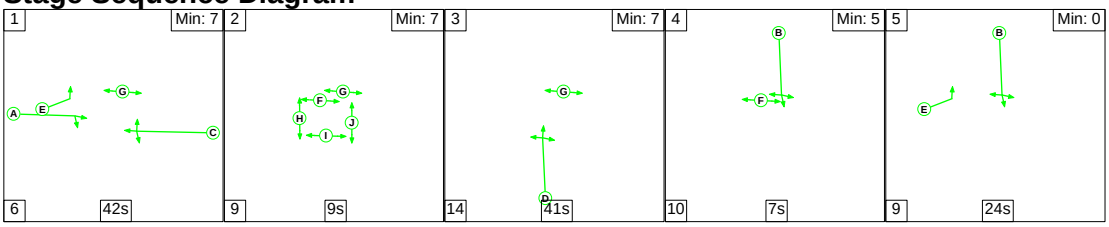
		Destination				
		A	B	C	D	Tot.
Origin	A	0	303	347	66	716
	B	101	0	62	248	411
	C	317	61	0	34	412
	D	172	337	73	0	582
	Tot.	590	701	482	348	2121

Scenario 2: 'Base PM' (FG2: 'PM PEAK', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	252	276	81	609
	B	93	0	50	228	371
	C	395	62	0	46	503
	D	171	371	80	0	622
	Tot.	659	685	406	355	2105

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

Stage Sequence Diagram

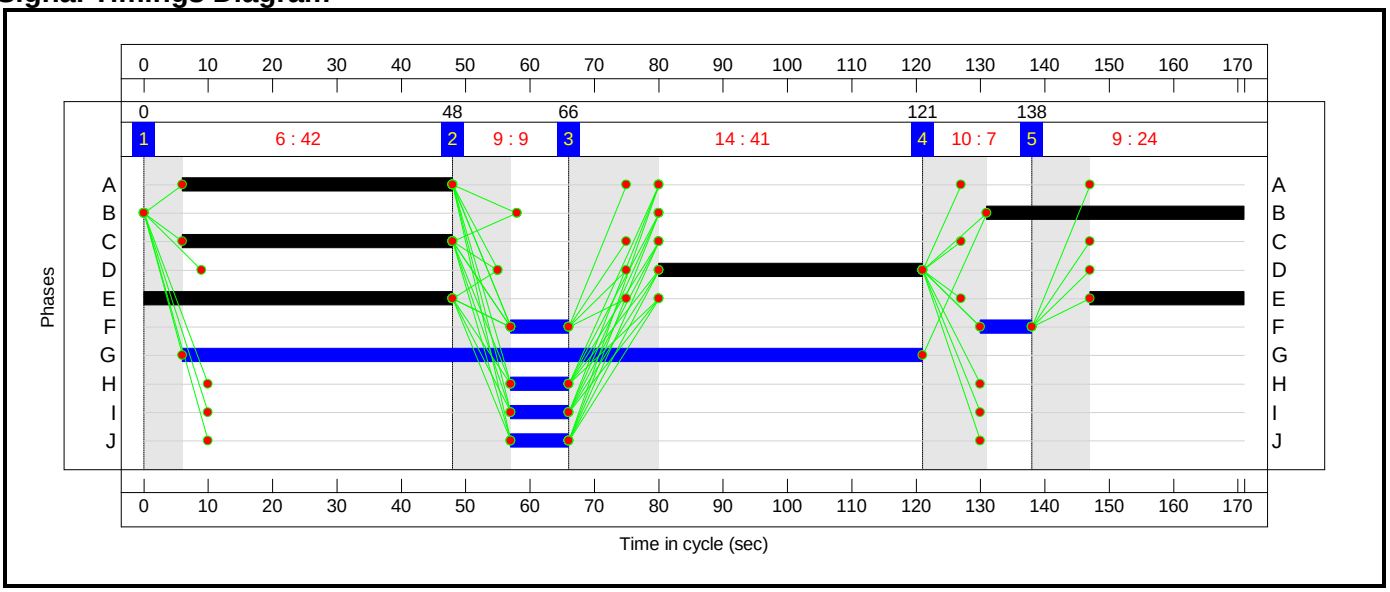


Stage Timings

Stage	1	2	3	4	5
Duration	42	9	41	7	24
Change Point	0	48	66	121	138

Full Input Data And Results

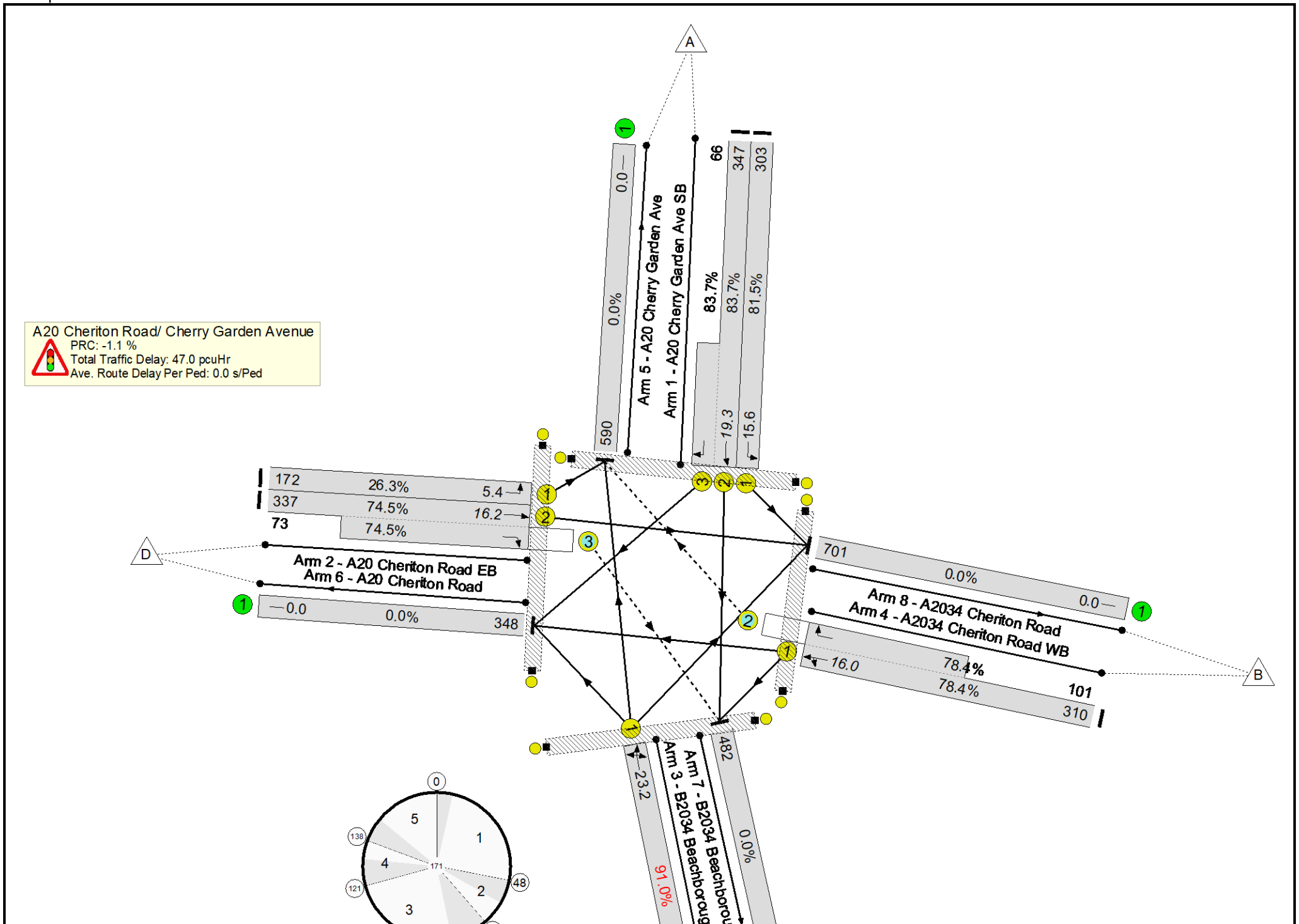
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J25 B2064 Cheriton High Street/A2034 Cherry Garden Ave	-	-	-	-	-	-	-	**91.0%**	-
A20 Cheriton Road/ Cherry Garden Avenue	-	-	-	-	-	-	-	**91.0%**	-
1/1	A20 Cherry Garden Ave SB Left	U	40	-	303	1550	372	81.5%	303
1/2+1/3	A20 Cherry Garden Ave SB Right Ahead	U	40	-	413	1929:1750	415+79	83.7 : 83.7%	413
2/1	A20 Cheriton Road EB Left	U	72	-	172	1534	655	26.3%	172
2/2+2/3	A20 Cheriton Road EB Right Ahead	U+O	42	-	410	1929:1746	453+98	74.5 : 74.5%	410
3/1	B2034 Beachborough Road NB Ahead Left Right	U	41	-	412	1844	453	91.0%	412
4/1+4/2	A2034 Cheriton Road WB Right Ahead Left	U+O	42	-	411	1779:1729	395+129	78.4 : 78.4%	411
5/1	A20 Cherry Garden Ave	U	-	-	590	Inf	Inf	0.0%	590
6/1	A20 Cheriton Road	U	-	-	348	Inf	Inf	0.0%	348
7/1	B2034 Beachborough Road	U	-	-	482	Inf	Inf	0.0%	482
8/1	A2034 Cheriton Road	U	-	-	701	Inf	Inf	0.0%	701
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P4	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J25 B2064 Cheriton High Street/A2034 Cherry Garden Ave	**-**	**20**	**33.9**	**12.0**	**47.0**	**-**	**-**	**-**	**-**
A20 Cheriton Road/ Cherry Garden Avenue	**-**	**20**	**33.9**	**12.0**	**47.0**	**-**	**-**	**-**	**-**
1/1	303	-	5.2	2.1	7.3	86.2	13.6	2.1	15.6
1/2+1/3	413	-	6.9	2.4	9.3	81.4	16.9	2.4	19.3
2/1	172	-	1.5	0.2	1.7	35.4	5.3	0.2	5.4
2/2+2/3	410	0	6.5	1.4	8.4	73.8	14.8	1.4	16.2
3/1	412	-	7.2	4.2	11.4	99.2	19.0	4.2	23.2
4/1+4/2	411	19	6.6	1.8	9.0	78.5	14.2	1.8	16.0
5/1	590	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	348	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	482	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/1	701	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P4	0	-	-	-	Inf	Inf	-	-	Inf

C1 - 14/0681 PRC for Signalled Lanes (%): -1.1 Total Delay for Signalled Lanes (pcuHr): 47.00 Cycle Time (s): 171
PRC Over All Lanes (%): -1.1 Total Delay Over All Lanes(pcuHr): 47.00

Full Input Data And Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: J25 B2064 Cheriton High Street/A2034 Cherry Garden Ave	-	-	-	-	-	-	-	**94.1%**	-
A20 Cheriton Road/ Cherry Garden Avenue	-	-	-	-	-	-	-	**94.1%**	-
1/1	A20 Cherry Garden Ave SB Left	U	28	-	252	1550	290	86.9%	252
1/2+1/3	A20 Cherry Garden Ave SB Right Ahead	U	28	-	357	1929:1750	322+95	85.7 : 85.7%	357
2/1	A20 Cheriton Road EB Left	U	55	-	171	1534	554	30.9%	171
2/2+2/3	A20 Cheriton Road EB Right Ahead	U+O	35	-	451	1929:1746	429+93	86.5 : 86.5%	451
3/1	B2034 Beachborough Road NB Ahead Left Right	U	44	-	503	1844	535	94.0%	503
4/1+4/2	A2034 Cheriton Road WB Right Ahead Left	U+O	35	-	371	1779:1729	375+99	74.1 : 94.1%	371
5/1	A20 Cherry Garden Ave	U	-	-	659	Inf	Inf	0.0%	659
6/1	A20 Cheriton Road	U	-	-	355	Inf	Inf	0.0%	355
7/1	B2034 Beachborough Road	U	-	-	406	Inf	Inf	0.0%	406
8/1	A2034 Cheriton Road	U	-	-	685	Inf	Inf	0.0%	685
Ped Link: P1	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0
Ped Link: P4	Unnamed Ped Link	-	0	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: J25 B2064 Cheriton High Street/A2034 Cherry Garden Ave	**-**	**53**	**31.8**	**16.3**	**49.1**	**-**	**-**	**-**	**-**
A20 Cheriton Road/ Cherry Garden Avenue	**-**	**53**	**31.8**	**16.3**	**49.1**	**-**	**-**	**-**	**-**
1/1	252	-	4.3	2.9	7.2	102.3	10.5	2.9	13.4
1/2+1/3	357	-	5.9	2.7	8.6	86.8	12.2	2.7	15.0
2/1	171	-	1.7	0.2	1.9	40.3	5.3	0.2	5.5
2/2+2/3	451	1	6.9	2.9	10.3	82.1	15.7	2.9	18.6
3/1	503	-	7.5	5.7	13.2	94.7	21.1	5.7	26.8
4/1+4/2	371	53	5.5	1.7	7.9	76.6	10.9	1.7	12.6
5/1	659	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	355	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	406	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/1	685	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P2	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P3	0	-	-	-	Inf	Inf	-	-	Inf
Ped Link: P4	0	-	-	-	Inf	Inf	-	-	Inf

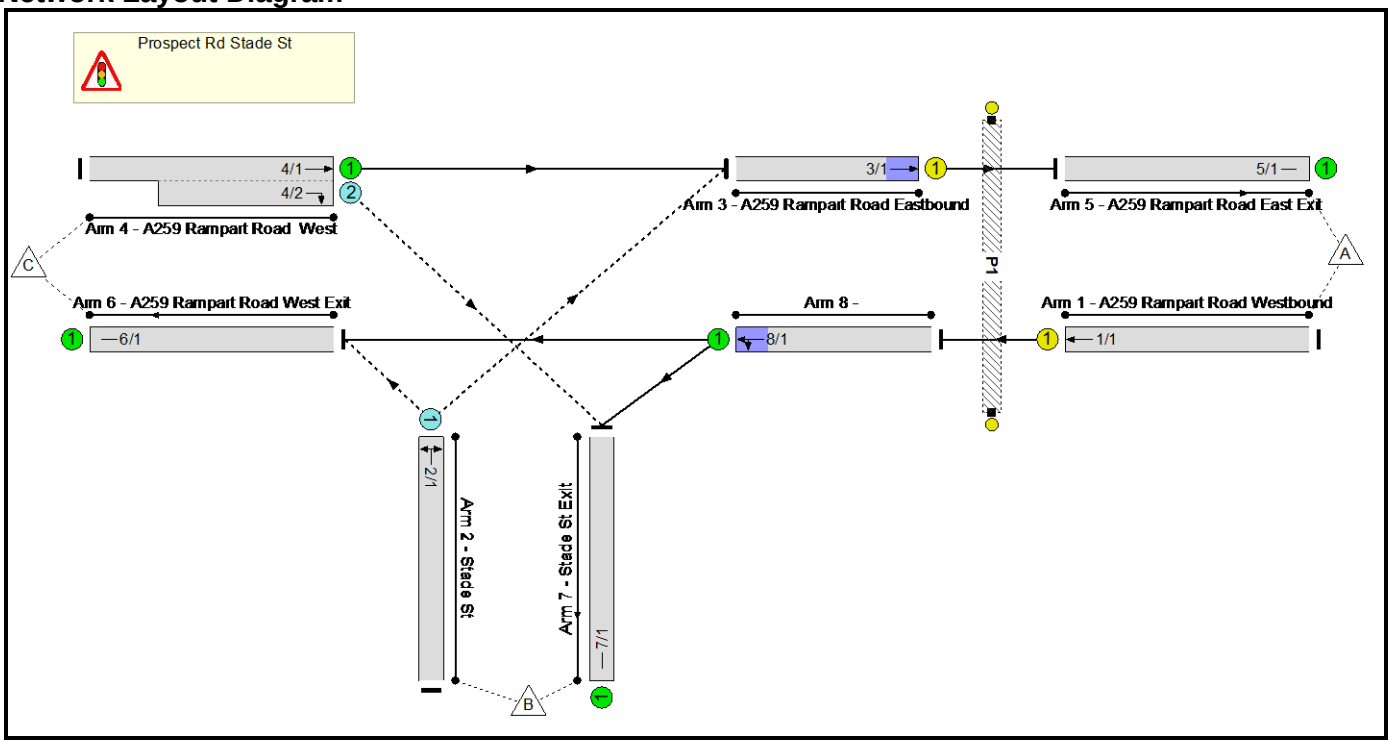
C1 - 14/0681 PRC for Signalled Lanes (%): -4.6 Total Delay for Signalled Lanes (pcuHr): 49.10 Cycle Time (s): 155
PRC Over All Lanes (%): -4.6 Total Delay Over All Lanes(pcuHr): 49.10

Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	J26_Prospect Rd Stade St.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		-9999	7
B	Traffic		-9999	7
C	Pedestrian		-9999	6

Full Input Data And Results

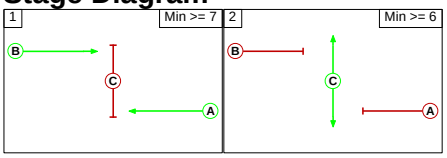
Phase Intergreens Matrix

Terminating Phase	Starting Phase			
		A	B	C
	A		-	5
	B	-		5
	C	10	10	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C

Stage Diagram



Phase Delays

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

Traffic Flows, Desired

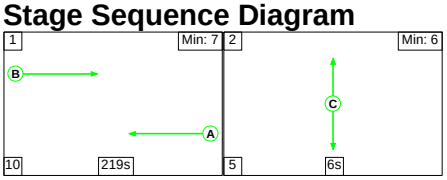
Scenario 1: 'Base AM' (FG5: 'Base AM', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	137	385	522
	B	88	0	49	137
	C	738	153	0	891
	Tot.	826	290	434	1550

Scenario 2: 'Base PM' (FG6: 'Base PM ', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	138	562	700
	B	79	0	48	127
	C	695	241	0	936
	Tot.	774	379	610	1763

Scenario 1: 'Base AM' (FG5: 'Base AM', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram

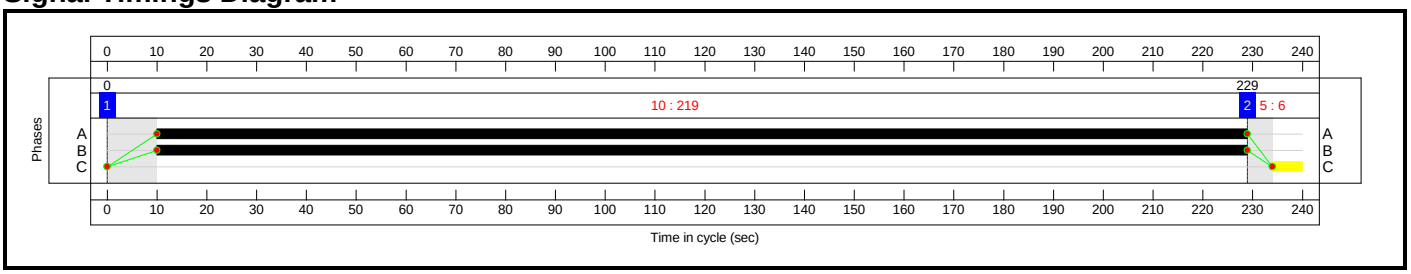


Full Input Data And Results

Stage Timings

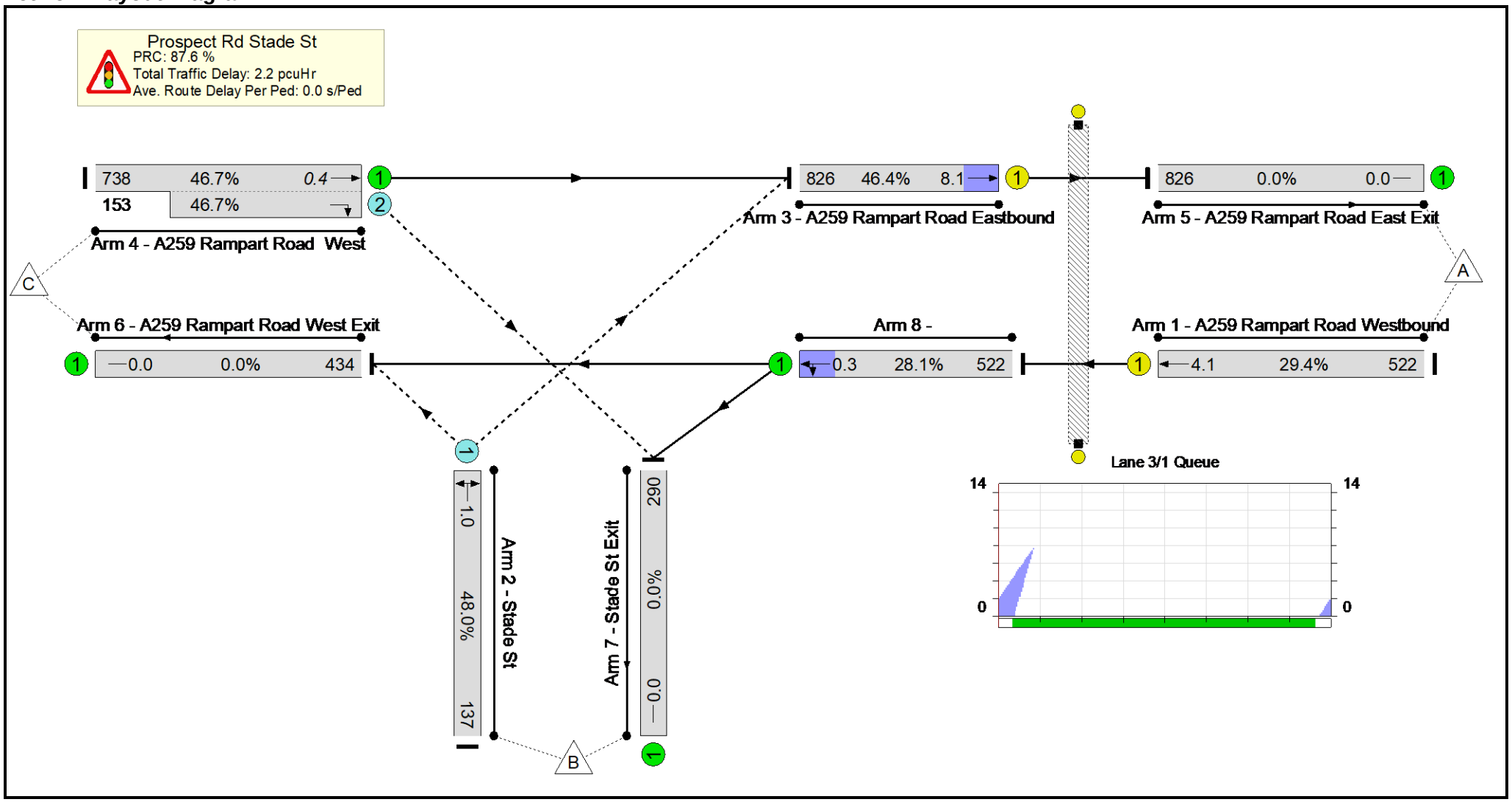
Stage	1	2
Duration	219	6
Change Point	0	229

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Scenario 1: 'Base AM' (FG5: 'Base AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	-	-	-	-	-	**48.0%**	-
Prospect Rd Stade St	-	-	-	-	-	-	-	**48.0%**	-
1/1	A259 Rampart Road Westbound Ahead	U	219	-	522	1940	1778	29.4%	522
2/1	Stade St Right Left	O	-	-	137	1719	286	48.0%	137
3/1	A259 Rampart Road Eastbound Ahead	U	219	-	826	1940	1778	46.4%	826
4/1+4/2	A259 Rampart Road West Ahead Right	U+O	-	-	891	1940:1764	1580+328	46.7 : 46.7%	891
5/1	A259 Rampart Road East Exit	U	-	-	826	Inf	Inf	0.0%	826
6/1	A259 Rampart Road West Exit	U	-	-	434	Inf	Inf	0.0%	434
7/1	Stade St Exit	U	-	-	290	Inf	Inf	0.0%	290
8/1	Ahead Left	U	-	-	522	1859	1859	28.1%	522
Ped Link: P1	Unnamed Ped Link	-	6	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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	**-**	**0**	**0.5**	**1.7**	**2.2**	**-**	**-**	**-**	**-**
Prospect Rd Stade St	**-**	**0**	**0.5**	**1.7**	**2.2**	**-**	**-**	**-**	**-**
1/1	522	-	0.2	0.2	0.4	2.6	3.9	0.2	4.1
2/1	137	0	0.0	0.5	0.5	12.3	0.6	0.5	1.0
3/1	826	-	0.3	0.4	0.8	3.3	7.7	0.4	8.1
4/1+4/2	891	0	0.0	0.4	0.4	1.8	0.0	0.4	0.4
5/1	826	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	434	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	290	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/1	522	-	0.0	0.2	0.2	1.3	0.1	0.2	0.3
Ped Link: P1	0	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 93.8 Total Delay for Signalled Lanes (pcuHr): 1.14 Cycle Time (s): 240
PRC Over All Lanes (%): 87.6 Total Delay Over All Lanes(pcuHr): 2.24

Full Input Data And Results

Scenario 2: 'Base PM' (FG6: 'Base PM ', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	-	-	-	-	-	**57.9%**	-
Prospect Rd Stade St	-	-	-	-	-	-	-	**57.9%**	-
1/1	A259 Rampart Road Westbound Ahead	U	219	-	700	1940	1778	39.4%	700
2/1	Stade St Right Left	O	-	-	127	1717	219	57.9%	127
3/1	A259 Rampart Road Eastbound Ahead	U	219	-	774	1940	1778	43.5%	774
4/1+4/2	A259 Rampart Road West Ahead Right	U+O	-	-	936	1940:1764	1404+478	49.5 : 50.5%	936
5/1	A259 Rampart Road East Exit	U	-	-	774	Inf	Inf	0.0%	774
6/1	A259 Rampart Road West Exit	U	-	-	610	Inf	Inf	0.0%	610
7/1	Stade St Exit	U	-	-	379	Inf	Inf	0.0%	379
8/1	Ahead Left	U	-	-	700	1878	1878	37.3%	700
Ped Link: P1	Unnamed Ped Link	-	6	-	0	-	0	0.0%	0

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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	**-**	**0**	**0.6**	**2.2**	**2.8**	**-**	**-**	**-**	**-**
Prospect Rd Stade St	**-**	**0**	**0.6**	**2.2**	**2.8**	**-**	**-**	**-**	**-**
1/1	700	-	0.3	0.3	0.6	3.0	6.0	0.3	6.4
2/1	127	0	0.0	0.7	0.7	20.0	1.1	0.7	1.8
3/1	774	-	0.3	0.4	0.7	3.2	6.8	0.4	7.2
4/1+4/2	936	0	0.0	0.5	0.5	1.9	0.8	0.5	1.3
5/1	774	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	610	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	379	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/1	700	-	0.0	0.3	0.3	1.5	0.1	0.3	0.4
Ped Link: P1	0	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 106.8 Total Delay for Signalled Lanes (pcuHr): 1.26 Cycle Time (s): 240
PRC Over All Lanes (%): 55.4 Total Delay Over All Lanes(pcuHr): 2.76

Full Input Data And Results

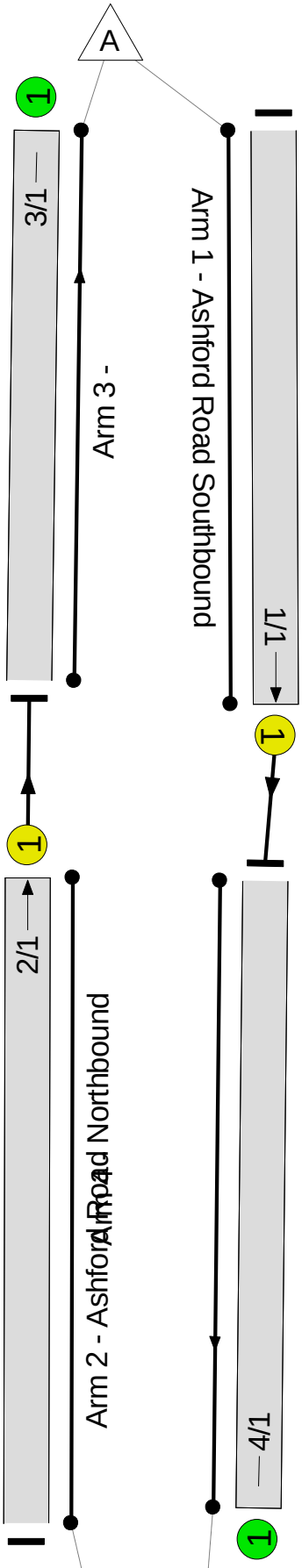
User and Project Details

Project:	**Otterpool Park**
Title:	**Barrow Hill Funnel Junction**
Location:	
Additional detail:	
File name:	J27_Barrow Hill Ashford Road Funnel Junction_Base Model.lsg3x
Author:	Diego Moreno-Sosa
Company:	ARCADIS UK
Address:	

Full Input Data And Results

Network Layout Diagram

Ashford Road Junction



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

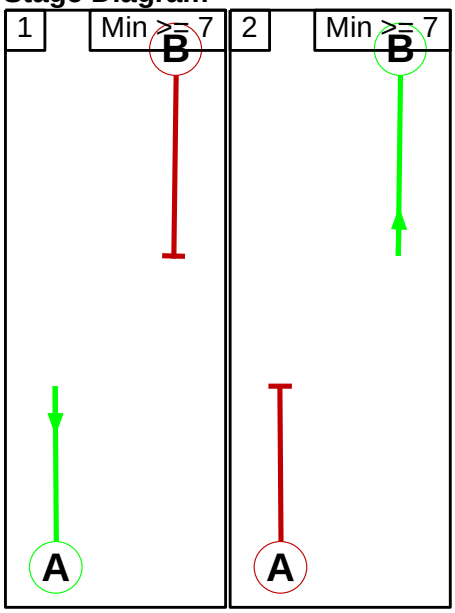
Phase Intergreens Matrix

	Starting Phase		
Terminating Phase		A	B
	A		11
	B	11	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

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

Traffic Flows, Desired

Scenario 1: 'Base AM' (FG1: 'AM Peak Period', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	268	268
	B	327	0	327
	Tot.	327	268	595

Full Input Data And Results

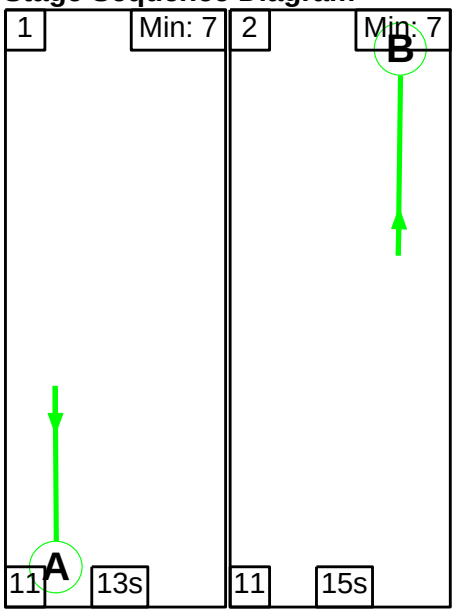
Scenario 2: 'Base PM' (FG2: 'PM Peak Period', Plan 1: 'Network Control Plan 1')

Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	284	284
	B	275	0	275
	Tot.	275	284	559

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

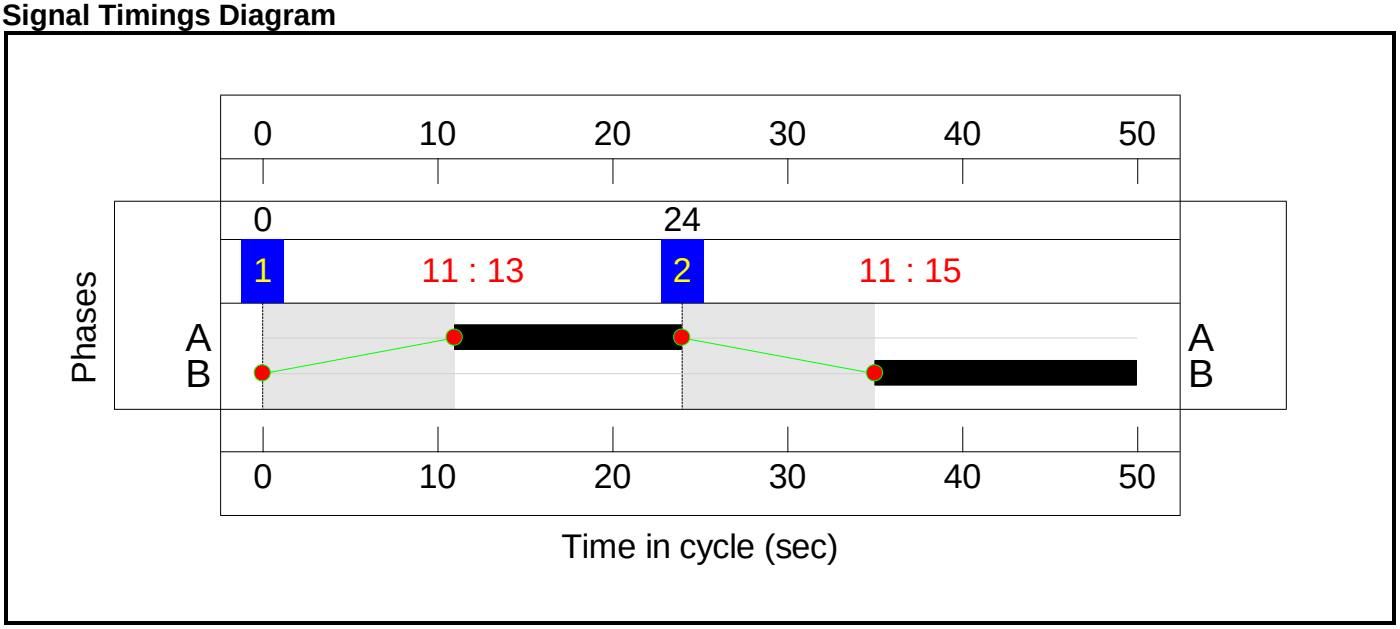
Stage Sequence Diagram



Stage Timings

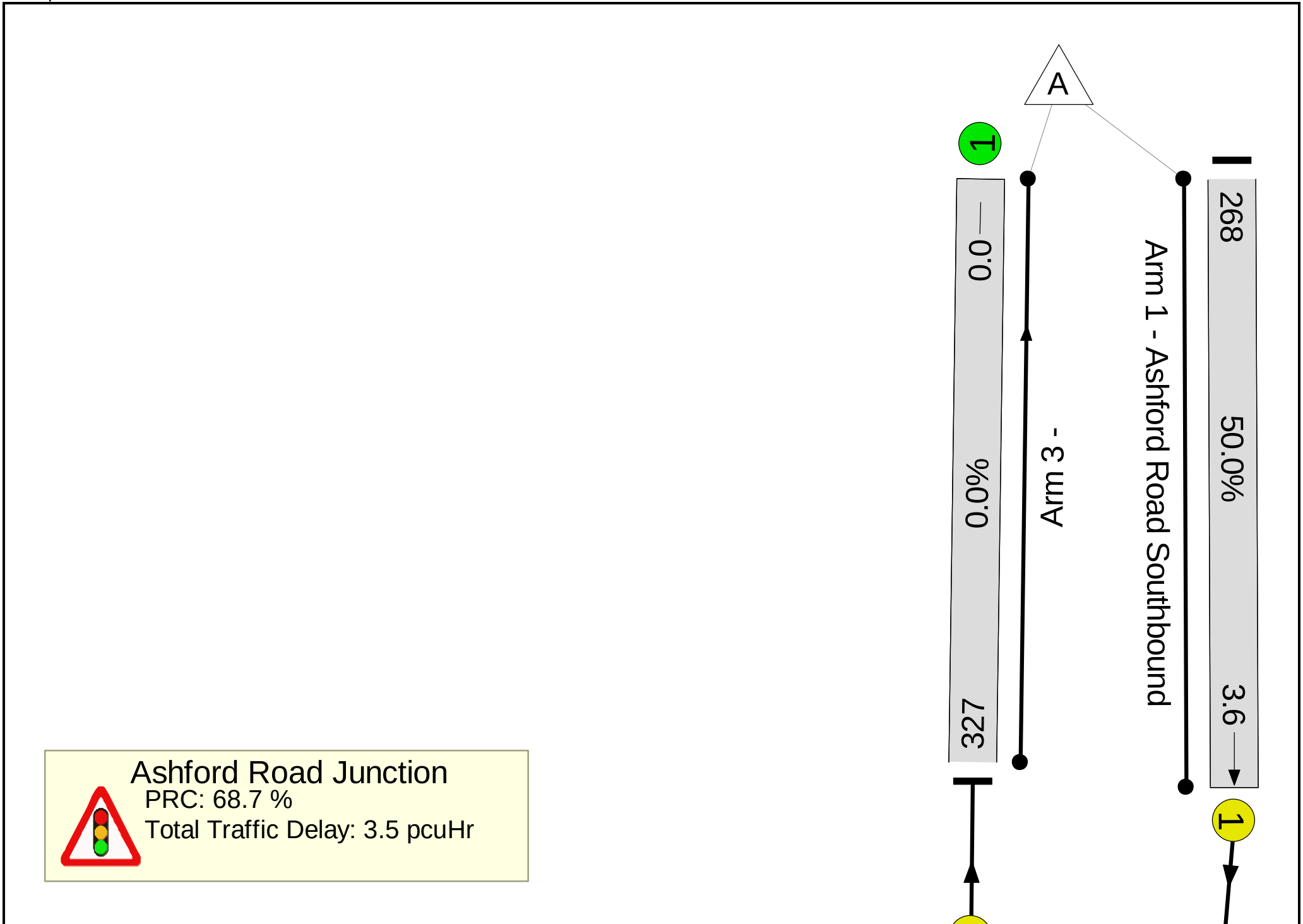
Stage	1	2
Duration	13	15
Change Point	0	24

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A
1
0.0
0.0%
327
Arm 3 -
Arm 1 - Ashford Road Southbound
268
50.0%
3.6
1
Ashford Road Junction
PRC: 68.7 %
Total Traffic Delay: 3.5 pcuHr

Network Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: Barrow Hill Funnel Junction	-	-	-	-	-	-	-	**53.4%**	-
Ashford Road Junction	-	-	-	-	-	-	-	**53.4%**	-
1/1	Ashford Road Southbound Ahead	U	13	-	268	1915	536	50.0%	268
2/1	Ashford Road Northbound Ahead	U	15	-	327	1915	613	53.4%	327
3/1		U	-	-	327	Inf	Inf	0.0%	327
4/1		U	-	-	268	Inf	Inf	0.0%	268

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: Barrow Hill Funnel Junction	-	**0**	**2.4**	**1.1**	**3.5**	-	-	-	-
Ashford Road Junction	-	**0**	**2.4**	**1.1**	**3.5**	-	-	-	-
1/1	268	-	1.1	0.5	1.6	21.8	3.1	0.5	3.6
2/1	327	-	1.3	0.6	1.8	20.2	3.7	0.6	4.3
3/1	327	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/1	268	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 68.7 PRC Over All Lanes (%): 68.7 Total Delay for Signalled Lanes (pcuHr): 3.46 Total Delay Over All Lanes(pcuHr): 3.46 Cycle Time (s): 50

Full Input Data And Results

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

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: Barrow Hill Funnel Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**49.4%**	**-**
Ashford Road Junction	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**49.4%**	**-**
1/1	Ashford Road Southbound Ahead	U	14	-	284	1915	574	49.4%	284
2/1	Ashford Road Northbound Ahead	U	14	-	275	1915	574	47.9%	275
3/1		U	-	-	275	Inf	Inf	0.0%	275
4/1		U	-	-	284	Inf	Inf	0.0%	284

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: Barrow Hill Funnel Junction	**-**	**0**	**2.2**	**0.9**	**3.2**	**-**	**-**	**-**	**-**
Ashford Road Junction	**-**	**0**	**2.2**	**0.9**	**3.2**	**-**	**-**	**-**	**-**
1/1	284	-	1.1	0.5	1.6	20.6	3.2	0.5	3.7
2/1	275	-	1.1	0.5	1.6	20.3	3.1	0.5	3.5
3/1	275	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/1	284	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	82.1	Total Delay for Signalled Lanes (pcuHr):	3.17	Cycle Time (s):	50
	PRC Over All Lanes (%):	82.1	Total Delay Over All Lanes(pcuHr):	3.17		

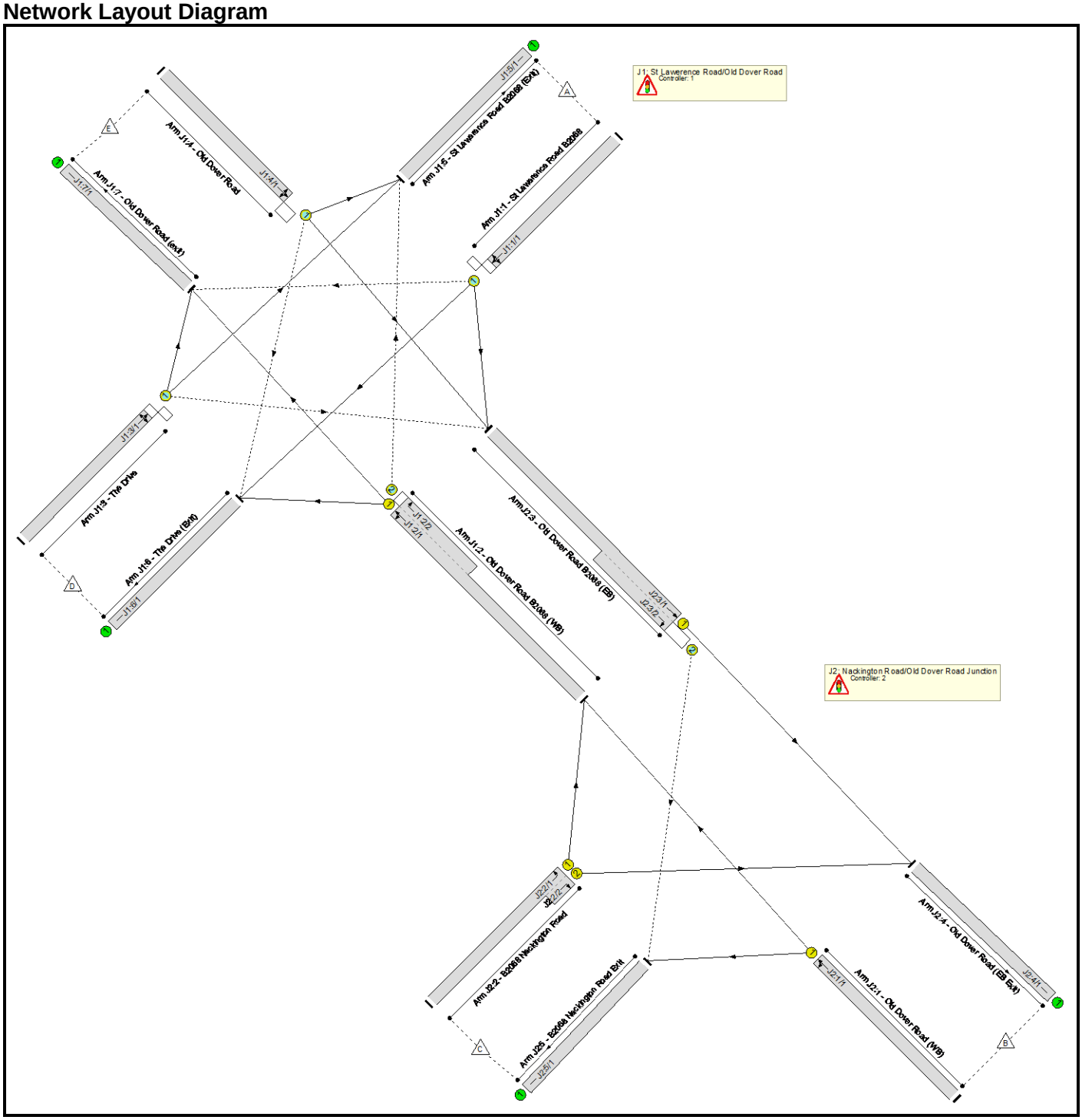
Full Input Data And Results

User and Project Details

Project:	**Otterpool Park**
Title:	**Old Dover Road Canterbury**
Location:	
Additional detail:	
File name:	J44_Old Dover Road Canterbury.lsg3x
Author:	Jonathan Gunaserkera
Company:	ARCADIS UK
Address:	

Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

C1 - B2068 Old Dover / St Lawrence Rd, Canterbury. 06/0

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		-9999	7
B	Traffic	1		-9999	7
C	Traffic	1		-9999	7
D	Traffic	1		-9999	7
E	Ind. Arrow	1	C	-9999	4
F	Pedestrian	1		-9999	6
G	Pedestrian	1		-9999	6
H	Dummy	1		-9999	1
I	Dummy	1		-9999	3
J	Dummy	1		-9999	6
K	Dummy	1		-9999	6

Phase Intergreens Matrix

		Starting Phase										
		A	B	C	D	E	F	G	H	I	J	K
Terminating Phase	A		6	-	6	6	8	8	3	8	8	8
	B	5		5	-	5	5	7	3	7	5	7
	C	-	5		6	-	8	5	3	8	8	5
	D	5	-	5		5	7	8	3	8	7	8
	E	6	5	-	6		8	5	3	8	8	5
	F	8	8	8	8	8		-	4	-	-	-
	G	12	12	12	12	12	-		7	-	-	-
	H	0	0	3	0	3	0	0		-	-	-
	I	-	-	-	-	-	-	-	-		-	-
	J	-	-	-	-	-	-	-	-	-		-
	K	-	-	-	-	-	-	-	-	-	-	

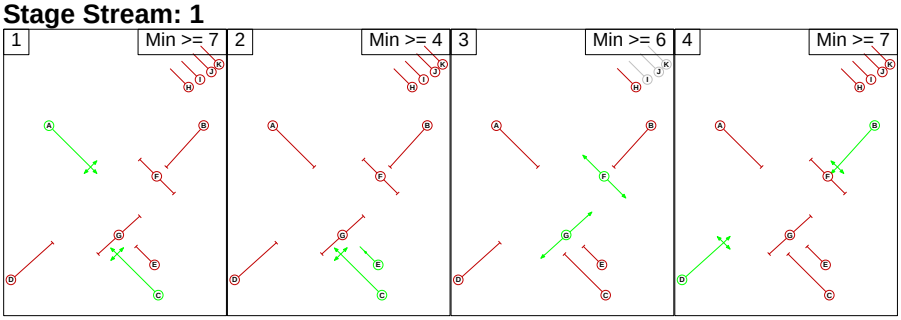
Phases in Stage

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

Full Input Data And Results

Stage Diagram

Stage Stream: 1



Phase Delays

Stage Stream: 1

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

C2 - B2068 Old Dover Road / Nackington Road - Canterbury. 06/060

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		-9999	7
B	Traffic		-9999	7
C	Traffic		-9999	7
D	Ind. Arrow	A	-9999	4
E	Pedestrian		-9999	6
F	Pedestrian		-9999	7
G	Dummy		-9999	1
H	Dummy		-9999	1
I	Dummy		-9999	6
J	Dummy		-9999	7
K	Filter	C	-9999	4

Full Input Data And Results

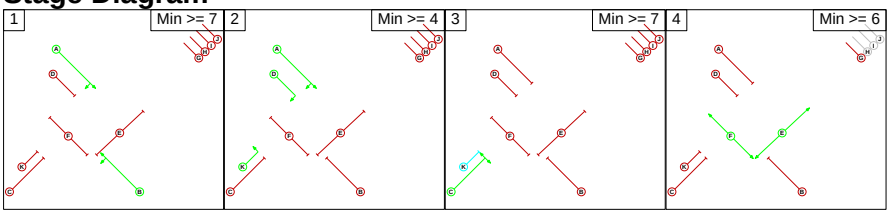
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K
A		-	7	-	9	9	3	9	9	9	-
B	-		7	5	5	8	3	5	5	8	7
C	5	5		5	9	5	3	5	9	5	-
D	-	6	7		9	9	3	9	9	9	-
E	9	9	9	9		-	4	-	-	-	-
F	13	13	13	13	-		8	-	-	-	13
G	0	0	0	0	0	0		0	-	-	-
H	0	0	0	0	-	-	0		-	-	-
I	-	-	-	-	-	-	-	-		-	-
J	-	-	-	-	-	-	-	-	-		-
K	-	5	-	-	-	5	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	A D K
3	C
4	E F

Stage Diagram



Phase Delays

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

Traffic Flows, Desired

Scenario 1: '2018 AM Peak Hour' (FG13: '2018 TEMPRO ONLY AM', Plan 1: 'Network Control Plan 1')
Desired Flow :

Origin \ Destination	A	B	C	D	E	Tot.
A	0	39	99	26	121	285
B	40	0	67	5	140	252
C	104	99	0	17	299	519
D	15	9	23	0	31	78
E	52	67	171	25	0	315
Tot.	211	214	360	73	591	1449

Full Input Data And Results

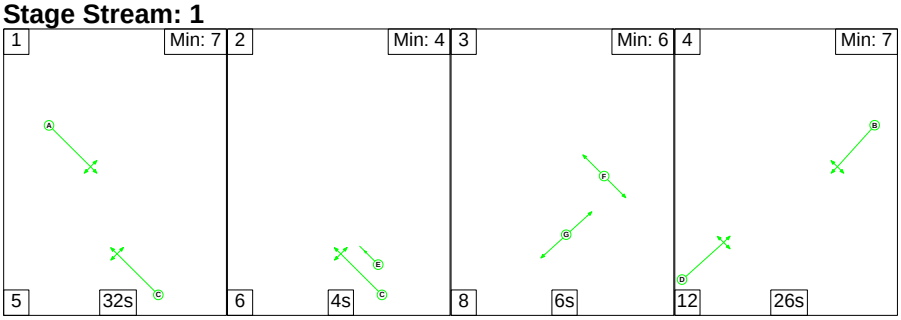
Scenario 2: '2018 PM Peak Hour' (FG14: '2018 TEMPRO ONLY PM', Plan 1: 'Network Control Plan 1')
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	61	101	13	24	199
	B	36	0	103	13	83	235
	C	59	99	0	24	132	314
	D	33	20	32	0	40	125
	E	63	154	269	44	0	530
	Tot.	191	334	505	94	279	1403

Scenario 1: '2018 AM Peak Hour' (FG13: '2018 TEMPRO ONLY AM', Plan 1: 'Network Control Plan 1')
C1 - B2068 Old Dover / St Lawrence Rd, Canterbury. 06/0

Stage Sequence Diagram

Stage Stream: 1



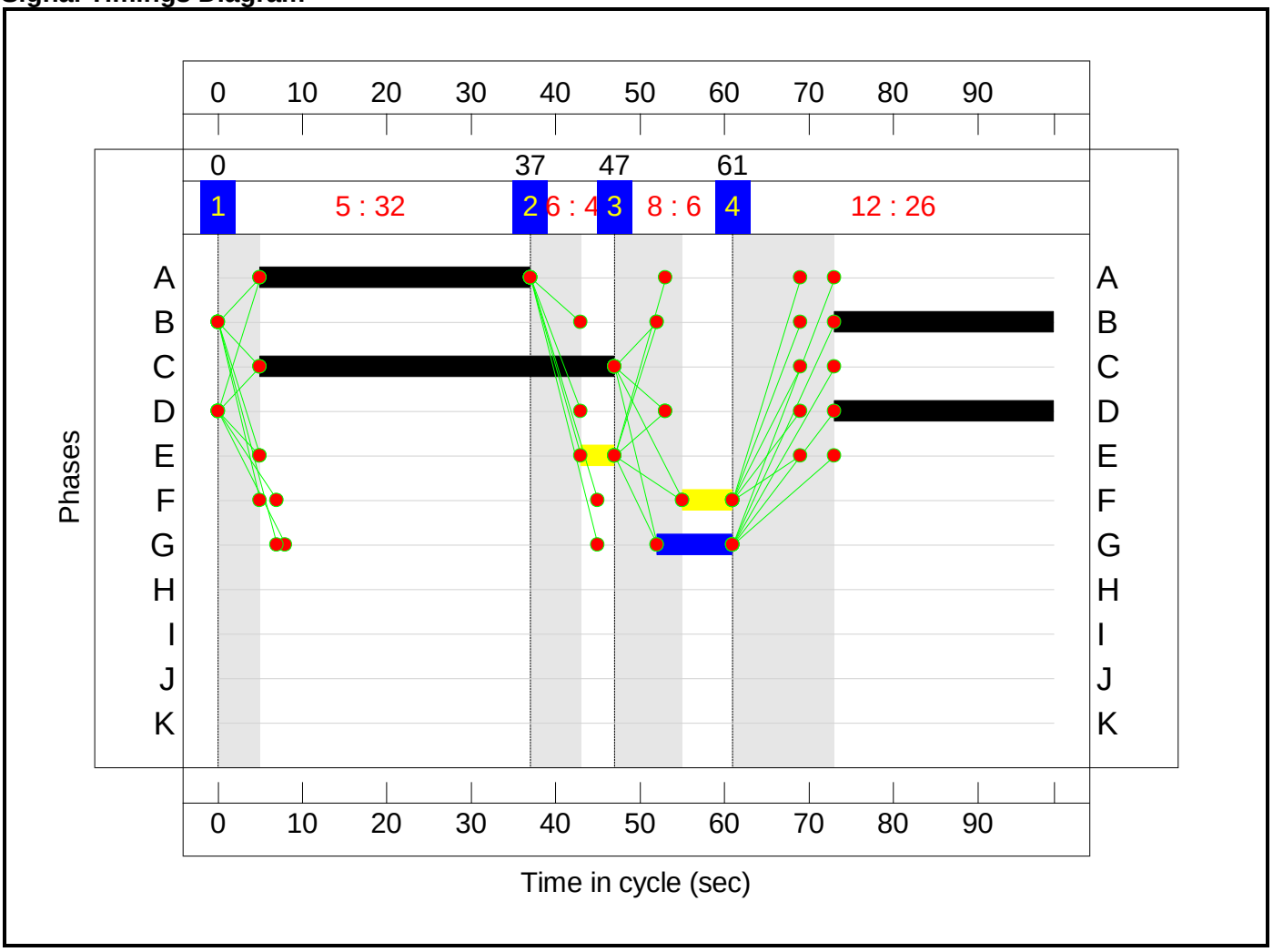
Stage Timings

Stage Stream: 1

Stage	1	2	3	4
Duration	32	4	6	26
Change Point	0	37	47	61

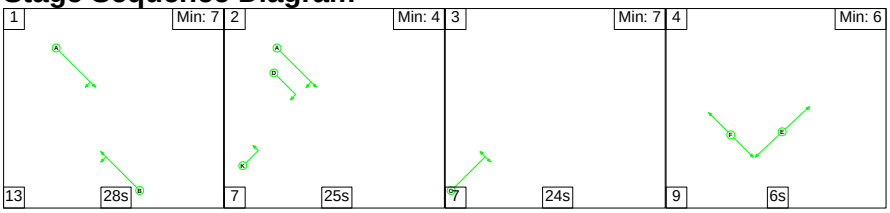
Full Input Data And Results

Signal Timings Diagram



C2 - B2068 Old Dover Road / Nackington Road - Canterbury. 06/060

Stage Sequence Diagram

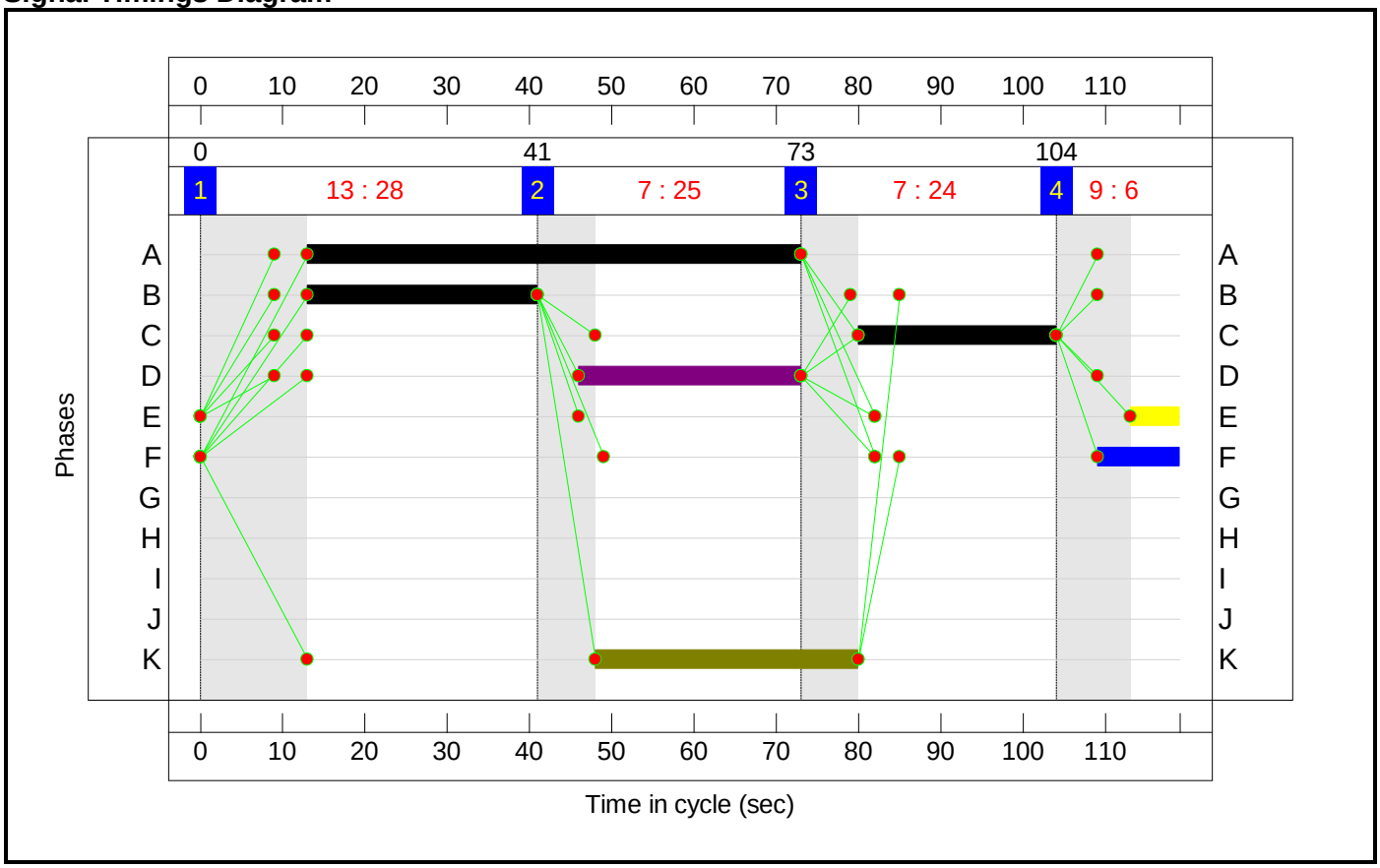


Stage Timings

Stage	1	2	3	4
Duration	28	25	24	6
Change Point	0	41	73	104

Full Input Data And Results

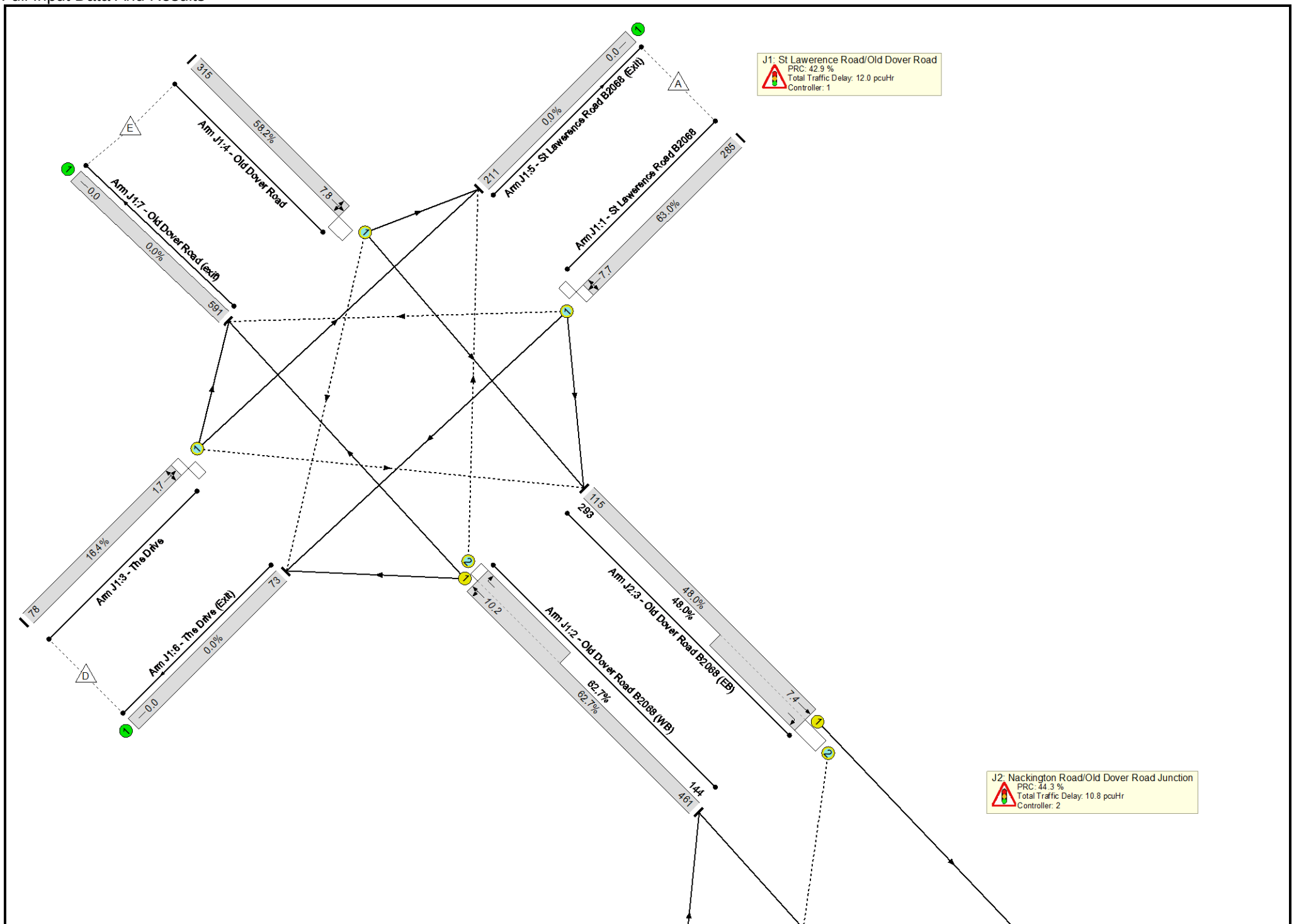
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Scenario 1: '2018 AM Peak Hour' (FG13: '2018 TEMPRO ONLY AM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: Old Dover Road Canterbury	-	-	-	-	-	-	-	**63.0%**	-
J1: St Lawerence Road/Old Dover Road	-	-	-	-	-	-	-	**63.0%**	-
1/1	St Lawerence Road B2068 Ahead Right Left	O	26	-	285	1659	452	63.0%	285
2/1+2/2	Old Dover Road B2068 (WB) Right Left Ahead	U+O	42	-	605	1898:1787	735+230	62.7 : 62.7%	605
3/1	The Drive Ahead Left Right	O	26	-	78	1958	474	16.4%	78
4/1	Old Dover Road Left Right Ahead	O	32	-	315	1623	541	58.2%	315
5/1	St Lawerence Road B2068 (Exit)	U	-	-	211	Inf	Inf	0.0%	211
6/1	The Drive (Exit)	U	-	-	73	Inf	Inf	0.0%	73
7/1	Old Dover Road (exit)	U	-	-	591	Inf	Inf	0.0%	591
J2: Nackington Road/Old Dover Road Junction	-	-	-	-	-	-	-	**62.4%**	-
1/1	Old Dover Road (WB) Ahead Left	U	28	-	252	2034	496	50.8%	252
2/1+2/2	B2068 Nackington Road Left Right	U	56:24	32	519	1743:1787	674+159	62.4 : 62.4%	519
3/1+3/2	Old Dover Road B2068 (EB) Ahead Right	U+O	60	27	408	1915:1787	239+610	48.0 : 48.0%	408
4/1	Old Dover Road (EB Exit)	U	-	-	214	Inf	Inf	0.0%	214
5/1	B2068 Nackington Road Exit	U	-	-	360	Inf	Inf	0.0%	360

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: Old Dover Road Canterbury	**-**	**10**	**17.7**	**4.3**	**22.8**	**-**	**-**	**-**	**-**
J1: St Lawerence Road/Old Dover Road	**-**	**3**	**9.2**	**2.5**	**12.0**	**-**	**-**	**-**	**-**
1/1	285	1	2.5	0.8	3.4	42.5	6.8	0.8	7.7
2/1+2/2	605	1	3.7	0.8	4.8	28.5	9.3	0.8	10.2
3/1	78	0	0.6	0.1	0.7	32.0	1.6	0.1	1.7
4/1	315	0	2.4	0.7	3.1	36.0	7.1	0.7	7.8
5/1	211	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	73	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	591	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J2: Nackington Road/Old Dover Road Junction	**-**	**7**	**8.5**	**1.8**	**10.8**	**-**	**-**	**-**	**-**
1/1	252	-	2.7	0.5	3.2	46.2	7.1	0.5	7.7
2/1+2/2	519	-	3.6	0.8	4.4	30.7	11.3	0.8	12.1
3/1+3/2	408	7	2.2	0.5	3.2	27.9	6.9	0.5	7.4
4/1	214	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	360	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1 - B2068 Old Dover / St Lawrence Rd, Canterbury. 06/0Stream: 1 PRC for Signalled Lanes (%): 42.9 Total Delay for Signalled Lanes (pcuHr): 12.00 Cycle Time (s): 99

C2 - B2068 Old Dover Road / Nackington Road - Canterbury. 06/060 PRC for Signalled Lanes (%): 44.3 Total Delay for Signalled Lanes (pcuHr): 10.83 Cycle Time (s): 119

PRC Over All Lanes (%): 42.9 Total Delay Over All Lanes(pcuHr): 22.84

Full Input Data And Results

Scenario 2: '2018 PM Peak Hour' (FG14: '2018 TEMPRO ONLY PM', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: Old Dover Road Canterbury	-	-	-	-	-	-	-	**74.2%**	-
J1: St Lawerence Road/Old Dover Road	-	-	-	-	-	-	-	**74.2%**	-
1/1	St Lawerence Road B2068 Ahead Right Left	O	15	-	199	1659	268	74.2%	199
2/1+2/2	Old Dover Road B2068 (WB) Right Left Ahead	U+O	53	-	347	1898:1787	871+327	28.9 : 29.0%	347
3/1	The Drive Ahead Left Right	O	15	-	125	1958	169	73.9%	125
4/1	Old Dover Road Left Right Ahead	O	43	-	530	1623	721	73.5%	530
5/1	St Lawerence Road B2068 (Exit)	U	-	-	191	Inf	Inf	0.0%	191
6/1	The Drive (Exit)	U	-	-	94	Inf	Inf	0.0%	94
7/1	Old Dover Road (exit)	U	-	-	279	Inf	Inf	0.0%	279
J2: Nackington Road/Old Dover Road Junction	-	-	-	-	-	-	-	**69.8%**	-
1/1	Old Dover Road (WB) Ahead Left	U	57	-	235	2034	991	23.7%	235
2/1+2/2	B2068 Nackington Road Left Right	U	27:13	14	314	1743:1787	308+142	69.8 : 69.8%	314
3/1+3/2	Old Dover Road B2068 (EB) Ahead Right	U+O	71	9	637	1915:1787	429+733	54.8 : 54.9%	637
4/1	Old Dover Road (EB Exit)	U	-	-	334	Inf	Inf	0.0%	334
5/1	B2068 Nackington Road Exit	U	-	-	505	Inf	Inf	0.0%	505

Full Input Data And Results

Item	Leaving (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat 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: Old Dover Road Canterbury	**-**	**12**	**15.3**	**6.2**	**22.4**	**-**	**-**	**-**	**-**
J1: St Lawerence Road/Old Dover Road	**-**	**2**	**8.1**	**4.3**	**12.8**	**-**	**-**	**-**	**-**
1/1	199	0	2.2	1.4	3.6	64.7	5.2	1.4	6.6
2/1+2/2	347	1	1.3	0.2	1.8	19.0	3.6	0.2	3.8
3/1	125	1	1.3	1.3	2.7	78.5	3.1	1.3	4.4
4/1	530	0	3.3	1.4	4.7	32.0	11.9	1.4	13.3
5/1	191	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/1	94	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/1	279	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J2: Nackington Road/Old Dover Road Junction	**-**	**10**	**7.2**	**1.9**	**9.5**	**-**	**-**	**-**	**-**
1/1	235	-	1.2	0.2	1.3	20.1	4.4	0.2	4.6
2/1+2/2	314	-	3.7	1.1	4.9	55.8	7.5	1.1	8.7
3/1+3/2	637	10	2.3	0.6	3.4	19.0	8.0	0.6	8.6
4/1	334	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/1	505	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C1 - B2068 Old Dover / St Lawrence Rd, Canterbury. 06/0Stream: 1 PRC for Signalled Lanes (%): 21.3 Total Delay for Signalled Lanes (pcuHr): 12.85 Cycle Time (s): 99

C2 - B2068 Old Dover Road / Nackington Road - Canterbury. 06/060 PRC for Signalled Lanes (%): 28.9 Total Delay for Signalled Lanes (pcuHr): 9.55 Cycle Time (s): 119

PRC Over All Lanes (%): 21.3 Total Delay Over All Lanes(pcuHr): 22.40

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: SH16_Canterbury Rd A260 Alkham Valley Rd_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Picady\J30 Canterbury Rd A260 Alkham Valley Rd
Report generation date: 20/11/2018 15:57:54

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Stream B-C	1.5	21.96	0.61	C	0.5	11.64	0.33	B
Stream B-A	0.5	45.11	0.33	E	0.4	37.66	0.30	E
Stream C-B	0.9	23.23	0.47	C	1.4	25.40	0.58	D

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	Canterbury Rd-A260-Alkham Valley Rd
Location	
Site number	
Date	09/04/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	ysa77377 [HCL70027]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base	AM	Canterbury Rd-A260-Alkham Valley Rd	DIRECT	08:00	09:00	60	15	✓
D2	Base	PM	Canterbury Rd-A260-Alkham Valley Rd	DIRECT	16:45	17:45	60	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Canterbury Rd (West)		Major
B	Alkham Valley Rd		Minor
C	Canterbury Rd (East)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.19		✓	3.50	100.0		-

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.06	6.31	4.89	3.67		1.00	65	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	512	0.093	0.234	0.147	0.334
1	B-C	781	0.119	0.300	-	-
1	C-B	721	0.277	0.277	-	-

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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base	AM	Canterbury Rd-A260-Alkham Valley Rd	DIRECT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT		100.000
B		DIRECT		100.000
C		DIRECT		100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	51480	39300
	%	2340	0	15180
	&	29400	8280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	3	1
	%	5	0	2
	&	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.61	21.96	1.5	C	253	253
B-A	0.33	45.11	0.5	E	39	39
C-A					490	490
C-B	0.47	23.23	0.9	C	138	138
A-B					858	858
A-C					655	655

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	253	63	421	0.601	247	0.0	1.4	20.144	C
B-A	39	10	122	0.320	37	0.0	0.4	41.748	E
C-A	490	123			490				
C-B	138	35	293	0.471	135	0.0	0.9	22.311	C
A-B	858	215			858				
A-C	655	164			655				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	253	63	417	0.607	253	1.4	1.5	21.844	C
B-A	39	10	119	0.328	39	0.4	0.5	44.881	E
C-A	490	123			490				
C-B	138	35	293	0.471	138	0.9	0.9	23.205	C
A-B	858	215			858				
A-C	655	164			655				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	253	63	417	0.607	253	1.5	1.5	21.934	C
B-A	39	10	119	0.329	39	0.5	0.5	45.058	E
C-A	490	123			490				
C-B	138	35	293	0.471	138	0.9	0.9	23.226	C
A-B	858	215			858				
A-C	655	164			655				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	253	63	417	0.607	253	1.5	1.5	21.962	C
B-A	39	10	119	0.329	39	0.5	0.5	45.112	E
C-A	490	123			490				
C-B	138	35	293	0.471	138	0.9	0.9	23.235	C
A-B	858	215			858				
A-C	655	164			655				

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Base	PM	Canterbury Rd-A260-Alkham Valley Rd	DIRECT	16:45	17:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT		100.000
B		DIRECT		100.000
C		DIRECT		100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		$	%	&
From	$	0	51120	30660
	%	2400	0	9180
	&	42780	11700	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		$	%	&
From	$	0	1	1
	%	0	0	1
	&	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.33	11.64	0.5	B	153	153
B-A	0.30	37.66	0.4	E	40	40
C-A					713	713
C-B	0.58	25.40	1.4	D	195	195
A-B					852	852
A-C					511	511

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	153	38	467	0.328	151	0.0	0.5	11.353	B
B-A	40	10	138	0.291	38	0.0	0.4	35.832	E
C-A	713	178			713				
C-B	195	49	336	0.579	190	0.0	1.3	23.795	C
A-B	852	213			852				
A-C	511	128			511				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	153	38	463	0.331	153	0.5	0.5	11.630	B
B-A	40	10	136	0.295	40	0.4	0.4	37.567	E
C-A	713	178			713				
C-B	195	49	336	0.579	195	1.3	1.3	25.335	D
A-B	852	213			852				
A-C	511	128			511				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	153	38	462	0.331	153	0.5	0.5	11.637	B
B-A	40	10	136	0.295	40	0.4	0.4	37.634	E
C-A	713	178			713				
C-B	195	49	336	0.579	195	1.3	1.3	25.385	D
A-B	852	213			852				
A-C	511	128			511				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	153	38	462	0.331	153	0.5	0.5	11.639	B
B-A	40	10	136	0.295	40	0.4	0.4	37.657	E
C-A	713	178			713				
C-B	195	49	336	0.579	195	1.3	1.4	25.402	D
A-B	852	213			852				
A-C	511	128			511				

Junctions 9

ARCADY 9 - Roundabout Module

Filename: SH18_Spitfire Way White House Hill A260_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\A20 Slip road Spitfire Way Canterbury Rd
Report generation date: 20/11/2018 15:25:06

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[a]**Base, AM**
[a]**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.8	6.85	0.43	A	0.3	4.10	0.26	A
Arm B	1.2	7.17	0.55	A	5.2	15.89	0.85	C
Arm C	0.6	3.65	0.37	A	1.5	6.80	0.61	A
Arm D	3.4	11.22	0.78	B	1.2	5.67	0.54	A

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	Spitfire Way-White House Hill-A260
Location	
Site number	
Date	09/04/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	A20 Slip road Spitfire Way Canterbury Rd	ONE HOUR	08:00	09:30	15	✓
D2	Base	PM	A20 Slip road Spitfire Way Canterbury Rd	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	8.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	White House Hill	
B	A20 Slip Roads	
C	Canterbury Rd	
D	Spitfire Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.55	6.29	11.0	21.8	43.5	41.0	
B	6.09	8.86	20.7	16.7	43.4	56.0	
C	5.03	8.05	8.0	25.6	42.8	43.0	
D	5.15	7.57	4.1	17.2	42.8	52.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.616	1670
B	0.700	2190
C	0.658	1872
D	0.602	1661

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	A20 Slip road Spitfire Way Canterbury Rd	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	366	100.000
B		ONE HOUR	✓	552	100.000
C		ONE HOUR	✓	516	100.000
D		ONE HOUR	✓	1026	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	24	342	0
	%	108	0	192	252
	&	138	18	0	360
	'	0	66	960	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	2	0
	%	4	0	4	7
	&	2	26	0	2
	'	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.43	6.85	0.8	A	336	504
B	0.55	7.17	1.2	A	507	760
C	0.37	3.65	0.6	A	473	710
D	0.78	11.22	3.4	B	941	1412

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	276	69	782	1156	0.238	274	185	0.0	0.3	4.075	A
B	416	104	975	1420	0.293	414	81	0.0	0.4	3.573	A
C	388	97	270	1639	0.237	387	1119	0.0	0.3	2.873	A
D	772	193	198	1506	0.513	768	459	0.0	1.0	4.852	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	329	82	936	1060	0.310	328	221	0.3	0.4	4.915	A
B	496	124	1168	1289	0.385	495	97	0.4	0.6	4.531	A
C	464	116	323	1603	0.289	463	1340	0.3	0.4	3.159	A
D	922	231	237	1482	0.622	920	550	1.0	1.6	6.376	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	403	101	1143	932	0.432	402	270	0.4	0.8	6.771	A
B	608	152	1426	1114	0.545	606	118	0.6	1.2	7.045	A
C	568	142	395	1554	0.366	567	1637	0.4	0.6	3.646	A
D	1130	282	290	1450	0.779	1123	672	1.6	3.4	10.785	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	403	101	1149	928	0.434	403	271	0.8	0.8	6.854	A
B	608	152	1433	1109	0.548	608	119	1.2	1.2	7.173	A
C	568	142	396	1553	0.366	568	1645	0.6	0.6	3.652	A
D	1130	282	291	1449	0.779	1129	674	3.4	3.4	11.218	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	329	82	946	1055	0.312	330	222	0.8	0.5	4.977	A
B	496	124	1178	1282	0.387	498	98	1.2	0.6	4.606	A
C	464	116	325	1602	0.290	465	1352	0.6	0.4	3.166	A
D	922	231	238	1482	0.623	929	552	3.4	1.7	6.598	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	276	69	788	1152	0.239	276	185	0.5	0.3	4.113	A
B	416	104	983	1414	0.294	416	82	0.6	0.4	3.612	A
C	388	97	272	1638	0.237	389	1128	0.4	0.3	2.884	A
D	772	193	199	1506	0.513	775	461	1.7	1.1	4.945	A

Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	9.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base	PM	A20 Slip road Spitfire Way Canterbury Rd	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	276	100.000
B		ONE HOUR	✓	1110	100.000
C		ONE HOUR	✓	738	100.000
D		ONE HOUR	✓	678	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	12	264	0
	%	198	0	408	504
	&	168	12	0	558
	'	0	18	660	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	0	1	0
	%	1	0	1	2
	&	1	0	0	1
	'	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.26	4.10	0.3	A	253	380
B	0.85	15.89	5.2	C	1019	1528
C	0.61	6.80	1.5	A	677	1016
D	0.54	5.67	1.2	A	622	933

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	208	52	517	1332	0.156	207	274	0.0	0.2	3.199	A
B	836	209	693	1673	0.500	832	31	0.0	1.0	4.262	A
C	556	139	526	1505	0.369	553	999	0.0	0.6	3.773	A
D	510	128	283	1461	0.349	508	796	0.0	0.5	3.772	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	248	62	619	1268	0.196	248	328	0.2	0.2	3.527	A
B	998	249	830	1577	0.633	995	38	1.0	1.7	6.160	A
C	663	166	629	1436	0.462	662	1195	0.6	0.9	4.644	A
D	610	152	339	1428	0.427	609	953	0.5	0.7	4.391	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	304	76	758	1182	0.257	303	400	0.2	0.3	4.095	A
B	1222	306	1015	1446	0.845	1209	46	1.7	4.9	14.444	B
C	813	203	765	1347	0.603	810	1460	0.9	1.5	6.677	A
D	746	187	413	1383	0.540	745	1161	0.7	1.2	5.623	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	304	76	760	1181	0.257	304	403	0.3	0.3	4.103	A
B	1222	306	1017	1445	0.846	1221	46	4.9	5.2	15.893	C
C	813	203	772	1342	0.606	812	1466	1.5	1.5	6.802	A
D	746	187	416	1382	0.540	746	1169	1.2	1.2	5.666	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	248	62	622	1267	0.196	249	332	0.3	0.2	3.535	A
B	998	249	833	1575	0.634	1012	38	5.2	1.8	6.543	A
C	663	166	640	1429	0.464	666	1204	1.5	0.9	4.733	A
D	610	152	343	1425	0.428	611	963	1.2	0.8	4.432	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	208	52	520	1330	0.156	208	276	0.2	0.2	3.208	A
B	836	209	697	1670	0.500	839	32	1.8	1.0	4.345	A
C	556	139	530	1502	0.370	557	1005	0.9	0.6	3.812	A
D	510	128	285	1460	0.350	511	802	0.8	0.5	3.798	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: SH19_Alkham Valley Rd A20 Slip_Base Model.j9
Path: K:\UA008926 Otterpool\D-Calcs\Modelling\DM_it5\Appendix\Appendix Base Models\Arcady\A20 slip road Alkham Valley Rd
Report generation date: 20/11/2018 15:23:42

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a**Base, AM**
a**Base, PM**

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	Base							
Arm A	0.0	1.88	0.03	A	0.0	2.09	0.05	A
Arm B	1.0	3.85	0.50	A	0.3	2.53	0.24	A
Arm C	5.1	17.20	0.84	C	2.8	8.86	0.74	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	Alkham Valley Rd-A20 Slip
Location	
Site number	
Date	09/04/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	ysa77377 [HCL70027]
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base	AM	ONE HOUR	08:00	09:30	15	✓
D2	Base	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	10.84	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A20 Offslip	
B	AlkamValley Rd (East)	
C	AlkamValley Rd (South)	
D	A20 onslip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	6.71	8.71	13.2	23.7	44.6	38.0	
B	3.82	7.44	37.9	23.3	44.6	40.0	
C	4.13	6.66	19.2	26.5	44.6	34.0	
D							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.759	2392
B	0.668	1942
C	0.646	1787
D		

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

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	54	100.000
B		ONE HOUR	✓	846	100.000
C		ONE HOUR	✓	1002	100.000
D					

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	0	54	0
	%	0	0	234	612
	&	0	318	0	684
	'	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	50	7	0
	%	0	0	1	2
	&	0	4	0	2
	'	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.03	1.88	0.0	A	50	74
B	0.50	3.85	1.0	A	776	1164
C	0.84	17.20	5.1	C	919	1379
D						

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	41	10	238	2060	0.020	41	0	0.0	0.0	1.781	A
B	637	159	41	1881	0.339	635	238	0.0	0.5	2.884	A
C	754	189	459	1447	0.521	750	216	0.0	1.1	5.136	A
D			238				971				

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	49	12	285	2026	0.024	49	0	0.0	0.0	1.820	A
B	761	190	49	1875	0.406	760	285	0.5	0.7	3.226	A
C	901	225	550	1389	0.649	898	259	1.1	1.8	7.291	A
D			285				1163				

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	59	15	346	1980	0.030	59	0	0.0	0.0	1.873	A
B	931	233	59	1867	0.499	930	346	0.7	1.0	3.837	A
C	1103	276	673	1310	0.842	1091	317	1.8	4.8	15.684	C
D			346				1418				

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	59	15	350	1978	0.030	59	0	0.0	0.0	1.875	A
B	931	233	59	1867	0.499	931	350	1.0	1.0	3.846	A
C	1103	276	674	1309	0.843	1102	317	4.8	5.1	17.201	C
D			350				1426				

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	49	12	290	2022	0.024	49	0	0.0	0.0	1.823	A
B	761	190	49	1875	0.406	762	290	1.0	0.7	3.239	A
C	901	225	551	1388	0.649	913	259	5.1	1.9	7.783	A
D			290				1175				

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	41	10	240	2058	0.020	41	0	0.0	0.0	1.786	A
B	637	159	41	1881	0.339	638	240	0.7	0.5	2.899	A
C	754	189	461	1445	0.522	758	217	1.9	1.1	5.258	A
D			240				978				

Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	A, B, C, D	6.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	78	100.000
B		ONE HOUR	✓	408	100.000
C		ONE HOUR	✓	1038	100.000
D					

Origin-Destination Data

Demand (Veh/hr)

		To			
		$	%	&	'
From	$	0	6	72	0
	%	0	0	114	294
	&	0	630	0	408
	'	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		$	%	&	'
From	$	0	25	1	0
	%	0	0	1	1
	&	0	1	0	3
	'	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.09	0.0	A	72	107
B	0.24	2.53	0.3	A	374	562
C	0.74	8.86	2.8	A	952	1429
D						

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	59	15	472	1974	0.030	59	0	0.0	0.0	1.878	A
B	307	77	54	1887	0.163	306	477	0.0	0.2	2.276	A
C	781	195	221	1614	0.484	778	140	0.0	0.9	4.284	A
D			472				526				

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	70	18	565	1905	0.037	70	0	0.0	0.0	1.961	A
B	367	92	65	1880	0.195	367	571	0.2	0.2	2.379	A
C	933	233	264	1587	0.588	931	167	0.9	1.4	5.476	A
D			565				630				

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	86	21	690	1812	0.047	86	0	0.0	0.0	2.085	A
B	449	112	79	1870	0.240	449	697	0.2	0.3	2.533	A
C	1143	286	323	1549	0.738	1138	205	1.4	2.7	8.648	A
D			690				771				

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	86	21	694	1809	0.047	86	0	0.0	0.0	2.088	A
B	449	112	79	1870	0.240	449	700	0.3	0.3	2.533	A
C	1143	286	324	1548	0.738	1143	205	2.7	2.8	8.859	A
D			694				773				

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	70	18	570	1902	0.037	70	0	0.0	0.0	1.965	A
B	367	92	65	1880	0.195	367	575	0.3	0.2	2.382	A
C	933	233	265	1586	0.588	938	167	2.8	1.4	5.599	A
D			570				633				

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
A	59	15	476	1972	0.030	59	0	0.0	0.0	1.883	A
B	307	77	54	1887	0.163	307	480	0.2	0.2	2.279	A
C	781	195	221	1614	0.484	783	140	1.4	0.9	4.346	A
D			476				529				

APPENDIX G Collision Analysis

OTTERPOOL PARK

Collision Analysis Technical Note

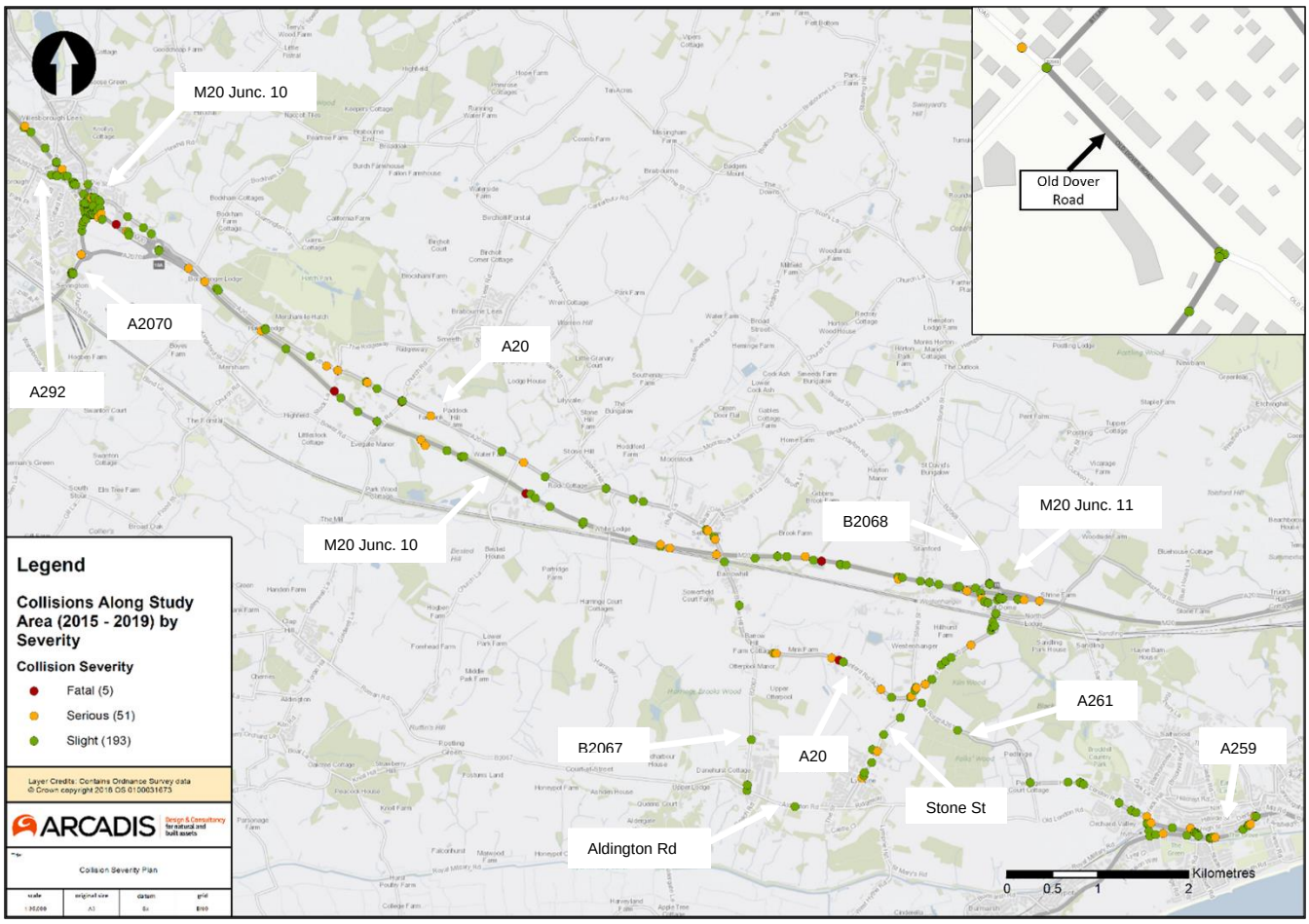
SEPTEMBER 2021

CONTENTS

1 EXECUTIVE SUMMARY

1.1.1 Personal injury collision data for the study area has been analysed for the five-year period to 2019 to identify collision clusters, trends and potential opportunity for collision reduction.

Total Collisions within Study Area



1.1.2 In total, 255 collisions occurred along the study area and these are highlighted by year and severity in the table below.

Total Collisions within Study Area by Year and Severity

Year	Slight	Serious	Fatal	Total Collisions
2015	47	8	1	56
2016	48	12	2	62
2017	45	11	1	57
2018	33	12	1	46
2019	25	9	0	34
Total	**198**	**52**	**5**	**255**

1.1.3 The study area consisted of 11 study routes and the number of collisions within those routes have been identified as below.

Study Route	Five-year Collision Record
A20 Barrow Hill, Ashford Road & Hythe Road	70
M20 Junction 9-Junction 11 (excluding Junction 10A) Corridor	85
A261 Hythe Road	11
A259 Dymchurch Road & Seabrook Road	31
B2067 Otterpool Lane	3
Aldington Road	1
Stone Street	8
A2070 Bad Munstereifel Road & Lacton Interchange	35
A292	2
B2068	3
Old Dover Road, Canterbury	6
Total	**255**

1.1.4 The majority of collisions occurred along the M20 Corridor (Junction 9 - Junction 11 [excluding Junction 10A]) with 85 collisions (34% of total collisions).

1.1.5 This was followed by notable collision totals along A20 (Barrow Hill, Ashford Road & Hythe Road with 70 collisions – 28% of total collisions), A2070 (Bad Munstereifel Road & Lacton Interchange with 35 collisions – 14% of total collisions) and A259 (Dymchurch Road & Seabrook Road with 31 collisions – 12% of total collisions).

1.1.6 Four out of five of the recorded fatal collisions occurred along the M20 motorway, while most serious collisions (40) were split equally along the M20 and A20 respectively.

1.1.7 Collision clusters were prevalent along some study routes at the following locations:

- A20 generally along the route, but particularly
  - junction with (jw) Swan Lane.
  - jw The Airport Cafe (east of junction with B2076).
  - between Stone Street and M20 Junction 11.
- M20 generally along the route, but particularly
  - between Lees Road underbridge and just north of M20 Junction 10A roundabout.
  - between Barrow Hill underbridge and A20 Ashford Road overbridge.
- A259
  - Military Road / Malthouse Hill.
  - Rampart Road / Stade Street.
- A2070 Bad Munstereifel Road
  - at Junction 10 roundabout.
  - southern arm of Junction 10 roundabout.
  - Bad Munstereifel Road / Barrey Road.

1.1.8 Collision clusters were prevalent during the hours of darkness along some study routes at the following locations:

- A20
  - between M20 overbridge and M20 Junction 11.
- M20
  - between Stock Lane overbridge and Station Road overbridge.
  - between Church Lane and Harringe Lane.
  - between Barrow Hill and Stone Street.

1.1.9 Collision clusters were prevalent during wet road conditions along some study routes at the following locations:

- A20
  - between Harringe Lane and Swan Lane.
  - between M20 overbridge and M20 Junction 11.
- M20
  - between Stock Lane overbridge and Harringe Lane.

1.1.10 In terms of vulnerable road users, during the five-year period the highest number of pedestrian collisions (seven) occurred along the A259 carriageway, and 19 motorcycle collisions along the A20 carriageway.

1.1.11 The highest number of collisions involving cyclist were also recorded along the A259 carriageway and totalled six collisions.

2 COLLISION DATA

2.1 The Collision Study Area

2.1.1 Detailed personal injury collision data was analysed for the study area for the five-year period to 2019.

2.1.2 The study area consisted of 11 study routes, namely:

- A20 Barrow Hill, Ashford Road and Hythe Road
- M20 Corridor Junction 9 -Junction 11 (excluding Junction 10A)
- A261 Hythe Road
- A259 Dymchurch Road and Seabrook Road
- B2067 Otterpool Lane
- Aldington Road
- Stone Street
- A2070 Bad Munstereifel Road and Lacton Interchange
- A292
- B2068
- Old Dover Road, Canterbury

2.1.3 The study area was split into 11 study routes to represent the unique nature of the individual roads.

2.2 Collision Summary

2.2.1 Records of personal injury collisions in the study area were obtained from Kent County Council, supplied by Kent Police for the five-year period to end of December 2019. In total, 255 collisions occurred along the study area, which equated to an average of 50 collisions per year.

2.2.2 The distribution of collisions for the five-year period to December 2019 is shown in Figure 2-1. Collisions totals of the study area for the five-year period are also shown in Table 2-1.

Figure 2-1 Total Collisions within Study Area

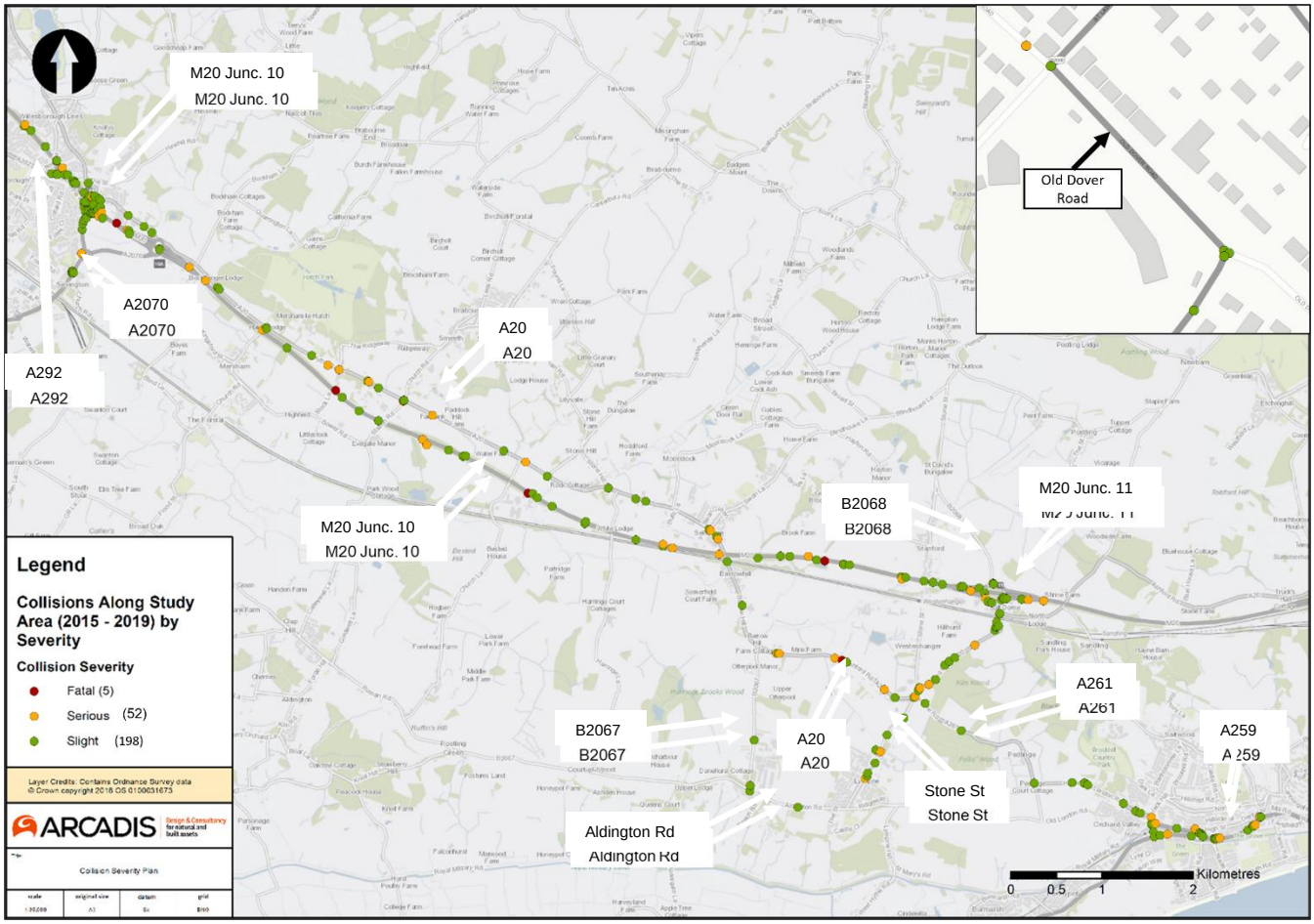


Table 2-1 Total Collisions within Study Area

Study Route	Collisions
A20 Barrow Hill, Ashford Road & Hythe Road	70
M20 Junction 10 - Junction 11 (excluding Junction 10A) Corridor	85
A261 Hythe Road	11
A259 Dymchurch Road & Seabrook Road	31
B2067 Otterpool Lane	3
Aldington Road	1
Stone Street	8
A2070 Bad Munstereifel Road & Lacton Interchange	35
A292	2
B2068	3
Old Dover Road, Canterbury	6
Total	**255**

2.2.3 Of the 255 reported collisions, 198 resulted in slight injuries (representing 78% of all collisions), 52 collisions resulted in serious injuries (20%) and five collisions (2%) resulted in fatal injuries.

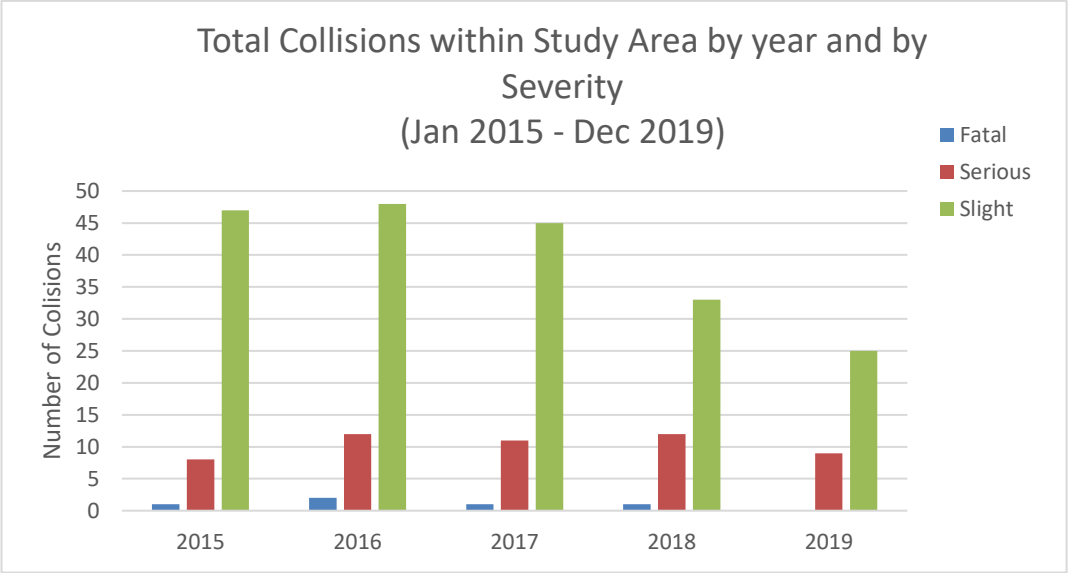
2.2.4 A summary of the total collisions over the five-year period by year and severity is provided in Table 2-2 and the yearly distribution of collisions by severity is presented in Figure 2-Error***! No text of specified style in document.***2.

Table 2-2 Total Collisions within Study Area by Year and Severity

Year	Slight	Serious	Fatal	Total Collisions
2015	47	8	1	56
2016	48	12	2	6
2017	45	11	1	54
2018	33	12	1	44
2019	25	9	0	34
Total	**198**	**52**	**5**	**255**

2.2.5 Figure 2-Error***! No text of specified style in document.****2* shows that total collisions per year peaked in 2016 but then generally declined during the remaining period.

Figure 2-Error! No text of specified style in document.**2 Total Collisions within Study Area by Year and Severity**



2.2.6 Collision clusters were prevalent along some study routes at the following locations:

- A20 generally along the route, but particularly
  - junction with (jw) Swan Lane.
  - jw The Airport Cafe (east of junction with B2076).
  - between jw Stone Street and M20 Junction 11.
- M20 generally along the route, but particularly
  - between Lees Road underbridge and just north of M20 Junction 10A Roundabout.
  - between Barrow Hill underbridge and A20 Ashford Road overbridge.
- A259
  - Military Road / Malthouse Hill.
  - Rampart Road / Stade Street.
- A2070 Bad Munstereifel Road
  - at Junction 10 roundabout.
  - southern arm of Junction 10 roundabout.
  - Bad Munstereifel Road / Barrey Road

2.3 Total Collisions within Study Area by Year and by Road Users

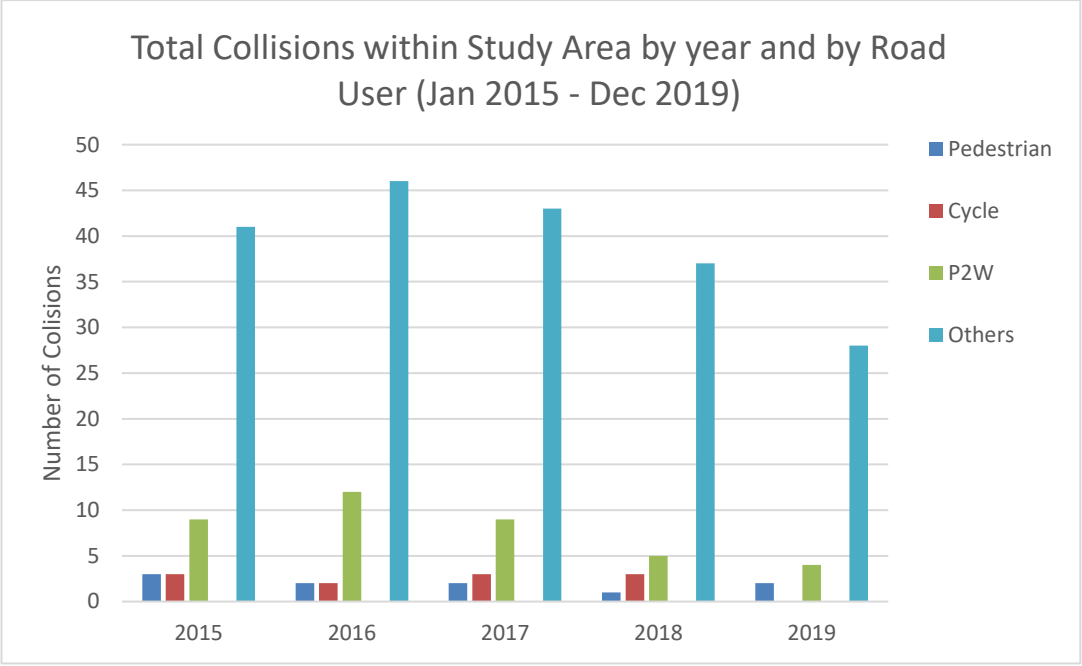
2.3.1 In terms of injuries to vulnerable road users, a total of 10 collisions resulted in injuries to pedestrians (4%), 11 collisions (4%) resulted in injuries to pedal cyclists and 39 collisions (15%) resulted in injuries to motorcyclists.

2.3.2 A summary of total collisions within the study area over the five-year period by year and road user is provided in Table 2-3 and shown in Figure 2-3.

Table 2-3 Total Collisions within Study Area by Year by Road User

Year	Pedestrians	Cycles	P2W	Others (cars, HGV's etc.)	Total
2015	3	3	9	41	56
2016	2	2	12	46	62
2017	2	3	9	43	57
2018	1	3	5	37	46
2019	2	0	4	28	34
Total	**10**	**11**	**39**	**195**	**255**

Figure 2-3 Total Collisions within Study Area by Year and by Road User



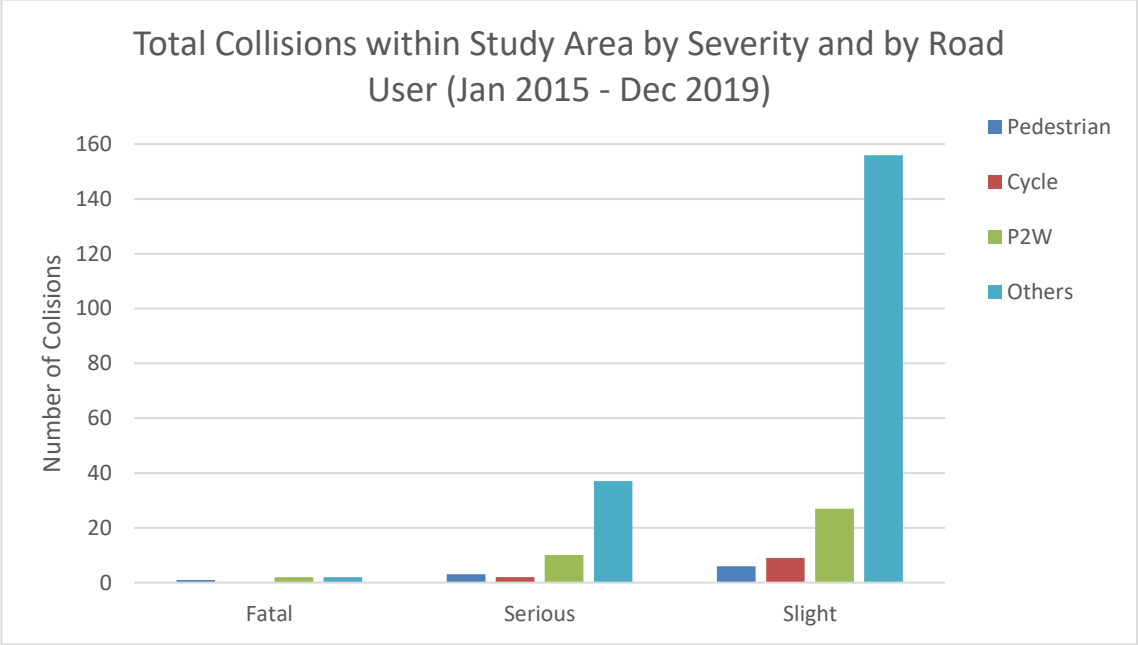
2.4 Total Collisions within Study Area by Severity and by Road Users

2.4.1 Table 2-4 shows total collisions within the study area by severity and by road user for the five-year period and this is summarised in Figure 2-4.

Table 2-4 – Total Collisions within Study Area by Severity and by Road User

Road User	Fatal	Serious	Slight	Total
Pedestrian	1	3	6	10
Cycle	0	2	9	11
P2W	2	10	27	39
Others	2	37	156	195
Total	**5**	**52**	**198**	**255**

Figure 2-4 – Total Collisions within Study Area by Severity by Road User



2.5 Total Collisions within Study Area by Lighting Conditions

2.5.1 The distribution of total collisions by lighting conditions for the five-year period to December 2019 is shown in Figure 2-5. Collisions totals by lighting condition and road user for the five-year period is shown in Table 2-5.

2.5.2 The majority of collisions occurred during the hours of daylight (185), representing 72% of all collisions, whilst 70 collisions (27%) occurred during the hours of darkness. This is also summarised in Figure 2-6.

Figure 2-5 Total Collisions within Study Area by Lighting Conditions

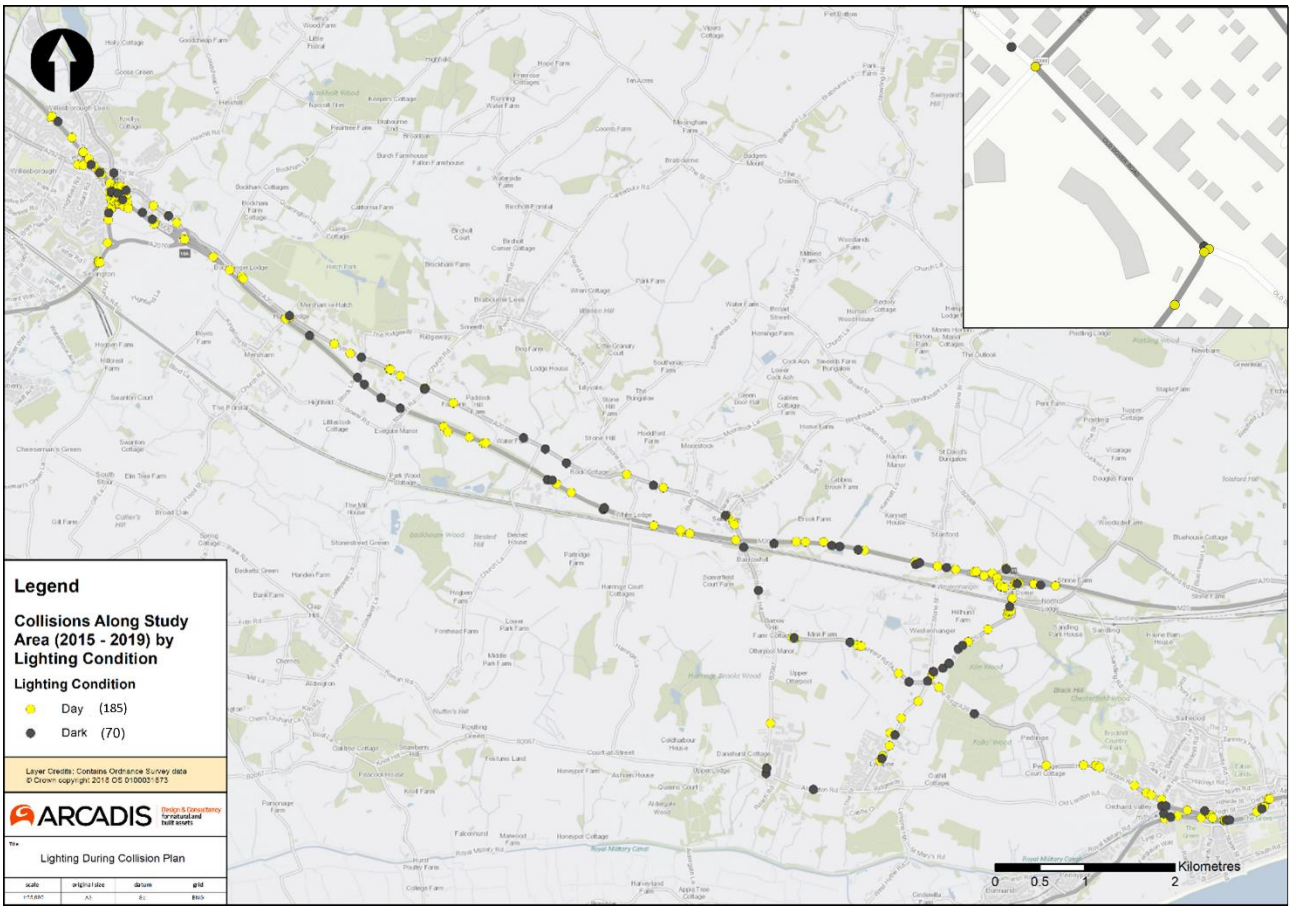
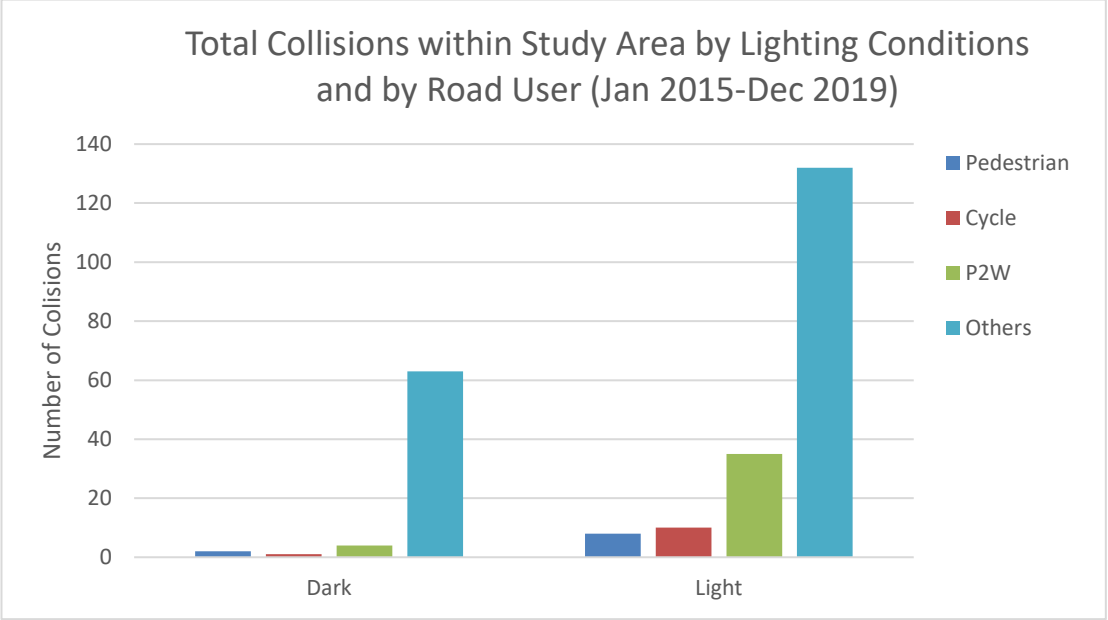


Table 2-5 – Total Collisions within Study Area by Lighting Conditions and by Road User

Road User	Dark	Light	Total
Pedestrian	2	8	10
Cycle	1	10	11
P2W	4	35	39
Others	63	132	195
TOTAL	**70**	**185**	**255**

Figure 2-6 – Total Collisions within Study Area by Lighting Conditions and by Road User



2.5.3 Collision clusters are prevalent during the hours of darkness along some study routes at the following locations:

- A20
  - between M20 overbridge and M20 Junction 11.
- M20
  - between Stock Lane overbridge and Station Road overbridge.
  - between Church Lane and Harringe Lane.
  - between Barrow Hill and Stone Street.

2.6 Total Collisions within Study Area by Road Surface Conditions

2.6.1 The distribution of total collisions by road surface conditions for the five-year period to December 2019 is shown in Figure 2-7. Collisions totals by road surface conditions and by road user for the five-year period is shown in Table 2-6.

2.6.2 It can be seen that the majority of collisions (200) occurred on a dry road surface, representing 78% of all collisions, whilst 49 collisions (19%) and 6 collisions (2%) occurred on a wet road surface or during 'other' conditions (i.e. during frost, ice or snow) respectfully. This is also summarised in Figure 2-8.

Figure 2-7 Total Collisions by Road Surface Conditions

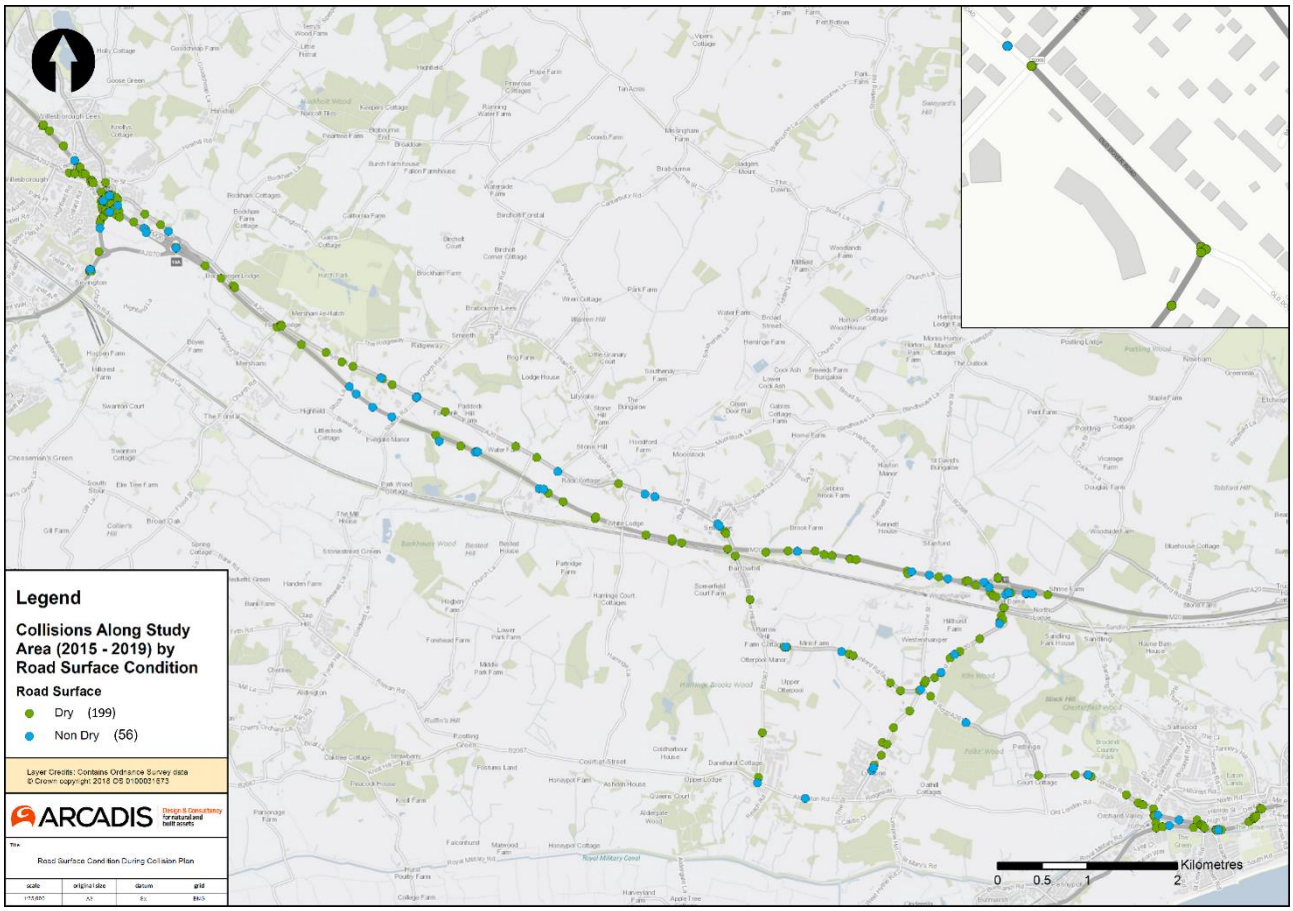
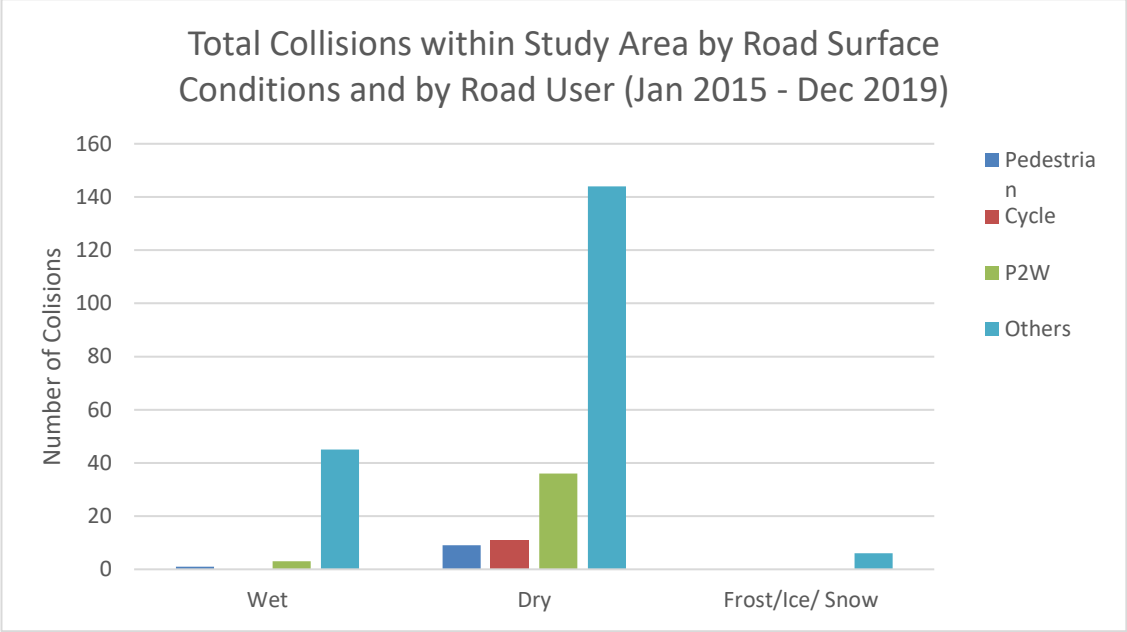


Table 2-6 – Total Collisions within Study Area by Road Surface Conditions and by Road User

Road User	Wet	Dry	Frost/Ice/Snow	Total
Pedestrian	1	9	0	10
Cycle	0	11	0	11
P2W	3	36	0	39
Others	45	144	6	195
TOTAL	**49**	**200**	**6**	**255**

Figure 2-8 Total Collisions within Study Area by Road Surface Conditions and by Road User



2.6.3 Collision clusters were prevalent during wet road conditions along some study routes at the following locations:

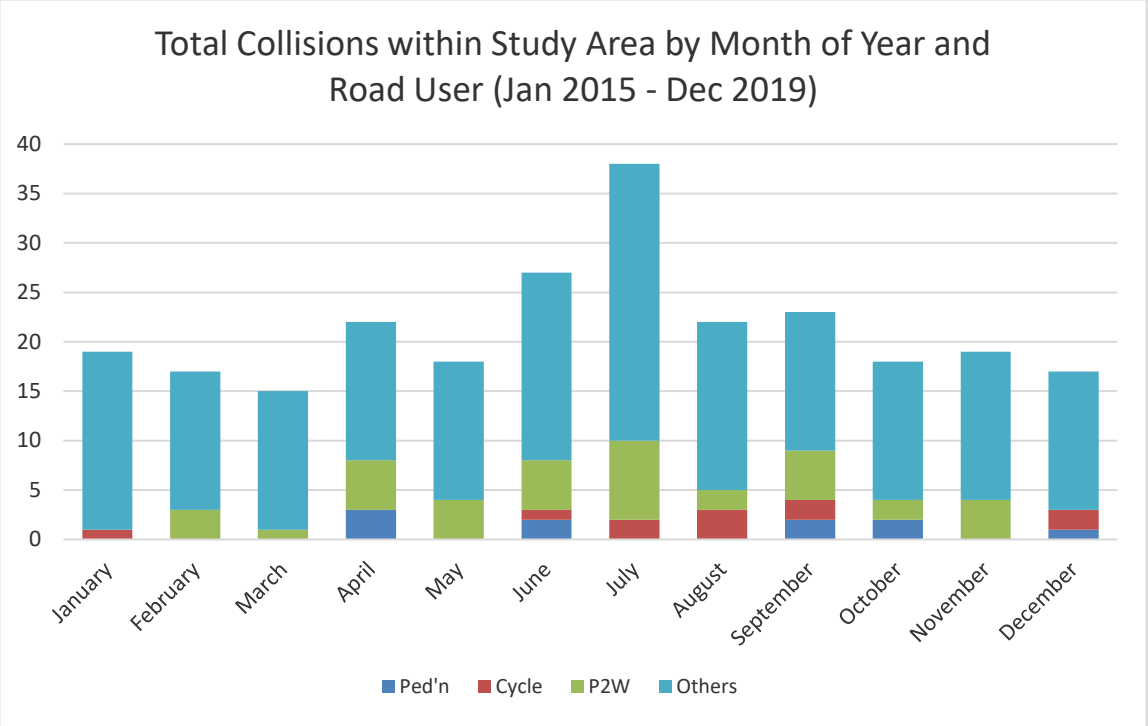
- A20
  - between Harringe Lane and Swan Lane.
  - between M20 overbridge and M20 Junction 11.
- M20
  - between Stock Lane overbridge and Harringe Lane.

2.7 Total Collisions within Study Area by Month of Year and Road User

2.7.1 Figure 2-9 highlights the distribution of total collisions by month of the year and by road user.

2.7.2 The number of collisions over each month is fairly consistent. However, the highest number of collisions along the Study Area occurred in July (38 collisions - 15%), followed by June (27 collisions - 11%). The least number of collisions occurred in March (15 collisions - 6%).

Figure 2-9 Total Collisions within Study Area by Month of Year and by Road User

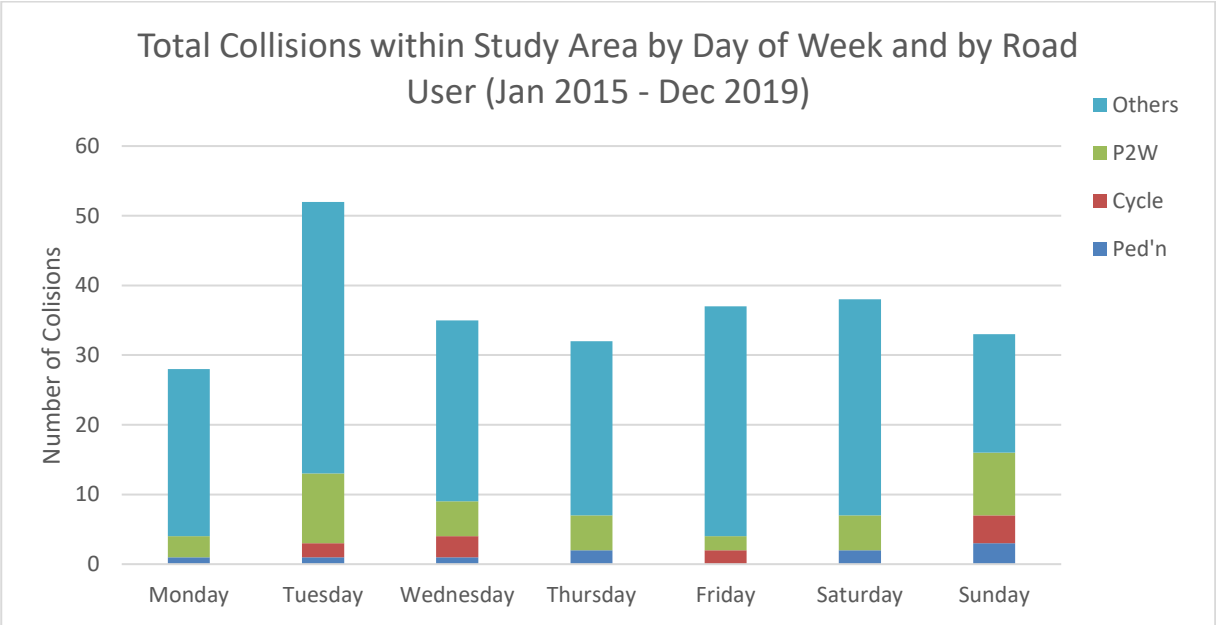


2.8 Total Collisions within Study Area by Day of the Week and Road User

2.8.1 Figure 2-10 highlights the distribution of total collisions during the day of the week by road user.

2.8.2 In general, collisions occur fairly evenly throughout the week. However, the greatest number of collisions was recorded on a Tuesday (52 collisions, 20%) and the least number of collisions was recorded on a Monday (28 collisions, 11%).

Figure 2-10 Total Collisions within Study Area by Day of Week and by Road User

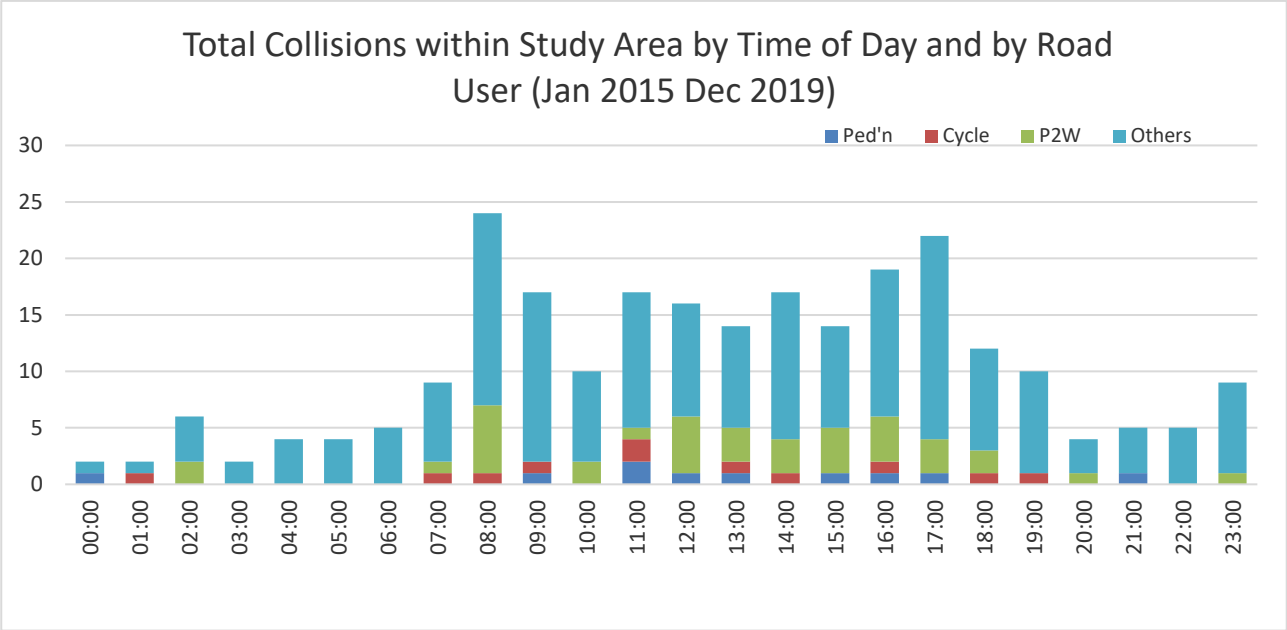


2.9 Total Collisions within Study Area by Time of the day and Road User

2.9.1 Figure 2-11 highlights the distribution of total collisions by time of day and by road user.

2.9.2 Generally the highest number of collisions occurred during the AM and PM peak hour period (08:00-08:59 & 17:00-17:59).

Figure 2-11 Total Collisions within Study Area by Time of Day and by Road User


Total Collisions within Study Area by Time of Day and by Road User (Jan 2015 Dec 2019)
Ped'n
Cycle
P2W
Others
30
25
20
15
10
5
0
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00

2.10 Total Collisions by Study Route and Severity

2.10.1 Collision severity totals per study route and by severity are provided in Figure 2-12.

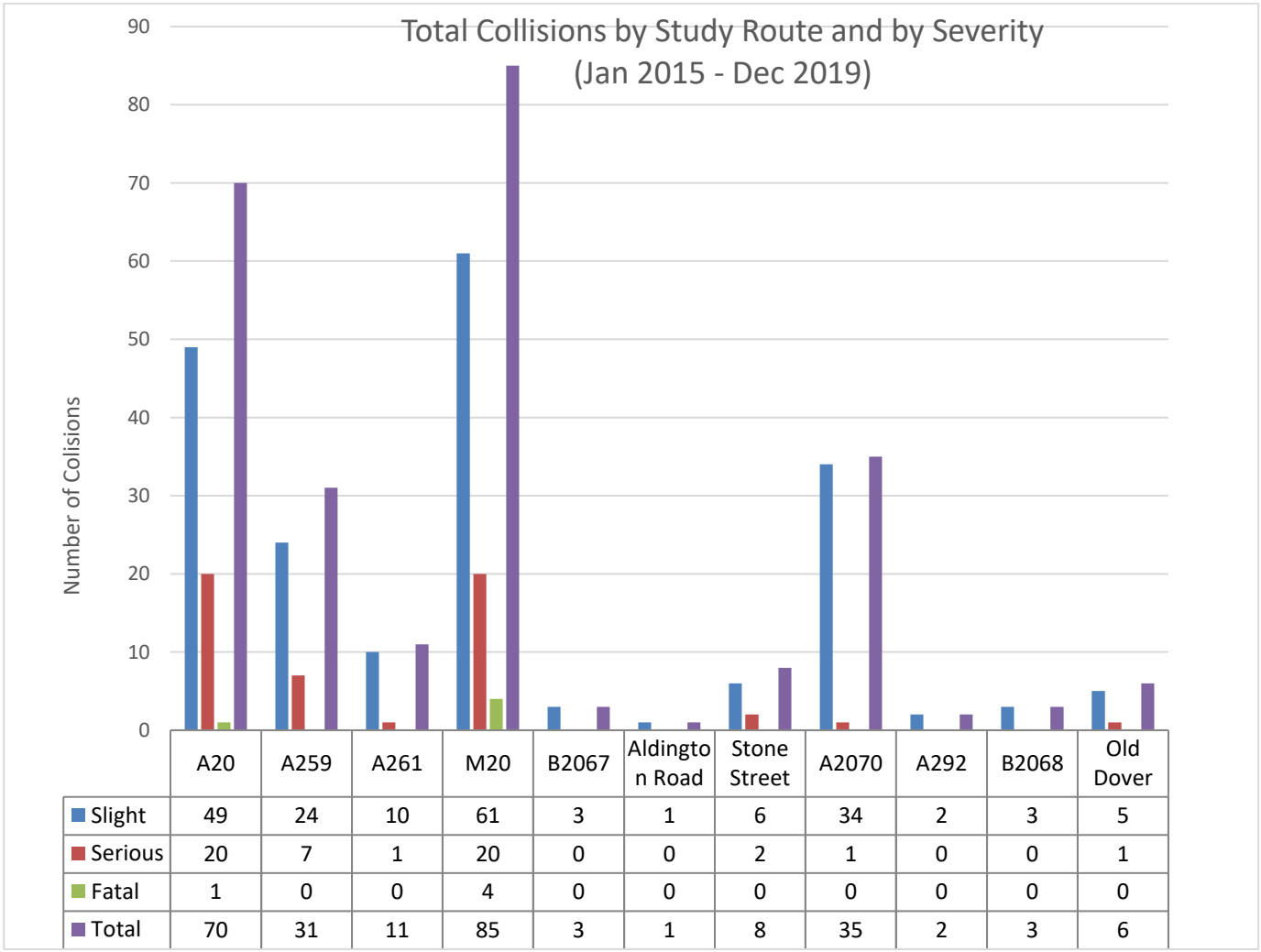
2.10.2 The majority of collisions occurred along the M20 Corridor (Junction 9 - Junction 11 [excluding Junction 10A]) with 85 collisions (34% of total collisions).

2.10.3 This was followed by notable collision totals experienced along A20 (Barrow Hill, Ashford Road & Hythe Road with 70 collisions – 28% of total collisions), A2070 (Bad Munstereifel Road & Lacton Interchange with 35 collisions – 14% of total collisions) and A259 (Dymchurch Road & Seabrook Road with 31 collisions – 12% of total collisions).

2.10.4 The other study route sections recorded low collision numbers by comparison, and this was primarily due to the nature of the roads and traffic flow accordingly.

2.10.5 Four out of five of the fatal collisions occurred along the M20 motorway, while most serious collisions (20) were recorded equally along the M20 and A20 respectively.

Figure 2-12 Total Collisions by Study Route and Severity



	A20	A259	A261	M20	B2067	Aldington Road	Stone Street	A2070	A292	B2068	Old Dover
Slight	49	24	10	61	3	1	6	34	2	3	5
Serious	20	7	1	20	0	0	2	1	0	0	1
Fatal	1	0	0	4	0	0	0	0	0	0	0
Total	70	31	11	85	3	1	8	35	2	3	6

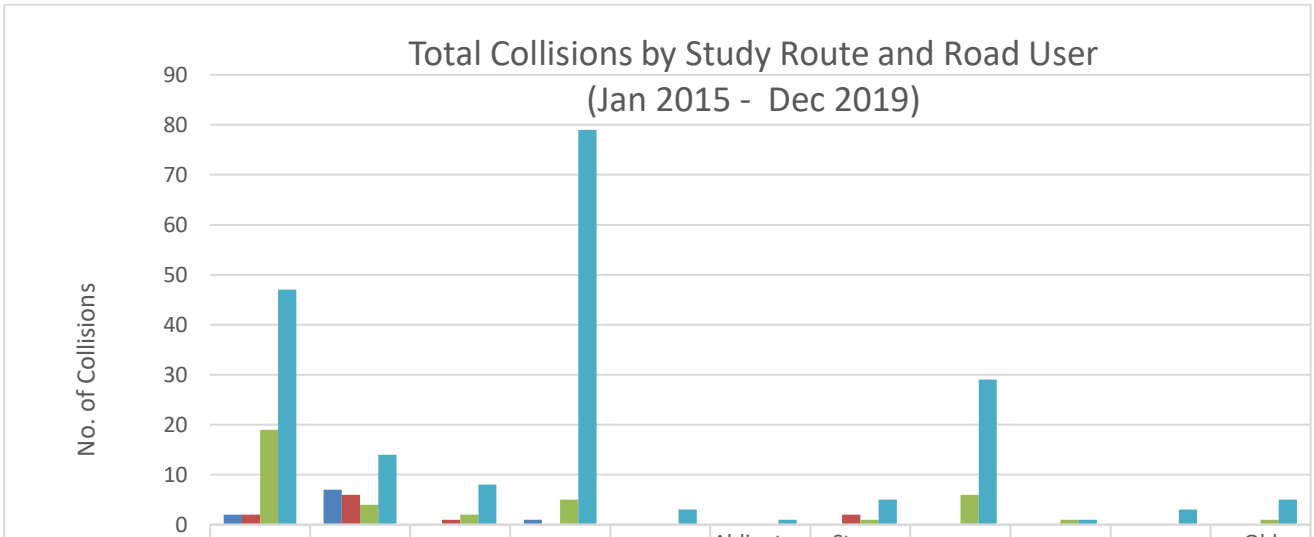
2.11 Total Collisions by Study Route and Road User

2.11.1 Figure 2-13 shows the number of collisions by study route and by road user.

2.11.2 In terms of vulnerable road users, during the five-year period the highest number of pedestrian collisions (seven) occurred along the A259 carriageway, and 19 motorcycle collisions along the A20 carriageway.

2.11.3 The highest number of collisions involving cyclist were also recorded along the A259 carriageway and totalled six collisions.

Figure 2-13 Total Collisions by Study Route and Road User

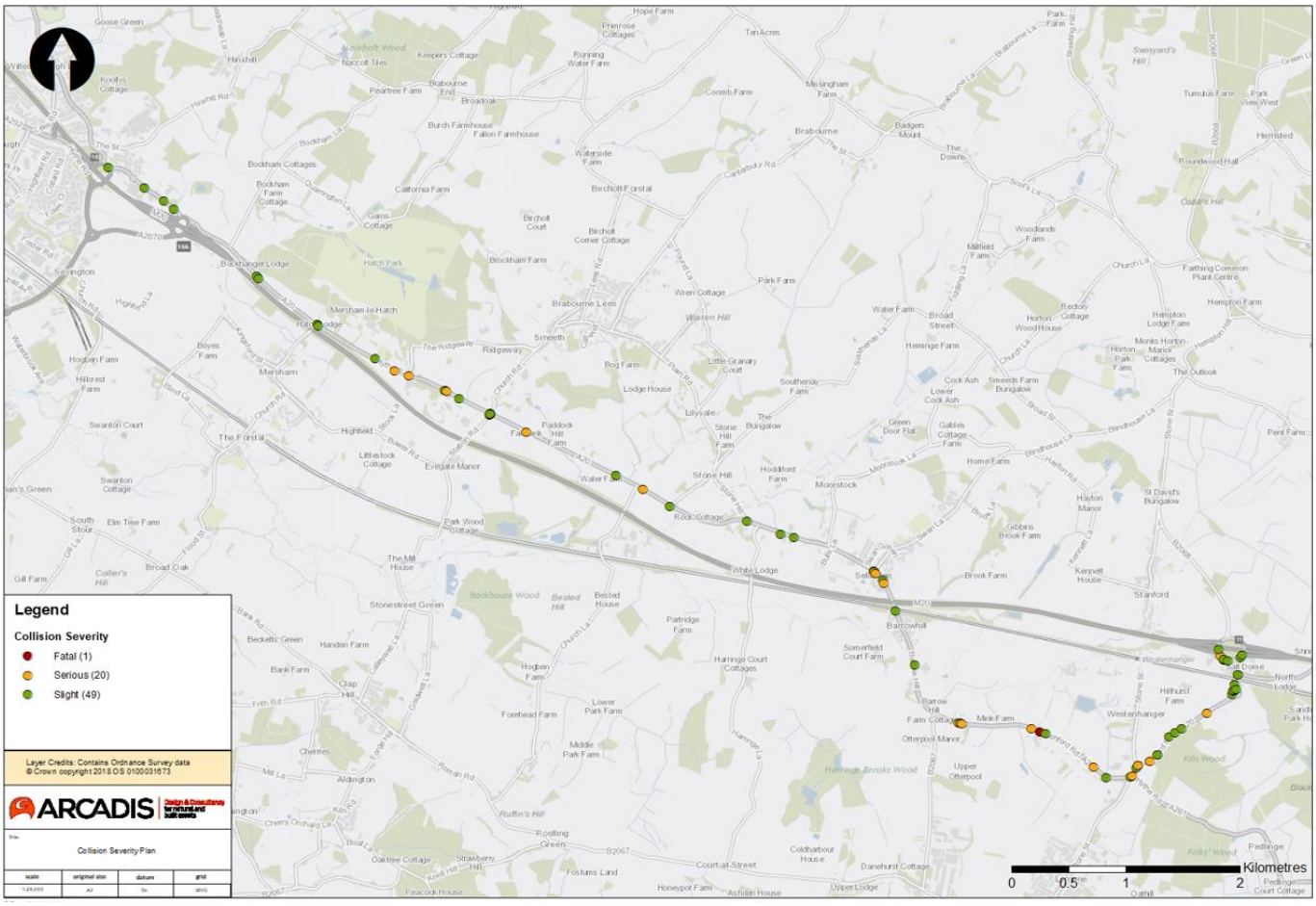


	A20	A259	A261	M20	B2067	Aldington Road	Stone Street	A2070	A292	B2068	Old Dover
Pedestrians	2	7	0	1	0	0	0	0	0	0	0
Cyclists	2	6	1	0	0	0	2	0	0	0	0
Motor Cyclists	19	4	2	5	0	0	1	6	1	0	1
Others	47	14	8	79	3	1	5	29	1	3	5

2.12 A20 Barrow Hill, Ashford Road & Hythe Road

2.12.1 In total, 70 collisions occurred along the A20 Study Route. The location of these collisions are shown in Figure 2-14 below.

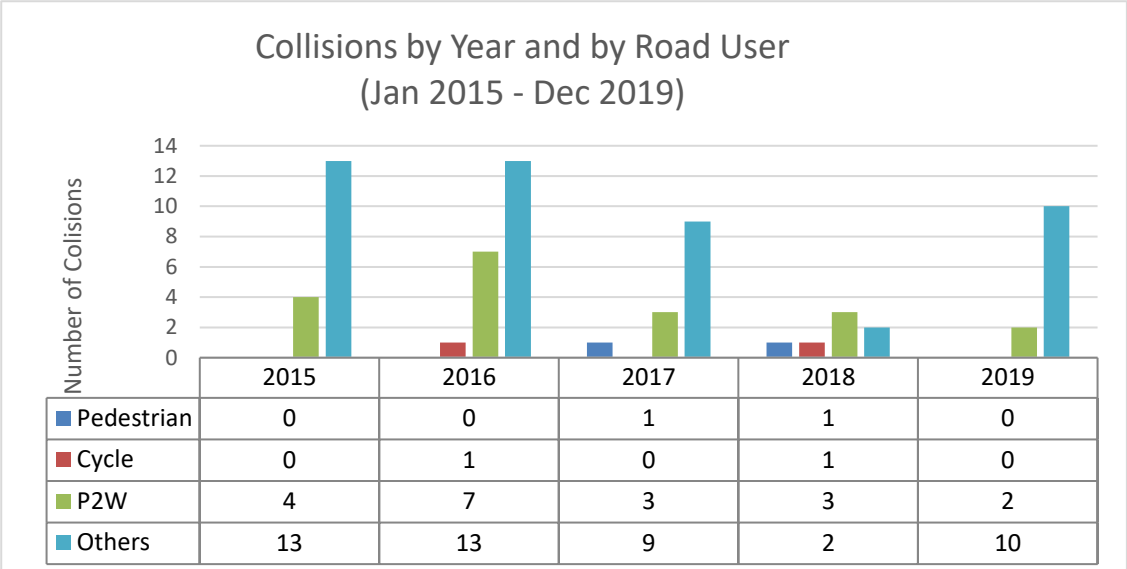
Figure 2-14 A20 Collision Study Route



2.13 A20 Collisions by Year and Road Users

2.13.1 Figure 2-15 shows the number of collisions recorded each year by road users along the A20 Study Route. The number of collisions was at its lowest during 2018.

Figure 2-15 A20 Collisions by Year and by Road User

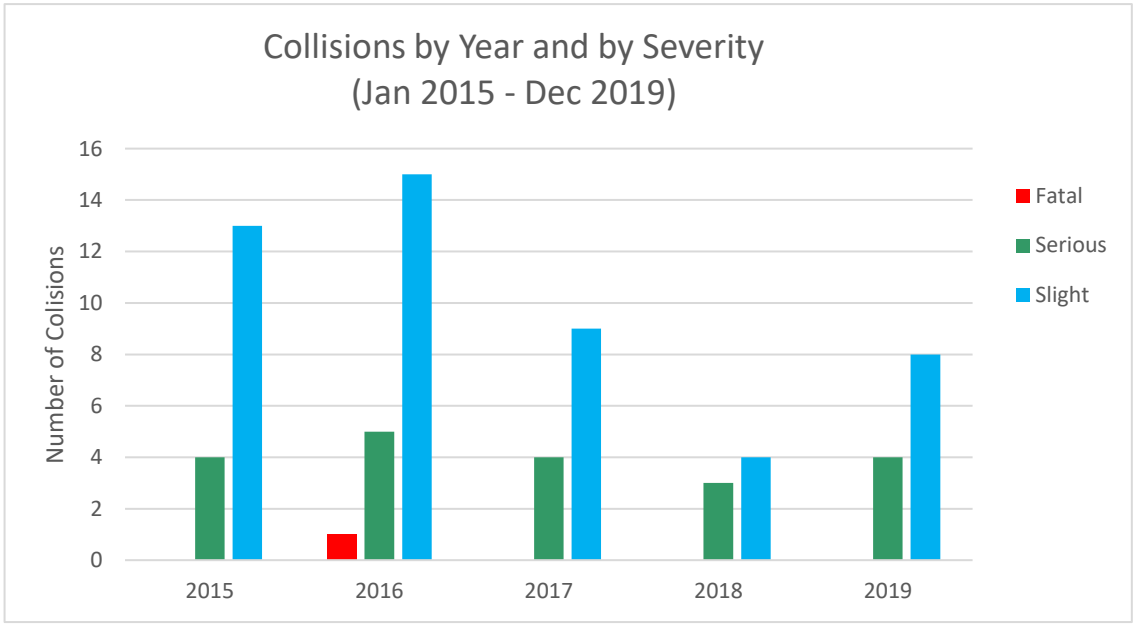


	2015	2016	2017	2018	2019
Pedestrian	0	0	1	1	0
Cycle	0	1	0	1	0
P2W	4	7	3	3	2
Others	13	13	9	2	10

2.14 A20 Collisions by Year and Severity

2.14.1 Figure 2-16 shows the number of collisions recorded each year by severity along the A20 Study Route. One fatal collision occurred in 2016.

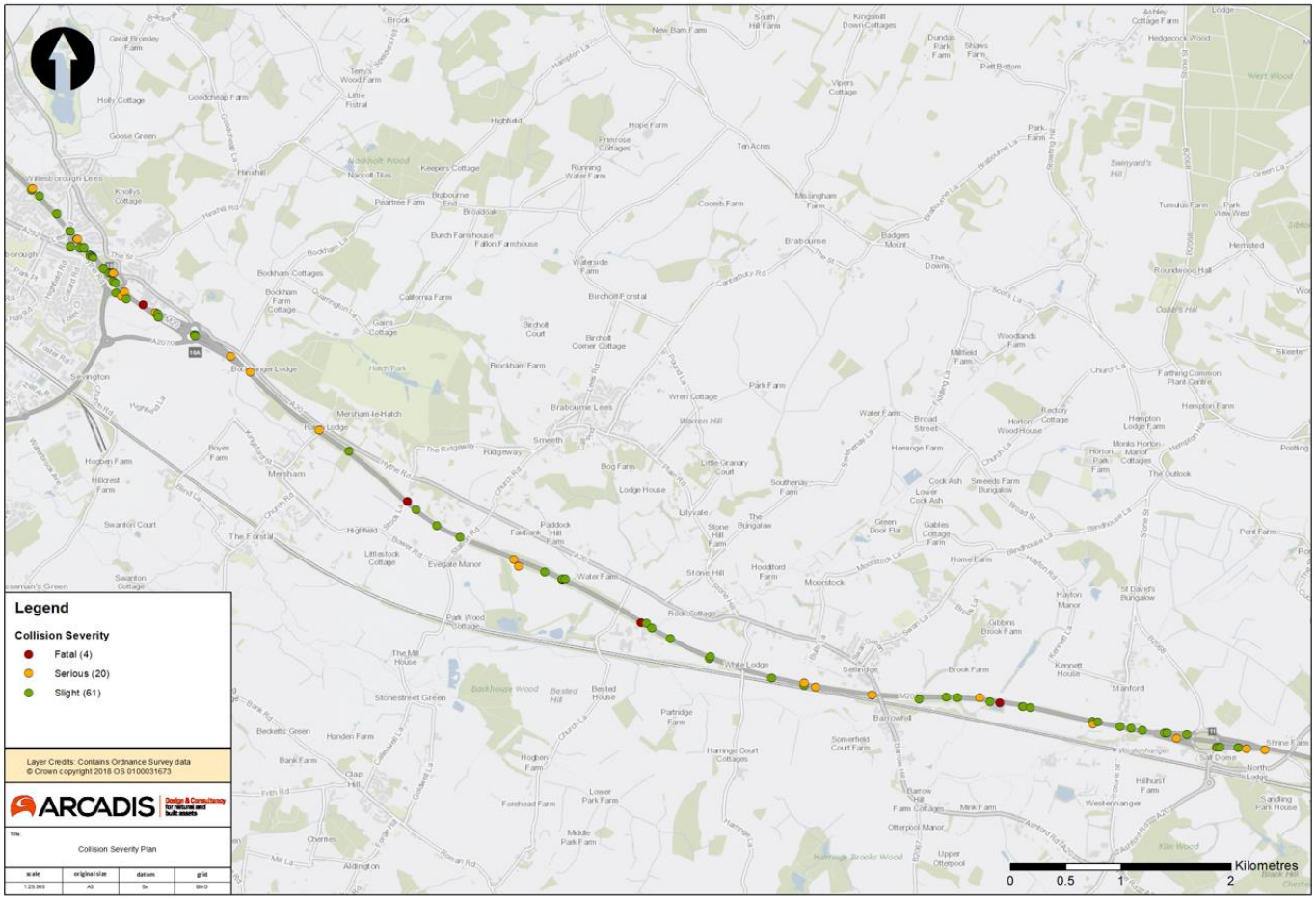
Figure 2-16 A20 Collisions by Year and by Severity



2.15 M20 Corridor Junction 9 - Junction 11 (excluding Junction 10A)

2.15.1 In total, 85 collisions occurred along the M20 Study Route. The location of these collisions are shown in Figure 2-17.

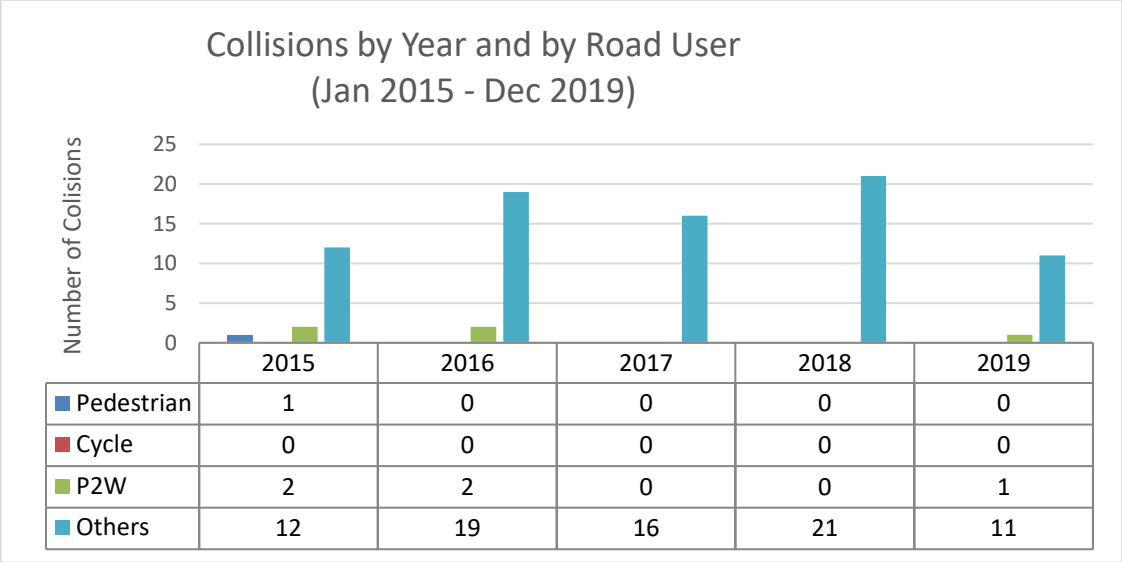
Figure 2-17 M20 Collision Study Route



2.16 M20 Collisions by Year and Road User

2.16.1 Figure 2-18 shows the number of collisions recorded by year and by road users along the M20 Study Route. The greatest number of collisions were recorded during the period 2016 to 2018.

Figure 2-18 M20 Collisions by Year and by Road User



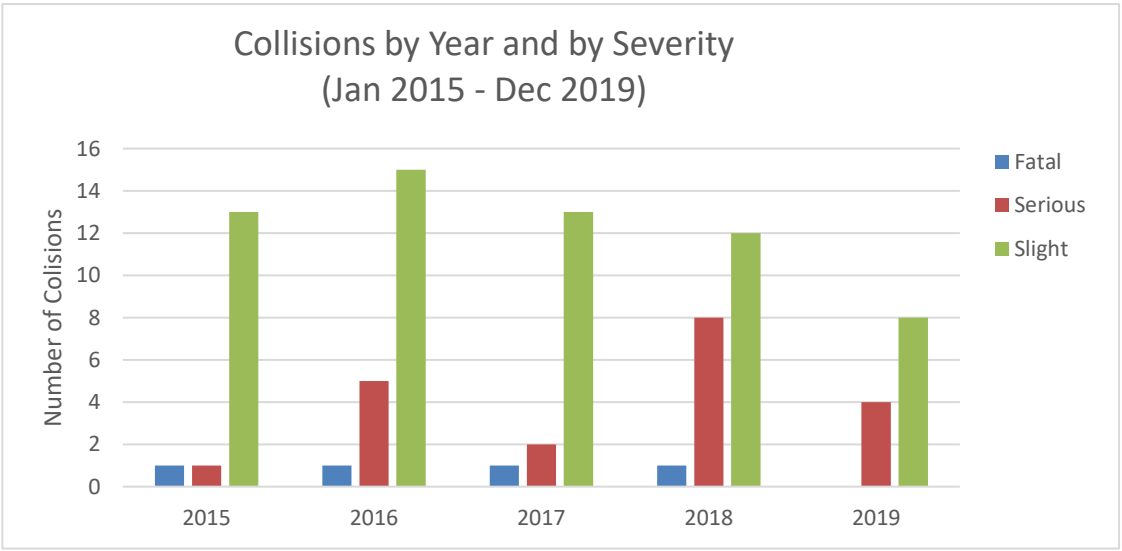
	2015	2016	2017	2018	2019
Pedestrian	1	0	0	0	0
Cycle	0	0	0	0	0
P2W	2	2	0	0	1
Others	12	19	16	21	11

2.17 M20 Collisions by Year and Severity

2.17.1 Figure 2-19 shows the number of collisions recorded each year by severity along M20 Study Route. The number of collisions over the five-year period was fairly consistent except for 2019 where collisions were at their lowest recorded during the five-year period.

2.17.2 It is noted that one fatal collision occurred every year from 2015 to 2018. This represents the study route with the highest concentration of fatal collisions throughout the study area.

Figure 2-19 M20 Collisions by Year and by Severity



2.18 A2070 Bad Munstereifel Road & Lacton Interchange

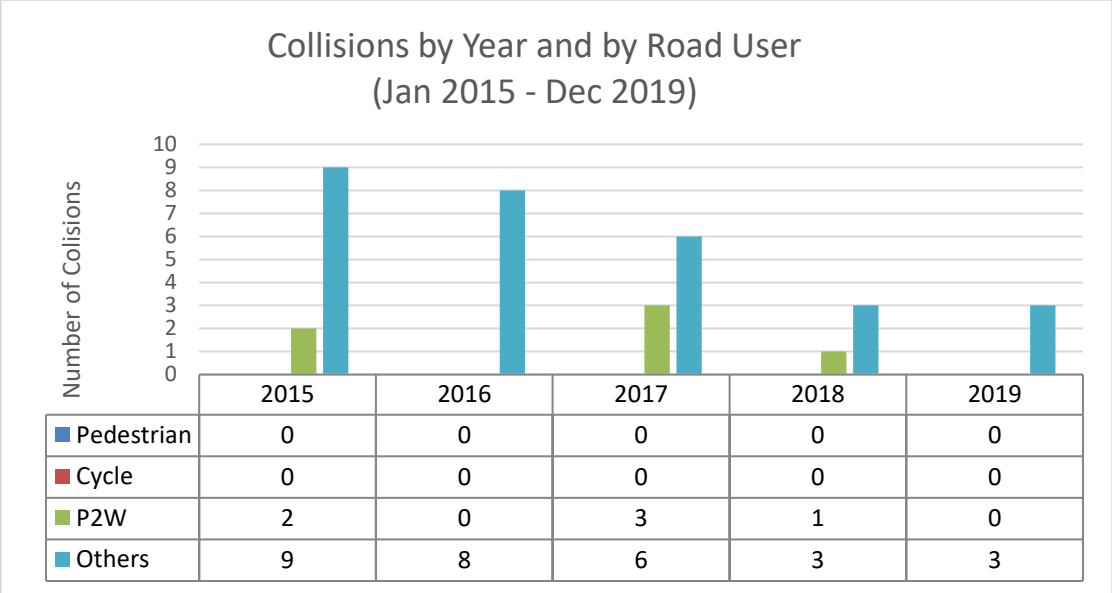
2.18.1 In total, 35 collisions occurred along the study route. The location of these collisions are shown in Figure 2-20.

Figure 2-20 A2070 Collision Study Route

2.19 A2070 Collisions by Year and Road User

2.19.1 Figure 2-21 shows the number of collisions recorded each year by road users along the A2070 Study Route. Collisions have generally followed a downward trend since 2015.

Figure 2-21 A2070 Collisions by Year and by Road User



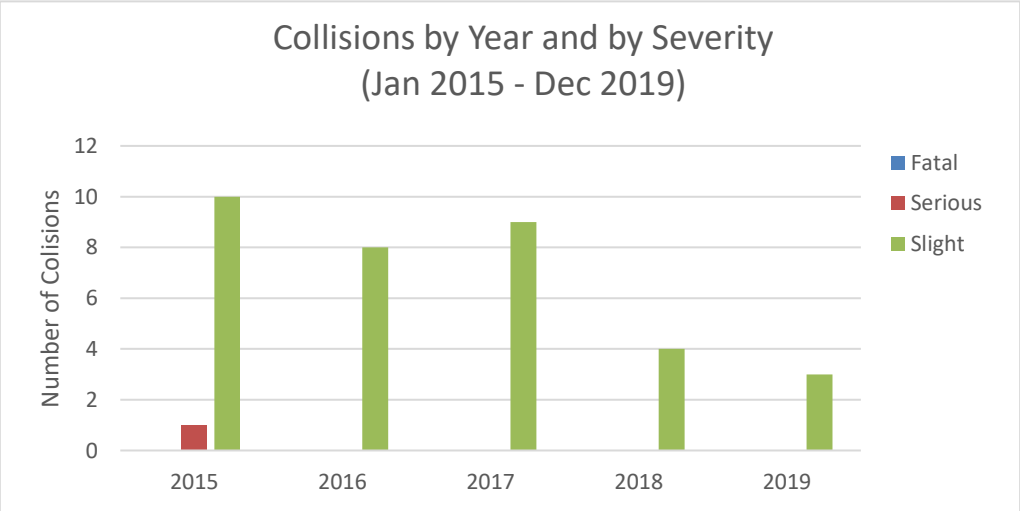
	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	0	0
P2W	2	0	3	1	0
Others	9	8	6	3	3

2.20 A2070 Collisions by Year and Severity

2.20.1 Figure 2-22 shows the number of collisions recorded each year by severity along A2070 Study Route. There was a general decline in the number of collisions over the five-year period.

2.20.2 It is noted that most collisions along the study route resulted in slight collisions.

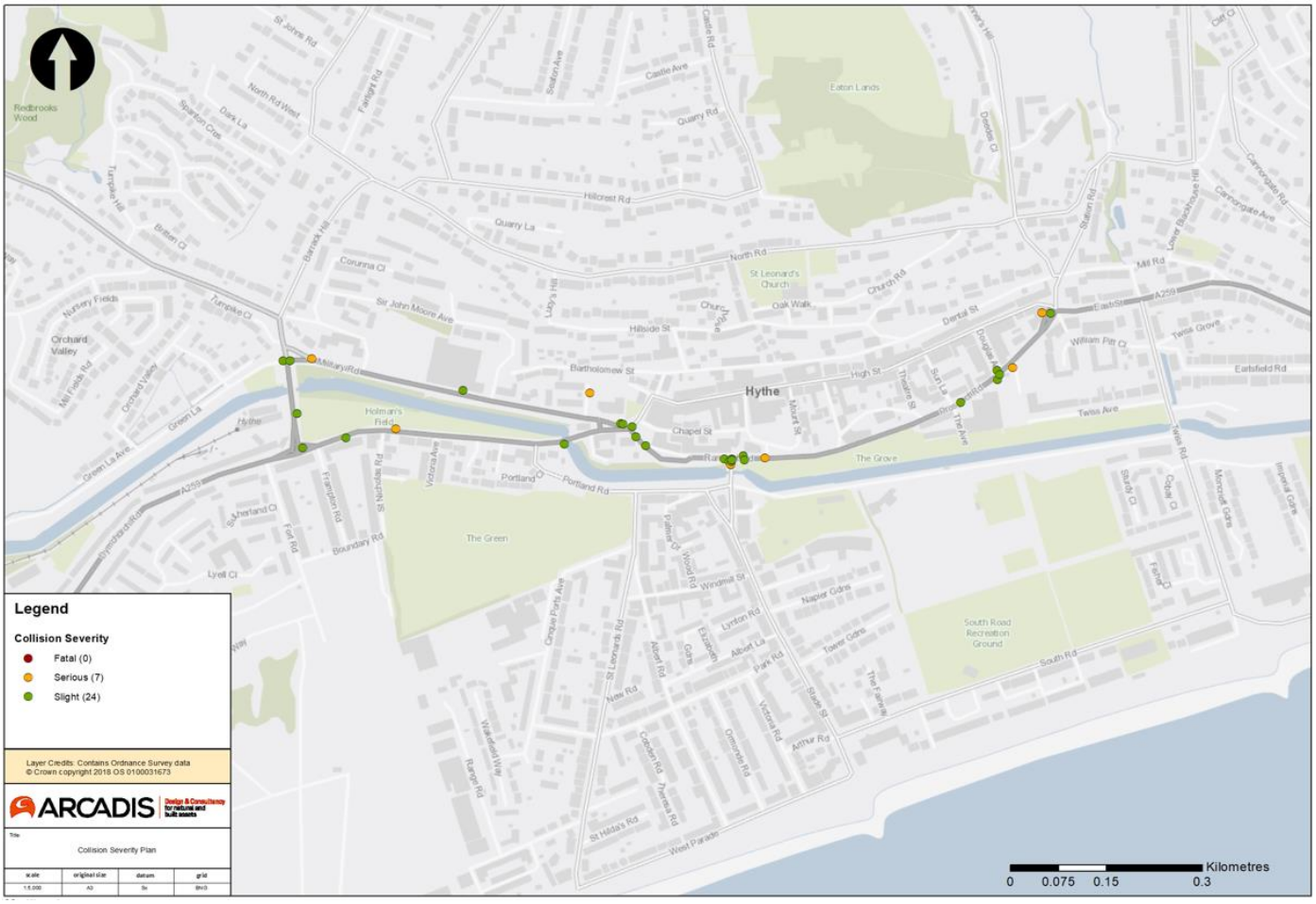
Figure 2-22 A2070 Collisions by Year and by Severity



2.21 A259 Dymchurch Road / Seabrook Road

2.21.1 In total, 31 collisions occurred along the A259 Study Route. The location of these collisions are shown in Figure 2-23.

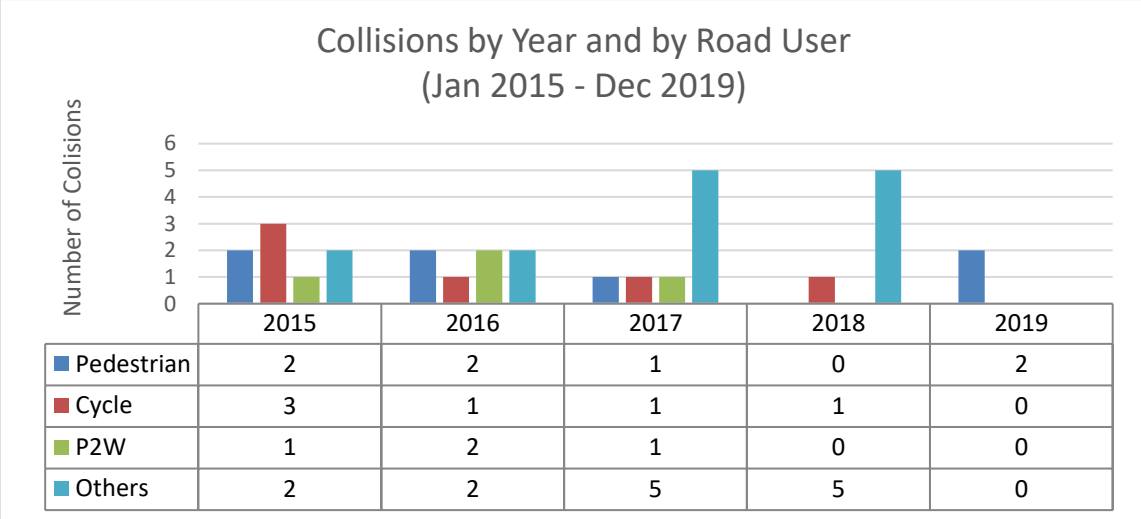
Figure 2-23 A259 Collision Study Route



2.22 A259 Collisions by Year and Road User

2.22.1 Figure 2-24 shows the number of collisions recorded each year by road users along the A259 Study Route. In general, the number of collisions that occurred each year was fairly consistent between 2015 to 2018, with a notable decrease in collisions recorded during 2019. It can also be seen that over 50% of total collisions along the study route involved vulnerable road users.

Figure 2-24 A259 Collisions by Year and by Road User

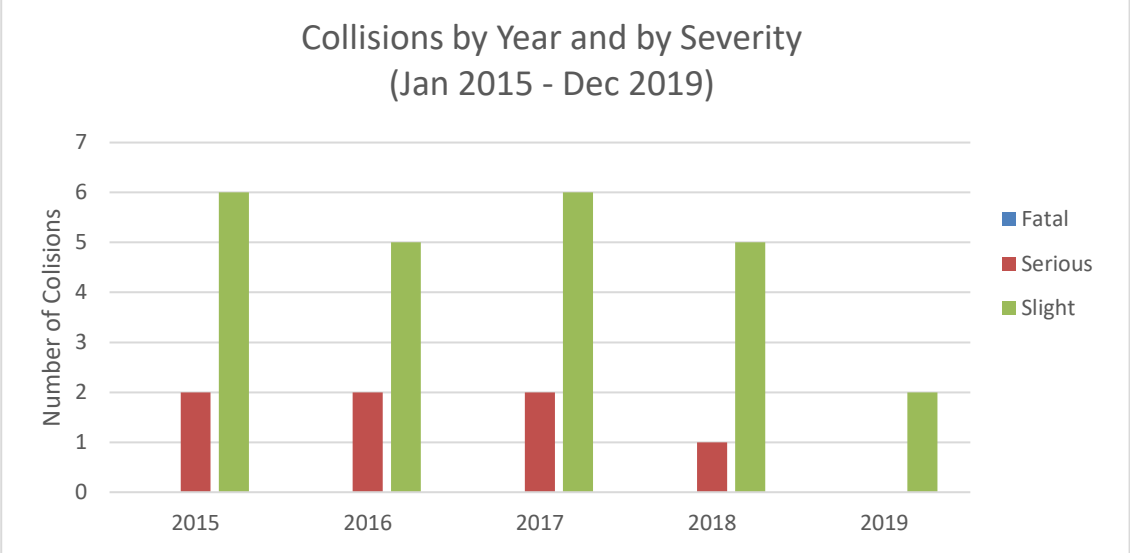


	2015	2016	2017	2018	2019
Pedestrian	2	2	1	0	2
Cycle	3	1	1	1	0
P2W	1	2	1	0	0
Others	2	2	5	5	0

2.23 A259 Collisions by Year and Severity

2.23.1 Figure 2-25 shows the number of collisions recorded each year by severity along the A259 Study Route. The number of high severity collisions have generally declined over the five-year period.

Figure 2-25 A259 Collisions by Year and by Severity



2.24 A261 Hythe Road

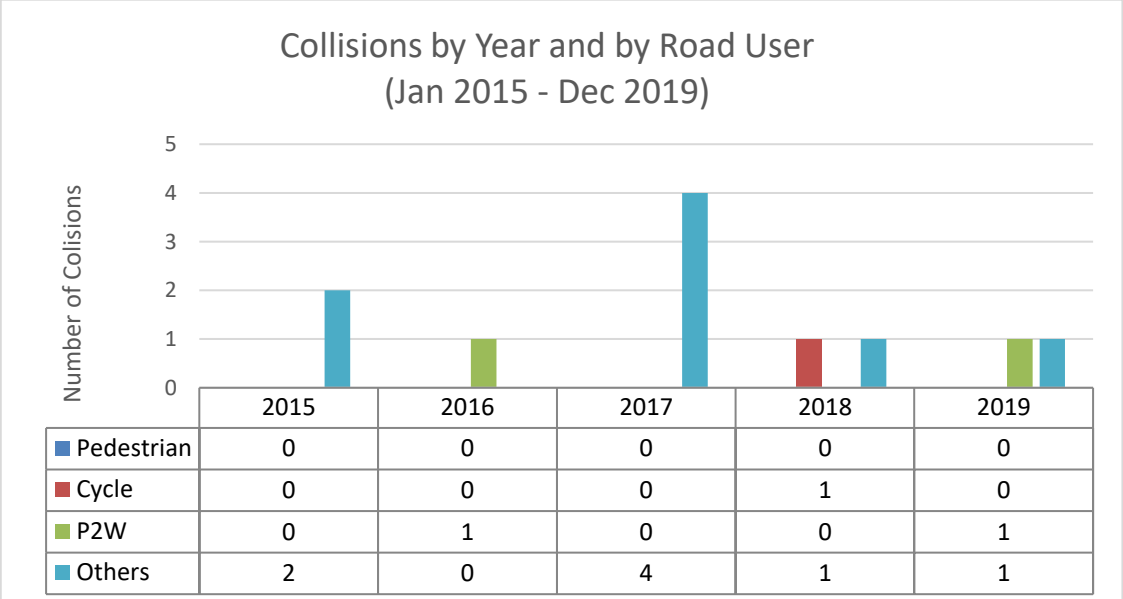
2.24.1 In total, 11 collisions occurred along the A261 Study Route. The location of all collisions are shown in Figure 2-26.

Figure 2-26 A261 Collision Study Route

2.25 A261 Collisions by Year and Road User

2.25.1 Figure 2-27 shows the number of collisions recorded by year and by road users along the A261 Study Route. No collisions involving pedestrians were recorded during this period.

Figure 2-27 A261 Collisions by Year and by Road User

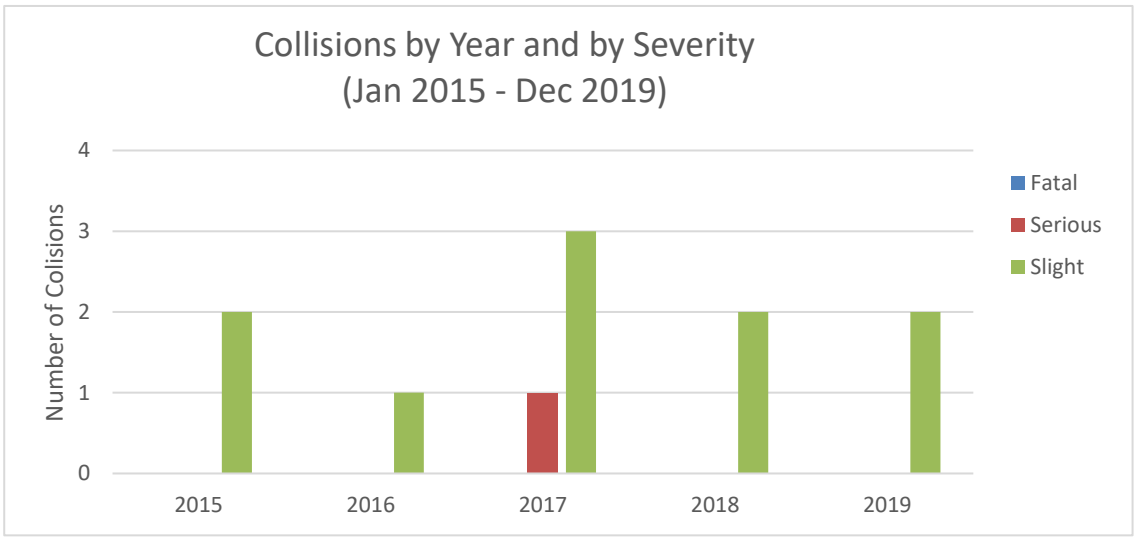


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	1	0
P2W	0	1	0	0	1
Others	2	0	4	1	1

2.26 A261 Collisions by Year and Severity

2.26.1 Figure 2-28 shows the number of collisions recorded by year and severity along the A261 Study Route. Collisions notably peaked during 2017 with four collisions.

Figure 2-28 A261 Collisions by Year and by Severity



2.27 Stone Street

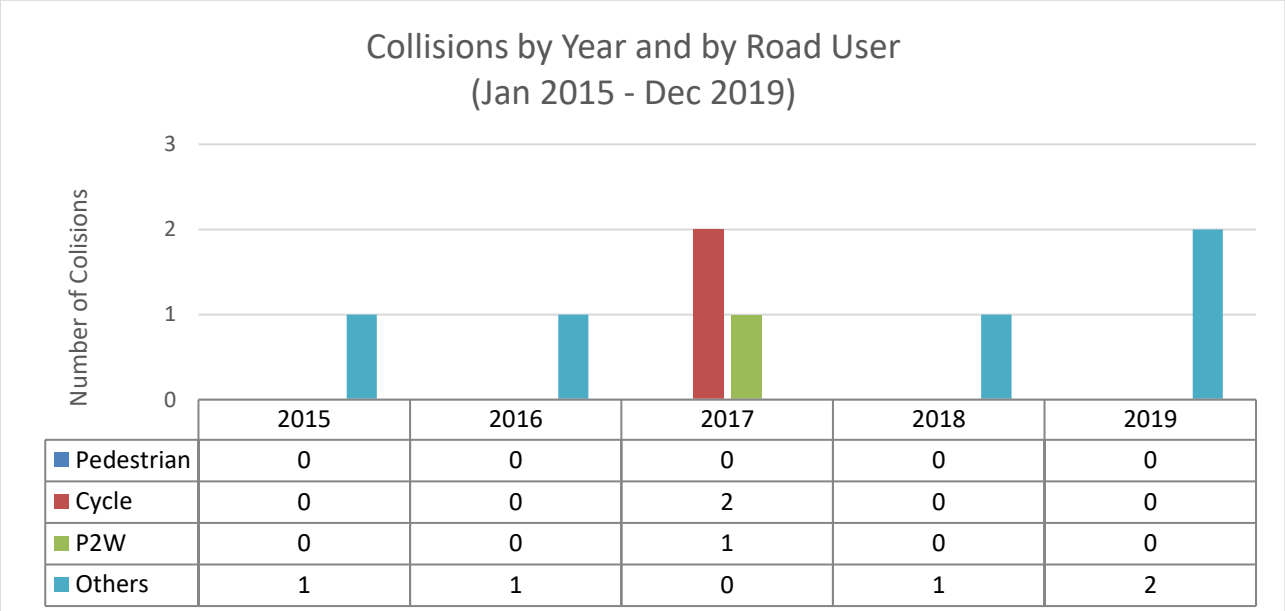
2.27.1 In total, 8 collisions occurred along the Stone Street Study Route. The location of all collisions are shown in Figure 2-29.

Figure 2-29 Stone Street Collision Study Route

2.28 Stone Street Collisions by Year and Road User

2.28.1 Figure 2-30 shows the number of collisions recorded by year and by road users along Stone Street Study Route. There are no discernible collision clusters along the Study Route.

Figure 2-30 Stone Street Collision by Year and by Road User

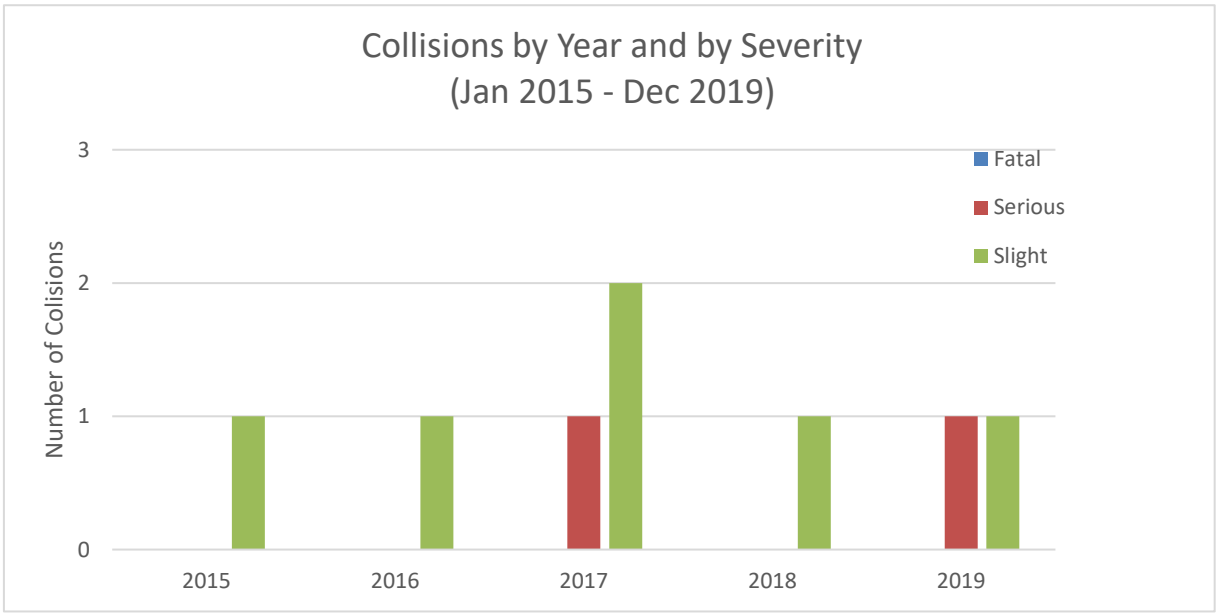


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	2	0	0
P2W	0	0	1	0	0
Others	1	1	0	1	2

2.29 Stone Street Collisions by Year and Severity

2.29.1 Figure 2-31 shows the number of collisions recorded by year and severity along Stone Street Study Route. The number of collisions remained relatively consistent per year.

Figure 2-31 Stone Street Collisions by Year and by Severity



2.30 B2067 Otterpool Lane

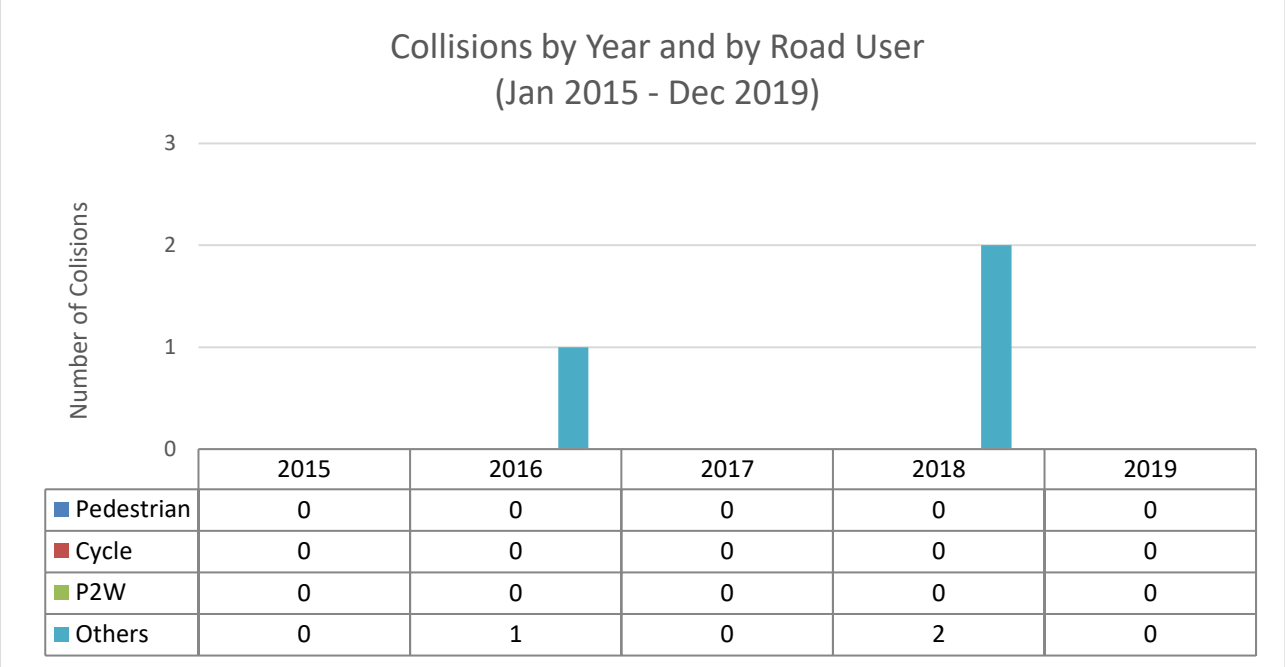
2.30.1 In total, 3 collisions occurred along the B2067 Study Route. The location of all collisions are shown in Figure 2-32.

Figure 2-32 B2067 Otterpool Lane Collision Study Route

2.31 B2067 Collisions by Year and Road User

2.31.1 Figure 2-33 shows the number of collisions recorded by year and by road users along the B2067 Study Route. No collisions resulted in injuries to vulnerable road users.

Figure 2-33 B2067 Otterpool Lane Collisions by Year and by Road User

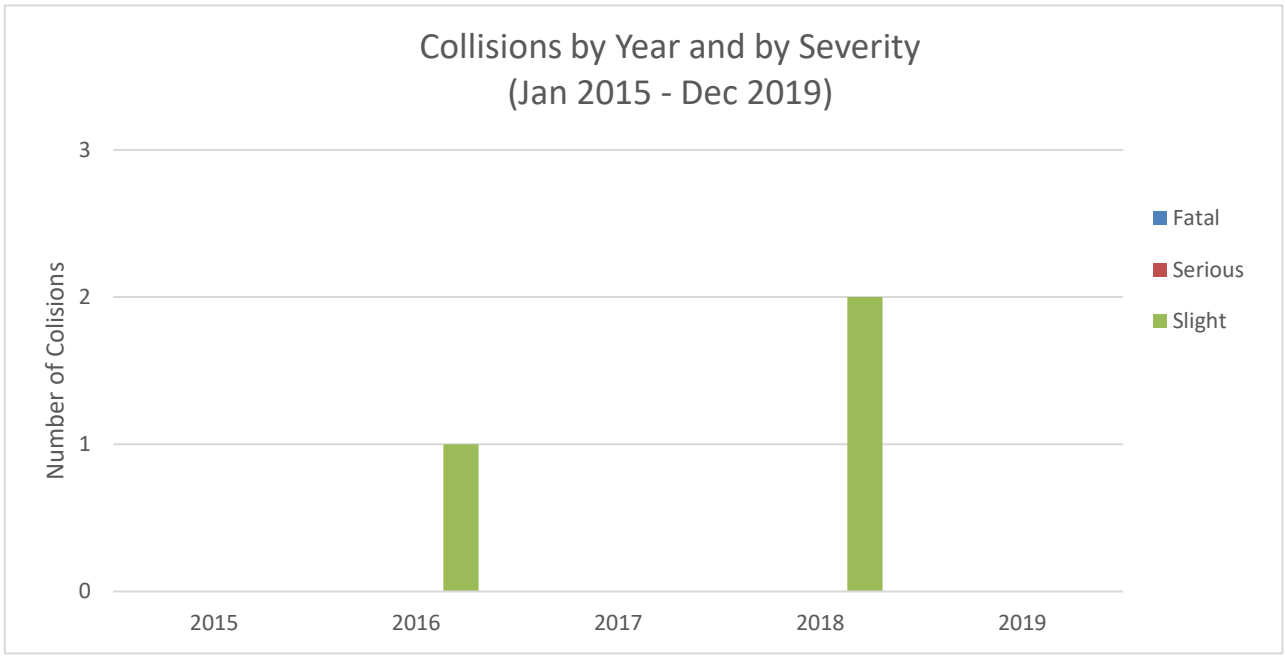


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	0	0
P2W	0	0	0	0	0
Others	0	1	0	2	0

2.32 B2067 Collisions by Year and Severity

2.32.1 Figure 2-34 shows the number of collisions recorded each year by severity along the B2067 Study Rout. No high severity collisions were recorded during the study period.

Figure 2-34 B2067 Otterpool Lane Collisions by Year and by Severity



2.33 B2068

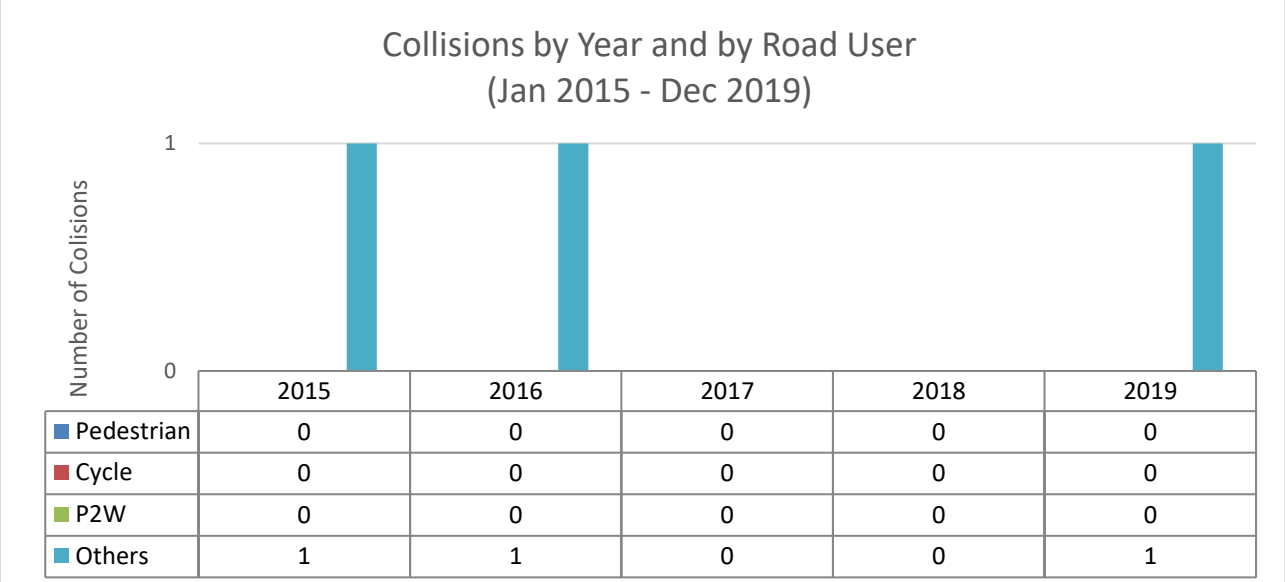
2.33.1 In total, 3 collisions occurred along the B2068 Study Route. The location of all collisions are shown in Figure 2-35.

Figure 2-35 B2068 Collision Study Route

2.34 B2068 Collisions by Year and Road User

2.34.1 Figure 2-36 shows the number of collisions recorded by year and by road users along B2068 Study Route. Only three collisions occurred during this five-year period.

Figure 2-36 B2068 Collisions by Year and by Road User

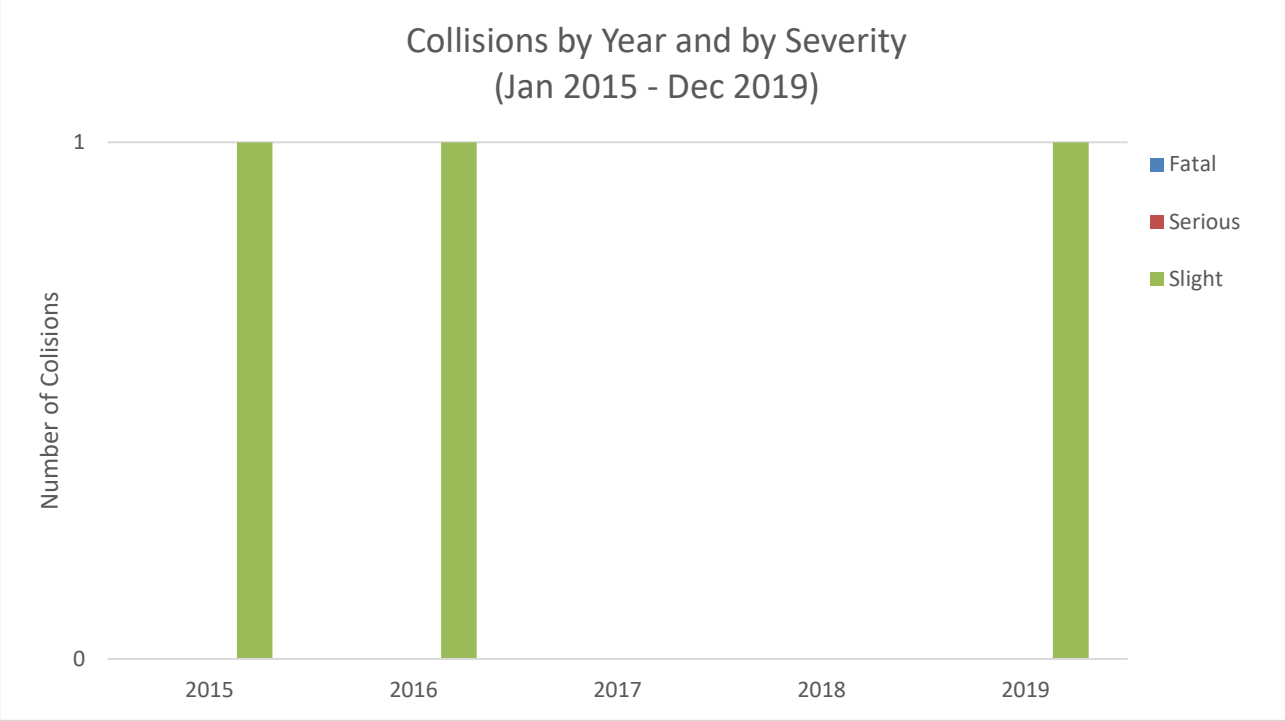


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	0	0
P2W	0	0	0	0	0
Others	1	1	0	0	1

2.35 B2068 Collisions by Year and Severity

2.35.1 Figure 2-37 shows the number of collisions recorded each year by severity along B2068 Study Route. The number of collisions over the five-year period was low.

Figure 2-37 B2068 Collisions by Year and by Severity



2.36 A292

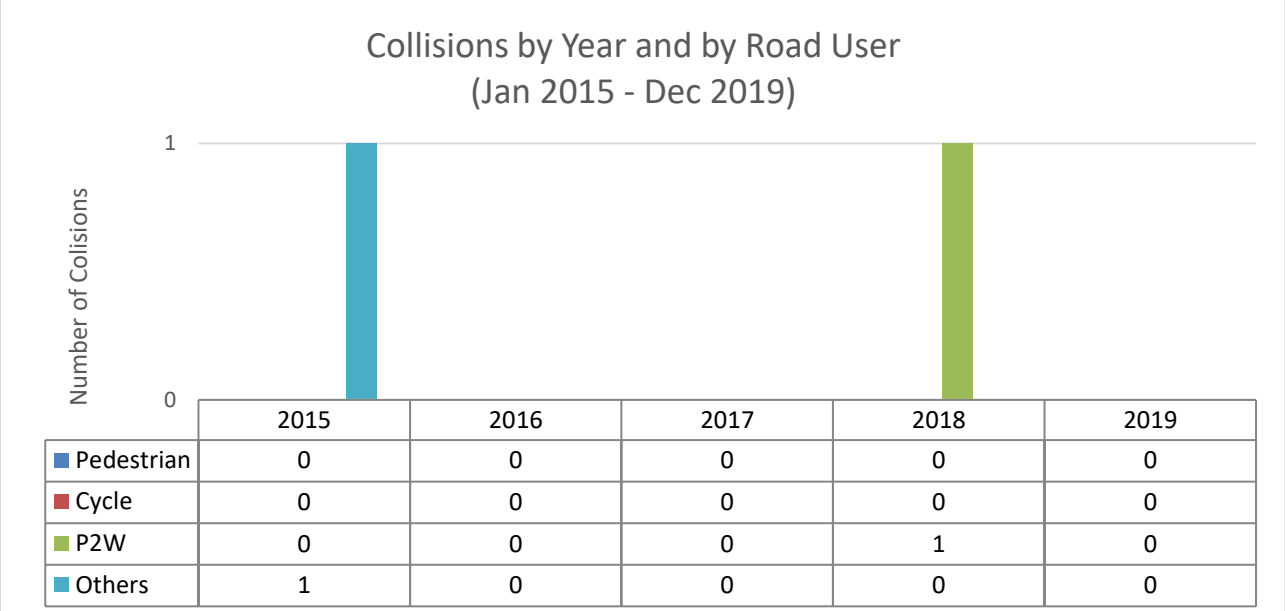
2.36.1 In total, 2 collisions occurred along A292 Study Route. The location of all collisions are shown in Figure 2-38.

Figure 2-38 A292 Collision Study Route

2.37 A292 Collisions by Year and Road User

2.37.1 Figure 2-39 shows the number of collisions recorded by year and road user the A292 Study Route. The one collision involved a Powered-two-wheeler

Figure 2-39 A292 Collisions by Year and by Road User

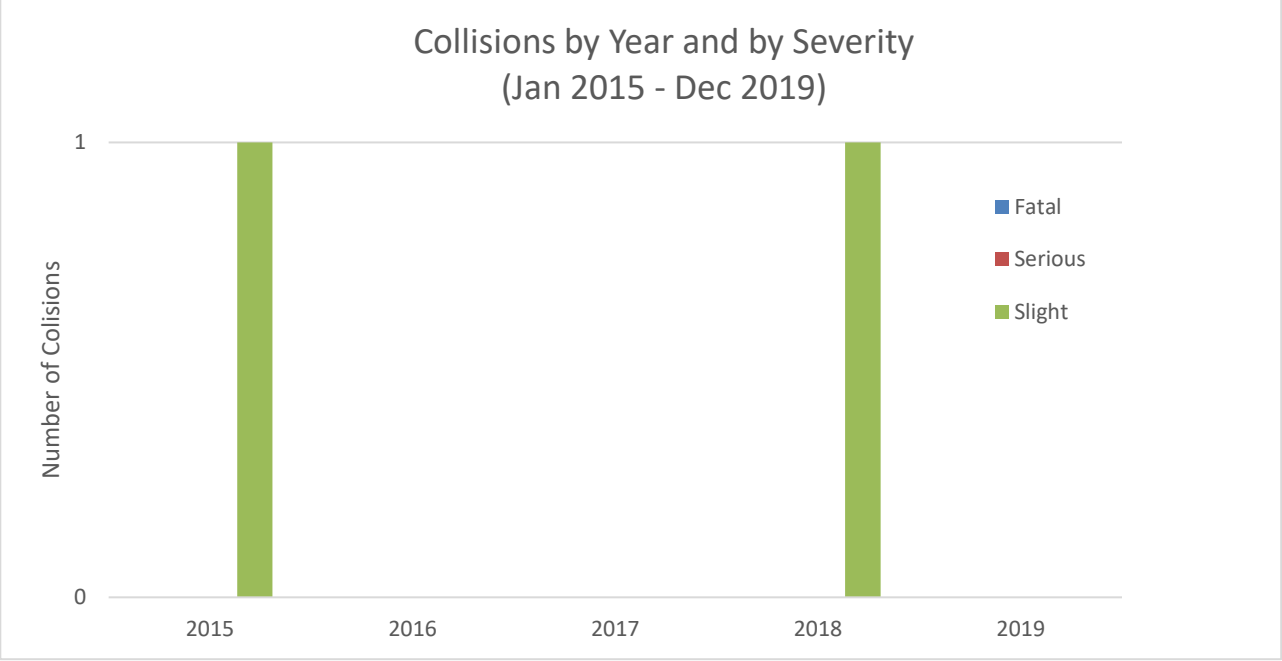


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	0	0
P2W	0	0	0	1	0
Others	1	0	0	0	0

2.38 A292 Collisions by Year and Severity

2.38.1 Figure 2-40 shows the number of collisions recorded each year by severity along the A292 Study Route. Both collisions resulted in slight injuries.

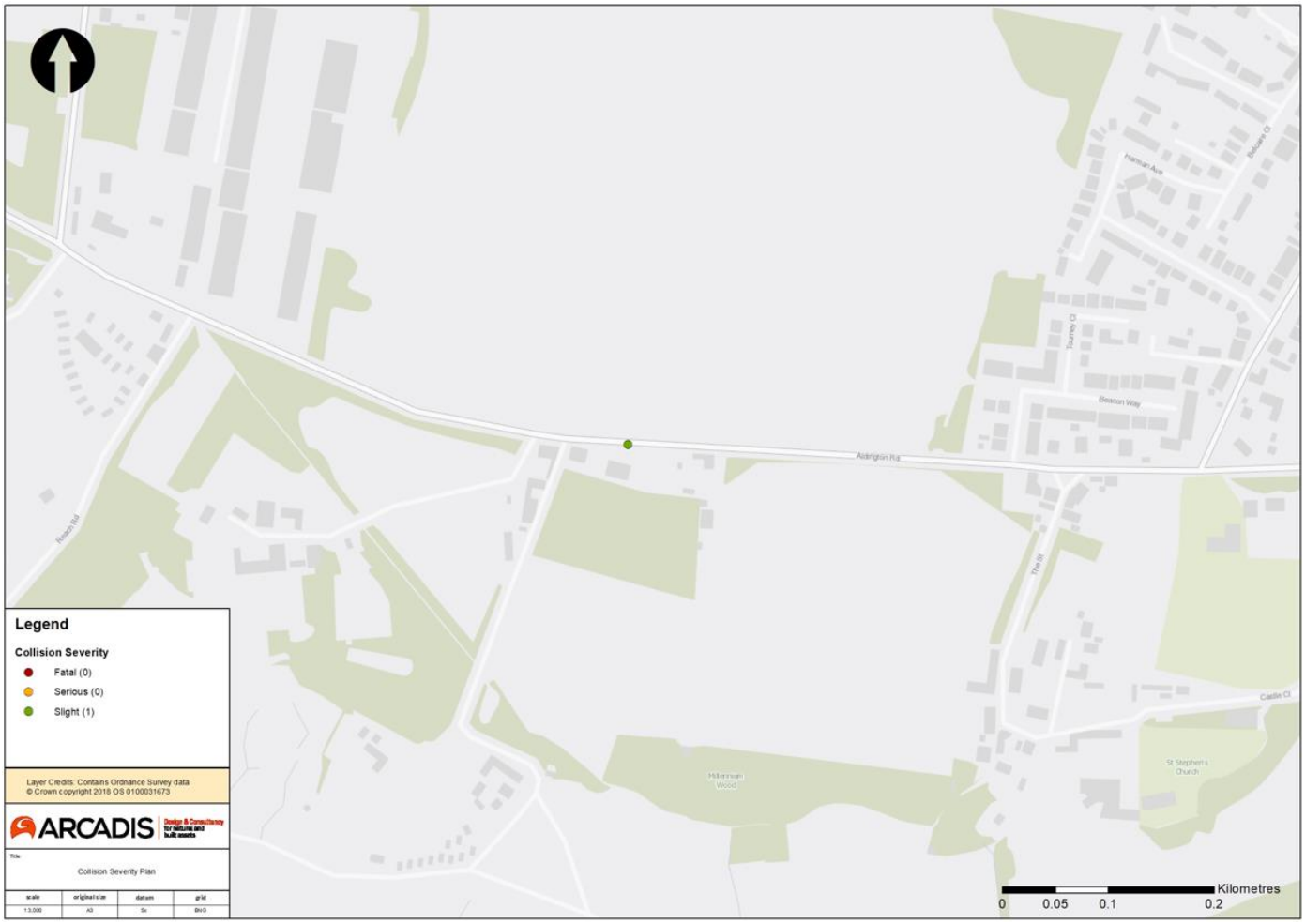
Figure 2-40 A292 Collisions by Year and by Severity



2.39 Aldington Road

2.39.1 In total, one collision occurred along the Adlington Road Study Route. The location of the collision is shown in Figure 2-41.

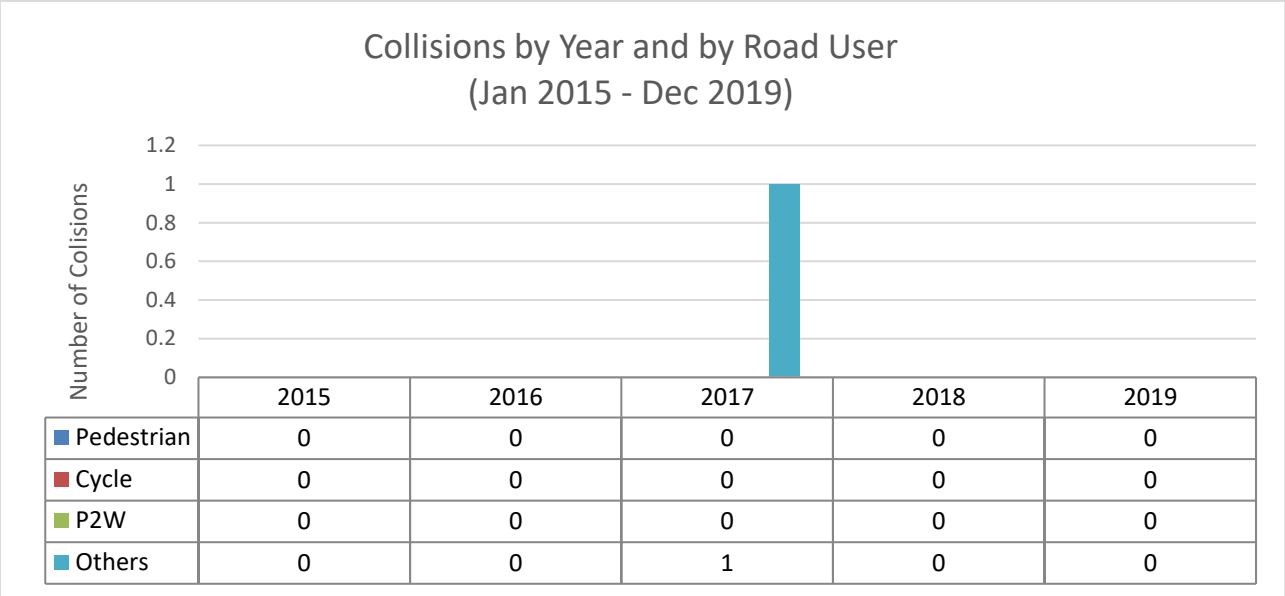
Figure 2-41 Aldington Road Collision Study Route



2.40 Aldington Road Collisions by Year and Road User

2.40.1 Figure 2-42 shows that the collision occurred in 2017 and did not involve any vulnerable road users.

Figure 2-42 Aldington Road Collisions by Year and by Road User

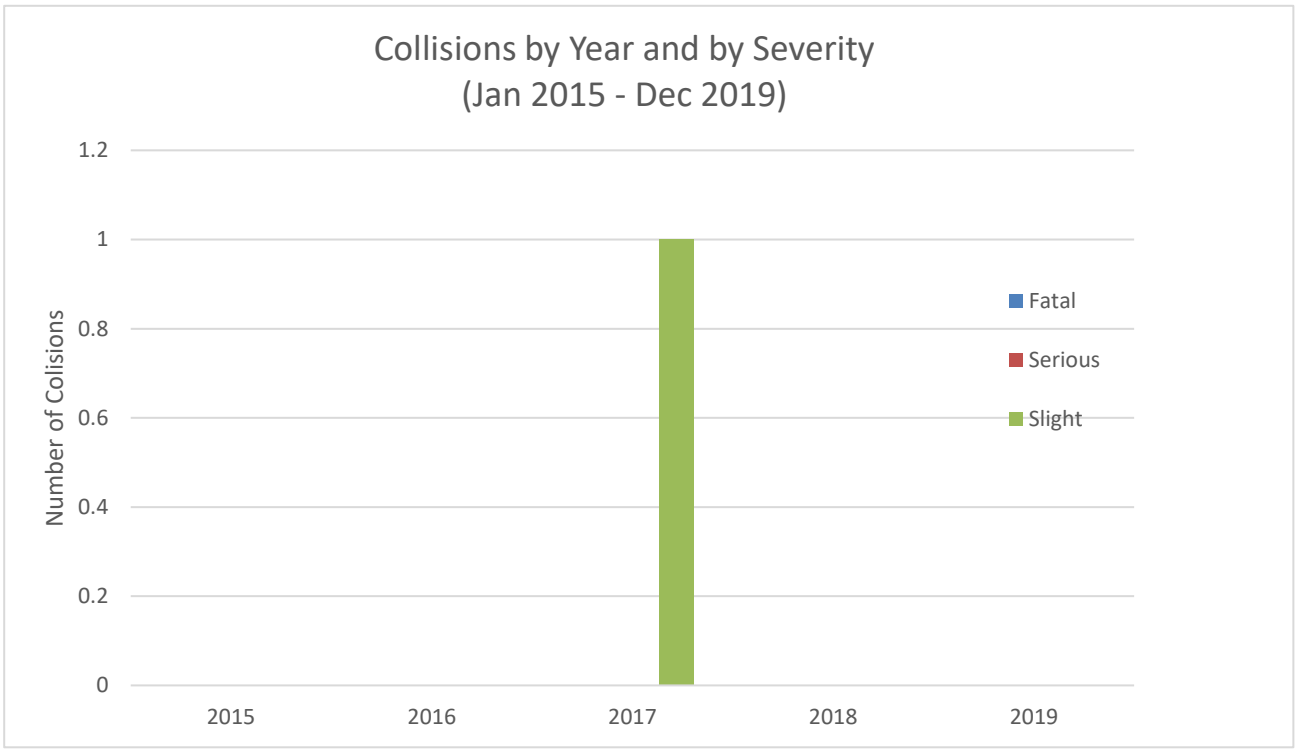


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	0	0
P2W	0	0	0	0	0
Others	0	0	1	0	0

2.41 A20 Collisions by Year and Severity

2.41.1 Figure 2-43 shows that the collision recorded along Adlington Study Route resulted in a slight collision.

Figure 2-43 Aldington Road Collisions by Year and by Severity



2.42 Old Dover Road, Canterbury

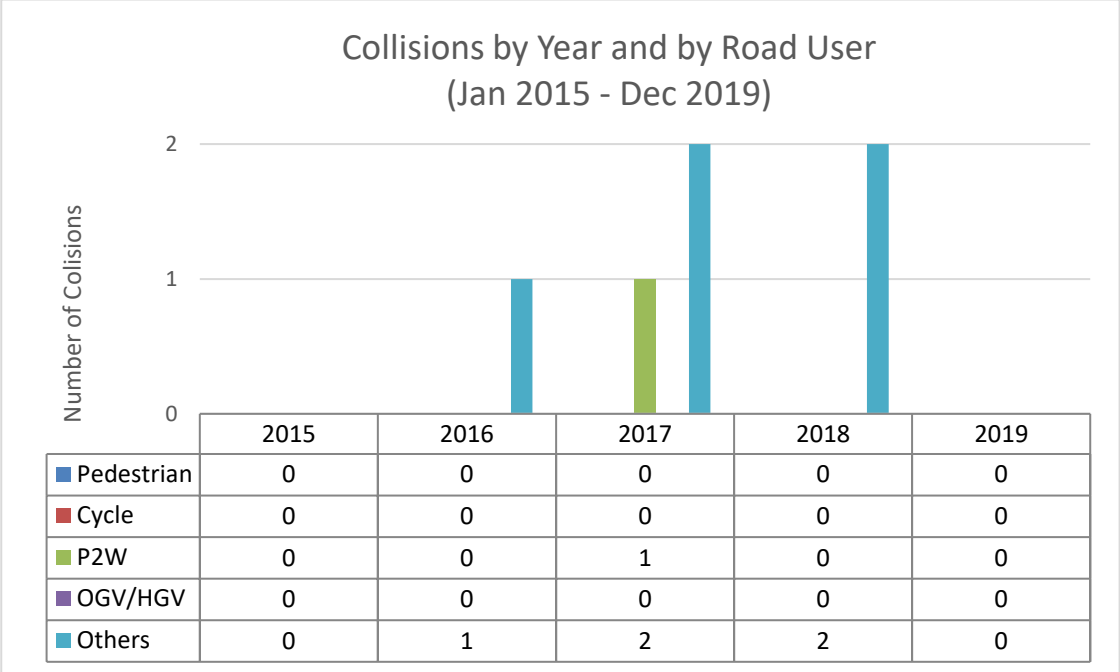
2.42.1 In total, six collisions occurred along the Old Dover Road, Canterbury Study Route. The location of the collision is shown in Figure 2-41.

Figure 2-41 Old Dover Road Collision Study Route

2.43 Old Dover Road Collisions by Year and Road User

2.43.1 Figure 2-42 shows that the collision occurred in 2017 and did not involve any vulnerable road users.

Figure 2-42 Old Dover Road Collisions by Year and by Road User

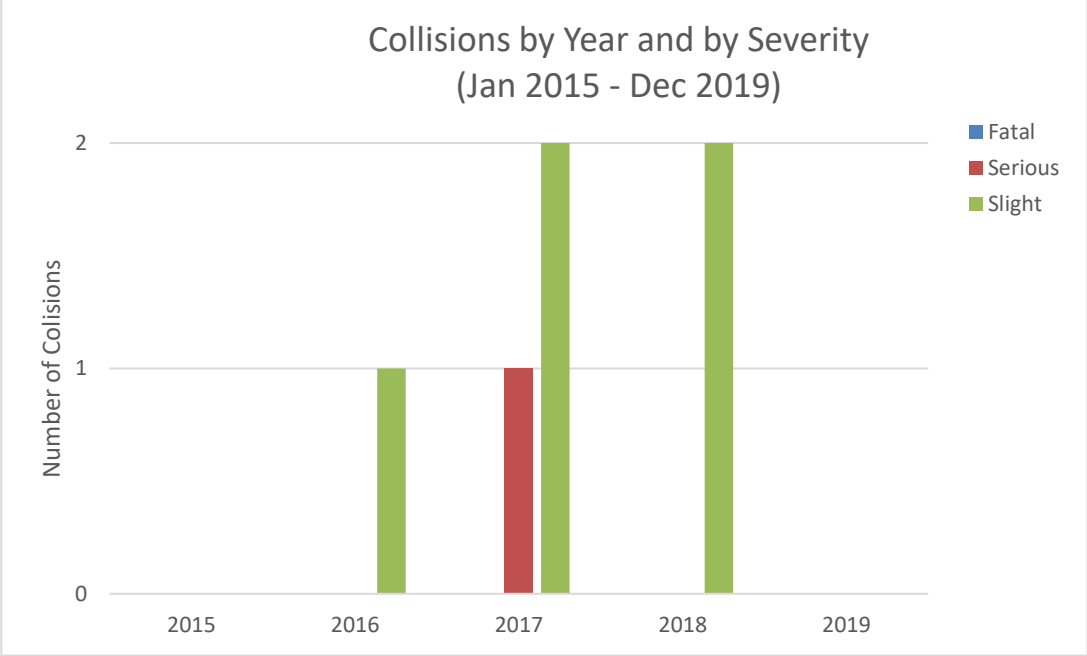


	2015	2016	2017	2018	2019
Pedestrian	0	0	0	0	0
Cycle	0	0	0	0	0
P2W	0	0	1	0	0
OGV/HGV	0	0	0	0	0
Others	0	1	2	2	0

2.44 Old Dover Road Collisions by Year and Severity

2.44.1 Figure 2-43 shows that the majority of collisions recorded along Old Dover Study Route were of a slight severity.

Figure 2-43 Old Dover Road Collisions by Year and by Severity



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APPENDIX H Parking Survey Results

K&M TRAFFIC SURVEYS

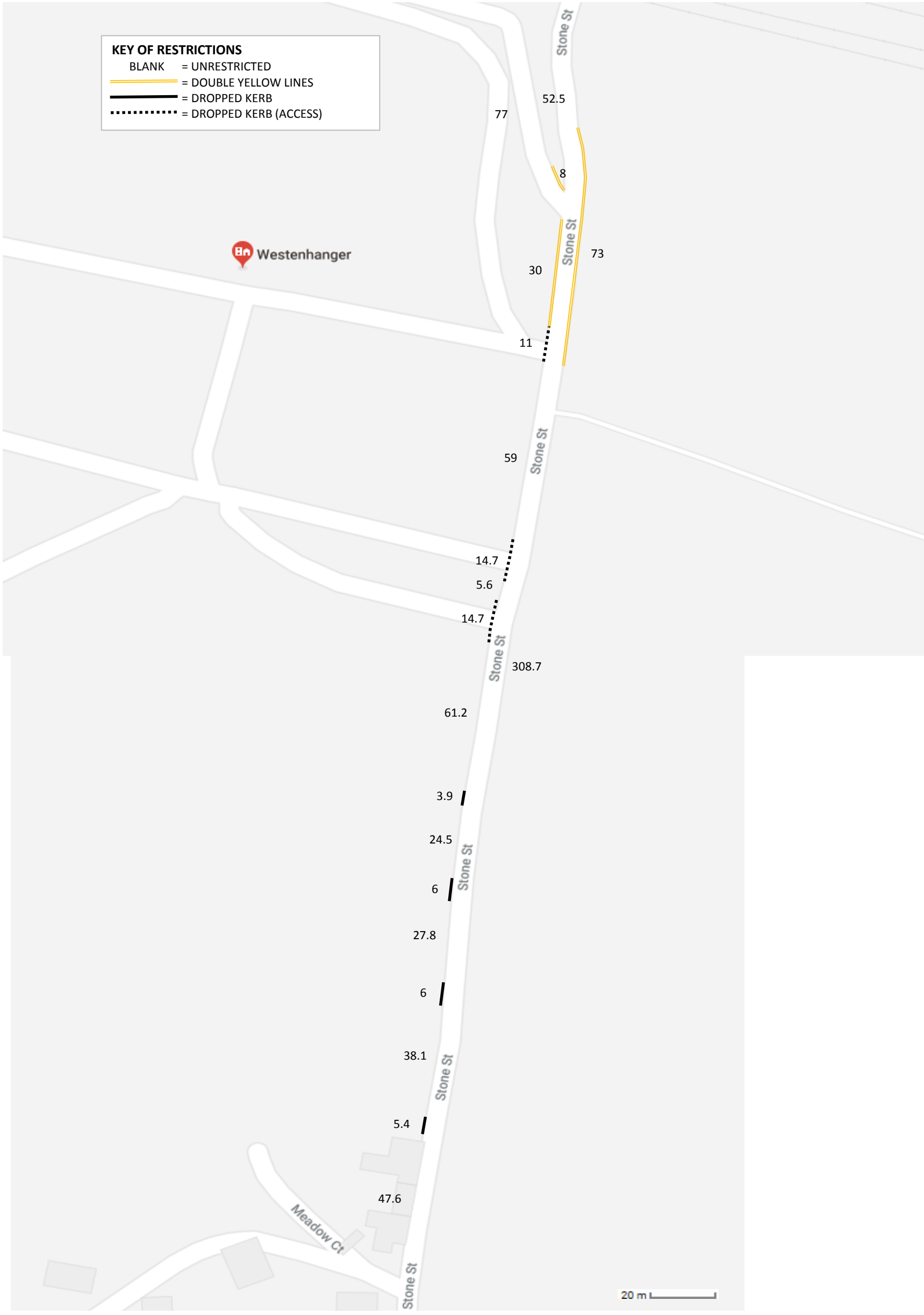
DATE : THURSDAY 19th APRIL 2018

LOCATION : STONE STREET, WESTENHANGER, KENT

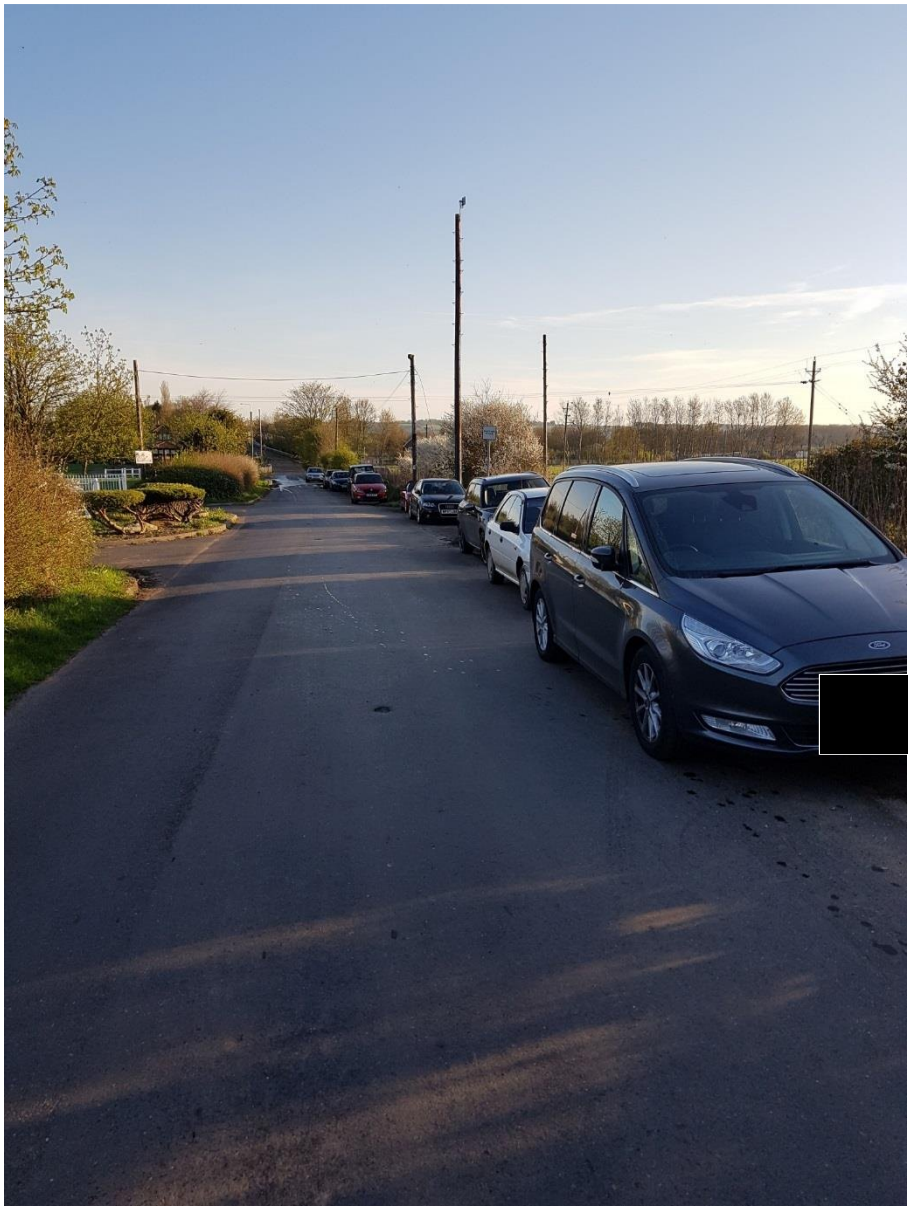
					THURSDAY 19TH APRIL 2018													
					07:00			10:00			13:00			16:00			19:00		
ROAD NAME	ZONE	RESTRICTION	APPROX TOTAL SPACES	METRES	PARKED	OBSERVED SPACES	%STREET STRESS	PARKED	OBSERVED SPACES	%STREET STRESS	PARKED	OBSERVED SPACES	%STREET STRESS	PARKED	OBSERVED SPACES	%STREET STRESS	PARKED	OBSERVED SPACES	%STREET STRESS
AUCTIONEERS PRIVATE CAR PARK	1	UNMARKED AREA - APPROX 18 SPACES	18		2	16	11.1%	3	15	16.7%	4	14	22.2%	3	15	16.7%	1	17	5.6%
WESTENHANGER STATION CAR PARK AREA	2	UNMARKED AREA - APPROX 7 SPACES	7		7	0	100.0%	7	0	100.0%	5	2	71.4%	5	2	71.4%	1	6	14.3%
		DISABLED BAY	1		0	1	0.0%	0	1	0.0%	0	1	0.0%	1	0	100.0%	0	1	0.0%
WESTENHANGER STATION CAR PARK ACCESS ROAD	3 - EAST	DOUBLE YELLOW LINES		8															
		UNRESTRICTED	7	37	5	2	71.4%	7	0	100.0%	7	0	100.0%	7	0	100.0%	3	4	42.9%
	4 - WEST	UNRESTRICTED - TOO NARROW TO PARK ON BOTH SIDES	13	77	12	1	92.3%	13	0	100.0%	12	1	92.3%	11	2	84.6%	7	5	58.3%
STONE STREET	5 - EAST	DOUBLE YELLOW LINES		73															
		UNRESTRICTED	38	308.7	14	24	36.8%	25	13	65.8%	24	14	63.2%	23	15	60.5%	11	27	28.9%
	6 - WEST	DOUBLE YELLOW LINES		30															
		DROP KERB		26.9															
		UNRESTRICTED - TOO NARROW TO PARK ON BOTH SIDES	11	263.8	6	5	54.5%	5	6	45.5%	5	6	45.5%	5	6	45.5%	4	7	36.4%

K&M TRAFFIC SURVEYS

DATE : THURSDAY 19th APRIL 2018 LOCATION : STONE STREET, WESTENHANGER, KENT


KEY OF RESTRICTIONS
BLANK = UNRESTRICTED
= DOUBLE YELLOW LINES
= DROPPED KERB
= DROPPED KERB (ACCESS)
Stone St
52.5
77
8
Westenhanger
Stone St
73
30
11
Stone St
59
14.7
5.6
14.7
Stone St
308.7
61.2
3.9
24.5
Stone St
6
27.8
6
38.1
Stone St
5.4
47.6
Meadow Ct
Stone St
20 m


WESTENHANGER

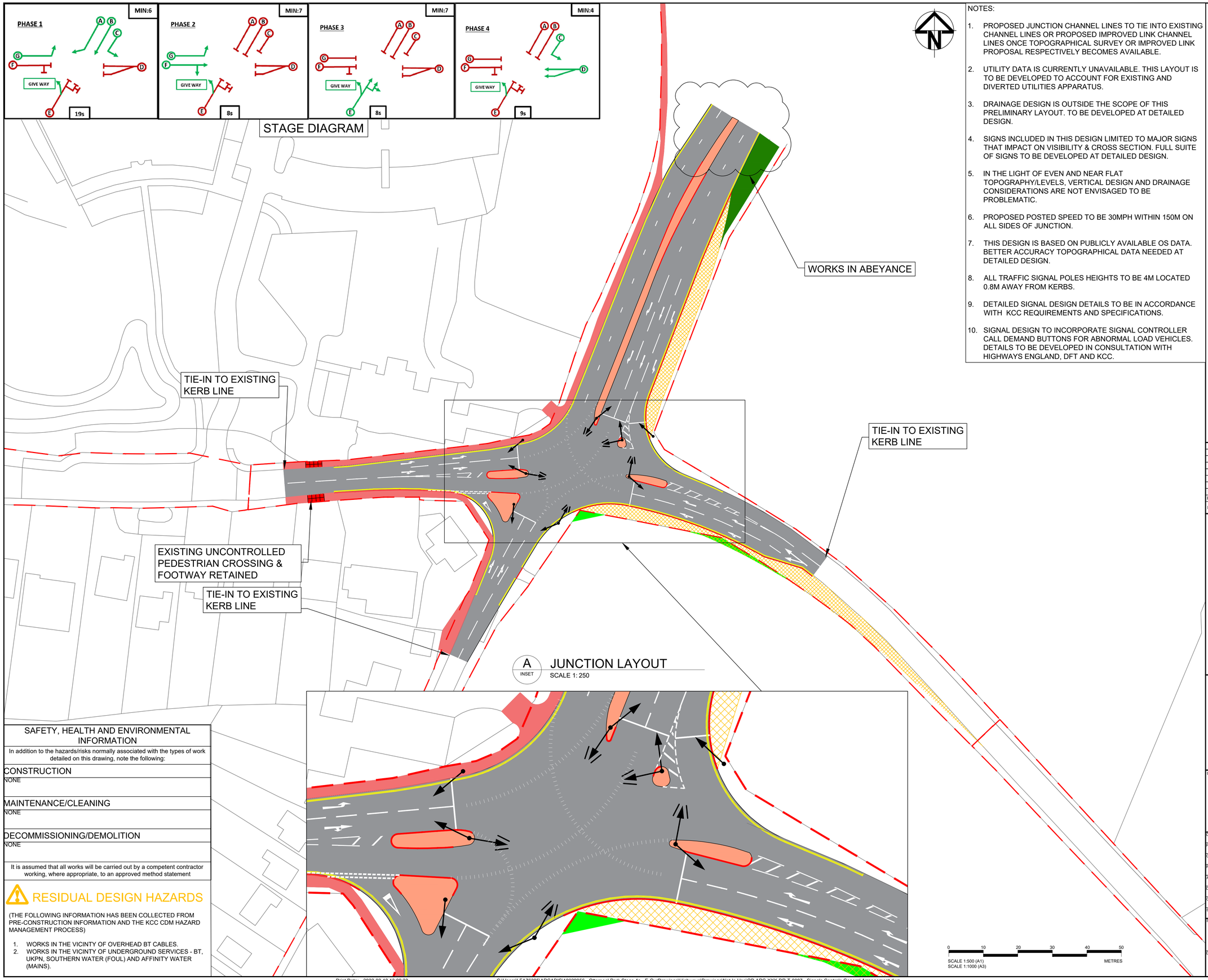



← Auction Rooms


LIVING HISTORY
WORKSHOPS

APPENDIX I Highway Access Drawings

STAGE DIAGRAM



A INSET — JUNCTION LAYOUT
SCALE 1: 250

0 10 20 30 40 50 METRES
SCALE 1:500 (A1)
SCALE 1:1000 (A3)

NOTES:

1. PROPOSED JUNCTION CHANNEL LINES TO TIE INTO EXISTING CHANNEL LINES OR PROPOSED IMPROVED LINK CHANNEL LINES ONCE TOPOGRAPHICAL SURVEY OR IMPROVED LINK PROPOSAL RESPECTIVELY BECOMES AVAILABLE.
2. UTILITY DATA IS CURRENTLY UNAVAILABLE. THIS LAYOUT IS TO BE DEVELOPED TO ACCOUNT FOR EXISTING AND DIVERTED UTILITIES APPARATUS.
3. DRAINAGE DESIGN IS OUTSIDE THE SCOPE OF THIS PRELIMINARY LAYOUT. TO BE DEVELOPED AT DETAILED DESIGN.
4. SIGNS INCLUDED IN THIS DESIGN LIMITED TO MAJOR SIGNS THAT IMPACT ON VISIBILITY & CROSS SECTION. FULL SUITE OF SIGNS TO BE DEVELOPED AT DETAILED DESIGN.
5. IN THE LIGHT OF EVEN AND NEAR FLAT TOPOGRAPHY/LEVELS, VERTICAL DESIGN AND DRAINAGE CONSIDERATIONS ARE NOT ENVISAGED TO BE PROBLEMATIC.
6. PROPOSED POSTED SPEED TO BE 30MPH WITHIN 150M ON ALL SIDES OF JUNCTION.
7. THIS DESIGN IS BASED ON PUBLICLY AVAILABLE OS DATA. BETTER ACCURACY TOPOGRAPHICAL DATA NEEDED AT DETAILED DESIGN.
8. ALL TRAFFIC SIGNAL POLES HEIGHTS TO BE 4M LOCATED 0.8M AWAY FROM KERBS.
9. DETAILED SIGNAL DESIGN DETAILS TO BE IN ACCORDANCE WITH KCC REQUIREMENTS AND SPECIFICATIONS.
10. SIGNAL DESIGN TO INCORPORATE SIGNAL CONTROLLER CALL DEMAND BUTTONS FOR ABNORMAL LOAD VEHICLES. DETAILS TO BE DEVELOPED IN CONSULTATION WITH HIGHWAYS ENGLAND, DFT AND KCC.

KEY:

- PRIMARY TRAFFIC SIGNAL AND POLE
- SECONDARY TRAFFIC SIGNAL AND POLE
- NEW TRAFFIC ISLAND CONSTRUCTION
- CARRIAGEWAY
- OVER RUN AREAS / MAINTENANCE BAYS
- NEW DROP KERB
- CURRENT HIGHWAY BOUNDARY
- DOUBLE YELLOW LINES
- PEDESTRIAN CROSSING
- FOOTWAY
- INTER-VISIBILITY ENVELOPE
- AREA OUTSIDE OF CURRENT HIGHWAY BOUNDARY

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION
NONE

MAINTENANCE/CLEANING
NONE

DECOMMISSIONING/DEMOLITION
NONE

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

RESIDUAL DESIGN HAZARDS

(THE FOLLOWING INFORMATION HAS BEEN COLLECTED FROM PRE-CONSTRUCTION INFORMATION AND THE KCC CDM HAZARD MANAGEMENT PROCESS)

1. WORKS IN THE VICINTY OF OVERHEAD BT CABLES.
2. WORKS IN THE VICINTY OF UNDERGROUND SERVICES - BT, UKPN, SOUTHERN WATER (FOUL) AND AFFINITY WATER (MAINS).

REV	DATE	DESCRIPTION	DRN	CHK	REV	APP
P01	08/10/2020	FOR INFORMATION	LF	NC	SA	SA

Rev	Date	Description	Prod.	Chk.	Rev.	App.

OTTERPOOL PARK
COUNTRYSIDE - CONNECTED - CREATIVE

Project:

OTTERPOOL PARK DEVELOPMENT

Site: Otterpool Park

Client: Folkestone Hythe District Council, Civic Centre, Castle Hill Avenue, Kent, CT20 2QY. https://folkestone-hythe.gov.uk

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: Arcadis Cymru House, St Mellons Business Park, Fortran Road, Cardiff , CF3 0EY, Tel: 44 (0)29 2092 6700

www.arcadis.com

Drawing Title:

NEWINGREEN JUNCTION SIGNAL CONTROLS GENERAL ARRANGEMENT

Designed: L.FRANCIS	Signed: X. XXXXX	Date: 08/10/2020
Produced: L.FRANCIS	Signed: X. XXXXX	Date: 08/10/2020
Checked: N.CLEMENTS	Signed: X. XXXXX	Date: 08/10/2020
Reviewed: S.ARAYAL	Signed: X. XXXXX	Date: 08/10/2020
Approved: S.ARAYAL	Signed: X. XXXXX	Date: 08/10/2020

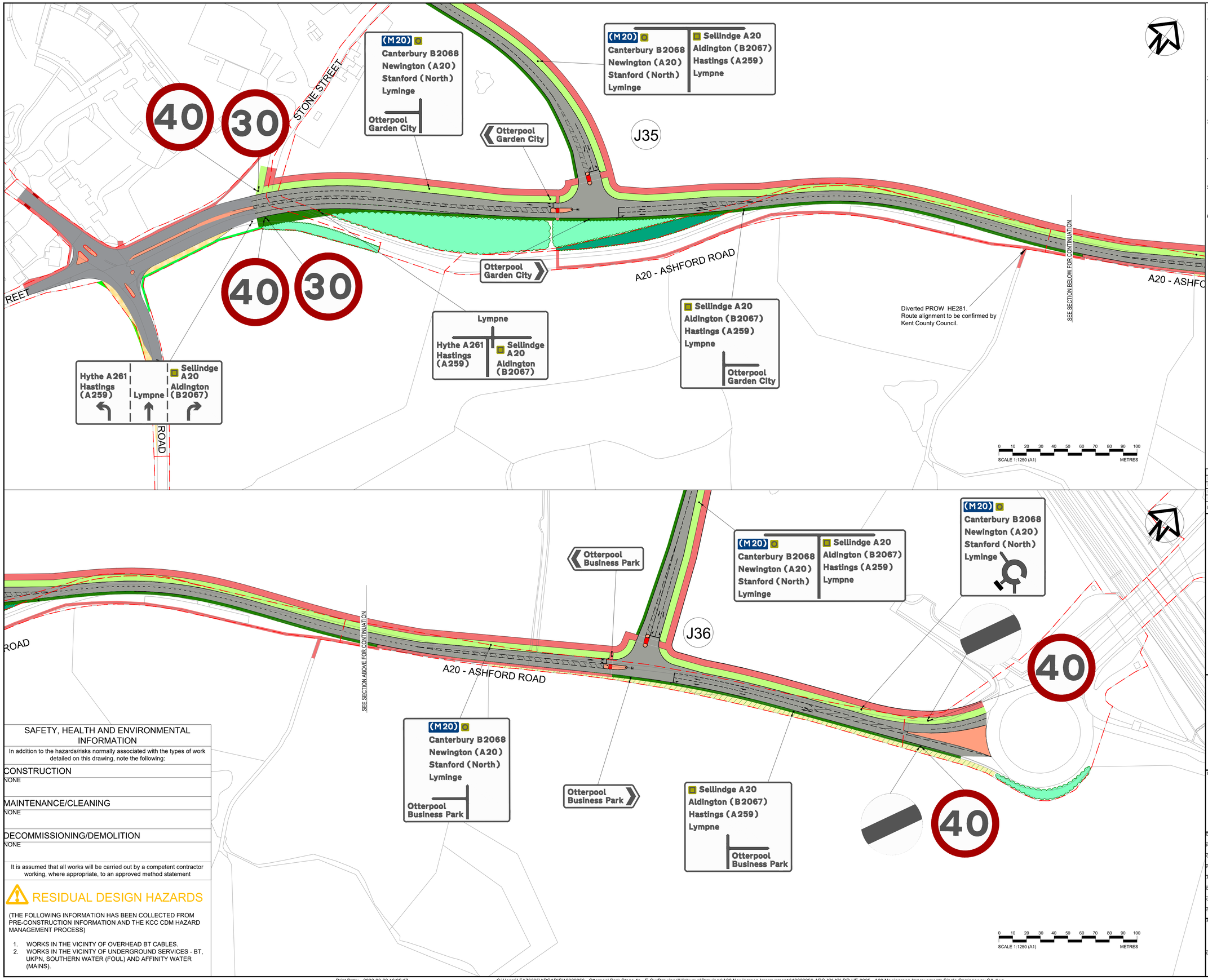
Design Stage: PRELIMINARY DESIGN

Original Size: A1	Grid: OS	Datum: AOD
Suitability Code: S2	Scale: 1:500	Project Number: 10029956

Suitability Description: PRELIMINARY DESIGN
NOT TO BE USED FOR CONSTRUCTION

Drawing Number: 10029956 - OP - ARC XXX - DR - T - 0007

Revision: P01



NOTES:

1. THIS IS A CONCEPT LAYOUT FOR PLANNING PURPOSES ONLY. THIS CONCEPT LAYOUT IS BASED ON PUBLICLY AVAILABLE ORDNANCE SURVEY AND EA DATA AND IS NOT INTENDED FOR CONSTRUCTION. THEREFORE, A DETAILED TOPOGRAPHICAL SURVEY IS NECESSARY TO CONFIRM PLAN AND VERTICAL DETAILS ET. AL. CONTAINED ON THIS CONCEPT LAYOUT.
2. DETAILED UTILITIES DATA IS NOT CURRENTLY AVAILABLE. AS NOTE 1 ABOVE, A DETAILED (OVER GROUND AND UNDER GROUND) UTILITIES SURVEY IS NECESSARY TO CONFIRM AFFECTED (AND THEREFORE TO BE DIVERTED/STOPPED UP) UTILITIES APPARATUS.
3. THIS CONCEPT PLAN INCLUDES A PROPOSED FOOTPATH/CYCLEPATH. THIS IS BASED ON CURRENT STRATEGIC NON MOTORISED USER DESIRE LINE. THIS WILL BE CONFIRMED/DETAILED AT FUTURE DESIGN DEVELOPMENT.
4. AVAILABLE VISIBILITY SPLAYS ARE SIMILAR TO EXISTING OR DMRB REQUIREMENT PROVISIONS - TO BE CONFIRMED ONCE TOPOGRAPHICAL DATA IS AVAILABLE.
5. ROAD RESTRAINT, DRAINAGE, KERBING AND LIGHTING PROVISIONS TO BE CONFIRMED/DETAILED AT FUTURE DESIGN DEVELOPMENT.
6. DMRB COMPLIANT PROVISIONS SUCH AS ITS/LIGHTING ETC AS WELL AS CROSS SECTION DETAILS INCLUDING TRAFFIC LANE, VERGE, HARD SHOULDER/HARD STRIP PROVISION ASSUMED AND ARE TO BE CONFIRMED/DETAILED AT FUTURE DESIGN DEVELOPMENT.

LEGEND:

- CURRENT HIGHWAY BOUNDARY
- PROPOSED CARRIAGEWAY
- PROPOSED CENTRAL RESERVE / ISLANDS
- PROPOSED FOOTPATH / CYCLE PATH
- OVER RUN AREA / MAINTENANCE BAYS
- PROPOSED SWALES
- PROPOSED VERGE
- TRAFFIC SIGNALS
- PROPOSED PROW HE281 ROUTE
- MEDIAN PLANTED HEDGEROW AND TREES
- EXISTING HEDGEROW RETAINED
- PLANTING OF HEDGEROW AND TREES
- 1.5M STRIP OF HEDGEROW AND TREES
- RETAINED TREE BELT

Rev.	Date	Description	Prod.	Chk.	Rev.	App.
P04	12/11/21	FOOTWAY JOINING PROW AT J36	LF	RE	SA	DR
P03	06/09/21	LANDSCAPING INCORPORATED	LF	RE	SA	DR
P02	05/08/21	KCC COMMENTS INCORPORATED	LF	RE	SA	DR
P01	06/07/21	FOR INFORMATION	DM	RE	SA	DR

OTTERPOOL PARK
COUNTRYSIDE • CONNECTED • CREATIVE

Project:
OTTERPOOL PARK DEVELOPMENT

Site

Client

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION
NONE

MAINTENANCE/CLEANING
NONE

DECOMMISSIONING/DEMOLITION
NONE

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

⚠ RESIDUAL DESIGN HAZARDS

(THE FOLLOWING INFORMATION HAS BEEN COLLECTED FROM PRE-CONSTRUCTION INFORMATION AND THE KCC CDM HAZARD MANAGEMENT PROCESS)

1. WORKS IN THE VICINITY OF OVERHEAD BT CABLES.
2. WORKS IN THE VICINITY OF UNDERGROUND SERVICES - BT, UKPN, SOUTHERN WATER (FOUL) AND AFFINITY WATER (MAINS).

ARCADIS Design & Consultancy for natural and built assets

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Drawing Title:
OTTERPOOL PARK
A20 NEWINGREEN IMPROVEMENT
SINGLE CARRIAGEWAY
GENERAL ARRANGEMENT

Designed: L.FORD	Signed	Date 05/08/21
Produced: D.MONLEON	Signed	Date 05/08/21
Checked: R.ELLIS	Signed	Date 05/08/21
Reviewed: S.ARAYAL	Signed	Date 05/08/21
Approved: D.ROWLANDS	Signed	Date 05/08/21

Design Stage: PRELIMINARY

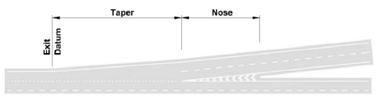
Original Size: A1	Grid: OS	Datum: AOD
Suitability Code: S1	Scale: 1:1250	Project Number: 10029956

Suitability Description:
PRELIMINARY DESIGN
NOT TO BE USED FOR CONSTRUCTION

Drawing Number: 10029956 - ARC - XX XX - DR - HE - 0025
Revision: P04

EASTBOUND DIVERGE
CD 122 Figure 3.30e Layout C - lane drop accommodated primarily within existing highway boundary footprint

Figure 3.30e Layout C - lane drop



Existing accommodation overbridge to be retained

Up to 2.0m asymmetrical widening (nearside or offside) within existing footprint, to be confirmed at future design development

M20 Eastbound Diverge Slip Road - this is on embankment ahead of the roundabout entry area. It is likely to be possible to widen (to retain existing highway boundary lines) symmetrically / or other either using geotextile solution or retaining wall solutions) to achieve 3 lanes here.

B2068 entry / exit changes required are negligible and relatively straight forward to achieve.

Retaining Wall:
Height : 0-1m (340m)

Retaining Wall:
Height: 0-1m (100m)
Height: 1-2m (50m)

Maintenance lane can be reduced in these areas to avoid any impacts on existing bridge abutments, as long as the 1.5m verge is maintained. Consideration will also be required for installation of VRS.

Formalise 2 Traffic Lanes

WESTBOUND MERGE
CD 122 Figure 3.14e Layout D - lane gain with approach hybrid 2 lane lane merge on slip road as per Fig 3.14b Layout A option 2 Accommodated primarily within existing highway boundary footprint

Figure 3.14e Layout D - lane gain

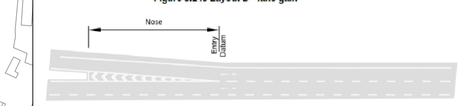
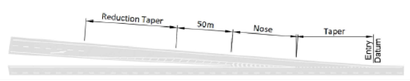


Figure 3.14b Layout A option 2 - 2 lane taper merge



M20 Westbound Merge Slip Road - the slip road after the roundabout is on embankment on the offside after exit area and at grade/cut on the nearside. It is likely to be possible to widen (to retain highway boundary lines widen to the offside using either steeper geotextile solution or retaining wall solution) to achieve the 2 lanes here.

3 Traffic Lanes

Up to 3.5m asymmetrical widening (nearside or offside) within existing footprint, to be confirmed at future design development

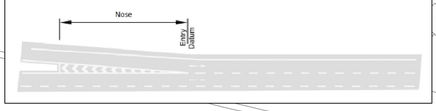
Cutline

0.91m RH

Existing slip road paved area retained to accommodate proposed merge arrangement.

EASTBOUND MERGE
CD 122 Figure 3.14e Layout D - lane gain accommodated primarily within existing highway boundary footprint

Figure 3.14e Layout D - lane gain



Maintenance lane can be reduced in these areas to avoid any impacts on existing bridge abutments, as long as the 1.5m verge is maintained. Consideration will also be required for installation of VRS.

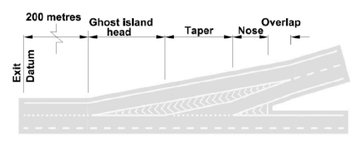
3 Traffic Lanes

Discontinuation of hardshoulder due to the constraint of the existing A20 Ashford Road Overbridge.

Retaining Wall
Height: 0-1m (150m, and 150) at both widening terminals.
Height: 1-2m 280m
Height: 2-3m 280m

WESTBOUND DIVERGE
CD 122 Figure 3.30f Layout D option 1 - ghost island (tiger tail) lane drop accommodated primarily within existing highway boundary footprint. Requires c.60m hard shoulder discontinuity. Departure from Standard to retain existing A20 overbridge.

Figure 3.30f Layout D option 1 - ghost island lane drop



M20 Westbound Merge Slip Road - the area on approach to the roundabout is on embankment on the offside and cutting on the nearside. It is likely to be possible to widen (to retain existing highway boundary lines symmetrically / or other, either using geotextile solution or retaining wall solutions) to achieve 3 lanes here.

Up to 4.0m asymmetrical widening (nearside or offside) within existing footprint, to be confirmed at future design development

Pond

Harringe Court

Through lane widths reduced to 3.3m and taper back out to 3.65m in this area in order to accommodate minimum 3m designated right turning lane.

Cutline

0 10 20 30 40 50 60 70 80 90 100
METRES

SCALE 1:1250 (A1)
SCALE 1:2500 (A3)

KEY:

- VERGE
- HARDSTRIP
- HARD SHOULDER
- MAINTENANCE LANE
- RETAINING WALL
- PHYSICAL ISLAND

NOTES:

1. ALL EXISTING O/B WILL BE RETAINED UNLESS OTHERWISE STATED.
2. PROPOSALS INCLUDE SEVERAL VARYING SIGNIFICANT DEPARTURES OR RELAXATIONS FROM STANDARDS. ASSUME HE WILL GRANT THESE.
3. ALL WIDENING IS ASSUMED TO BE INSIDE EXISTING HIGHWAY BOUNDARY AND ADDITIONAL LAND WILL NOT BE REQUIRED. CROSS SECTIONS ARE ACCOMMODATED UTILISING STRUCTURE/RW's.
4. COSTS ASSOCIATED WITH ENVIRONMENTAL OR ARCHAEOLOGICAL ARE NOT KNOWN/QUANTIFIED.

REV	DATE	DESCRIPTION	DRN	CHK	REV	APP
Rev	Date	Description	Prod.	Chk.	Rev.	App.

OTTERPOOL PARK
COUNTRYSIDE • CONNECTED • CREATIVE

Project:

OTTERPOOL PARK
DEVELOPMENT

Site | Client

ARCADIS Design & Consultancy for natural and built assets

Registered office:
Arcadis House
34 York Way
London
N1 9AB

Coordinating office:
Arcadis Cymru House
St Mellons Business Park,
Fortran Road
Cardiff , CF3 0EY
Tel: 44 (0)29 2092 6700

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Drawing Title:

OTTERPOOL PARK
M20 J11
MERGE AND DIVERGE LAYOUTS
OTTERPOOL 8500 DWELLINGS

Designed: M.SMITH	Signed	Date 08/02/2022
Produced: M.SMITH	Signed	Date 08/02/2022
Checked: L.FORD	Signed	Date 08/02/2022
Reviewed: S.ARAYAL	Signed	Date 08/02/2022
Approved: I.BRADDOCK	Signed	Date 08/02/2022

Design Stage: PRELIMINARY

Original Size: A1	Grid: OS	Datum: AOD
Suitability Code: S1	Scale: 1:1250	Project Number: 10029956

Suitability Description:

PRELIMINARY DESIGN
NOT TO BE USED FOR CONSTRUCTION

Drawing Number: 10029956 - ARC - XX XX - DR - HE - 0036

Revision: P01

APPENDIX J Newingreen Junctions Technical Note

MEMO

ARCADIS Design & Consultancy for natural and built assets

SUBJECT
Newingreen Junction and Surrounding A20 Junctions Layouts

DATE
17 July 2020

DEPARTMENT
Transportation

COPIES TO

TO
Andy Jarrett, Dave Shore (Folkestone & Hythe District Council)

OUR REF

PROJECT NUMBER
10029956

FROM
Jonathan Gunasekera

Summary of Proposed Layouts for Newingreen and Surrounding A20 Junctions

1. Purpose

The purpose of this note is to set out the proposed layouts for Newingreen and surrounding A20 junctions. This work was undertaken in conjunction with the Otterpool Phase 1 Masterplan team to establish suitable junction layouts along the A20 and in Newingreen that would provide for the level of traffic demand predicted in the highway network while accommodating the design proposals within the Phase 1 masterplan.

2. Background

The original highway design for the Newingreen Link Road was originally intended to divert A20 traffic away from Newingreen junction due to its constrained location and limited capacity. However, based on the evolving Phase 1 masterplan, the link road, henceforth known as Otterpool Avenue, is to serve a greater place function, as well as providing segregated NMU facilities. The volume of diverted traffic was not compatible with establishing a NMU friendly environment through the centre of the Otterpool Garden Settlement. An iterative process between local and strategic modelling was undertaken to understand, based on the competing requirements for Otterpool Avenue and the existing A20 route through Newingreen, what proportion of traffic could be routed through Newingreen junction whilst retaining a feasible design improvement at the location.

3. Study Area

Traffic routing along the Otterpool Avenue is dependent on the road hierarchy, orientation, capacity, and method of control of these junctions as well as the characteristics of the Otterpool Avenue itself.

The study area included four junctions on the A20, shown in Figure 1, that would influence capacity through Otterpool Avenue or Newingreen, thereby impacting route choice and predicted link traffic volumes..

Junction 1 – Otterpool Avenue Eastern Access Junction

Junction 2 – The Newingreen Junction (A20/Hythe Road/Stone Street)

Junction 3 – The A20 connection southbound through the site

Junction 4 – Otterpool Avenue Western Access Junction

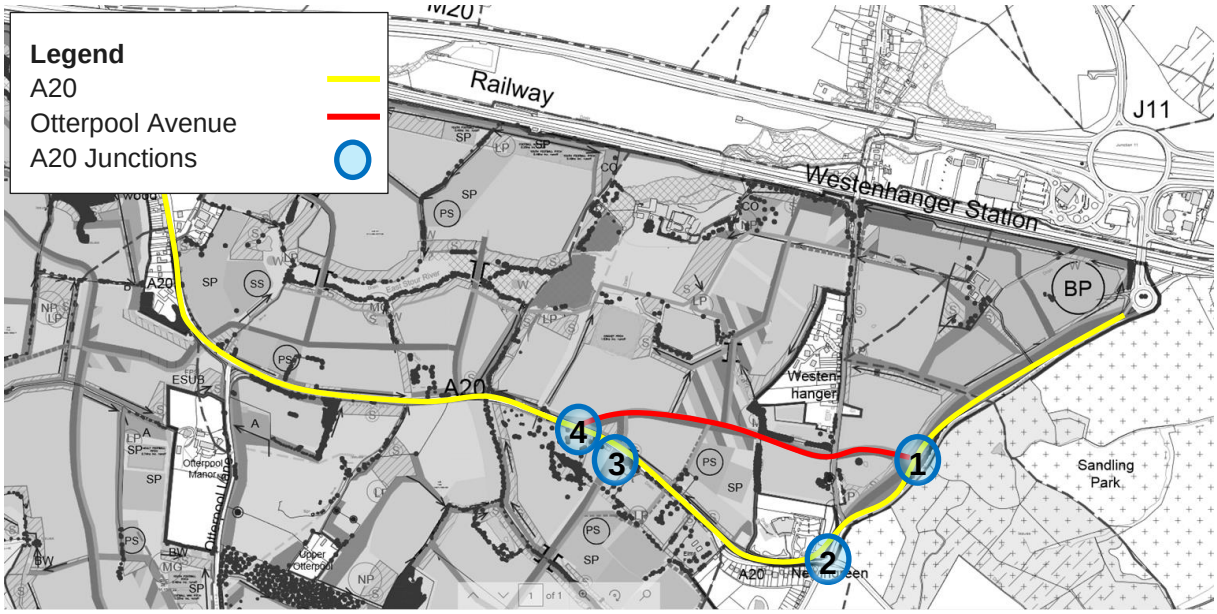


Figure 1 Otterpool Masterplan with Otterpool Avenue Road and A20 Junctions

4. Forecast Demand

The Phase 1 masterplan looks at a shorter forecast horizon than the full Otterpool build out, however the proposed designs will have implications for the full build out. As such, the end state conditions of the full build have been considered for the purpose of this assessment. The forecast scenarios used for the assessment are:

- 2044 Do-Something 8.5k Otterpool homes scenario
  - AM Peak
  - PM Peak

The forecast data was obtained from the Otterpool VISUM strategic model and are presented in Figure 10 and Figure 11 for the 2044 AM and PM peak scenarios.

After the capacity reductions to accommodate the Phase 1 Masterplan aspirations, the predicted VISUM flows along Otterpool Avenue are as follows:

Scenario	Direction	Volume Vehicle/hour
2044 DS 8.5k Homes AM Peak	Eastbound	714
	Westbound	395
	Two-Way	1109
2044 DS 8.5k Homes AM Peak	Eastbound	835
	Westbound	428
	Two-Way	1263

Table 1 2044 DS 8.5k Homes VISUM Traffic Flow Forecast along Otterpool Avenue

The previous forecast two-way traffic flows along the Newingreen Link Road/Otterpool Avenue were between 1500 -1800 vehicles/hour.

5. Proposed Layouts

An iterative approach between local and strategic junction modelling was undertaken until a flow balance was achieved that could satisfy the design requirements at Newingreen junction and desired Phase 1 masterplan traffic environment along the Otterpool Avenue.

5.1 Junction 1 – The A20 Otterpool Avenue Eastern Access Junction

The LinSig Network for Junction 1 is shown in Figure 2 and involves the following design requirements:

- A20 Ashford Road North – two lanes southbound with a right turn flare of at least 58m.
- A20 Ashford Road South – two lanes northbound.
- Otterpool Avenue – A full left turn lane and short flare for the right turn of approximately 25m with the left and right turns operating as separate phases.

Staggered pedestrian/ Toucan crossings have been included across the A20 on the southern side of the junction and across the Otterpool Avenue approach. The proposed phasing and staging of the junction are shown in Figure 3. Based upon the local junction modelling results the junction is predicted to operate just within capacity in the 2044 AM peak with spare capacity of only 0.2% and 5.7% spare capacity in the 2044 PM peak. It should be noted that the cycle time for the 2044 AM peak hour is 120 seconds and 96 seconds for the PM peak hour. Full traffic modelling results are provided in Appendix B.

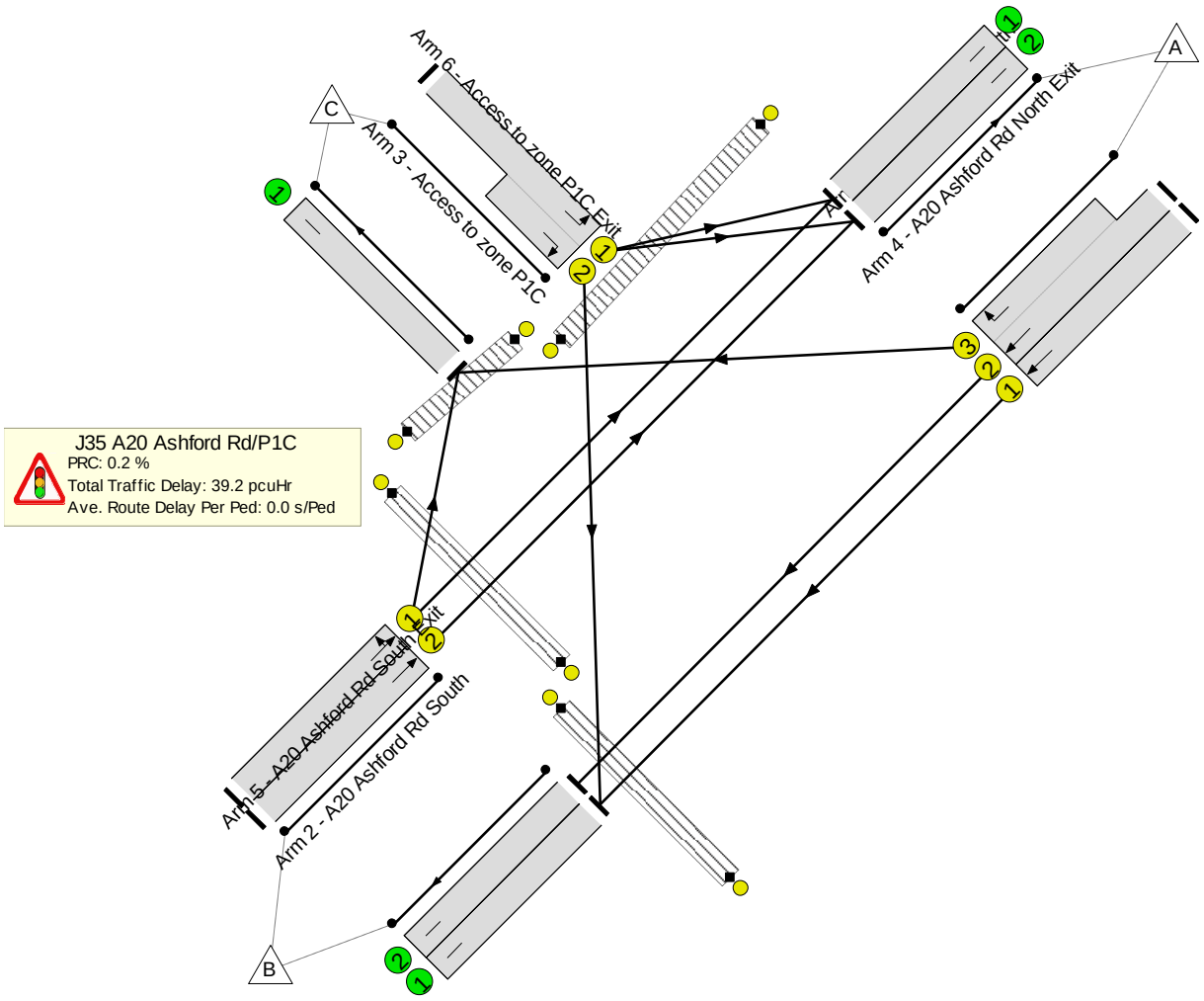


Figure 2 Junction 1 – The A20 Otterpool Avenue Eastern Access Junction LinSig Network

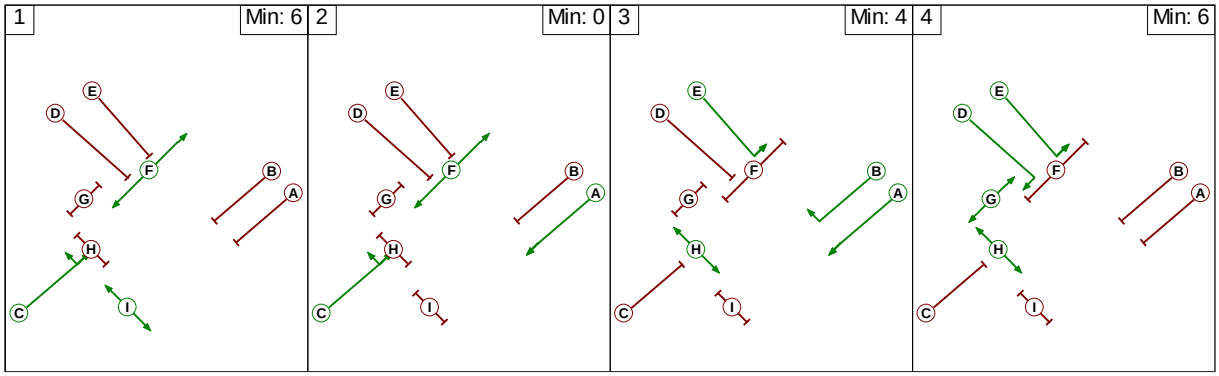


Figure 3 Junction 1 – Signal Stage Sequence

5.2 Junction 2 – The Newingreen Junction (A20/Hythe Road/Stone Street)

The LinSig network for Junction 2 is shown in Figure 4 and involves the following lane configuration:

- A20 Ashford Road North – two lanes southbound with the offside lane flaring to two lanes for at least 60m. The nearside lane operates as a left turn filter.

- A261 Hythe Road – A single lane flaring to two lanes for at least 50m with both lanes able to turn right.
- Stone Street – A single lane flaring to two lanes for 28m.
- A20 Ashford Road West – A single lane flaring on the nearside to provide a 23m left turn filter.

A straight over pedestrian/ Toucan crossing has been included across the A20 on western side of the junction at the existing dropped curb uncontrolled crossing. The proposed phasing and staging of the junction is shown in Figure 5. Based upon the local junction modelling results the junction is predicted to operate within capacity in the 2044 AM peak with spare capacity of 4.7% and with 2.5% spare capacity in the 2044 PM peak. The cycle time for the 2044 AM peak hour is 68 seconds and 76 seconds for the PM peak hour. Full traffic modelling results are provided in Appendix B.

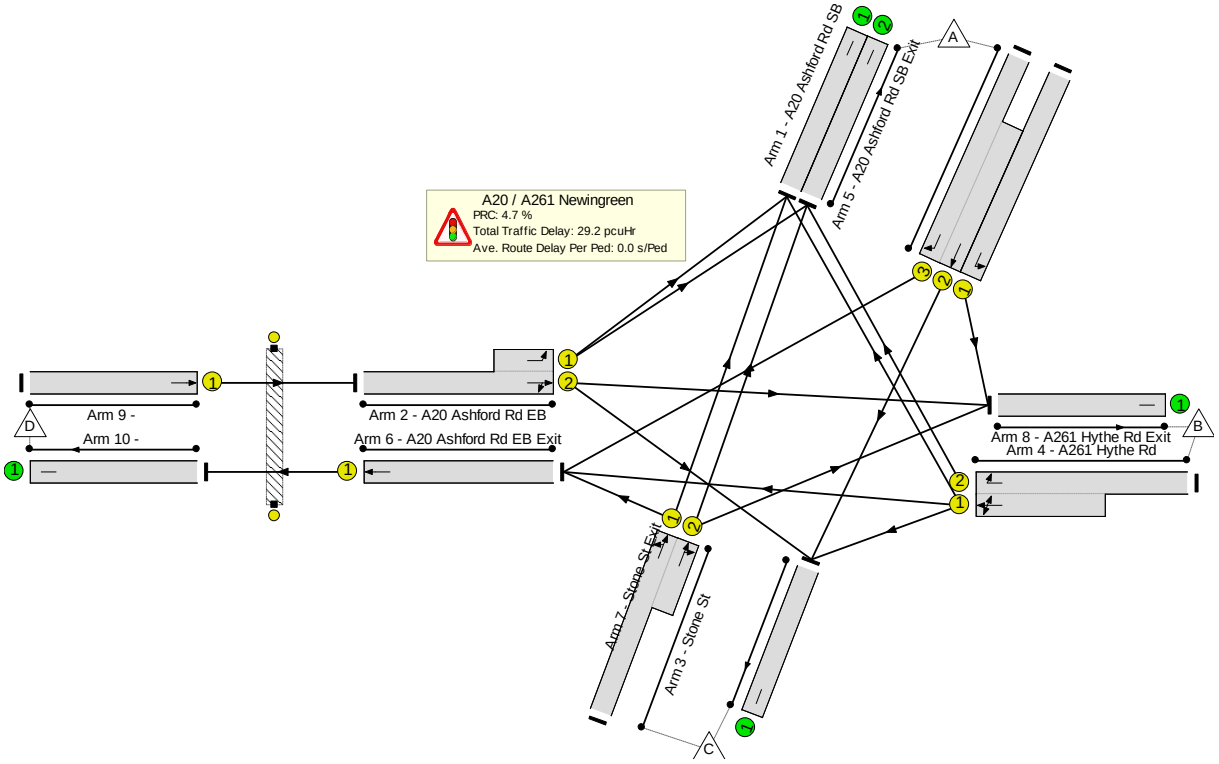


Figure 4 Junction 2 – The Newingreen Junction LinSig Network

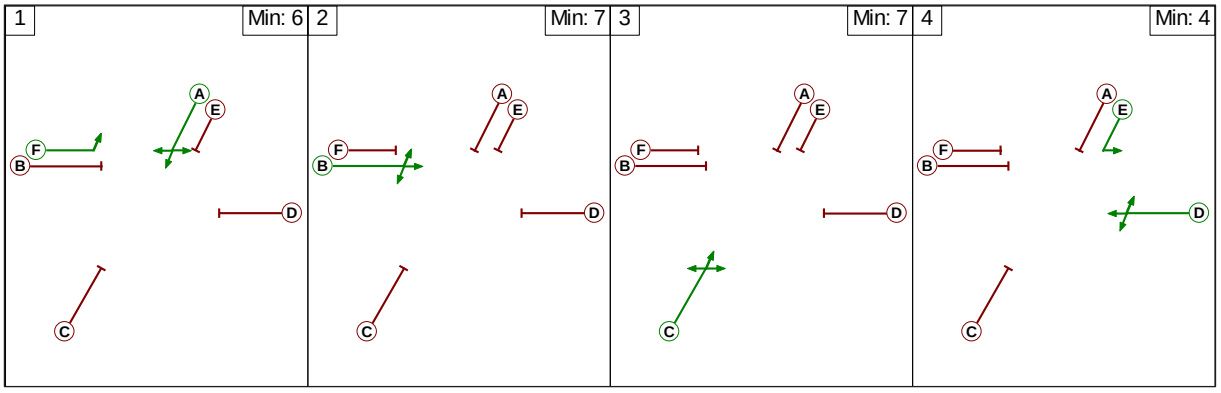


Figure 5 Junction 2 – Signal Stage Sequence

5.3 Junction 3 – The A20 connection southbound through the site

The proposed layout for Junction 3 is a non-signalised T-junction located between Junction 2 and Junction 4. The proposed arrangement for the junction is as follows:

- A20 Ashford Road - 7.3m carriageway width with a 2.2m wide eastbound right turn bay with enough storage for two vehicles.
- Minor arm – Two lane approach with 3.65m wide lanes.

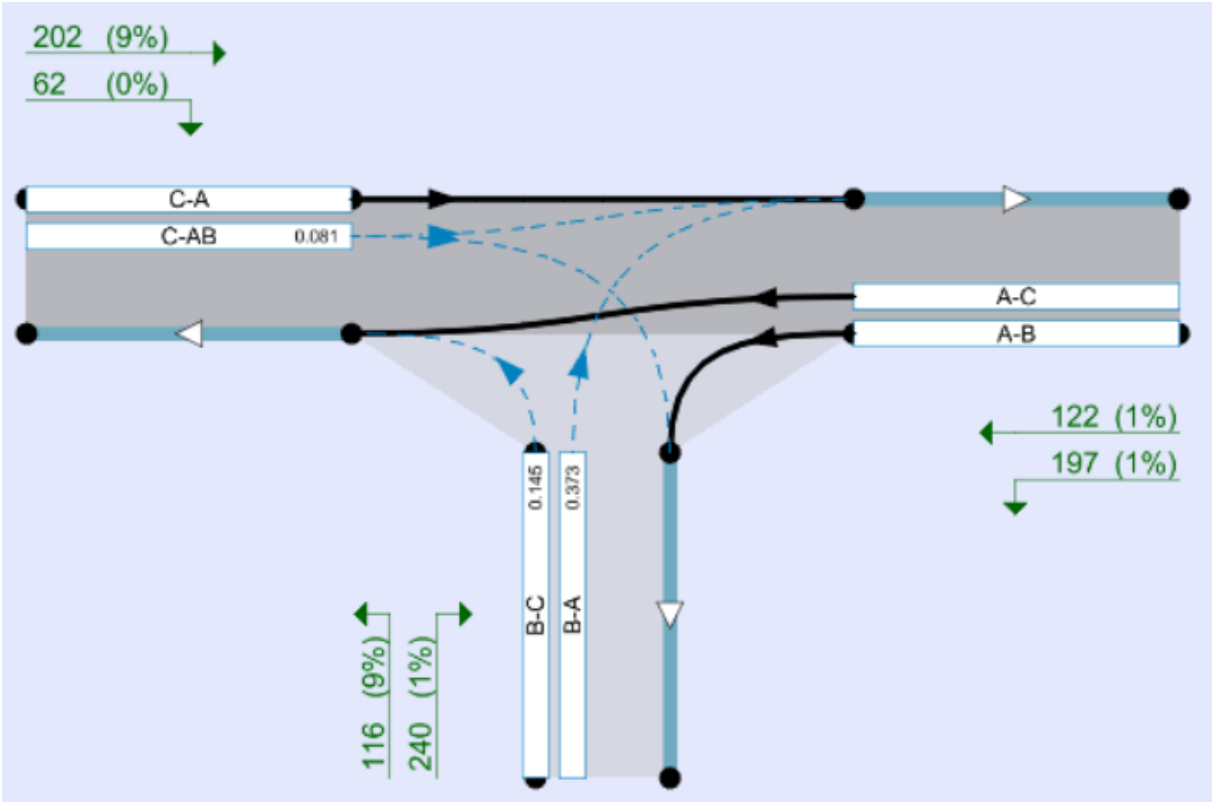


Figure 6 Junction 3 – 2044 DS 8.5k Homes AM Peak

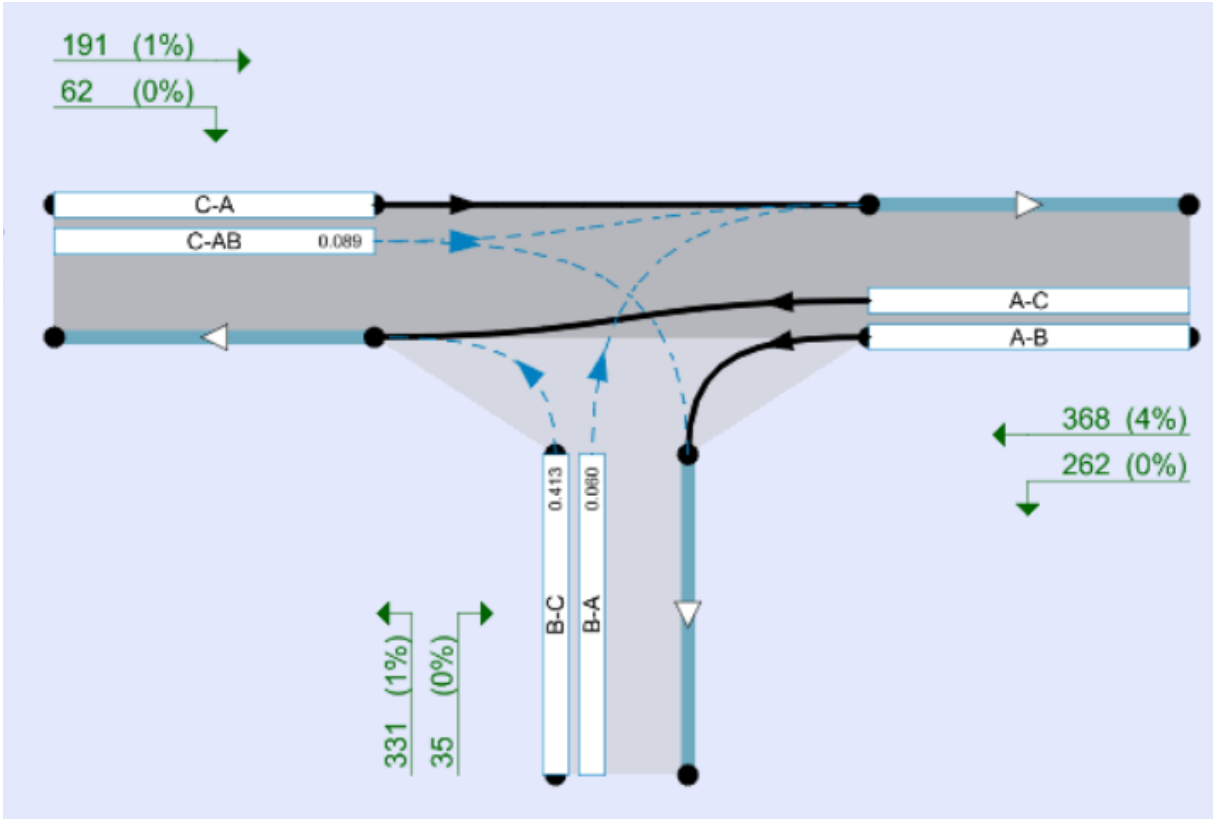


Figure 7 Junction 3 – 2044 DS 8.5k Homes PM Peak

The non-signalised junction predicted to operate within capacity and without any substantial queuing. Standalone signalised pedestrian crossing facilities have not been considered however could be accommodated at this location. Full traffic modelling results are provided in Appendix B.

5.4 Junction 4 – The A20 Otterpool Avenue Road Western Access Junction

The LinSig network for Junction 4 is shown in Figure 8 and involves the following lane configuration:

- A20 Ashford Road East – single lane westbound that flares to provide a 30m indicative right turn lane.
- A20 Ashford Road West – single lane in each direction.
- Otterpool Avenue (Access to zone P1C) – A single lane flaring to two lanes for 28m. The left and right turn movements operate as separate phases. This allows for the right to operate at the same time as the straight over pedestrian crossing on the eastern side of the junction.

A straight over pedestrian/ Toucan crossing has been included across the A20 on eastern side of the junction. A staggered pedestrian crossing has also been provided over the Otterpool Avenue (Access to zone P1C). The proposed phasing and staging of the junction is shown in Figure 9. Based upon the local junction modelling results the junction is predicted to operate within practical capacity in the 2044 AM peak with a practical reserve capacity of 38.6% and with 21.5% spare capacity in the 2044 PM peak. The cycle time for the 2044 AM peak hour is 106 seconds and 102 seconds for the PM peak hour.

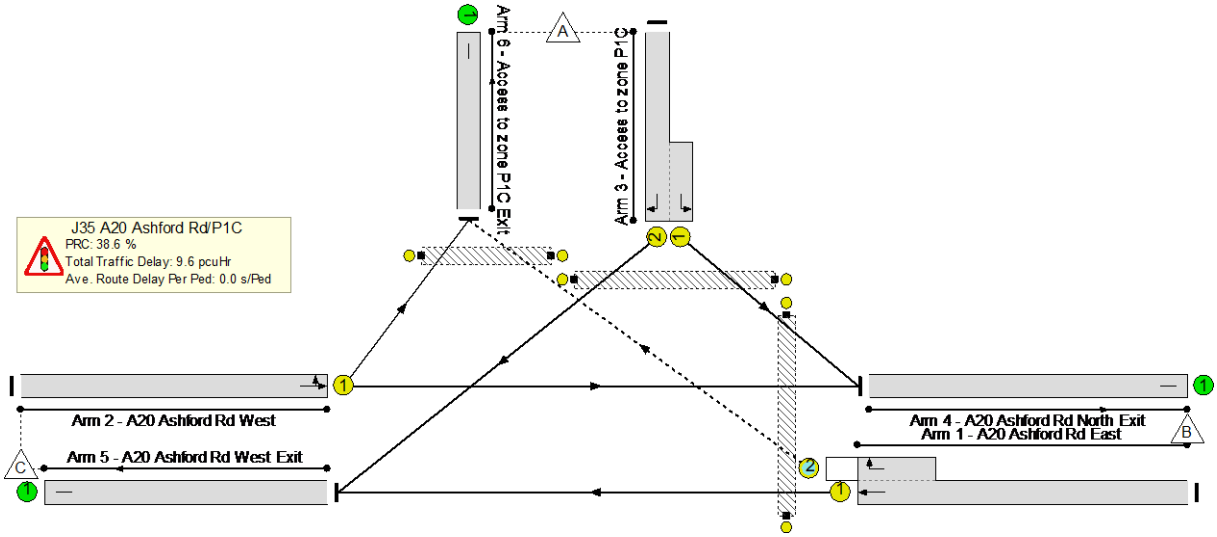


Figure 8 Junction 4 – The A20 Otterpool Avenue Western Access Junction LinSig Network

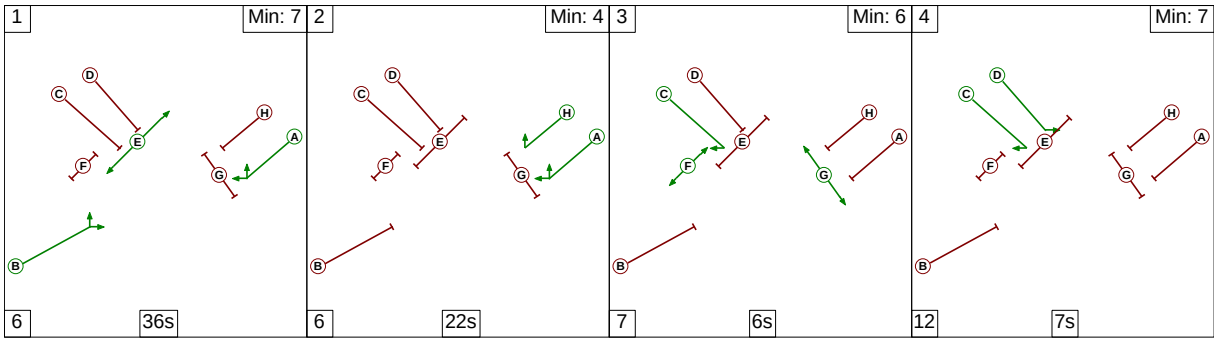


Figure 9 Junction 4 – Signal Stage Sequence

6. Conclusions and Recommendations

The iterative design process has resulted in the proposed designs for Junctions 1 – 4 which provide sufficient capacity for the forecast 2044 8.5k Otterpool homes AM and PM peak hours, while supporting the Phase 1 masterplan aspirations for Otterpool Avenue.

It is recommended that the proposed road hierarchy and junction layouts be incorporated into the Phase 1 masterplan and the Otterpool full build-out masterplan.

Appendix A – VISUM Traffic Flow Forecast

Figure 10 2044 DS 8.5k Homes AM peak Hour Link Flows (Vehicles)

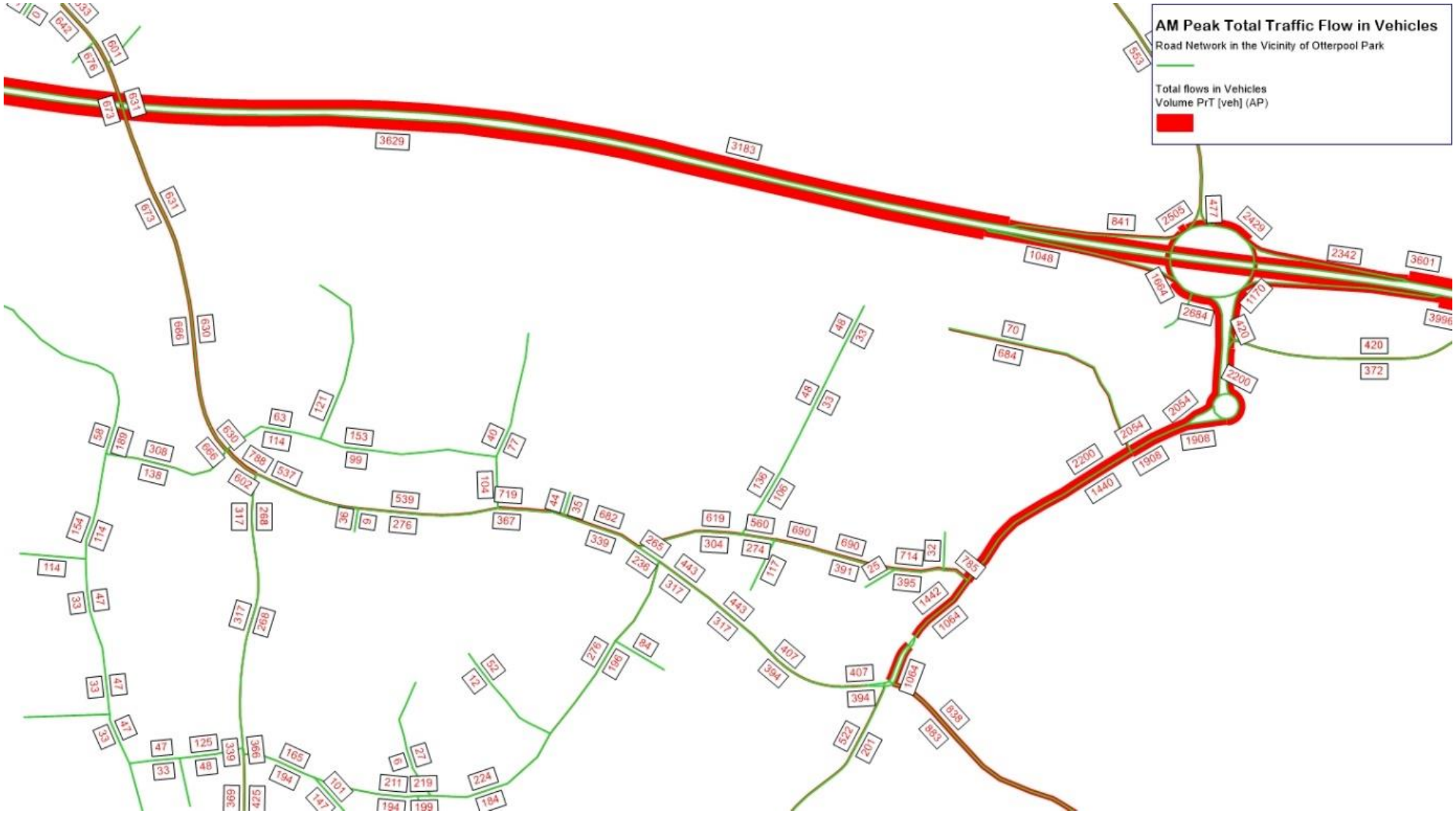
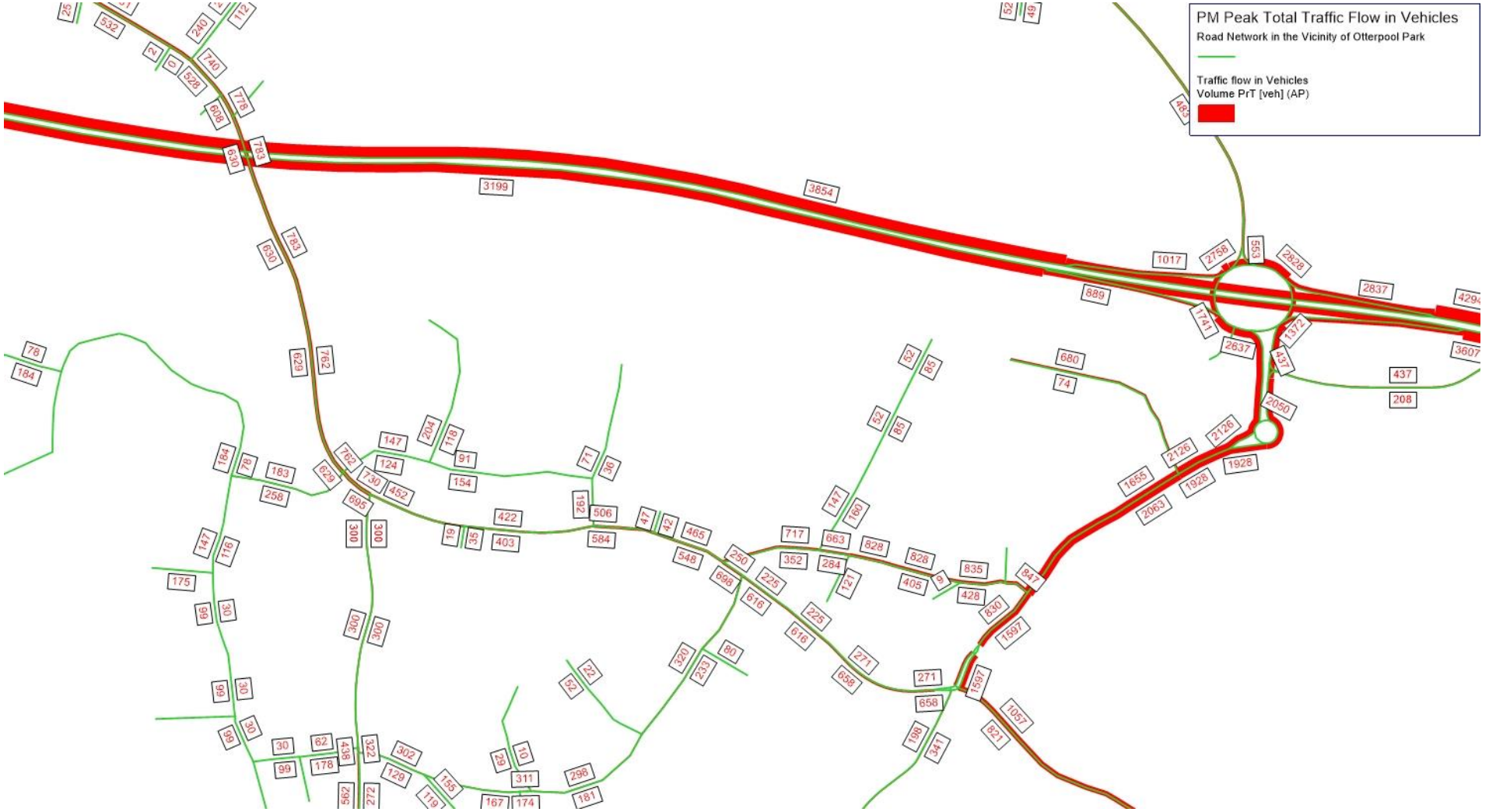


Figure 11 2044 DS 8.5k Homes PM peak Hour Link Flows (Vehicles)



Appendix B – Traffic Modelling Outputs

Junction 1 – Otterpool Avenue Eastern Access Junction_Report_Output

Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	DS 2044 AM_it6	DS 2044 AM_it6	Network Control Plan 1	08:00 - 09:00	120	0.2	39.20
2	DS 2044 PM_it6	DS 2044 PM_it6	Network Control Plan 1	16:45 - 17:45	96	5.7	27.49

Network Results
Scenario 1: 'DS 2044 AM_it6' (FG1: 'DS 2044 AM_it6', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Total Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	-		-	-	-	-	-	**89.8%**	-
J35 A20 Ashford Rd/P1C	-	-	-		-	-	-	-	-	**89.8%**	-
1/1	A20 Ashford Rd North Ahead	U	A		83	-	733	1940	1358	54.0%	733
1/2+1/3	A20 Ashford Rd North Ahead Right	U	A B		83:44	-	759	2080:1860	470+524	76.4 : 76.4%	759
2/1	A20 Ashford Rd South Ahead Left	U	C		48	-	702	1939	792	88.7%	702
2/2	A20 Ashford Rd South Ahead	U	C		48	-	760	2080	849	89.5%	760
3/1+3/2	Access to zone P1C Left Right	U	E D		58:10	-	801	1805:1860	866+26	89.8 : 89.8%	801
4/1	A20 Ashford Rd North Exit	U	-		-	-	1087	Inf	Inf	0.0%	1087
4/2	A20 Ashford Rd North Exit	U	-		-	-	1149	Inf	Inf	0.0%	1149
5/1	A20 Ashford Rd South Exit	U	-		-	-	756	Inf	Inf	0.0%	756
5/2	A20 Ashford Rd South Exit	U	-		-	-	359	Inf	Inf	0.0%	359
6/1	Access to zone P1C Exit	U	-		-	-	404	Inf	Inf	0.0%	404
Ped Link: P1	Unnamed Ped Link	-	I		6	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	H		58	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	F		48	-	0	-	0	0.0%	0
Ped Link: P4	Unnamed Ped Link	-	G		6	-	0	-	0	0.0%	0

Item	Leaving (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Av. Uniform Stops Per PCU (stops/pcu)	Back of Uniform Q At End of Red(pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Average Excess Queue (pcu)	Weighted Deg Sat (%)	Weighted Total Delay (pcuHr)
Network	**-**	**39.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89.8%**	**44.5**
J35 A20 Ashford Rd/P1C	**-**	**39.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89.8%**	**44.5**
1/1	733	2.4	11.6	0.5	6.9	11.6	0.6	12.2	0.00	54.0%	3.0
1/2+1/3	759	5.6 (1.4+4.2)	26.5 (14.2:37.4)	0.6	3.8	11.5	1.6	13.1	0.00	76.4 : 76.4%	6.4
2/1	702	10.0	51.5	0.9	13.5	21.6	3.6	25.3	0.00	88.7%	11.2
2/2	760	10.9	51.6	0.9	14.6	23.4	3.9	27.3	0.00	89.5%	12.2
3/1+3/2	801	10.3 (9.9+0.4)	46.4 (45.8:68.4)	0.9	13.0	24.1	4.0	28.1	0.00	89.8 : 89.8%	11.7
4/1	1087	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
4/2	1149	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
5/1	756	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
5/2	359	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
6/1	404	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
Ped Link: P1	0	-	-	-	-	-	-	-	-	0.0%	-
Ped Link: P2	0	-	-	-	-	-	-	-	-	0.0%	-
Ped Link: P3	0	-	-	-	-	-	-	-	-	0.0%	-
Ped Link: P4	0	-	-	-	-	-	-	-	-	0.0%	-

C1 PRC for Signalled Lanes (%): 0.2 Total Delay for Signalled Lanes (pcuHr): 39.20Cycle Time (s): 120

PRC Over All Lanes (%): 0.2 Total Delay Over All Lanes(pcuHr): 39.20

Scenario 2: 'DS 2044 PM_it6' (FG2: 'DS 2044 PM_it6', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Total Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	-		-	-	-	-	-	**85.1%**	-
J35 A20 Ashford Rd/P1C	-	-	-		-	-	-	-	-	**85.1%**	-
1/1	A20 Ashford Rd North Ahead	U	A		59	-	820	1940	1213	67.6%	820
1/2+1/3	A20 Ashford Rd North Ahead Right	U	A B		59:43	-	1269	2080:1860	934+557	85.1 : 85.1%	1269
2/1	A20 Ashford Rd South Ahead Left	U	C		25	-	398	1935	524	75.9%	398
2/2	A20 Ashford Rd South Ahead	U	C		25	-	434	2080	563	77.0%	434
3/1+3/2	Access to zone P1C Left Right	U	E D		57:10	-	866	1805:1860	1082+10	79.3 : 79.3%	866
4/1	A20 Ashford Rd North Exit	U	-		-	-	813	Inf	Inf	0.0%	813
4/2	A20 Ashford Rd North Exit	U	-		-	-	863	Inf	Inf	0.0%	863
5/1	A20 Ashford Rd South Exit	U	-		-	-	828	Inf	Inf	0.0%	828
5/2	A20 Ashford Rd South Exit	U	-		-	-	795	Inf	Inf	0.0%	795
6/1	Access to zone P1C Exit	U	-		-	-	488	Inf	Inf	0.0%	488
Ped Link: P1	Unnamed Ped Link	-	I		6	-	0	-	0	0.0%	0
Ped Link: P2	Unnamed Ped Link	-	H		57	-	0	-	0	0.0%	0
Ped Link: P3	Unnamed Ped Link	-	F		25	-	0	-	0	0.0%	0
Ped Link: P4	Unnamed Ped Link	-	G		6	-	0	-	0	0.0%	0

Item	Leaving (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Av. Uniform Stops Per PCU (stops/pcu)	Back of Uniform Q At End of Red(pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Average Excess Queue (pcu)	Weighted Deg Sat (%)	Weighted Total Delay (pcuHr)
Network	**-**	**27.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**85.1%**	**32.9**
J35 A20 Ashford Rd/P1C	**-**	**27.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**85.1%**	**32.9**
1/1	820	3.7	16.3	0.6	7.7	14.1	1.0	15.2	0.00	67.6%	4.7
1/2+1/3	1269	7.8 (4.2+3.5)	22.0 (19.2:26.8)	0.8	7.5	17.8	2.8	20.5	0.00	85.1 : 85.1%	9.6
2/1	398	5.1	46.1	0.9	7.5	9.7	1.5	11.3	0.00	75.9%	5.8
2/2	434	5.5	45.8	0.9	8.2	10.6	1.6	12.2	0.00	77.0%	6.3
3/1+3/2	866	5.4 (5.3+0.1)	22.5 (22.2:45.9)	0.8	8.6	17.3	1.9	19.2	0.00	79.3 : 79.3%	6.6
4/1	813	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
4/2	863	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
5/1	828	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
5/2	795	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
6/1	488	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
Ped Link: P1	0	-	-	-	-	-	-	-	-	0.0%	-
Ped Link: P2	0	-	-	-	-	-	-	-	-	0.0%	-
Ped Link: P3	0	-	-	-	-	-	-	-	-	0.0%	-
Ped Link: P4	0	-	-	-	-	-	-	-	-	0.0%	-
			C1 27.49	Cycle Time (s):	PRC for Signalled Lanes (%): 96		5.7	Total Delay for Signalled Lanes (pcuHr):			
					PRC Over All Lanes (%): 27.49		5.7	Total Delay Over All Lanes(pcuHr):			

Junction 2- Newingreen Junction_Report_Output

Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	**Arcadis 2044 With Link Road AM Peak**	**Arcadis 2044 With Link Road AM Peak**	**Network Control Plan 1**	**08:00 - 09:00**	**68**	**4.7**	**29.16**
2	**Arcadis 2044 With Link Road PM Peak**	**Arcadis 2044 With Link Road KCC PM Peak**	**Network Control Plan 1**	**17:00 - 18:00**	**76**	**2.5**	**30.80**

Network Results

Scenario 1: 'Arcadis 2044 With Link Road AM Peak' (FG1: 'Arcadis 2044 With Link Road AM Peak', Plan 1: 'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Total Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	-		-	-	-	-	-	**86.0%**	-
A20 / A261 Newingreen	-	-	-		-	-	-	-	-	**86.0%**	-
1/1	A20 Ashford Rd SB Left	U	A	E	32	-	663	1952	947	70.0%	663
1/3+1/2	A20 Ashford Rd SB Right Ahead	U	A		10	-	451	1879:1980	304+307	84.9 : 62.9%	451
2/2+2/1	A20 Ashford Rd EB Left Right Ahead	U	B	F	7:21	-	414	1911:1874	212+275	85.0 : 85.0%	414
3/1+3/2	Stone St Ahead Left Right	U	C		11	-	527	1944:1972	305+308	86.0 : 86.0%	527
4/2+4/1	A261 Hythe Rd Right Ahead Left	U	D		20	-	897	1851:1861	521+525	85.8 : 85.8%	897
5/1	A20 Ashford Rd SB Exit	U	-		-	-	678	Inf	Inf	0.0%	678
5/2	A20 Ashford Rd SB Exit	U	-		-	-	786	Inf	Inf	0.0%	786
6/1	A20 Ashford Rd EB Exit Ahead	U	H		49	-	409	1980	1456	28.1%	409
7/1	Stone St Exit	U	-		-	-	215	Inf	Inf	0.0%	215
8/1	A261 Hythe Rd Exit	U	-		-	-	864	Inf	Inf	0.0%	864
9/1	Ahead	U	G		49	-	414	1980	1456	28.4%	414
10/1		U	-		-	-	409	Inf	Inf	0.0%	409
Ped Link: P1	Unnamed Ped Link	-	I		6	-	0	-	0	0.0%	0

Item	Leaving (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Av. Uniform Stops Per PCU (stops/pcu)	Back of Uniform Q At End of Red(pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Average Excess Queue (pcu)	Weighted Deg Sat (%)	Weighted Total Delay (pcuHr)
Network	**-**	**29.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**86.0%**	**34.3**
A20 / A261 Newingreen	**-**	**29.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**86.0%**	**34.3**
1/1	663	3.7	19.9	0.8	6.1	9.8	1.2	10.9	0.00	70.0%	4.6
1/3+1/2	451	4.8	38.2	1.0	3.9	4.7	1.4	6.1	0.00	84.9 : 62.9%	5.6
2/2+2/1	414	4.9	42.7	1.0	2.9	4.0	2.6	6.7	0.00	85.0 : 85.0%	5.7
3/1+3/2	527	6.8	46.3	0.9	4.0	4.7	2.9	7.6	0.00	86.0 : 86.0%	7.7
4/2+4/1	897	8.2	33.1	0.9	5.6	7.6	2.9	10.5	0.00	85.8 : 85.8%	9.7
5/1	678	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
5/2	786	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
6/1	409	0.2	2.0	0.1	0.2	0.4	0.2	0.6	0.00	28.1%	0.3
7/1	215	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
8/1	864	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
9/1	414	0.5	4.7	0.3	1.8	2.5	0.2	2.7	0.00	28.4%	0.8
10/1	409	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
Ped Link: P1	0	-	-	-	-	-	-	-	-	0.0%	-

C1 Stream: 1 PRC for Signalled Lanes (%): 28.39 Cycle Time (s): 68 4.7 Total Delay for Signalled Lanes (pcuHr):

C1 Stream: 2 PRC for Signalled Lanes (%): 0.77 Cycle Time (s): 68 216.5 Total Delay for Signalled Lanes (pcuHr):

PRC Over All Lanes (%): 29.16 4.7 Total Delay Over All Lanes(pcuHr):

Scenario 2: 'Arcadis 2044 With Link Road PM Peak' (FG2: 'Arcadis 2044 With Link Road KCC PM Peak', Plan 1:

'Network Control Plan 1')

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Total Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	-		-	-	-	-	-	**87.8%**	-
A20 / A261 Newingreen	-	-	-		-	-	-	-	-	**87.8%**	-
1/1	A20 Ashford Rd SB Left	U	A	E	42	-	882	1952	1104	79.9%	882
1/3+1/2	A20 Ashford Rd SB Right Ahead	U	A		19	-	742	1879:1980	494+351	87.8 : 87.8%	742
2/2+2/1	A20 Ashford Rd EB Left Right Ahead	U	B	F	9:32	-	272	1880:1874	225+84	87.8 : 87.8%	272
3/1+3/2	Stone St Ahead Left Right	U	C		7	-	201	1888:1967	199+207	49.3 : 49.7%	201
4/2+4/1	A261 Hythe Rd Right Ahead Left	U	D		21	-	842	1851:1902	477+491	87.0 : 87.0%	842
5/1	A20 Ashford Rd SB Exit	U	-		-	-	300	Inf	Inf	0.0%	300
5/2	A20 Ashford Rd SB Exit	U	-		-	-	532	Inf	Inf	0.0%	532
6/1	A20 Ashford Rd EB Exit Ahead	U	H		57	-	696	1980	1511	46.1%	696
7/1	Stone St Exit	U	-		-	-	350	Inf	Inf	0.0%	350
8/1	A261 Hythe Rd Exit	U	-		-	-	1061	Inf	Inf	0.0%	1061
9/1	Ahead	U	G		57	-	272	1980	1511	18.0%	272
10/1		U	-		-	-	696	Inf	Inf	0.0%	696
Ped Link: P1	Unnamed Ped Link	-	I		6	-	0	-	0	0.0%	0

Item	Leaving (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Av. Uniform Stops Per PCU (stops/pcu)	Back of Uniform Q At End of Red(pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Average Excess Queue (pcu)	Weighted Deg Sat (%)	Weighted Total Delay (pcuHr)
Network	**-**	**30.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**87.8%**	**35.7**
A20 / A261 Newingreen	**-**	**30.8**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**87.8%**	**35.7**
1/1	882	5.2	21.0	0.8	7.6	14.7	1.9	16.6	0.00	79.9%	6.4
1/3+1/2	742	8.7	42.2	0.9	6.5	8.7	3.4	12.0	0.00	87.8 : 87.8%	9.9
2/2+2/1	272	4.9	65.3	0.9	3.5	4.2	3.1	7.2	0.00	87.8 : 87.8%	5.4
3/1+3/2	201	2.3	40.9	0.9	1.9	2.0	0.5	2.5	0.00	49.3 : 49.7%	2.6
4/2+4/1	842	9.0	38.4	0.9	6.2	8.2	3.2	11.4	0.00	87.0 : 87.0%	10.4
5/1	300	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
5/2	532	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
6/1	696	0.5	2.4	0.1	0.5	0.8	0.4	1.3	0.00	46.1%	0.5
7/1	350	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
8/1	1061	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
9/1	272	0.3	3.9	0.3	1.2	1.5	0.1	1.6	0.00	18.0%	0.4
10/1	696	0.0	0.0	0.0	-	0.0	0.0	0.0	0.00	0.0%	0.0
Ped Link: P1	0	-	-	-	-	-	-	-	-	0.0%	-

C1 Stream: 1 PRC for Signalled Lanes (%): 30.04 Cycle Time (s): 76
2.5 Total Delay for Signalled Lanes (pcuHr):
C1 Stream: 2 PRC for Signalled Lanes (%): 0.76 Cycle Time (s): 76
95.4 Total Delay for Signalled Lanes (pcuHr):
PRC Over All Lanes (%): 30.80
2.5 Total Delay Over All Lanes(pcuHr):

Junction 3- The A20 connection southbound through the site _Report_Output

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947

For sales and distribution information, program advice and maintenance, contact TRL:

+44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk

Filename: J34_non-Signalised T Junction.j9
Path: \\arcadiso365.sharepoint.com@SSL\DavWWWRoot\teams\project-10029956\Shared Documents\17 Transport\D-Calcs\Modelling\Phase 1 Masterplan Newingreen Junction\IT3
Report generation date: 04/08/2021 10:13:41

«2044 DS, PM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data

»Vehicle Mix
»Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2044 DS							
Stream B-C	0.3	9.31	0.23	A	1.9	18.86	0.66	C
Stream B-A	1.4	19.55	0.59	C	0.1	10.59	0.10	B
Stream C-AB	0.1	7.42	0.12	A	0.2	8.84	0.14	A

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	(untitled)
Location	
Site number	
Date	25/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ARCADIS\gunasekj4132
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

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

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	2044 DS	PM	ONE HOUR	17:00	18:30	15

2044 DS, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.30		✓	2.20	100.0	✓	2.00

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	3.65	3.65	60	60

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	561	0.096	0.244	0.153	0.348
1	B-C	705	0.102	0.258	-	-
1	C-B	632	0.231	0.231	-	-

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

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		✓	630	100.000
B		✓	366	100.000
C		✓	253	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	262	368
	B	35	0	331
	C	191	62	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.66	18.86	1.9	C
B-A	0.10	10.59	0.1	B
C-AB	0.14	8.84	0.2	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)	LOS
B-C	249	604	0.413	246	0.7	10.081	B
B-A	26	436	0.060	26	0.1	8.771	A
C-AB	47	523	0.089	46	0.1	7.539	A

C-A	144			144			
A-B	197			197			
A-C	277			277			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	298	584	0.509	296	1.0	12.560	B
B-A	31	412	0.076	31	0.1	9.457	A
C-AB	56	503	0.111	56	0.1	8.046	A
C-A	171			171			
A-B	236			236			
A-C	331			331			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	364	556	0.655	361	1.8	18.316	C
B-A	39	378	0.102	38	0.1	10.586	B
C-AB	69	476	0.145	69	0.2	8.834	A
C-A	210			210			
A-B	288			288			
A-C	405			405			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	364	556	0.655	364	1.9	18.862	C
B-A	39	378	0.102	39	0.1	10.594	B
C-AB	69	476	0.145	69	0.2	8.841	A
C-A	210			210			
A-B	288			288			
A-C	405			405			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	298	584	0.510	301	1.1	12.960	B
B-A	31	412	0.076	32	0.1	9.470	A
C-AB	56	503	0.111	56	0.1	8.056	A
C-A	171			171			
A-B	236			236			
A-C	331			331			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	249	604	0.413	251	0.7	10.321	B
B-A	26	436	0.060	26	0.1	8.788	A

C-AB	47	523	0.089	47	0.1	7.554	A
C-A	144			144			
A-B	197			197			
A-C	277			277			

Junction 4 – Otterpool Avenue Western Access Junction

Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	**DS 2044 AM_it6**	**DS 2044 AM_it6**	**Network Control Plan 1**	**08:00 - 09:00**	**106**	**38.6**	**9.56**
2	**DS 2044 PM_it6**	**DS 2044 PM_it6**	**Network Control Plan 1**	**16:45 - 17:45**	**102**	**21.5**	**14.52**

Scenario 1: 'DS 2044 AM_it6' (FG1: 'DS 2044 AM_it6', Plan 1: 'Network Control Plan 1')
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Start Green (s)	End Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Max Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**64.9%**	**-**	**-**
J35 A20 Ashford Rd/P1C	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**64.9%**	**-**	**-**
1/1+1/2	A20 Ashford Rd East Ahead Right	U+O	N/A	N/A	A	H	1	68	6	74	4	-	251	1940:1860	1940	269+380	38.7 : 38.7%	251	251
2/1	A20 Ashford Rd West Ahead Left	U	N/A	N/A	B		1	58	6	64	-	-	701	1940	1940	1080	64.9%	701	701
3/2+3/1	Access to zone P1C Left Right	U	N/A	N/A	C D		1	25:8	81:99	0:1	-	-	305	1860:1805	1860	386+113	61.2 : 61.2%	305	305
4/1	A20 Ashford Rd North Exit	U	N/A	N/A	-		-	-	-	-	-	-	282	Inf	Inf	Inf	0.0%	282	282
5/1	A20 Ashford Rd West Exit	U	N/A	N/A	-		-	-	-	-	-	-	340	Inf	Inf	Inf	0.0%	340	340
6/1	Access to zone P1C Exit	U	N/A	N/A	-		-	-	-	-	-	-	635	Inf	Inf	Inf	0.0%	635	635
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	8	-	-	-	-	0	-	-	0	0.0%	0	0
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	58	-	-	-	-	0	-	-	0	0.0%	0	0

Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	-	-	0	-	-	0	0.0%	0	0

Item	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)	Uniform Stops (stops)	Av. Uniform Stops Per PCU (stops/pcu)	Back of Uniform Q At End of Red(pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	De-sliver Threshold (pcu)	Average Excess Queue (pcu)	Weighted Deg Sat (%)	Weighted Total Delay (pcuHr)	Ignoring Random Delay?
Network	**133**	**11**	**3**	**6.9**	**2.0**	**0.6**	**9.6**	**-**	**1000.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**64.9%**	**11.4**	**-**
J35 A20 Ashford Rd/P1 C	**133**	**11**	**3**	**6.9**	**2.0**	**0.6**	**9.6**	**-**	**1000.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**64.9%**	**11.4**	**-**
1/1+1/2	133	11	3	0.6	0.3	0.6	1.5 (0.3+1.2)	21.8 (11.3:29.2)	236.6	0.9	1.4	1.6	0.3	1.9	-	0.00	38.7 : 38.7%	2.0	-
2/1	-	-	-	3.2	0.9	-	4.1	21.0	482.8	0.7	8.8	14.2	0.9	15.1	-	0.00	64.9%	5.0	-
3/2+3/1	-	-	-	3.2	0.8	-	3.9 (2.9+1.1)	46.5 (43.9:55.4)	280.9	0.9	5.1	6.3	0.8	7.1	-	0.00	61.2 : 61.2%	4.5	-
4/1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.00	0.0%	0.0	-
5/1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.00	0.0%	0.0	-
6/1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.00	0.0%	0.0	-
Ped Link: P1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-
Ped Link: P2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-
Ped Link: P3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-

C1 PRC for Signalled Lanes (%): 38.6 Total Delay for Signalled Lanes (pcuHr): 9.56 Cycle Time (s): 106
PRC Over All Lanes (%): 38.6 Total Delay Over All Lanes(pcuHr): 9.56

Traffic Flows, Desired
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	69	236	305
	B	147	0	104	251
	C	488	213	0	701
	Tot.	635	282	340	1257

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 2: 'DS 2044 PM_it6' (FG2: 'DS 2044 PM_it6', Plan 1: 'Network Control Plan 1')
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Start Green (s)	End Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Max Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)	Leaving (pcu)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.1%**	**-**	**-**
J35 A20 Ashford Rd/P1C	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.1%**	**-**	**-**
1/1+1/2	A20 Ashford Rd East Ahead Right	U+O	N/A	N/A	A	H	1	64	6	70	22	-	716	1940:1860	1940	385+582	74.1 : 74.1%	716	716
2/1	A20 Ashford Rd West Ahead Left	U	N/A	N/A	B		1	36	6	42	-	-	470	1940	1940	704	66.8%	470	470
3/2+3/1	Access to zone P1C Left Right	U	N/A	N/A	C D		1	25:8	77:95	0:1	-	-	351	1860:1805	1860	393+133	66.7 : 66.7%	351	351
4/1	A20 Ashford Rd North Exit	U	N/A	N/A	-		-	-	-	-	-	-	255	Inf	Inf	Inf	0.0%	255	255
5/1	A20 Ashford Rd West Exit	U	N/A	N/A	-		-	-	-	-	-	-	547	Inf	Inf	Inf	0.0%	547	547
6/1	Access to zone P1C Exit	U	N/A	N/A	-		-	-	-	-	-	-	735	Inf	Inf	Inf	0.0%	735	735
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	8	-	-	-	-	0	-	-	0	0.0%	0	0
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	36	-	-	-	-	0	-	-	0	0.0%	0	0

Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	-	-	0	-	-	0	0.0%	0	0

Item	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)	Uniform Stops (stops)	Av. Uniform Stops Per PCU (stops/pcu)	Back of Uniform Q At End of Red(pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	De-sliver Threshold (pcu)	Average Excess Queue (pcu)	Weighted Deg Sat (%)	Weighted Total Delay (pcuHr)	Ignoring Random Delay ?
Network	**145**	**277**	**8**	**10.3**	**3.4**	**0.8**	**14.5**	**-**	**1789.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.1%**	**17.8**	**-**
J35 A20 Ashford Rd/P1 C	**145**	**277**	**8**	**10.3**	**3.4**	**0.8**	**14.5**	**-**	**1789.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**74.1%**	**17.8**	**-**
1/1+1/2	145	277	8	3.3	1.4	0.8	5.4 (1.3+4.1)	27.4 (16.5:34.5)	1061.2	1.5	4.2	10.3	1.4	11.7	-	0.00	74.1 : 74.1%	7.4	-
2/1	-	-	-	3.6	1.0	-	4.6	35.0	391.7	0.8	8.2	11.1	1.0	12.1	-	0.00	66.8%	5.3	-
3/2+3/1	-	-	-	3.5	1.0	-	4.5 (3.2+1.4)	46.2 (43.3:54.8)	336.8	1.0	5.5	7.1	1.0	8.1	-	0.00	66.7 : 66.7%	5.1	-
4/1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.00	0.0%	0.0	-
5/1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.00	0.0%	0.0	-
6/1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.00	0.0%	0.0	-
Ped Link: P1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-
Ped Link: P2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-
Ped Link: P3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0%	-	-

C1 PRC for Signalled Lanes (%): 21.5 Total Delay for Signalled Lanes (pcuHr): 14.52 Cycle Time (s): 102
PRC Over All Lanes (%): 21.5 Total Delay Over All Lanes(pcuHr): 14.52

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	89	262	351
	B	431	0	285	716
	C	304	166	0	470
	Tot.	735	255	547	1537

Traffic Flows, Difference

Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

APPENDIX K Committed Development traffic flows

[File Submitted Electronically Only]

APPENDIX L Highways England response to Otterpool Park Planning Application: Background Traffic Growth

MEMO

ARCADIS Design & Consultancy for natural and built assets

SUBJECT
Highways England response to Otterpool Park Planning Application: Background Traffic Growth

DATE
20th April 2020

DEPARTMENT
Transportation

COPIES TO
James Farrar (Folkestone & Hythe District Council)
Matt Hogben (Kent County Council)
James Hammond (Folkestone & Hythe District Council)

TO
David Bowie (Highways England)

OUR REF

PROJECT NUMBER
10029956

FROM
Phillip Longman
E phillip.longman@arcadis.com

Otterpool Park

Highways England Comments on 2019 Application Transport Assessment

1.1 Introduction

In 2019, an outline planning application was submitted for the development of a new garden settlement accommodating up to 8,500 homes (use class C2 and C3) and use class D1, D2, A1, A2, A3, A4, B1a, B1b, B2, C1 development with related highways, green and blue infrastructure (access, appearance, landscaping, layout and scale matters to be reserved).

A Transport Assessment was produced to accompany the application, the scope of which was agreed with Highways England, Folkstone & Hythe District Council and Kent County Council. The scope of the assessment included highway capacity modelling within a study area that included parts of Folkestone & Hythe, Ashford and Canterbury.

On 24 May 2019, Highways England provided a response to the application, as attached in Appendix A to this memo. The response included two comments which require a response from Arcadis, as follows:

1. *"Non-Otterpool development has been produced using the Department for Transport's TEMPRO forecasts based upon population and employment projections. We are unsure as to the meaning of Paragraph 12.3.19 of the Transport Assessment suggesting that background growth has not been fully accounted for in the assessments undertaken. We need clarity as to the meaning of this paragraph to ensure that any future non-Otterpool related development within Folkestone and Hythe has been appropriately represented in the future year do minimum forecasts of traffic growth used in the assessment work. It would help to see some worked examples of household and employment growth from TEMPRO for Folkestone and Hythe and how these have been applied for do minimum and do something scenarios for the assessment years."*

2. *"The transport assessment makes reference to a VISSIM model in Paragraphs 1.3.5 and 13.1.8. Both paragraphs state that further modelling work will be reported to inform discussions regarding highway mitigation. In our consultations prior to the submission of the planning application we made comments and recommendations in relation to a VISSIM model. We are aware that the VISSIM modelling may cover some of the junctions that have been modelled in the Transport Assessment using other software platforms.*

   We are therefore unsure as to whether the non-VISSIM modelling included in the Transport Assessment is final or not. Whilst we have reviewed the Transport Assessment evidence (notwithstanding the points about the representation of background growth above) we feel that

it would be prudent to seek clarity on whether further evidence will be forthcoming at this stage."

This memo provides a response to these two comments in the following sections.

1.2 Background Traffic Forecasting

1.1.1 Housing and Employment Forecasts

It was agreed during scoping with Kent County Council and Highways England that the primary method for forecasting future traffic growth should be the application of growth factors derived from TEMPro. In addition to the use of TEMPro, specific developments close to the Otterpool Park development site for which traffic generation and routing assumptions were available were included in the assessment separately. In addition, heavy goods vehicle traffic growth on the M20 was calculated using national freight traffic growth data.

Highways England advised that the household and employment figures contained in TEMPro v7.2 were incomplete and should be updated with forecasts consistent with the development requirements of the relevant local authorities in order to reflect anticipated traffic growth. Following consultation with Kent County Council and Folkestone & Hythe District Council, the most recent housing and job forecasts were obtained for the three areas within the assessment study area; Ashford, Folkestone & Hythe and Canterbury. Table 1 presents the forecast information provided for the forecast assessment years.

Table 1 Forecast Household and Job Numbers for Ashford, Folkestone & Hythe and Canterbury by Year

Year	Ashford		Folkestone & Hythe		Canterbury	
	Households	Jobs	Households	Jobs	Households	Jobs
2037	66,946	68,806	61,692	54,833	81,522	77,811
2044	70,870	71,186	66,123	57,143	86,055	80,432
2046	71,837	71,767	67,389	57,803	87,133	81,063

1.1.2 Inclusion in Do-Something and Do-Minimum Forecast Scenarios

Each future year assessment included two scenarios:

1) **Do-Minimum (DM)**, which includes:
   - committed highway improvement schemes; and
   - forecast baseline traffic flows.
2) **Do-Something (DS)**, which includes:
   - committed highway improvement schemes;
   - highway schemes proposed for the Otterpool Park Development;
   - forecast baseline traffic flows; and
   - Otterpool Park development traffic flows.

The DS scenario included forecast traffic growth for the total number of households and jobs shown in Table 1. For the 2044 assessment year, which formed the main assessment and represented the forecast year of full build-out for the 8,500 homes and associated land uses, the forecast traffic growth consisted of growth due to specific developments close to the Otterpool Park development site obtained from their respective planning applications, growth due to other planned/committed developments using TEMPro growth and growth due to Otterpool Park, forecast through the Otterpool

Park Transport Assessment. The number of homes and jobs forecast for each of these elements is shown in Table 2.

Table 2 Do-Something Forecast Household and Job Number Assumptions for Ashford, Folkestone & Hythe and Canterbury (2044)

Growth Element	Ashford		Folkestone & Hythe		Canterbury	
	HHs	Jobs	HHs	Jobs	HHs	Jobs
Otterpool Park	0	0	8,500	8,401	0	0
Other Developments	207	0	412	77	4,000	5,833
TEMPro	70,663	71,186	57,211	48,665	82,055	74,598
Total	**70,870**	**71,186**	**66,123**	**57,143**	**86,055**	**80,432**

For the DM assessment case, i.e. a future in which the Otterpool Park development does not happen, it was assumed that Folkestone & Hythe District Council would be unlikely to meet their household and employment forecast targets, and thus the total number of households and jobs included in the forecast traffic growth for that region was less than the total in Table 1. The number of households and jobs included in the Do-Minimum forecast traffic growth is shown in Table 3.

Table 3 Do-Minimum Forecast Household and Job Number Assumptions for Ashford, Folkestone & Hythe and Canterbury (2044)

Growth Element	Ashford		Folkestone & Hythe		Canterbury	
	HHs	Jobs	HHs	Jobs	HHs	Jobs
Otterpool Park	0	0	0	0	0	0
Other Developments	207	0	412	77	4,000	5,833
TEMPro	70,663	71,186	57,211	48,665	82,055	74,598
Total	**70,870**	**71,186**	**57,623**	**48,742**	**86,055**	**80,432**

This means that the same TEMPro growth rates were used in the DM and DS scenarios for all regions. However, it also means that the DS scenario included 8,500 more households and 8,401 more jobs (equal to the number of households and jobs created by Otterpool Park) than the DM scenario.

1.3 Reporting of Modelling Results

Figure 1 presents the agreed highway capacity modelling study area, including the area Kent County Council requested to be assessed using VISSIM.

The 2019 Transport Assessment provided results of highway capacity assessments for all junctions in the study area using ARCADY, PICADY and LinSig software packages. A VISSIM model was produced, but at the time of submission of the application, discussions with Highways England regarding the base model had not been concluded, thus it was not possible to include VISSIM results in the Transport Assessment.

The 2019 Transport Assessment will be superseded by an updated Transport Assessment that will be submitted with the updated application. It is intended that the updated Transport Assessment will report the results of the highway capacity assessment for junctions within the VISSIM modelling area (Figure 1) using the results from the VISSIM model. The results of the highway capacity assessment

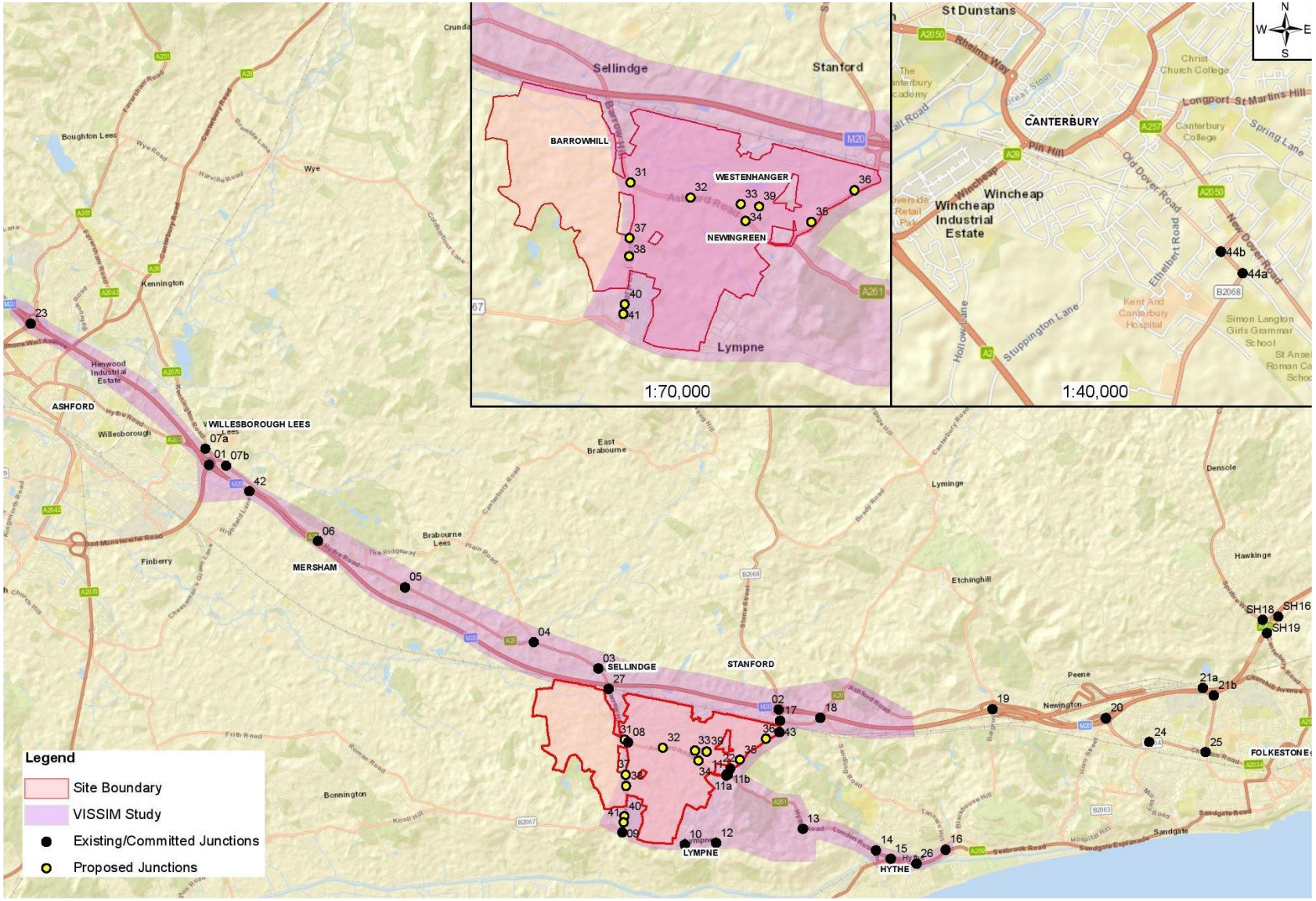
of junctions outside the VISSIM modelling area will be reported using the results obtained from the appropriate other software packages.

For this to be possible, it is necessary to conclude the discussions with Highways England and agree a base VISSIM model. As of 20th April 2020, Arcadis has provided Highways England with the information they requested relating to the base model and await a response.

1.4 Next Steps

We are currently in the process of responding to comments on the 2019 application received from stakeholders. In May 2020, we expect to begin the process of updating our transport assessment, including the forecast traffic flows. We would therefore be grateful for your comment on the method of traffic forecasting described in this note.

Figure 1 Highway Assessment Study Area



APPENDIX A
Highways England Response on 2019 Otterpool Park Transport Assessment

Longman, Phillip

From: James.Farrar@folkestone-hythe.gov.uk
Sent: 14 February 2020 14:08
To: Longman, Phillip
Cc: Matt.Hogben@kent.gov.uk
Subject: FW: Y19/0257/FH - Land bounded by; the M20 and channel tunnel railway link (ctrl) to the north; the A20/Stone Street and Sandling Park to the east; Harringe Lane to the west, and; Aldington Road to the south

Follow Up Flag: Follow up
Flag Status: Flagged

Phil

I assume you have already seen this response from last year?

Regards
James

From: Bowie, David [mailto:David.Bowie@highwaysengland.co.uk]
Sent: 24 May 2019 11:39
To: Otterpool Applications <Otterpool.Applications@folkestone-hythe.gov.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Bown, Kevin <Kevin.Bown@highwaysengland.co.uk>; Bradley, Alistair <Alistair.Bradley@highwaysengland.co.uk>; WALKDEN, NIGEL <Nigel.Walkden@highwaysengland.co.uk>; Jenkins, Daniel <Daniel.Jenkins2@wsp.com>
Subject: Y19/0257/FH - Land bounded by; the M20 and channel tunnel railway link (ctrl) to the north; the A20/Stone Street and Sandling Park to the east; Harringe Lane to the west, and; Aldington Road to the south

For the attention of: Mr James Farrar

Site: Land bounded by; the M20 and channel tunnel railway link (ctrl) to the north; the A20/Stone Street and Sandling Park to the east; Harringe Lane to the west, and; Aldington Road to the south.

Proposal: Outline application, with all matters reserved, for a comprehensive residential led mixed use development comprising:

• up to 8,500 residential homes including market and affordable homes; age restricted homes, assisted living homes, extra care facilities, care homes, sheltered housing and care villages;
• demolition of identified existing buildings;
• a range of community uses including primary and secondary schools, health centres and nursery facilities;
• retail and related uses;
• leisure facilities;
• business and commercial uses;
• open space and public realm;
• new planting and landscaping, and ecological enhancement works;
• sustainable urban drainage systems;
• utility and energy facilities and infrastructure;
• waste and waste water infrastructure and management facilities;
• vehicular bridge links;
• undercroft, surface and multi-storey car parking;

• creation of new vehicular and pedestrian accesses into the site, and creation of a new vehicular, pedestrian and cycle network within the site;
• improvements to the existing highway and local road network;
• lighting;
• engineering works, infrastructure and associated facilities;
• together with interim works or temporary structures required by the development and other associated works including temporary meanwhile uses.

Planning Application No: Y19/0257/FH

Tracker Number: #7146
HAMIS: 84249

Dear James,

Thank you for giving Highways England (HE) the opportunity to comment upon the above planning application for Otterpool Park.

Highways England has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such Highways England works to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

In the case of the above pre-application scoping consultation, Highways England is interested in the potential impact that the development might have upon the M20 extending from Junction 9 to Junction 13 and along the A20 to the A20/A260 Hawkinge and A20 junction with Alkham Valley Road. We would be concerned as to whether there would be any adverse safety implications or material increase in queues and delays on the strategic road network as a result of the development proposals outlined above.

Our assessment has concentrated on the detailed Transport Assessment Volumes 1 to 6 that include the Appendices covering the detailed survey data and modelling outputs. We have been in pre-application discussions and consultations with the applicant's consultants over an extended period prior to the submission of the planning application. These consultations are summarised in the appendices and mentioned at various points in the Transport Assessment.

We were able to reach agreement on the assessment methodology in relation to the trip generation and distribution assumptions and had detailed discussions on the use of a variety of models used to produce model flows and to assess junction impacts. The Transport Assessment is therefore generally based upon agreed trip rates and distribution methodologies.

In order to assess the impacts of the development on the SRN the future year scenarios were also discussed and agreed prior to application. These included the forecasting requirements for the do minimum scenario (without Otterpool development) and do something (with Otterpool development).

Non-Otterpool development has been produced using the Department for Transport's TEMPRO forecasts based upon population and employment projections. We are unsure as to the meaning of Paragraph 12.3.19 of the Transport Assessment suggesting that background growth has not been fully accounted for in the assessments undertaken. We need clarity as to the meaning of this

paragraph to ensure that any future non-Otterpool related development within Folkestone and Hythe has been appropriately represented in the future year do minimum forecasts of traffic growth used in the assessment work. It would help to see some worked examples of household and employment growth from TEMPRO for Folkestone and Hythe and how these have been applied for do minimum and do something scenarios for the assessment years.

The transport assessment makes reference to a VISSIM model in Paragraphs 1.3.5 and 13.1.8. Both paragraphs state that further modelling work will be reported to inform discussions regarding highway mitigation. In our consultations prior to the submission of the planning application we made comments and recommendations in relation to a VISSIM model. We are aware that the VISSIM modelling may cover some of the junctions that have been modelled in the Transport Assessment using other software platforms.

We are therefore unsure as to whether the non-VISSIM modelling included in the Transport Assessment is final or not. Whilst we have reviewed the Transport Assessment evidence (notwithstanding the points about the representation of background growth above) we feel that it would be prudent to seek clarity on whether further evidence will be forthcoming at this stage.

We wish to avoid potential confusion by not providing comments on evidence that may be incomplete, require reworking/resubmitting or may be superseded. We therefore feel that it would be appropriate to receive responses to the above queries from the applicant before commenting further on this planning application.

We would ask that the authority does not determine the application (other than a refusal) ahead of us receiving and responding to the required information. In the event that the authority wishes to permit the application before this point, we would ask the authority to inform us so that we can provide a substantive response based the position as known at that time.

Should you have any queries regarding our response please contact us.

Kind regards

David
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