Junctions 9

ARCADY 9 - Roundabout Module

Filename: Lords Wood Ln Albemarle Rd Existing RBT.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019 TA Submission\2019-03-19
Report generation date: 22/03/2019 16:05:59

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	Do Minimum									
1 - Lords Wood Ln (N)	0.5	4.12	0.31	A	85 % [2 - Albemarle Rd (E)]	0.1	3.01	0.06	A	195 % [3 - Lords Wood Ln (S)]
2 - Albemarle Rd (E)	0.6	4.70	0.36	A		0.0	3.01	0.03	A	
3 - Lords Wood Ln (S)	0.6	5.25	0.35	A		0.5	4.13	0.31	A	
4 - Dargets Rd (W)	0.4	4.21	0.30	A		0.1	3.38	0.06	A	
	Do Something (800)									
1 - Lords Wood Ln (N)	0.5	4.13	0.33	A	89 % [2 - Albemarle Rd (E)]	0.1	3.04	0.05	A	290 % [3 - Lords Wood Ln (S)]
2 - Albemarle Rd (E)	0.5	4.60	0.34	A		0.1	2.96	0.04	A	
3 - Lords Wood Ln (S)	0.5	5.04	0.32	A		0.3	3.75	0.23	A	
4 - Dargets Rd (W)	0.4	4.03	0.28	A		0.1	3.38	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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Lords Wood Ln Albemarle Rd RBT
Location	
Site number	
Date	22/03/2019
Version	
Status	
Identifier	
Client	
Jobnumber	17-035
Enumerator	CA_WKS12\PLimbu
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D2	Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Something (800)	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Something (800)	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

Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Albemarle Rd RBT	Standard Roundabout		1, 2, 3, 4	4.58	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	85	2 - Albemarle Rd (E)

Arms

Arms

Arm	Name	Description
1	Lords Wood Ln (N)	
2	Albemarle Rd (E)	
3	Lords Wood Ln (S)	
4	Dargets Rd (W)	

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
1 - Lords Wood Ln (N)	3.66	5.42	19.8	25.2	48.0	17.0	
2 - Albemarle Rd (E)	3.70	6.53	5.7	25.1	48.0	8.0	
3 - Lords Wood Ln (S)	3.58	4.76	2.8	25.8	48.0	8.0	
4 - Dargets Rd (W)	3.64	5.90	5.2	10.1	48.0	10.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Lords Wood Ln (N)	0.615	1609
2 - Albemarle Rd (E)	0.619	1579
3 - Lords Wood Ln (S)	0.574	1344
4 - Dargets Rd (W)	0.569	1419

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Lords Wood Ln (N)		ONE HOUR	✓	375	100.000
2 - Albemarle Rd (E)		ONE HOUR	✓	392	100.000
3 - Lords Wood Ln (S)		ONE HOUR	✓	369	100.000
4 - Dargets Rd (W)		ONE HOUR	✓	343	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	59	230	86
	2 - Albemarle Rd (E)	89	0	168	135
	3 - Lords Wood Ln (S)	96	69	0	204
	4 - Dargets Rd (W)	31	86	226	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	32	5	0
	2 - Albemarle Rd (E)	0	0	3	1
	3 - Lords Wood Ln (S)	17	7	0	5
	4 - Dargets Rd (W)	3	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Lords Wood Ln (N)	0.31	4.12	0.5	A	344	516
2 - Albemarle Rd (E)	0.36	4.70	0.6	A	360	540
3 - Lords Wood Ln (S)	0.35	5.25	0.6	A	339	508
4 - Dargets Rd (W)	0.30	4.21	0.4	A	315	472

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	282	71	286	1433	0.197	281	162	0.0	0.3	3.349	A
2 - Albemarle Rd (E)	295	74	406	1327	0.222	294	160	0.0	0.3	3.537	A
3 - Lords Wood Ln (S)	278	69	232	1211	0.229	277	468	0.0	0.3	4.167	A
4 - Dargets Rd (W)	258	65	190	1311	0.197	257	319	0.0	0.3	3.525	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	337	84	342	1398	0.241	337	194	0.3	0.3	3.637	A
2 - Albemarle Rd (E)	352	88	487	1278	0.276	352	192	0.3	0.4	3.950	A
3 - Lords Wood Ln (S)	332	83	278	1185	0.280	331	560	0.3	0.4	4.566	A
4 - Dargets Rd (W)	308	77	228	1289	0.239	308	382	0.3	0.3	3.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	413	103	419	1351	0.306	412	237	0.3	0.5	4.112	A
2 - Albemarle Rd (E)	432	108	596	1210	0.357	431	235	0.4	0.6	4.691	A
3 - Lords Wood Ln (S)	406	102	341	1149	0.354	406	686	0.4	0.6	5.241	A
4 - Dargets Rd (W)	378	94	279	1260	0.300	377	467	0.3	0.4	4.208	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	413	103	419	1350	0.306	413	238	0.5	0.5	4.116	A
2 - Albemarle Rd (E)	432	108	597	1210	0.357	432	236	0.6	0.6	4.701	A
3 - Lords Wood Ln (S)	406	102	341	1148	0.354	406	687	0.6	0.6	5.251	A
4 - Dargets Rd (W)	378	94	280	1260	0.300	378	468	0.4	0.4	4.213	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	337	84	343	1397	0.241	338	195	0.5	0.3	3.645	A
2 - Albemarle Rd (E)	352	88	488	1277	0.276	353	193	0.6	0.4	3.963	A
3 - Lords Wood Ln (S)	332	83	279	1184	0.280	332	562	0.6	0.4	4.581	A
4 - Dargets Rd (W)	308	77	229	1289	0.239	309	383	0.4	0.3	3.796	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	282	71	287	1432	0.197	283	163	0.3	0.3	3.358	A
2 - Albemarle Rd (E)	295	74	408	1326	0.223	296	161	0.4	0.3	3.552	A
3 - Lords Wood Ln (S)	278	69	234	1210	0.230	278	470	0.4	0.3	4.183	A
4 - Dargets Rd (W)	258	65	191	1310	0.197	259	320	0.3	0.3	3.537	A

Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Albemarle Rd RBT	Standard Roundabout		1, 2, 3, 4	3.79	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	195	3 - Lords Wood Ln (S)

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Lords Wood Ln (N)		ONE HOUR	✓	77	100.000
2 - Albemarle Rd (E)		ONE HOUR	✓	48	100.000
3 - Lords Wood Ln (S)		ONE HOUR	✓	371	100.000
4 - Dargets Rd (W)		ONE HOUR	✓	67	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	33	44	0
	2 - Albemarle Rd (E)	19	0	22	7
	3 - Lords Wood Ln (S)	147	58	0	166
	4 - Dargets Rd (W)	0	32	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	66	0	0
	2 - Albemarle Rd (E)	87	0	1	0
	3 - Lords Wood Ln (S)	12	0	0	2
	4 - Dargets Rd (W)	0	30	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Lords Wood Ln (N)	0.06	3.01	0.1	A	71	106
2 - Albemarle Rd (E)	0.03	3.01	0.0	A	44	66
3 - Lords Wood Ln (S)	0.31	4.13	0.5	A	340	511
4 - Dargets Rd (W)	0.06	3.38	0.1	A	61	92

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	58	14	94	1551	0.037	58	124	0.0	0.0	2.906	A
2 - Albemarle Rd (E)	36	9	59	1542	0.023	36	92	0.0	0.0	2.945	A
3 - Lords Wood Ln (S)	279	70	20	1333	0.210	278	76	0.0	0.3	3.594	A
4 - Dargets Rd (W)	50	13	168	1323	0.038	50	130	0.0	0.0	3.196	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	69	17	112	1539	0.045	69	149	0.0	0.1	2.950	A
2 - Albemarle Rd (E)	43	11	71	1535	0.028	43	110	0.0	0.0	2.973	A
3 - Lords Wood Ln (S)	334	83	23	1331	0.251	333	91	0.3	0.4	3.803	A
4 - Dargets Rd (W)	60	15	201	1304	0.046	60	155	0.0	0.1	3.269	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	85	21	137	1524	0.056	85	183	0.1	0.1	3.014	A
2 - Albemarle Rd (E)	53	13	87	1525	0.035	53	135	0.0	0.0	3.013	A
3 - Lords Wood Ln (S)	408	102	29	1328	0.308	408	111	0.4	0.5	4.123	A
4 - Dargets Rd (W)	74	18	246	1279	0.058	74	190	0.1	0.1	3.376	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	85	21	138	1524	0.056	85	183	0.1	0.1	3.014	A
2 - Albemarle Rd (E)	53	13	87	1525	0.035	53	135	0.0	0.0	3.013	A
3 - Lords Wood Ln (S)	408	102	29	1328	0.308	408	111	0.5	0.5	4.126	A
4 - Dargets Rd (W)	74	18	247	1279	0.058	74	190	0.1	0.1	3.376	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	69	17	112	1539	0.045	69	149	0.1	0.1	2.953	A
2 - Albemarle Rd (E)	43	11	71	1535	0.028	43	111	0.0	0.0	2.976	A
3 - Lords Wood Ln (S)	334	83	23	1331	0.251	334	91	0.5	0.4	3.809	A
4 - Dargets Rd (W)	60	15	202	1304	0.046	60	156	0.1	0.1	3.270	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	58	14	94	1551	0.037	58	125	0.1	0.0	2.906	A
2 - Albemarle Rd (E)	36	9	60	1542	0.023	36	93	0.0	0.0	2.948	A
3 - Lords Wood Ln (S)	279	70	20	1333	0.210	280	76	0.4	0.3	3.604	A
4 - Dargets Rd (W)	50	13	169	1323	0.038	50	130	0.1	0.0	3.200	A

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Albemarle Rd RBT	Standard Roundabout		1, 2, 3, 4	4.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	89	2 - Albemarle Rd (E)

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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Lords Wood Ln (N)		ONE HOUR	✓	413	100.000
2 - Albemarle Rd (E)		ONE HOUR	✓	365	100.000
3 - Lords Wood Ln (S)		ONE HOUR	✓	334	100.000
4 - Dargets Rd (W)		ONE HOUR	✓	323	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	57	263	93
	2 - Albemarle Rd (E)	83	0	144	138
	3 - Lords Wood Ln (S)	94	61	0	179
	4 - Dargets Rd (W)	31	85	207	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	30	2	1
	2 - Albemarle Rd (E)	0	0	1	3
	3 - Lords Wood Ln (S)	17	10	0	5
	4 - Dargets Rd (W)	1	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Lords Wood Ln (N)	0.33	4.13	0.5	A	379	568
2 - Albemarle Rd (E)	0.34	4.60	0.5	A	335	502
3 - Lords Wood Ln (S)	0.32	5.04	0.5	A	306	460
4 - Dargets Rd (W)	0.28	4.03	0.4	A	296	445

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	311	78	265	1446	0.215	310	156	0.0	0.3	3.321	A
2 - Albemarle Rd (E)	275	69	422	1318	0.209	274	152	0.0	0.3	3.498	A
3 - Lords Wood Ln (S)	251	63	235	1209	0.208	250	461	0.0	0.3	4.088	A
4 - Dargets Rd (W)	243	61	178	1317	0.185	242	307	0.0	0.2	3.421	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	371	93	317	1413	0.263	371	187	0.3	0.4	3.622	A
2 - Albemarle Rd (E)	328	82	506	1266	0.259	328	182	0.3	0.4	3.894	A
3 - Lords Wood Ln (S)	300	75	282	1182	0.254	300	551	0.3	0.4	4.448	A
4 - Dargets Rd (W)	290	73	214	1297	0.224	290	368	0.2	0.3	3.655	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	455	114	388	1370	0.332	454	229	0.4	0.5	4.121	A
2 - Albemarle Rd (E)	402	100	619	1196	0.336	401	223	0.4	0.5	4.595	A
3 - Lords Wood Ln (S)	368	92	345	1146	0.321	367	675	0.4	0.5	5.036	A
4 - Dargets Rd (W)	356	89	262	1270	0.280	355	451	0.3	0.4	4.022	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	455	114	389	1369	0.332	455	229	0.5	0.5	4.127	A
2 - Albemarle Rd (E)	402	100	620	1195	0.336	402	224	0.5	0.5	4.605	A
3 - Lords Wood Ln (S)	368	92	346	1146	0.321	368	676	0.5	0.5	5.044	A
4 - Dargets Rd (W)	356	89	262	1270	0.280	356	451	0.4	0.4	4.027	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	371	93	318	1413	0.263	372	187	0.5	0.4	3.630	A
2 - Albemarle Rd (E)	328	82	507	1265	0.259	329	183	0.5	0.4	3.906	A
3 - Lords Wood Ln (S)	300	75	283	1182	0.254	301	553	0.5	0.4	4.457	A
4 - Dargets Rd (W)	290	73	214	1297	0.224	291	369	0.4	0.3	3.659	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	311	78	266	1445	0.215	311	157	0.4	0.3	3.333	A
2 - Albemarle Rd (E)	275	69	424	1316	0.209	275	153	0.4	0.3	3.513	A
3 - Lords Wood Ln (S)	251	63	237	1208	0.208	252	463	0.4	0.3	4.104	A
4 - Dargets Rd (W)	243	61	179	1317	0.185	243	309	0.3	0.2	3.429	A

Do Something (800), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Albemarle Rd RBT	Standard Roundabout		1, 2, 3, 4	3.49	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	290	3 - Lords Wood Ln (S)

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
D4	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Lords Wood Ln (N)		ONE HOUR	✓	74	100.000
2 - Albemarle Rd (E)		ONE HOUR	✓	60	100.000
3 - Lords Wood Ln (S)		ONE HOUR	✓	270	100.000
4 - Dargets Rd (W)		ONE HOUR	✓	64	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	31	43	0
	2 - Albemarle Rd (E)	19	0	23	18
	3 - Lords Wood Ln (S)	162	29	0	79
	4 - Dargets Rd (W)	0	31	33	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Lords Wood Ln (N)	2 - Albemarle Rd (E)	3 - Lords Wood Ln (S)	4 - Dargets Rd (W)
From	1 - Lords Wood Ln (N)	0	72	3	0
	2 - Albemarle Rd (E)	94	0	3	1
	3 - Lords Wood Ln (S)	9	0	0	5
	4 - Dargets Rd (W)	0	35	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Lords Wood Ln (N)	0.05	3.04	0.1	A	68	102
2 - Albemarle Rd (E)	0.04	2.96	0.1	A	55	83
3 - Lords Wood Ln (S)	0.23	3.75	0.3	A	248	372
4 - Dargets Rd (W)	0.05	3.38	0.1	A	59	88

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	56	14	70	1566	0.036	56	136	0.0	0.0	2.951	A
2 - Albemarle Rd (E)	45	11	57	1544	0.029	45	68	0.0	0.0	2.885	A
3 - Lords Wood Ln (S)	203	51	28	1328	0.153	203	74	0.0	0.2	3.412	A
4 - Dargets Rd (W)	48	12	158	1329	0.036	48	73	0.0	0.0	3.212	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	67	17	84	1557	0.043	66	163	0.0	0.1	2.989	A
2 - Albemarle Rd (E)	54	13	68	1537	0.035	54	82	0.0	0.0	2.916	A
3 - Lords Wood Ln (S)	243	61	33	1325	0.183	243	89	0.2	0.2	3.550	A
4 - Dargets Rd (W)	58	14	189	1312	0.044	57	87	0.0	0.1	3.282	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	81	20	102	1546	0.053	81	199	0.1	0.1	3.043	A
2 - Albemarle Rd (E)	66	17	84	1527	0.043	66	100	0.0	0.1	2.959	A
3 - Lords Wood Ln (S)	297	74	41	1321	0.225	297	109	0.2	0.3	3.754	A
4 - Dargets Rd (W)	70	18	231	1288	0.055	70	107	0.1	0.1	3.381	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	81	20	102	1546	0.053	81	199	0.1	0.1	3.043	A
2 - Albemarle Rd (E)	66	17	84	1527	0.043	66	100	0.1	0.1	2.959	A
3 - Lords Wood Ln (S)	297	74	41	1321	0.225	297	109	0.3	0.3	3.754	A
4 - Dargets Rd (W)	70	18	231	1287	0.055	70	107	0.1	0.1	3.382	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	67	17	84	1557	0.043	67	163	0.1	0.1	2.992	A
2 - Albemarle Rd (E)	54	13	68	1537	0.035	54	82	0.1	0.0	2.916	A
3 - Lords Wood Ln (S)	243	61	33	1325	0.183	243	89	0.3	0.2	3.551	A
4 - Dargets Rd (W)	58	14	189	1311	0.044	58	87	0.1	0.1	3.282	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Lords Wood Ln (N)	56	14	70	1565	0.036	56	136	0.1	0.0	2.951	A
2 - Albemarle Rd (E)	45	11	57	1543	0.029	45	69	0.0	0.0	2.888	A
3 - Lords Wood Ln (S)	203	51	28	1328	0.153	203	75	0.2	0.2	3.416	A
4 - Dargets Rd (W)	48	12	158	1329	0.036	48	73	0.1	0.0	3.214	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 14 - Princes Ave Walderslade Rd Existing.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:30:44

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	Do Minimum									
1 - Princes Ave N	14.0	55.21	0.96	F	-4 %	2.2	11.37	0.69	B	-6 %
2 - Walderslade Rd S	2.1	9.81	0.67	A	[1 - Princes Ave N]	21.5	71.11	0.99	F	[2 - Walderslade Rd S]
3 - Walderslade Rd N	2.0	8.84	0.67	A		4.2	19.92	0.82	C	
	Do Something (800)									
1 - Princes Ave N	14.7	57.62	0.96	F	-5 %	3.1	14.64	0.76	B	-10 %
2 - Walderslade Rd S	2.1	9.87	0.67	A	[1 - Princes Ave N]	35.6	109.81	1.04	F	[2 - Walderslade Rd S]
3 - Walderslade Rd N	2.4	10.28	0.71	B		6.0	27.16	0.87	D	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Princes Ave Walderslade Rd RBT
Location	
Site number	
Date	21/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	17035
Enumerator	CA_WKS12\PLimbu
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D2	Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Something (800)	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Something (800)	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

Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Princes Ave Walderslade Rd RBT	Standard Roundabout		1, 2, 3	26.43	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	1 - Princes Ave N

Arms

Arms

Arm	Name	Description
1	Princes Ave N	
2	Walderslade Rd S	
3	Walderslade Rd N	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Princes Ave N	3.04	6.33	7.3	34.4	22.0	22.0	
2 - Walderslade Rd S	3.51	5.66	4.0	26.5	22.0	15.0	
3 - Walderslade Rd N	4.04	6.76	5.1	13.3	22.0	30.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Princes Ave N	0.615	1394
2 - Walderslade Rd S	0.618	1383
3 - Walderslade Rd N	0.611	1487

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Princes Ave N		ONE HOUR	✓	875	100.000
2 - Walderslade Rd S		ONE HOUR	✓	706	100.000
3 - Walderslade Rd N		ONE HOUR	✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	538	337
	2 - Walderslade Rd S	298	41	367
	3 - Walderslade Rd N	232	532	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	5	4
	2 - Walderslade Rd S	4	4	3
	3 - Walderslade Rd N	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Princes Ave N	0.96	55.21	14.0	F	803	1204
2 - Walderslade Rd S	0.67	9.81	2.1	A	648	972
3 - Walderslade Rd N	0.67	8.84	2.0	A	701	1052

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	659	165	429	1130	0.583	653	397	0.0	1.4	7.811	A
2 - Walderslade Rd S	532	133	252	1228	0.433	528	831	0.0	0.8	5.305	A
3 - Walderslade Rd N	575	144	254	1332	0.432	572	526	0.0	0.8	4.843	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	787	197	514	1077	0.730	782	475	1.4	2.7	12.517	B
2 - Walderslade Rd S	635	159	301	1197	0.530	633	995	0.8	1.2	6.590	A
3 - Walderslade Rd N	687	172	304	1301	0.528	685	630	0.8	1.1	5.984	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	963	241	628	1007	0.957	930	581	2.7	11.2	38.069	E
2 - Walderslade Rd S	777	194	358	1162	0.669	774	1200	1.2	2.0	9.515	A
3 - Walderslade Rd N	841	210	372	1260	0.668	838	760	1.1	2.0	8.679	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	963	241	631	1005	0.958	952	583	11.2	14.0	55.209	F
2 - Walderslade Rd S	777	194	367	1156	0.672	777	1216	2.0	2.1	9.809	A
3 - Walderslade Rd N	841	210	373	1259	0.668	841	771	2.0	2.0	8.836	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	787	197	518	1075	0.732	831	479	14.0	3.0	17.865	C
2 - Walderslade Rd S	635	159	320	1185	0.535	638	1028	2.1	1.2	6.850	A
3 - Walderslade Rd N	687	172	306	1300	0.529	690	652	2.0	1.2	6.098	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	659	165	433	1128	0.584	665	400	3.0	1.5	8.243	A
2 - Walderslade Rd S	532	133	256	1225	0.434	533	841	1.2	0.8	5.398	A
3 - Walderslade Rd N	575	144	256	1330	0.432	577	533	1.2	0.8	4.910	A

Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Princes Ave Walderslade Rd RBT	Standard Roundabout		1, 2, 3	39.16	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-6	2 - Walderslade Rd S

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Princes Ave N		ONE HOUR	✓	658	100.000
2 - Walderslade Rd S		ONE HOUR	✓	1004	100.000
3 - Walderslade Rd N		ONE HOUR	✓	717	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	263	395
	2 - Walderslade Rd S	673	114	217
	3 - Walderslade Rd N	325	392	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	4	4
	2 - Walderslade Rd S	4	2	3
	3 - Walderslade Rd N	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Princes Ave N	0.69	11.37	2.2	B	604	906
2 - Walderslade Rd S	0.99	71.11	21.5	F	921	1382
3 - Walderslade Rd N	0.82	19.92	4.2	C	658	987

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	495	124	378	1161	0.427	492	745	0.0	0.8	5.573	A
2 - Walderslade Rd S	756	189	296	1200	0.630	749	575	0.0	1.7	8.140	A
3 - Walderslade Rd N	540	135	587	1128	0.479	536	457	0.0	0.9	6.133	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	592	148	453	1115	0.530	590	892	0.8	1.2	7.108	A
2 - Walderslade Rd S	903	226	354	1164	0.775	896	689	1.7	3.4	13.575	B
3 - Walderslade Rd N	645	161	702	1058	0.610	642	548	0.9	1.5	8.735	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	724	181	547	1057	0.685	720	1062	1.2	2.2	10.977	B
2 - Walderslade Rd S	1105	276	432	1116	0.991	1057	835	3.4	15.6	44.107	E
3 - Walderslade Rd N	789	197	828	981	0.805	780	661	1.5	3.8	17.489	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	724	181	554	1053	0.688	724	1082	2.2	2.2	11.369	B
2 - Walderslade Rd S	1105	276	435	1114	0.992	1082	843	15.6	21.5	71.114	F
3 - Walderslade Rd N	789	197	848	969	0.815	788	669	3.8	4.2	19.922	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	592	148	468	1106	0.535	596	949	2.2	1.2	7.400	A
2 - Walderslade Rd S	903	226	358	1162	0.777	973	706	21.5	3.9	25.635	D
3 - Walderslade Rd N	645	161	763	1021	0.632	654	568	4.2	1.8	10.210	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	495	124	384	1158	0.428	497	758	1.2	0.8	5.685	A
2 - Walderslade Rd S	756	189	298	1199	0.631	764	582	3.9	1.8	8.741	A
3 - Walderslade Rd N	540	135	599	1121	0.482	543	464	1.8	1.0	6.361	A

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Princes Ave Walderslade Rd RBT	Standard Roundabout		1, 2, 3	27.63	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	1 - Princes Ave N

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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Princes Ave N		ONE HOUR	✓	875	100.000
2 - Walderslade Rd S		ONE HOUR	✓	704	100.000
3 - Walderslade Rd N		ONE HOUR	✓	792	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	531	344
	2 - Walderslade Rd S	329	48	327
	3 - Walderslade Rd N	259	533	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	4	3
	2 - Walderslade Rd S	4	3	3
	3 - Walderslade Rd N	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Princes Ave N	0.96	57.62	14.7	F	803	1204
2 - Walderslade Rd S	0.67	9.87	2.1	A	646	969
3 - Walderslade Rd N	0.71	10.28	2.4	B	727	1090

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	659	165	435	1126	0.585	653	440	0.0	1.4	7.788	A
2 - Walderslade Rd S	530	133	257	1224	0.433	527	831	0.0	0.8	5.317	A
3 - Walderslade Rd N	596	149	282	1314	0.454	593	501	0.0	0.8	5.132	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	787	197	521	1073	0.733	781	527	1.4	2.7	12.573	B
2 - Walderslade Rd S	633	158	307	1193	0.530	631	995	0.8	1.2	6.613	A
3 - Walderslade Rd N	712	178	338	1280	0.556	710	601	0.8	1.3	6.507	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	963	241	636	1002	0.961	928	644	2.7	11.5	39.025	E
2 - Walderslade Rd S	775	194	365	1157	0.670	772	1200	1.2	2.0	9.563	A
3 - Walderslade Rd N	872	218	413	1234	0.706	868	723	1.3	2.4	10.018	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	963	241	640	1000	0.963	951	647	11.5	14.7	57.618	F
2 - Walderslade Rd S	775	194	374	1152	0.673	775	1217	2.0	2.1	9.865	A
3 - Walderslade Rd N	872	218	415	1233	0.707	872	734	2.4	2.4	10.277	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	787	197	526	1070	0.735	833	532	14.7	3.0	18.472	C
2 - Walderslade Rd S	633	158	328	1181	0.536	636	1031	2.1	1.2	6.886	A
3 - Walderslade Rd N	712	178	341	1279	0.557	716	623	2.4	1.3	6.671	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	659	165	439	1124	0.586	665	444	3.0	1.5	8.237	A
2 - Walderslade Rd S	530	133	261	1221	0.434	532	842	1.2	0.8	5.414	A
3 - Walderslade Rd N	596	149	285	1313	0.454	598	508	1.3	0.9	5.218	A

Do Something (800), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Princes Ave Walderslade Rd RBT	Standard Roundabout		1, 2, 3	56.99	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-10	2 - Walderslade Rd S

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
D4	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Princes Ave N		ONE HOUR	✓	721	100.000
2 - Walderslade Rd S		ONE HOUR	✓	1008	100.000
3 - Walderslade Rd N		ONE HOUR	✓	761	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	261	460
	2 - Walderslade Rd S	710	104	194
	3 - Walderslade Rd N	347	414	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Princes Ave N	2 - Walderslade Rd S	3 - Walderslade Rd N
From	1 - Princes Ave N	0	3	4
	2 - Walderslade Rd S	5	2	4
	3 - Walderslade Rd N	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Princes Ave N	0.76	14.64	3.1	B	662	992
2 - Walderslade Rd S	1.04	109.81	35.6	F	925	1387
3 - Walderslade Rd N	0.87	27.16	6.0	D	698	1047

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	543	136	387	1156	0.470	539	789	0.0	0.9	6.018	A
2 - Walderslade Rd S	759	190	344	1170	0.648	751	582	0.0	1.9	8.827	A
3 - Walderslade Rd N	573	143	607	1116	0.513	569	489	0.0	1.1	6.654	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	648	162	463	1109	0.585	646	943	0.9	1.4	8.027	A
2 - Walderslade Rd S	906	227	412	1128	0.803	898	697	1.9	3.9	15.785	C
3 - Walderslade Rd N	684	171	725	1044	0.656	681	585	1.1	1.9	10.021	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	794	198	555	1052	0.755	788	1105	1.4	3.0	13.786	B
2 - Walderslade Rd S	1110	277	502	1072	1.035	1036	840	3.9	22.5	59.091	F
3 - Walderslade Rd N	838	209	836	976	0.859	824	702	1.9	5.3	22.461	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	794	198	563	1047	0.758	793	1125	3.0	3.1	14.640	B
2 - Walderslade Rd S	1110	277	506	1070	1.037	1057	851	22.5	35.6	109.806	F
3 - Walderslade Rd N	838	209	854	965	0.868	835	710	5.3	6.0	27.165	D

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	648	162	486	1095	0.592	655	1043	3.1	1.5	8.596	A
2 - Walderslade Rd S	906	227	418	1125	0.806	1029	723	35.6	5.1	56.546	F
3 - Walderslade Rd N	684	171	831	979	0.699	698	616	6.0	2.5	13.642	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Princes Ave N	543	136	394	1151	0.472	545	807	1.5	0.9	6.181	A
2 - Walderslade Rd S	759	190	348	1168	0.650	771	592	5.1	2.0	9.755	A
3 - Walderslade Rd N	573	143	623	1106	0.518	578	496	2.5	1.1	7.020	A

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Robin Hood Ln Walderslade Village Bypass Existing.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Picady\2019 TA Submission\2019-03-19
Report generation date: 27/03/2019 14:19:34

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	Do Minimum									
Stream B-C	0.7	16.77	0.41	C	-2 % [Stream B-A]	11.4	185.23	1.03	F	-17 % [Stream B-A]
Stream B-A	1.5	38.23	0.59	E		8.8	214.30	1.01	F	
Stream C-AB	0.4	10.30	0.31	B		2.5	18.87	0.70	C	
	Do Something (800)									
Stream B-C	0.7	16.20	0.40	C	-1 % [Stream B-A]	18.8	281.37	1.14	F	-19 % [Stream B-A]
Stream B-A	1.3	37.20	0.57	E		15.6	300.06	1.13	F	
Stream C-AB	0.5	10.80	0.34	B		2.1	17.53	0.66	C	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Robin Hood Ln Walderslade Village Bypass Existing
Location	
Site number	
Date	22/03/2019
Version	
Status	
Identifier	
Client	
Jobnumber	17-035
Enumerator	CA_WKS12\PLimbu
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D2	Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Something (800)	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Something (800)	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

Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Robin Hood Ln Walderslade Village Bypass Existing	T-Junction	Two-way		4.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-2	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	Walderslade Village Bypass (N)		Major
B	Robin Hood Ln (E)		Minor
C	Robin Hook Ln (S)		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 - Robin Hook Ln (S)	7.86	✓	5.65	✓	4.52	100.0	✓	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 - Robin Hood Ln (E)	One lane plus flare	10.00	10.00	7.13	5.10	4.65	✓	3.00	60	46

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	625	0.093	0.235	0.148	0.335
1	B-C	699	0.098	0.249	-	-
1	C-B	791	0.282	0.282	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
A - Walderslade Village Bypass (N)		ONE HOUR	✓	909	100.000
B - Robin Hood Ln (E)		ONE HOUR	✓	265	100.000
C - Robin Hook Ln (S)		ONE HOUR	✓	707	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	909
	B - Robin Hood Ln (E)	131	0	134
	C - Robin Hook Ln (S)	565	142	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	3
	B - Robin Hood Ln (E)	6	0	0
	C - Robin Hook Ln (S)	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.41	16.77	0.7	C	123	184
B-A	0.59	38.23	1.5	E	120	180
C-AB	0.31	10.30	0.4	B	130	195
C-A					518	778
A-B					0	0
A-C					834	1251

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	101	25	493	0.205	100	0.0	0.3	9.144	A
B-A	99	25	365	0.270	97	0.0	0.4	14.154	B
C-AB	107	27	599	0.179	106	0.0	0.2	7.371	A
C-A	425	106			425				
A-B	0	0			0				
A-C	684	171			684				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	30	446	0.270	120	0.3	0.4	11.014	B
B-A	118	29	314	0.375	117	0.4	0.6	19.220	C
C-AB	128	32	561	0.228	127	0.2	0.3	8.376	A
C-A	508	127			508				
A-B	0	0			0				
A-C	817	204			817				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	148	37	366	0.404	146	0.4	0.7	16.332	C
B-A	144	36	243	0.593	141	0.6	1.4	36.276	E
C-AB	156	39	510	0.307	156	0.3	0.4	10.261	B
C-A	622	156			622				
A-B	0	0			0				
A-C	1001	250			1001				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	148	37	362	0.408	147	0.7	0.7	16.771	C
B-A	144	36	243	0.593	144	1.4	1.5	38.234	E
C-AB	156	39	510	0.307	156	0.4	0.4	10.295	B
C-A	622	156			622				
A-B	0	0			0				
A-C	1001	250			1001				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	30	444	0.272	122	0.7	0.4	11.221	B
B-A	118	29	315	0.374	121	1.5	0.7	20.021	C
C-AB	128	32	561	0.228	128	0.4	0.3	8.409	A
C-A	508	127			508				
A-B	0	0			0				
A-C	817	204			817				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	101	25	491	0.205	101	0.4	0.3	9.249	A
B-A	99	25	365	0.270	100	0.7	0.4	14.427	B
C-AB	107	27	599	0.179	107	0.3	0.2	7.407	A
C-A	425	106			425				
A-B	0	0			0				
A-C	684	171			684				

Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Robin Hood Ln Walderslade Village Bypass Existing	T-Junction	Two-way		31.79	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	Stream B-A

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
A - Walderslade Village Bypass (N)		ONE HOUR	✓	736	100.000
B - Robin Hood Ln (E)		ONE HOUR	✓	332	100.000
C - Robin Hook Ln (S)		ONE HOUR	✓	1216	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	736
	B - Robin Hood Ln (E)	136	0	196
	C - Robin Hook Ln (S)	859	357	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	2
	B - Robin Hood Ln (E)	4	0	1
	C - Robin Hook Ln (S)	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.03	185.23	11.4	F	180	270
B-A	1.01	214.30	8.8	F	125	187
C-AB	0.70	18.87	2.5	C	348	522
C-A					768	1152
A-B					0	0
A-C					675	1013

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	148	37	526	0.281	146	0.0	0.4	9.541	A
B-A	102	26	300	0.341	100	0.0	0.5	18.542	C
C-AB	269	67	637	0.423	267	0.0	0.7	9.744	A
C-A	646	161			646				
A-B	0	0			0				
A-C	554	139			554				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	176	44	467	0.377	175	0.4	0.6	12.433	B
B-A	122	31	239	0.512	120	0.5	1.0	31.061	D
C-AB	326	81	614	0.531	324	0.7	1.1	12.473	B
C-A	767	192			767				
A-B	0	0			0				
A-C	662	165			662				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	216	54	212	1.020	188	0.6	7.5	107.956	F
B-A	150	37	149	1.003	130	1.0	6.0	135.086	F
C-AB	448	112	641	0.699	443	1.1	2.4	18.024	C
C-A	891	223			891				
A-B	0	0			0				
A-C	810	203			810				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	216	54	209	1.031	200	7.5	11.4	185.226	F
B-A	150	37	148	1.012	139	6.0	8.8	214.297	F
C-AB	448	112	641	0.698	447	2.4	2.5	18.871	C
C-A	891	223			891				
A-B	0	0			0				
A-C	810	203			810				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	176	44	424	0.415	219	11.4	0.7	21.543	C
B-A	122	31	233	0.524	152	8.8	1.3	59.206	F
C-AB	326	81	615	0.530	331	2.5	1.2	13.076	B
C-A	767	192			767				
A-B	0	0			0				
A-C	662	165			662				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	148	37	522	0.283	149	0.7	0.4	9.791	A
B-A	102	26	299	0.342	105	1.3	0.6	19.547	C
C-AB	269	67	637	0.423	271	1.2	0.8	9.990	A
C-A	646	161			646				
A-B	0	0			0				
A-C	554	139			554				

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Robin Hood Ln Walderslade Village Bypass Existing	T-Junction	Two-way		4.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	Stream B-A

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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
A - Walderslade Village Bypass (N)		ONE HOUR	✓	910	100.000
B - Robin Hood Ln (E)		ONE HOUR	✓	256	100.000
C - Robin Hook Ln (S)		ONE HOUR	✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	910
	B - Robin Hood Ln (E)	122	0	134
	C - Robin Hook Ln (S)	571	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	3
	B - Robin Hood Ln (E)	5	0	0
	C - Robin Hook Ln (S)	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.40	16.20	0.7	C	123	184
B-A	0.57	37.20	1.3	E	112	168
C-AB	0.34	10.80	0.5	B	144	216
C-A					524	786
A-B					0	0
A-C					835	1253

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	101	25	497	0.203	100	0.0	0.3	9.041	A
B-A	92	23	359	0.256	90	0.0	0.4	14.028	B
C-AB	118	30	598	0.198	117	0.0	0.2	7.542	A
C-A	430	107			430				
A-B	0	0			0				
A-C	685	171			685				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	30	451	0.267	120	0.3	0.4	10.850	B
B-A	110	27	307	0.357	109	0.4	0.6	18.975	C
C-AB	141	35	561	0.252	141	0.2	0.3	8.648	A
C-A	513	128			513				
A-B	0	0			0				
A-C	818	205			818				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	148	37	373	0.396	146	0.4	0.6	15.826	C
B-A	134	34	235	0.571	131	0.6	1.3	35.471	E
C-AB	173	43	509	0.340	172	0.3	0.5	10.763	B
C-A	629	157			629				
A-B	0	0			0				
A-C	1002	250			1002				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	148	37	370	0.399	147	0.6	0.7	16.203	C
B-A	134	34	235	0.571	134	1.3	1.3	37.202	E
C-AB	173	43	509	0.340	173	0.5	0.5	10.805	B
C-A	629	157			629				
A-B	0	0			0				
A-C	1002	250			1002				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	30	449	0.268	122	0.7	0.4	11.038	B
B-A	110	27	307	0.357	113	1.3	0.6	19.691	C
C-AB	141	35	561	0.252	142	0.5	0.3	8.691	A
C-A	513	128			513				
A-B	0	0			0				
A-C	818	205			818				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	101	25	496	0.204	101	0.4	0.3	9.140	A
B-A	92	23	358	0.256	93	0.6	0.4	14.281	B
C-AB	118	30	598	0.198	119	0.3	0.3	7.583	A
C-A	430	107			430				
A-B	0	0			0				
A-C	685	171			685				

Do Something (800), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Robin Hood Ln Walderslade Village Bypass Existing	T-Junction	Two-way		50.16	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-19	Stream B-A

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
D4	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
A - Walderslade Village Bypass (N)		ONE HOUR	✓	734	100.000
B - Robin Hood Ln (E)		ONE HOUR	✓	372	100.000
C - Robin Hook Ln (S)		ONE HOUR	✓	1166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	734
	B - Robin Hood Ln (E)	166	0	206
	C - Robin Hook Ln (S)	827	339	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Walderslade Village Bypass (N)	B - Robin Hood Ln (E)	C - Robin Hook Ln (S)
From	A - Walderslade Village Bypass (N)	0	0	2
	B - Robin Hood Ln (E)	6	0	2
	C - Robin Hook Ln (S)	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.14	281.37	18.8	F	189	284
B-A	1.13	300.06	15.6	F	152	228
C-AB	0.66	17.53	2.1	C	324	486
C-A					746	1119
A-B					0	0
A-C					674	1010

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	155	39	510	0.304	153	0.0	0.4	10.252	B
B-A	125	31	312	0.401	122	0.0	0.7	19.854	C
C-AB	256	64	637	0.401	253	0.0	0.7	9.411	A
C-A	622	156			622				
A-B	0	0			0				
A-C	553	138			553				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	185	46	440	0.421	184	0.4	0.7	14.295	B
B-A	149	37	251	0.595	146	0.7	1.4	35.574	E
C-AB	308	77	612	0.503	307	0.7	1.0	11.863	B
C-A	740	185			740				
A-B	0	0			0				
A-C	660	165			660				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	227	57	200	1.137	185	0.7	11.2	148.542	F
B-A	183	46	164	1.116	151	1.4	9.5	169.204	F
C-AB	408	102	615	0.663	404	1.0	2.0	16.944	C
C-A	876	219			876				
A-B	0	0			0				
A-C	808	202			808				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	227	57	200	1.134	196	11.2	18.8	281.372	F
B-A	183	46	162	1.125	158	9.5	15.6	300.061	F
C-AB	408	102	616	0.662	408	2.0	2.1	17.533	C
C-A	876	219			876				
A-B	0	0			0				
A-C	808	202			808				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	185	46	324	0.572	254	18.8	1.5	86.813	F
B-A	149	37	234	0.637	202	15.6	2.3	143.318	F
C-AB	308	77	613	0.503	312	2.1	1.1	12.293	B
C-A	740	185			740				
A-B	0	0			0				
A-C	660	165			660				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	155	39	503	0.308	159	1.5	0.5	10.819	B
B-A	125	31	311	0.402	131	2.3	0.7	21.920	C
C-AB	256	64	637	0.401	257	1.1	0.7	9.616	A
C-A	622	156			622				
A-B	0	0			0				
A-C	553	138			553				

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 16 - Lords Wood Ln Boxley Rd Westfield Sole Rd Existing.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:31:34

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	Do Minimum									
1 - Boxley Rd (N)	0.4	8.24	0.29	A	-16 % [2 - Lords Wood Ln (NE)]	4.0	37.74	0.81	E	-33 % [5 - A2045 (W)]
2 - Lords Wood Ln (NE)	73.6	211.83	1.13	F		17.7	73.10	0.98	F	
3 - Westfield Sole Rd (E)	0.8	5.98	0.43	A		1.2	7.04	0.55	A	
4 - Harp Farm Rd (S)	0.5	8.28	0.30	A		0.8	10.61	0.45	B	
5 - A2045 (W)	7.4	28.83	0.89	D		360.1	1144.05	1.52	F	
	Do Something (800)									
1 - Boxley Rd (N)	0.5	8.27	0.31	A	-14 % [2 - Lords Wood Ln (NE)]	1.7	18.46	0.64	C	-28 % [5 - A2045 (W)]
2 - Lords Wood Ln (NE)	60.0	173.82	1.10	F		7.2	32.83	0.89	D	
3 - Westfield Sole Rd (E)	0.8	6.44	0.45	A		0.7	5.06	0.40	A	
4 - Harp Farm Rd (S)	0.6	9.57	0.36	A		0.5	7.52	0.32	A	
5 - A2045 (W)	6.7	26.81	0.88	D		234.8	708.66	1.34	F	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Lords Wood Ln Boxley Rd Westfield Sole Rd RBT
Location	
Site number	
Date	22/03/2019
Version	
Status	
Identifier	
Client	
Jobnumber	17-035
Enumerator	CA_WKS12\PLimbu
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D2	Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Something (800)	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Something (800)	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

Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Boxley Rd Westfield Sole Rd RBT	Standard Roundabout		1, 2, 3, 4, 5	93.02	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-16	2 - Lords Wood Ln (NE)

Arms

Arms

Arm	Name	Description
1	Boxley Rd (N)	
2	Lords Wood Ln (NE)	
3	Westfield Sole Rd (E)	
4	Harp Farm Rd (S)	
5	A2045 (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Boxley Rd (N)	3.07	6.75	5.9	19.0	55.5	49.0	
2 - Lords Wood Ln (NE)	3.62	5.70	3.5	22.8	55.5	43.0	
3 - Westfield Sole Rd (E)	3.55	8.39	11.2	39.9	55.5	42.0	
4 - Harp Farm Rd (S)	2.69	7.79	7.1	36.0	55.5	42.0	
5 - A2045 (W)	3.69	7.12	5.0	28.4	55.5	54.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Boxley Rd (N)	0.475	1214
2 - Lords Wood Ln (NE)	0.491	1261
3 - Westfield Sole Rd (E)	0.570	1663
4 - Harp Farm Rd (S)	0.496	1258
5 - A2045 (W)	0.498	1342

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Boxley Rd (N)		ONE HOUR	✓	166	100.000
2 - Lords Wood Ln (NE)		ONE HOUR	✓	1040	100.000
3 - Westfield Sole Rd (E)		ONE HOUR	✓	424	100.000
4 - Harp Farm Rd (S)		ONE HOUR	✓	181	100.000
5 - A2045 (W)		ONE HOUR	✓	892	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	39	48	21	58
	2 - Lords Wood Ln (NE)	75	0	145	217	603
	3 - Westfield Sole Rd (E)	10	251	0	0	163
	4 - Harp Farm Rd (S)	11	96	0	0	74
	5 - A2045 (W)	114	454	277	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	2	0	1	3
	2 - Lords Wood Ln (NE)	4	0	2	5	3
	3 - Westfield Sole Rd (E)	18	3	0	0	2
	4 - Harp Farm Rd (S)	12	9	0	0	5
	5 - A2045 (W)	3	5	3	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Boxley Rd (N)	0.29	8.24	0.4	A	152	228
2 - Lords Wood Ln (NE)	1.13	211.83	73.6	F	954	1431
3 - Westfield Sole Rd (E)	0.43	5.98	0.8	A	389	584
4 - Harp Farm Rd (S)	0.30	8.28	0.5	A	166	249
5 - A2045 (W)	0.89	28.83	7.4	D	819	1228

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	125	31	841	815	0.153	124	157	0.0	0.2	5.294	A
2 - Lords Wood Ln (NE)	783	196	337	1095	0.715	773	628	0.0	2.5	11.238	B
3 - Westfield Sole Rd (E)	319	80	759	1230	0.260	318	351	0.0	0.4	4.062	A
4 - Harp Farm Rd (S)	136	34	865	829	0.164	135	212	0.0	0.2	5.575	A
5 - A2045 (W)	672	168	331	1177	0.571	666	669	0.0	1.4	7.275	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	149	37	1007	736	0.203	149	187	0.2	0.3	6.234	A
2 - Lords Wood Ln (NE)	935	234	404	1062	0.880	920	753	2.5	6.2	23.914	C
3 - Westfield Sole Rd (E)	381	95	905	1147	0.332	381	419	0.4	0.5	4.825	A
4 - Harp Farm Rd (S)	163	41	1032	746	0.218	162	253	0.2	0.3	6.629	A
5 - A2045 (W)	802	200	397	1144	0.701	798	798	1.4	2.4	10.706	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	183	46	1222	633	0.289	182	219	0.3	0.4	8.098	A
2 - Lords Wood Ln (NE)	1145	286	490	1020	1.123	1006	915	6.2	41.0	97.723	F
3 - Westfield Sole Rd (E)	467	117	1003	1091	0.428	466	492	0.5	0.8	5.916	A
4 - Harp Farm Rd (S)	199	50	1185	670	0.298	199	284	0.3	0.4	8.203	A
5 - A2045 (W)	982	246	477	1105	0.889	965	907	2.4	6.7	24.249	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	183	46	1236	627	0.292	183	221	0.4	0.4	8.237	A
2 - Lords Wood Ln (NE)	1145	286	496	1017	1.126	1015	923	41.0	73.6	211.832	F
3 - Westfield Sole Rd (E)	467	117	1012	1086	0.430	467	498	0.8	0.8	5.981	A
4 - Harp Farm Rd (S)	199	50	1192	666	0.299	199	286	0.4	0.5	8.284	A
5 - A2045 (W)	982	246	478	1104	0.890	979	913	6.7	7.4	28.833	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	149	37	1029	725	0.206	150	199	0.4	0.3	6.363	A
2 - Lords Wood Ln (NE)	935	234	413	1058	0.884	1043	766	73.6	46.6	208.909	F
3 - Westfield Sole Rd (E)	381	95	1012	1086	0.351	382	444	0.8	0.6	5.269	A
4 - Harp Farm Rd (S)	163	41	1114	705	0.231	163	280	0.5	0.3	7.152	A
5 - A2045 (W)	802	200	407	1139	0.704	821	871	7.4	2.6	12.454	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	125	31	852	810	0.154	125	171	0.3	0.2	5.348	A
2 - Lords Wood Ln (NE)	783	196	341	1093	0.716	958	635	46.6	2.9	56.452	F
3 - Westfield Sole Rd (E)	319	80	920	1139	0.280	320	380	0.6	0.4	4.527	A
4 - Harp Farm Rd (S)	136	34	988	768	0.178	137	251	0.3	0.2	6.135	A
5 - A2045 (W)	672	168	347	1169	0.574	676	778	2.6	1.4	7.680	A

Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Boxley Rd Westfield Sole Rd RBT	Standard Roundabout		1, 2, 3, 4, 5	490.44	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-33	5 - A2045 (W)

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Boxley Rd (N)		ONE HOUR	✓	363	100.000
2 - Lords Wood Ln (NE)		ONE HOUR	✓	815	100.000
3 - Westfield Sole Rd (E)		ONE HOUR	✓	575	100.000
4 - Harp Farm Rd (S)		ONE HOUR	✓	256	100.000
5 - A2045 (W)		ONE HOUR	✓	1385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	100	147	51	65
	2 - Lords Wood Ln (NE)	44	0	156	135	480
	3 - Westfield Sole Rd (E)	25	379	0	0	171
	4 - Harp Farm Rd (S)	13	152	1	0	90
	5 - A2045 (W)	98	709	483	90	5

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	1	1	1	0
	2 - Lords Wood Ln (NE)	0	0	0	4	1
	3 - Westfield Sole Rd (E)	0	0	0	0	1
	4 - Harp Farm Rd (S)	5	1	0	0	2
	5 - A2045 (W)	0	2	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Boxley Rd (N)	0.81	37.74	4.0	E	333	500
2 - Lords Wood Ln (NE)	0.98	73.10	17.7	F	748	1122
3 - Westfield Sole Rd (E)	0.55	7.04	1.2	A	528	791
4 - Harp Farm Rd (S)	0.45	10.61	0.8	B	235	352
5 - A2045 (W)	1.52	1144.05	360.1	F	1271	1906

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	273	68	1332	581	0.470	270	132	0.0	0.9	11.528	B
2 - Lords Wood Ln (NE)	614	153	616	958	0.640	607	986	0.0	1.7	10.176	B
3 - Westfield Sole Rd (E)	433	108	646	1295	0.334	431	577	0.0	0.5	4.169	A
4 - Harp Farm Rd (S)	193	48	873	825	0.234	192	204	0.0	0.3	5.761	A
5 - A2045 (W)	1043	261	460	1113	0.937	1005	605	0.0	9.5	27.987	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	326	82	1462	519	0.628	323	148	0.9	1.6	18.224	C
2 - Lords Wood Ln (NE)	733	183	678	928	0.790	726	1108	1.7	3.5	17.449	C
3 - Westfield Sole Rd (E)	517	129	763	1228	0.421	516	640	0.5	0.7	5.064	A
4 - Harp Farm Rd (S)	230	58	1044	740	0.311	230	235	0.3	0.5	7.158	A
5 - A2045 (W)	1245	311	551	1068	1.166	1060	723	9.5	55.8	123.883	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	400	100	1520	492	0.812	392	159	1.6	3.7	33.529	D
2 - Lords Wood Ln (NE)	897	224	705	914	0.982	859	1206	3.5	13.1	47.378	E
3 - Westfield Sole Rd (E)	633	158	889	1156	0.547	631	675	0.7	1.2	6.850	A
4 - Harp Farm Rd (S)	282	70	1257	634	0.445	280	263	0.5	0.8	10.298	B
5 - A2045 (W)	1525	381	672	1007	1.514	1007	866	55.8	185.2	438.097	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	400	100	1520	492	0.812	399	160	3.7	4.0	37.740	E
2 - Lords Wood Ln (NE)	897	224	710	912	0.984	879	1209	13.1	17.7	73.101	F
3 - Westfield Sole Rd (E)	633	158	907	1146	0.553	633	681	1.2	1.2	7.037	A
4 - Harp Farm Rd (S)	282	70	1273	626	0.450	282	267	0.8	0.8	10.612	B
5 - A2045 (W)	1525	381	675	1006	1.516	1006	880	185.2	315.0	874.228	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	326	82	1469	516	0.632	335	152	4.0	1.8	20.861	C
2 - Lords Wood Ln (NE)	733	183	688	923	0.794	786	1117	17.7	4.4	33.449	D
3 - Westfield Sole Rd (E)	517	129	816	1198	0.431	519	658	1.2	0.8	5.330	A
4 - Harp Farm Rd (S)	230	58	1088	718	0.320	231	246	0.8	0.5	7.533	A
5 - A2045 (W)	1245	311	557	1065	1.170	1064	762	315.0	360.1	1136.074	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	273	68	1431	534	0.511	276	141	1.8	1.1	14.219	B
2 - Lords Wood Ln (NE)	614	153	663	935	0.656	623	1044	4.4	2.0	12.023	B
3 - Westfield Sole Rd (E)	433	108	668	1282	0.338	434	618	0.8	0.5	4.261	A
4 - Harp Farm Rd (S)	193	48	888	817	0.236	193	214	0.5	0.3	5.866	A
5 - A2045 (W)	1043	261	464	1111	0.939	1108	617	360.1	343.9	1144.054	F

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Boxley Rd Westfield Sole Rd RBT	Standard Roundabout		1, 2, 3, 4, 5	76.80	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	2 - Lords Wood Ln (NE)

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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Boxley Rd (N)		ONE HOUR	✓	184	100.000
2 - Lords Wood Ln (NE)		ONE HOUR	✓	1032	100.000
3 - Westfield Sole Rd (E)		ONE HOUR	✓	430	100.000
4 - Harp Farm Rd (S)		ONE HOUR	✓	208	100.000
5 - A2045 (W)		ONE HOUR	✓	866	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	41	59	29	55
	2 - Lords Wood Ln (NE)	98	0	101	209	624
	3 - Westfield Sole Rd (E)	24	231	0	0	175
	4 - Harp Farm Rd (S)	13	107	3	0	85
	5 - A2045 (W)	119	480	221	46	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	2	1	5	1
	2 - Lords Wood Ln (NE)	7	0	0	2	3
	3 - Westfield Sole Rd (E)	2	4	0	0	2
	4 - Harp Farm Rd (S)	11	9	0	0	6
	5 - A2045 (W)	3	5	1	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Boxley Rd (N)	0.31	8.27	0.5	A	169	253
2 - Lords Wood Ln (NE)	1.10	173.82	60.0	F	947	1420
3 - Westfield Sole Rd (E)	0.45	6.44	0.8	A	395	592
4 - Harp Farm Rd (S)	0.36	9.57	0.6	A	191	286
5 - A2045 (W)	0.88	26.81	6.7	D	795	1192

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	139	35	813	828	0.167	138	189	0.0	0.2	5.309	A
2 - Lords Wood Ln (NE)	777	194	309	1109	0.701	768	642	0.0	2.3	10.585	B
3 - Westfield Sole Rd (E)	324	81	790	1213	0.267	322	287	0.0	0.4	4.160	A
4 - Harp Farm Rd (S)	157	39	900	811	0.193	156	212	0.0	0.3	5.908	A
5 - A2045 (W)	652	163	356	1165	0.560	647	700	0.0	1.3	7.156	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	165	41	974	751	0.220	165	227	0.2	0.3	6.251	A
2 - Lords Wood Ln (NE)	928	232	370	1079	0.860	915	770	2.3	5.4	21.153	C
3 - Westfield Sole Rd (E)	387	97	942	1126	0.343	386	343	0.4	0.5	5.010	A
4 - Harp Farm Rd (S)	187	47	1076	724	0.258	187	253	0.3	0.4	7.207	A
5 - A2045 (W)	779	195	426	1130	0.689	775	836	1.3	2.2	10.430	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	203	51	1183	652	0.311	202	266	0.3	0.5	8.133	A
2 - Lords Wood Ln (NE)	1136	284	449	1040	1.093	1021	936	5.4	34.3	83.373	F
3 - Westfield Sole Rd (E)	473	118	1063	1057	0.448	472	407	0.5	0.8	6.332	A
4 - Harp Farm Rd (S)	229	57	1247	639	0.358	228	288	0.4	0.6	9.412	A
5 - A2045 (W)	953	238	512	1087	0.877	938	963	2.2	6.1	22.966	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	203	51	1196	646	0.314	203	270	0.5	0.5	8.266	A
2 - Lords Wood Ln (NE)	1136	284	454	1037	1.095	1034	944	34.3	60.0	173.823	F
3 - Westfield Sole Rd (E)	473	118	1075	1050	0.451	473	412	0.8	0.8	6.435	A
4 - Harp Farm Rd (S)	229	57	1257	634	0.361	229	292	0.6	0.6	9.569	A
5 - A2045 (W)	953	238	514	1086	0.878	951	972	6.1	6.7	26.812	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	165	41	994	742	0.223	166	243	0.5	0.3	6.373	A
2 - Lords Wood Ln (NE)	928	232	377	1075	0.863	1057	783	60.0	27.6	152.545	F
3 - Westfield Sole Rd (E)	387	97	1072	1052	0.367	388	362	0.8	0.6	5.593	A
4 - Harp Farm Rd (S)	187	47	1177	674	0.277	188	283	0.6	0.4	7.988	A
5 - A2045 (W)	779	195	441	1122	0.694	796	923	6.7	2.4	12.003	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	139	35	824	823	0.168	139	201	0.3	0.2	5.361	A
2 - Lords Wood Ln (NE)	777	194	313	1107	0.702	877	650	27.6	2.6	23.401	C
3 - Westfield Sole Rd (E)	324	81	890	1156	0.280	325	300	0.6	0.4	4.469	A
4 - Harp Farm Rd (S)	157	39	980	772	0.203	157	234	0.4	0.3	6.315	A
5 - A2045 (W)	652	163	369	1158	0.563	656	768	2.4	1.4	7.513	A

Do Something (800), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Lords Wood Ln Boxley Rd Westfield Sole Rd RBT	Standard Roundabout		1, 2, 3, 4, 5	323.56	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-28	5 - A2045 (W)

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
D4	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Boxley Rd (N)		ONE HOUR	✓	313	100.000
2 - Lords Wood Ln (NE)		ONE HOUR	✓	761	100.000
3 - Westfield Sole Rd (E)		ONE HOUR	✓	430	100.000
4 - Harp Farm Rd (S)		ONE HOUR	✓	207	100.000
5 - A2045 (W)		ONE HOUR	✓	1348	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	104	118	29	62
	2 - Lords Wood Ln (NE)	44	0	138	122	457
	3 - Westfield Sole Rd (E)	21	238	0	1	170
	4 - Harp Farm Rd (S)	12	118	1	0	76
	5 - A2045 (W)	96	736	458	51	7

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Boxley Rd (N)	2 - Lords Wood Ln (NE)	3 - Westfield Sole Rd (E)	4 - Harp Farm Rd (S)	5 - A2045 (W)
From	1 - Boxley Rd (N)	0	1	1	0	0
	2 - Lords Wood Ln (NE)	0	0	0	4	0
	3 - Westfield Sole Rd (E)	0	1	0	0	0
	4 - Harp Farm Rd (S)	4	1	0	0	2
	5 - A2045 (W)	2	2	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Boxley Rd (N)	0.64	18.46	1.7	C	287	431
2 - Lords Wood Ln (NE)	0.89	32.83	7.2	D	698	1047
3 - Westfield Sole Rd (E)	0.40	5.06	0.7	A	395	592
4 - Harp Farm Rd (S)	0.32	7.52	0.5	A	190	285
5 - A2045 (W)	1.34	708.66	234.8	F	1237	1855

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	236	59	1190	649	0.363	233	128	0.0	0.6	8.681	A
2 - Lords Wood Ln (NE)	573	143	537	997	0.575	568	887	0.0	1.3	8.341	A
3 - Westfield Sole Rd (E)	324	81	575	1335	0.242	322	529	0.0	0.3	3.569	A
4 - Harp Farm Rd (S)	156	39	747	887	0.176	155	151	0.0	0.2	4.986	A
5 - A2045 (W)	1015	254	325	1180	0.860	993	577	0.0	5.4	18.025	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	281	70	1361	567	0.496	280	149	0.6	1.0	12.532	B
2 - Lords Wood Ln (NE)	684	171	617	958	0.714	680	1024	1.3	2.4	12.843	B
3 - Westfield Sole Rd (E)	387	97	686	1272	0.304	386	610	0.3	0.4	4.085	A
4 - Harp Farm Rd (S)	186	47	894	814	0.229	186	178	0.2	0.3	5.812	A
5 - A2045 (W)	1212	303	389	1148	1.056	1120	690	5.4	28.3	67.041	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	345	86	1417	541	0.637	342	162	1.0	1.7	17.950	C
2 - Lords Wood Ln (NE)	838	209	652	940	0.891	822	1107	2.4	6.5	27.377	D
3 - Westfield Sole Rd (E)	473	118	820	1196	0.396	473	654	0.4	0.7	4.998	A
4 - Harp Farm Rd (S)	228	57	1086	719	0.317	227	206	0.3	0.5	7.419	A
5 - A2045 (W)	1484	371	476	1105	1.343	1104	837	28.3	123.4	255.824	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	345	86	1418	540	0.638	344	163	1.7	1.7	18.462	C
2 - Lords Wood Ln (NE)	838	209	654	939	0.892	835	1109	6.5	7.2	32.831	D
3 - Westfield Sole Rd (E)	473	118	831	1189	0.398	473	657	0.7	0.7	5.057	A
4 - Harp Farm Rd (S)	228	57	1096	714	0.319	228	209	0.5	0.5	7.516	A
5 - A2045 (W)	1484	371	478	1104	1.344	1104	846	123.4	218.4	555.260	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	281	70	1386	555	0.507	284	152	1.7	1.1	13.485	B
2 - Lords Wood Ln (NE)	684	171	629	951	0.719	702	1041	7.2	2.7	15.449	C
3 - Westfield Sole Rd (E)	387	97	707	1260	0.307	387	625	0.7	0.4	4.152	A
4 - Harp Farm Rd (S)	186	47	911	806	0.231	187	183	0.5	0.3	5.908	A
5 - A2045 (W)	1212	303	392	1147	1.057	1146	705	218.4	234.8	708.664	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Boxley Rd (N)	236	59	1359	568	0.415	237	142	1.1	0.7	10.985	B
2 - Lords Wood Ln (NE)	573	143	608	962	0.596	578	988	2.7	1.5	9.548	A
3 - Westfield Sole Rd (E)	324	81	592	1325	0.244	324	594	0.4	0.3	3.619	A
4 - Harp Farm Rd (S)	156	39	757	882	0.177	156	160	0.3	0.2	5.034	A
5 - A2045 (W)	1015	254	328	1179	0.861	1174	585	234.8	195.1	659.718	F

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 17 - A2045 Fostington Way Existing.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:32:37

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	Do Minimum									
1 - A2045 S	6.8	25.37	0.88	D	-14 %	1.1	5.16	0.52	A	-32 %
2 - A2045 N	4.6	10.24	0.82	B		618.6	1082.84	1.43	F	
3 - Fostington Way E	97.3	233.24	1.15	F	[3 - Fostington Way E]	132.7	425.51	1.21	F	[2 - A2045 N]
	Do Something (800)									
1 - A2045 S	8.9	32.61	0.91	D	-12 %	1.1	5.37	0.53	A	-31 %
2 - A2045 N	4.2	9.44	0.80	A		587.7	1026.61	1.42	F	
3 - Fostington Way E	79.4	192.58	1.12	F	[3 - Fostington Way E]	143.3	459.34	1.22	F	[2 - A2045 N]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	A2045 Fostington Way RBT
Location	
Site number	
Date	21/03/2019
Version	
Status	
Identifier	
Client	
Jobnumber	17-035
Enumerator	CA_WKS12\PLimbu
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	Do Minimum	AM	ONE HOUR	08:00	09:30	15	✓
D2	Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Something (800)	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Something (800)	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

Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A2045 Fostington Way RBT	Standard Roundabout		1, 2, 3	89.05	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	3 - Fostington Way E

Arms

Arms

Arm	Name	Description
1	A2045 S	
2	A2045 N	
3	Fostington Way E	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A2045 S	5.90	7.62	4.1	24.6	47.7	41.0	
2 - A2045 N	7.20	7.86	1.4	24.4	47.7	51.0	
3 - Fostington Way E	3.16	7.29	18.6	28.8	47.7	20.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A2045 S	0.658	1952
2 - A2045 N	0.680	2118
3 - Fostington Way E	0.647	1773

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - A2045 S		ONE HOUR	✓	922	100.000
2 - A2045 N		ONE HOUR	✓	1511	100.000
3 - Fostington Way E		ONE HOUR	✓	1233	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	808	114
	2 - A2045 N	637	197	677
	3 - Fostington Way E	191	1042	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	3	5
	2 - A2045 N	5	6	6
	3 - Fostington Way E	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2045 S	0.88	25.37	6.8	D	846	1269
2 - A2045 N	0.82	10.24	4.6	B	1387	2080
3 - Fostington Way E	1.15	233.24	97.3	F	1131	1697

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	694	174	925	1343	0.517	690	620	0.0	1.1	5.655	A
2 - A2045 N	1138	284	85	2060	0.552	1132	1530	0.0	1.3	4.075	A
3 - Fostington Way E	928	232	625	1369	0.678	920	593	0.0	2.1	8.039	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	829	207	1102	1226	0.676	825	741	1.1	2.1	9.167	A
2 - A2045 N	1358	340	102	2048	0.663	1355	1825	1.3	2.0	5.459	A
3 - Fostington Way E	1108	277	748	1289	0.860	1095	709	2.1	5.5	17.762	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	1015	254	1204	1159	0.876	999	878	2.1	6.1	21.377	C
2 - A2045 N	1664	416	124	2034	0.818	1654	2080	2.0	4.5	9.759	A
3 - Fostington Way E	1358	339	913	1183	1.148	1170	865	5.5	52.4	100.340	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	1015	254	1212	1154	0.880	1013	884	6.1	6.8	25.372	D
2 - A2045 N	1664	416	125	2033	0.818	1663	2100	4.5	4.6	10.243	B
3 - Fostington Way E	1358	339	918	1179	1.151	1178	870	52.4	97.3	233.242	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	829	207	1253	1127	0.735	844	774	6.8	3.0	13.745	B
2 - A2045 N	1358	340	104	2047	0.664	1368	1992	4.6	2.1	5.682	A
3 - Fostington Way E	1108	277	755	1285	0.863	1271	717	97.3	56.6	218.746	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	694	174	1117	1217	0.571	701	658	3.0	1.4	7.293	A
2 - A2045 N	1138	284	87	2059	0.553	1141	1731	2.1	1.3	4.155	A
3 - Fostington Way E	928	232	630	1366	0.680	1146	598	56.6	2.3	38.887	E

Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A2045 Fostington Way RBT	Standard Roundabout		1, 2, 3	739.90	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-32	2 - A2045 N

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - A2045 S		ONE HOUR	✓	695	100.000
2 - A2045 N		ONE HOUR	✓	2624	100.000
3 - Fostington Way E		ONE HOUR	✓	1238	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	611	84
	2 - A2045 N	1276	18	1330
	3 - Fostington Way E	450	725	63

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	1	0
	2 - A2045 N	2	4	2
	3 - Fostington Way E	2	1	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2045 S	0.52	5.16	1.1	A	638	957
2 - A2045 N	1.43	1082.84	618.6	F	2408	3612
3 - Fostington Way E	1.21	425.51	132.7	F	1136	1704

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	523	131	597	1559	0.336	521	1264	0.0	0.5	3.494	A
2 - A2045 N	1975	494	110	2043	0.967	1915	1008	0.0	15.2	22.622	C
3 - Fostington Way E	932	233	944	1162	0.802	917	1080	0.0	3.8	14.106	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	625	156	694	1495	0.418	624	1372	0.5	0.7	4.164	A
2 - A2045 N	2359	590	130	2030	1.162	2023	1188	15.2	99.1	109.338	F
3 - Fostington Way E	1113	278	998	1128	0.987	1068	1155	3.8	15.0	43.135	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	765	191	731	1471	0.520	764	1390	0.7	1.1	5.126	A
2 - A2045 N	2889	722	150	2016	1.433	2016	1345	99.1	317.4	375.891	F
3 - Fostington Way E	1363	341	994	1130	1.206	1126	1171	15.0	74.3	153.368	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	765	191	733	1469	0.521	765	1391	1.1	1.1	5.157	A
2 - A2045 N	2889	722	150	2016	1.433	2016	1348	317.4	535.7	762.635	F
3 - Fostington Way E	1363	341	994	1130	1.206	1130	1172	74.3	132.7	337.257	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	625	156	726	1474	0.424	626	1393	1.1	0.7	4.292	A
2 - A2045 N	2359	590	133	2028	1.163	2028	1220	535.7	618.6	1026.805	F
3 - Fostington Way E	1113	278	1000	1126	0.988	1119	1160	132.7	131.1	425.512	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	523	131	724	1475	0.355	524	1394	0.7	0.6	3.824	A
2 - A2045 N	1975	494	120	2036	0.970	2033	1128	618.6	604.3	1082.835	F
3 - Fostington Way E	932	233	1002	1125	0.829	1116	1150	131.1	85.1	349.861	F

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A2045 Fostington Way RBT	Standard Roundabout		1, 2, 3	76.39	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	3 - Fostington Way E

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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - A2045 S		ONE HOUR	✓	949	100.000
2 - A2045 N		ONE HOUR	✓	1479	100.000
3 - Fostington Way E		ONE HOUR	✓	1210	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	828	121
	2 - A2045 N	628	189	662
	3 - Fostington Way E	173	1037	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	2	4
	2 - A2045 N	5	6	5
	3 - Fostington Way E	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2045 S	0.91	32.61	8.9	D	871	1306
2 - A2045 N	0.80	9.44	4.2	A	1357	2036
3 - Fostington Way E	1.12	192.58	79.4	F	1110	1665

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	714	179	916	1349	0.530	710	600	0.0	1.1	5.721	A
2 - A2045 N	1113	278	91	2056	0.542	1109	1535	0.0	1.2	3.973	A
3 - Fostington Way E	911	228	612	1377	0.662	903	587	0.0	1.9	7.642	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	853	213	1092	1233	0.692	849	717	1.1	2.2	9.479	A
2 - A2045 N	1330	332	108	2044	0.650	1327	1833	1.2	1.9	5.258	A
3 - Fostington Way E	1088	272	733	1299	0.837	1077	702	1.9	4.8	15.780	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	1045	261	1216	1151	0.907	1023	856	2.2	7.6	25.315	D
2 - A2045 N	1628	407	130	2029	0.803	1620	2108	1.9	4.1	9.060	A
3 - Fostington Way E	1332	333	895	1194	1.115	1177	856	4.8	43.6	85.591	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	1045	261	1227	1144	0.913	1040	861	7.6	8.9	32.607	D
2 - A2045 N	1628	407	133	2028	0.803	1628	2134	4.1	4.2	9.441	A
3 - Fostington Way E	1332	333	899	1191	1.118	1189	861	43.6	79.4	192.575	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	853	213	1267	1118	0.763	875	751	8.9	3.5	16.275	C
2 - A2045 N	1330	332	112	2042	0.651	1338	2030	4.2	2.0	5.442	A
3 - Fostington Way E	1088	272	739	1295	0.840	1278	711	79.4	31.7	159.301	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	714	179	1025	1277	0.560	723	621	3.5	1.3	6.750	A
2 - A2045 N	1113	278	92	2055	0.542	1116	1656	2.0	1.3	4.045	A
3 - Fostington Way E	911	228	617	1374	0.663	1030	592	31.7	2.1	14.912	B

Do Something (800), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A2045 Fostington Way RBT	Standard Roundabout		1, 2, 3	713.09	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-31	2 - A2045 N

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
D4	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - A2045 S		ONE HOUR	✓	695	100.000
2 - A2045 N		ONE HOUR	✓	2587	100.000
3 - Fostington Way E		ONE HOUR	✓	1258	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	603	92
	2 - A2045 N	1253	17	1317
	3 - Fostington Way E	413	778	67

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A2045 S	2 - A2045 N	3 - Fostington Way E
From	1 - A2045 S	0	1	0
	2 - A2045 N	2	1	2
	3 - Fostington Way E	1	1	2

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2045 S	0.53	5.37	1.1	A	638	957
2 - A2045 N	1.42	1026.61	587.7	F	2374	3561
3 - Fostington Way E	1.22	459.34	143.3	F	1154	1732

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	523	131	638	1532	0.342	521	1223	0.0	0.5	3.585	A
2 - A2045 N	1948	487	119	2037	0.956	1894	1041	0.0	13.5	20.875	C
3 - Fostington Way E	947	237	930	1172	0.808	931	1083	0.0	3.9	14.327	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	625	156	739	1465	0.426	624	1330	0.5	0.7	4.310	A
2 - A2045 N	2326	581	140	2023	1.150	2015	1222	13.5	91.2	101.389	F
3 - Fostington Way E	1131	283	989	1133	0.998	1080	1166	3.9	16.7	46.032	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	765	191	774	1442	0.531	764	1344	0.7	1.1	5.338	A
2 - A2045 N	2848	712	161	2008	1.418	2008	1376	91.2	301.3	355.960	F
3 - Fostington Way E	1385	346	986	1136	1.220	1132	1184	16.7	79.9	163.679	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	765	191	776	1441	0.531	765	1345	1.1	1.1	5.371	A
2 - A2045 N	2848	712	162	2008	1.419	2008	1379	301.3	511.5	729.506	F
3 - Fostington Way E	1385	346	986	1136	1.220	1135	1184	79.9	142.4	359.687	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	625	156	771	1444	0.433	626	1349	1.1	0.8	4.447	A
2 - A2045 N	2326	581	143	2021	1.151	2021	1254	511.5	587.7	981.440	F
3 - Fostington Way E	1131	283	992	1132	0.999	1127	1172	142.4	143.3	459.338	F

18:15 - 18:30

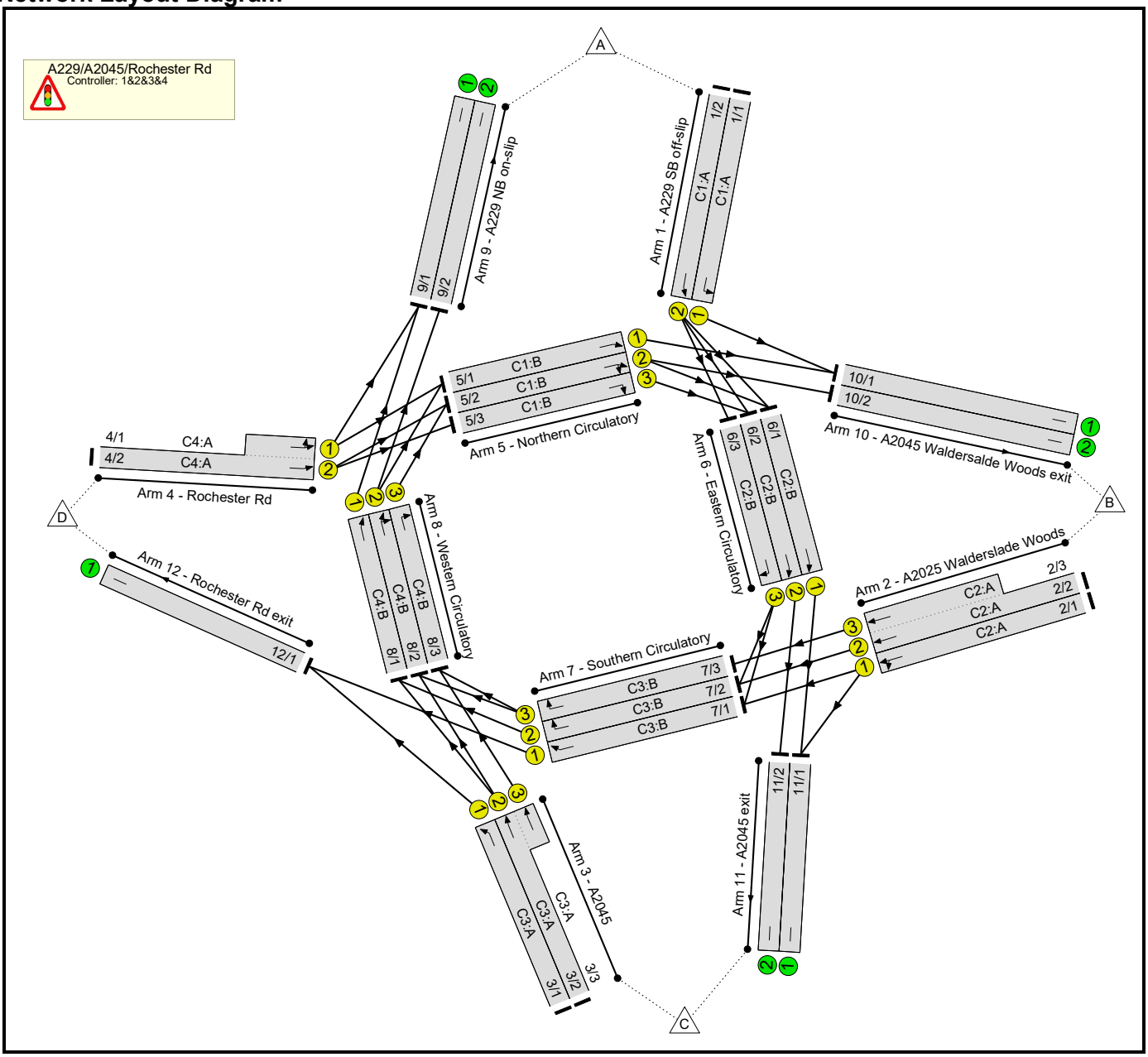
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2045 S	523	131	767	1447	0.362	524	1350	0.8	0.6	3.939	A
2 - A2045 N	1948	487	129	2030	0.959	2027	1162	587.7	568.0	1026.608	F
3 - Fostington Way E	947	237	995	1130	0.838	1122	1161	143.3	99.6	390.798	F

Full Input Data And Results

User and Project Details

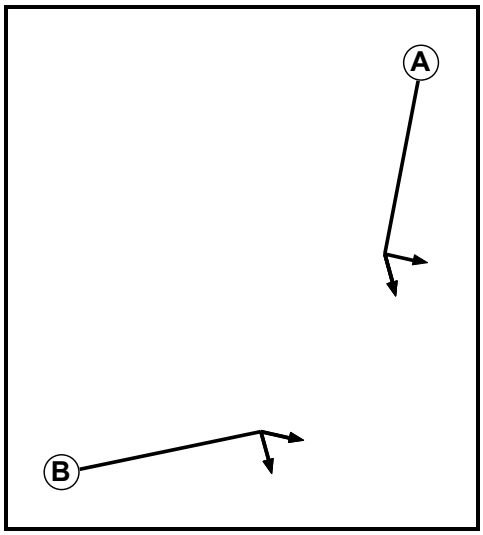
Project:	**East Hill, Medway**
Title:	**Jct 18 – A229/A2045/Rochester Rd – Capacity Assessment**
File name:	Jct 18 - A229_A2045_Rochester Rd.lsg3x

Network Layout Diagram



Full Input Data And Results

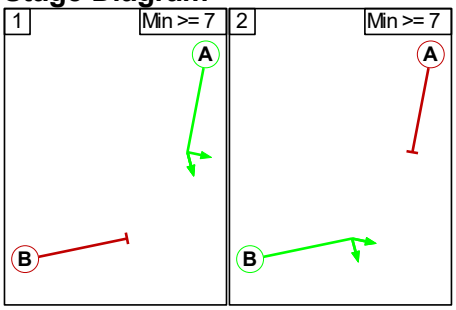
C1
Phase Diagram



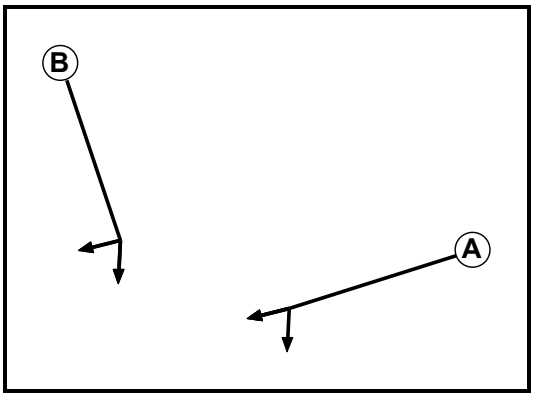
Phase Intergreens Matrix

	Starting Phase		
		A	B
Terminating Phase	A		5
	B	5	

Stage Diagram



C2
Phase Diagram

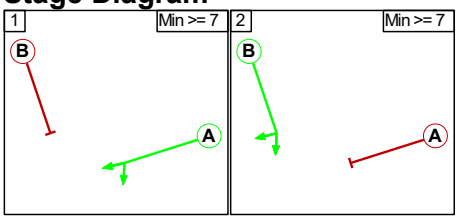


Full Input Data And Results

Phase Intergreens Matrix

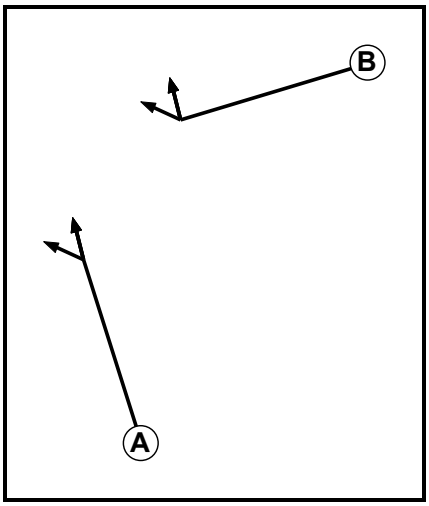
Terminating Phase	Starting Phase		
		A	B
	A		5
	B	5	

Stage Diagram



C3

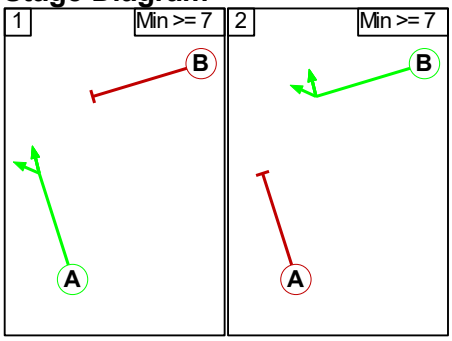
Phase Diagram



Phase Intergreens Matrix

Terminating Phase	Starting Phase		
		A	B
	A		5
	B	5	

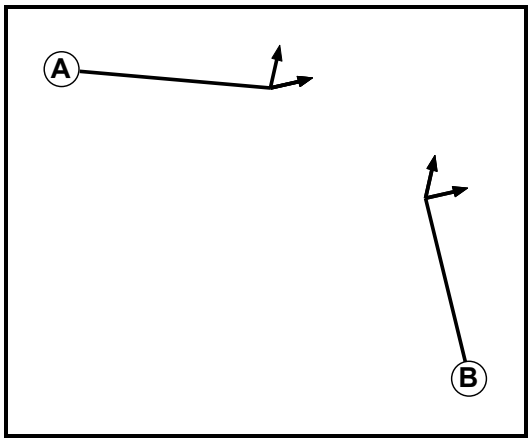
Stage Diagram



Full Input Data And Results

C4

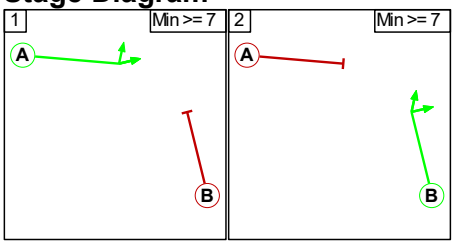
Phase Diagram



Phase Intergreens Matrix

	Starting Phase		
Terminating Phase		A	B
	A		5
	B	5	

Stage Diagram



Scenario 1: '2035 Do Min AM Peak' (FG1: '2035 Do Min AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

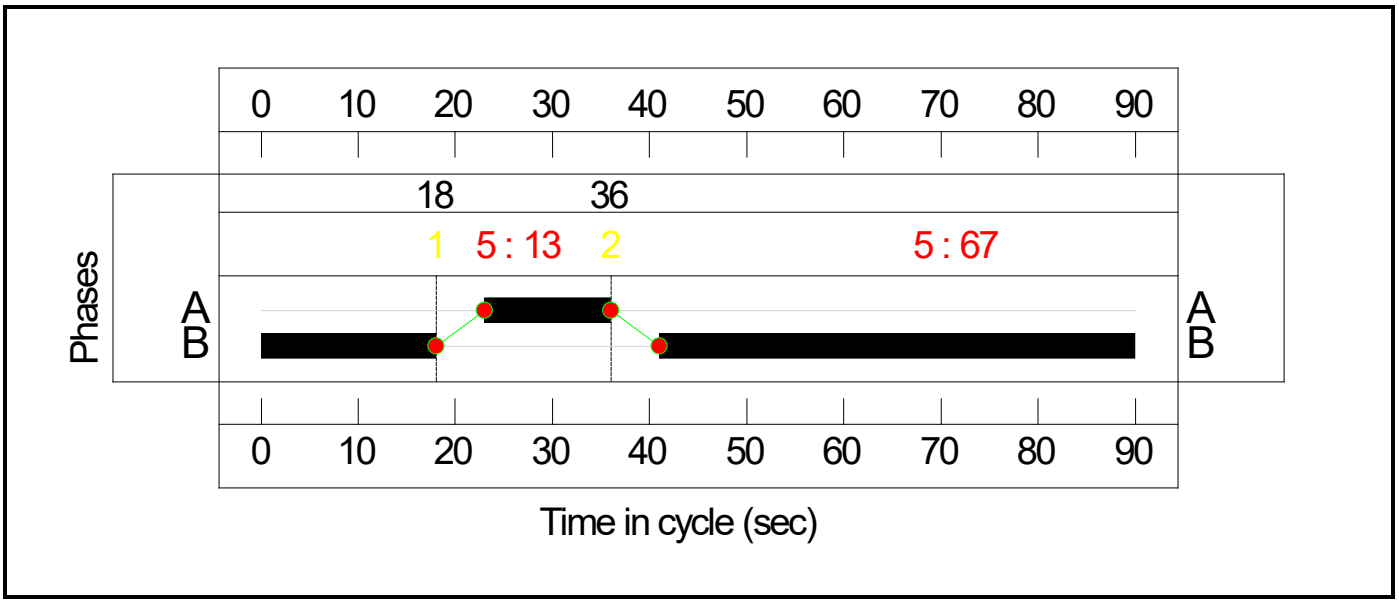
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	136	248	0	28	412
	B	378	57	737	581	1753
	C	0	658	5	543	1206
	D	196	658	640	0	1494
	Tot.	710	1621	1382	1152	4865

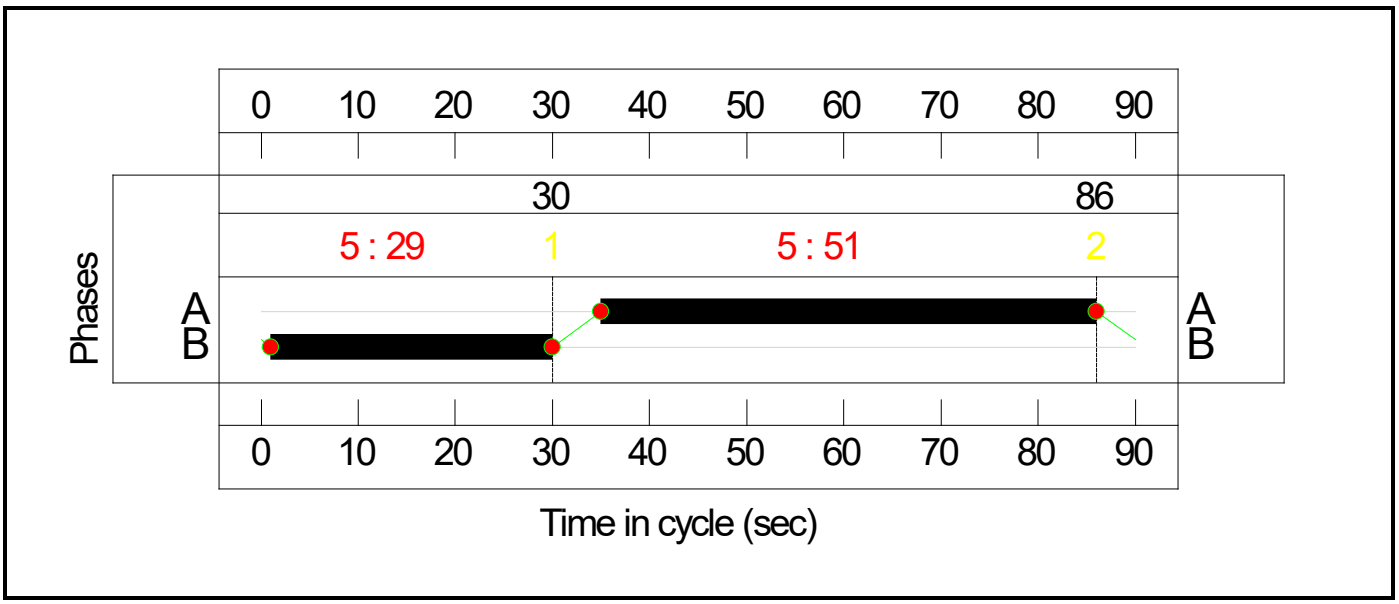
Full Input Data And Results

Signal Timings Diagram

C1

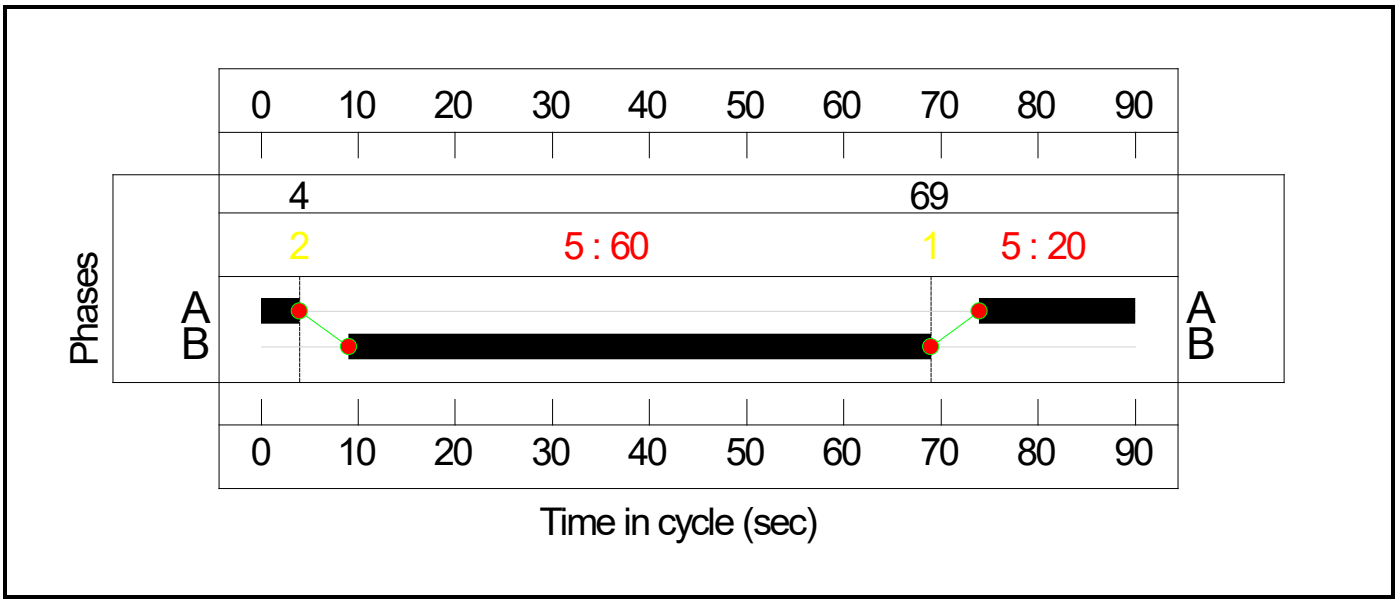


C2

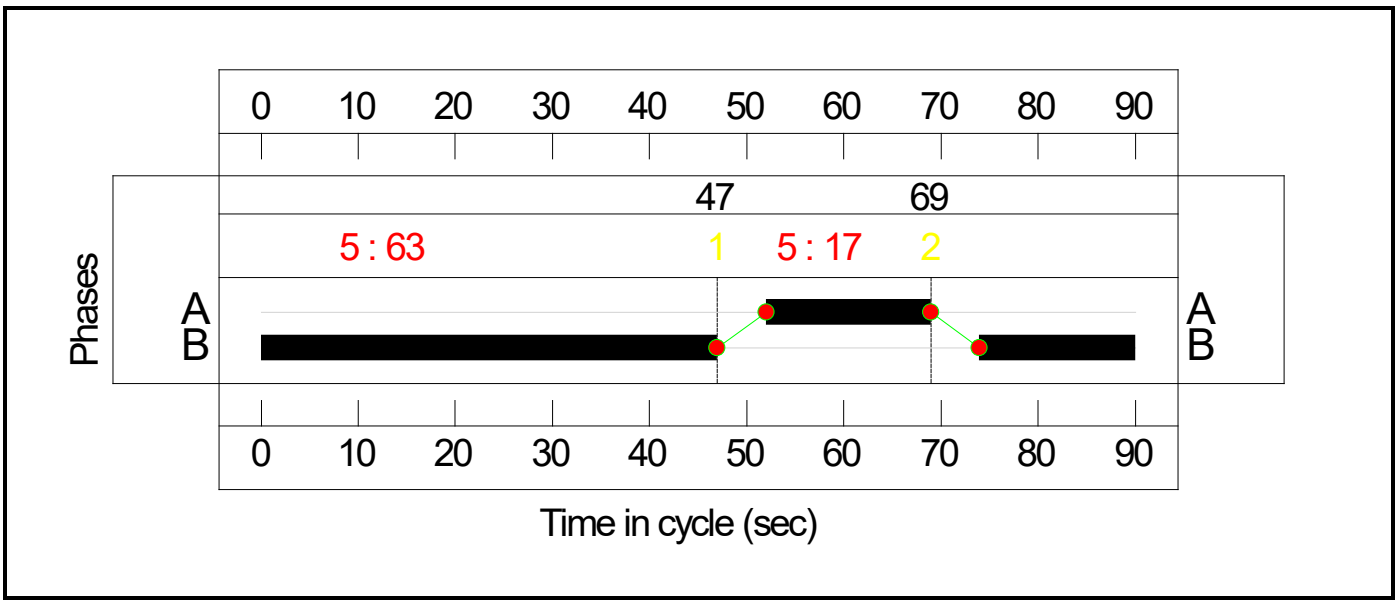


Full Input Data And Results

C3



C4



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**253.2%**
A229/A2045/Rochester Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**253.2%**
1/1	A229 SB off-slip Left	U	N/A	N/A	C1:A		1	13	-	248	1900	296	83.9%
1/2	A229 SB off-slip Ahead	U	N/A	N/A	C1:A		1	13	-	164	1900	296	55.5%
2/1	A2025 Walderslade Woods Ahead Left	U	N/A	N/A	C2:A		1	51	-	1318	1900	1098	120.1%
2/2+2/3	A2025 Walderslade Woods Ahead	U	N/A	N/A	C2:A		1	51	-	435	1900:1900	746+749	29.1 : 29.1%
3/1	A2045 Ahead	U	N/A	N/A	C3:A		1	20	-	543	1900	443	122.5%
3/2+3/3	A2045 Ahead	U	N/A	N/A	C3:A		1	20	-	663	1900:1900	278+279	119.2 : 119.2%
4/2+4/1	Rochester Rd Ahead Left	U	N/A	N/A	C4:A		1	17	-	1494	1900:1900	295+295	253.2 : 253.2%
5/1	Northern Circulatory Ahead	U	N/A	N/A	C1:B		1	67	-	910	1900	1436	36.5%
5/2	Northern Circulatory Right Ahead	U	N/A	N/A	C1:B		1	67	-	788	1900	1436	33.2%
5/3	Northern Circulatory Right	U	N/A	N/A	C1:B		1	67	-	320	1900	1436	8.8%
6/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	29	-	325	1900	633	20.6%
6/2	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	29	-	320	1900	633	20.0%
6/3	Eastern Circulatory Right	U	N/A	N/A	C2:B		1	29	-	164	1900	633	25.9%

Full Input Data And Results

7/1	Southern Circulatory Ahead	U	N/A	N/A	C3:B		1	60	-	609	1900	1288	39.8%
7/2	Southern Circulatory Right	U	N/A	N/A	C3:B		1	60	-	353	1900	1288	27.4%
7/3	Southern Circulatory Right	U	N/A	N/A	C3:B		1	60	-	218	1900	1288	16.9%
8/1	Western Circulatory Ahead	U	N/A	N/A	C4:B		1	63	-	353	1900	1351	26.1%
8/2	Western Circulatory Right Ahead	U	N/A	N/A	C4:B		1	63	-	520	1900	1351	34.5%
8/3	Western Circulatory Right	U	N/A	N/A	C4:B		1	63	-	361	1900	1351	22.8%
9/1	A229 NB on-slip	U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
9/2	A229 NB on-slip	U	N/A	N/A	-		-	-	-	161	Inf	Inf	0.0%
10/1	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	1158	Inf	Inf	0.0%
10/2	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	463	Inf	Inf	0.0%
11/1	A2045 exit	U	N/A	N/A	-		-	-	-	1062	Inf	Inf	0.0%
11/2	A2045 exit	U	N/A	N/A	-		-	-	-	320	Inf	Inf	0.0%
12/1	Rochester Rd exit	U	N/A	N/A	-		-	-	-	1152	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**110.8**	**680.0**	**0.0**	**790.7**	**-**	**-**	**-**	**-**
A229/A2045/Rochester Rd	**-**	**-**	**0**	**0**	**0**	**110.8**	**680.0**	**0.0**	**790.7**	**-**	**-**	**-**	**-**
1/1	248	248	-	-	-	2.5	2.4	-	4.9	71.3	6.0	2.4	8.4
1/2	164	164	-	-	-	1.6	0.6	-	2.2	48.7	3.8	0.6	4.4
2/1	1318	1098	-	-	-	19.3	113.0	-	132.3	361.4	43.6	113.0	156.6
2/2+2/3	435	435	-	-	-	1.1	0.2	-	1.3	10.8	2.5	0.2	2.7
3/1	543	443	-	-	-	10.3	52.4	-	62.7	415.8	17.5	52.4	69.9
3/2+3/3	663	556	-	-	-	11.6	56.3	-	67.9	368.4	17.6	56.3	73.9
4/2+4/1	1494	590	-	-	-	57.7	452.8	-	510.5	1230.1	70.1	452.8	522.9
5/1	523	523	-	-	-	0.0	0.3	-	0.3	2.3	0.2	0.3	0.5
5/2	476	476	-	-	-	0.0	0.2	-	0.3	2.2	0.2	0.2	0.5
5/3	126	126	-	-	-	0.0	0.0	-	0.0	1.4	0.0	0.0	0.0
6/1	131	131	-	-	-	0.8	0.1	-	1.0	26.5	3.2	0.1	3.3
6/2	126	126	-	-	-	0.8	0.1	-	1.0	27.2	3.2	0.1	3.3
6/3	164	164	-	-	-	1.7	0.2	-	1.9	42.0	2.6	0.2	2.8
7/1	512	512	-	-	-	1.4	0.3	-	1.7	11.9	5.7	0.3	6.0
7/2	353	353	-	-	-	0.4	0.2	-	0.6	6.0	3.5	0.2	3.7
7/3	218	218	-	-	-	0.3	0.1	-	0.4	6.4	1.4	0.1	1.5
8/1	353	353	-	-	-	0.6	0.2	-	0.8	7.8	2.7	0.2	2.9
8/2	467	467	-	-	-	0.5	0.3	-	0.8	5.9	2.4	0.3	2.6
8/3	308	308	-	-	-	0.1	0.1	-	0.2	2.5	0.4	0.1	0.5
9/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	161	161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	346	346	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	744	744	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	126	126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	955	955	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	7.3	Total Delay for Signalled Lanes (pcuHr):	7.81	Cycle Time (s):	90
C2	PRC for Signalled Lanes (%):	-33.4	Total Delay for Signalled Lanes (pcuHr):	137.44	Cycle Time (s):	90
C3	PRC for Signalled Lanes (%):	-36.1	Total Delay for Signalled Lanes (pcuHr):	133.25	Cycle Time (s):	90
C4	PRC for Signalled Lanes (%):	-181.4	Total Delay for Signalled Lanes (pcuHr):	512.25	Cycle Time (s):	90
	PRC Over All Lanes (%):	-181.4	Total Delay Over All Lanes(pcuHr):	790.74		

Full Input Data And Results

Scenario 2: '2035 Do Min PM Peak' (FG2: '2035 Do Min PM', Plan 1: 'Network Control Plan 1')

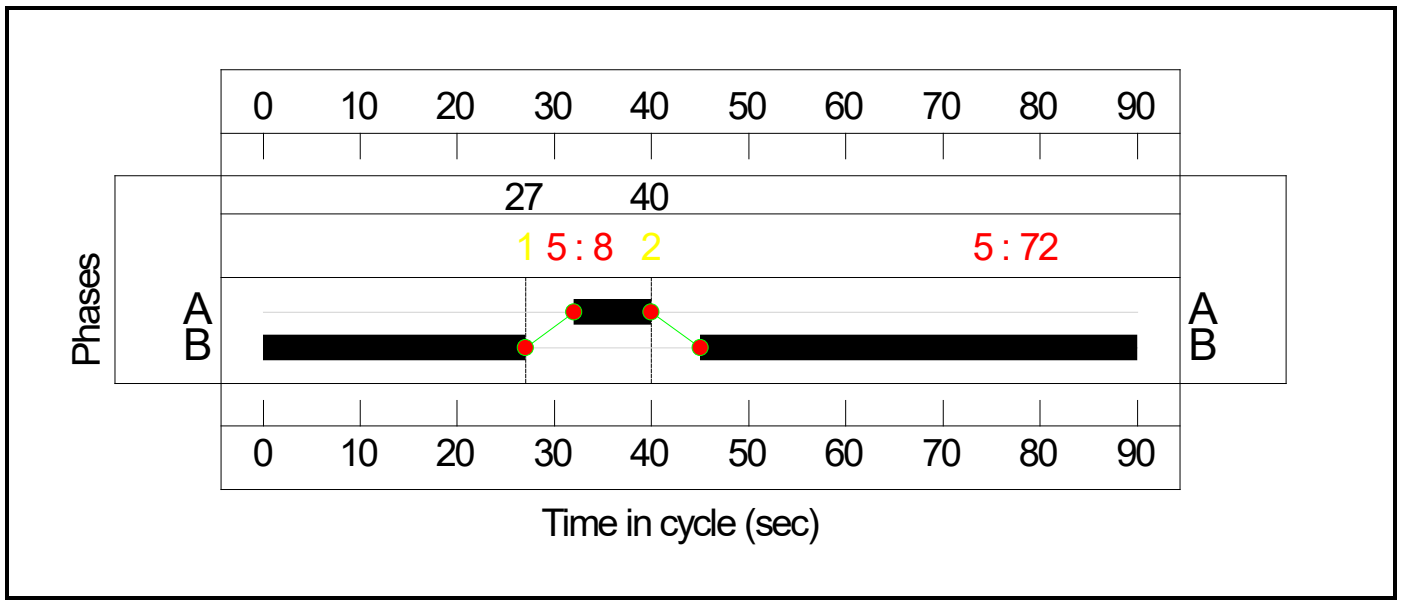
Traffic Flows, Actual

Actual Flow :

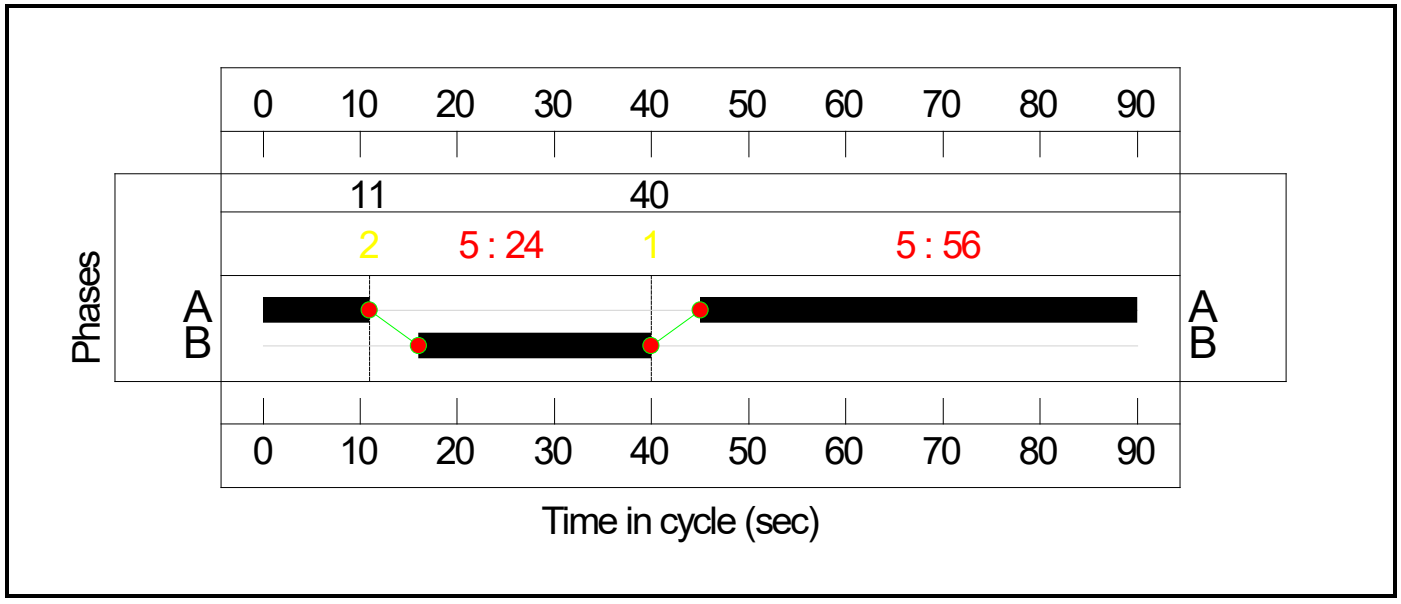
		Destination				
		A	B	C	D	Tot.
Origin	A	90	422	1	111	624
	B	159	25	282	571	1037
	C	0	687	0	633	1320
	D	164	687	874	0	1725
	Tot.	413	1821	1157	1315	4706

Signal Timings Diagram

C1

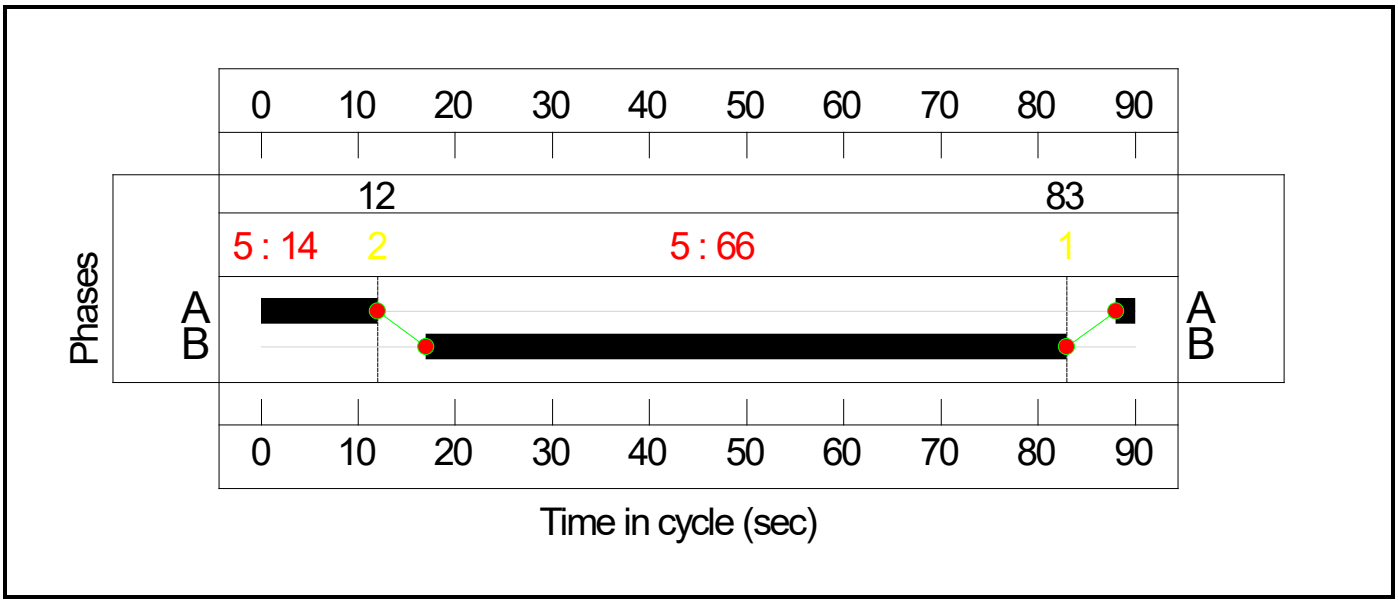


C2

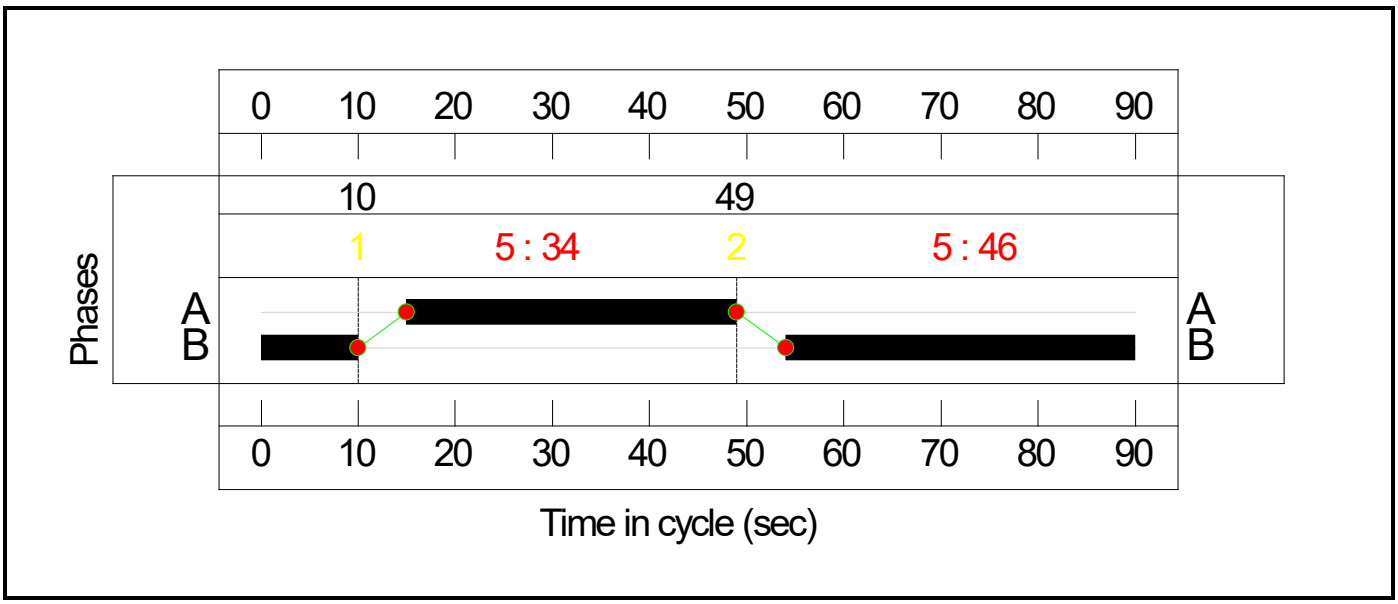


Full Input Data And Results

C3



C4



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**222.1%**
A229/A2045/Rochester Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**222.1%**
1/1	A229 SB off-slip Left	U	N/A	N/A	C1:A		1	8	-	422	1900	190	222.1%
1/2	A229 SB off-slip Ahead	U	N/A	N/A	C1:A		1	8	-	202	1900	190	106.3%
2/1	A2025 Walderslade Woods Ahead Left	U	N/A	N/A	C2:A		1	56	-	853	1900	1203	70.9%
2/2+2/3	A2025 Walderslade Woods Ahead	U	N/A	N/A	C2:A		1	56	-	184	1900:1900	801+801	11.5 : 11.5%
3/1	A2045 Ahead	U	N/A	N/A	C3:A		1	14	-	633	1900	317	199.9%
3/2+3/3	A2045 Ahead	U	N/A	N/A	C3:A		1	14	-	687	1900:1900	215+215	159.9 : 159.9%
4/2+4/1	Rochester Rd Ahead Left	U	N/A	N/A	C4:A		1	34	-	1725	1900:1900	478+465	182.9 : 182.9%
5/1	Northern Circulatory Ahead	U	N/A	N/A	C1:B		1	72	-	1042	1900	1541	39.1%
5/2	Northern Circulatory Right Ahead	U	N/A	N/A	C1:B		1	72	-	794	1900	1541	30.3%
5/3	Northern Circulatory Right	U	N/A	N/A	C1:B		1	72	-	437	1900	1541	15.5%
6/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	24	-	438	1900	528	45.5%
6/2	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	24	-	437	1900	528	45.3%
6/3	Eastern Circulatory Right	U	N/A	N/A	C2:B		1	24	-	201	1900	528	35.8%

Full Input Data And Results

7/1	Southern Circulatory Ahead	U	N/A	N/A	C3:B		1	66	-	682	1900	1414	47.8%
7/2	Southern Circulatory Right	U	N/A	N/A	C3:B		1	66	-	182	1900	1414	12.5%
7/3	Southern Circulatory Right	U	N/A	N/A	C3:B		1	66	-	92	1900	1414	6.5%
8/1	Western Circulatory Ahead	U	N/A	N/A	C4:B		1	46	-	182	1900	992	17.8%
8/2	Western Circulatory Right Ahead	U	N/A	N/A	C4:B		1	46	-	423	1900	992	29.6%
8/3	Western Circulatory Right	U	N/A	N/A	C4:B		1	46	-	356	1900	992	22.9%
9/1	A229 NB on-slip	U	N/A	N/A	-		-	-	-	346	Inf	Inf	0.0%
9/2	A229 NB on-slip	U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%
10/1	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	1464	Inf	Inf	0.0%
10/2	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
11/1	A2045 exit	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
11/2	A2045 exit	U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
12/1	Rochester Rd exit	U	N/A	N/A	-		-	-	-	1315	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**117.1**	**812.8**	**0.0**	**929.9**	**-**	**-**	**-**	**-**
A229/A2045/Rochester Rd	**-**	**-**	**0**	**0**	**0**	**117.1**	**812.8**	**0.0**	**929.9**	**-**	**-**	**-**	**-**
1/1	422	190	-	-	-	14.2	116.9	-	131.1	1118.3	17.4	116.9	134.3
1/2	202	190	-	-	-	2.7	10.7	-	13.5	239.9	5.3	10.7	16.1
2/1	853	853	-	-	-	2.6	1.2	-	3.8	16.1	14.0	1.2	15.2
2/2+2/3	184	184	-	-	-	0.3	0.1	-	0.4	7.7	0.9	0.1	0.9
3/1	633	317	-	-	-	21.8	159.2	-	181.0	1029.1	29.0	159.2	188.2
3/2+3/3	687	430	-	-	-	19.4	130.0	-	149.4	782.7	24.2	130.0	154.2
4/2+4/1	1725	943	-	-	-	44.2	392.0	-	436.2	910.3	59.7	392.0	451.7
5/1	602	602	-	-	-	0.7	0.3	-	1.0	5.9	6.0	0.3	6.4
5/2	467	467	-	-	-	0.4	0.2	-	0.6	4.5	3.4	0.2	3.6
5/3	239	239	-	-	-	0.4	0.1	-	0.5	6.8	3.4	0.1	3.5
6/1	240	240	-	-	-	2.5	0.4	-	2.9	43.0	4.0	0.4	4.4
6/2	239	239	-	-	-	2.4	0.4	-	2.9	43.0	4.0	0.4	4.4
6/3	189	189	-	-	-	2.0	0.3	-	2.3	43.4	2.8	0.3	3.1
7/1	675	675	-	-	-	0.6	0.5	-	1.1	5.8	5.0	0.5	5.4
7/2	177	177	-	-	-	0.1	0.1	-	0.2	3.1	0.6	0.1	0.7
7/3	92	92	-	-	-	0.1	0.0	-	0.1	4.4	0.6	0.0	0.6
8/1	177	177	-	-	-	0.7	0.1	-	0.8	16.5	3.6	0.1	3.7
8/2	294	294	-	-	-	1.1	0.2	-	1.4	16.6	3.3	0.2	3.5
8/3	228	228	-	-	-	0.9	0.1	-	1.1	17.3	2.2	0.1	2.3
9/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	67	67	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	792	792	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	992	992	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	-146.8	Total Delay for Signalled Lanes (pcuHr):	146.57	Cycle Time (s):	90
C2	PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	12.20	Cycle Time (s):	90
C3	PRC for Signalled Lanes (%):	-122.1	Total Delay for Signalled Lanes (pcuHr):	331.68	Cycle Time (s):	90
C4	PRC for Signalled Lanes (%):	-103.2	Total Delay for Signalled Lanes (pcuHr):	439.44	Cycle Time (s):	90
	PRC Over All Lanes (%):	-146.8	Total Delay Over All Lanes(pcuHr):	929.90		

Full Input Data And Results

Scenario 3: '2035 DS AM Peak' (FG3: '2035 DS AM', Plan 1: 'Network Control Plan 1')

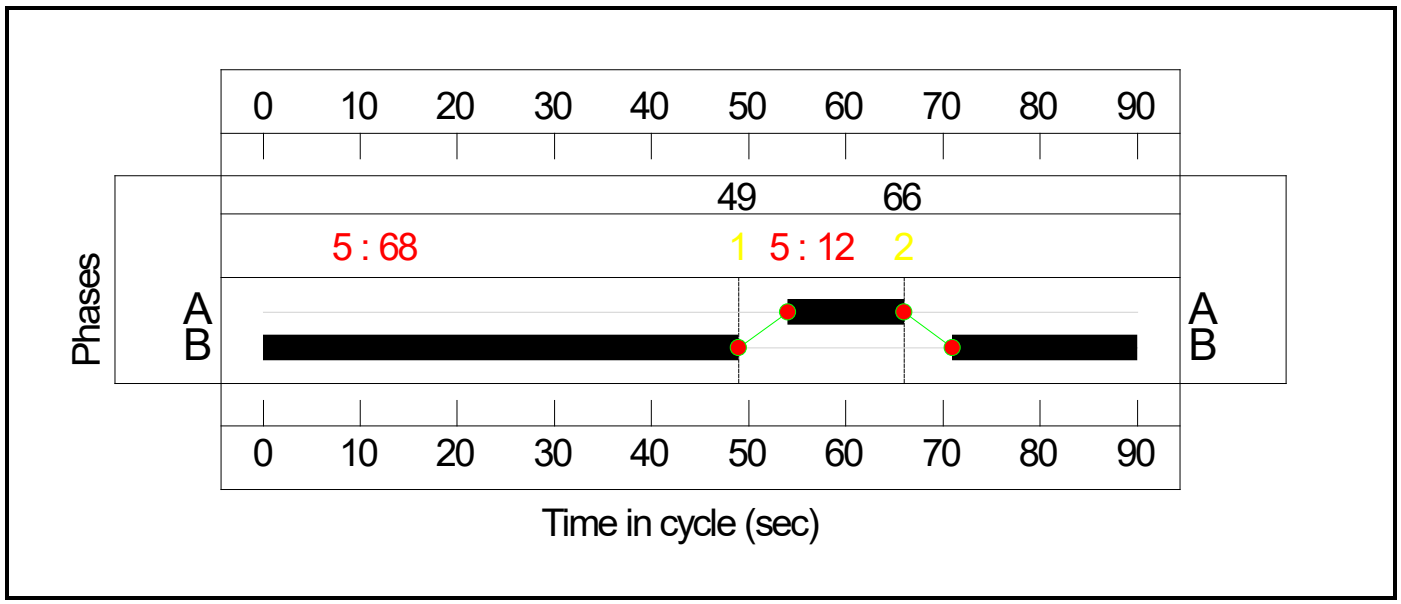
Traffic Flows, Actual

Actual Flow :

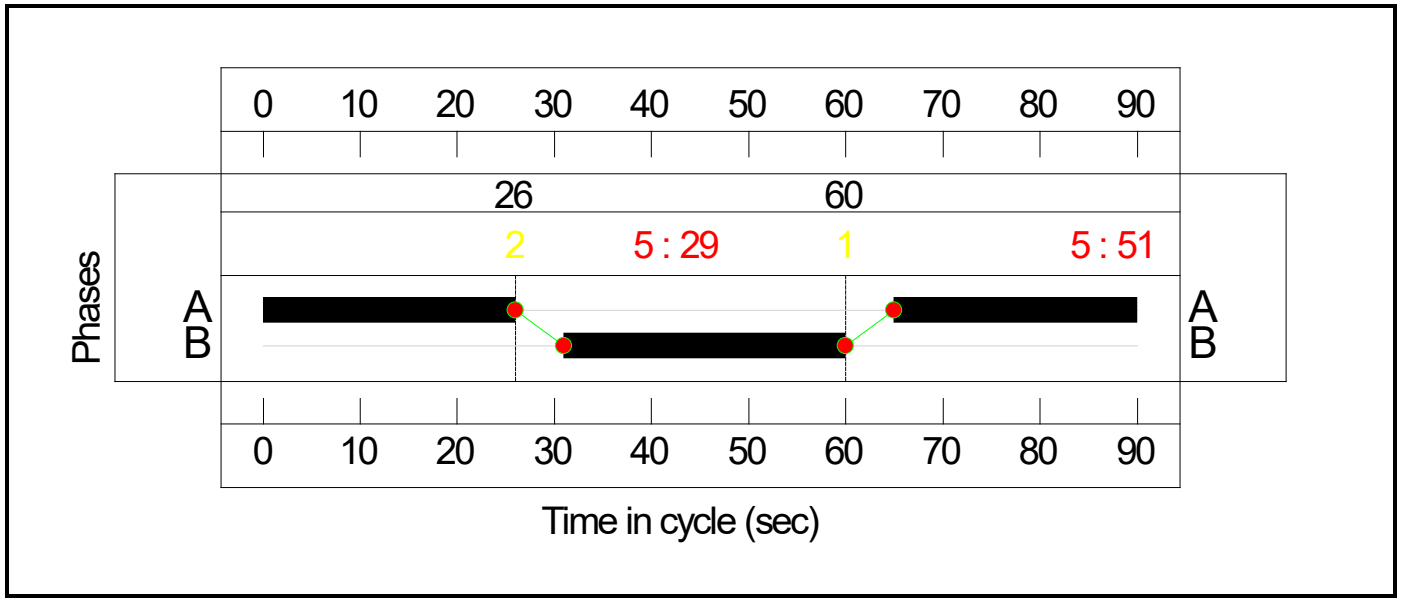
		Destination				
		A	B	C	D	Tot.
Origin	A	129	260	0	26	415
	B	405	51	723	583	1762
	C	0	632	2	554	1188
	D	204	632	626	0	1462
	Tot.	738	1575	1351	1163	4827

Signal Timings Diagram

C1

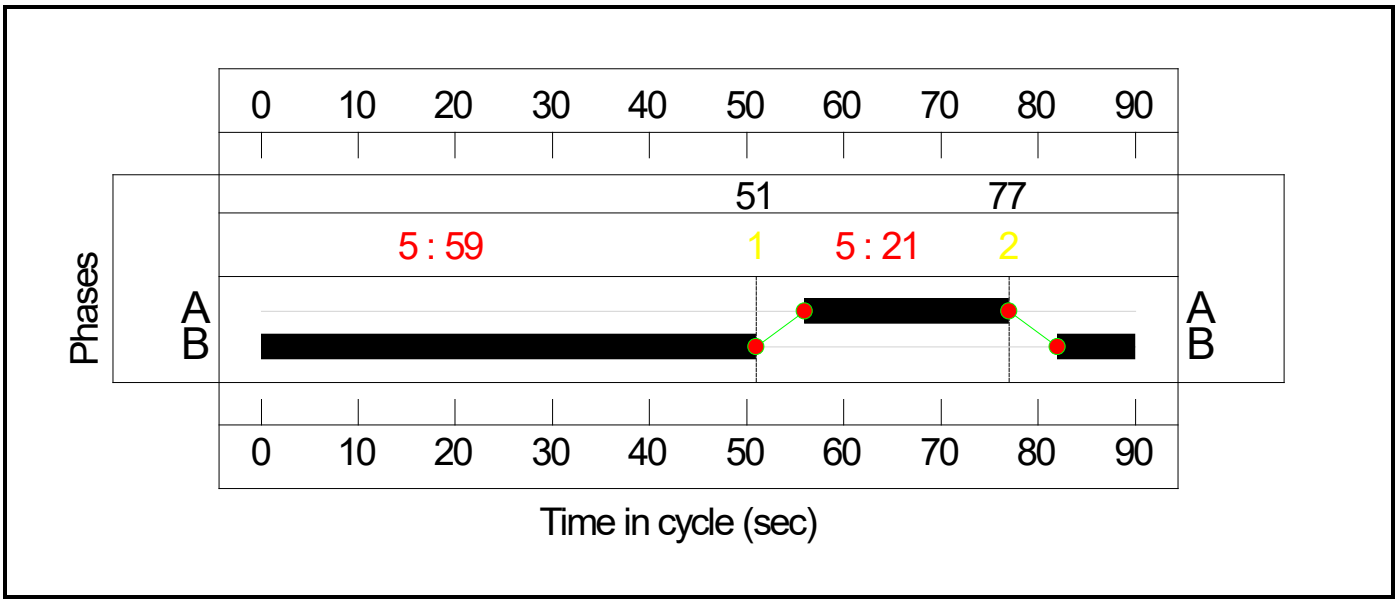


C2

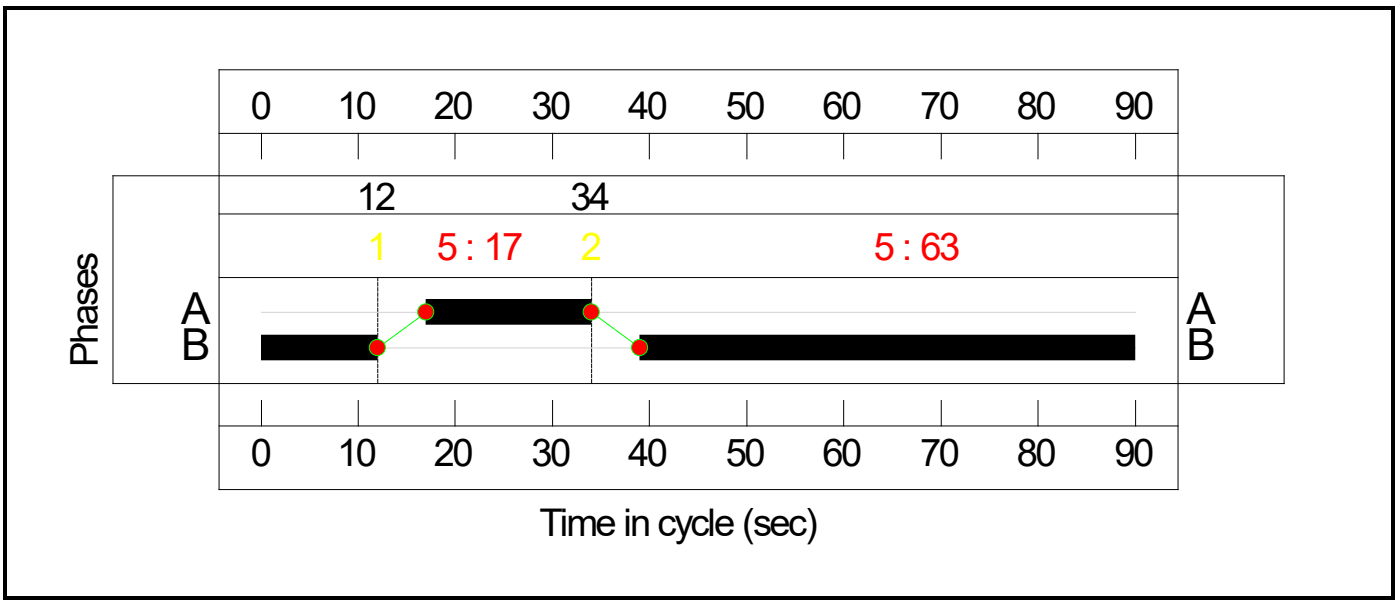


Full Input Data And Results

C3



C4



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**247.8%**
A229/A2045/Rochester Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**247.8%**
1/1	A229 SB off-slip Left	U	N/A	N/A	C1:A		1	12	-	260	1900	274	94.7%
1/2	A229 SB off-slip Ahead	U	N/A	N/A	C1:A		1	12	-	155	1900	274	56.5%
2/1	A2025 Walderslade Woods Ahead Left	U	N/A	N/A	C2:A		1	51	-	1306	1900	1098	119.0%
2/2+2/3	A2025 Walderslade Woods Ahead	U	N/A	N/A	C2:A		1	51	-	456	1900:1900	748+748	30.5 : 30.5%
3/1	A2045 Ahead	U	N/A	N/A	C3:A		1	21	-	554	1900	464	119.3%
3/2+3/3	A2045 Ahead	U	N/A	N/A	C3:A		1	21	-	634	1900:1900	289+289	109.7 : 109.7%
4/2+4/1	Rochester Rd Ahead Left	U	N/A	N/A	C4:A		1	17	-	1462	1900:1900	295+295	247.8 : 247.8%
5/1	Northern Circulatory Ahead	U	N/A	N/A	C1:B		1	68	-	869	1900	1457	36.1%
5/2	Northern Circulatory Right Ahead	U	N/A	N/A	C1:B		1	68	-	761	1900	1457	33.2%
5/3	Northern Circulatory Right	U	N/A	N/A	C1:B		1	68	-	313	1900	1457	8.7%
6/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	29	-	315	1900	633	20.2%
6/2	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	29	-	313	1900	633	19.9%
6/3	Eastern Circulatory Right	U	N/A	N/A	C2:B		1	29	-	155	1900	633	24.5%

Full Input Data And Results

7/1	Southern Circulatory Ahead	U	N/A	N/A	C3:B		1	59	-	609	1900	1267	40.7%
7/2	Southern Circulatory Right	U	N/A	N/A	C3:B		1	59	-	357	1900	1267	28.2%
7/3	Southern Circulatory Right	U	N/A	N/A	C3:B		1	59	-	228	1900	1267	18.0%
8/1	Western Circulatory Ahead	U	N/A	N/A	C4:B		1	63	-	357	1900	1351	26.4%
8/2	Western Circulatory Right Ahead	U	N/A	N/A	C4:B		1	63	-	519	1900	1351	36.3%
8/3	Western Circulatory Right	U	N/A	N/A	C4:B		1	63	-	343	1900	1351	23.3%
9/1	A229 NB on-slip	U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
9/2	A229 NB on-slip	U	N/A	N/A	-		-	-	-	177	Inf	Inf	0.0%
10/1	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	1129	Inf	Inf	0.0%
10/2	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	446	Inf	Inf	0.0%
11/1	A2045 exit	U	N/A	N/A	-		-	-	-	1038	Inf	Inf	0.0%
11/2	A2045 exit	U	N/A	N/A	-		-	-	-	313	Inf	Inf	0.0%
12/1	Rochester Rd exit	U	N/A	N/A	-		-	-	-	1163	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**94.4**	**632.9**	**0.0**	**727.4**	**-**	**-**	**-**	**-**
A229/A2045/Rochester Rd	**-**	**-**	**0**	**0**	**0**	**94.4**	**632.9**	**0.0**	**727.4**	**-**	**-**	**-**	**-**
1/1	260	260	-	-	-	2.8	5.2	-	8.0	110.5	6.4	5.2	11.7
1/2	155	155	-	-	-	1.5	0.6	-	2.2	50.8	3.6	0.6	4.2
2/1	1306	1098	-	-	-	17.2	107.2	-	124.3	342.7	37.9	107.2	145.0
2/2+2/3	456	456	-	-	-	1.2	0.2	-	1.4	10.9	2.7	0.2	2.9
3/1	554	464	-	-	-	8.7	47.7	-	56.4	366.4	16.8	47.7	64.5
3/2+3/3	634	578	-	-	-	7.5	32.9	-	40.4	229.4	14.8	32.9	47.7
4/2+4/1	1462	590	-	-	-	51.3	436.8	-	488.2	1202.0	60.1	436.8	497.0
5/1	527	527	-	-	-	0.2	0.3	-	0.5	3.3	4.9	0.3	5.2
5/2	484	484	-	-	-	0.2	0.2	-	0.4	3.3	4.9	0.2	5.1
5/3	126	126	-	-	-	0.0	0.0	-	0.0	1.4	0.0	0.0	0.0
6/1	128	128	-	-	-	0.1	0.1	-	0.2	5.0	1.2	0.1	1.4
6/2	126	126	-	-	-	0.0	0.1	-	0.2	4.4	1.2	0.1	1.3
6/3	155	155	-	-	-	1.9	0.2	-	2.1	47.9	2.9	0.2	3.0
7/1	516	516	-	-	-	0.4	0.3	-	0.7	5.0	5.0	0.3	5.4
7/2	357	357	-	-	-	0.6	0.2	-	0.8	8.4	4.5	0.2	4.7
7/3	228	228	-	-	-	0.4	0.1	-	0.5	8.2	3.5	0.1	3.6
8/1	357	357	-	-	-	0.3	0.2	-	0.5	4.6	2.7	0.2	2.9
8/2	491	491	-	-	-	0.2	0.3	-	0.5	3.8	1.4	0.3	1.7
8/3	315	315	-	-	-	0.0	0.2	-	0.2	2.1	0.2	0.2	0.3
9/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	787	787	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	126	126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	980	980	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	-5.3	Total Delay for Signalled Lanes (pcuHr):	11.14	Cycle Time (s):	90
C2	PRC for Signalled Lanes (%):	-32.2	Total Delay for Signalled Lanes (pcuHr):	128.09	Cycle Time (s):	90
C3	PRC for Signalled Lanes (%):	-32.5	Total Delay for Signalled Lanes (pcuHr):	98.84	Cycle Time (s):	90
C4	PRC for Signalled Lanes (%):	-175.3	Total Delay for Signalled Lanes (pcuHr):	489.31	Cycle Time (s):	90
	PRC Over All Lanes (%):	-175.3	Total Delay Over All Lanes(pcuHr):	727.38		

Full Input Data And Results

Scenario 4: '2035 DS PM Peak' (FG4: '2035 DS PM', Plan 1: 'Network Control Plan 1')

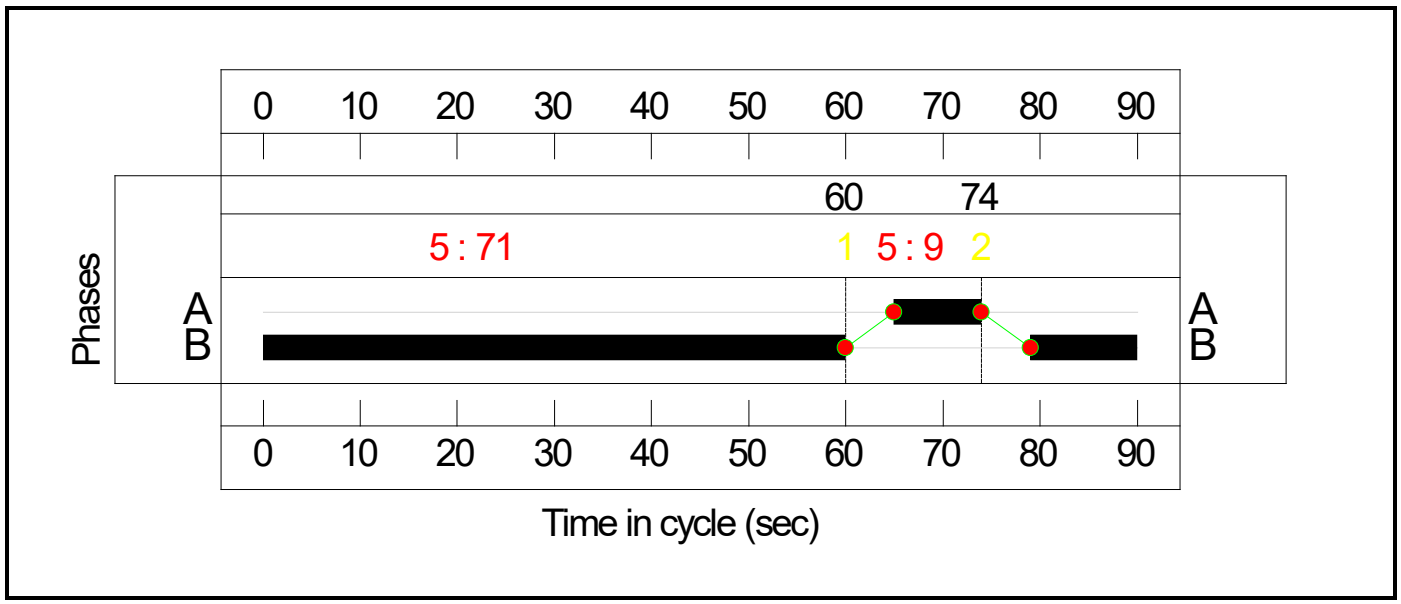
Traffic Flows, Actual

Actual Flow :

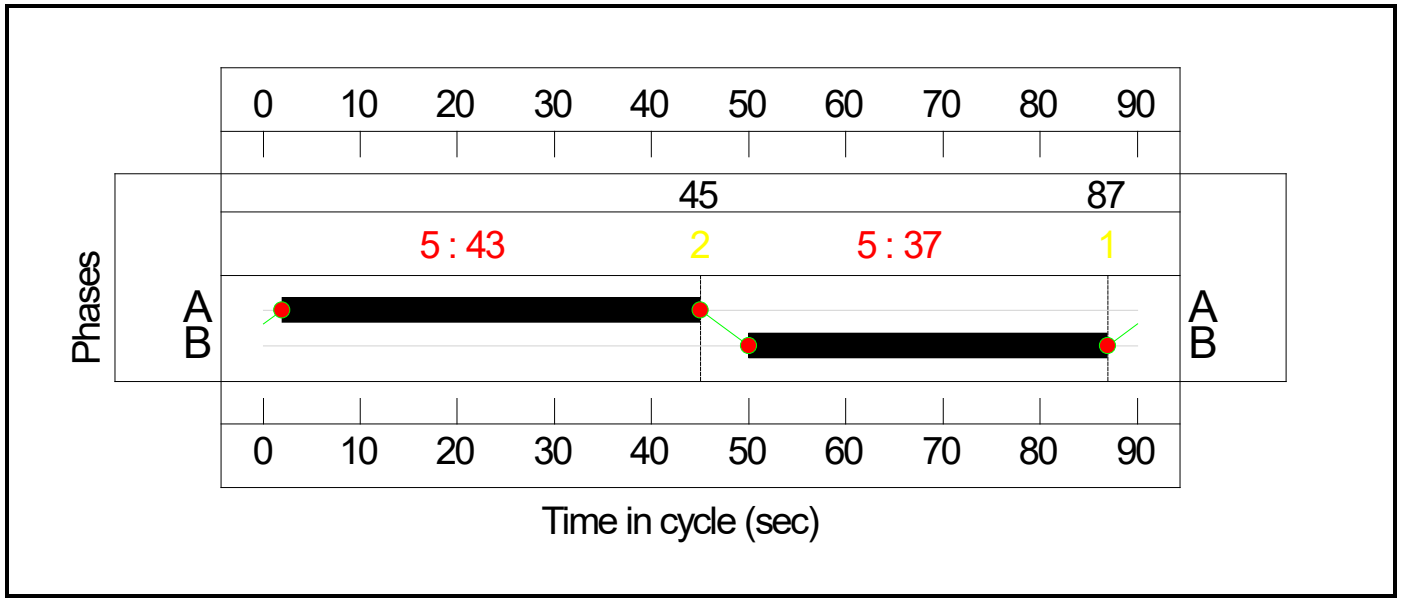
		Destination				
		A	B	C	D	Tot.
Origin	A	98	450	1	116	665
	B	162	22	281	546	1011
	C	0	676	0	636	1312
	D	166	676	871	0	1713
	Tot.	426	1824	1153	1298	4701

Signal Timings Diagram

C1

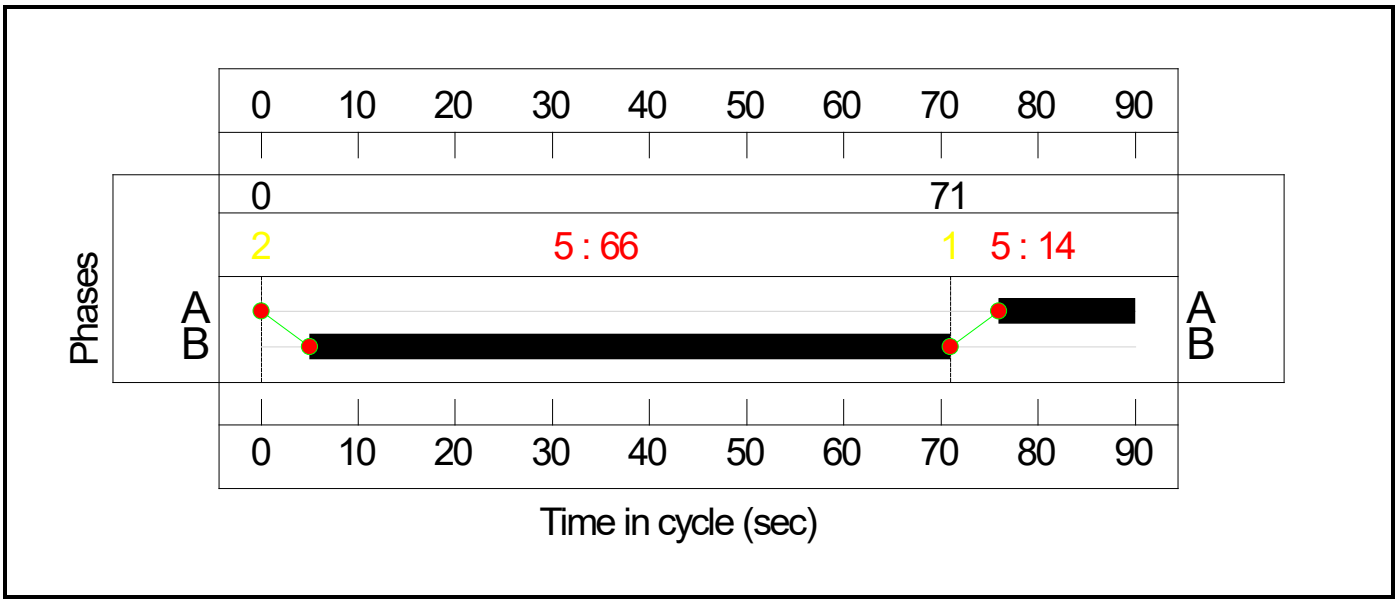


C2

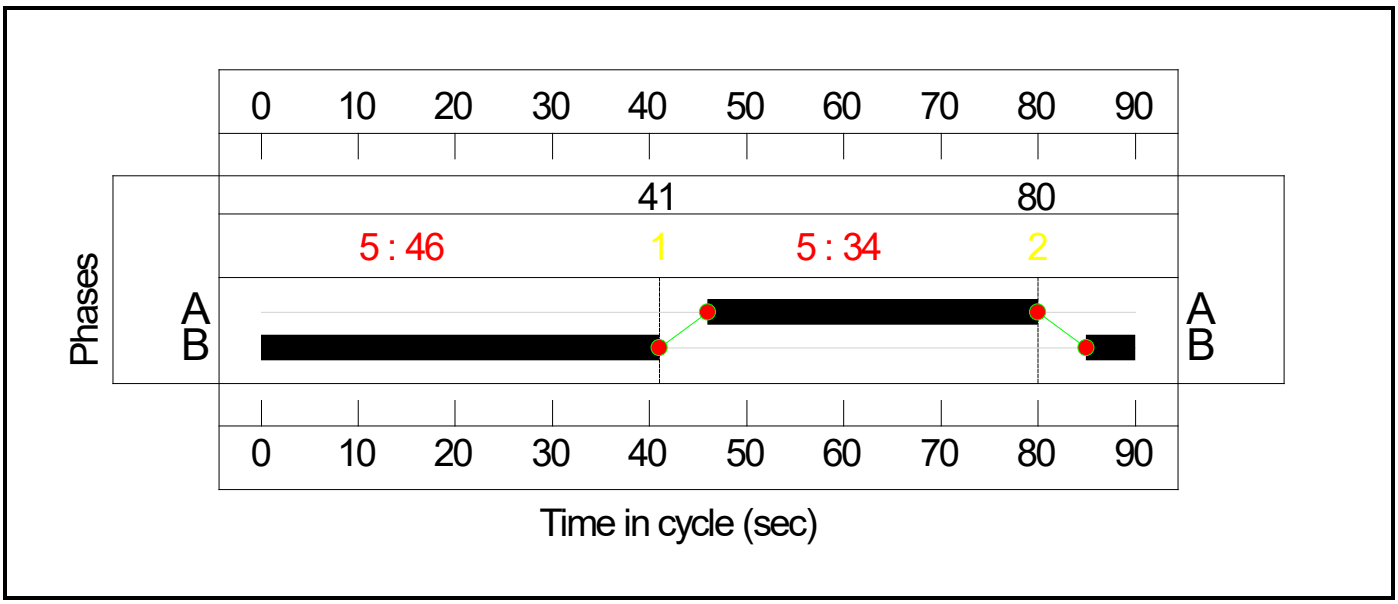


Full Input Data And Results

C3



C4



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**213.2%**
A229/A2045/Rochester Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**213.2%**
1/1	A229 SB off-slip Left	U	N/A	N/A	C1:A		1	9	-	450	1900	211	213.2%
1/2	A229 SB off-slip Ahead	U	N/A	N/A	C1:A		1	9	-	215	1900	211	101.8%
2/1	A2025 Walderslade Woods Ahead Left	U	N/A	N/A	C2:A		1	43	-	827	1900	929	89.0%
2/2+2/3	A2025 Walderslade Woods Ahead	U	N/A	N/A	C2:A		1	43	-	184	1900:1900	664+664	13.9 : 13.9%
3/1	A2045 Ahead	U	N/A	N/A	C3:A		1	14	-	636	1900	317	200.8%
3/2+3/3	A2045 Ahead	U	N/A	N/A	C3:A		1	14	-	676	1900:1900	215+215	157.2 : 157.2%
4/2+4/1	Rochester Rd Ahead Left	U	N/A	N/A	C4:A		1	34	-	1713	1900:1900	479+462	181.9 : 181.9%
5/1	Northern Circulatory Ahead	U	N/A	N/A	C1:B		1	71	-	1024	1900	1520	39.3%
5/2	Northern Circulatory Right Ahead	U	N/A	N/A	C1:B		1	71	-	786	1900	1520	30.7%
5/3	Northern Circulatory Right	U	N/A	N/A	C1:B		1	71	-	435	1900	1520	15.7%
6/1	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	37	-	437	1900	802	30.0%
6/2	Eastern Circulatory Ahead	U	N/A	N/A	C2:B		1	37	-	435	1900	802	29.8%
6/3	Eastern Circulatory Right	U	N/A	N/A	C2:B		1	37	-	214	1900	802	26.2%

Full Input Data And Results

7/1	Southern Circulatory Ahead	U	N/A	N/A	C3:B		1	66	-	662	1900	1414	46.7%
7/2	Southern Circulatory Right	U	N/A	N/A	C3:B		1	66	-	190	1900	1414	13.3%
7/3	Southern Circulatory Right	U	N/A	N/A	C3:B		1	66	-	92	1900	1414	6.5%
8/1	Western Circulatory Ahead	U	N/A	N/A	C4:B		1	46	-	190	1900	992	19.0%
8/2	Western Circulatory Right Ahead	U	N/A	N/A	C4:B		1	46	-	419	1900	992	29.8%
8/3	Western Circulatory Right	U	N/A	N/A	C4:B		1	46	-	349	1900	992	22.8%
9/1	A229 NB on-slip	U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
9/2	A229 NB on-slip	U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
10/1	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	1474	Inf	Inf	0.0%
10/2	A2045 Waldersalde Woods exit	U	N/A	N/A	-		-	-	-	350	Inf	Inf	0.0%
11/1	A2045 exit	U	N/A	N/A	-		-	-	-	718	Inf	Inf	0.0%
11/2	A2045 exit	U	N/A	N/A	-		-	-	-	435	Inf	Inf	0.0%
12/1	Rochester Rd exit	U	N/A	N/A	-		-	-	-	1298	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**122.9**	**806.6**	**0.0**	**929.5**	**-**	**-**	**-**	**-**
A229/A2045/Rochester Rd	**-**	**-**	**0**	**0**	**0**	**122.9**	**806.6**	**0.0**	**929.5**	**-**	**-**	**-**	**-**
1/1	450	211	-	-	-	16.5	120.4	-	136.9	1095.4	21.6	120.4	141.9
1/2	215	211	-	-	-	2.5	8.4	-	10.9	182.1	5.5	8.4	13.8
2/1	827	827	-	-	-	4.8	3.8	-	8.6	37.3	18.6	3.8	22.4
2/2+2/3	184	184	-	-	-	0.6	0.1	-	0.7	14.0	1.2	0.1	1.3
3/1	636	317	-	-	-	23.0	160.7	-	183.7	1039.8	31.3	160.7	192.0
3/2+3/3	676	430	-	-	-	19.5	124.4	-	143.9	766.3	25.6	124.4	150.0
4/2+4/1	1713	942	-	-	-	51.1	386.7	-	437.8	920.0	73.2	386.7	460.0
5/1	597	597	-	-	-	0.6	0.3	-	1.0	5.8	5.4	0.3	5.7
5/2	466	466	-	-	-	0.4	0.2	-	0.6	4.4	3.3	0.2	3.6
5/3	239	239	-	-	-	0.3	0.1	-	0.4	6.7	3.3	0.1	3.4
6/1	241	241	-	-	-	0.9	0.2	-	1.1	16.6	1.6	0.2	1.8
6/2	239	239	-	-	-	0.9	0.2	-	1.1	16.5	1.6	0.2	1.8
6/3	210	210	-	-	-	0.0	0.2	-	0.2	3.1	0.0	0.2	0.2
7/1	660	660	-	-	-	0.6	0.4	-	1.0	5.6	5.8	0.4	6.3
7/2	188	188	-	-	-	0.5	0.1	-	0.5	10.5	3.5	0.1	3.6
7/3	92	92	-	-	-	0.0	0.0	-	0.0	1.4	0.0	0.0	0.0
8/1	188	188	-	-	-	0.2	0.1	-	0.3	5.1	0.4	0.1	0.5
8/2	296	296	-	-	-	0.3	0.2	-	0.5	6.5	5.3	0.2	5.5
8/3	226	226	-	-	-	0.2	0.1	-	0.3	5.2	4.8	0.1	4.9
9/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	70	70	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	808	808	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	227	227	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	977	977	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	-136.8	Total Delay for Signalled Lanes (pcuHr):	149.78	Cycle Time (s):	90
C2	PRC for Signalled Lanes (%):	1.1	Total Delay for Signalled Lanes (pcuHr):	11.66	Cycle Time (s):	90
C3	PRC for Signalled Lanes (%):	-123.2	Total Delay for Signalled Lanes (pcuHr):	329.20	Cycle Time (s):	90
C4	PRC for Signalled Lanes (%):	-102.1	Total Delay for Signalled Lanes (pcuHr):	438.90	Cycle Time (s):	90
	PRC Over All Lanes (%):	-136.8	Total Delay Over All Lanes(pcuHr):	929.53		

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 20 - Hoath Way - Sharsted Way - Wigmore Rd Rdbt Existing.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:33:54

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
Do Minimum										
1 - Hoath Way (N)	6.1	14.52	0.86	B	-32 % [4 - Sharsted Way (W)]	4.4	11.34	0.82	B	-40 % [4 - Sharsted Way (W)]
2 - Wigmore Rd (E)	3.4	15.85	0.77	C		2.2	10.22	0.68	B	
3 - Hoath Way (S)	183.2	285.90	1.16	F		751.5	1280.04	1.50	F	
4 - Sharsted Way (W)	295.2	1693.01	1.60	F		327.1	1836.48	1.61	F	
Do Something (800)										
1 - Hoath Way (N)	4.6	11.54	0.82	B	-32 % [4 - Sharsted Way (W)]	3.6	9.75	0.79	A	-38 % [4 - Sharsted Way (W)]
2 - Wigmore Rd (E)	3.2	14.51	0.75	B		2.0	9.18	0.65	A	
3 - Hoath Way (S)	128.3	177.75	1.11	F		652.8	1104.97	1.46	F	
4 - Sharsted Way (W)	292.1	1506.72	1.64	F		294.8	1622.75	1.55	F	

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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Hoath Way Sharsted Way
Location	
Site number	
Date	09/11/2018
Version	
Status	
Identifier	
Client	
Jobnumber	18-015
Enumerator	CA_WKS12\PLimbu
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	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	Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D2	Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15	✓
D4	Do Something (800)	PM	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

Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	416.54	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-32	4 - Sharsted Way (W)

Arms

Arms

Arm	Name	Description
1	Hoath Way (N)	
2	Wigmore Rd (E)	
3	Hoath Way (S)	
4	Sharsted Way (W)	

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
1 - Hoath Way (N)	7.66	7.96	3.7	33.7	72.8	30.6	
2 - Wigmore Rd (E)	5.60	7.24	11.2	23.7	72.8	16.0	
3 - Hoath Way (S)	7.60	7.60	0.0	26.5	72.8	39.4	
4 - Sharsted Way (W)	3.20	7.30	6.1	14.2	72.8	19.7	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Hoath Way (N)	0.611	2434
2 - Wigmore Rd (E)	0.576	2149
3 - Hoath Way (S)	0.575	2256
4 - Sharsted Way (W)	0.450	1385

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - Hoath Way (N)		ONE HOUR	✓	1421	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	732	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2215	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	904	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	158	1179	84
	2 - Wigmore Rd (E)	26	0	568	138
	3 - Hoath Way (S)	1328	437	0	450
	4 - Sharsted Way (W)	31	127	746	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	3	0
	2 - Wigmore Rd (E)	2	0	8	18
	3 - Hoath Way (S)	2	16	0	2
	4 - Sharsted Way (W)	13	12	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.86	14.52	6.1	31.5	B	1304	1956
2 - Wigmore Rd (E)	0.77	15.85	3.4	15.8	C	672	1008
3 - Hoath Way (S)	1.16	285.90	183.2	209.0	F	2033	3049
4 - Sharsted Way (W)	1.60	1693.01	295.2	200.0	F	830	1244

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1070	267	962	1846	0.579	1064	1033	0.0	1.4	4.686	A
2 - Wigmore Rd (E)	551	138	1489	1290	0.427	548	537	0.0	0.8	5.288	A
3 - Hoath Way (S)	1668	417	186	2149	0.776	1654	1852	0.0	3.5	7.399	A
4 - Sharsted Way (W)	681	170	1337	784	0.868	659	502	0.0	5.5	26.746	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1277	319	1029	1806	0.708	1273	1221	1.4	2.4	6.878	A
2 - Wigmore Rd (E)	658	165	1680	1180	0.557	656	622	0.8	1.4	7.484	A
3 - Hoath Way (S)	1991	498	222	2128	0.936	1960	2114	3.5	11.3	19.516	C
4 - Sharsted Way (W)	813	203	1585	673	1.208	665	597	5.5	42.5	148.236	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1565	391	1014	1814	0.862	1551	1304	2.4	5.8	13.365	B
2 - Wigmore Rd (E)	806	201	1893	1058	0.762	798	673	1.4	3.3	14.758	B
3 - Hoath Way (S)	2439	610	271	2100	1.161	2092	2420	11.3	98.1	101.631	F
4 - Sharsted Way (W)	995	249	1695	623	1.597	623	667	42.5	135.6	526.410	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1565	391	1013	1815	0.862	1563	1308	5.8	6.1	14.519	B
2 - Wigmore Rd (E)	806	201	1902	1053	0.766	805	675	3.3	3.4	15.848	C
3 - Hoath Way (S)	2439	610	273	2099	1.162	2098	2434	98.1	183.2	245.521	F
4 - Sharsted Way (W)	995	249	1700	621	1.603	621	670	135.6	229.2	1070.445	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1277	319	1013	1815	0.704	1292	1312	6.1	2.5	7.235	A
2 - Wigmore Rd (E)	658	165	1658	1193	0.551	666	647	3.4	1.4	7.591	A
3 - Hoath Way (S)	1991	498	226	2126	0.937	2114	2098	183.2	152.6	285.904	F
4 - Sharsted Way (W)	813	203	1708	617	1.316	617	631	229.2	278.1	1491.884	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1070	267	1012	1816	0.589	1074	1320	2.5	1.5	5.001	A
2 - Wigmore Rd (E)	551	138	1460	1308	0.421	553	626	1.4	0.8	5.242	A
3 - Hoath Way (S)	1668	417	187	2148	0.776	2133	1826	152.6	36.1	161.679	F
4 - Sharsted Way (W)	681	170	1720	612	1.112	612	601	278.1	295.2	1693.007	F

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.39	0.59	1.27	1.74	1.90			N/A	N/A
2 - Wigmore Rd (E)	0.81	0.60	1.10	1.53	1.59			N/A	N/A
3 - Hoath Way (S)	3.49	0.08	1.54	8.99	13.04			N/A	N/A
4 - Sharsted Way (W)	5.52	>199	>199	>199	>199			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.42	0.05	0.49	6.63	10.82			N/A	N/A
2 - Wigmore Rd (E)	1.35	0.06	0.79	3.03	4.32			N/A	N/A
3 - Hoath Way (S)	11.29	0.16	4.85	29.73	42.12			N/A	N/A
4 - Sharsted Way (W)	42.53	>199	>199	>199	>199			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	5.81	0.04	0.35	11.82	31.46			N/A	N/A
2 - Wigmore Rd (E)	3.28	0.03	0.34	4.17	15.80			N/A	N/A
3 - Hoath Way (S)	98.06	49.86	93.80	141.97	158.07			N/A	N/A
4 - Sharsted Way (W)	135.62	>199	>199	>199	>199			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	6.07	0.03	0.30	6.07	22.80			N/A	N/A
2 - Wigmore Rd (E)	3.44	0.03	0.31	3.44	11.51			N/A	N/A
3 - Hoath Way (S)	183.24	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	229.24	>199	>199	>199	>199			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.50	0.05	0.49	6.87	11.33			N/A	N/A
2 - Wigmore Rd (E)	1.37	0.06	0.57	3.22	4.91			N/A	N/A
3 - Hoath Way (S)	152.56	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	278.07	>199	>199	>199	>199			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.49	0.04	0.35	3.58	7.62			N/A	N/A
2 - Wigmore Rd (E)	0.81	0.04	0.38	1.89	3.50			N/A	N/A
3 - Hoath Way (S)	36.12	8.50	31.30	64.94	77.47			N/A	N/A
4 - Sharsted Way (W)	295.16	>199	>199	>199	>199			N/A	N/A

Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	922.49	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-40	4 - Sharsted Way (W)

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	Do Minimum	PM	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 (PCU/hr)	Scaling Factor (%)
1 - Hoath Way (N)		ONE HOUR	✓	1302	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	721	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2798	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	923	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	85	1148	69
	2 - Wigmore Rd (E)	96	0	465	160
	3 - Hoath Way (S)	1444	695	0	659
	4 - Sharsted Way (W)	38	359	526	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	1	0
	2 - Wigmore Rd (E)	1	0	5	16
	3 - Hoath Way (S)	1	6	0	2
	4 - Sharsted Way (W)	0	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.82	11.34	4.4	20.1	B	1195	1792
2 - Wigmore Rd (E)	0.68	10.22	2.2	5.1	B	662	992
3 - Hoath Way (S)	1.50	1280.04	751.5	751.5	F	2567	3851
4 - Sharsted Way (W)	1.61	1836.48	327.1	200.0	F	847	1270

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	980	245	1099	1762	0.556	975	1140	0.0	1.2	4.585	A
2 - Wigmore Rd (E)	543	136	1267	1419	0.383	540	808	0.0	0.7	4.357	A
3 - Hoath Way (S)	2106	527	243	2116	0.996	2020	1563	0.0	21.6	27.892	D
4 - Sharsted Way (W)	695	174	1616	659	1.055	623	647	0.0	18.0	68.171	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1170	293	1120	1749	0.669	1167	1188	1.2	2.0	6.208	A
2 - Wigmore Rd (E)	648	162	1449	1314	0.493	647	838	0.7	1.0	5.746	A
3 - Hoath Way (S)	2515	629	291	2088	1.205	2085	1805	21.6	129.3	137.329	F
4 - Sharsted Way (W)	830	207	1680	630	1.317	628	696	18.0	68.3	261.213	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1434	358	1116	1752	0.818	1424	1190	2.0	4.3	10.801	B
2 - Wigmore Rd (E)	794	198	1692	1174	0.676	789	849	1.0	2.2	9.880	A
3 - Hoath Way (S)	3081	770	356	2051	1.502	2051	2126	129.3	386.7	456.408	F
4 - Sharsted Way (W)	1016	254	1673	633	1.605	633	734	68.3	164.2	670.659	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1434	358	1116	1752	0.818	1433	1190	4.3	4.4	11.341	B
2 - Wigmore Rd (E)	794	198	1700	1169	0.679	794	849	2.2	2.2	10.220	B
3 - Hoath Way (S)	3081	770	358	2050	1.503	2050	2136	386.7	644.3	899.387	F
4 - Sharsted Way (W)	1016	254	1673	633	1.605	633	735	164.2	259.9	1213.389	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1170	293	1122	1749	0.669	1180	1190	4.4	2.1	6.482	A
2 - Wigmore Rd (E)	648	162	1461	1307	0.496	653	840	2.2	1.1	5.913	A
3 - Hoath Way (S)	2515	629	294	2087	1.206	2087	1820	644.3	751.5	1202.521	F
4 - Sharsted Way (W)	830	207	1682	629	1.319	629	699	259.9	310.1	1640.750	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	980	245	1126	1746	0.561	983	1188	2.1	1.3	4.781	A
2 - Wigmore Rd (E)	543	136	1276	1413	0.384	544	833	1.1	0.7	4.428	A
3 - Hoath Way (S)	2106	527	245	2115	0.996	2112	1575	751.5	750.2	1280.040	F
4 - Sharsted Way (W)	695	174	1687	627	1.108	627	670	310.1	327.1	1836.479	F

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.25	0.55	1.01	1.41	1.46			N/A	N/A
2 - Wigmore Rd (E)	0.66	0.59	1.07	1.49	1.55			N/A	N/A
3 - Hoath Way (S)	21.62	0.03	0.28	21.62	21.62			N/A	N/A
4 - Sharsted Way (W)	18.01	>199	>199	>199	>199			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.00	0.05	0.49	5.35	8.58			N/A	N/A
2 - Wigmore Rd (E)	1.03	0.07	0.82	1.91	2.62			N/A	N/A
3 - Hoath Way (S)	129.28	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	68.35	>199	>199	>199	>199			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	4.27	0.03	0.31	4.89	20.09			N/A	N/A
2 - Wigmore Rd (E)	2.16	0.03	0.30	2.16	5.14			N/A	N/A
3 - Hoath Way (S)	386.67	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	164.15	>199	>199	>199	>199			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	4.40	0.03	0.28	4.40	9.20			N/A	N/A
2 - Wigmore Rd (E)	2.21	0.03	0.29	2.21	3.91			N/A	N/A
3 - Hoath Way (S)	644.33	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	259.90	>199	>199	>199	>199			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.08	0.05	0.69	5.48	8.44			N/A	N/A
2 - Wigmore Rd (E)	1.06	0.08	0.93	1.86	2.40			N/A	N/A
3 - Hoath Way (S)	751.54	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	310.06	>199	>199	>199	>199			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.31	0.04	0.38	3.36	6.11			N/A	N/A
2 - Wigmore Rd (E)	0.67	0.04	0.45	1.23	1.91			N/A	N/A
3 - Hoath Way (S)	750.21	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	327.05	>199	>199	>199	>199			N/A	N/A

Do Something (800), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	350.78	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-32	4 - Sharsted Way (W)

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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - Hoath Way (N)		ONE HOUR	✓	1349	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	749	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2099	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	928	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	146	1101	102
	2 - Wigmore Rd (E)	28	0	571	150
	3 - Hoath Way (S)	1250	431	0	418
	4 - Sharsted Way (W)	32	143	753	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	4	0
	2 - Wigmore Rd (E)	4	0	8	15
	3 - Hoath Way (S)	3	16	0	2
	4 - Sharsted Way (W)	12	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.82	11.54	4.6	21.6	B	1238	1857
2 - Wigmore Rd (E)	0.75	14.51	3.2	14.4	B	687	1031
3 - Hoath Way (S)	1.11	177.75	128.3	210.4	F	1926	2889
4 - Sharsted Way (W)	1.64	1506.72	292.1	292.1	F	852	1277

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1016	254	976	1838	0.553	1011	978	0.0	1.3	4.467	A
2 - Wigmore Rd (E)	564	141	1451	1313	0.430	561	536	0.0	0.8	5.204	A
3 - Hoath Way (S)	1580	395	210	2135	0.740	1569	1802	0.0	2.9	6.557	A
4 - Sharsted Way (W)	699	175	1277	811	0.861	677	501	0.0	5.4	25.479	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1213	303	1052	1791	0.677	1209	1161	1.3	2.1	6.348	A
2 - Wigmore Rd (E)	673	168	1640	1204	0.559	671	621	0.8	1.4	7.350	A
3 - Hoath Way (S)	1887	472	251	2111	0.894	1868	2060	2.9	7.7	14.518	B
4 - Sharsted Way (W)	834	209	1521	702	1.189	692	598	5.4	40.9	138.731	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1485	371	1030	1804	0.823	1476	1281	2.1	4.5	10.997	B
2 - Wigmore Rd (E)	825	206	1826	1096	0.752	818	680	1.4	3.1	13.758	B
3 - Hoath Way (S)	2311	578	306	2080	1.111	2063	2338	7.7	69.7	75.939	F
4 - Sharsted Way (W)	1022	255	1683	629	1.625	629	686	40.9	139.2	528.119	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1485	371	1029	1805	0.823	1485	1289	4.5	4.6	11.537	B
2 - Wigmore Rd (E)	825	206	1830	1094	0.754	824	683	3.1	3.2	14.509	B
3 - Hoath Way (S)	2311	578	308	2079	1.112	2077	2346	69.7	128.3	177.118	F
4 - Sharsted Way (W)	1022	255	1694	624	1.638	624	691	139.2	238.6	1092.706	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1213	303	1029	1805	0.672	1223	1293	4.6	2.2	6.483	A
2 - Wigmore Rd (E)	673	168	1594	1230	0.547	681	658	3.2	1.3	7.248	A
3 - Hoath Way (S)	1887	472	254	2110	0.894	2092	2020	128.3	77.0	177.749	F
4 - Sharsted Way (W)	834	209	1701	621	1.344	621	645	238.6	292.1	1473.486	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1016	254	1060	1787	0.568	1019	1162	2.2	1.4	4.859	A
2 - Wigmore Rd (E)	564	141	1475	1299	0.434	566	603	1.3	0.8	5.379	A
3 - Hoath Way (S)	1580	395	212	2134	0.740	1875	1830	77.0	3.2	36.638	E
4 - Sharsted Way (W)	699	175	1523	701	0.997	699	564	292.1	292.1	1506.715	F

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.26	0.57	1.10	1.26	1.59			N/A	N/A
2 - Wigmore Rd (E)	0.81	0.60	1.09	1.53	1.58			N/A	N/A
3 - Hoath Way (S)	2.91	0.13	1.42	6.44	8.69			N/A	N/A
4 - Sharsted Way (W)	5.36	0.03	0.27	5.36	5.36			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.12	0.05	0.50	5.70	9.12			N/A	N/A
2 - Wigmore Rd (E)	1.36	0.06	0.82	3.02	4.29			N/A	N/A
3 - Hoath Way (S)	7.69	0.09	2.02	21.37	32.04			N/A	N/A
4 - Sharsted Way (W)	40.86	>199	>199	>199	>199			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	4.50	0.03	0.32	5.53	21.56			N/A	N/A
2 - Wigmore Rd (E)	3.12	0.03	0.33	3.26	14.37			N/A	N/A
3 - Hoath Way (S)	69.71	27.03	64.64	110.92	127.14			N/A	N/A
4 - Sharsted Way (W)	139.16	>199	>199	>199	>199			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	4.63	0.03	0.29	4.63	10.20			N/A	N/A
2 - Wigmore Rd (E)	3.23	0.03	0.31	3.23	9.32			N/A	N/A
3 - Hoath Way (S)	128.34	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	238.64	>199	>199	>199	>199			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.16	0.05	0.60	5.75	9.02			N/A	N/A
2 - Wigmore Rd (E)	1.34	0.06	0.58	3.15	4.75			N/A	N/A
3 - Hoath Way (S)	76.98	43.55	74.29	106.35	116.86			N/A	N/A
4 - Sharsted Way (W)	292.08	>199	>199	>199	>199			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.38	0.04	0.39	3.55	6.56			N/A	N/A
2 - Wigmore Rd (E)	0.85	0.04	0.40	2.00	3.54			N/A	N/A
3 - Hoath Way (S)	3.17	0.03	0.31	3.17	12.14			N/A	N/A
4 - Sharsted Way (W)	292.11	>199	>199	>199	>199			N/A	N/A

Do Something (800), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	806.10	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-38	4 - Sharsted Way (W)

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
D4	Do Something (800)	PM	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 (PCU/hr)	Scaling Factor (%)
1 - Hoath Way (N)		ONE HOUR	✓	1245	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	705	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2686	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	919	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	68	1096	81
	2 - Wigmore Rd (E)	88	0	427	190
	3 - Hoath Way (S)	1339	690	0	657
	4 - Sharsted Way (W)	59	355	505	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	1	1	0
	2 - Wigmore Rd (E)	3	0	5	14
	3 - Hoath Way (S)	1	5	0	1
	4 - Sharsted Way (W)	0	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.79	9.75	3.6	14.0	A	1142	1714
2 - Wigmore Rd (E)	0.65	9.18	2.0	3.0	A	647	970
3 - Hoath Way (S)	1.46	1104.97	652.8	652.8	F	2465	3697
4 - Sharsted Way (W)	1.55	1622.75	294.8	200.0	F	843	1265

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	937	234	1102	1760	0.532	933	1086	0.0	1.1	4.367	A
2 - Wigmore Rd (E)	531	133	1233	1438	0.369	528	802	0.0	0.6	4.223	A
3 - Hoath Way (S)	2022	506	269	2101	0.962	1964	1492	0.0	14.6	21.472	C
4 - Sharsted Way (W)	692	173	1549	689	1.004	639	683	0.0	13.2	53.328	F

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1119	280	1135	1741	0.643	1117	1149	1.1	1.8	5.799	A
2 - Wigmore Rd (E)	634	158	1411	1336	0.474	632	841	0.6	1.0	5.467	A
3 - Hoath Way (S)	2415	604	322	2071	1.166	2064	1721	14.6	102.2	109.548	F
4 - Sharsted Way (W)	826	207	1638	649	1.273	646	748	13.2	58.3	213.911	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1371	343	1132	1742	0.787	1364	1150	1.8	3.6	9.423	A
2 - Wigmore Rd (E)	776	194	1648	1199	0.647	772	848	1.0	1.9	8.949	A
3 - Hoath Way (S)	2957	739	393	2030	1.457	2029	2027	102.2	334.2	390.980	F
4 - Sharsted Way (W)	1012	253	1629	653	1.550	653	793	58.3	148.1	579.024	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1371	343	1132	1742	0.787	1370	1150	3.6	3.6	9.750	A
2 - Wigmore Rd (E)	776	194	1654	1195	0.649	776	848	1.9	2.0	9.180	A
3 - Hoath Way (S)	2957	739	395	2029	1.458	2028	2035	334.2	566.4	794.357	F
4 - Sharsted Way (W)	1012	253	1629	653	1.550	653	794	148.1	237.8	1078.196	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1119	280	1137	1739	0.643	1126	1153	3.6	1.9	5.994	A
2 - Wigmore Rd (E)	634	158	1420	1330	0.476	638	843	2.0	1.0	5.594	A
3 - Hoath Way (S)	2415	604	325	2069	1.167	2069	1733	566.4	652.8	1060.822	F
4 - Sharsted Way (W)	826	207	1643	647	1.277	647	751	237.8	282.7	1458.789	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	937	234	1141	1737	0.540	940	1153	1.9	1.2	4.575	A
2 - Wigmore Rd (E)	531	133	1242	1433	0.370	532	838	1.0	0.6	4.283	A
3 - Hoath Way (S)	2022	506	271	2100	0.963	2097	1503	652.8	634.2	1104.969	F
4 - Sharsted Way (W)	692	173	1650	643	1.075	643	717	282.7	294.8	1622.749	F

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.14	0.56	1.01	1.41	1.46			N/A	N/A
2 - Wigmore Rd (E)	0.62	0.59	1.07	1.50	1.55			N/A	N/A
3 - Hoath Way (S)	14.59	0.03	0.27	14.59	14.59			N/A	N/A
4 - Sharsted Way (W)	13.24	>199	>199	>199	>199			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.79	0.05	0.50	4.68	7.33			N/A	N/A
2 - Wigmore Rd (E)	0.96	0.07	0.84	1.66	2.07			N/A	N/A
3 - Hoath Way (S)	102.23	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	58.29	>199	>199	>199	>199			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.55	0.03	0.30	3.55	14.00			N/A	N/A
2 - Wigmore Rd (E)	1.91	0.03	0.29	1.91	2.86			N/A	N/A
3 - Hoath Way (S)	334.21	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	148.10	>199	>199	>199	>199			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.63	0.03	0.28	3.63	4.45			N/A	N/A
2 - Wigmore Rd (E)	1.95	0.03	0.29	1.95	3.01			N/A	N/A
3 - Hoath Way (S)	566.42	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	237.85	>199	>199	>199	>199			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.85	0.06	0.88	4.61	6.79			N/A	N/A
2 - Wigmore Rd (E)	0.99	0.09	0.95	1.56	1.95			N/A	N/A
3 - Hoath Way (S)	652.83	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	282.67	>199	>199	>199	>199			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.20	0.04	0.41	3.01	5.08			N/A	N/A
2 - Wigmore Rd (E)	0.63	0.05	0.47	1.54	1.54			N/A	N/A
3 - Hoath Way (S)	634.21	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	294.80	>199	>199	>199	>199			N/A	N/A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 25 Hoath Way - Shartsed Way - Wigmore Rd Rdbt Proposed.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019 TA Submission\2019-03-19\Proposed Mitigations
Report generation date: 29/03/2019 10:17:54

Summary of junction performance

	AM					PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
Do Minimum										
1 - Hoath Way (N)	30.8	68.40	1.01	F	-14 % [4 - Sharsted Way (W)]	11.9	31.59	0.94	D	-23 % [4 - Sharsted Way (W)]
2 - Wigmore Rd (E)	10.8	46.82	0.93	E		3.3	14.30	0.76	B	
3 - Hoath Way (S)	11.8	17.65	0.93	C		246.1	300.01	1.17	F	
4 - Sharsted Way (W)	103.3	324.66	1.23	F		159.7	702.61	1.32	F	
Do Something (800)										
1 - Hoath Way (N)	19.7	48.17	0.98	E	-13 % [4 - Sharsted Way (W)]	8.4	23.18	0.90	C	-20 % [4 - Sharsted Way (W)]
2 - Wigmore Rd (E)	11.9	50.20	0.94	F		2.8	12.51	0.73	B	
3 - Hoath Way (S)	8.2	12.65	0.89	B		188.4	211.98	1.13	F	
4 - Sharsted Way (W)	100.5	303.94	1.21	F		127.6	535.96	1.27	F	
Do Something (800) + Gibraltar Farm Core										
1 - Hoath Way (N)	20.0	48.97	0.98	E	-16 % [4 - Sharsted Way (W)]	8.9	24.55	0.91	C	-21 % [4 - Sharsted Way (W)]
2 - Wigmore Rd (E)	12.6	53.17	0.95	F		3.0	13.18	0.74	B	
3 - Hoath Way (S)	9.0	13.77	0.90	B		219.9	261.66	1.16	F	
4 - Sharsted Way (W)	139.5	410.08	1.30	F		135.4	567.06	1.27	F	
Do Something (800) + Gibraltar Farm Sensitivity										
1 - Hoath Way (N)	20.1	49.18	0.98	E	-17 % [4 - Sharsted Way (W)]	9.0	24.76	0.91	C	-21 % [4 - Sharsted Way (W)]
2 - Wigmore Rd (E)	12.8	53.90	0.95	F		3.0	13.34	0.74	B	
3 - Hoath Way (S)	9.2	14.03	0.90	B		228.5	275.26	1.16	F	
4 - Sharsted Way (W)	147.8	432.66	1.32	F		137.8	572.74	1.27	F	

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. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Hoath Way Sharsted Way
Location	
Site number	
Date	09/11/2018
Version	
Status	
Identifier	
Client	
Jobnumber	18-015
Enumerator	CA_WKS12\PLimbu
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	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓		✓	Delay	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	Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D2	Do Minimum	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15	✓
D4	Do Something (800)	PM	ONE HOUR	17:00	18:30	15	✓
D5	Do Something (800) + Gibraltar Farm Core	AM	ONE HOUR	07:45	09:15	15	✓
D6	Do Something (800) + Gibraltar Farm Core	PM	ONE HOUR	17:00	18:30	15	✓
D7	Do Something (800) + Gibraltar Farm Sensitivity	AM	ONE HOUR	07:45	09:15	15	✓
D8	Do Something (800) + Gibraltar Farm Sensitivity	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

Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	88.13	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-14	4 - Sharsted Way (W)

Arms

Arms

Arm	Name	Description
1	Hoath Way (N)	
2	Wigmore Rd (E)	
3	Hoath Way (S)	
4	Sharsted Way (W)	

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
1 - Hoath Way (N)	7.66	7.96	3.7	33.7	72.8	30.6	
2 - Wigmore Rd (E)	5.60	7.24	11.2	23.7	72.8	16.0	
3 - Hoath Way (S)	7.05	11.12	17.5	18.3	72.8	16.7	
4 - Sharsted Way (W)	3.20	11.15	14.8	35.3	72.8	10.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Hoath Way (N)	0.611	2434
2 - Wigmore Rd (E)	0.576	2149
3 - Hoath Way (S)	0.698	2962
4 - Sharsted Way (W)	0.564	2020

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	Do Minimum	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1421	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	732	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2215	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	904	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	158	1179	84
	2 - Wigmore Rd (E)	26	0	568	138
	3 - Hoath Way (S)	1328	437	0	450
	4 - Sharsted Way (W)	31	127	746	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	3	0
	2 - Wigmore Rd (E)	2	0	8	18
	3 - Hoath Way (S)	2	16	0	2
	4 - Sharsted Way (W)	13	12	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	1.01	68.40	30.8	104.2	F	1336	2005
2 - Wigmore Rd (E)	0.93	46.82	10.8	55.6	E	737	1105
3 - Hoath Way (S)	0.93	17.65	11.8	63.3	C	2129	3194
4 - Sharsted Way (W)	1.23	324.66	103.3	157.2	F	875	1312

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1096	274	1066	1783	0.615	1090	1062	0.0	1.6	5.278	A
2 - Wigmore Rd (E)	604	151	1551	1255	0.482	600	605	0.0	1.0	5.997	A
3 - Hoath Way (S)	1747	437	204	2819	0.620	1740	1947	0.0	1.7	3.475	A
4 - Sharsted Way (W)	718	179	1416	1222	0.587	712	529	0.0	1.5	7.361	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1309	327	1270	1658	0.790	1301	1269	1.6	3.7	10.117	B
2 - Wigmore Rd (E)	722	180	1849	1083	0.666	717	722	1.0	2.1	10.666	B
3 - Hoath Way (S)	2086	522	244	2791	0.747	2081	2322	1.7	3.0	5.268	A
4 - Sharsted Way (W)	857	214	1693	1065	0.804	847	632	1.5	4.0	16.666	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1603	401	1372	1595	1.005	1533	1533	3.7	21.2	39.332	E
2 - Wigmore Rd (E)	884	221	2061	961	0.920	858	845	2.1	8.5	32.580	D
3 - Hoath Way (S)	2555	639	291	2759	0.926	2524	2628	3.0	10.7	14.502	B
4 - Sharsted Way (W)	1049	262	2053	862	1.217	852	762	4.0	53.2	133.968	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1603	401	1375	1594	1.006	1565	1549	21.2	30.8	68.398	F
2 - Wigmore Rd (E)	884	221	2086	946	0.934	875	854	8.5	10.8	46.819	E
3 - Hoath Way (S)	2555	639	297	2755	0.927	2550	2664	10.7	11.8	17.645	C
4 - Sharsted Way (W)	1049	262	2075	850	1.235	849	772	53.2	103.3	324.658	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1309	327	1461	1541	0.850	1406	1301	30.8	6.7	36.378	E
2 - Wigmore Rd (E)	722	180	2097	940	0.767	749	770	10.8	3.9	23.009	C
3 - Hoath Way (S)	2086	522	258	2782	0.750	2120	2588	11.8	3.2	5.987	A
4 - Sharsted Way (W)	857	214	1726	1047	0.819	1036	652	103.3	58.5	279.250	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1096	274	1293	1644	0.667	1115	1078	6.7	2.1	7.206	A
2 - Wigmore Rd (E)	604	151	1763	1133	0.534	615	645	3.9	1.3	7.778	A
3 - Hoath Way (S)	1747	437	209	2816	0.620	1753	2169	3.2	1.7	3.567	A
4 - Sharsted Way (W)	718	179	1427	1216	0.590	945	536	58.5	1.6	33.711	D

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.61	0.17	1.36	2.79	3.53			N/A	N/A
2 - Wigmore Rd (E)	1.01	0.55	1.09	1.57	1.62			N/A	N/A
3 - Hoath Way (S)	1.69	0.54	1.54	2.46	2.94			N/A	N/A
4 - Sharsted Way (W)	1.47	0.06	0.74	3.48	5.10			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.66	0.05	0.61	10.31	16.99			N/A	N/A
2 - Wigmore Rd (E)	2.12	0.06	0.60	5.57	8.74			N/A	N/A
3 - Hoath Way (S)	3.03	0.04	0.42	8.18	15.44			N/A	N/A
4 - Sharsted Way (W)	3.96	0.05	0.58	11.23	18.69			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	21.24	0.65	13.01	50.82	67.78			N/A	N/A
2 - Wigmore Rd (E)	8.48	0.07	1.18	24.47	38.91			N/A	N/A
3 - Hoath Way (S)	10.72	0.05	0.47	29.67	57.85			N/A	N/A
4 - Sharsted Way (W)	53.23	24.32	50.17	79.77	89.84			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	30.84	0.56	17.54	76.76	104.17			N/A	N/A
2 - Wigmore Rd (E)	10.79	0.06	0.79	31.27	55.59			N/A	N/A
3 - Hoath Way (S)	11.83	0.04	0.37	21.93	63.33			N/A	N/A
4 - Sharsted Way (W)	103.34	58.51	99.87	143.07	157.22			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	6.66	0.08	1.42	18.76	28.71			N/A	N/A
2 - Wigmore Rd (E)	3.92	0.08	1.56	10.36	15.26			N/A	N/A
3 - Hoath Way (S)	3.22	0.05	0.48	9.00	15.44			N/A	N/A
4 - Sharsted Way (W)	58.51	33.44	56.40	80.18	87.95			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.10	0.03	0.31	2.59	10.00			N/A	N/A
2 - Wigmore Rd (E)	1.28	0.03	0.33	1.89	6.29			N/A	N/A
3 - Hoath Way (S)	1.73	0.03	0.34	3.33	9.03			N/A	N/A
4 - Sharsted Way (W)	1.57	0.03	0.28	1.57	1.57			N/A	N/A

Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	268.40	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	4 - Sharsted Way (W)

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	Do Minimum	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1302	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	721	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2798	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	923	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	85	1148	69
	2 - Wigmore Rd (E)	96	0	465	160
	3 - Hoath Way (S)	1444	695	0	659
	4 - Sharsted Way (W)	38	359	526	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	1	0
	2 - Wigmore Rd (E)	1	0	5	16
	3 - Hoath Way (S)	1	6	0	2
	4 - Sharsted Way (W)	0	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.94	31.59	11.9	64.8	D	1205	1808
2 - Wigmore Rd (E)	0.76	14.30	3.3	13.8	B	707	1061
3 - Hoath Way (S)	1.17	300.01	246.1	246.1	F	2631	3947
4 - Sharsted Way (W)	1.32	702.61	159.7	207.7	F	880	1320

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	989	247	1236	1679	0.589	983	1192	0.0	1.4	5.178	A
2 - Wigmore Rd (E)	580	145	1319	1389	0.418	577	900	0.0	0.8	4.725	A
3 - Hoath Way (S)	2159	540	263	2778	0.777	2145	1633	0.0	3.5	5.707	A
4 - Sharsted Way (W)	722	180	1715	1053	0.685	713	693	0.0	2.2	10.740	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1181	295	1438	1555	0.759	1174	1413	1.4	3.1	9.377	A
2 - Wigmore Rd (E)	693	173	1556	1252	0.553	691	1057	0.8	1.3	6.829	A
3 - Hoath Way (S)	2578	644	315	2742	0.940	2543	1931	3.5	12.2	16.236	C
4 - Sharsted Way (W)	862	215	2033	873	0.987	817	824	2.2	13.3	47.936	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1446	362	1456	1544	0.937	1417	1504	3.1	10.3	24.375	C
2 - Wigmore Rd (E)	849	212	1772	1128	0.753	842	1102	1.3	3.1	13.137	B
3 - Hoath Way (S)	3157	789	383	2694	1.172	2687	2230	12.2	129.7	101.079	F
4 - Sharsted Way (W)	1055	264	2163	800	1.319	798	907	13.3	77.8	218.197	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1446	362	1457	1543	0.937	1440	1507	10.3	11.9	31.594	D
2 - Wigmore Rd (E)	849	212	1793	1115	0.761	848	1104	3.1	3.3	14.297	B
3 - Hoath Way (S)	3157	789	386	2692	1.173	2691	2254	129.7	246.1	254.128	F
4 - Sharsted Way (W)	1055	264	2167	798	1.323	797	911	77.8	142.3	506.575	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1181	295	1462	1541	0.766	1214	1506	11.9	3.5	12.169	B
2 - Wigmore Rd (E)	693	173	1579	1239	0.559	700	1097	3.3	1.4	7.251	A
3 - Hoath Way (S)	2578	644	321	2738	0.941	2727	1959	246.1	208.9	300.007	F
4 - Sharsted Way (W)	862	215	2176	793	1.087	793	872	142.3	159.7	695.604	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	989	247	1460	1542	0.641	995	1509	3.5	1.8	6.719	A
2 - Wigmore Rd (E)	580	145	1368	1360	0.427	583	1087	1.4	0.8	4.962	A
3 - Hoath Way (S)	2159	540	266	2776	0.778	2763	1685	208.9	57.9	175.501	F
4 - Sharsted Way (W)	722	180	2188	786	0.918	781	840	159.7	144.9	702.606	F

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.43	0.46	1.31	1.95	2.44			N/A	N/A
2 - Wigmore Rd (E)	0.76	0.59	1.07	1.50	1.55			N/A	N/A
3 - Hoath Way (S)	3.47	0.06	1.02	9.57	14.87			N/A	N/A
4 - Sharsted Way (W)	2.18	0.03	0.27	2.18	2.18			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.05	0.05	0.66	8.49	13.66			N/A	N/A
2 - Wigmore Rd (E)	1.30	0.06	0.74	2.93	4.20			N/A	N/A
3 - Hoath Way (S)	12.24	0.13	4.45	33.35	48.43			N/A	N/A
4 - Sharsted Way (W)	13.34	0.05	0.46	35.91	73.15			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	10.32	0.07	1.08	30.19	49.42			N/A	N/A
2 - Wigmore Rd (E)	3.07	0.03	0.32	3.07	13.82			N/A	N/A
3 - Hoath Way (S)	129.74	72.97	125.44	180.50	198.59			N/A	N/A
4 - Sharsted Way (W)	77.82	21.19	69.09	136.92	161.90			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	11.89	0.05	0.45	32.56	64.76			N/A	N/A
2 - Wigmore Rd (E)	3.27	0.03	0.30	3.27	9.75			N/A	N/A
3 - Hoath Way (S)	246.12	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	142.35	>199	>199	>199	>199			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.47	0.04	0.44	9.70	17.40			N/A	N/A
2 - Wigmore Rd (E)	1.38	0.06	0.78	3.11	4.55			N/A	N/A
3 - Hoath Way (S)	208.88	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	159.66	>199	>199	>199	>199			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.84	0.03	0.32	3.48	9.61			N/A	N/A
2 - Wigmore Rd (E)	0.80	0.04	0.39	1.89	3.28			N/A	N/A
3 - Hoath Way (S)	57.89	24.50	54.15	89.24	101.33			N/A	N/A
4 - Sharsted Way (W)	144.92	>199	>199	>199	>199			N/A	N/A

Do Something (800), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	80.52	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	4 - Sharsted Way (W)

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
D3	Do Something (800)	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1349	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	749	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2099	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	928	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	146	1101	102
	2 - Wigmore Rd (E)	28	0	571	150
	3 - Hoath Way (S)	1250	431	0	418
	4 - Sharsted Way (W)	32	143	753	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	4	0
	2 - Wigmore Rd (E)	4	0	8	15
	3 - Hoath Way (S)	3	16	0	2
	4 - Sharsted Way (W)	12	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.98	48.17	19.7	88.1	E	1278	1917
2 - Wigmore Rd (E)	0.94	50.20	11.9	58.8	F	751	1126
3 - Hoath Way (S)	0.89	12.65	8.2	42.2	B	2031	3047
4 - Sharsted Way (W)	1.21	303.94	100.5	155.6	F	904	1356

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1049	262	1084	1772	0.592	1043	1014	0.0	1.5	5.061	A
2 - Wigmore Rd (E)	616	154	1524	1271	0.485	612	603	0.0	1.0	5.938	A
3 - Hoath Way (S)	1667	417	227	2803	0.595	1661	1909	0.0	1.5	3.306	A
4 - Sharsted Way (W)	742	185	1363	1252	0.593	736	525	0.0	1.5	7.323	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1252	313	1292	1644	0.762	1246	1213	1.5	3.2	9.171	A
2 - Wigmore Rd (E)	736	184	1818	1101	0.668	731	720	1.0	2.1	10.507	B
3 - Hoath Way (S)	1990	498	271	2772	0.718	1986	2278	1.5	2.6	4.800	A
4 - Sharsted Way (W)	886	221	1629	1101	0.804	876	628	1.5	4.0	16.286	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1534	383	1405	1576	0.973	1486	1469	3.2	15.2	31.430	D
2 - Wigmore Rd (E)	901	225	2045	970	0.929	873	845	2.1	9.1	33.824	D
3 - Hoath Way (S)	2437	609	324	2736	0.891	2417	2594	2.6	7.7	11.262	B
4 - Sharsted Way (W)	1085	271	1983	902	1.203	891	758	4.0	52.4	126.778	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1534	383	1410	1573	0.975	1516	1481	15.2	19.7	48.166	E
2 - Wigmore Rd (E)	901	225	2073	954	0.944	890	853	9.1	11.9	50.201	F
3 - Hoath Way (S)	2437	609	330	2731	0.892	2436	2632	7.7	8.2	12.645	B
4 - Sharsted Way (W)	1085	271	1998	893	1.215	892	768	52.4	100.5	303.941	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1252	313	1492	1522	0.823	1310	1237	19.7	5.2	21.175	C
2 - Wigmore Rd (E)	736	184	2037	975	0.755	769	765	11.9	3.6	21.578	C
3 - Hoath Way (S)	1990	498	285	2763	0.720	2012	2520	8.2	2.8	5.200	A
4 - Sharsted Way (W)	886	221	1652	1088	0.814	1077	645	100.5	52.7	255.582	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1049	262	1289	1646	0.637	1062	1029	5.2	1.8	6.510	A
2 - Wigmore Rd (E)	616	154	1710	1163	0.530	626	641	3.6	1.3	7.440	A
3 - Hoath Way (S)	1667	417	232	2800	0.595	1671	2104	2.8	1.6	3.378	A
4 - Sharsted Way (W)	742	185	1372	1246	0.595	946	532	52.7	1.6	26.030	D

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.48	0.25	1.32	2.22	2.82			N/A	N/A
2 - Wigmore Rd (E)	1.02	0.51	1.09	1.57	1.63			N/A	N/A
3 - Hoath Way (S)	1.53	0.59	1.43	1.96	2.11			N/A	N/A
4 - Sharsted Way (W)	1.51	0.06	0.84	3.51	5.08			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.17	0.05	0.50	8.88	14.78			N/A	N/A
2 - Wigmore Rd (E)	2.13	0.05	0.54	5.63	8.93			N/A	N/A
3 - Hoath Way (S)	2.63	0.04	0.42	7.08	13.31			N/A	N/A
4 - Sharsted Way (W)	4.00	0.05	0.62	11.33	18.80			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	15.18	0.15	5.81	41.25	59.59			N/A	N/A
2 - Wigmore Rd (E)	9.07	0.08	1.73	25.93	40.27			N/A	N/A
3 - Hoath Way (S)	7.73	0.04	0.37	16.19	42.19			N/A	N/A
4 - Sharsted Way (W)	52.38	23.17	49.19	79.37	89.69			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	19.69	0.10	4.44	57.02	88.09			N/A	N/A
2 - Wigmore Rd (E)	11.85	0.06	1.35	34.65	58.78			N/A	N/A
3 - Hoath Way (S)	8.21	0.03	0.32	8.21	32.40			N/A	N/A
4 - Sharsted Way (W)	100.53	55.14	96.86	141.06	155.62			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	5.23	0.07	1.37	14.73	22.91			N/A	N/A
2 - Wigmore Rd (E)	3.61	0.07	1.20	9.79	14.97			N/A	N/A
3 - Hoath Way (S)	2.77	0.05	0.52	7.64	12.45			N/A	N/A
4 - Sharsted Way (W)	52.68	28.13	50.43	74.25	82.15			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.85	0.03	0.32	2.57	9.06			N/A	N/A
2 - Wigmore Rd (E)	1.25	0.03	0.33	1.61	5.98			N/A	N/A
3 - Hoath Way (S)	1.57	0.04	0.36	3.58	8.07			N/A	N/A
4 - Sharsted Way (W)	1.61	0.03	0.28	1.61	1.61			N/A	N/A

Do Something (800), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	197.94	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-20	4 - Sharsted Way (W)

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
D4	Do Something (800)	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1245	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	705	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2686	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	919	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	68	1096	81
	2 - Wigmore Rd (E)	88	0	427	190
	3 - Hoath Way (S)	1339	690	0	657
	4 - Sharsted Way (W)	59	355	505	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	1	1	0
	2 - Wigmore Rd (E)	3	0	5	14
	3 - Hoath Way (S)	1	5	0	1
	4 - Sharsted Way (W)	0	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.90	23.18	8.4	45.3	C	1153	1730
2 - Wigmore Rd (E)	0.73	12.51	2.8	10.3	B	693	1040
3 - Hoath Way (S)	1.13	211.98	188.4	204.1	F	2515	3772
4 - Sharsted Way (W)	1.27	535.96	127.6	196.4	F	872	1308

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	946	237	1206	1697	0.558	941	1124	0.0	1.3	4.777	A
2 - Wigmore Rd (E)	569	142	1273	1415	0.402	566	874	0.0	0.7	4.529	A
3 - Hoath Way (S)	2063	516	291	2759	0.748	2051	1549	0.0	3.0	5.110	A
4 - Sharsted Way (W)	716	179	1623	1105	0.648	708	720	0.0	1.8	9.218	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1130	282	1424	1564	0.722	1125	1337	1.3	2.5	8.175	A
2 - Wigmore Rd (E)	679	170	1513	1277	0.532	677	1035	0.7	1.2	6.415	A
3 - Hoath Way (S)	2464	616	348	2719	0.906	2441	1842	3.0	8.6	12.328	B
4 - Sharsted Way (W)	854	214	1931	931	0.918	830	858	1.8	7.9	31.446	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1384	346	1475	1532	0.903	1363	1459	2.5	7.7	19.465	C
2 - Wigmore Rd (E)	832	208	1736	1148	0.724	826	1103	1.2	2.7	11.753	B
3 - Hoath Way (S)	3017	754	424	2666	1.132	2653	2138	8.6	99.7	80.025	F
4 - Sharsted Way (W)	1046	262	2110	830	1.260	825	967	7.9	63.2	168.324	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1384	346	1478	1531	0.904	1381	1465	7.7	8.4	23.177	C
2 - Wigmore Rd (E)	832	208	1752	1139	0.730	831	1106	2.7	2.8	12.508	B
3 - Hoath Way (S)	3017	754	427	2664	1.133	2663	2157	99.7	188.4	198.354	F
4 - Sharsted Way (W)	1046	262	2118	826	1.267	825	972	63.2	118.6	406.529	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1130	282	1481	1529	0.739	1151	1466	8.4	3.0	10.146	B
2 - Wigmore Rd (E)	679	170	1532	1266	0.537	685	1101	2.8	1.3	6.718	A
3 - Hoath Way (S)	2464	616	353	2715	0.907	2701	1864	188.4	129.1	211.977	F
4 - Sharsted Way (W)	854	214	2129	819	1.043	818	925	118.6	127.6	535.956	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	946	237	1501	1517	0.624	951	1389	3.0	1.7	6.482	A
2 - Wigmore Rd (E)	569	142	1375	1357	0.419	571	1078	1.3	0.8	4.921	A
3 - Hoath Way (S)	2063	516	293	2757	0.748	2566	1652	129.1	3.3	65.774	F
4 - Sharsted Way (W)	716	179	2014	884	0.809	877	846	127.6	87.2	441.996	F

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.26	0.54	1.18	1.68	1.88			N/A	N/A
2 - Wigmore Rd (E)	0.71	0.59	1.07	1.50	1.55			N/A	N/A
3 - Hoath Way (S)	2.96	0.09	1.52	7.25	10.26			N/A	N/A
4 - Sharsted Way (W)	1.85	0.03	0.31	1.94	8.48			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.54	0.05	0.50	6.99	11.40			N/A	N/A
2 - Wigmore Rd (E)	1.20	0.06	0.78	2.55	3.60			N/A	N/A
3 - Hoath Way (S)	8.59	0.08	1.90	24.38	37.34			N/A	N/A
4 - Sharsted Way (W)	7.94	0.07	1.50	22.96	36.82			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	7.66	0.05	0.46	21.40	40.56			N/A	N/A
2 - Wigmore Rd (E)	2.69	0.03	0.31	2.69	10.31			N/A	N/A
3 - Hoath Way (S)	99.70	48.20	94.89	147.28	164.95			N/A	N/A
4 - Sharsted Way (W)	63.24	28.53	59.61	95.43	107.65			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	8.40	0.04	0.35	16.27	45.32			N/A	N/A
2 - Wigmore Rd (E)	2.82	0.03	0.30	2.82	6.73			N/A	N/A
3 - Hoath Way (S)	188.38	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	118.56	69.34	114.98	161.98	177.29			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.97	0.05	0.46	8.28	14.18			N/A	N/A
2 - Wigmore Rd (E)	1.26	0.07	0.86	2.66	3.71			N/A	N/A
3 - Hoath Way (S)	129.10	91.21	127.05	160.72	171.23			N/A	N/A
4 - Sharsted Way (W)	127.60	70.93	123.22	178.33	196.42			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.70	0.03	0.34	3.89	8.85			N/A	N/A
2 - Wigmore Rd (E)	0.78	0.04	0.42	1.78	2.85			N/A	N/A
3 - Hoath Way (S)	3.26	0.03	0.29	3.26	10.65			N/A	N/A
4 - Sharsted Way (W)	87.16	34.59	81.13	137.88	157.66			N/A	N/A

Do Something (800) + Gibraltar Farm Core, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	104.55	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-16	4 - Sharsted Way (W)

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
D5	Do Something (800) + Gibraltar Farm Core	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1351	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	749	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2121	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	995	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	146	1101	104
	2 - Wigmore Rd (E)	28	0	571	150
	3 - Hoath Way (S)	1250	431	0	440
	4 - Sharsted Way (W)	37	143	815	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	4	0
	2 - Wigmore Rd (E)	4	0	8	15
	3 - Hoath Way (S)	3	16	0	2
	4 - Sharsted Way (W)	12	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.98	48.97	20.0	89.2	E	1280	1920
2 - Wigmore Rd (E)	0.95	53.17	12.6	61.2	F	751	1126
3 - Hoath Way (S)	0.90	13.77	9.0	46.2	B	2052	3078
4 - Sharsted Way (W)	1.30	410.08	139.5	196.7	F	969	1453

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1050	263	1132	1742	0.603	1044	1018	0.0	1.5	5.277	A
2 - Wigmore Rd (E)	616	154	1573	1242	0.496	612	603	0.0	1.1	6.200	A
3 - Hoath Way (S)	1684	421	229	2802	0.601	1677	1956	0.0	1.6	3.355	A
4 - Sharsted Way (W)	795	199	1362	1252	0.635	788	543	0.0	1.8	8.113	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1254	314	1346	1612	0.778	1246	1217	1.5	3.5	9.974	A
2 - Wigmore Rd (E)	736	184	1873	1069	0.688	731	719	1.1	2.3	11.441	B
3 - Hoath Way (S)	2010	503	273	2771	0.725	2006	2331	1.6	2.7	4.927	A
4 - Sharsted Way (W)	949	237	1629	1101	0.862	934	649	1.8	5.7	21.133	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1536	384	1407	1574	0.976	1487	1471	3.5	15.6	32.281	D
2 - Wigmore Rd (E)	901	225	2059	962	0.936	872	836	2.3	9.6	35.651	E
3 - Hoath Way (S)	2462	616	326	2734	0.900	2440	2605	2.7	8.4	12.045	B
4 - Sharsted Way (W)	1163	291	1981	903	1.288	897	784	5.7	72.1	168.068	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1536	384	1408	1574	0.976	1518	1483	15.6	20.0	48.970	E
2 - Wigmore Rd (E)	901	225	2083	948	0.950	889	843	9.6	12.6	53.167	F
3 - Hoath Way (S)	2462	616	332	2730	0.902	2460	2640	8.4	9.0	13.771	B
4 - Sharsted Way (W)	1163	291	1998	893	1.302	893	794	72.1	139.5	410.076	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1254	314	1492	1522	0.824	1313	1241	20.0	5.3	21.541	C
2 - Wigmore Rd (E)	736	184	2050	967	0.761	771	755	12.6	3.7	22.938	C
3 - Hoath Way (S)	2010	503	288	2761	0.728	2035	2533	9.0	2.9	5.399	A
4 - Sharsted Way (W)	949	237	1654	1087	0.873	1079	669	139.5	107.0	401.827	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1050	263	1544	1491	0.705	1061	1042	5.3	2.5	8.866	A
2 - Wigmore Rd (E)	616	154	1934	1034	0.596	624	671	3.7	1.6	9.784	A
3 - Hoath Way (S)	1684	421	233	2799	0.601	1689	2325	2.9	1.6	3.435	A
4 - Sharsted Way (W)	795	199	1372	1246	0.638	1214	550	107.0	2.4	157.997	F

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.54	0.22	1.35	2.51	3.03			N/A	N/A
2 - Wigmore Rd (E)	1.06	0.38	1.10	1.56	1.56			N/A	N/A
3 - Hoath Way (S)	1.57	0.59	1.46	2.02	2.43			N/A	N/A
4 - Sharsted Way (W)	1.80	0.05	0.52	4.69	7.33			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.45	0.05	0.65	9.67	15.76			N/A	N/A
2 - Wigmore Rd (E)	2.32	0.06	0.66	6.18	9.66			N/A	N/A
3 - Hoath Way (S)	2.73	0.04	0.42	7.33	13.83			N/A	N/A
4 - Sharsted Way (W)	5.66	0.07	1.45	15.94	24.84			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	15.57	0.16	6.24	42.05	60.39			N/A	N/A
2 - Wigmore Rd (E)	9.60	0.09	2.22	27.17	41.40			N/A	N/A
3 - Hoath Way (S)	8.40	0.04	0.39	19.42	46.23			N/A	N/A
4 - Sharsted Way (W)	72.07	39.08	69.25	101.34	111.95			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	20.04	0.10	4.71	57.96	89.20			N/A	N/A
2 - Wigmore Rd (E)	12.58	0.07	1.18	36.94	61.18			N/A	N/A
3 - Hoath Way (S)	8.99	0.03	0.33	8.99	39.70			N/A	N/A
4 - Sharsted Way (W)	139.50	90.03	136.45	182.09	196.67			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	5.28	0.05	0.70	15.16	25.53			N/A	N/A
2 - Wigmore Rd (E)	3.75	0.06	0.82	10.51	16.91			N/A	N/A
3 - Hoath Way (S)	2.88	0.05	0.51	8.01	13.22			N/A	N/A
4 - Sharsted Way (W)	107.04	73.12	105.01	135.46	145.04			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.54	0.04	0.35	5.71	13.52			N/A	N/A
2 - Wigmore Rd (E)	1.65	0.04	0.35	3.23	8.57			N/A	N/A
3 - Hoath Way (S)	1.61	0.03	0.35	3.52	8.31			N/A	N/A
4 - Sharsted Way (W)	2.37	0.03	0.29	2.37	2.64			N/A	N/A

Do Something (800) + Gibraltar Farm Core, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	229.26	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	4 - Sharsted Way (W)

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
D6	Do Something (800) + Gibraltar Farm Core	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1250	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	705	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2738	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	948	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	68	1096	86
	2 - Wigmore Rd (E)	88	0	427	190
	3 - Hoath Way (S)	1339	690	0	709
	4 - Sharsted Way (W)	61	355	532	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	1	1	0
	2 - Wigmore Rd (E)	3	0	5	14
	3 - Hoath Way (S)	1	5	0	1
	4 - Sharsted Way (W)	0	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.91	24.55	8.9	48.9	C	1158	1737
2 - Wigmore Rd (E)	0.74	13.18	3.0	11.6	B	693	1040
3 - Hoath Way (S)	1.16	261.66	219.9	219.9	F	2563	3844
4 - Sharsted Way (W)	1.27	567.06	135.4	206.7	F	899	1349

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	950	237	1226	1685	0.564	945	1125	0.0	1.3	4.877	A
2 - Wigmore Rd (E)	569	142	1297	1401	0.406	566	874	0.0	0.7	4.604	A
3 - Hoath Way (S)	2103	526	295	2756	0.763	2090	1569	0.0	3.2	5.412	A
4 - Sharsted Way (W)	738	184	1622	1105	0.667	730	762	0.0	2.0	9.712	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1134	284	1441	1553	0.730	1129	1336	1.3	2.6	8.453	A
2 - Wigmore Rd (E)	679	170	1538	1262	0.538	677	1032	0.7	1.2	6.572	A
3 - Hoath Way (S)	2511	628	352	2716	0.925	2482	1863	3.2	10.3	14.269	B
4 - Sharsted Way (W)	881	220	1927	933	0.944	850	908	2.0	9.7	36.193	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1389	347	1483	1528	0.909	1367	1436	2.6	8.1	20.343	C
2 - Wigmore Rd (E)	832	208	1762	1133	0.734	826	1088	1.2	2.8	12.294	B
3 - Hoath Way (S)	3075	769	429	2662	1.155	2653	2159	10.3	115.9	91.824	F
4 - Sharsted Way (W)	1079	270	2072	852	1.267	847	1010	9.7	67.6	176.837	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1389	347	1485	1526	0.910	1386	1440	8.1	8.9	24.549	C
2 - Wigmore Rd (E)	832	208	1780	1123	0.741	831	1091	2.8	3.0	13.175	B
3 - Hoath Way (S)	3075	769	432	2660	1.156	2659	2179	115.9	219.9	230.297	F
4 - Sharsted Way (W)	1079	270	2077	849	1.272	848	1015	67.6	125.3	419.158	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1134	284	1488	1524	0.744	1158	1442	8.9	3.1	10.493	B
2 - Wigmore Rd (E)	679	170	1560	1250	0.544	686	1086	3.0	1.3	6.921	A
3 - Hoath Way (S)	2511	628	358	2712	0.926	2699	1888	219.9	172.7	261.665	F
4 - Sharsted Way (W)	881	220	2090	841	1.047	841	968	125.3	135.4	567.057	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	950	237	1485	1526	0.622	955	1446	3.1	1.7	6.422	A
2 - Wigmore Rd (E)	569	142	1361	1364	0.417	571	1080	1.3	0.8	4.876	A
3 - Hoath Way (S)	2103	526	297	2754	0.763	2738	1635	172.7	13.9	125.396	F
4 - Sharsted Way (W)	738	184	2105	833	0.886	827	931	135.4	113.2	541.911	F

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.29	0.53	1.21	1.73	1.92			N/A	N/A
2 - Wigmore Rd (E)	0.73	0.59	1.07	1.50	1.55			N/A	N/A
3 - Hoath Way (S)	3.20	0.08	1.43	8.21	11.96			N/A	N/A
4 - Sharsted Way (W)	2.01	0.03	0.28	2.01	2.01			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.64	0.05	0.50	7.28	11.82			N/A	N/A
2 - Wigmore Rd (E)	1.23	0.06	0.77	2.67	3.80			N/A	N/A
3 - Hoath Way (S)	10.29	0.11	3.23	28.41	41.91			N/A	N/A
4 - Sharsted Way (W)	9.71	0.05	0.50	27.55	50.90			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	8.07	0.05	0.48	22.92	42.08			N/A	N/A
2 - Wigmore Rd (E)	2.82	0.03	0.31	2.82	11.55			N/A	N/A
3 - Hoath Way (S)	115.86	61.92	111.45	164.61	182.23			N/A	N/A
4 - Sharsted Way (W)	67.59	24.21	62.08	110.15	127.16			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	8.92	0.04	0.36	18.91	48.86			N/A	N/A
2 - Wigmore Rd (E)	2.96	0.03	0.30	2.96	7.75			N/A	N/A
3 - Hoath Way (S)	219.86	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	125.31	68.19	120.77	176.72	195.17			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.05	0.05	0.46	8.51	14.68			N/A	N/A
2 - Wigmore Rd (E)	1.30	0.06	0.84	2.81	3.97			N/A	N/A
3 - Hoath Way (S)	172.70	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	135.41	>199	>199	>199	>199			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.69	0.03	0.33	3.67	8.85			N/A	N/A
2 - Wigmore Rd (E)	0.77	0.04	0.40	1.79	2.96			N/A	N/A
3 - Hoath Way (S)	13.86	0.12	4.60	38.41	56.52			N/A	N/A
4 - Sharsted Way (W)	113.17	>199	>199	>199	>199			N/A	N/A

Do Something (800) + Gibraltar Farm Sensitivity , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	109.93	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-17	4 - Sharsted Way (W)

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
D7	Do Something (800) + Gibraltar Farm Sensitivity	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)

Am	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Hoath Way (N)		ONE HOUR	✓	1351	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	749	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2126	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	1009	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	146	1101	104
	2 - Wigmore Rd (E)	28	0	571	150
	3 - Hoath Way (S)	1250	431	0	445
	4 - Sharsted Way (W)	37	143	829	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	0	4	0
	2 - Wigmore Rd (E)	4	0	8	15
	3 - Hoath Way (S)	3	16	0	2
	4 - Sharsted Way (W)	12	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.98	49.18	20.1	89.4	E	1280	1920
2 - Wigmore Rd (E)	0.95	53.90	12.8	61.7	F	751	1126
3 - Hoath Way (S)	0.90	14.03	9.2	47.1	B	2057	3085
4 - Sharsted Way (W)	1.32	432.66	147.8	205.6	F	982	1474

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1050	263	1143	1736	0.605	1044	1018	0.0	1.6	5.326	A
2 - Wigmore Rd (E)	616	154	1584	1236	0.498	612	603	0.0	1.1	6.260	A
3 - Hoath Way (S)	1687	422	229	2802	0.602	1681	1967	0.0	1.6	3.366	A
4 - Sharsted Way (W)	806	202	1362	1252	0.644	799	547	0.0	1.9	8.298	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1254	314	1357	1605	0.782	1246	1217	1.6	3.5	10.158	B
2 - Wigmore Rd (E)	736	184	1885	1063	0.692	730	719	1.1	2.4	11.660	B
3 - Hoath Way (S)	2015	504	273	2771	0.727	2010	2342	1.6	2.8	4.956	A
4 - Sharsted Way (W)	962	241	1629	1101	0.874	945	654	1.9	6.1	22.437	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1536	384	1408	1573	0.976	1487	1470	3.5	15.7	32.470	D
2 - Wigmore Rd (E)	901	225	2062	961	0.938	872	834	2.4	9.7	36.079	E
3 - Hoath Way (S)	2468	617	326	2734	0.902	2445	2608	2.8	8.6	12.223	B
4 - Sharsted Way (W)	1179	295	1981	903	1.305	898	790	6.1	76.4	177.310	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1536	384	1408	1573	0.976	1518	1482	15.7	20.1	49.177	E
2 - Wigmore Rd (E)	901	225	2085	947	0.951	889	841	9.7	12.8	53.896	F
3 - Hoath Way (S)	2468	617	332	2730	0.904	2465	2642	8.6	9.2	14.034	B
4 - Sharsted Way (W)	1179	295	1998	893	1.320	893	800	76.4	147.8	432.663	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1254	314	1493	1522	0.824	1313	1241	20.1	5.3	21.653	C
2 - Wigmore Rd (E)	736	184	2054	965	0.762	772	753	12.8	3.8	23.299	C
3 - Hoath Way (S)	2015	504	288	2761	0.730	2040	2537	9.2	2.9	5.442	A
4 - Sharsted Way (W)	962	241	1654	1087	0.885	1079	674	147.8	118.6	432.568	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1050	263	1565	1478	0.711	1061	1042	5.3	2.6	9.138	A
2 - Wigmore Rd (E)	616	154	1954	1023	0.602	624	672	3.8	1.7	10.076	B
3 - Hoath Way (S)	1687	422	233	2799	0.603	1693	2346	2.9	1.6	3.444	A
4 - Sharsted Way (W)	806	202	1372	1246	0.647	1235	553	118.6	11.3	193.792	F

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.56	0.21	1.36	2.56	3.07			N/A	N/A
2 - Wigmore Rd (E)	1.07	0.36	1.11	1.62	1.62			N/A	N/A
3 - Hoath Way (S)	1.58	0.58	1.47	2.03	2.49			N/A	N/A
4 - Sharsted Way (W)	1.87	0.05	0.49	4.98	8.10			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.52	0.05	0.70	9.86	16.00			N/A	N/A
2 - Wigmore Rd (E)	2.36	0.06	0.70	6.29	9.81			N/A	N/A
3 - Hoath Way (S)	2.75	0.04	0.42	7.39	13.95			N/A	N/A
4 - Sharsted Way (W)	6.13	0.07	1.09	17.27	26.69			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	15.66	0.17	6.33	42.20	60.52			N/A	N/A
2 - Wigmore Rd (E)	9.72	0.09	2.36	27.42	41.59			N/A	N/A
3 - Hoath Way (S)	8.55	0.04	0.40	20.14	47.09			N/A	N/A
4 - Sharsted Way (W)	76.36	42.50	73.57	106.24	116.99			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	20.13	0.11	4.79	58.18	89.42			N/A	N/A
2 - Wigmore Rd (E)	12.76	0.07	1.33	37.46	61.66			N/A	N/A
3 - Hoath Way (S)	9.18	0.03	0.33	9.18	41.37			N/A	N/A
4 - Sharsted Way (W)	147.81	>199	>199	>199	>199			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	5.29	0.05	0.59	15.15	25.82			N/A	N/A
2 - Wigmore Rd (E)	3.78	0.06	0.75	10.62	17.22			N/A	N/A
3 - Hoath Way (S)	2.91	0.05	0.51	8.09	13.40			N/A	N/A
4 - Sharsted Way (W)	118.60	79.48	116.25	151.70	162.91			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.62	0.04	0.36	6.01	13.95			N/A	N/A
2 - Wigmore Rd (E)	1.70	0.04	0.35	3.39	8.85			N/A	N/A
3 - Hoath Way (S)	1.62	0.03	0.35	3.51	8.37			N/A	N/A
4 - Sharsted Way (W)	11.29	0.09	2.53	32.30	49.61			N/A	N/A

Do Something (800) + Gibraltar Farm Sensitivity, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hoath Way Sharsted Way	Standard Roundabout		1, 2, 3, 4	237.42	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-21	4 - Sharsted Way (W)

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
D8	Do Something (800) + Gibraltar Farm Sensitivity	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 (%)
1 - Hoath Way (N)		ONE HOUR	✓	1250	100.000
2 - Wigmore Rd (E)		ONE HOUR	✓	705	100.000
3 - Hoath Way (S)		ONE HOUR	✓	2753	100.000
4 - Sharsted Way (W)		ONE HOUR	✓	956	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	68	1096	86
	2 - Wigmore Rd (E)	88	0	427	190
	3 - Hoath Way (S)	1339	690	0	724
	4 - Sharsted Way (W)	61	355	540	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Hoath Way (N)	2 - Wigmore Rd (E)	3 - Hoath Way (S)	4 - Sharsted Way (W)
From	1 - Hoath Way (N)	0	1	1	0
	2 - Wigmore Rd (E)	3	0	5	14
	3 - Hoath Way (S)	1	5	0	1
	4 - Sharsted Way (W)	0	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Hoath Way (N)	0.91	24.76	9.0	49.3	C	1158	1737
2 - Wigmore Rd (E)	0.74	13.34	3.0	11.9	B	693	1040
3 - Hoath Way (S)	1.16	275.26	228.5	228.5	F	2577	3865
4 - Sharsted Way (W)	1.27	572.74	137.8	206.7	F	907	1360

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	950	237	1232	1681	0.565	945	1125	0.0	1.3	4.901	A
2 - Wigmore Rd (E)	569	142	1303	1398	0.407	566	874	0.0	0.7	4.623	A
3 - Hoath Way (S)	2114	529	295	2756	0.767	2101	1575	0.0	3.3	5.501	A
4 - Sharsted Way (W)	744	186	1622	1105	0.673	736	774	0.0	2.1	9.858	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1134	284	1446	1550	0.732	1129	1335	1.3	2.7	8.510	A
2 - Wigmore Rd (E)	679	170	1544	1259	0.540	677	1031	0.7	1.2	6.611	A
3 - Hoath Way (S)	2524	631	352	2716	0.930	2494	1869	3.3	10.8	14.876	B
4 - Sharsted Way (W)	888	222	1926	934	0.951	855	921	2.1	10.3	37.630	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1389	347	1485	1526	0.910	1367	1430	2.7	8.1	20.486	C
2 - Wigmore Rd (E)	832	208	1768	1130	0.736	825	1084	1.2	2.8	12.427	B
3 - Hoath Way (S)	3092	773	429	2662	1.161	2654	2165	10.8	120.4	95.151	F
4 - Sharsted Way (W)	1088	272	2062	857	1.269	853	1021	10.3	68.9	179.600	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1389	347	1487	1525	0.911	1386	1433	8.1	9.0	24.763	C
2 - Wigmore Rd (E)	832	208	1786	1119	0.743	831	1087	2.8	3.0	13.340	B
3 - Hoath Way (S)	3092	773	432	2660	1.162	2659	2185	120.4	228.5	239.069	F
4 - Sharsted Way (W)	1088	272	2066	854	1.273	854	1025	68.9	127.4	423.424	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	1134	284	1491	1523	0.745	1158	1435	9.0	3.1	10.548	B
2 - Wigmore Rd (E)	679	170	1567	1246	0.545	686	1082	3.0	1.3	6.971	A
3 - Hoath Way (S)	2524	631	358	2712	0.931	2700	1895	228.5	184.7	275.257	F
4 - Sharsted Way (W)	888	222	2079	847	1.048	847	979	127.4	137.8	572.740	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Hoath Way (N)	950	237	1488	1525	0.623	955	1439	3.1	1.7	6.439	A
2 - Wigmore Rd (E)	569	142	1367	1361	0.418	571	1076	1.3	0.8	4.897	A
3 - Hoath Way (S)	2114	529	297	2754	0.768	2739	1641	184.7	28.4	142.329	F
4 - Sharsted Way (W)	744	186	2094	839	0.887	833	942	137.8	115.7	548.770	F

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.29	0.53	1.21	1.74	1.92			N/A	N/A
2 - Wigmore Rd (E)	0.73	0.59	1.07	1.50	1.55			N/A	N/A
3 - Hoath Way (S)	3.27	0.07	1.30	8.65	12.85			N/A	N/A
4 - Sharsted Way (W)	2.06	0.03	0.27	2.06	2.06			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	2.66	0.05	0.52	7.34	11.89			N/A	N/A
2 - Wigmore Rd (E)	1.24	0.06	0.77	2.70	3.84			N/A	N/A
3 - Hoath Way (S)	10.84	0.12	3.57	29.87	43.90			N/A	N/A
4 - Sharsted Way (W)	10.27	0.05	0.56	29.53	53.49			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	8.13	0.05	0.49	23.15	42.33			N/A	N/A
2 - Wigmore Rd (E)	2.85	0.03	0.32	2.85	11.85			N/A	N/A
3 - Hoath Way (S)	120.38	65.65	116.04	169.65	187.37			N/A	N/A
4 - Sharsted Way (W)	68.93	24.77	63.33	112.20	129.44			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	8.99	0.04	0.37	19.30	49.35			N/A	N/A
2 - Wigmore Rd (E)	3.00	0.03	0.30	3.00	8.01			N/A	N/A
3 - Hoath Way (S)	228.53	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	127.40	69.51	122.83	179.55	198.30			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	3.06	0.05	0.46	8.55	14.77			N/A	N/A
2 - Wigmore Rd (E)	1.31	0.06	0.83	2.85	4.03			N/A	N/A
3 - Hoath Way (S)	184.66	>199	>199	>199	>199			N/A	N/A
4 - Sharsted Way (W)	137.84	>199	>199	>199	>199			N/A	N/A

18:15 - 18:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Hoath Way (N)	1.70	0.03	0.33	3.66	8.88			N/A	N/A
2 - Wigmore Rd (E)	0.78	0.04	0.40	1.81	3.00			N/A	N/A
3 - Hoath Way (S)	28.41	3.23	22.31	57.69	71.79			N/A	N/A
4 - Sharsted Way (W)	115.68	>199	>199	>199	>199			N/A	N/A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 21 - M2 J4 - Hoath Way Rdbt - Existing - Lane Sim.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:34:55

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - Do Minimum							
1 - M2 Southbound slip-off	183.6	739.86		F	21.2	86.51		F
3 - M2 Northbound slip-off	0.1	3.87		A	0.4	6.07		A
4 - Hoath Way	4.1	6.51		A	2.3	5.16		A
	[Lane Simulation] - Do Something (800)							
1 - M2 Southbound slip-off	143.8	574.25		F	38.0	133.83		F
3 - M2 Northbound slip-off	0.0	3.89		A	0.5	5.73		A
4 - Hoath Way	3.0	5.78		A	2.2	4.87		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. Arm and junction delays are averages for all movements, including movements with zero delay.

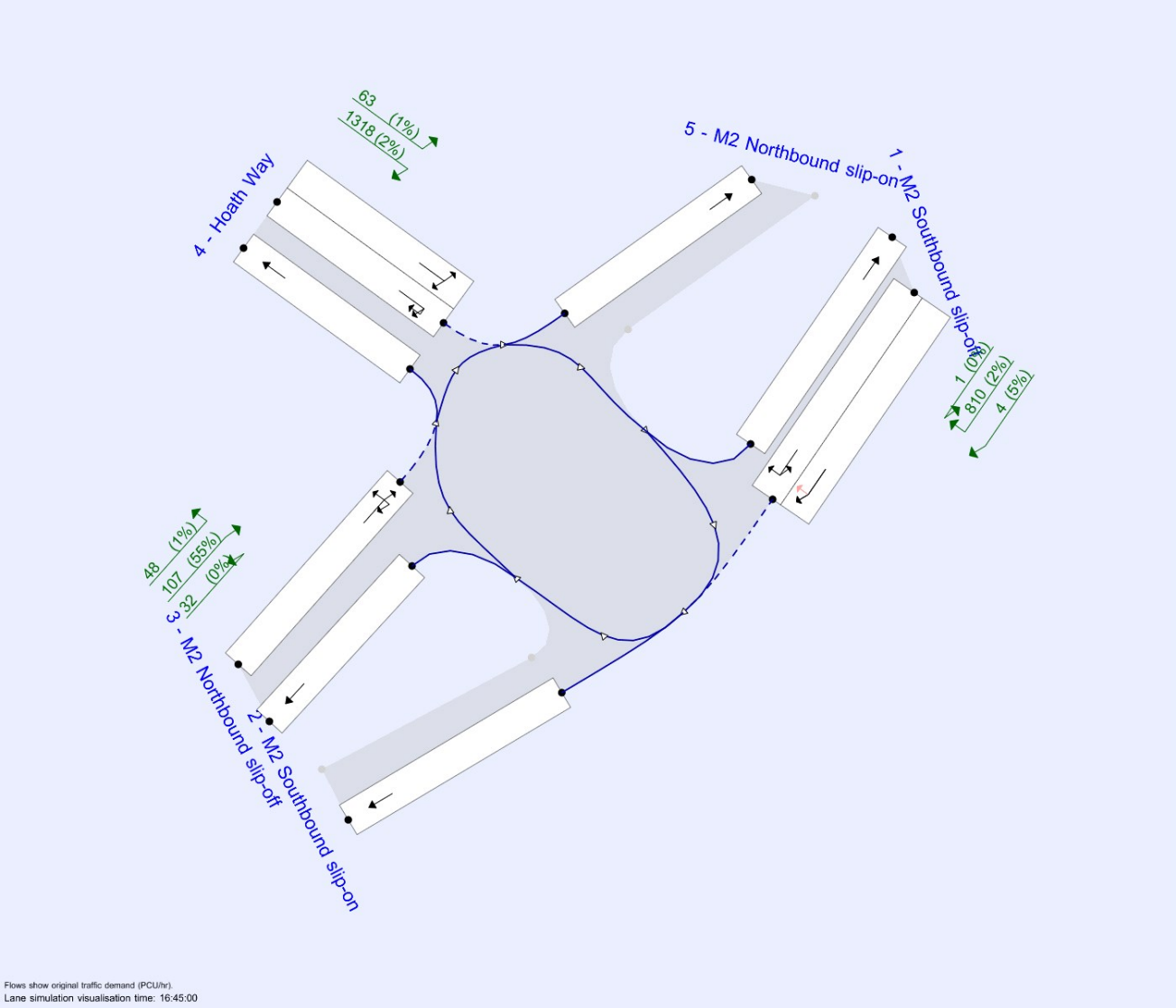
File summary

File Description

Title	M2 J4
Location	
Site number	
Date	14/11/2018
Version	
Status	
Identifier	
Client	
Jobnumber	18-015
Enumerator	CA_WKS08\Athina Tsolaki
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



The junction diagram reflects the last run of Junctions.

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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	0	3	1	60	✓			0	109	6.33

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	Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D2	Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15	✓
D4	Do Something (800)	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	1 - M2 Southbound slip-off - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	257.32	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	M2 Southbound slip-off	
2	M2 Southbound slip-on	
3	M2 Northbound slip-off	
4	Hoath Way	
5	M2 Northbound slip-on	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - M2 Southbound slip-off	7.50	7.50	0.0	271.0	90.0	10.0	
2 - M2 Southbound slip-on							✓
3 - M2 Northbound slip-off	3.50	3.70	1.5	34.0	90.0	24.0	
4 - Hoath Way	6.60	6.60	0.0	35.0	90.0	46.0	
5 - M2 Northbound slip-on							✓

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M2 Southbound slip-off	1.002	2894
2 - M2 Southbound slip-on		
3 - M2 Northbound slip-off	0.694	1588
4 - Hoath Way	1.025	2706
5 - M2 Northbound slip-on		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M2 Southbound slip-off	Evenly split	15.00
2 - M2 Southbound slip-on	Evenly split	10.00
3 - M2 Northbound slip-off	Evenly split	10.00
4 - Hoath Way	Evenly split	10.00
5 - M2 Northbound slip-on	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M2 Southbound slip-off	Entry	1	1	2, (4)		Infinity		0	99999	
			2	4, 5		Infinity		0	99999	
	Exit	1	1			Infinity				
2 - M2 Southbound slip-on	Exit	1	1			Infinity				
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5		Infinity		0	99999	
	Exit	1	1			Infinity				
4 - Hoath Way	Entry	1	2	2, 5		Infinity		0	99999	
			3	2, 4		Infinity		0	99999	
	Exit	1	1			Infinity				
5 - M2 Northbound slip-on	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M2 Southbound slip-off	Entry	1	1	0.501	1447
			2	0.501	1447
3 - M2 Northbound slip-off	Entry	1	2	0.694	1588
4 - Hoath Way	Entry	1	2	0.512	1353
			3	0.512	1353

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm				
			M2 Southbound slip-off	M2 Southbound slip-on	M2 Northbound slip-off	Hoath Way	M2 Northbound slip-on
1 - M2 Southbound slip-off	1	1		✓			
		2				✓	✓
3 - M2 Northbound slip-off	1	2		✓		✓	✓
4 - Hoath Way	1	2		✓			✓
		3		✓		✓	

Summary of Entry Lane allowed secondary movem

Arm	Lane Level	Lane	Destina		
			M2 Southbound slip-off	M2 Southbound slip-on	N
1 - M2 Southbound slip-off	1	1			
		2			
3 - M2 Northbound slip-off	1	2			
4 - Hoath Way	1	2			
		3			

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	936	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	45	100.000
4 - Hoath Way		ONE HOUR	✓	1745	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	15	0	921	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	36	0	7	2
	4 - Hoath Way	0	1632	0	1	112
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	1	0	1	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	3	11
	4 - Hoath Way	0	3	0	0	3
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	739.86	183.6	F	852	1278
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	3.87	0.1	A	42	62
4 - Hoath Way	6.51	4.1	A	1597	2395
5 - M2 Northbound slip-on					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	704	176	1256	712	699	0	0.0	2.6	15.388	C
2 - M2 Southbound slip-on			0			1268				
3 - M2 Northbound slip-off	35	9	700	35	35	0	0.0	0.0	3.433	A
4 - Hoath Way	1316	329	30	1317	1318	704	0.0	1.5	3.908	A
5 - M2 Northbound slip-on			0			91				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	828	207	1518	798	786	0	2.6	15.4	49.755	E
2 - M2 Southbound slip-on			0			1530				
3 - M2 Northbound slip-off	44	11	786	44	41	0	0.0	0.0	3.479	A
4 - Hoath Way	1580	395	38	1584	1564	791	1.5	2.0	4.559	A
5 - M2 Northbound slip-on			0			104				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1014	254	1836	700	719	0	15.4	90.3	290.215	F
2 - M2 Southbound slip-on			0			1850				
3 - M2 Northbound slip-off	52	13	685	52	49	0	0.0	0.1	3.645	A
4 - Hoath Way	1931	483	44	1920	1908	694	2.0	4.1	6.226	A
5 - M2 Northbound slip-on			0			128				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1029	257	1820	693	700	0	90.3	175.3	685.680	F
2 - M2 Southbound slip-on			0			1839				
3 - M2 Northbound slip-off	47	12	674	47	49	0	0.1	0.0	3.418	A
4 - Hoath Way	1895	474	40	1909	1913	682	4.1	3.1	6.513	A
5 - M2 Northbound slip-on			0			128				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	838	209	1503	830	805	0	175.3	183.6	739.864	F
2 - M2 Southbound slip-on			0			1517				
3 - M2 Northbound slip-off	40	10	816	40	40	0	0.0	0.0	3.672	A
4 - Hoath Way	1568	392	34	1569	1576	823	3.1	2.2	4.656	A
5 - M2 Northbound slip-on			0			99				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	698	174	1227	934	923	0	183.6	128.7	453.306	F
2 - M2 Southbound slip-on			0			1240				
3 - M2 Northbound slip-off	32	8	921	32	33	0	0.0	0.0	3.871	A
4 - Hoath Way	1290	323	27	1285	1301	925	2.2	1.5	3.988	A
5 - M2 Northbound slip-on			0			86				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	102	818	0.124	102	101	0.0	0.1	5.152	A
			2	4, 5	602	818	0.736	610	598	0.0	2.4	17.094	C
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1268			1268	1273	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	35	1103	0.032	35	35	0.0	0.0	3.433	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	684	1337	0.512	684	678	0.0	0.8	3.929	A
			3	2, 4	632	1337	0.473	633	640	0.0	0.7	3.886	A
	Exit	1	1		704			704	693	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		91			91	86	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	136	687	0.197	135	132	0.1	0.2	6.181	A
			2	4, 5	692	687	1.008	662	654	2.4	15.2	57.957	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1530			1530	1512	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	44	1043	0.042	44	41	0.0	0.0	3.479	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	797	1333	0.598	797	792	0.8	1.1	4.658	A
			3	2, 4	783	1333	0.587	786	772	0.7	0.9	4.458	A
	Exit	1	1		791			791	780	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		104			104	99	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	167	528	0.317	168	161	0.2	0.5	9.557	A
			2	4, 5	847	528	1.605	532	558	15.2	89.8	343.544	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1850			1850	1839	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	52	1113	0.047	52	49	0.0	0.1	3.645	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	997	1330	0.749	991	971	1.1	2.0	6.300	A
			3	2, 4	934	1330	0.702	929	938	0.9	2.0	6.150	A
	Exit	1	1		694			694	712	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		128			128	125	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	168	535	0.314	167	165	0.5	0.6	10.746	B
			2	4, 5	861	535	1.609	526	535	89.8	174.7	813.714	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1839			1839	1843	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	47	1121	0.042	47	49	0.1	0.0	3.418	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	963	1332	0.722	969	976	2.0	1.6	6.571	A
			3	2, 4	932	1332	0.700	940	938	2.0	1.5	6.453	A
	Exit	1	1		682			682	691	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		128			128	129	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	140	694	0.202	139	139	0.6	0.3	7.389	A
			2	4, 5	698	694	1.005	691	665	174.7	183.2	884.318	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1517			1517	1521	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	40	1022	0.039	40	40	0.0	0.0	3.672	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	793	1335	0.594	792	803	1.6	1.2	4.748	A
			3	2, 4	774	1335	0.580	777	773	1.5	1.0	4.560	A
	Exit	1	1		823			823	798	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		99			99	102	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	114	833	0.136	113	114	0.3	0.2	5.132	A
			2	4, 5	584	833	0.701	821	809	183.2	128.5	654.636	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1240			1240	1252	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	32	950	0.034	32	33	0.0	0.0	3.871	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	665	1339	0.497	662	669	1.2	0.8	4.049	A
			3	2, 4	626	1339	0.467	623	632	1.0	0.7	3.922	A
	Exit	1	1		925			925	917	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		86			86	89	0.0	0.0	0.000	A

Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	30.49	D

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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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	Do Minimum	PM	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	738	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	199	100.000
4 - Hoath Way		ONE HOUR	✓	1442	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	1	0	736	1
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	2	0	71	126
	4 - Hoath Way	0	1364	0	0	78
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	0	0	2	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	1	77
	4 - Hoath Way	0	2	0	0	2
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	86.51	21.2	F	678	1017
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	6.07	0.4	A	180	270
4 - Hoath Way	5.16	2.3	A	1326	1989
5 - M2 Northbound slip-on					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	561	140	1026	560	551	0	0.0	1.2	7.677	A
2 - M2 Southbound slip-on			0			1027				
3 - M2 Northbound slip-off	146	36	559	146	150	0	0.0	0.3	4.913	A
4 - Hoath Way	1083	271	95	1084	1082	610	0.0	1.1	3.685	A
5 - M2 Northbound slip-on			0			153				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	673	168	1236	672	662	0	1.2	2.5	12.187	B
2 - M2 Southbound slip-on			0			1237				
3 - M2 Northbound slip-off	179	45	671	179	177	0	0.3	0.3	5.331	A
4 - Hoath Way	1307	327	115	1305	1299	735	1.1	1.6	4.153	A
5 - M2 Northbound slip-on			0			184				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	820	205	1508	769	762	0	2.5	15.3	45.422	E
2 - M2 Southbound slip-on			0			1509				
3 - M2 Northbound slip-off	223	56	768	224	217	0	0.3	0.4	5.964	A
4 - Hoath Way	1594	399	147	1593	1585	845	1.6	2.3	4.992	A
5 - M2 Northbound slip-on			0			232				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	802	201	1509	788	785	0	15.3	21.2	86.513	F
2 - M2 Southbound slip-on			0			1510				
3 - M2 Northbound slip-off	210	53	786	210	215	0	0.4	0.4	6.071	A
4 - Hoath Way	1587	397	132	1590	1589	864	2.3	2.2	5.157	A
5 - M2 Northbound slip-on			0			214				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	661	165	1231	687	735	0	21.2	2.7	40.301	E
2 - M2 Southbound slip-on			0			1231				
3 - M2 Northbound slip-off	173	43	686	173	179	0	0.4	0.3	5.820	A
4 - Hoath Way	1297	324	113	1300	1297	746	2.2	1.5	4.137	A
5 - M2 Northbound slip-on			0			182				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	552	138	1029	552	560	0	2.7	1.3	8.478	A
2 - M2 Southbound slip-on			0			1030				
3 - M2 Northbound slip-off	149	37	550	149	151	0	0.3	0.3	4.997	A
4 - Hoath Way	1089	272	95	1088	1088	604	1.5	1.2	3.651	A
5 - M2 Northbound slip-on			0			154				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	62	933	0.066	61	61	0.0	0.1	4.184	A
			2	4, 5	500	933	0.535	499	490	0.0	1.1	8.109	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1027			1027	1026	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	146	1200	0.121	146	150	0.0	0.3	4.913	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	553	1304	0.424	553	553	0.0	0.6	3.726	A
			3	2, 4	530	1304	0.406	530	529	0.0	0.5	3.643	A
	Exit	1	1		610			610	603	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		153			153	153	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	85	828	0.103	85	84	0.1	0.2	4.872	A
			2	4, 5	587	828	0.709	587	579	1.1	2.4	13.235	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1237			1237	1231	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	179	1123	0.159	179	177	0.3	0.3	5.331	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	664	1294	0.513	663	663	0.6	0.8	4.205	A
			3	2, 4	643	1294	0.497	642	636	0.5	0.8	4.099	A
	Exit	1	1		735			735	723	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		184			184	185	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	121	692	0.175	121	116	0.2	0.3	5.865	A
			2	4, 5	698	692	1.010	648	646	2.4	15.0	52.021	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1509			1509	1502	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	223	1056	0.211	224	217	0.3	0.4	5.964	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	813	1278	0.637	813	808	0.8	1.2	5.040	A
			3	2, 4	781	1278	0.611	781	777	0.8	1.1	4.942	A
	Exit	1	1		845			845	837	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		232			232	225	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	119	691	0.172	119	122	0.3	0.2	6.477	A
			2	4, 5	684	691	0.989	669	663	15.0	21.0	100.712	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1510			1510	1508	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	210	1043	0.202	210	215	0.4	0.4	6.071	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	809	1285	0.630	811	808	1.2	1.1	5.207	A
			3	2, 4	778	1285	0.605	779	781	1.1	1.1	5.107	A
	Exit	1	1		864			864	862	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		214			214	220	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	83	831	0.100	83	87	0.2	0.1	5.137	A
			2	4, 5	578	831	0.696	605	648	21.0	2.6	45.624	E
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1231			1231	1231	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	173	1112	0.156	173	179	0.4	0.3	5.820	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	665	1295	0.513	666	665	1.1	0.8	4.146	A
			3	2, 4	632	1295	0.488	634	632	1.1	0.7	4.127	A
	Exit	1	1		746			746	797	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		182			182	184	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	64	932	0.069	64	64	0.1	0.1	4.141	A
			2	4, 5	488	932	0.524	487	496	2.6	1.2	9.044	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1030			1030	1030	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	149	1207	0.124	149	151	0.3	0.3	4.997	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	555	1304	0.426	554	556	0.8	0.6	3.721	A
			3	2, 4	534	1304	0.410	534	532	0.7	0.6	3.579	A
	Exit	1	1		604			604	612	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		154			154	156	0.0	0.0	0.000	A

Do Something (800), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	1 - M2 Southbound slip-off - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	205.68	F

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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	916	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	36	100.000
4 - Hoath Way		ONE HOUR	✓	1663	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	13	0	903	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	34	0	0	2
	4 - Hoath Way	0	1550	0	1	112
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	0	0	1	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	3	0	0	0
	4 - Hoath Way	0	4	0	0	2
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	574.25	143.8	F	842	1262
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	3.89	0.0	A	33	50
4 - Hoath Way	5.78	3.0	A	1518	2277
5 - M2 Northbound slip-on					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	695	174	1182	697	691	0	0.0	2.2	12.313	B
2 - M2 Southbound slip-on			0			1192				
3 - M2 Northbound slip-off	31	8	688	30	30	0	0.0	0.0	3.424	A
4 - Hoath Way	1237	309	30	1240	1248	688	0.0	1.4	3.935	A
5 - M2 Northbound slip-on			0			88				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	818	204	1416	798	787	0	2.2	11.2	36.583	E
2 - M2 Southbound slip-on			0			1429				
3 - M2 Northbound slip-off	31	8	785	31	32	0	0.0	0.0	3.393	A
4 - Hoath Way	1488	372	31	1488	1481	785	1.4	1.8	4.538	A
5 - M2 Northbound slip-on			0			103				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1003	251	1758	728	761	0	11.2	75.7	221.692	F
2 - M2 Southbound slip-on			0			1771				
3 - M2 Northbound slip-off	40	10	715	41	39	0	0.0	0.0	3.735	A
4 - Hoath Way	1839	460	41	1844	1828	715	1.8	2.8	5.697	A
5 - M2 Northbound slip-on			0			126				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1006	252	1741	736	741	0	75.7	143.8	537.255	F
2 - M2 Southbound slip-on			0			1753				
3 - M2 Northbound slip-off	44	11	723	44	40	0	0.0	0.0	3.694	A
4 - Hoath Way	1826	456	44	1824	1828	723	2.8	3.0	5.783	A
5 - M2 Northbound slip-on			0			128				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	821	205	1415	880	849	0	143.8	138.0	574.250	F
2 - M2 Southbound slip-on			0			1426				
3 - M2 Northbound slip-off	30	8	868	30	33	0	0.0	0.0	3.860	A
4 - Hoath Way	1487	372	30	1484	1481	868	3.0	1.9	4.506	A
5 - M2 Northbound slip-on			0			100				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	707	177	1169	963	947	0	138.0	75.5	346.055	F
2 - M2 Southbound slip-on			0			1179				
3 - M2 Northbound slip-off	24	6	953	24	27	0	0.0	0.0	3.893	A
4 - Hoath Way	1231	308	24	1231	1237	953	1.9	1.4	3.837	A
5 - M2 Northbound slip-on			0			86				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	94	855	0.109	95	96	0.0	0.1	4.727	A
			2	4, 5	602	855	0.704	602	594	0.0	2.1	13.532	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1192			1192	1198	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	31	1111	0.028	30	30	0.0	0.0	3.424	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	631	1337	0.472	632	640	0.0	0.7	4.006	A
			3	2, 4	606	1337	0.454	608	607	0.0	0.7	3.860	A
	Exit	1	1		688			688	681	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		88			88	89	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	125	738	0.169	124	125	0.1	0.2	5.723	A
			2	4, 5	693	738	0.939	674	662	2.1	11.0	42.137	E
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1429			1429	1425	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	31	1044	0.029	31	32	0.0	0.0	3.393	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	756	1337	0.565	755	760	0.7	1.0	4.574	A
			3	2, 4	733	1337	0.548	733	721	0.7	0.9	4.500	A
	Exit	1	1		785			785	775	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		103			103	99	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	154	567	0.273	156	161	0.2	0.5	8.767	A
			2	4, 5	848	567	1.496	572	599	11.0	75.2	262.101	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1771			1771	1752	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	40	1093	0.037	41	39	0.0	0.0	3.735	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	928	1332	0.697	930	928	1.0	1.6	5.812	A
			3	2, 4	911	1332	0.684	914	900	0.9	1.2	5.578	A
	Exit	1	1		715			715	747	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		126			126	129	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	163	575	0.283	164	164	0.5	0.4	9.377	A
			2	4, 5	843	575	1.466	572	577	75.2	143.3	639.370	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1753			1753	1755	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	44	1087	0.041	44	40	0.0	0.0	3.694	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	921	1330	0.693	921	931	1.6	1.6	5.834	A
			3	2, 4	905	1330	0.680	903	897	1.2	1.5	5.729	A
	Exit	1	1		723			723	728	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		128			128	126	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	136	738	0.184	135	133	0.4	0.3	6.115	A
			2	4, 5	685	738	0.928	745	715	143.3	137.8	683.683	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1426			1426	1424	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	30	986	0.031	30	33	0.0	0.0	3.860	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	758	1337	0.567	758	762	1.6	0.9	4.567	A
			3	2, 4	729	1337	0.545	727	720	1.5	1.0	4.441	A
	Exit	1	1		868			868	837	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		100			100	102	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	117	861	0.136	118	117	0.3	0.2	4.957	A
			2	4, 5	590	861	0.685	845	830	137.8	75.3	452.399	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1179			1179	1188	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	24	927	0.026	24	27	0.0	0.0	3.893	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	636	1340	0.474	635	637	0.9	0.8	3.914	A
			3	2, 4	595	1340	0.444	596	601	1.0	0.6	3.754	A
	Exit	1	1		953			953	939	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		86			86	85	0.0	0.0	0.000	A

Do Something (800), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	48.99	E

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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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
D4	Do Something (800)	PM	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	815	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	187	100.000
4 - Hoath Way		ONE HOUR	✓	1381	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	4	0	810	1
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	32	0	48	107
	4 - Hoath Way	0	1318	0	0	63
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	5	0	2	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	1	55
	4 - Hoath Way	0	2	0	0	1
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	133.83	38.0	F	747	1121
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	5.73	0.5	A	173	260
4 - Hoath Way	4.87	2.2	A	1267	1901
5 - M2 Northbound slip-on					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	616	154	1029	614	610	0	0.0	1.6	8.383	A
2 - M2 Southbound slip-on			0			1033				
3 - M2 Northbound slip-off	138	35	611	138	140	0	0.0	0.1	4.605	A
4 - Hoath Way	1053	263	103	1052	1041	646	0.0	1.0	3.586	A
5 - M2 Northbound slip-on			0			126				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	730	182	1218	731	729	0	1.6	2.8	13.522	B
2 - M2 Southbound slip-on			0			1222				
3 - M2 Northbound slip-off	172	43	728	173	170	0	0.1	0.3	5.065	A
4 - Hoath Way	1242	310	129	1243	1239	772	1.0	1.3	4.007	A
5 - M2 Northbound slip-on			0			153				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	898	224	1476	837	820	0	2.8	21.5	60.387	F
2 - M2 Southbound slip-on			0			1481				
3 - M2 Northbound slip-off	206	52	832	205	206	0	0.3	0.5	5.647	A
4 - Hoath Way	1513	378	150	1510	1506	887	1.3	2.2	4.871	A
5 - M2 Northbound slip-on			0			184				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	902	225	1488	829	833	0	21.5	38.0	133.830	F
2 - M2 Southbound slip-on			0			1491				
3 - M2 Northbound slip-off	213	53	826	211	207	0	0.5	0.4	5.726	A
4 - Hoath Way	1522	381	158	1522	1518	880	2.2	2.0	4.850	A
5 - M2 Northbound slip-on			0			192				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	731	183	1215	811	834	0	38.0	11.3	93.487	F
2 - M2 Southbound slip-on			0			1219				
3 - M2 Northbound slip-off	169	42	808	171	169	0	0.4	0.2	5.544	A
4 - Hoath Way	1241	310	130	1240	1249	849	2.0	1.5	4.007	A
5 - M2 Northbound slip-on			0			154				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	607	152	1006	612	652	0	11.3	1.3	16.801	C
2 - M2 Southbound slip-on			0			1008				
3 - M2 Northbound slip-off	140	35	610	140	139	0	0.2	0.2	4.607	A
4 - Hoath Way	1032	258	106	1031	1044	644	1.5	1.0	3.605	A
5 - M2 Northbound slip-on			0			132				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	74	931	0.079	74	73	0.0	0.1	4.166	A
			2	4, 5	543	931	0.583	540	537	0.0	1.6	8.951	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1033			1033	1019	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	138	1165	0.119	138	140	0.0	0.1	4.605	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	535	1300	0.412	535	532	0.0	0.5	3.603	A
			3	2, 4	517	1300	0.398	518	509	0.0	0.5	3.568	A
	Exit	1	1		646			646	643	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		126			126	130	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	96	837	0.115	97	97	0.1	0.1	4.733	A
			2	4, 5	634	837	0.757	635	632	1.6	2.7	14.865	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1222			1222	1216	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	172	1083	0.159	173	170	0.1	0.3	5.065	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	631	1287	0.491	632	630	0.5	0.6	4.071	A
			3	2, 4	610	1287	0.474	611	609	0.5	0.7	3.941	A
	Exit	1	1		772			772	768	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		153			153	154	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	139	708	0.197	138	135	0.1	0.3	6.061	A
			2	4, 5	759	708	1.072	699	685	2.7	21.2	70.136	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1481			1481	1477	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	206	1011	0.204	205	206	0.3	0.5	5.647	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	765	1276	0.600	764	765	0.6	1.1	4.900	A
			3	2, 4	748	1276	0.586	746	742	0.7	1.1	4.841	A
	Exit	1	1		887			887	867	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		184			184	188	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	134	702	0.191	135	138	0.3	0.1	6.381	A
			2	4, 5	767	702	1.094	695	695	21.2	37.8	156.907	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1491			1491	1487	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	213	1015	0.210	211	207	0.5	0.4	5.726	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	768	1272	0.604	767	771	1.1	1.1	4.884	A
			3	2, 4	754	1272	0.593	755	746	1.1	1.0	4.816	A
	Exit	1	1		880			880	882	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		192			192	190	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	100	838	0.119	100	104	0.1	0.1	5.270	A
			2	4, 5	631	838	0.753	711	730	37.8	11.2	108.274	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1219			1219	1225	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	169	1028	0.165	171	169	0.4	0.2	5.544	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	631	1286	0.490	630	638	1.1	0.8	4.022	A
			3	2, 4	610	1286	0.474	610	611	1.0	0.7	3.992	A
	Exit	1	1		849			849	872	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		154			154	154	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, (4)	72	943	0.076	72	77	0.1	0.1	4.060	A
			2	4, 5	535	943	0.567	541	575	11.2	1.2	18.636	C
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1008			1008	1020	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	140	1165	0.120	140	139	0.2	0.2	4.607	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	531	1298	0.409	530	534	0.8	0.5	3.628	A
			3	2, 4	501	1298	0.386	501	510	0.7	0.5	3.580	A
	Exit	1	1		644			644	684	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		132			132	132	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 31 M2 J4 - Hoath Way Rdbt Proposed - Lane Sim.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019 TA Submission\2019-03-19\Proposed Mitigations
Report generation date: 29/03/2019 10:05:25

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - Do Minimum							
1 - M2 Southbound slip-off	25.2	79.07		F	2.0	9.17		A
3 - M2 Northbound slip-off	0.1	4.26		A	0.6	6.37		A
4 - Hoath Way	3.9	6.40		A	2.2	5.14		A
	[Lane Simulation] - Do Something (800)							
1 - M2 Southbound slip-off	13.0	38.88		E	2.4	10.71		B
3 - M2 Northbound slip-off	0.1	4.21		A	0.5	6.17		A
4 - Hoath Way	3.0	5.79		A	2.2	4.83		A
	[Lane Simulation] - Do Something (800) + Gibraltar Farm Core							
1 - M2 Southbound slip-off	16.8	53.36		F	2.7	11.51		B
3 - M2 Northbound slip-off	0.1	4.37		A	0.5	6.39		A
4 - Hoath Way	3.5	6.41		A	2.3	5.22		A
	[Lane Simulation] - Do Something (800) + Gibraltar Farm Sensitivity							
1 - M2 Southbound slip-off	19.9	63.76		F	3.4	11.41		B
3 - M2 Northbound slip-off	0.1	4.19		A	0.5	6.33		A
4 - Hoath Way	3.6	6.33		A	2.2	5.37		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. Arm and junction delays are averages for all movements, including movements with zero delay.

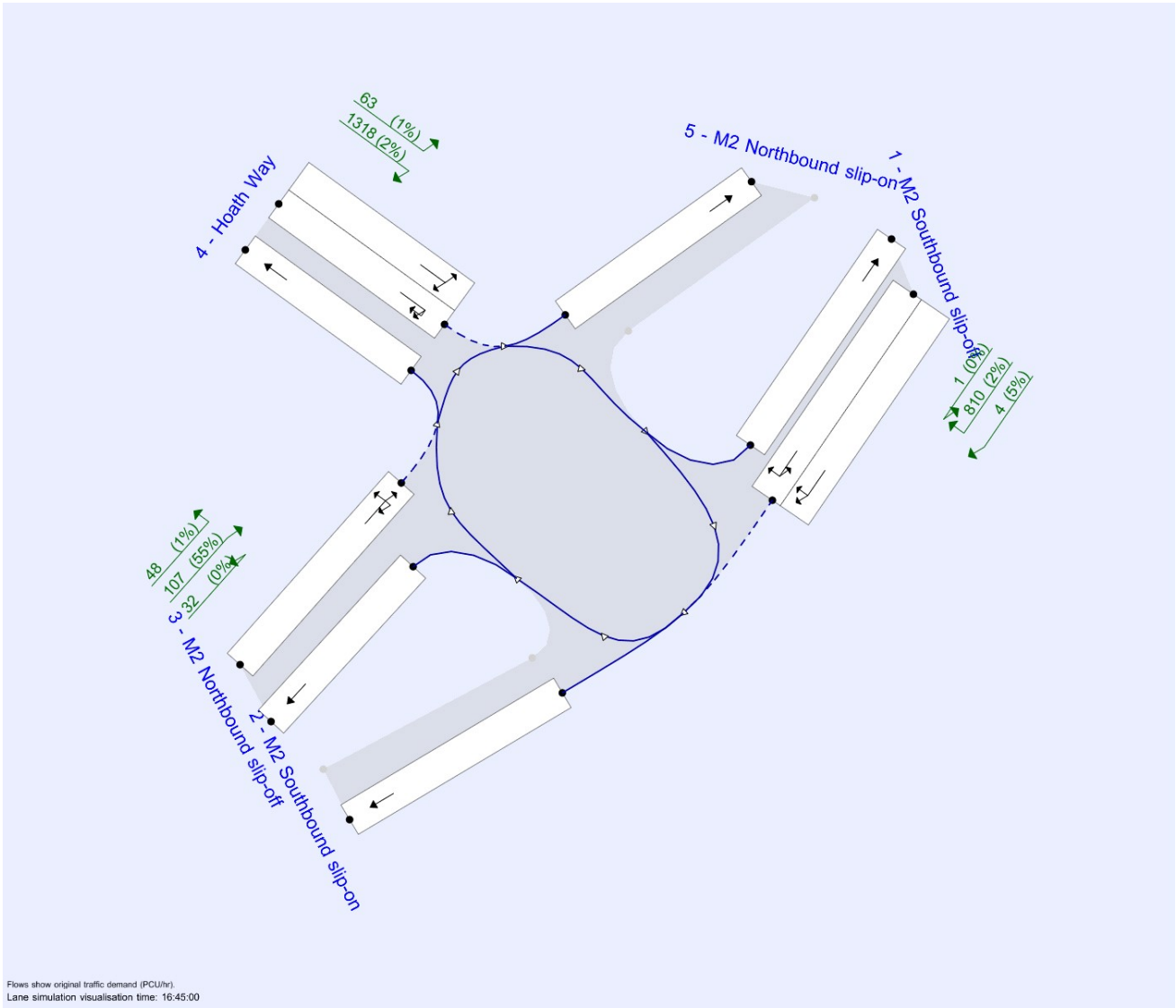
File summary

File Description

Title	M2 J4
Location	
Site number	
Date	14/11/2018
Version	
Status	
Identifier	
Client	
Jobnumber	18-015
Enumerator	CA_WKS08\Athina Tsolaki
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



The junction diagram reflects the last run of Junctions.

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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	0	3	1	60	✓			0	114	7.20

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	Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D2	Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15	✓
D4	Do Something (800)	PM	ONE HOUR	16:45	18:15	15	✓
D5	Do Something (800) + Gibraltar Farm Core	AM	ONE HOUR	07:45	09:15	15	✓
D6	Do Something (800) + Gibraltar Farm Core	PM	ONE HOUR	16:45	18:15	15	✓
D7	Do Something (800) + Gibraltar Farm Sensitivity	AM	ONE HOUR	07:45	09:15	15	✓
D8	Do Something (800) + Gibraltar Farm Sensitivity	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	31.26	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	M2 Southbound slip-off	
2	M2 Southbound slip-on	
3	M2 Northbound slip-off	
4	Hoath Way	
5	M2 Northbound slip-on	

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
1 - M2 Southbound slip-off	7.50	7.50	0.0	271.0	90.0	10.0	
2 - M2 Southbound slip-on							✓
3 - M2 Northbound slip-off	3.50	3.70	1.5	34.0	90.0	24.0	
4 - Hoath Way	6.60	6.60	0.0	35.0	90.0	46.0	
5 - M2 Northbound slip-on							✓

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M2 Southbound slip-off	1.002	2894
2 - M2 Southbound slip-on		
3 - M2 Northbound slip-off	0.694	1588
4 - Hoath Way	1.025	2706
5 - M2 Northbound slip-on		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M2 Southbound slip-off	Evenly split	100.00
2 - M2 Southbound slip-on	Evenly split	10.00
3 - M2 Northbound slip-off	Evenly split	10.00
4 - Hoath Way	Evenly split	10.00
5 - M2 Northbound slip-on	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M2 Southbound slip-off	Entry	1	1	2, 4		Infinity		0	99999	
			2	4, 5		Infinity		0	99999	
	Exit	1	1			Infinity				
2 - M2 Southbound slip-on	Exit	1	1			Infinity				
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5		Infinity		0	99999	
	Exit	1	1			Infinity				
4 - Hoath Way	Entry	1	2	2, 5		Infinity		0	99999	
			3	2, 4		Infinity		0	99999	
	Exit	1	1			Infinity				
5 - M2 Northbound slip-on	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M2 Southbound slip-off	Entry	1	1	0.501	1447
			2	0.501	1447
3 - M2 Northbound slip-off	Entry	1	2	0.694	1588
4 - Hoath Way	Entry	1	2	0.512	1353
			3	0.512	1353

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm				
			M2 Southbound slip-off	M2 Southbound slip-on	M2 Northbound slip-off	Hoath Way	M2 Northbound slip-on
1 - M2 Southbound slip-off	1	1		✓		✓	
		2				✓	✓
3 - M2 Northbound slip-off	1	2		✓		✓	✓
4 - Hoath Way	1	2		✓			✓
		3		✓		✓	

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	Do Minimum	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	936	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	45	100.000
4 - Hoath Way		ONE HOUR	✓	1745	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	15	0	921	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	36	0	7	2
	4 - Hoath Way	0	1632	0	1	112
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	1	0	1	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	3	11
	4 - Hoath Way	0	3	0	0	3
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	79.07	25.2	F	857	1285
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	4.26	0.1	A	41	61
4 - Hoath Way	6.40	3.9	A	1603	2405
5 - M2 Northbound slip-on					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	706	177	1253	704	701	0	0.0	1.2	5.870	A
2 - M2 Southbound slip-on			0			1263				
3 - M2 Northbound slip-off	33	8	694	33	36	0	0.0	0.0	3.234	A
4 - Hoath Way	1310	327	28	1314	1316	699	0.0	1.3	4.000	A
5 - M2 Northbound slip-on			0			90				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	844	211	1495	843	832	0	1.2	2.3	8.498	A
2 - M2 Southbound slip-on			0			1507				
3 - M2 Northbound slip-off	40	10	830	40	40	0	0.0	0.0	3.659	A
4 - Hoath Way	1566	391	34	1567	1550	836	1.3	2.1	4.627	A
5 - M2 Northbound slip-on			0			107				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1017	254	1826	995	966	0	2.3	16.9	42.593	E
2 - M2 Southbound slip-on			0			1845				
3 - M2 Northbound slip-off	48	12	976	48	49	0	0.0	0.1	3.926	A
4 - Hoath Way	1913	478	41	1907	1921	983	2.1	3.4	6.351	A
5 - M2 Northbound slip-on			0			121				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1036	259	1847	1012	991	0	16.9	25.2	79.068	F
2 - M2 Southbound slip-on			0			1864				
3 - M2 Northbound slip-off	52	13	995	52	50	0	0.1	0.1	4.255	A
4 - Hoath Way	1929	482	43	1926	1934	1003	3.4	3.9	6.401	A
5 - M2 Northbound slip-on			0			121				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	839	210	1497	849	933	0	25.2	2.3	30.123	D
2 - M2 Southbound slip-on			0			1509				
3 - M2 Northbound slip-off	39	10	836	39	42	0	0.1	0.0	4.125	A
4 - Hoath Way	1560	390	34	1563	1571	842	3.9	1.8	4.689	A
5 - M2 Northbound slip-on			0			101				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	699	175	1277	701	706	0	2.3	1.1	6.246	A
2 - M2 Southbound slip-on			0			1287				
3 - M2 Northbound slip-off	33	8	691	33	35	0	0.0	0.0	3.381	A
4 - Hoath Way	1342	335	28	1340	1317	696	1.8	1.5	3.921	A
5 - M2 Northbound slip-on			0			91				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	358	820	0.436	356	355	0.0	0.6	5.816	A
			2	4, 5	349	820	0.425	348	345	0.0	0.6	5.925	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1263			1263	1269	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	33	1107	0.030	33	36	0.0	0.0	3.234	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	672	1338	0.502	674	675	0.0	0.6	4.051	A
			3	2, 4	637	1338	0.476	640	641	0.0	0.6	3.945	A
	Exit	1	1		699			699	696	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		90			90	87	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	428	699	0.613	428	419	0.6	1.1	8.494	A
			2	4, 5	416	699	0.596	415	414	0.6	1.2	8.501	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1507			1507	1490	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	40	1012	0.039	40	40	0.0	0.0	3.659	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	805	1335	0.603	805	788	0.6	1.1	4.755	A
			3	2, 4	761	1335	0.570	762	762	0.6	1.0	4.494	A
	Exit	1	1		836			836	826	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		107			107	106	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	519	532	0.975	508	490	1.1	8.4	42.167	E
			2	4, 5	498	532	0.936	487	477	1.2	8.5	43.029	E
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1845			1845	1853	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	48	911	0.053	48	49	0.0	0.1	3.926	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	973	1332	0.730	970	977	1.1	1.7	6.452	A
			3	2, 4	940	1332	0.706	936	945	1.0	1.6	6.247	A
	Exit	1	1		983			983	958	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		121			121	125	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	517	522	0.990	504	498	8.4	12.6	78.672	F
			2	4, 5	519	522	0.996	508	493	8.5	12.6	79.468	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1864			1864	1868	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	52	898	0.058	52	50	0.1	0.1	4.255	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	974	1331	0.732	972	977	1.7	2.0	6.523	A
			3	2, 4	955	1331	0.717	953	957	1.6	1.9	6.276	A
	Exit	1	1		1003			1003	983	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		121			121	123	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	427	698	0.612	431	470	12.6	1.2	29.982	D
			2	4, 5	412	698	0.590	417	463	12.6	1.1	30.266	D
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1509			1509	1522	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	39	1009	0.039	39	42	0.1	0.0	4.125	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	800	1336	0.599	801	803	2.0	0.9	4.752	A
			3	2, 4	760	1336	0.569	762	769	1.9	0.9	4.623	A
	Exit	1	1		842			842	926	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		101			101	99	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	350	808	0.434	352	356	1.2	0.5	6.230	A
			2	4, 5	348	808	0.431	349	350	1.1	0.6	6.262	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1287			1287	1269	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	33	1109	0.030	33	35	0.0	0.0	3.381	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	689	1339	0.515	687	677	0.9	0.9	3.980	A
			3	2, 4	653	1339	0.488	653	639	0.9	0.6	3.859	A
	Exit	1	1		696			696	702	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		91			91	87	0.0	0.0	0.000	A

Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	6.50	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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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	Do Minimum	PM	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	738	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	199	100.000
4 - Hoath Way		ONE HOUR	✓	1442	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	1	0	736	1
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	2	0	71	126
	4 - Hoath Way	0	1364	0	0	78
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	0	0	2	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	1	77
	4 - Hoath Way	0	2	0	0	2
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	9.17	2.0	A	675	1012
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	6.37	0.6	A	182	272
4 - Hoath Way	5.14	2.2	A	1318	1977
5 - M2 Northbound slip-on					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	555	139	1031	554	556	0	0.0	0.8	4.569	A
2 - M2 Southbound slip-on			0			1032				
3 - M2 Northbound slip-off	144	36	553	144	151	0	0.0	0.2	4.876	A
4 - Hoath Way	1085	271	97	1086	1090	601	0.0	0.9	3.699	A
5 - M2 Northbound slip-on			0			152				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	648	162	1235	650	660	0	0.8	1.0	5.318	A
2 - M2 Southbound slip-on			0			1237				
3 - M2 Northbound slip-off	175	44	648	176	172	0	0.2	0.2	5.421	A
4 - Hoath Way	1299	325	112	1297	1291	712	0.9	1.4	4.012	A
5 - M2 Northbound slip-on			0			174				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	808	202	1488	809	805	0	1.0	2.0	8.401	A
2 - M2 Southbound slip-on			0			1489				
3 - M2 Northbound slip-off	236	59	808	237	223	0	0.2	0.5	6.372	A
4 - Hoath Way	1563	391	155	1570	1574	889	1.4	2.1	5.106	A
5 - M2 Northbound slip-on			0			237				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	811	203	1497	815	808	0	2.0	1.9	9.172	A
2 - M2 Southbound slip-on			0			1498				
3 - M2 Northbound slip-off	216	54	814	214	212	0	0.5	0.6	6.099	A
4 - Hoath Way	1582	395	142	1584	1590	886	2.1	2.2	5.142	A
5 - M2 Northbound slip-on			0			229				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	664	166	1220	664	672	0	1.9	1.0	5.908	A
2 - M2 Southbound slip-on			0			1221				
3 - M2 Northbound slip-off	173	43	664	174	176	0	0.6	0.2	5.293	A
4 - Hoath Way	1292	323	114	1290	1299	724	2.2	1.5	4.199	A
5 - M2 Northbound slip-on			0			184				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	562	140	1028	561	554	0	1.0	0.7	4.548	A
2 - M2 Southbound slip-on			0			1029				
3 - M2 Northbound slip-off	146	36	560	145	149	0	0.2	0.3	4.899	A
4 - Hoath Way	1088	272	96	1087	1086	609	1.5	1.2	3.593	A
5 - M2 Northbound slip-on			0			155				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	281	931	0.301	280	280	0.0	0.4	4.535	A
			2	4, 5	274	931	0.294	274	276	0.0	0.4	4.604	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1032			1032	1033	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	144	1205	0.119	144	151	0.0	0.2	4.876	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	560	1303	0.429	561	562	0.0	0.4	3.751	A
			3	2, 4	525	1303	0.403	525	528	0.0	0.5	3.643	A
	Exit	1	1		601			601	606	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		152			152	158	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	329	828	0.397	330	334	0.4	0.5	5.270	A
			2	4, 5	319	828	0.385	319	326	0.4	0.6	5.368	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1237			1237	1224	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	175	1139	0.153	176	172	0.2	0.2	5.421	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	663	1295	0.512	662	662	0.4	0.7	4.042	A
			3	2, 4	636	1295	0.491	636	629	0.5	0.6	3.981	A
	Exit	1	1		712			712	720	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		174			174	179	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	404	702	0.576	405	399	0.5	1.0	8.459	A
			2	4, 5	403	702	0.575	404	406	0.6	1.0	8.344	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1489			1489	1493	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	236	1028	0.230	237	223	0.2	0.5	6.372	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	793	1273	0.623	796	801	0.7	1.1	5.195	A
			3	2, 4	770	1273	0.605	773	774	0.6	1.0	5.015	A
	Exit	1	1		889			889	883	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		237			237	227	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	406	697	0.583	407	404	1.0	1.0	9.203	A
			2	4, 5	405	697	0.581	408	403	1.0	0.9	9.141	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1498			1498	1506	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	216	1023	0.211	214	212	0.5	0.6	6.099	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	810	1280	0.633	812	808	1.1	1.1	5.219	A
			3	2, 4	772	1280	0.603	773	781	1.0	1.0	5.064	A
	Exit	1	1		886			886	880	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		229			229	223	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	332	836	0.398	332	338	1.0	0.5	5.836	A
			2	4, 5	332	836	0.398	332	334	0.9	0.5	5.981	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1221			1221	1231	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	173	1128	0.154	174	176	0.6	0.2	5.293	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	662	1294	0.512	663	668	1.1	0.7	4.248	A
			3	2, 4	629	1294	0.486	627	631	1.0	0.8	4.147	A
	Exit	1	1		724			724	733	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		184			184	184	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	282	932	0.302	282	278	0.5	0.3	4.520	A
			2	4, 5	280	932	0.300	280	275	0.5	0.4	4.577	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1029			1029	1028	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	146	1200	0.122	145	149	0.2	0.3	4.899	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	560	1304	0.429	559	557	0.7	0.6	3.614	A
			3	2, 4	528	1304	0.405	528	529	0.8	0.6	3.570	A
	Exit	1	1		609			609	604	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		155			155	156	0.0	0.0	0.000	A

Do Something (800), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	17.33	C

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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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
D3	Do Something (800)	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	916	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	36	100.000
4 - Hoath Way		ONE HOUR	✓	1663	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	13	0	903	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	34	0	0	2
	4 - Hoath Way	0	1550	0	1	112
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	0	0	1	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	3	0	0	0
	4 - Hoath Way	0	4	0	0	2
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	38.88	13.0	E	840	1261
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	4.21	0.1	A	34	50
4 - Hoath Way	5.79	3.0	A	1531	2296
5 - M2 Northbound slip-on					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	697	174	1190	696	691	0	0.0	1.2	5.500	A
2 - M2 Southbound slip-on			0			1199				
3 - M2 Northbound slip-off	28	7	687	28	30	0	0.0	0.0	3.446	A
4 - Hoath Way	1248	312	28	1249	1242	687	0.0	1.3	3.913	A
5 - M2 Northbound slip-on			0			87				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	817	204	1421	814	820	0	1.2	2.0	7.758	A
2 - M2 Southbound slip-on			0			1432				
3 - M2 Northbound slip-off	33	8	803	32	31	0	0.0	0.1	3.549	A
4 - Hoath Way	1492	373	32	1489	1484	803	1.3	1.9	4.428	A
5 - M2 Northbound slip-on			0			100				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1005	251	1751	1003	985	0	2.0	8.4	23.936	C
2 - M2 Southbound slip-on			0			1765				
3 - M2 Northbound slip-off	41	10	989	41	40	0	0.1	0.0	4.112	A
4 - Hoath Way	1836	459	41	1835	1814	989	1.9	2.8	5.793	A
5 - M2 Northbound slip-on			0			124				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1009	252	1768	981	989	0	8.4	13.0	38.877	E
2 - M2 Southbound slip-on			0			1780				
3 - M2 Northbound slip-off	41	10	968	42	40	0	0.0	0.0	4.210	A
4 - Hoath Way	1851	463	42	1853	1845	968	2.8	3.0	5.777	A
5 - M2 Northbound slip-on			0			127				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	833	208	1422	831	869	0	13.0	2.0	13.860	B
2 - M2 Southbound slip-on			0			1435				
3 - M2 Northbound slip-off	33	8	817	33	33	0	0.0	0.0	3.755	A
4 - Hoath Way	1492	373	33	1492	1491	817	3.0	1.6	4.447	A
5 - M2 Northbound slip-on			0			103				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	682	171	1211	682	694	0	2.0	1.0	5.754	A
2 - M2 Southbound slip-on			0			1220				
3 - M2 Northbound slip-off	26	6	674	26	27	0	0.0	0.0	3.534	A
4 - Hoath Way	1265	316	26	1271	1259	674	1.6	1.2	3.883	A
5 - M2 Northbound slip-on			0			85				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	355	851	0.417	355	349	0.0	0.6	5.491	A
			2	4, 5	342	851	0.402	340	341	0.0	0.7	5.509	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1199			1199	1195	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	28	1112	0.025	28	30	0.0	0.0	3.446	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	643	1339	0.480	643	639	0.0	0.8	3.982	A
			3	2, 4	605	1339	0.452	606	603	0.0	0.6	3.840	A
	Exit	1	1		687			687	681	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		87			87	86	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	409	735	0.556	407	412	0.6	1.0	7.809	A
			2	4, 5	408	735	0.555	406	408	0.7	1.0	7.706	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1432			1432	1426	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	33	1031	0.032	32	31	0.0	0.1	3.549	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	766	1336	0.573	765	761	0.8	1.0	4.516	A
			3	2, 4	726	1336	0.543	724	723	0.6	0.9	4.335	A
	Exit	1	1		803			803	809	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		100			100	99	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	511	570	0.896	510	496	1.0	4.2	23.802	C
			2	4, 5	494	570	0.867	493	489	1.0	4.2	24.072	C
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1765			1765	1743	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	41	902	0.045	41	40	0.1	0.0	4.112	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	932	1332	0.700	932	925	1.0	1.4	5.850	A
			3	2, 4	903	1332	0.678	903	890	0.9	1.4	5.734	A
	Exit	1	1		989			989	972	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		124			124	124	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	511	562	0.909	495	498	4.2	6.6	38.736	E
			2	4, 5	498	562	0.887	485	491	4.2	6.4	39.020	E
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1780			1780	1770	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	41	917	0.045	42	40	0.0	0.0	4.210	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	939	1331	0.705	940	937	1.4	1.5	5.887	A
			3	2, 4	912	1331	0.685	913	908	1.4	1.4	5.663	A
	Exit	1	1		968			968	976	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		127			127	129	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	422	735	0.575	421	437	6.6	1.0	13.891	B
			2	4, 5	411	735	0.559	410	433	6.4	1.0	13.829	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1435			1435	1433	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	33	1021	0.032	33	33	0.0	0.0	3.755	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	764	1336	0.572	763	765	1.5	0.8	4.508	A
			3	2, 4	729	1336	0.545	729	726	1.4	0.8	4.383	A
	Exit	1	1		817			817	857	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		103			103	104	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	349	840	0.416	349	351	1.0	0.5	5.702	A
			2	4, 5	333	840	0.396	333	343	1.0	0.5	5.808	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1220			1220	1210	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	26	1121	0.023	26	27	0.0	0.0	3.534	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	650	1340	0.485	654	648	0.8	0.6	3.938	A
			3	2, 4	615	1340	0.459	617	611	0.8	0.6	3.826	A
	Exit	1	1		674			674	685	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		85			85	85	0.0	0.0	0.000	A

Do Something (800), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	6.94	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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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
D4	Do Something (800)	PM	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	815	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	187	100.000
4 - Hoath Way		ONE HOUR	✓	1381	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	4	0	810	1
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	32	0	48	107
	4 - Hoath Way	0	1318	0	0	63
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	5	0	2	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	1	55
	4 - Hoath Way	0	2	0	0	1
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	10.71	2.4	B	742	1113
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	6.17	0.5	A	169	253
4 - Hoath Way	4.83	2.2	A	1266	1899
5 - M2 Northbound slip-on					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	610	153	1027	612	607	0	0.0	0.7	4.676	A
2 - M2 Southbound slip-on			0			1029				
3 - M2 Northbound slip-off	140	35	609	138	142	0	0.0	0.3	4.433	A
4 - Hoath Way	1055	264	104	1054	1047	644	0.0	1.0	3.671	A
5 - M2 Northbound slip-on			0			132				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	722	181	1214	723	725	0	0.7	1.0	5.632	A
2 - M2 Southbound slip-on			0			1218				
3 - M2 Northbound slip-off	179	45	719	178	169	0	0.3	0.3	5.090	A
4 - Hoath Way	1232	308	134	1234	1235	764	1.0	1.3	4.076	A
5 - M2 Northbound slip-on			0			153				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	888	222	1453	888	889	0	1.0	2.4	9.717	A
2 - M2 Southbound slip-on			0			1457				
3 - M2 Northbound slip-off	202	50	884	202	204	0	0.3	0.5	6.166	A
4 - Hoath Way	1495	374	150	1493	1501	936	1.3	2.2	4.800	A
5 - M2 Northbound slip-on			0			191				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	879	220	1487	881	889	0	2.4	2.4	10.713	B
2 - M2 Southbound slip-on			0			1490				
3 - M2 Northbound slip-off	199	50	877	198	201	0	0.5	0.5	5.627	A
4 - Hoath Way	1520	380	143	1519	1534	932	2.2	1.8	4.831	A
5 - M2 Northbound slip-on			0			175				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	721	180	1229	717	729	0	2.4	1.3	6.258	A
2 - M2 Southbound slip-on			0			1235				
3 - M2 Northbound slip-off	161	40	712	163	170	0	0.5	0.2	5.312	A
4 - Hoath Way	1250	313	124	1255	1262	751	1.8	0.9	4.086	A
5 - M2 Northbound slip-on			0			150				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	630	158	1014	626	615	0	1.3	1.0	4.842	A
2 - M2 Southbound slip-on			0			1018				
3 - M2 Northbound slip-off	134	33	622	135	139	0	0.2	0.1	4.549	A
4 - Hoath Way	1044	261	102	1040	1035	654	0.9	1.5	3.633	A
5 - M2 Northbound slip-on			0			128				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	308	933	0.330	308	307	0.0	0.4	4.672	A
			2	4, 5	302	933	0.324	304	301	0.0	0.3	4.680	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1029			1029	1028	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	140	1166	0.120	138	142	0.0	0.3	4.433	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	542	1300	0.417	542	538	0.0	0.5	3.684	A
			3	2, 4	513	1300	0.395	513	509	0.0	0.4	3.657	A
	Exit	1	1		644			644	639	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		132			132	130	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	353	839	0.421	353	358	0.4	0.5	5.828	A
			2	4, 5	369	839	0.440	370	367	0.3	0.4	5.440	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1218			1218	1211	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	179	1089	0.164	178	169	0.3	0.3	5.090	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	614	1284	0.478	615	623	0.5	0.7	4.168	A
			3	2, 4	619	1284	0.482	619	612	0.4	0.6	3.982	A
	Exit	1	1		764			764	763	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		153			153	155	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	441	719	0.612	440	442	0.5	1.3	9.795	A
			2	4, 5	448	719	0.622	448	447	0.4	1.1	9.640	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1457			1457	1471	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	202	975	0.207	202	204	0.3	0.5	6.166	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	756	1276	0.592	757	765	0.7	1.1	4.794	A
			3	2, 4	739	1276	0.579	737	736	0.6	1.1	4.806	A
	Exit	1	1		936			936	936	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		191			191	188	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	436	703	0.621	436	444	1.3	1.2	10.773	B
			2	4, 5	443	703	0.630	445	445	1.1	1.2	10.654	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1490			1490	1508	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	199	980	0.203	198	201	0.5	0.5	5.627	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	771	1280	0.602	772	779	1.1	0.8	4.843	A
			3	2, 4	749	1280	0.586	747	754	1.1	0.9	4.817	A
	Exit	1	1		932			932	938	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		175			175	178	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	354	831	0.426	352	362	1.2	0.6	6.276	A
			2	4, 5	368	831	0.442	365	367	1.2	0.7	6.241	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1235			1235	1235	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	161	1094	0.147	163	170	0.5	0.2	5.312	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	634	1289	0.492	636	644	0.8	0.5	4.145	A
			3	2, 4	616	1289	0.478	618	618	0.9	0.4	4.025	A
	Exit	1	1		751			751	767	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		150			150	159	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	310	939	0.330	308	307	0.6	0.5	4.722	A
			2	4, 5	320	939	0.341	317	308	0.7	0.5	4.961	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1018			1018	1015	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	134	1157	0.116	135	139	0.2	0.1	4.549	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	532	1300	0.409	529	526	0.5	0.9	3.665	A
			3	2, 4	512	1300	0.394	511	508	0.4	0.7	3.599	A
	Exit	1	1		654			654	646	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		128			128	127	0.0	0.0	0.000	A

Do Something (800) + Gibraltar Farm Core, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	22.46	C

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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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
D5	Do Something (800) + Gibraltar Farm Core	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	919	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	36	100.000
4 - Hoath Way		ONE HOUR	✓	1725	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	13	0	906	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	34	0	0	2
	4 - Hoath Way	0	1604	0	1	120
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	0	0	1	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	3	0	0	0
	4 - Hoath Way	0	4	0	0	2
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	53.36	16.8	F	841	1261
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	4.37	0.1	A	33	49
4 - Hoath Way	6.41	3.5	A	1581	2371
5 - M2 Northbound slip-on					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	689	172	1240	690	692	0	0.0	1.1	5.819	A
2 - M2 Southbound slip-on			0			1251				
3 - M2 Northbound slip-off	27	7	680	27	29	0	0.0	0.0	3.545	A
4 - Hoath Way	1308	327	27	1310	1302	680	0.0	1.3	4.000	A
5 - M2 Northbound slip-on			0			97				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	820	205	1475	814	817	0	1.1	2.0	8.276	A
2 - M2 Southbound slip-on			0			1487				
3 - M2 Northbound slip-off	32	8	802	33	32	0	0.0	0.1	3.554	A
4 - Hoath Way	1547	387	33	1551	1551	802	1.3	1.8	4.672	A
5 - M2 Northbound slip-on			0			109				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1011	253	1766	989	975	0	2.0	10.9	27.315	D
2 - M2 Southbound slip-on			0			1778				
3 - M2 Northbound slip-off	36	9	977	36	38	0	0.1	0.0	4.100	A
4 - Hoath Way	1876	469	36	1868	1876	977	1.8	3.3	6.150	A
5 - M2 Northbound slip-on			0			138				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1010	253	1795	1005	988	0	10.9	16.8	53.362	F
2 - M2 Southbound slip-on			0			1811				
3 - M2 Northbound slip-off	38	10	990	38	39	0	0.0	0.0	4.366	A
4 - Hoath Way	1895	474	38	1893	1907	990	3.3	3.5	6.407	A
5 - M2 Northbound slip-on			0			136				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	820	205	1494	830	880	0	16.8	1.7	17.975	C
2 - M2 Southbound slip-on			0			1505				
3 - M2 Northbound slip-off	37	9	819	36	36	0	0.0	0.1	3.947	A
4 - Hoath Way	1569	392	36	1564	1565	819	3.5	2.0	4.704	A
5 - M2 Northbound slip-on			0			106				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	695	174	1226	694	687	0	1.7	1.3	5.926	A
2 - M2 Southbound slip-on			0			1235				
3 - M2 Northbound slip-off	28	7	685	28	28	0	0.1	0.0	3.374	A
4 - Hoath Way	1288	322	28	1291	1292	685	2.0	1.4	4.060	A
5 - M2 Northbound slip-on			0			92				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	345	826	0.418	346	350	0.0	0.6	5.782	A
			2	4, 5	343	826	0.416	345	342	0.0	0.6	5.858	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1251			1251	1248	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	27	1117	0.024	27	29	0.0	0.0	3.545	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	667	1339	0.498	667	671	0.0	0.7	4.059	A
			3	2, 4	641	1339	0.479	642	631	0.0	0.6	3.938	A
	Exit	1	1		680			680	682	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		97			97	93	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	414	708	0.584	412	414	0.6	1.0	8.134	A
			2	4, 5	406	708	0.573	402	403	0.6	1.0	8.421	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1487			1487	1484	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	32	1032	0.031	33	32	0.0	0.1	3.554	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	794	1336	0.594	797	799	0.7	0.9	4.740	A
			3	2, 4	753	1336	0.564	754	751	0.6	0.9	4.599	A
	Exit	1	1		802			802	807	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		109			109	109	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	517	563	0.919	506	490	1.0	5.4	27.393	D
			2	4, 5	494	563	0.879	483	485	1.0	5.4	27.237	D
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1778			1778	1794	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	36	911	0.039	36	38	0.1	0.0	4.100	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	948	1335	0.710	943	948	0.9	1.8	6.309	A
			3	2, 4	929	1335	0.696	925	928	0.9	1.6	5.987	A
	Exit	1	1		977			977	962	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		138			138	134	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	501	548	0.914	499	494	5.4	8.3	53.165	F
			2	4, 5	509	548	0.929	506	494	5.4	8.4	53.560	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1811			1811	1827	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	38	902	0.042	38	39	0.0	0.0	4.366	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	965	1333	0.723	962	971	1.8	1.8	6.495	A
			3	2, 4	930	1333	0.697	931	936	1.6	1.7	6.314	A
	Exit	1	1		990			990	974	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		136			136	133	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	411	699	0.589	417	444	8.3	0.8	18.066	C
			2	4, 5	408	699	0.584	413	435	8.4	0.9	17.882	C
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1505			1505	1503	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	37	1020	0.036	36	36	0.0	0.1	3.947	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	814	1334	0.610	810	802	1.8	1.1	4.774	A
			3	2, 4	756	1334	0.566	754	762	1.7	1.0	4.630	A
	Exit	1	1		819			819	867	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		106			106	110	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	348	833	0.417	347	348	0.8	0.7	5.905	A
			2	4, 5	347	833	0.417	347	340	0.9	0.6	5.947	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1235			1235	1235	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	28	1113	0.025	28	28	0.1	0.0	3.374	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	660	1339	0.493	662	667	1.1	0.7	4.104	A
			3	2, 4	628	1339	0.469	629	625	1.0	0.7	4.012	A
	Exit	1	1		685			685	678	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		92			92	94	0.0	0.0	0.000	A

Do Something (800) + Gibraltar Farm Core, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	7.41	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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity

[same as above]

Lane Simulation: Arm options

[same as above]

Lanes

[same as above]

Entry Lane slope and intercept

[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
D6	Do Something (800) + Gibraltar Farm Core	PM	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	822	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	187	100.000
4 - Hoath Way		ONE HOUR	✓	1430	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	4	0	817	1
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	32	0	48	107
	4 - Hoath Way	0	1363	0	0	67
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	5	0	2	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	1	55
	4 - Hoath Way	0	2	0	0	1
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	11.51	2.7	B	747	1121
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	6.39	0.5	A	175	262
4 - Hoath Way	5.22	2.3	A	1319	1978
5 - M2 Northbound slip-on					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	607	152	1058	609	615	0	0.0	0.6	4.827	A
2 - M2 Southbound slip-on			0			1061				
3 - M2 Northbound slip-off	142	35	606	142	141	0	0.0	0.1	4.502	A
4 - Hoath Way	1081	270	101	1082	1087	647	0.0	1.0	3.671	A
5 - M2 Northbound slip-on			0			125				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	728	182	1254	731	731	0	0.6	1.1	5.878	A
2 - M2 Southbound slip-on			0			1257				
3 - M2 Northbound slip-off	163	41	727	164	163	0	0.1	0.2	4.860	A
4 - Hoath Way	1292	323	119	1291	1286	773	1.0	1.5	4.125	A
5 - M2 Northbound slip-on			0			156				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	901	225	1540	909	902	0	1.1	2.3	10.615	B
2 - M2 Southbound slip-on			0			1545				
3 - M2 Northbound slip-off	209	52	903	208	207	0	0.2	0.4	6.128	A
4 - Hoath Way	1570	393	156	1577	1578	955	1.5	1.9	5.030	A
5 - M2 Northbound slip-on			0			193				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	894	224	1558	894	899	0	2.3	2.7	11.514	B
2 - M2 Southbound slip-on			0			1563				
3 - M2 Northbound slip-off	216	54	889	216	216	0	0.4	0.4	6.386	A
4 - Hoath Way	1588	397	164	1587	1584	941	1.9	2.3	5.220	A
5 - M2 Northbound slip-on			0			193				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	732	183	1266	731	743	0	2.7	1.2	6.490	A
2 - M2 Southbound slip-on			0			1270				
3 - M2 Northbound slip-off	168	42	727	167	170	0	0.4	0.5	5.149	A
4 - Hoath Way	1299	325	123	1298	1290	771	2.3	1.6	4.139	A
5 - M2 Northbound slip-on			0			155				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	621	155	1060	620	623	0	1.2	0.9	4.976	A
2 - M2 Southbound slip-on			0			1063				
3 - M2 Northbound slip-off	152	38	617	152	148	0	0.5	0.2	4.563	A
4 - Hoath Way	1082	271	114	1082	1073	655	1.6	1.2	3.649	A
5 - M2 Northbound slip-on			0			136				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	303	917	0.330	304	309	0.0	0.3	4.820	A
			2	4, 5	304	917	0.332	305	306	0.0	0.3	4.834	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1061			1061	1066	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	142	1168	0.121	142	141	0.0	0.1	4.502	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	555	1301	0.426	555	554	0.0	0.5	3.724	A
			3	2, 4	526	1301	0.405	527	534	0.0	0.5	3.616	A
	Exit	1	1		647			647	650	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		125			125	127	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	360	819	0.439	361	367	0.3	0.6	5.916	A
			2	4, 5	368	819	0.450	370	365	0.3	0.5	5.839	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1257			1257	1253	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	163	1084	0.150	164	163	0.1	0.2	4.860	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	662	1292	0.512	662	656	0.5	0.8	4.174	A
			3	2, 4	630	1292	0.488	630	631	0.5	0.7	4.075	A
	Exit	1	1		773			773	772	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		156			156	156	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	446	676	0.661	450	449	0.6	1.2	10.613	B
			2	4, 5	455	676	0.673	459	453	0.5	1.2	10.617	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1545			1545	1543	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	209	962	0.217	208	207	0.2	0.4	6.128	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	790	1273	0.621	793	796	0.8	1.0	5.132	A
			3	2, 4	781	1273	0.613	783	782	0.7	1.0	4.927	A
	Exit	1	1		955			955	949	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		193			193	195	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	440	667	0.660	441	450	1.2	1.3	11.506	B
			2	4, 5	454	667	0.681	453	450	1.2	1.4	11.521	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1563			1563	1555	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	216	972	0.223	216	216	0.4	0.4	6.386	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	795	1269	0.626	796	801	1.0	1.0	5.278	A
			3	2, 4	793	1269	0.625	791	783	1.0	1.3	5.160	A
	Exit	1	1		941			941	947	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		193			193	197	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	367	813	0.452	366	375	1.3	0.6	6.370	A
			2	4, 5	365	813	0.448	365	368	1.4	0.6	6.612	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1270			1270	1262	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	168	1084	0.155	167	170	0.4	0.5	5.149	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	665	1290	0.516	665	656	1.0	0.8	4.177	A
			3	2, 4	634	1290	0.491	633	634	1.3	0.8	4.099	A
	Exit	1	1		771			771	783	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		155			155	159	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	305	916	0.333	305	312	0.6	0.4	4.947	A
			2	4, 5	315	916	0.344	315	312	0.6	0.5	5.005	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1063			1063	1053	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	152	1160	0.131	152	148	0.5	0.2	4.563	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	556	1294	0.430	556	550	0.8	0.6	3.702	A
			3	2, 4	526	1294	0.406	525	523	0.8	0.6	3.593	A
	Exit	1	1		655			655	657	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		136			136	135	0.0	0.0	0.000	A

Do Something (800) + Gibraltar Farm Sensitivity, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	25.85	D

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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity
[same as above]

Lane Simulation: Arm options
[same as above]

Lanes
[same as above]

Entry Lane slope and intercept
[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
D7	Do Something (800) + Gibraltar Farm Sensitivity	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	919	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	36	100.000
4 - Hoath Way		ONE HOUR	✓	1738	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	13	0	906	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	34	0	0	2
	4 - Hoath Way	0	1617	0	1	120
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	0	0	1	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	3	0	0	0
	4 - Hoath Way	0	4	0	0	2
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	63.76	19.9	F	840	1260
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	4.19	0.1	A	33	49
4 - Hoath Way	6.33	3.6	A	1595	2392
5 - M2 Northbound slip-on					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	691	173	1237	690	689	0	0.0	1.1	5.844	A
2 - M2 Southbound slip-on			0			1248				
3 - M2 Northbound slip-off	26	7	679	27	30	0	0.0	0.0	3.319	A
4 - Hoath Way	1301	325	27	1303	1308	679	0.0	1.3	3.959	A
5 - M2 Northbound slip-on			0			93				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	818	205	1492	819	820	0	1.1	2.2	8.452	A
2 - M2 Southbound slip-on			0			1502				
3 - M2 Northbound slip-off	32	8	808	32	31	0	0.0	0.1	3.542	A
4 - Hoath Way	1570	393	32	1570	1562	808	1.3	2.1	4.766	A
5 - M2 Northbound slip-on			0			110				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1008	252	1824	984	969	0	2.2	13.8	34.281	D
2 - M2 Southbound slip-on			0			1837				
3 - M2 Northbound slip-off	39	10	972	39	38	0	0.1	0.0	4.169	A
4 - Hoath Way	1921	480	39	1919	1901	972	2.1	3.6	6.281	A
5 - M2 Northbound slip-on			0			134				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	1013	253	1814	993	990	0	13.8	19.9	63.762	F
2 - M2 Southbound slip-on			0			1827				
3 - M2 Northbound slip-off	39	10	980	39	39	0	0.0	0.1	4.189	A
4 - Hoath Way	1907	477	39	1910	1918	980	3.6	3.5	6.326	A
5 - M2 Northbound slip-on			0			135				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	816	204	1476	819	897	0	19.9	2.1	21.773	C
2 - M2 Southbound slip-on			0			1487				
3 - M2 Northbound slip-off	31	8	808	31	33	0	0.1	0.1	3.998	A
4 - Hoath Way	1552	388	31	1555	1572	808	3.5	1.9	4.737	A
5 - M2 Northbound slip-on			0			110				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	694	174	1257	693	692	0	2.1	1.2	6.087	A
2 - M2 Southbound slip-on			0			1265				
3 - M2 Northbound slip-off	28	7	684	28	28	0	0.1	0.0	3.407	A
4 - Hoath Way	1318	330	28	1320	1314	684	1.9	1.4	4.016	A
5 - M2 Northbound slip-on			0			91				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	349	828	0.422	349	347	0.0	0.5	5.825	A
			2	4, 5	342	828	0.413	341	342	0.0	0.6	5.864	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1248			1248	1255	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	26	1117	0.024	27	30	0.0	0.0	3.319	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	673	1339	0.502	674	674	0.0	0.7	4.037	A
			3	2, 4	628	1339	0.469	629	634	0.0	0.7	3.875	A
	Exit	1	1		679			679	679	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		93			93	92	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	409	700	0.584	409	411	0.5	1.1	8.523	A
			2	4, 5	409	700	0.584	410	409	0.6	1.1	8.381	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1502			1502	1495	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	32	1028	0.031	32	31	0.0	0.1	3.542	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	807	1337	0.604	807	801	0.7	1.1	4.831	A
			3	2, 4	763	1337	0.571	763	760	0.7	0.9	4.698	A
	Exit	1	1		808			808	809	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		110			110	109	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	506	534	0.947	494	487	1.1	6.9	34.157	D
			2	4, 5	502	534	0.942	491	482	1.1	6.9	34.405	D
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1837			1837	1819	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	39	914	0.042	39	38	0.1	0.0	4.169	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	973	1333	0.730	972	966	1.1	1.8	6.377	A
			3	2, 4	948	1333	0.711	947	935	0.9	1.8	6.181	A
	Exit	1	1		972			972	956	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		134			134	133	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	508	539	0.942	499	494	6.9	9.9	64.114	F
			2	4, 5	506	539	0.939	494	496	6.9	10.0	63.413	F
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1827			1827	1836	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	39	908	0.043	39	39	0.0	0.1	4.189	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	969	1333	0.727	972	974	1.8	1.8	6.430	A
			3	2, 4	938	1333	0.703	938	944	1.8	1.7	6.218	A
	Exit	1	1		980			980	977	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		135			135	135	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	410	708	0.580	411	448	9.9	1.1	21.922	C
			2	4, 5	406	708	0.574	408	449	10.0	1.0	21.624	C
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1487			1487	1505	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	31	1028	0.030	31	33	0.1	0.1	3.998	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	802	1337	0.600	804	808	1.8	1.0	4.793	A
			3	2, 4	750	1337	0.561	751	764	1.7	0.9	4.677	A
	Exit	1	1		808			808	885	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		110			110	111	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	349	818	0.426	348	349	1.1	0.7	6.114	A
			2	4, 5	345	818	0.422	345	343	1.0	0.6	6.059	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1265			1265	1259	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	28	1114	0.025	28	28	0.1	0.0	3.407	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	672	1338	0.502	673	676	1.0	0.7	4.098	A
			3	2, 4	646	1338	0.483	646	638	0.9	0.7	3.928	A
	Exit	1	1		684			684	683	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		91			91	92	0.0	0.0	0.000	A

Do Something (800) + Gibraltar Farm Sensitivity, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Junction 4 (M2)	Large Roundabout		1, 2, 3, 4, 5	7.48	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)
1 - M2 Southbound slip-off	1220	105.00
2 - M2 Southbound slip-on	902	0.00
3 - M2 Northbound slip-off	902	100.00
4 - Hoath Way	32	40.00
5 - M2 Northbound slip-on	1220	0.00

Slope / Intercept / Capacity
[same as above]

Lane Simulation: Arm options
[same as above]

Lanes
[same as above]

Entry Lane slope and intercept
[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
D8	Do Something (800) + Gibraltar Farm Sensitivity	PM	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 (PCU/hr)	Scaling Factor (%)
1 - M2 Southbound slip-off		ONE HOUR	✓	822	100.000
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off		ONE HOUR	✓	187	100.000
4 - Hoath Way		ONE HOUR	✓	1445	100.000
5 - M2 Northbound slip-on					

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	4	0	817	1
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	32	0	48	107
	4 - Hoath Way	0	1378	0	0	67
	5 - M2 Northbound slip-on	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - M2 Southbound slip-off	2 - M2 Southbound slip-on	3 - M2 Northbound slip-off	4 - Hoath Way	5 - M2 Northbound slip-on
From	1 - M2 Southbound slip-off	0	5	0	2	0
	2 - M2 Southbound slip-on	0	0	0	0	0
	3 - M2 Northbound slip-off	0	0	0	1	55
	4 - Hoath Way	0	2	0	0	1
	5 - M2 Northbound slip-on	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - M2 Southbound slip-off	11.41	3.4	B	759	1139
2 - M2 Southbound slip-on					
3 - M2 Northbound slip-off	6.33	0.5	A	175	262
4 - Hoath Way	5.37	2.2	A	1322	1983
5 - M2 Northbound slip-on					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	628	157	1048	625	619	0	0.0	0.9	4.956	A
2 - M2 Southbound slip-on			0			1050				
3 - M2 Northbound slip-off	132	33	622	131	136	0	0.0	0.2	4.475	A
4 - Hoath Way	1067	267	100	1069	1086	653	0.0	1.1	3.606	A
5 - M2 Northbound slip-on			0			121				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	731	183	1270	729	728	0	0.9	1.3	6.031	A
2 - M2 Southbound slip-on			0			1273				
3 - M2 Northbound slip-off	157	39	726	155	156	0	0.2	0.4	4.886	A
4 - Hoath Way	1306	327	116	1307	1304	764	1.1	1.6	4.129	A
5 - M2 Northbound slip-on			0			154				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	896	224	1552	901	899	0	1.3	2.4	10.186	B
2 - M2 Southbound slip-on			0			1556				
3 - M2 Northbound slip-off	226	57	896	229	209	0	0.4	0.3	5.806	A
4 - Hoath Way	1578	395	176	1585	1587	949	1.6	2.0	5.374	A
5 - M2 Northbound slip-on			0			210				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	914	228	1562	913	895	0	2.4	3.4	11.412	B
2 - M2 Southbound slip-on			0			1566				
3 - M2 Northbound slip-off	216	54	910	217	210	0	0.3	0.5	6.325	A
4 - Hoath Way	1596	399	169	1597	1587	960	2.0	2.2	5.097	A
5 - M2 Northbound slip-on			0			202				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	766	192	1282	765	755	0	3.4	1.3	7.382	A
2 - M2 Southbound slip-on			0			1286				
3 - M2 Northbound slip-off	174	43	761	172	171	0	0.5	0.4	5.480	A
4 - Hoath Way	1313	328	132	1312	1310	801	2.2	1.4	4.156	A
5 - M2 Northbound slip-on			0			162				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	618	155	1050	616	607	0	1.3	0.9	4.720	A
2 - M2 Southbound slip-on			0			1053				
3 - M2 Northbound slip-off	142	36	613	142	140	0	0.4	0.2	4.653	A
4 - Hoath Way	1074	268	104	1073	1073	651	1.4	1.2	3.571	A
5 - M2 Northbound slip-on			0			127				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	320	922	0.347	319	312	0.0	0.4	4.931	A
			2	4, 5	308	922	0.334	307	307	0.0	0.5	4.982	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1050			1050	1065	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	132	1157	0.114	131	136	0.0	0.2	4.475	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	554	1301	0.425	555	560	0.0	0.5	3.634	A
			3	2, 4	513	1301	0.394	513	526	0.0	0.6	3.576	A
	Exit	1	1		653			653	649	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		121			121	127	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	363	811	0.447	363	366	0.4	0.6	6.047	A
			2	4, 5	368	811	0.454	366	362	0.5	0.7	6.013	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1273			1273	1272	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	157	1085	0.145	155	156	0.2	0.4	4.886	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	663	1293	0.513	664	668	0.5	0.9	4.142	A
			3	2, 4	643	1293	0.498	643	636	0.6	0.8	4.116	A
	Exit	1	1		764			764	764	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		154			154	152	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	454	670	0.678	456	457	0.6	1.2	9.943	A
			2	4, 5	441	670	0.659	445	442	0.7	1.2	10.438	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1556			1556	1552	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	226	967	0.234	229	209	0.4	0.3	5.806	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	807	1263	0.639	810	806	0.9	1.1	5.418	A
			3	2, 4	772	1263	0.611	775	780	0.8	0.9	5.328	A
	Exit	1	1		949			949	947	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		210			210	196	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	448	665	0.674	445	446	1.2	1.9	11.438	B
			2	4, 5	466	665	0.701	468	449	1.2	1.5	11.386	B
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1566			1566	1553	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	216	957	0.225	217	210	0.3	0.5	6.325	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	815	1268	0.643	817	811	1.1	1.1	5.103	A
			3	2, 4	780	1268	0.615	781	776	0.9	1.1	5.091	A
	Exit	1	1		960			960	943	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		202			202	197	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	384	805	0.477	383	381	1.9	0.7	7.255	A
			2	4, 5	382	805	0.475	382	373	1.5	0.6	7.511	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1286			1286	1280	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	174	1060	0.164	172	171	0.5	0.4	5.480	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	672	1285	0.523	670	671	1.1	0.8	4.196	A
			3	2, 4	641	1285	0.499	642	640	1.1	0.6	4.114	A
	Exit	1	1		801			801	794	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		162			162	162	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - M2 Southbound slip-off	Entry	1	1	2, 4	311	921	0.338	309	307	0.7	0.5	4.669	A
			2	4, 5	307	921	0.333	307	300	0.6	0.4	4.772	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
2 - M2 Southbound slip-on	Exit	1	1		1053			1053	1051	0.0	0.0	0.000	A
3 - M2 Northbound slip-off	Entry	1	2	2, 4, 5	142	1163	0.122	142	140	0.4	0.2	4.653	A
	Exit	1	1		0			0	0	0.0	0.0	0.000	A
4 - Hoath Way	Entry	1	2	2, 5	551	1299	0.424	550	544	0.8	0.6	3.625	A
			3	2, 4	523	1299	0.403	523	529	0.6	0.6	3.516	A
	Exit	1	1		651			651	639	0.0	0.0	0.000	A
5 - M2 Northbound slip-on	Exit	1	1		127			127	130	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Eastern Site Access.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:36:02

Summary of junction performance

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Do Minimum													
1 - New Link Road	0.0	0.00	0.00	A	7.68	A	32 % [3 - Pear Tree Lane]	0.0	0.00	0.00	A	9.89	A	16 % [4 - Capstone Road S]
2 - Capstone Road N	2.0	6.52	0.67	A				3.2	9.40	0.76	A			
3 - Pear Tree Lane	2.0	8.24	0.66	A				1.5	7.21	0.60	A			
4 - Capstone Road S	1.4	9.15	0.57	A				2.5	13.85	0.72	B			
	Do Something (800)													
1 - New Link Road	0.0	0.00	0.00	A	18.28	C	1 % [4 - Capstone Road S]	0.0	0.00	0.00	A	17.37	C	6 % [4 - Capstone Road S]
2 - Capstone Road N	1.6	7.16	0.61	A				5.5	18.72	0.86	C			
3 - Pear Tree Lane	3.0	12.15	0.75	B				2.2	9.78	0.69	A			
4 - Capstone Road S	8.7	32.04	0.91	D				6.0	21.93	0.87	C			

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	19/01/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CA_WKS03\atsolaki
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	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Do Minimum	AM	ONE HOUR	07:45	09:15	15
D2	Do Minimum	PM	ONE HOUR	16:45	18:15	15
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15
D4	Do Something (800)	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Proposed Capstone Road - Pear Tree Lane Rbt	Standard Roundabout		1, 2, 3, 4	7.68	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	3 - Pear Tree Lane

Arms

Arms

Arm	Name	Description
1	New Link Road	
2	Capstone Road N	
3	Pear Tree Lane	
4	Capstone Road S	

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
1 - New Link Road	2.75	4.50	7.9	90.0	40.0	17.8	
2 - Capstone Road N	3.98	7.44	9.7	45.0	40.0	28.5	
3 - Pear Tree Lane	3.67	7.40	13.8	20.0	40.0	57.9	
4 - Capstone Road S	3.65	7.36	4.6	25.0	40.0	62.3	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - New Link Road	0.573	1235
2 - Capstone Road N	0.662	1750
3 - Pear Tree Lane	0.583	1551
4 - Capstone Road S	0.526	1272

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

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - New Link Road		✓	0	100.000
2 - Capstone Road N		✓	1014	100.000
3 - Pear Tree Lane		✓	791	100.000
4 - Capstone Road S		✓	497	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	647	367
	3 - Pear Tree Lane	0	551	0	240
	4 - Capstone Road S	0	395	102	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	1	2
	3 - Pear Tree Lane	0	1	0	4
	4 - Capstone Road S	0	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - New Link Road	0.00	0.00	0.0	A
2 - Capstone Road N	0.67	6.52	2.0	A
3 - Pear Tree Lane	0.66	8.24	2.0	A
4 - Capstone Road S	0.57	9.15	1.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	785	785	0.000	0	0.0	0.000	A
2 - Capstone Road N	763	76	1699	0.449	760	0.8	3.872	A
3 - Pear Tree Lane	596	275	1391	0.428	592	0.8	4.577	A
4 - Capstone Road S	374	413	1055	0.355	372	0.6	5.427	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	940	696	0.000	0	0.0	0.000	A
2 - Capstone Road N	912	91	1689	0.540	910	1.2	4.674	A
3 - Pear Tree Lane	711	329	1359	0.523	710	1.1	5.635	A
4 - Capstone Road S	447	494	1013	0.441	446	0.8	6.555	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1149	576	0.000	0	0.0	0.000	A
2 - Capstone Road N	1116	112	1676	0.666	1113	2.0	6.448	A
3 - Pear Tree Lane	871	403	1316	0.662	868	1.9	8.113	A
4 - Capstone Road S	547	604	955	0.573	545	1.4	9.031	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1154	573	0.000	0	0.0	0.000	A
2 - Capstone Road N	1116	112	1676	0.666	1116	2.0	6.523	A
3 - Pear Tree Lane	871	404	1316	0.662	871	2.0	8.241	A
4 - Capstone Road S	547	607	954	0.574	547	1.4	9.151	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	947	692	0.000	0	0.0	0.000	A
2 - Capstone Road N	912	92	1689	0.540	915	1.2	4.732	A
3 - Pear Tree Lane	711	331	1358	0.524	714	1.1	5.726	A
4 - Capstone Road S	447	498	1011	0.442	449	0.8	6.650	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	791	781	0.000	0	0.0	0.000	A
2 - Capstone Road N	763	77	1699	0.449	765	0.8	3.914	A
3 - Pear Tree Lane	596	277	1390	0.428	597	0.8	4.636	A
4 - Capstone Road S	374	416	1054	0.355	375	0.6	5.493	A

Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Proposed Capstone Road - Pear Tree Lane Rbt	Standard Roundabout		1, 2, 3, 4	9.89	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	16	4 - Capstone Road S

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Do Minimum	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - New Link Road		✓	0	100.000
2 - Capstone Road N		✓	1127	100.000
3 - Pear Tree Lane		✓	676	100.000
4 - Capstone Road S		✓	599	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	647	480
	3 - Pear Tree Lane	0	603	2	71
	4 - Capstone Road S	0	435	164	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	2	1
	3 - Pear Tree Lane	0	0	0	0
	4 - Capstone Road S	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - New Link Road	0.00	0.00	0.0	A
2 - Capstone Road N	0.76	9.40	3.2	A
3 - Pear Tree Lane	0.60	7.21	1.5	A
4 - Capstone Road S	0.72	13.85	2.5	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	901	718	0.000	0	0.0	0.000	A
2 - Capstone Road N	848	124	1668	0.509	844	1.0	4.419	A
3 - Pear Tree Lane	509	360	1342	0.379	507	0.6	4.299	A
4 - Capstone Road S	451	453	1034	0.436	448	0.8	6.197	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1080	616	0.000	0	0.0	0.000	A
2 - Capstone Road N	1013	149	1651	0.614	1011	1.6	5.690	A
3 - Pear Tree Lane	608	431	1300	0.467	607	0.9	5.184	A
4 - Capstone Road S	538	543	987	0.546	537	1.2	8.081	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1319	479	0.000	0	0.0	0.000	A
2 - Capstone Road N	1241	181	1630	0.761	1235	3.1	9.116	A
3 - Pear Tree Lane	744	526	1245	0.598	742	1.5	7.127	A
4 - Capstone Road S	660	664	923	0.714	655	2.4	13.348	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1325	475	0.000	0	0.0	0.000	A
2 - Capstone Road N	1241	183	1629	0.762	1241	3.2	9.397	A
3 - Pear Tree Lane	744	528	1243	0.599	744	1.5	7.212	A
4 - Capstone Road S	660	666	922	0.715	659	2.5	13.845	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1089	610	0.000	0	0.0	0.000	A
2 - Capstone Road N	1013	151	1650	0.614	1019	1.6	5.850	A
3 - Pear Tree Lane	608	434	1298	0.468	610	0.9	5.249	A
4 - Capstone Road S	538	546	985	0.546	543	1.2	8.352	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	909	713	0.000	0	0.0	0.000	A
2 - Capstone Road N	848	125	1667	0.509	851	1.1	4.494	A
3 - Pear Tree Lane	509	362	1340	0.380	510	0.6	4.343	A
4 - Capstone Road S	451	456	1033	0.437	453	0.8	6.320	A

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Proposed Capstone Road - Pear Tree Lane Rbt	Standard Roundabout		1, 2, 3, 4	18.28	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	4 - Capstone Road S

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - New Link Road		✓	0	100.000
2 - Capstone Road N		✓	719	100.000
3 - Pear Tree Lane		✓	830	100.000
4 - Capstone Road S		✓	950	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	194	525
	3 - Pear Tree Lane	0	210	4	616
	4 - Capstone Road S	0	338	611	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	1	2
	3 - Pear Tree Lane	0	0	13	2
	4 - Capstone Road S	0	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - New Link Road	0.00	0.00	0.0	A
2 - Capstone Road N	0.61	7.16	1.6	A
3 - Pear Tree Lane	0.75	12.15	3.0	B
4 - Capstone Road S	0.91	32.04	8.7	D

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	869	736	0.000	0	0.0	0.000	A
2 - Capstone Road N	541	460	1446	0.374	539	0.6	4.029	A
3 - Pear Tree Lane	625	394	1321	0.473	621	0.9	5.196	A
4 - Capstone Road S	715	160	1188	0.602	709	1.5	7.548	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1041	638	0.000	0	0.0	0.000	A
2 - Capstone Road N	646	551	1385	0.467	645	0.9	4.941	A
3 - Pear Tree Lane	746	472	1276	0.585	744	1.4	6.846	A
4 - Capstone Road S	854	192	1172	0.729	850	2.6	11.205	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1259	513	0.000	0	0.0	0.000	A
2 - Capstone Road N	792	665	1310	0.604	789	1.5	6.996	A
3 - Pear Tree Lane	914	577	1215	0.752	908	2.9	11.679	B
4 - Capstone Road S	1046	234	1149	0.910	1025	7.8	25.997	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1278	502	0.000	0	0.0	0.000	A
2 - Capstone Road N	792	676	1303	0.608	792	1.6	7.161	A
3 - Pear Tree Lane	914	579	1214	0.753	914	3.0	12.146	B
4 - Capstone Road S	1046	236	1149	0.911	1042	8.7	32.043	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1071	620	0.000	0	0.0	0.000	A
2 - Capstone Road N	646	569	1373	0.471	649	0.9	5.072	A
3 - Pear Tree Lane	746	475	1274	0.585	752	1.5	7.084	A
4 - Capstone Road S	854	194	1170	0.730	877	2.9	13.388	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	882	729	0.000	0	0.0	0.000	A
2 - Capstone Road N	541	467	1441	0.376	542	0.6	4.082	A
3 - Pear Tree Lane	625	397	1320	0.473	627	0.9	5.291	A
4 - Capstone Road S	715	162	1187	0.602	720	1.6	7.920	A

Do Something (800) , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Proposed Capstone Road - Pear Tree Lane Rbt	Standard Roundabout		1, 2, 3, 4	17.37	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	6	4 - Capstone Road S

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Do Something (800)	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - New Link Road		✓	0	100.000
2 - Capstone Road N		✓	1015	100.000
3 - Pear Tree Lane		✓	739	100.000
4 - Capstone Road S		✓	933	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	442	573
	3 - Pear Tree Lane	0	135	12	592
	4 - Capstone Road S	0	336	597	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - New Link Road	2 - Capstone Road N	3 - Pear Tree Lane	4 - Capstone Road S
From	1 - New Link Road	0	0	0	0
	2 - Capstone Road N	0	0	1	1
	3 - Pear Tree Lane	0	0	0	1
	4 - Capstone Road S	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - New Link Road	0.00	0.00	0.0	A
2 - Capstone Road N	0.86	18.72	5.5	C
3 - Pear Tree Lane	0.69	9.78	2.2	A
4 - Capstone Road S	0.87	21.93	6.0	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	807	772	0.000	0	0.0	0.000	A
2 - Capstone Road N	764	455	1449	0.527	760	1.1	5.243	A
3 - Pear Tree Lane	556	429	1301	0.428	553	0.7	4.833	A
4 - Capstone Road S	702	110	1215	0.578	697	1.4	6.934	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	967	680	0.000	0	0.0	0.000	A
2 - Capstone Road N	912	545	1389	0.657	909	1.9	7.528	A
3 - Pear Tree Lane	664	513	1252	0.531	663	1.1	6.143	A
4 - Capstone Road S	839	132	1203	0.697	835	2.2	9.759	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1175	561	0.000	0	0.0	0.000	A
2 - Capstone Road N	1118	662	1312	0.852	1104	5.2	16.570	C
3 - Pear Tree Lane	814	623	1188	0.685	810	2.1	9.497	A
4 - Capstone Road S	1027	161	1188	0.865	1014	5.6	19.495	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	1188	554	0.000	0	0.0	0.000	A
2 - Capstone Road N	1118	670	1307	0.855	1116	5.5	18.716	C
3 - Pear Tree Lane	814	630	1184	0.687	813	2.2	9.783	A
4 - Capstone Road S	1027	162	1187	0.865	1026	6.0	21.927	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	986	670	0.000	0	0.0	0.000	A
2 - Capstone Road N	912	557	1382	0.660	927	2.0	8.228	A
3 - Pear Tree Lane	664	523	1246	0.533	668	1.2	6.321	A
4 - Capstone Road S	839	133	1203	0.697	853	2.4	10.763	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - New Link Road	0	817	766	0.000	0	0.0	0.000	A
2 - Capstone Road N	764	461	1445	0.529	768	1.1	5.398	A
3 - Pear Tree Lane	556	433	1299	0.428	558	0.8	4.910	A
4 - Capstone Road S	702	111	1214	0.579	706	1.4	7.198	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Southern Site Access.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:36:58

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Do Something							
1 - North Dane Way N	0.5	5.31	0.35	A	1.0	6.28	0.50	A
2 - New Link Road	0.6	7.02	0.37	A	2.0	14.93	0.67	B
3 - North Dane Way S	3.2	12.49	0.77	B	1.3	6.60	0.56	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	
Location	
Site number	
Date	12/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CA_WKS06\csaunders
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

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	Do Something	AM	ONE HOUR	08:00	09:30	15	✓
D2	Do Something	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

Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Southern Rdbt	Standard Roundabout		1, 2, 3	9.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	North Dane Way N	
2	New Link Road	
3	North Dane Way S	

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
1 - North Dane Way N	3.00	7.00	6.8	15.3	34.5	37.5	
2 - New Link Road	2.70	5.50	5.9	12.3	34.5	61.0	
3 - North Dane Way S	3.20	7.00	6.9	15.3	34.5	56.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - North Dane Way N	0.553	1273
2 - New Link Road	0.467	995
3 - North Dane Way S	0.527	1240

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	Do Something	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 (PCU/hr)	Scaling Factor (%)
1 - North Dane Way N		ONE HOUR	✓	336	100.000
2 - New Link Road		ONE HOUR	✓	280	100.000
3 - North Dane Way S		ONE HOUR	✓	862	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - North Dane Way N	2 - New Link Road	3 - North Dane Way S
From	1 - North Dane Way N	0	7	329
	2 - New Link Road	0	0	280
	3 - North Dane Way S	515	347	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North Dane Way N	2 - New Link Road	3 - North Dane Way S
From	1 - North Dane Way N	0	3	2
	2 - New Link Road	0	0	1
	3 - North Dane Way S	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - North Dane Way N	0.35	5.31	0.5	A	308	462
2 - New Link Road	0.37	7.02	0.6	A	257	385
3 - North Dane Way S	0.77	12.49	3.2	B	791	1186

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	253	63	259	1129	0.224	252	385	0.0	0.3	4.181	A
2 - New Link Road	211	53	247	880	0.240	210	265	0.0	0.3	5.414	A
3 - North Dane Way S	649	162	0	1240	0.523	645	456	0.0	1.1	6.086	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	302	76	311	1101	0.274	302	462	0.3	0.4	4.594	A
2 - New Link Road	252	63	295	857	0.294	251	317	0.3	0.4	5.998	A
3 - North Dane Way S	775	194	0	1240	0.625	773	547	1.1	1.7	7.769	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	370	92	380	1063	0.348	369	563	0.4	0.5	5.292	A
2 - New Link Road	308	77	362	826	0.373	308	387	0.4	0.6	7.000	A
3 - North Dane Way S	949	237	0	1240	0.765	943	669	1.7	3.1	12.047	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	370	92	382	1062	0.349	370	567	0.5	0.5	5.310	A
2 - New Link Road	308	77	362	826	0.373	308	390	0.6	0.6	7.023	A
3 - North Dane Way S	949	237	0	1240	0.765	949	670	3.1	3.2	12.486	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	302	76	314	1099	0.275	303	467	0.5	0.4	4.617	A
2 - New Link Road	252	63	296	857	0.294	252	321	0.6	0.4	6.023	A
3 - North Dane Way S	775	194	0	1240	0.625	781	549	3.2	1.7	8.047	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	253	63	262	1128	0.224	253	389	0.4	0.3	4.203	A
2 - New Link Road	211	53	248	879	0.240	211	267	0.4	0.3	5.448	A
3 - North Dane Way S	649	162	0	1240	0.523	651	459	1.7	1.1	6.225	A

Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Southern Rdbt	Standard Roundabout		1, 2, 3	8.81	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	Do Something	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 (PCU/hr)	Scaling Factor (%)
1 - North Dane Way N		ONE HOUR	✓	521	100.000
2 - New Link Road		ONE HOUR	✓	440	100.000
3 - North Dane Way S		ONE HOUR	✓	626	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - North Dane Way N	2 - New Link Road	3 - North Dane Way S
From	1 - North Dane Way N	0	0	521
	2 - New Link Road	0	0	440
	3 - North Dane Way S	428	198	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - North Dane Way N	2 - New Link Road	3 - North Dane Way S
From	1 - North Dane Way N	0	0	1
	2 - New Link Road	0	0	1
	3 - North Dane Way S	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - North Dane Way N	0.50	6.28	1.0	A	478	717
2 - New Link Road	0.67	14.93	2.0	B	404	606
3 - North Dane Way S	0.56	6.60	1.3	A	574	862

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	392	98	148	1191	0.329	390	321	0.0	0.5	4.531	A
2 - New Link Road	331	83	390	813	0.408	329	148	0.0	0.7	7.466	A
3 - North Dane Way S	471	118	0	1240	0.380	469	719	0.0	0.6	4.698	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	468	117	178	1174	0.399	468	384	0.5	0.7	5.139	A
2 - New Link Road	396	99	468	777	0.509	394	178	0.7	1.0	9.469	A
3 - North Dane Way S	563	141	0	1240	0.454	562	862	0.6	0.8	5.353	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	574	143	217	1152	0.498	572	470	0.7	1.0	6.254	A
2 - New Link Road	484	121	572	728	0.666	481	217	1.0	1.9	14.510	B
3 - North Dane Way S	689	172	0	1240	0.556	688	1053	0.8	1.2	6.559	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	574	143	218	1152	0.498	574	471	1.0	1.0	6.284	A
2 - New Link Road	484	121	574	727	0.666	484	218	1.9	2.0	14.931	B
3 - North Dane Way S	689	172	0	1240	0.556	689	1058	1.2	1.3	6.598	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	468	117	179	1174	0.399	470	386	1.0	0.7	5.171	A
2 - New Link Road	396	99	470	776	0.510	399	179	2.0	1.1	9.743	A
3 - North Dane Way S	563	141	0	1240	0.454	564	869	1.3	0.8	5.392	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - North Dane Way N	392	98	149	1190	0.330	393	323	0.7	0.5	4.564	A
2 - New Link Road	331	83	393	812	0.408	333	149	1.1	0.7	7.615	A
3 - North Dane Way S	471	118	0	1240	0.380	472	726	0.8	0.6	4.741	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Western Site Access.j9
Path: P:\17-035 Hempstead Valley, Medway\Trans\Arcady\2019-03-19
Report generation date: 02/04/2019 14:37:32

Summary of junction performance

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Do Something (800)													
1 - Site Access	0.8	4.21	0.45	A	4.20	A	50 % [3 - Princes Avenue]	1.3	6.45	0.57	A	4.79	A	37 % [1 - Site Access]
2 - N Dane Way South	0.6	3.62	0.36	A				0.5	3.92	0.34	A			
3 - Princes Avenue	1.3	4.94	0.56	A				0.6	3.27	0.37	A			
4 - N Dane Way North	0.3	3.23	0.24	A				1.2	4.98	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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	23/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CA_WKS03\atsolaki
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	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	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)
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15
D4	Do Something (800)	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Do Something (800), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Princess Ave - N Dane Way Proposed	Standard Roundabout		1, 2, 3, 4	4.20	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	50	3 - Princes Avenue

Arms

Arms

Arm	Name	Description
1	Site Access	
2	N Dane Way South	
3	Princes Avenue	
4	N Dane Way North	

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
1 - Site Access	3.65	7.52	23.6	45.0	48.0	43.9	
2 - N Dane Way South	6.65	7.49	3.6	20.0	48.0	39.7	
3 - Princes Avenue	7.39	7.50	1.9	18.0	48.0	52.1	
4 - N Dane Way North	6.17	7.50	3.4	25.0	48.0	35.1	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Site Access	0.637	1836
2 - N Dane Way South	0.682	2088
3 - Princes Avenue	0.666	2081
4 - N Dane Way North	0.678	2032

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)
D3	Do Something (800)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	642	100.000
2 - N Dane Way South		✓	523	100.000
3 - Princes Avenue		✓	854	100.000
4 - N Dane Way North		✓	335	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access	2 - N Dane Way South	3 - Princes Avenue	4 - N Dane Way North
From	1 - Site Access	0	152	440	50
	2 - N Dane Way South	159	0	37	327
	3 - Princes Avenue	493	7	34	320
	4 - N Dane Way North	5	174	156	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access	2 - N Dane Way South	3 - Princes Avenue	4 - N Dane Way North
From	1 - Site Access	0	1	2	0
	2 - N Dane Way South	0	0	1	1
	3 - Princes Avenue	3	3	2	2
	4 - N Dane Way North	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.45	4.21	0.8	A
2 - N Dane Way South	0.36	3.62	0.6	A
3 - Princes Avenue	0.56	4.94	1.3	A
4 - N Dane Way North	0.24	3.23	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	483	278	1658	0.291	482	0.4	3.105	A
2 - N Dane Way South	394	510	1741	0.226	393	0.3	2.686	A
3 - Princes Avenue	643	402	1813	0.355	641	0.6	3.145	A
4 - N Dane Way North	252	520	1680	0.150	251	0.2	2.594	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	577	333	1623	0.356	577	0.6	3.492	A
2 - N Dane Way South	470	611	1672	0.281	470	0.4	3.015	A
3 - Princes Avenue	768	481	1760	0.436	767	0.8	3.713	A
4 - N Dane Way North	301	622	1610	0.187	301	0.2	2.830	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	707	408	1576	0.449	706	0.8	4.199	A
2 - N Dane Way South	576	748	1579	0.365	575	0.6	3.610	A
3 - Princes Avenue	940	589	1688	0.557	938	1.3	4.910	A
4 - N Dane Way North	369	762	1516	0.243	368	0.3	3.231	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	707	408	1576	0.449	707	0.8	4.210	A
2 - N Dane Way South	576	749	1578	0.365	576	0.6	3.615	A
3 - Princes Avenue	940	590	1688	0.557	940	1.3	4.938	A
4 - N Dane Way North	369	763	1515	0.244	369	0.3	3.233	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	577	334	1623	0.356	578	0.6	3.506	A
2 - N Dane Way South	470	612	1671	0.281	471	0.4	3.021	A
3 - Princes Avenue	768	483	1760	0.436	770	0.8	3.739	A
4 - N Dane Way North	301	624	1609	0.187	302	0.2	2.835	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	483	280	1658	0.292	484	0.4	3.119	A
2 - N Dane Way South	394	513	1739	0.226	394	0.3	2.697	A
3 - Princes Avenue	643	404	1812	0.355	644	0.6	3.165	A
4 - N Dane Way North	252	522	1678	0.150	252	0.2	2.602	A

Do Something (800), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Princess Ave - N Dane Way Proposed	Standard Roundabout		1, 2, 3, 4	4.79	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	37	1 - Site Access

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Do Something (800)	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	668	100.000
2 - N Dane Way South		✓	435	100.000
3 - Princes Avenue		✓	588	100.000
4 - N Dane Way North		✓	786	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Site Access	2 - N Dane Way South	3 - Princes Avenue	4 - N Dane Way North
From	1 - Site Access	0	173	453	42
	2 - N Dane Way South	163	0	35	237
	3 - Princes Avenue	394	21	8	165
	4 - N Dane Way North	49	326	411	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Site Access	2 - N Dane Way South	3 - Princes Avenue	4 - N Dane Way North
From	1 - Site Access	0	1	1	0
	2 - N Dane Way South	0	0	1	1
	3 - Princes Avenue	1	0	0	1
	4 - N Dane Way North	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.57	6.45	1.3	A
2 - N Dane Way South	0.34	3.92	0.5	A
3 - Princes Avenue	0.37	3.27	0.6	A
4 - N Dane Way North	0.54	4.98	1.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	503	575	1470	0.342	501	0.5	3.742	A
2 - N Dane Way South	327	685	1621	0.202	326	0.3	2.798	A
3 - Princes Avenue	443	332	1860	0.238	441	0.3	2.559	A
4 - N Dane Way North	592	440	1734	0.341	590	0.5	3.170	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	601	688	1398	0.430	600	0.8	4.546	A
2 - N Dane Way South	391	821	1529	0.256	391	0.3	3.182	A
3 - Princes Avenue	529	397	1817	0.291	528	0.4	2.820	A
4 - N Dane Way North	707	526	1675	0.422	706	0.7	3.744	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	735	842	1300	0.566	733	1.3	6.392	A
2 - N Dane Way South	479	1004	1404	0.341	478	0.5	3.910	A
3 - Princes Avenue	647	486	1757	0.368	647	0.6	3.270	A
4 - N Dane Way North	865	644	1595	0.543	864	1.2	4.955	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	735	843	1299	0.566	735	1.3	6.452	A
2 - N Dane Way South	479	1006	1403	0.341	479	0.5	3.921	A
3 - Princes Avenue	647	487	1757	0.368	647	0.6	3.274	A
4 - N Dane Way North	865	645	1595	0.543	865	1.2	4.982	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	601	690	1396	0.430	603	0.8	4.592	A
2 - N Dane Way South	391	824	1527	0.256	392	0.3	3.193	A
3 - Princes Avenue	529	398	1816	0.291	529	0.4	2.827	A
4 - N Dane Way North	707	528	1674	0.422	708	0.7	3.770	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	503	578	1468	0.343	504	0.5	3.772	A
2 - N Dane Way South	327	689	1619	0.202	328	0.3	2.806	A
3 - Princes Avenue	443	333	1859	0.238	443	0.3	2.566	A
4 - N Dane Way North	592	442	1733	0.342	593	0.5	3.191	A