Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.000	58.000	99.000	5.000
	B	99.000	0.000	80.000	34.000
	C	57.000	24.000	2.000	1.000
	D	53.000	75.000	6.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.00	0.36	0.61	0.03
	B	0.46	0.00	0.38	0.16
	C	0.68	0.29	0.02	0.01
	D	0.40	0.56	0.04	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.000	50.000	81.000	2.000
	B	94.000	2.000	77.000	19.000
	C	111.000	48.000	1.000	1.000
	D	53.000	86.000	20.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.00	0.38	0.61	0.02
	B	0.49	0.01	0.40	0.10
	C	0.69	0.30	0.01	0.01
	D	0.33	0.54	0.13	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.000	48.000	74.000	4.000
	B	84.000	2.000	77.000	34.000
	C	104.000	26.000	1.000	0.000
	D	27.000	52.000	14.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.00	0.38	0.59	0.03
	B	0.43	0.01	0.39	0.17
	C	0.79	0.20	0.01	0.00
	D	0.29	0.56	0.15	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	1.000	1.000	1.000	1.000
	B	1.012	1.000	1.018	1.040
	C	1.000	1.045	1.000	1.000
	D	1.000	1.011	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	1.2	0.0	1.8	4.0
	C	0.0	4.5	0.0	0.0
	D	0.0	1.1	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	1.000	1.020	1.024	1.500
	B	1.000	1.000	1.059	1.069
	C	1.021	1.000	1.000	1.000
	D	1.022	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.0	2.0	2.4	50.0
	B	0.0	0.0	5.9	6.9
	C	2.1	0.0	0.0	0.0
	D	2.2	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	1.000	1.024	1.000	1.000
	B	1.000	1.000	1.046	1.000
	C	1.011	1.024	1.000	1.000
	D	1.000	1.014	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.0	2.4	0.0	0.0
	B	0.0	0.0	4.6	0.0
	C	1.1	2.4	0.0	0.0
	D	0.0	1.4	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	1.000	1.000	1.016	1.000
	B	1.000	1.000	1.015	1.069
	C	1.000	1.000	1.000	1.000
	D	1.000	1.023	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.0	0.0	1.6	0.0
	B	0.0	0.0	1.5	6.9
	C	0.0	0.0	0.0	0.0
	D	0.0	2.3	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.46	4.73	0.83	A	580.25	580.25	36.08	3.73	0.60	36.08	3.73
B	0.48	4.02	0.94	A	801.76	801.76	49.25	3.69	0.82	49.26	3.69
C	0.50	4.26	0.99	A	584.00	584.00	33.47	3.44	0.56	33.47	3.44
D	0.87	20.80	5.39	C	602.76	602.76	104.96	10.45	1.75	104.96	10.45

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	640.00	160.00	636.64	1100.76	968.51	0.00	1393.67	1377.30	0.459	0.00	0.84	4.735	A
B	801.00	200.25	797.42	972.96	632.18	0.00	1688.51	1440.88	0.474	0.00	0.89	4.024	A
C	834.00	208.50	830.05	867.48	562.13	0.00	1670.53	1399.72	0.499	0.00	0.99	4.264	A
D	866.00	216.50	844.41	167.31	1224.86	0.00	1000.83	525.27	0.865	0.00	5.40	20.799	C

Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	645.00	161.25	645.75	841.58	443.11	0.00	1645.99	1461.07	0.392	0.84	0.65	3.603	A
B	852.00	213.00	851.85	637.36	451.50	0.00	1757.54	1425.30	0.485	0.89	0.93	3.973	A
C	334.00	83.50	336.98	751.33	552.03	0.00	1674.94	1443.23	0.199	0.99	0.25	2.698	A
D	537.00	134.25	555.65	159.96	729.04	0.00	1264.88	544.05	0.425	5.40	0.74	5.206	A

Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	532.00	133.00	532.58	1031.46	626.15	0.00	1581.82	1487.27	0.336	0.65	0.51	3.432	A
B	768.00	192.00	768.80	742.83	415.90	0.00	1815.19	1471.23	0.423	0.93	0.74	3.444	A
C	645.00	161.25	643.64	716.05	468.65	0.00	1733.16	1482.70	0.372	0.25	0.59	3.299	A
D	636.00	159.00	633.71	88.39	1023.90	0.00	1108.93	480.72	0.574	0.74	1.32	7.539	A

Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	504.00	126.00	504.38	860.01	382.36	0.00	1723.19	1538.01	0.292	0.51	0.42	2.956	A
B	786.00	196.50	786.00	514.11	372.62	0.00	1839.37	1435.79	0.427	0.74	0.74	3.416	A
C	523.00	130.75	523.63	663.89	494.73	0.00	1737.95	1482.96	0.301	0.59	0.43	2.965	A
D	372.00	93.00	375.45	151.44	866.92	0.00	1190.09	541.46	0.313	1.32	0.46	4.437	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.19	0.81	4.735	A	A
B	13.01	0.87	4.024	A	A
C	14.32	0.95	4.264	A	A
D	66.35	4.42	20.799	C	C

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.91	0.66	3.603	A	A
B	13.88	0.93	3.973	A	A
C	3.84	0.26	2.698	A	A
D	12.73	0.85	5.206	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.77	0.52	3.432	A	A
B	11.27	0.75	3.444	A	A
C	8.65	0.58	3.299	A	A
D	18.93	1.26	7.539	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.31	0.42	2.956	A	A
B	11.12	0.74	3.416	A	A
C	6.59	0.44	2.965	A	A
D	7.11	0.47	4.437	A	A

Existing layout - 2026 with dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing layout	ARCADY	Geometry measured from Topographical Survey	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2026 with dev, AM	2026 with dev	AM		DIRECT	07:45	08:45	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				57.39	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Willen Rd (N)	
B	B	Tongwell Street	
C	C	Dansteed Way	
D	D	Michigan Drive	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.90	8.20	16.60	26.40	66.00	23.00	
B	3.80	8.80	20.30	61.50	66.00	25.00	
C	3.90	8.50	20.20	37.00	66.00	30.00	
D	3.70	7.30	9.00	31.10	66.00	23.50	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.576	1962.550
B		(calculated)	(calculated)	0.602	2099.258
C		(calculated)	(calculated)	0.584	2032.629
D		(calculated)	(calculated)	0.529	1663.515

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	DIRECT		N/A	100.000
B	DIRECT		N/A	100.000
C	DIRECT		N/A	100.000
D	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	0.000	162.000	245.000	9.000
	B	75.000	1.000	115.000	34.000
	C	94.000	30.000	1.000	12.000
	D	7.000	12.000	5.000	0.000

Turning Proportions (Veh) - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	0.00	0.39	0.59	0.02
	B	0.33	0.00	0.51	0.15
	C	0.69	0.22	0.01	0.09
	D	0.29	0.50	0.21	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	1.000	170.000	260.000	2.000
	B	62.000	1.000	162.000	46.000
	C	88.000	20.000	1.000	8.000
	D	7.000	9.000	5.000	0.000

Turning Proportions (Veh) - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	0.00	0.39	0.60	0.00
	B	0.23	0.00	0.60	0.17
	C	0.75	0.17	0.01	0.07
	D	0.33	0.43	0.24	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	0.000	145.000	265.000	14.000
	B	96.000	4.000	183.000	27.000
	C	91.000	71.000	2.000	11.000
	D	1.000	8.000	5.000	0.000

Turning Proportions (Veh) - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	0.00	0.34	0.63	0.03
	B	0.31	0.01	0.59	0.09
	C	0.52	0.41	0.01	0.06
	D	0.07	0.57	0.36	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	0.000	141.000	288.000	14.000
	B	78.000	2.000	182.000	47.000
	C	80.000	38.000	5.000	12.000
	D	5.000	4.000	9.000	1.000

Turning Proportions (Veh) - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	0.00	0.32	0.65	0.03
	B	0.25	0.01	0.59	0.15
	C	0.59	0.28	0.04	0.09
	D	0.26	0.21	0.47	0.05

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	1.000	1.025	1.014	1.000
	B	1.043	1.000	1.041	1.034
	C	1.063	1.038	1.000	1.100
	D	1.000	1.100	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	0.0	2.5	1.4	0.0
	B	4.3	0.0	4.1	3.4
	C	6.3	3.8	0.0	10.0
	D	0.0	10.0	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	1.000	1.024	1.023	1.000
	B	1.032	1.000	1.029	1.051
	C	1.040	1.059	2.000	1.000
	D	1.000	1.000	1.500	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	0.0	2.4	2.3	0.0
	B	3.2	0.0	2.9	5.1
	C	4.0	5.9	100.0	0.0
	D	0.0	0.0	50.0	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	1.000	1.020	1.022	1.000
	B	1.045	1.000	1.026	1.000
	C	1.039	1.117	1.000	1.000
	D	1.000	1.143	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	0.0	2.0	2.2	0.0
	B	4.5	0.0	2.6	0.0
	C	3.9	11.7	0.0	0.0
	D	0.0	14.3	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	1.000	1.054	1.004	1.000
	B	1.056	1.000	1.019	1.050
	C	1.015	1.031	1.000	1.000
	D	1.250	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	0.0	5.4	0.4	0.0
	B	5.6	0.0	1.9	5.0
	C	1.5	3.1	0.0	0.0
	D	25.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	1.03	87.03	44.32	F	1754.69	1754.69	1325.60	45.33	22.09	1358.62	46.46
B	0.97	43.62	15.24	E	1135.03	1135.03	370.71	19.60	6.18	376.10	19.88
C	0.45	4.12	0.83	A	579.74	579.74	33.60	3.48	0.56	33.60	3.48
D	0.08	3.89	0.09	A	78.00	78.00	4.50	3.46	0.07	4.50	3.46

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1704.00	426.00	1659.91	718.12	197.98	0.00	1810.48	1465.20	0.941	0.00	11.02	20.082	C
B	919.00	229.75	911.67	820.76	1037.12	0.00	1409.48	1413.69	0.652	0.00	1.83	7.132	A
C	566.00	141.50	563.91	1467.18	481.62	0.00	1641.77	1503.42	0.345	0.00	0.52	3.335	A
D	94.00	23.50	93.65	223.07	822.46	0.00	1149.09	604.23	0.082	0.00	0.09	3.411	A

Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1770.01	442.50	1745.91	648.59	147.98	0.00	1824.10	1476.87	0.970	11.02	17.05	35.441	E
B	1103.00	275.75	1095.24	808.92	1084.97	0.00	1377.03	1359.51	0.801	1.83	3.77	12.438	B
C	485.00	121.25	485.45	1726.31	453.91	0.00	1675.40	1615.67	0.289	0.52	0.41	3.025	A
D	85.00	21.25	85.04	227.83	711.54	0.00	1135.86	582.86	0.075	0.09	0.08	3.427	A

Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1737.00	434.25	1668.47	759.34	366.79	0.00	1693.85	1198.05	1.025	17.05	34.18	64.440	F
B	1259.00	314.75	1239.59	912.35	1122.92	0.00	1369.11	1445.36	0.920	3.77	8.64	24.550	C
C	717.00	179.25	715.39	1801.42	561.08	0.00	1587.23	1546.88	0.452	0.41	0.82	4.122	A
D	57.00	14.25	57.06	207.40	1069.06	0.00	983.01	540.67	0.058	0.08	0.06	3.889	A

Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1808.00	452.00	1767.20	660.07	240.49	0.00	1785.50	1352.26	1.012	34.18	44.34	87.034	F
B	1259.00	314.75	1232.67	745.85	1261.84	0.00	1293.30	1262.73	0.974	8.64	15.25	43.623	E
C	551.00	137.75	552.29	1927.85	566.66	0.00	1656.40	1639.90	0.333	0.82	0.50	3.265	A
D	76.00	19.00	75.98	294.37	824.58	0.00	1138.64	634.57	0.067	0.06	0.07	3.386	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	126.21	8.41	20.082	C	C
B	25.82	1.72	7.132	A	A
C	7.67	0.51	3.335	A	A
D	1.31	0.09	3.411	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	217.59	14.51	35.441	E	D
B	51.35	3.42	12.438	B	B
C	6.23	0.42	3.025	A	A
D	1.23	0.08	3.427	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	390.81	26.05	64.440	F	E
B	107.12	7.14	24.550	C	C
C	11.94	0.80	4.122	A	A
D	0.94	0.06	3.889	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	590.70	39.38	87.034	F	F
B	187.01	12.47	43.623	E	D
C	7.67	0.51	3.265	A	A
D	1.06	0.07	3.386	A	A

Existing layout - 2026 with dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing layout	ARCADY	Geometry measured from Topographical Survey	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2026 with dev, PM	2026 with dev	PM		DIRECT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				8.71	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Willen Rd (N)	
B	B	Tongwell Street	
C	C	Dansteed Way	
D	D	Michigan Drive	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.90	8.20	16.60	26.40	66.00	23.00	
B	3.80	8.80	20.30	61.50	66.00	25.00	
C	3.90	8.50	20.20	37.00	66.00	30.00	
D	3.70	7.30	9.00	31.10	66.00	23.50	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.576	1962.550
B		(calculated)	(calculated)	0.602	2099.258
C		(calculated)	(calculated)	0.584	2032.629
D		(calculated)	(calculated)	0.529	1663.515

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	DIRECT		N/A	100.000
B	DIRECT		N/A	100.000
C	DIRECT		N/A	100.000
D	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.000	68.000	101.000	7.000
	B	105.000	4.000	66.000	29.000
	C	118.000	78.000	9.000	6.000
	D	61.000	106.000	50.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.00	0.39	0.57	0.04
	B	0.51	0.02	0.32	0.14
	C	0.56	0.37	0.04	0.03
	D	0.28	0.49	0.23	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.000	67.000	106.000	5.000
	B	103.000	0.000	80.000	34.000
	C	59.000	24.000	2.000	1.000
	D	53.000	75.000	6.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.00	0.38	0.60	0.03
	B	0.47	0.00	0.37	0.16
	C	0.69	0.28	0.02	0.01
	D	0.40	0.56	0.04	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.000	59.000	88.000	2.000
	B	98.000	2.000	77.000	19.000
	C	113.000	48.000	1.000	1.000
	D	53.000	86.000	20.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.00	0.40	0.59	0.01
	B	0.50	0.01	0.39	0.10
	C	0.69	0.29	0.01	0.01
	D	0.33	0.54	0.13	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.000	58.000	81.000	4.000
	B	88.000	2.000	77.000	34.000
	C	106.000	26.000	1.000	0.000
	D	27.000	52.000	14.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.00	0.41	0.57	0.03
	B	0.44	0.01	0.38	0.17
	C	0.80	0.20	0.01	0.00
	D	0.29	0.56	0.15	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	1.000	1.022	1.000	1.000
	B	1.028	1.000	1.018	1.040
	C	1.000	1.045	1.000	1.000
	D	1.000	1.011	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.0	2.2	0.0	0.0
	B	2.8	0.0	1.8	4.0
	C	0.0	4.5	0.0	0.0
	D	0.0	1.1	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	1.000	1.040	1.022	1.500
	B	1.017	1.000	1.059	1.069
	C	1.020	1.000	1.000	1.000
	D	1.022	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.0	4.0	2.2	50.0
	B	1.7	0.0	5.9	6.9
	C	2.0	0.0	0.0	0.0
	D	2.2	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	1.000	1.045	1.000	1.000
	B	1.018	1.000	1.046	1.000
	C	1.010	1.024	1.000	1.000
	D	1.000	1.014	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.0	4.5	0.0	0.0
	B	1.8	0.0	4.6	0.0
	C	1.0	2.4	0.0	0.0
	D	0.0	1.4	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	1.000	1.026	1.015	1.000
	B	1.020	1.000	1.015	1.069
	C	1.000	1.000	1.000	1.000
	D	1.000	1.023	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.0	2.6	1.5	0.0
	B	2.0	0.0	1.5	6.9
	C	0.0	0.0	0.0	0.0
	D	0.0	2.3	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.53	5.50	1.11	A	676.25	676.25	47.41	4.21	0.79	47.41	4.21
B	0.51	4.31	1.03	A	820.76	820.76	53.77	3.93	0.90	53.78	3.93
C	0.51	4.40	1.04	A	595.00	595.00	34.93	3.52	0.58	34.94	3.52
D	0.88	22.77	5.98	C	602.76	602.76	112.35	11.18	1.87	112.36	11.18

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	736.00	184.00	731.50	1126.98	968.03	0.00	1382.18	1375.77	0.532	0.00	1.12	5.496	A
B	820.00	205.00	816.08	1020.77	678.75	0.00	1647.81	1446.13	0.498	0.00	0.98	4.309	A
C	845.00	211.25	840.87	913.69	581.15	0.00	1655.85	1388.83	0.510	0.00	1.03	4.396	A
D	866.00	216.50	842.01	169.01	1253.00	0.00	982.37	515.94	0.882	0.00	6.00	22.773	C

Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	741.00	185.25	742.14	869.77	445.77	0.00	1636.71	1464.82	0.453	1.12	0.83	4.029	A
B	871.00	217.75	870.85	687.55	500.36	0.00	1716.28	1432.56	0.508	0.98	1.02	4.256	A
C	345.00	86.25	348.10	800.35	570.85	0.00	1660.61	1432.53	0.208	1.03	0.26	2.750	A
D	537.00	134.25	557.97	161.39	757.57	0.00	1246.29	534.63	0.431	6.00	0.76	5.389	A

Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	628.00	157.00	628.67	1059.01	626.97	0.00	1567.68	1483.55	0.401	0.83	0.67	3.838	A
B	787.00	196.75	787.89	792.35	463.28	0.00	1772.17	1478.42	0.444	1.02	0.80	3.659	A
C	656.00	164.00	654.60	764.20	486.98	0.00	1719.78	1468.07	0.381	0.26	0.61	3.375	A
D	636.00	159.00	633.58	89.17	1052.41	0.00	1090.43	472.20	0.583	0.76	1.37	7.838	A

Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	600.00	150.00	600.51	887.77	383.12	0.00	1706.46	1532.13	0.352	0.67	0.55	3.255	A
B	805.00	201.25	805.00	566.23	417.40	0.00	1797.82	1450.25	0.448	0.80	0.81	3.625	A
C	534.00	133.50	534.65	709.05	513.35	0.00	1722.93	1467.39	0.310	0.61	0.45	3.032	A
D	372.00	93.00	375.61	152.72	895.28	0.00	1171.61	531.18	0.318	1.37	0.47	4.542	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.16	1.08	5.496	A	A
B	14.23	0.95	4.309	A	A
C	14.95	1.00	4.396	A	A
D	72.24	4.82	22.773	C	C

Queueing Delay results: (17:15-17:30)

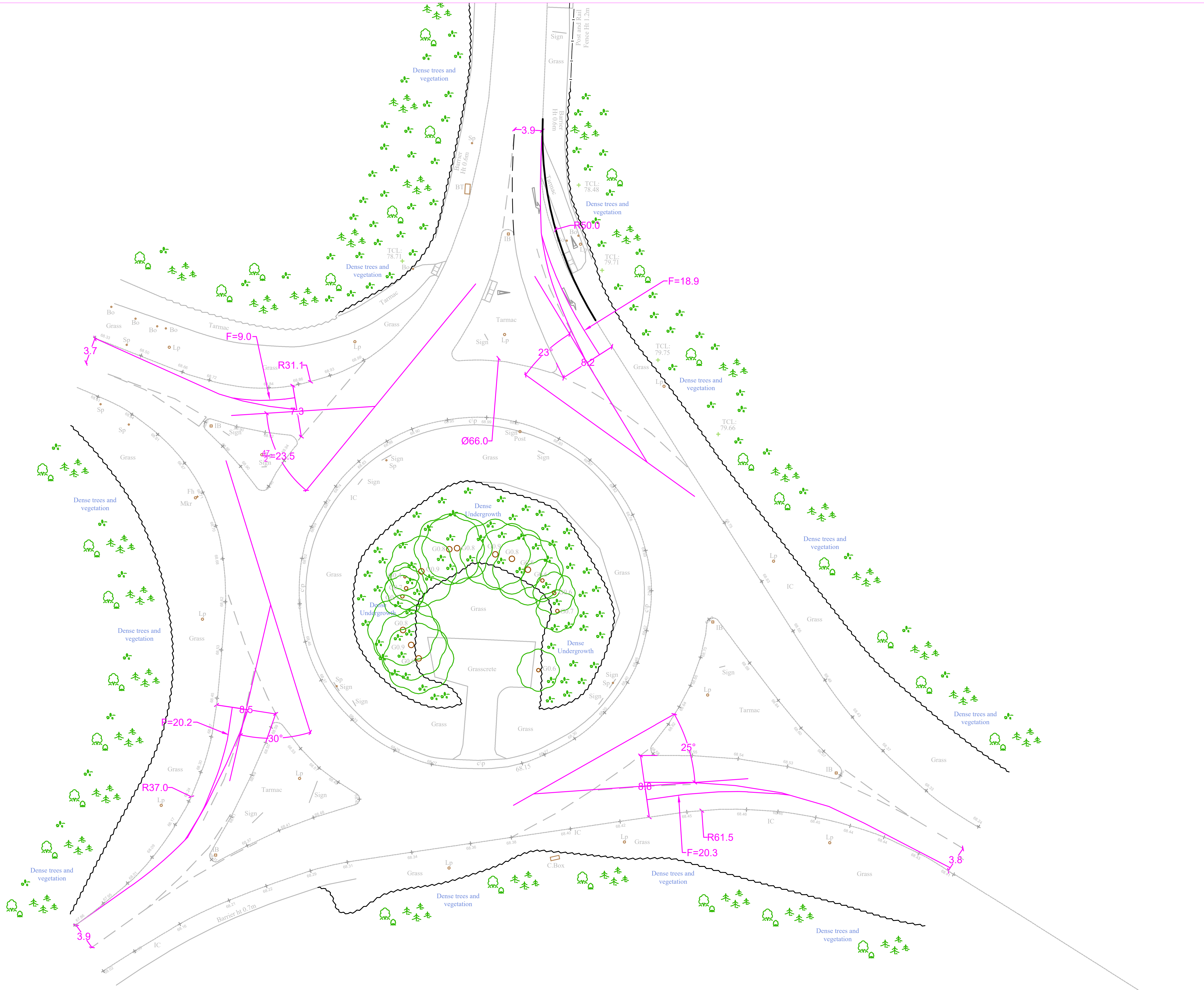
Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.79	0.85	4.029	A	A
B	15.19	1.01	4.256	A	A
C	4.05	0.27	2.750	A	A
D	13.37	0.89	5.389	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.28	0.69	3.838	A	A
B	12.30	0.82	3.659	A	A
C	9.00	0.60	3.375	A	A
D	19.64	1.31	7.838	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.31	0.55	3.255	A	A
B	12.10	0.81	3.625	A	A
C	6.88	0.46	3.032	A	A
D	7.28	0.49	4.542	A	A



Dense trees and vegetation
Post and Rail Fence Ht 1.2m
Barrier Ht 0.6m
Sign
Grass
3.9
R50.0
TCL: 78.48
TCL: 78.71
TCL: 79.71
TCL: 79.75
TCL: 79.66
F=18.9
23°
8.2
Tarmac
F=9.0
R31.1
3.7
7.3
Ø66.0
23.5
Dense Undergrowth
Grassrete
F=20.2
8.5
30°
R37.0
25°
8.8
R61.5
F=20.3
3.8
C.Box
Barrier ht 0.7m

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]

Filename: App XX - Tongwell Roundabout ARCADY Model - Direct Flows hr - Jan19TAMIT.arc8
Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC1392 Jan 19 - B8 Use\Tongwell
Report generation date: 27/02/2019 11:58:57

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
Mitigation Layout - 2026 with dev								
Arm A	22.38	46.93	0.98	39.11	1.02	5.04	0.51	8.60
Arm B	16.93	47.85	0.98		1.03	4.31	0.51	
Arm C	0.83	4.12	0.45		1.04	4.40	0.51	
Arm D	0.09	3.89	0.08		5.98	22.77	0.88	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D5 - 2026 with dev, AM " model duration: 07:45 - 08:45
"D6 - 2026 with dev, PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.4.487 at 27/02/2019 11:58:54

File summary

Title	Tongwell Roundabout
Location	
Site Number	
Date	20/06/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADCteam
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Mitigation Layout - 2026 with dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Mitigation Layout	ARCADY	Geometry measured from Topographical Survey	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2026 with dev, AM	2026 with dev	AM		DIRECT	07:45	08:45	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				39.11	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Willen Rd (N)	
B	B	Tongwell Street	
C	C	Dansteed Way	
D	D	Michigan Drive	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.90	8.20	18.90	50.00	66.00	23.00	
B	3.80	8.80	20.30	61.50	66.00	25.00	
C	3.90	8.50	20.20	37.00	66.00	30.00	
D	3.70	7.30	9.00	31.10	66.00	23.50	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.593	2039.485
B		(calculated)	(calculated)	0.602	2099.258
C		(calculated)	(calculated)	0.584	2032.629
D		(calculated)	(calculated)	0.529	1663.515

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	DIRECT		N/A	100.000
B	DIRECT		N/A	100.000
C	DIRECT		N/A	100.000
D	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	0.000	162.000	245.000	9.000
	B	75.000	1.000	115.000	34.000
	C	94.000	30.000	1.000	12.000
	D	7.000	12.000	5.000	0.000

Turning Proportions (Veh) - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	0.00	0.39	0.59	0.02
	B	0.33	0.00	0.51	0.15
	C	0.69	0.22	0.01	0.09
	D	0.29	0.50	0.21	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	1.000	170.000	260.000	2.000
	B	62.000	1.000	162.000	46.000
	C	88.000	20.000	1.000	8.000
	D	7.000	9.000	5.000	0.000

Turning Proportions (Veh) - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	0.00	0.39	0.60	0.00
	B	0.23	0.00	0.60	0.17
	C	0.75	0.17	0.01	0.07
	D	0.33	0.43	0.24	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	0.000	145.000	265.000	14.000
	B	96.000	4.000	183.000	27.000
	C	91.000	70.000	2.000	11.000
	D	1.000	8.000	5.000	0.000

Turning Proportions (Veh) - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	0.00	0.34	0.63	0.03
	B	0.31	0.01	0.59	0.09
	C	0.52	0.40	0.01	0.06
	D	0.07	0.57	0.36	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	0.000	141.000	288.000	14.000
	B	78.000	2.000	182.000	47.000
	C	80.000	38.000	5.000	12.000
	D	5.000	4.000	9.000	1.000

Turning Proportions (Veh) - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	0.00	0.32	0.65	0.03
	B	0.25	0.01	0.59	0.15
	C	0.59	0.28	0.04	0.09
	D	0.26	0.21	0.47	0.05

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	1.000	1.025	1.014	1.000
	B	1.043	1.000	1.041	1.034
	C	1.063	1.038	1.000	1.100
	D	1.000	1.100	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (07:45-08:00)

		To			
		A	B	C	D
From	A	0.0	2.5	1.4	0.0
	B	4.3	0.0	4.1	3.4
	C	6.3	3.8	0.0	10.0
	D	0.0	10.0	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	1.000	1.024	1.023	1.000
	B	1.032	1.000	1.029	1.051
	C	1.040	1.059	2.000	1.000
	D	1.000	1.000	1.500	1.000

Heavy Vehicle Percentages - Junction 1 - (08:00-08:15)

		To			
		A	B	C	D
From	A	0.0	2.4	2.3	0.0
	B	3.2	0.0	2.9	5.1
	C	4.0	5.9	100.0	0.0
	D	0.0	0.0	50.0	0.0

Average PCU Per Vehicle - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	1.000	1.020	1.022	1.000
	B	1.045	1.000	1.026	1.000
	C	1.039	1.117	1.000	1.000
	D	1.000	1.143	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (08:15-08:30)

		To			
		A	B	C	D
From	A	0.0	2.0	2.2	0.0
	B	4.5	0.0	2.6	0.0
	C	3.9	11.7	0.0	0.0
	D	0.0	14.3	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	1.000	1.054	1.004	1.000
	B	1.056	1.000	1.019	1.050
	C	1.015	1.031	1.000	1.000
	D	1.250	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (08:30-08:45)

		To			
		A	B	C	D
From	A	0.0	5.4	0.4	0.0
	B	5.6	0.0	1.9	5.0
	C	1.5	3.1	0.0	0.0
	D	25.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.98	46.93	22.38	E	1754.71	1754.71	802.03	27.42	13.37	810.13	27.70
B	0.98	47.85	16.93	E	1135.03	1135.03	396.31	20.95	6.61	403.02	21.30
C	0.45	4.12	0.83	A	579.75	579.75	33.59	3.48	0.56	33.60	3.48
D	0.08	3.89	0.09	A	78.00	78.00	4.50	3.46	0.07	4.50	3.46

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1704.00	426.00	1672.21	718.10	197.98	0.00	1882.62	1525.99	0.905	0.00	7.95	15.333	C
B	919.00	229.75	911.61	825.55	1044.64	0.00	1405.08	1391.74	0.654	0.00	1.85	7.194	A
C	566.00	141.50	563.91	1474.39	481.85	0.00	1641.64	1508.85	0.345	0.00	0.52	3.335	A
D	94.00	23.50	93.65	223.33	822.44	0.00	1149.10	605.49	0.082	0.00	0.09	3.411	A

Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1770.01	442.50	1757.91	648.62	147.98	0.00	1896.47	1538.55	0.933	7.95	10.97	23.432	C
B	1103.00	275.75	1095.09	813.67	1092.23	0.00	1372.67	1337.10	0.804	1.85	3.83	12.616	B
C	485.00	121.25	485.45	1733.56	453.76	0.00	1675.49	1620.65	0.289	0.52	0.41	3.027	A
D	85.00	21.25	85.04	227.65	711.57	0.00	1135.84	583.02	0.075	0.09	0.08	3.425	A

Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1737.00	434.25	1701.90	760.58	364.36	0.00	1764.17	1253.42	0.985	10.97	19.75	40.233	E
B	1259.00	314.75	1236.94	920.07	1146.19	0.00	1355.22	1423.11	0.929	3.83	9.36	26.306	D
C	717.00	179.25	715.38	1821.41	561.73	0.00	1587.31	1551.44	0.452	0.41	0.82	4.121	A
D	57.00	14.25	57.06	209.24	1067.88	0.00	983.71	542.58	0.058	0.08	0.06	3.886	A

Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1808.00	452.00	1797.30	659.27	240.47	0.00	1856.99	1409.73	0.974	19.75	22.40	46.934	E
B	1259.00	314.75	1228.80	754.06	1283.72	0.00	1280.91	1239.40	0.983	9.36	16.93	47.852	E
C	551.00	137.75	552.29	1946.58	565.94	0.00	1656.88	1644.63	0.332	0.82	0.50	3.262	A
D	76.00	19.00	75.98	294.47	823.76	0.00	1139.08	635.55	0.067	0.06	0.07	3.385	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	97.49	6.50	15.333	C	B
B	26.03	1.74	7.194	A	A
C	7.67	0.51	3.335	A	A
D	1.31	0.09	3.411	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	147.51	9.83	23.432	C	C
B	52.00	3.47	12.616	B	B
C	6.23	0.42	3.027	A	A
D	1.23	0.08	3.425	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	239.46	15.96	40.233	E	D
B	113.99	7.60	26.306	D	C
C	11.94	0.80	4.121	A	A
D	0.94	0.06	3.886	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	317.43	21.16	46.934	E	D
B	204.94	13.66	47.852	E	D
C	7.66	0.51	3.262	A	A
D	1.06	0.07	3.385	A	A

Mitigation Layout - 2026 with dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Mitigation Layout	ARCADY	Geometry measured from Topographical Survey	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2026 with dev, PM	2026 with dev	PM		DIRECT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				8.60	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	Willen Rd (N)	
B	B	Tongwell Street	
C	C	Dansteed Way	
D	D	Michigan Drive	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.90	8.20	18.90	50.00	66.00	23.00	
B	3.80	8.80	20.30	61.50	66.00	25.00	
C	3.90	8.50	20.20	37.00	66.00	30.00	
D	3.70	7.30	9.00	31.10	66.00	23.50	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.593	2039.485
B		(calculated)	(calculated)	0.602	2099.258
C		(calculated)	(calculated)	0.584	2032.629
D		(calculated)	(calculated)	0.529	1663.515

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
	✓	✓	✓	HV Percentages	2.00			✓	✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	DIRECT		N/A	100.000
B	DIRECT		N/A	100.000
C	DIRECT		N/A	100.000
D	DIRECT		N/A	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.000	68.000	101.000	7.000
	B	105.000	4.000	66.000	29.000
	C	118.000	78.000	9.000	6.000
	D	61.000	106.000	50.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.00	0.39	0.57	0.04
	B	0.51	0.02	0.32	0.14
	C	0.56	0.37	0.04	0.03
	D	0.28	0.49	0.23	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.000	67.000	106.000	5.000
	B	103.000	0.000	80.000	34.000
	C	59.000	24.000	2.000	1.000
	D	53.000	75.000	6.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.00	0.38	0.60	0.03
	B	0.47	0.00	0.37	0.16
	C	0.69	0.28	0.02	0.01
	D	0.40	0.56	0.04	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.000	59.000	88.000	2.000
	B	98.000	2.000	77.000	19.000
	C	113.000	48.000	1.000	1.000
	D	53.000	86.000	20.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.00	0.40	0.59	0.01
	B	0.50	0.01	0.39	0.10
	C	0.69	0.29	0.01	0.01
	D	0.33	0.54	0.13	0.00

Turning Counts / Proportions (Veh/hr) - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.000	58.000	81.000	4.000
	B	88.000	2.000	77.000	34.000
	C	106.000	26.000	1.000	0.000
	D	27.000	52.000	14.000	0.000

Turning Proportions (Veh) - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.00	0.41	0.57	0.03
	B	0.44	0.01	0.38	0.17
	C	0.80	0.20	0.01	0.00
	D	0.29	0.56	0.15	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	1.000	1.022	1.000	1.000
	B	1.028	1.000	1.018	1.040
	C	1.000	1.045	1.000	1.000
	D	1.000	1.011	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:00-17:15)

		To			
		A	B	C	D
From	A	0.0	2.2	0.0	0.0
	B	2.8	0.0	1.8	4.0
	C	0.0	4.5	0.0	0.0
	D	0.0	1.1	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	1.000	1.040	1.022	1.500
	B	1.017	1.000	1.059	1.069
	C	1.020	1.000	1.000	1.000
	D	1.022	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:15-17:30)

		To			
		A	B	C	D
From	A	0.0	4.0	2.2	50.0
	B	1.7	0.0	5.9	6.9
	C	2.0	0.0	0.0	0.0
	D	2.2	0.0	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	1.000	1.045	1.000	1.000
	B	1.018	1.000	1.046	1.000
	C	1.010	1.024	1.000	1.000
	D	1.000	1.014	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:30-17:45)

		To			
		A	B	C	D
From	A	0.0	4.5	0.0	0.0
	B	1.8	0.0	4.6	0.0
	C	1.0	2.4	0.0	0.0
	D	0.0	1.4	0.0	0.0

Average PCU Per Vehicle - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	1.000	1.026	1.015	1.000
	B	1.020	1.000	1.015	1.069
	C	1.000	1.000	1.000	1.000
	D	1.000	1.023	1.000	1.000

Heavy Vehicle Percentages - Junction 1 - (17:45-18:00)

		To			
		A	B	C	D
From	A	0.0	2.6	1.5	0.0
	B	2.0	0.0	1.5	6.9
	C	0.0	0.0	0.0	0.0
	D	0.0	2.3	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.51	5.04	1.02	A	676.25	676.25	44.03	3.91	0.73	44.04	3.91
B	0.51	4.31	1.03	A	820.76	820.76	53.78	3.93	0.90	53.79	3.93
C	0.51	4.40	1.04	A	595.00	595.00	34.93	3.52	0.58	34.94	3.52
D	0.88	22.77	5.98	C	602.76	602.76	112.35	11.18	1.87	112.36	11.18

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	736.00	184.00	731.88	1126.98	968.03	0.00	1441.97	1432.80	0.510	0.00	1.03	5.041	A
B	820.00	205.00	816.08	1020.91	678.98	0.00	1647.67	1425.09	0.498	0.00	0.98	4.310	A
C	845.00	211.25	840.87	913.90	581.16	0.00	1655.84	1395.95	0.510	0.00	1.03	4.396	A
D	866.00	216.50	842.01	169.03	1253.00	0.00	982.37	518.31	0.882	0.00	6.00	22.773	C

Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	741.00	185.25	742.00	869.77	445.77	0.00	1703.31	1524.50	0.435	1.03	0.78	3.750	A
B	871.00	217.75	870.85	687.50	500.28	0.00	1716.33	1409.94	0.508	0.98	1.02	4.256	A
C	345.00	86.25	348.10	800.28	570.85	0.00	1660.62	1439.55	0.208	1.03	0.26	2.748	A
D	537.00	134.25	557.97	161.38	757.57	0.00	1246.29	536.66	0.431	6.00	0.76	5.386	A

Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	628.00	157.00	628.61	1059.01	626.97	0.00	1632.73	1544.15	0.385	0.78	0.63	3.586	A
B	787.00	196.75	787.89	792.34	463.24	0.00	1772.20	1456.78	0.444	1.02	0.80	3.659	A
C	656.00	164.00	654.60	764.16	486.97	0.00	1719.78	1475.29	0.381	0.26	0.61	3.375	A
D	636.00	159.00	633.58	89.16	1052.41	0.00	1090.43	474.28	0.583	0.76	1.37	7.838	A

Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	600.00	150.00	600.46	887.77	383.12	0.00	1775.54	1594.74	0.338	0.63	0.51	3.066	A
B	805.00	201.25	805.00	566.21	417.37	0.00	1797.83	1427.93	0.448	0.80	0.81	3.625	A
C	534.00	133.50	534.65	709.01	513.35	0.00	1722.93	1474.68	0.310	0.61	0.45	3.030	A
D	372.00	93.00	375.61	152.72	895.28	0.00	1171.61	532.70	0.318	1.37	0.47	4.544	A

Queueing Delay Results for each time segment

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.87	0.99	5.041	A	A
B	14.23	0.95	4.310	A	A
C	14.95	1.00	4.396	A	A
D	72.24	4.82	22.773	C	C

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.88	0.79	3.750	A	A
B	15.19	1.01	4.256	A	A
C	4.05	0.27	2.748	A	A
D	13.37	0.89	5.386	A	A

Queueing Delay results: (17:30-17:45)

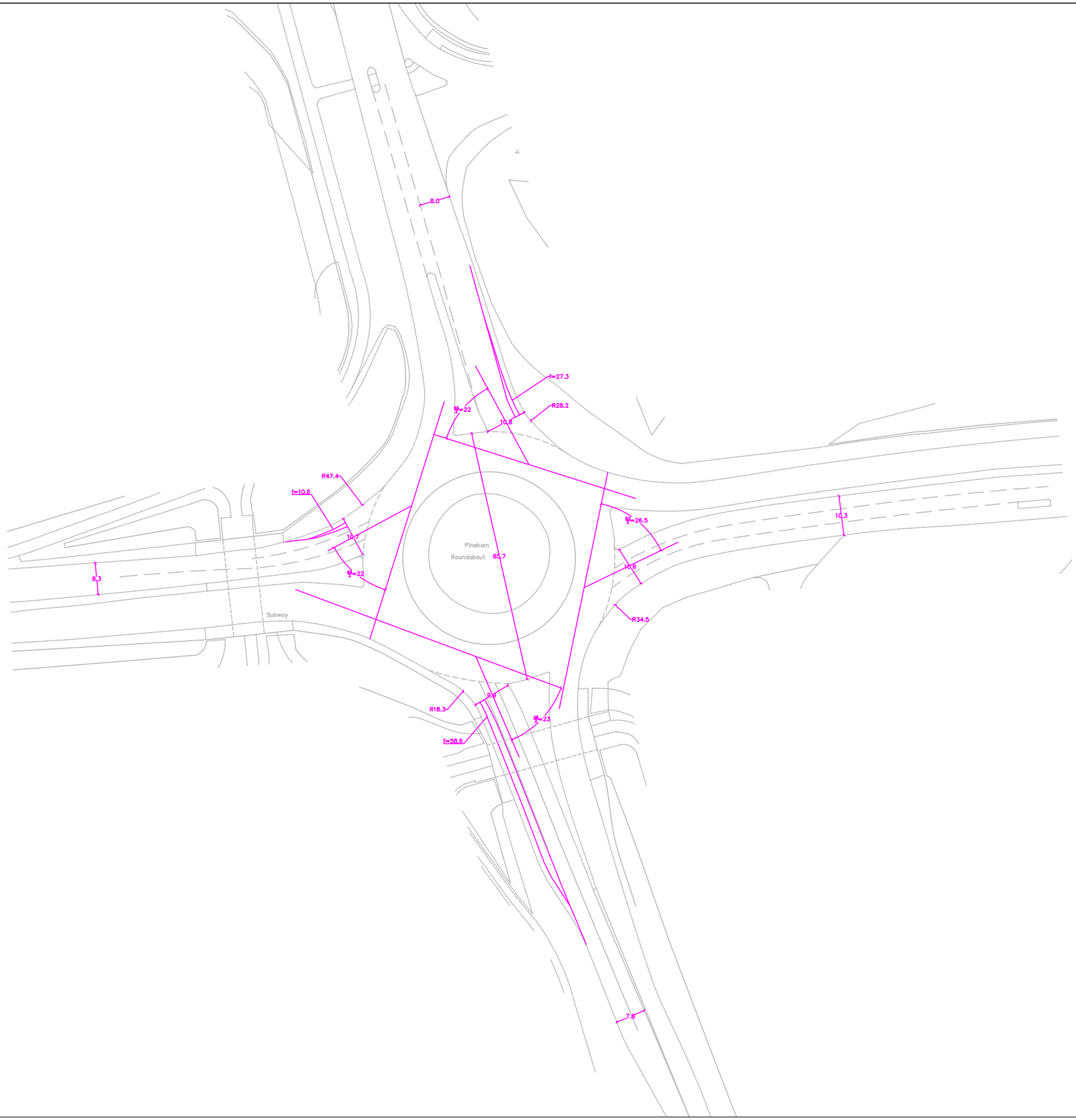
Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.60	0.64	3.586	A	A
B	12.30	0.82	3.659	A	A
C	9.00	0.60	3.375	A	A
D	19.64	1.31	7.838	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.81	0.52	3.066	A	A
B	12.10	0.81	3.625	A	A
C	6.88	0.46	3.030	A	A
D	7.28	0.49	4.544	A	A

APPENDIX O

JUNCTION 4: PINEHAM ROUNDABOUT – ARCADY ASSESSMENT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R28.2
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R47.4
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10.7
8.3
Pineham
Roundabout
65.7
10.3
10.8
R34.5
Subway
R18.3
f=58.6
7.8

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: App XX - Pineham Roundabout Jan19TA ARCADY Model.arc8
Path: C:\Users\ADCteam\Dropbox\~ JN8 TEMP\ADC1392 Jan 19 - B8 Use\Pineham
Report generation date: 27/02/2019 12:11:29

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)
Existing layout - 2026 background								
Arm A	1.20	3.88	0.55	19.68	1.93	4.68	0.66	3.88
Arm B	0.91	3.22	0.48		0.98	3.79	0.50	
Arm C	23.37	39.75	0.98		0.90	2.72	0.47	
Arm D	2.83	10.61	0.75		1.35	4.14	0.58	
Existing layout - 2026 with dev								
Arm A	1.25	4.03	0.56	23.78	1.98	4.80	0.67	4.01
Arm B	0.94	3.29	0.48		1.09	4.01	0.52	
Arm C	30.17	49.13	0.99		0.93	2.80	0.48	
Arm D	3.08	11.49	0.76		1.39	4.25	0.58	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

"D3 - 2026 background, AM " model duration: 07:45 - 09:15
"D4 - 2026 background, PM" model duration: 16:45 - 18:15
"D5 - 2026 with dev, AM" model duration: 07:45 - 09:15
"D6 - 2026 with dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 27/02/2019 12:11:23

File summary

Title	Pineham Roundabout
Location	
Site Number	
Date	20/06/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADCteam
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Existing layout - 2026 background, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing layout	ARCADY	Geometry measured from digital OS mapping	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
2026 background, AM	2026 background	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				19.68	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	A509 (W)	
B	B	V11 Tongwell St (N)	
C	C	A509 (E)	
D	D	V11 Tongwell St (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	8.30	10.70	10.60	47.40	65.70	22.00	
B	8.00	10.80	27.30	28.20	65.70	22.00	
C	10.30	10.60	0.01	34.50	65.70	26.50	
D	7.80	9.90	58.60	18.30	65.70	23.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.769	3101.109
B		(calculated)	(calculated)	0.781	3191.329
C		(calculated)	(calculated)	0.784	3223.912
D		(calculated)	(calculated)	0.743	2992.182

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1016.00	100.000
B	ONE HOUR	✓	923.00	100.000
C	ONE HOUR	✓	1991.00	100.000
D	ONE HOUR	✓	894.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	26.000	675.000	314.000
	B	38.000	2.000	206.000	677.000
	C	1486.000	440.000	6.000	59.000
	D	227.000	607.000	56.000	4.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.03	0.66	0.31
	B	0.04	0.00	0.22	0.73
	C	0.75	0.22	0.00	0.03
	D	0.25	0.68	0.06	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.231	1.047	1.013
	B	1.105	1.000	1.058	1.047
	C	1.020	1.030	1.333	1.119
	D	1.009	1.021	1.143	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	23.1	4.7	1.3
	B	10.5	0.0	5.8	4.7
	C	2.0	3.0	33.3	11.9
	D	0.9	2.1	14.3	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.55	3.88	1.20	A	932.30	1398.46	70.97	3.05	0.79	70.98	3.05
B	0.48	3.22	0.91	A	846.96	1270.44	55.85	2.64	0.62	55.86	2.64
C	0.98	39.75	23.37	E	1826.97	2740.46	664.11	14.54	7.38	664.14	14.54
D	0.75	10.61	2.83	B	820.35	1230.53	126.73	6.18	1.41	126.74	6.18

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	764.90	191.23	762.97	1314.01	836.39	0.00	2340.60	1754.90	0.327	0.00	0.48	2.278	A
B	694.88	173.72	693.28	806.40	792.95	0.00	2420.28	1621.91	0.287	0.00	0.40	2.082	A
C	1498.92	374.73	1493.14	708.13	778.10	0.00	2524.82	1705.19	0.594	0.00	1.45	3.469	A
D	673.05	168.26	670.72	791.55	1479.69	0.00	1819.87	1634.67	0.370	0.00	0.58	3.126	A

Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	913.37	228.34	912.51	1570.40	999.89	0.00	2215.89	1754.87	0.412	0.48	0.70	2.761	A
B	829.76	207.44	829.12	964.03	948.37	0.00	2299.93	1621.93	0.361	0.40	0.56	2.446	A
C	1789.86	447.47	1784.27	846.91	930.57	0.00	2403.89	1705.18	0.745	1.45	2.84	5.759	A
D	803.69	200.92	802.05	946.62	1768.24	0.00	1605.77	1634.68	0.501	0.58	0.99	4.470	A

Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1118.64	279.66	1116.70	1881.82	1209.20	0.00	2056.25	1754.87	0.544	0.70	1.18	3.823	A
B	1016.24	254.06	1014.88	1165.73	1160.17	0.00	2135.95	1621.93	0.476	0.56	0.90	3.206	A
C	2192.13	548.03	2131.17	1036.09	1138.97	0.00	2238.60	1705.18	0.979	2.84	18.08	25.367	D
D	984.31	246.08	977.91	1157.05	2113.10	0.00	1349.82	1634.68	0.729	0.99	2.59	9.521	A

Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1118.64	279.66	1118.58	1912.98	1222.20	0.00	2046.32	1754.87	0.547	1.18	1.20	3.880	A
B	1016.24	254.06	1016.23	1178.29	1162.49	0.00	2134.12	1621.93	0.476	0.90	0.91	3.219	A
C	2192.13	548.03	2170.99	1038.10	1140.62	0.00	2237.30	1705.18	0.980	18.08	23.37	39.749	E
D	984.31	246.08	983.38	1159.81	2151.81	0.00	1321.15	1634.68	0.745	2.59	2.83	10.612	B

Main results: (08:45-09:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	913.37	228.34	915.30	1637.61	1025.76	0.00	2196.13	1754.87	0.416	1.20	0.72	2.814	A
B	829.76	207.44	831.11	989.14	951.91	0.00	2297.10	1621.93	0.361	0.91	0.57	2.459	A
C	1789.86	447.47	1871.30	850.00	933.02	0.00	2401.95	1705.18	0.745	23.37	3.01	7.842	A
D	803.69	200.92	810.60	951.56	1852.76	0.00	1543.14	1634.68	0.521	2.83	1.10	4.961	A

Main results: (09:00-09:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	764.90	191.23	765.81	1324.11	842.30	0.00	2336.08	1754.90	0.327	0.72	0.49	2.295	A
B	694.88	173.72	695.54	812.06	796.05	0.00	2417.86	1621.91	0.287	0.57	0.40	2.092	A
C	1498.92	374.73	1505.04	710.83	780.76	0.00	2522.72	1705.19	0.594	3.01	1.48	3.557	A
D	673.05	168.26	675.07	794.46	1491.35	0.00	1811.23	1634.67	0.372	1.10	0.59	3.175	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.13	0.48	2.278	A	A
B	5.93	0.40	2.082	A	A
C	21.00	1.40	3.469	A	A
D	8.56	0.57	3.126	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.29	0.69	2.761	A	A
B	8.31	0.55	2.446	A	A
C	40.44	2.70	5.759	A	A
D	14.47	0.96	4.470	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.27	1.15	3.823	A	A
B	13.24	0.88	3.206	A	A
C	193.84	12.92	25.367	D	C
D	36.02	2.40	9.521	A	A

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.90	1.19	3.880	A	A
B	13.56	0.90	3.219	A	A
C	314.56	20.97	39.749	E	D
D	41.33	2.76	10.612	B	B

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.95	0.73	2.814	A	A
B	8.66	0.58	2.459	A	A
C	71.37	4.76	7.842	A	A
D	17.25	1.15	4.961	A	A

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.44	0.50	2.295	A	A
B	6.14	0.41	2.092	A	A
C	22.90	1.53	3.557	A	A
D	9.11	0.61	3.175	A	A

Existing layout - 2026 background, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing layout	ARCADY	Geometry measured from digital OS mapping	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Re
2026 background, PM	2026 background	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				3.88	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	A509 (W)	
B	B	V11 Tongwell St (N)	
C	C	A509 (E)	
D	D	V11 Tongwell St (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	8.30	10.70	10.60	47.40	65.70	22.00	
B	8.00	10.80	27.30	28.20	65.70	22.00	
C	10.30	10.60	0.01	34.50	65.70	26.50	
D	7.80	9.90	58.60	18.30	65.70	23.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.769	3101.109
B		(calculated)	(calculated)	0.781	3191.329
C		(calculated)	(calculated)	0.784	3223.912
D		(calculated)	(calculated)	0.743	2992.182

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1355.00	100.000
B	ONE HOUR	✓	854.00	100.000
C	ONE HOUR	✓	1082.00	100.000
D	ONE HOUR	✓	1074.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	5.000	29.000	1138.000	183.000
	B	26.000	1.000	339.000	488.000
	C	865.000	183.000	8.000	26.000
	D	362.000	597.000	113.000	2.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.02	0.84	0.14
	B	0.03	0.00	0.40	0.57
	C	0.80	0.17	0.01	0.02
	D	0.34	0.56	0.11	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.023	1.044
	B	1.000	1.000	1.021	1.008
	C	1.028	1.066	1.000	1.077
	D	1.006	1.012	1.018	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	2.3	4.4
	B	0.0	0.0	2.1	0.8
	C	2.8	6.6	0.0	7.7
	D	0.6	1.2	1.8	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.66	4.68	1.93	A	1243.37	1865.06	107.99	3.47	1.20	107.99	3.47
B	0.50	3.79	0.98	A	783.64	1175.47	57.81	2.95	0.64	57.81	2.95
C	0.47	2.72	0.90	A	992.86	1489.29	57.17	2.30	0.64	57.17	2.30
D	0.58	4.14	1.35	A	985.52	1478.28	78.84	3.20	0.88	78.84	3.20

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1020.11	255.03	1017.38	944.95	678.88	0.00	2503.31	2069.92	0.408	0.00	0.68	2.419	A
B	642.93	160.73	641.38	608.29	1087.97	0.00	2291.23	1429.99	0.281	0.00	0.39	2.180	A
C	814.58	203.65	812.87	1199.90	529.44	0.00	2706.19	2227.63	0.301	0.00	0.43	1.899	A
D	808.56	202.14	806.46	524.94	817.37	0.00	2340.26	1269.74	0.346	0.00	0.53	2.344	A

Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1218.12	304.53	1216.76	1130.07	811.93	0.00	2401.12	2069.88	0.507	0.68	1.02	3.037	A
B	767.73	191.93	767.03	727.50	1301.20	0.00	2122.80	1430.01	0.362	0.39	0.56	2.654	A
C	972.69	243.17	972.07	1435.05	633.17	0.00	2626.36	2227.62	0.370	0.43	0.59	2.176	A
D	965.50	241.38	964.54	627.79	977.45	0.00	2218.72	1269.74	0.435	0.53	0.77	2.869	A

Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1491.88	372.97	1488.33	1383.26	993.57	0.00	2261.61	2069.92	0.660	1.02	1.91	4.634	A
B	940.27	235.07	938.61	890.26	1591.66	0.00	1893.35	1429.99	0.497	0.56	0.98	3.764	A
C	1191.30	297.83	1190.07	1755.53	774.73	0.00	2517.41	2227.63	0.473	0.59	0.89	2.709	A
D	1182.49	295.62	1180.18	768.15	1196.65	0.00	2052.30	1269.74	0.576	0.77	1.35	4.117	A

Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1491.88	372.97	1491.82	1385.06	995.29	0.00	2260.29	2069.92	0.660	1.91	1.93	4.684	A
B	940.27	235.07	940.24	891.80	1595.32	0.00	1890.46	1429.99	0.497	0.98	0.98	3.787	A
C	1191.30	297.83	1191.29	1759.36	776.19	0.00	2516.27	2227.63	0.473	0.89	0.90	2.716	A
D	1182.49	295.62	1182.46	769.59	1197.90	0.00	2051.35	1269.74	0.576	1.35	1.35	4.143	A

Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1218.12	304.53	1221.67	1132.74	814.42	0.00	2399.21	2069.88	0.508	1.93	1.04	3.068	A
B	767.73	191.93	769.38	729.75	1306.36	0.00	2118.72	1430.01	0.362	0.98	0.57	2.672	A
C	972.69	243.17	973.91	1440.46	635.28	0.00	2624.73	2227.62	0.371	0.90	0.59	2.183	A
D	965.50	241.38	967.81	629.85	979.35	0.00	2217.28	1269.74	0.435	1.35	0.78	2.888	A

Main results: (18:00-18:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1020.11	255.03	1021.50	947.95	681.34	0.00	2501.42	2069.92	0.408	1.04	0.69	2.434	A
B	642.93	160.73	643.65	610.49	1092.35	0.00	2287.77	1429.99	0.281	0.57	0.39	2.190	A
C	814.58	203.65	815.22	1204.61	531.39	0.00	2704.69	2227.63	0.301	0.59	0.43	1.907	A
D	808.56	202.14	809.54	526.86	819.75	0.00	2338.45	1269.74	0.346	0.78	0.53	2.355	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.07	0.67	2.419	A	A
B	5.74	0.38	2.180	A	A
C	6.35	0.42	1.899	A	A
D	7.75	0.52	2.344	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.03	1.00	3.037	A	A
B	8.33	0.56	2.654	A	A
C	8.68	0.58	2.176	A	A
D	11.29	0.75	2.869	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	27.57	1.84	4.634	A	A
B	14.32	0.95	3.764	A	A
C	13.16	0.88	2.709	A	A
D	19.58	1.31	4.117	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	28.80	1.92	4.684	A	A
B	14.74	0.98	3.787	A	A
C	13.43	0.90	2.716	A	A
D	20.25	1.35	4.143	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.97	1.06	3.068	A	A
B	8.72	0.58	2.672	A	A
C	9.00	0.60	2.183	A	A
D	11.88	0.79	2.888	A	A

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.55	0.70	2.434	A	A
B	5.96	0.40	2.190	A	A
C	6.56	0.44	1.907	A	A
D	8.08	0.54	2.355	A	A

Existing layout - 2026 with dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing layout	ARCADY	Geometry measured from digital OS mapping	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2026 with dev, AM	2026 with dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				23.78	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	A509 (W)	
B	B	V11 Tongwell St (N)	
C	C	A509 (E)	
D	D	V11 Tongwell St (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	8.30	10.70	10.60	47.40	65.70	22.00	
B	8.00	10.80	27.30	28.20	65.70	22.00	
C	10.30	10.60	0.01	34.50	65.70	26.50	
D	7.80	9.90	58.60	18.30	65.70	23.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.769	3101.109
B		(calculated)	(calculated)	0.781	3191.329
C		(calculated)	(calculated)	0.784	3223.912
D		(calculated)	(calculated)	0.743	2992.182

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1019.00	100.000
B	ONE HOUR	✓	933.00	100.000
C	ONE HOUR	✓	2014.00	100.000
D	ONE HOUR	✓	904.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	29.000	675.000	314.000
	B	38.000	2.000	215.000	678.000
	C	1486.000	463.000	6.000	59.000
	D	227.000	617.000	56.000	4.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.03	0.66	0.31
	B	0.04	0.00	0.23	0.73
	C	0.74	0.23	0.00	0.03
	D	0.25	0.68	0.06	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.207	1.047	1.013
	B	1.105	1.000	1.088	1.047
	C	1.020	1.045	1.333	1.119
	D	1.009	1.021	1.143	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	20.7	4.7	1.3
	B	10.5	0.0	8.8	4.7
	C	2.0	4.5	33.3	11.9
	D	0.9	2.1	14.3	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.56	4.03	1.25	A	935.05	1402.58	73.23	3.13	0.81	73.23	3.13
B	0.48	3.29	0.94	A	856.14	1284.21	57.52	2.69	0.64	57.52	2.69
C	0.99	49.13	30.17	E	1848.08	2772.12	798.90	17.29	8.88	798.93	17.29
D	0.76	11.49	3.08	B	829.53	1244.29	135.77	6.55	1.51	135.77	6.55

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	767.16	191.79	765.19	1313.89	861.07	0.00	2318.28	1739.53	0.331	0.00	0.49	2.315	A
B	702.41	175.60	700.77	833.33	792.92	0.00	2404.37	1627.97	0.292	0.00	0.41	2.111	A
C	1516.24	379.06	1510.24	714.87	778.83	0.00	2515.68	1710.06	0.603	0.00	1.50	3.558	A
D	680.58	170.14	678.17	792.27	1496.79	0.00	1803.43	1626.86	0.377	0.00	0.60	3.192	A

Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	916.06	229.02	915.17	1570.08	1029.30	0.00	2189.21	1739.47	0.418	0.49	0.72	2.824	A
B	838.75	209.69	838.08	996.15	948.32	0.00	2284.82	1628.01	0.367	0.41	0.58	2.487	A
C	1810.54	452.64	1804.49	854.96	931.45	0.00	2395.05	1710.05	0.756	1.50	3.02	6.035	A
D	812.68	203.17	810.93	947.48	1788.46	0.00	1586.26	1626.87	0.512	0.60	1.04	4.633	A

Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1121.94	280.49	1119.89	1871.80	1241.23	0.00	2026.73	1739.47	0.554	0.72	1.23	3.961	A
B	1027.25	256.81	1025.83	1201.12	1160.00	0.00	2122.04	1628.01	0.484	0.58	0.93	3.279	A
C	2217.46	554.36	2142.43	1045.83	1140.00	0.00	2230.19	1710.05	0.994	3.02	21.77	28.979	D
D	995.32	248.83	988.28	1157.69	2124.74	0.00	1335.80	1626.87	0.745	1.04	2.80	10.160	B

Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1121.94	280.49	1121.87	1903.93	1255.30	0.00	2015.88	1739.47	0.557	1.23	1.25	4.026	A
B	1027.25	256.81	1027.23	1214.74	1162.43	0.00	2120.12	1628.01	0.485	0.93	0.94	3.293	A
C	2217.46	554.36	2183.88	1047.95	1141.72	0.00	2228.84	1710.05	0.995	21.77	30.17	49.135	E
D	995.32	248.83	994.19	1160.56	2165.04	0.00	1305.83	1626.87	0.762	2.80	3.08	11.486	B

Main results: (08:45-09:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	916.06	229.02	918.09	1656.53	1062.82	0.00	2163.34	1739.47	0.423	1.25	0.74	2.895	A
B	838.75	209.69	840.16	1028.78	952.12	0.00	2281.80	1628.01	0.368	0.94	0.58	2.499	A
C	1810.54	452.64	1918.37	858.29	933.99	0.00	2393.04	1710.05	0.757	30.17	3.21	9.397	A
D	812.68	203.17	820.25	953.26	1899.10	0.00	1503.99	1626.87	0.540	3.08	1.19	5.323	A

Main results: (09:00-09:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	767.16	191.79	768.12	1324.55	867.56	0.00	2313.30	1739.53	0.332	0.74	0.50	2.332	A
B	702.41	175.60	703.09	839.56	796.12	0.00	2401.89	1627.97	0.292	0.58	0.41	2.119	A
C	1516.24	379.06	1522.94	717.67	781.54	0.00	2513.54	1710.06	0.603	3.21	1.54	3.657	A
D	680.58	170.14	682.88	795.25	1509.23	0.00	1794.18	1626.86	0.379	1.19	0.61	3.245	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.26	0.48	2.315	A	A
B	6.08	0.41	2.111	A	A
C	21.77	1.45	3.558	A	A
D	8.83	0.59	3.192	A	A

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.56	0.70	2.824	A	A
B	8.54	0.57	2.487	A	A
C	42.72	2.85	6.035	A	A
D	15.14	1.01	4.633	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.91	1.19	3.961	A	A
B	13.68	0.91	3.279	A	A
C	223.42	14.89	28.979	D	C
D	38.65	2.58	10.160	B	B

Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.61	1.24	4.026	A	A
B	14.02	0.93	3.293	A	A
C	393.67	26.24	49.135	E	D
D	44.95	3.00	11.486	B	B

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.31	0.75	2.895	A	A
B	8.90	0.59	2.499	A	A
C	93.48	6.23	9.397	A	A
D	18.76	1.25	5.323	A	A

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.58	0.51	2.332	A	A
B	6.30	0.42	2.119	A	A
C	23.84	1.59	3.657	A	A
D	9.43	0.63	3.245	A	A

Existing layout - 2026 with dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing layout	ARCADY	Geometry measured from digital OS mapping	✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2026 with dev, PM	2026 with dev	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	A,B,C,D				4.01	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
A	A	A509 (W)	
B	B	V11 Tongwell St (N)	
C	C	A509 (E)	
D	D	V11 Tongwell St (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	8.30	10.70	10.60	47.40	65.70	22.00	
B	8.00	10.80	27.30	28.20	65.70	22.00	
C	10.30	10.60	0.01	34.50	65.70	26.50	
D	7.80	9.90	58.60	18.30	65.70	23.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
A		(calculated)	(calculated)	0.769	3101.109
B		(calculated)	(calculated)	0.781	3191.329
C		(calculated)	(calculated)	0.784	3223.912
D		(calculated)	(calculated)	0.743	2992.182

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1356.00	100.000
B	ONE HOUR	✓	892.00	100.000
C	ONE HOUR	✓	1094.00	100.000
D	ONE HOUR	✓	1077.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	5.000	30.000	1138.000	183.000
	B	30.000	1.000	362.000	499.000
	C	865.000	195.000	8.000	26.000
	D	362.000	600.000	113.000	2.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.00	0.02	0.84	0.13
	B	0.03	0.00	0.41	0.56
	C	0.79	0.18	0.01	0.02
	D	0.34	0.56	0.10	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	1.000	1.000	1.023	1.044
	B	1.000	1.000	1.036	1.008
	C	1.028	1.097	1.000	1.077
	D	1.006	1.012	1.018	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	2.3	4.4
	B	0.0	0.0	3.6	0.8
	C	2.8	9.7	0.0	7.7
	D	0.6	1.2	1.8	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.67	4.80	1.98	A	1244.29	1866.43	110.04	3.54	1.22	110.04	3.54
B	0.52	4.01	1.09	A	818.51	1227.77	63.09	3.08	0.70	63.09	3.08
C	0.48	2.80	0.93	A	1003.87	1505.81	59.25	2.36	0.66	59.25	2.36
D	0.58	4.25	1.39	A	988.27	1482.41	80.54	3.26	0.89	80.54	3.26

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1020.87	255.22	1018.10	947.92	690.13	0.00	2491.04	2049.49	0.410	0.00	0.69	2.440	A
B	671.54	167.89	669.87	620.29	1087.94	0.00	2277.36	1439.48	0.295	0.00	0.42	2.237	A
C	823.62	205.90	821.85	1217.14	540.67	0.00	2682.46	2222.87	0.307	0.00	0.44	1.933	A
D	810.82	202.71	808.69	533.17	829.36	0.00	2327.67	1259.75	0.348	0.00	0.53	2.367	A

Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1219.02	304.75	1217.63	1133.64	825.39	0.00	2386.44	2049.53	0.511	0.69	1.04	3.075	A
B	801.89	200.47	801.11	741.86	1301.16	0.00	2109.95	1439.45	0.380	0.42	0.61	2.749	A
C	983.48	245.87	982.83	1455.66	646.61	0.00	2601.40	2222.88	0.378	0.44	0.61	2.222	A
D	968.20	242.05	967.21	637.64	991.80	0.00	2203.66	1259.74	0.439	0.53	0.78	2.908	A

Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1492.98	373.25	1489.30	1387.57	1009.99	0.00	2243.66	2049.53	0.665	1.04	1.96	4.750	A
B	982.11	245.53	980.22	907.78	1591.51	0.00	1881.98	1439.45	0.522	0.61	1.08	3.984	A
C	1204.51	301.13	1203.21	1780.64	791.10	0.00	2490.84	2222.88	0.484	0.61	0.93	2.793	A
D	1185.80	296.45	1183.39	780.14	1214.18	0.00	2033.89	1259.74	0.583	0.78	1.38	4.221	A

Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1492.98	373.25	1492.91	1389.47	1011.81	0.00	2242.26	2049.53	0.666	1.96	1.98	4.804	A
B	982.11	245.53	982.07	909.42	1595.31	0.00	1879.00	1439.45	0.523	1.08	1.09	4.013	A
C	1204.51	301.13	1204.50	1784.68	792.70	0.00	2489.61	2222.88	0.484	0.93	0.93	2.800	A
D	1185.80	296.45	1185.76	781.70	1215.51	0.00	2032.87	1259.74	0.583	1.38	1.39	4.249	A

Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1219.02	304.75	1222.71	1136.42	828.01	0.00	2384.42	2049.53	0.511	1.98	1.05	3.110	A
B	801.89	200.47	803.77	744.21	1306.50	0.00	2105.76	1439.45	0.381	1.09	0.62	2.768	A
C	983.48	245.87	984.78	1461.37	648.90	0.00	2599.64	2222.88	0.378	0.93	0.61	2.230	A
D	968.20	242.05	970.61	639.86	993.82	0.00	2202.12	1259.74	0.440	1.39	0.79	2.930	A

Main results: (18:00-18:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Entry Flow (Veh/hr)	Exit Flow (Veh/hr)	Circulating Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	Saturation Capacity (Veh/hr)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1020.87	255.22	1022.29	951.00	692.67	0.00	2489.08	2049.49	0.410	1.05	0.70	2.458	A
B	671.54	167.89	672.33	622.57	1092.39	0.00	2273.87	1439.48	0.295	0.62	0.42	2.250	A
C	823.62	205.90	824.28	1222.00	542.72	0.00	2680.89	2222.87	0.307	0.61	0.44	1.939	A
D	810.82	202.71	811.83	535.18	831.83	0.00	2325.79	1259.75	0.349	0.79	0.54	2.379	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.17	0.68	2.440	A	A
B	6.15	0.41	2.237	A	A
C	6.53	0.44	1.933	A	A
D	7.84	0.52	2.367	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.24	1.02	3.075	A	A
B	9.01	0.60	2.749	A	A
C	8.96	0.60	2.222	A	A
D	11.48	0.77	2.908	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	28.23	1.88	4.750	A	A
B	15.79	1.05	3.984	A	A
C	13.70	0.91	2.793	A	A
D	20.11	1.34	4.221	A	A

Queueing Delay results: (17:30-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	29.54	1.97	4.804	A	A
B	16.30	1.09	4.013	A	A
C	13.99	0.93	2.800	A	A
D	20.82	1.39	4.249	A	A

Queueing Delay results: (17:45-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.20	1.08	3.110	A	A
B	9.45	0.63	2.768	A	A
C	9.30	0.62	2.230	A	A
D	12.09	0.81	2.930	A	A

Queueing Delay results: (18:00-18:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.65	0.71	2.458	A	A
B	6.40	0.43	2.250	A	A
C	6.75	0.45	1.939	A	A
D	8.18	0.55	2.379	A	A

APPENDIX P

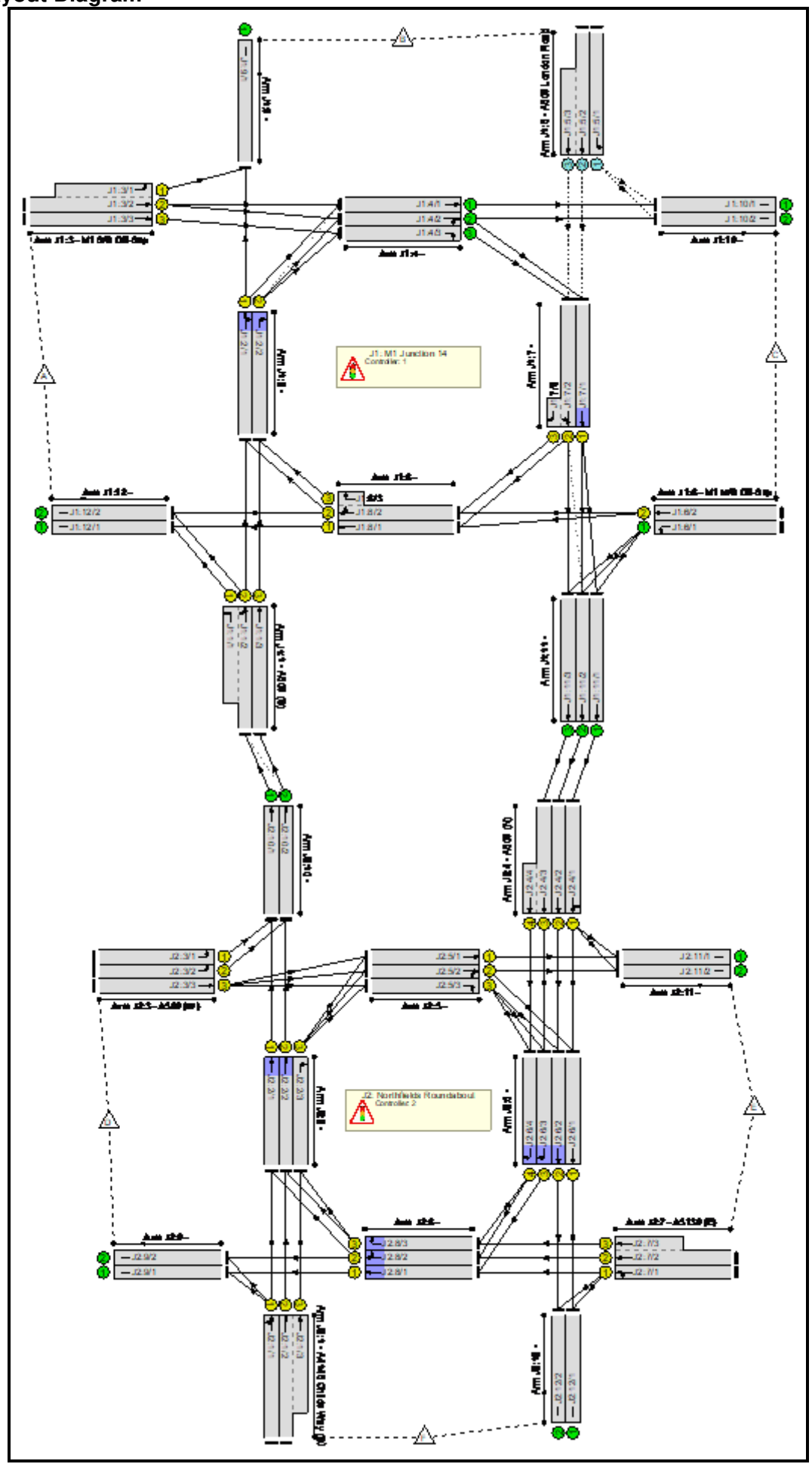
JUNCTION 5 AND 6: M1 JUNCTION 14 AND NORTHFIELD ROUNDABOUT - LINSIG ASSESSMENT

Full Input Data And Results

User and Project Details

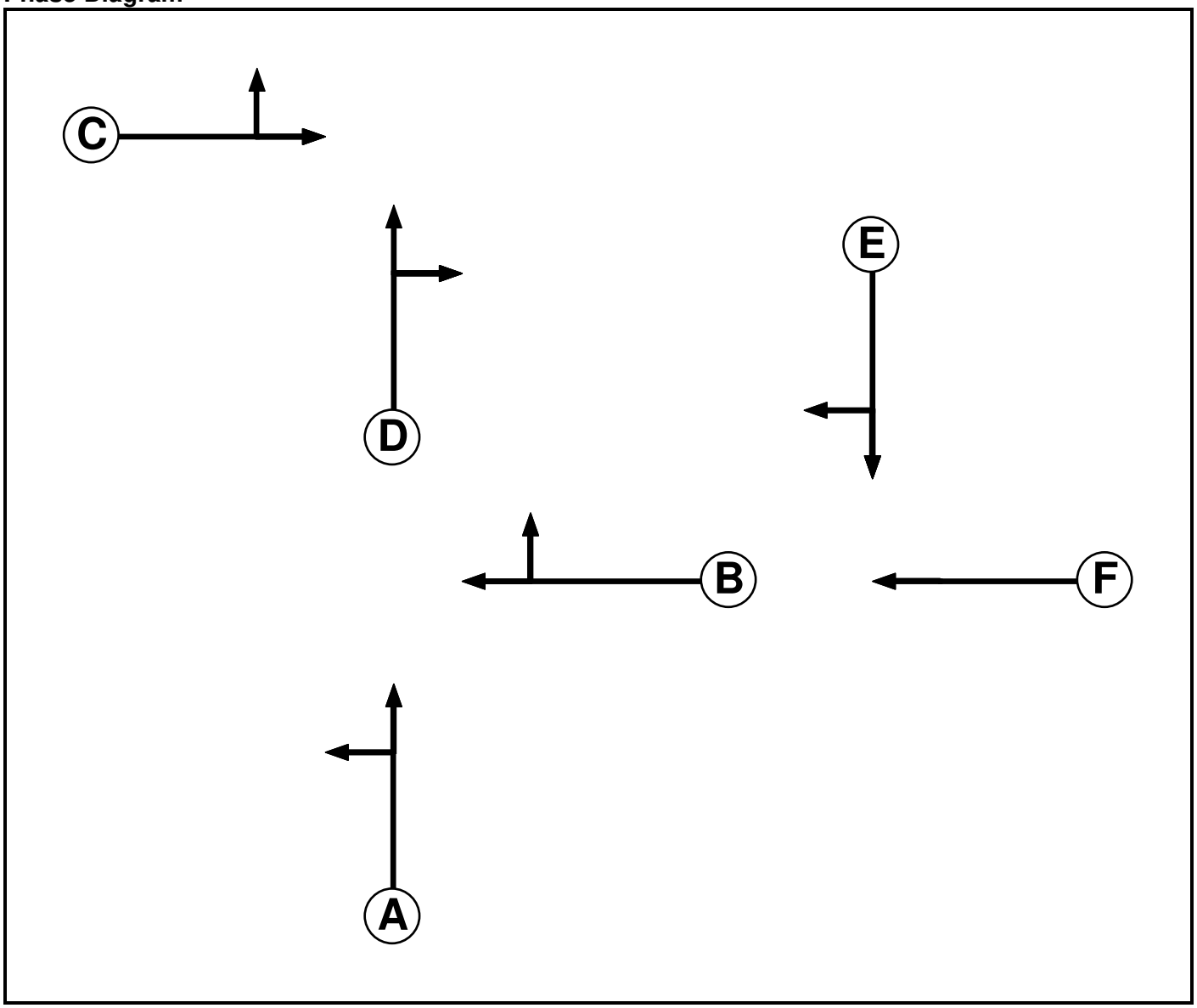
Project:	**Willen Road, Newport Pagnell**
Title:	**M1 Junction 14 / Northfields Roundabout Model**
Location:	
Additional detail:	
File name:	M1 Junction 14_Northfields Roundabout (Linked Existing Model) V6.lsg3x
Author:	Matt Tatler
Company:	ADC Infrastructure Limited
Address:	Western House, Western Street, Nottingham NG1 3AZ

Network Layout Diagram



C1

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7

Phase Intergreens Matrix

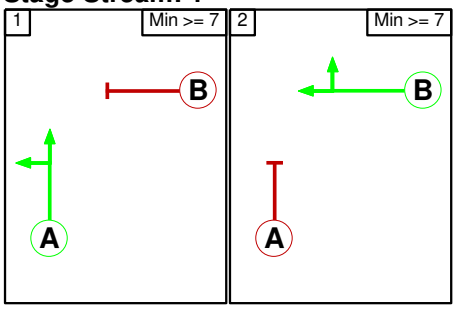
		Starting Phase					
		A	B	C	D	E	F
Terminating Phase	A		6	-	-	-	-
	B	6		-	-	-	-
	C	-	-		6	-	-
	D	-	-	6		-	-
	E	-	-	-	-		6
	F	-	-	-	-	6	

Phases in Stage

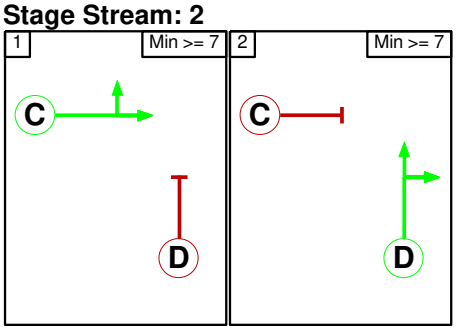
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	F
3	2	E

Stage Diagram

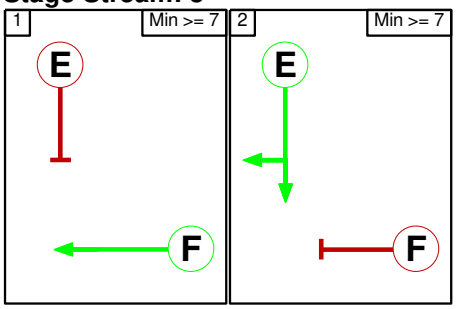
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Stage Stream: 3

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

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 2

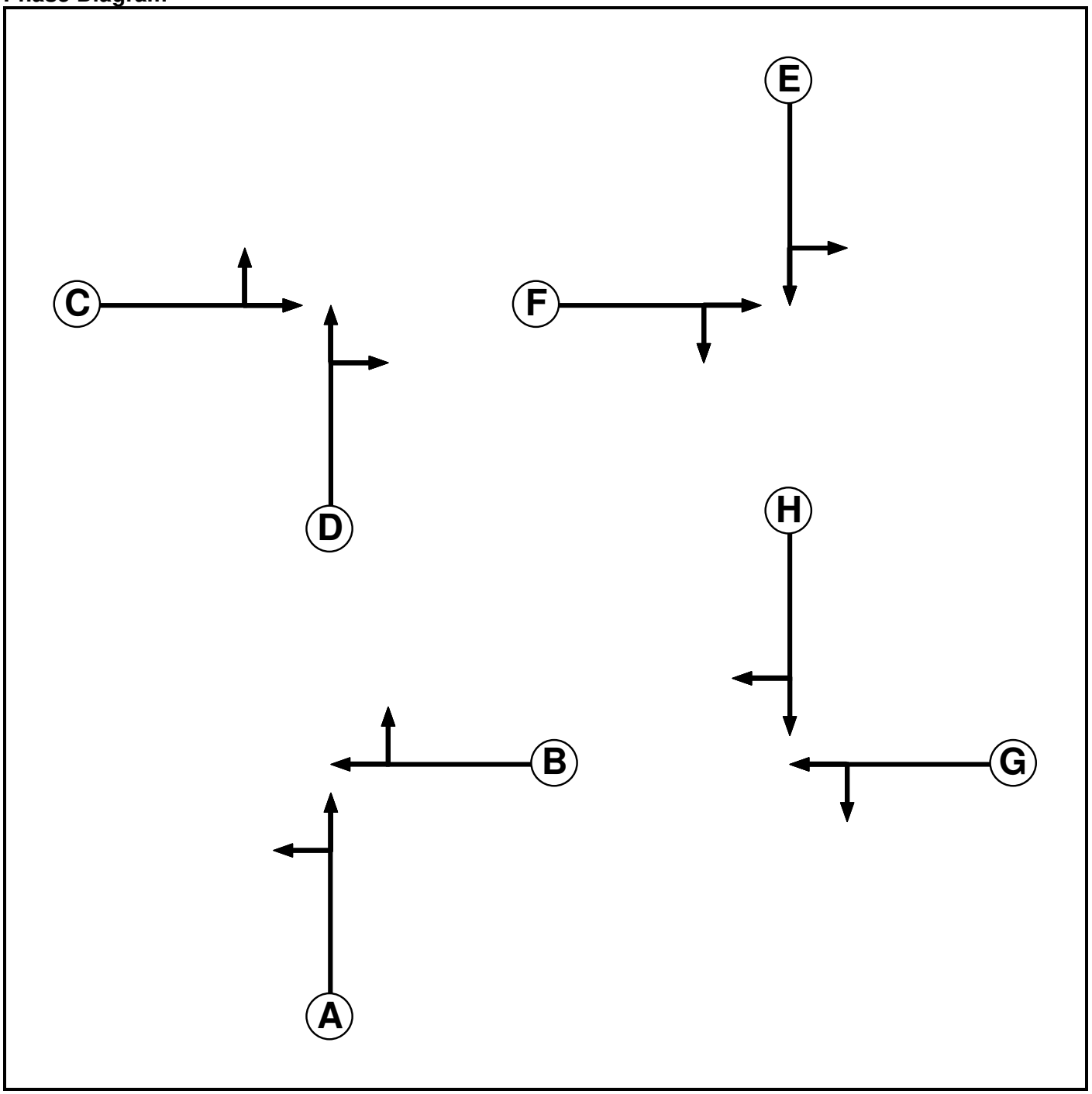
	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 3

	To Stage		
From Stage		1	2
	1		6
	2	6	

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7

Phase Intergreens Matrix

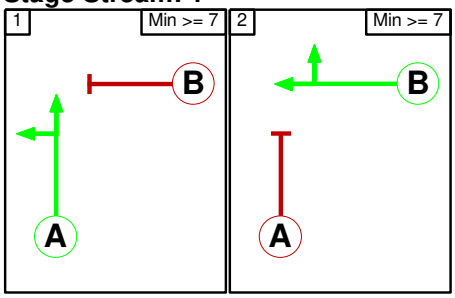
		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		6	-	-	-	-	-	-
	B	6		-	-	-	-	-	-
	C	-	-		6	-	-	-	-
	D	-	-	6		-	-	-	-
	E	-	-	-	-		6	-	-
	F	-	-	-	-	6		-	-
	G	-	-	-	-	-	-		6
	H	-	-	-	-	-	-	6	

Phases in Stage

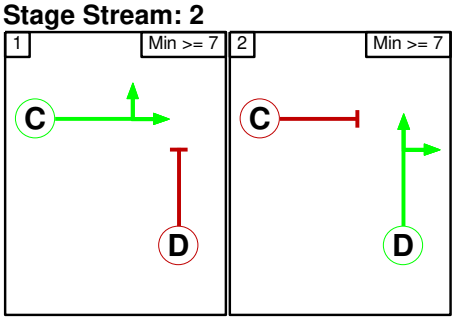
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E
3	2	F
4	1	G
4	2	H

Stage Diagram

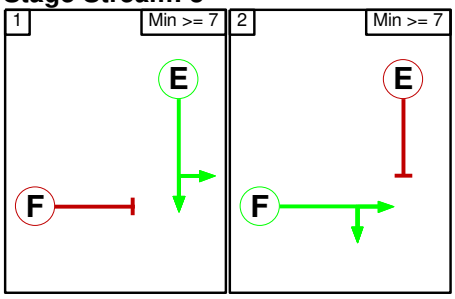
Stage Stream: 1



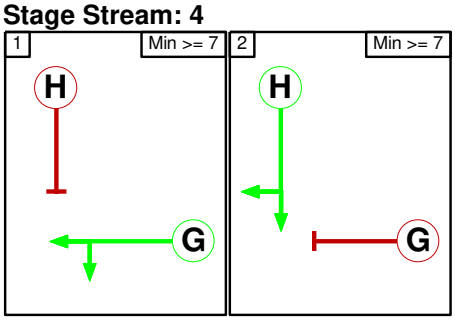
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Stage Stream: 3

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

Stage Stream: 4

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

Prohibited Stage Change

Stage Stream: 1

	To Stage		
		1	2
From Stage	1		6
	2	6	

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		6
	2	6	

Stage Stream: 3

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 4

	To Stage		
From Stage		1	2
	1		6
	2	6	

Give-Way Lane Input Data

Junction: J1: M1 Junction 14											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
J1:5/1 (A509 London Road)	J1:10/1 (Left)	1000	0	J1:4/1	0.33	All	-	-	-	-	-
				J1:4/2	0.33	All					
	J1:10/2 (Left)	1000	0	J1:4/1	0.33	All					
				J1:4/2	0.33	All					
				J1:4/3	0.33	All					
J1:5/2 (A509 London Road)	J1:7/1 (Ahead)	1000	0	J1:4/1	0.33	All	-	-	-	-	-
				J1:4/2	0.33	All					
				J1:4/3	0.33	All					
J1:5/3 (A509 London Road)	J1:7/2 (Ahead)	1000	0	J1:4/1	0.33	All	-	-	-	-	-
				J1:4/2	0.33	All					
				J1:4/3	0.33	All					

Junction: J2: Northfields Roundabout
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: J1: M1 Junction 14

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (A509 (S))	U	A	2	3	19.1	Geom	-	3.50	0.00	Y	Arm J1:12 Left	Inf
J1:1/2 (A509 (S))	U	A	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:2 Ahead	Inf
											Arm J1:12 Left	Inf
J1:1/3 (A509 (S))	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:2 Ahead	Inf
J1:2/1	U	D	2	3	31.3	User	1900	-	-	-	-	-
J1:2/2	U	D	2	3	31.3	User	1900	-	-	-	-	-
J1:3/1 (M1 S/B Off-Slip)	U	C	2	3	23.5	Geom	-	3.50	0.00	Y	Arm J1:9 Left	20.00
J1:3/2 (M1 S/B Off-Slip)	U	C	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:4 Ahead	Inf
J1:3/3 (M1 S/B Off-Slip)	U	C	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:4 Ahead	Inf
J1:4/1	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:4/2	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:4/3	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:5/1 (A509 London Road)	O		2	3	10.8	Geom	-	3.50	0.00	Y	Arm J1:10 Left	30.00
J1:5/2 (A509 London Road)	O		2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:7 Ahead	Inf
J1:5/3 (A509 London Road)	O		2	3	9.0	Geom	-	3.50	0.00	N	Arm J1:7 Ahead	Inf
J1:6/1 (M1 N/B Off-Slip)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/2 (M1 N/B Off-Slip)	U	F	2	3	60.0	User	1800	-	-	-	-	-
J1:7/1	U	E	2	3	31.3	User	1900	-	-	-	-	-
J1:7/2	U	E	2	3	31.3	User	1900	-	-	-	-	-
J1:7/3	U	E	2	3	3.0	User	1900	-	-	-	-	-
J1:8/1	U	B	2	3	8.2	User	1900	-	-	-	-	-
J1:8/2	U	B	2	3	8.2	User	1900	-	-	-	-	-
J1:8/3	U	B	2	3	2.6	Geom	-	3.50	0.00	Y	Arm J1:2 Right	25.00

J1:9/1	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:10/1	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:10/2	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:11/1	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:11/2	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:11/3	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:12/1	U		2	3	7.0	Inf	-	-	-	-	-	-
J1:12/2	U		2	3	7.0	Inf	-	-	-	-	-	-

Junction: J2: Northfields Roundabout												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J2:1/1 (A4145 Childs Way (S))	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:2 Ahead Arm J2:9 Left	Inf Inf
J2:1/2 (A4145 Childs Way (S))	U	A	2	3	60.0	Geom	-	3.50	0.00	N	Arm J2:2 Ahead	Inf
J2:1/3 (A4145 Childs Way (S))	U	A	2	3	12.2	Geom	-	3.50	0.00	Y	Arm J2:2 Ahead	Inf
J2:2/1	U	D	2	3	8.7	User	1900	-	-	-	-	-
J2:2/2	U	D	2	3	8.7	User	1900	-	-	-	-	-
J2:2/3	U	D	2	3	8.7	User	1900	-	-	-	-	-
J2:3/1 (A509 (W))	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:10 Left	Inf
J2:3/2 (A509 (W))	U	C	2	3	60.0	Geom	-	3.50	0.00	N	Arm J2:10 Left	Inf
J2:3/3 (A509 (W))	U	C	2	3	17.4	Geom	-	3.50	0.00	Y	Arm J2:5 Ahead	Inf
J2:4/1 (A509 (N))	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:6 Ahead Arm J2:11 Left	Inf Inf
J2:4/2 (A509 (N))	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm J2:6 Ahead	Inf
J2:4/3 (A509 (N))	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm J2:6 Ahead	Inf
J2:4/4 (A509 (N))	U	E	2	3	5.2	Geom	-	3.50	0.00	Y	Arm J2:6 Ahead	Inf
J2:5/1	U	F	2	3	11.3	User	1900	-	-	-	-	-
J2:5/2	U	F	2	3	11.3	User	1900	-	-	-	-	-
J2:5/3	U	F	2	3	11.3	User	1900	-	-	-	-	-
J2:6/1	U	H	2	3	8.7	User	1900	-	-	-	-	-
J2:6/2	U	H	2	3	8.7	User	1900	-	-	-	-	-
J2:6/3	U	H	2	3	8.7	User	1900	-	-	-	-	-
J2:6/4	U	H	2	3	8.7	User	1900	-	-	-	-	-
J2:7/1 (A5130 (E))	U	G	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:8 Ahead Arm J2:12 Left	Inf Inf
J2:7/2 (A5130 (E))	U	G	2	3	60.0	Geom	-	3.50	0.00	N	Arm J2:8 Ahead	Inf

J2:7/3 (A5130 (E))	U	G	2	3	7.0	Geom	-	3.50	0.00	Y	Arm J2:8 Ahead	Inf
J2:8/1	U	B	2	3	11.3	User	1900	-	-	-	-	-
J2:8/2	U	B	2	3	11.3	User	1900	-	-	-	-	-
J2:8/3	U	B	2	3	11.3	User	1900	-	-	-	-	-
J2:9/1	U		2	3	5.2	Inf	-	-	-	-	-	-
J2:9/2	U		2	3	5.2	Inf	-	-	-	-	-	-
J2:10/1	U		2	3	5.2	Inf	-	-	-	-	-	-
J2:10/2	U		2	3	5.2	Inf	-	-	-	-	-	-
J2:11/1	U		2	3	5.2	Inf	-	-	-	-	-	-
J2:11/2	U		2	3	5.2	Inf	-	-	-	-	-	-
J2:12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:12/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: '2020 Bkgd AM'	08:00	09:00	01:00	
3: '2020 WD AM'	08:00	09:00	01:00	
4: '2031 Bkgd AM'	08:00	09:00	01:00	
5: '2031 WD AM'	08:00	09:00	01:00	
7: '2020 Bkgd PM'	17:00	18:00	01:00	
8: '2020 WD PM'	17:00	18:00	01:00	
9: '2031 Bkgd PM'	17:00	18:00	01:00	
10: '2031 WD PM'	17:00	18:00	01:00	

Scenario 1: '2020 Bkgd AM' (FG2: '2020 Bkgd AM', Plan 1: '2017 Observed AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	4	240	0	610	96	764	1714
	B	145	11	339	254	40	318	1107
	C	2	300	7	610	96	764	1779
	D	378	155	239	5	178	17	972
	E	132	54	83	408	2	117	796
	F	408	168	258	4	44	4	886
	Tot.	1069	928	926	1891	456	1984	7254

Traffic Lane Flows

Lane	Scenario 1: 2020 Bkgd AM
Junction: J1: M1 Junction 14	
J1:1/1 (short)	693
J1:1/2 (with short)	1360(In) 667(Out)
J1:1/3	515
J1:2/1	753
J1:2/2	522
J1:3/1 (short)	240
J1:3/2 (with short)	996(In) 756(Out)
J1:3/3	718
J1:4/1	327
J1:4/2	1016
J1:4/3	718
J1:5/1	339
J1:5/2 (with short)	768(In) 358(Out)
J1:5/3 (short)	410
J1:6/1	1470
J1:6/2	309
J1:7/1	1114
J1:7/2 (with short)	1128(In) 1048(Out)
J1:7/3 (short)	80
J1:8/1	80
J1:8/2 (with short)	389(In) 382(Out)
J1:8/3 (short)	7
J1:9/1	928
J1:10/1	496
J1:10/2	430
J1:11/1	1021
J1:11/2	1057
J1:11/3	1474
J1:12/1	773
J1:12/2	296
Junction: J2: Northfields Roundabout	
J2:1/1	403
J2:1/2 (with short)	483(In) 435(Out)
J2:1/3 (short)	48

J2:2/1	547
J2:2/2	556
J2:2/3	50
J2:3/1	370
J2:3/2	402
J2:3/3	200
J2:4/1	1021
J2:4/2	1057
J2:4/3 (with short)	1474(In) 737(Out)
J2:4/4 (short)	737
J2:5/1	125
J2:5/2	116
J2:5/3	9
J2:6/1	806
J2:6/2	1061
J2:6/3	738
J2:6/4	741
J2:7/1	318
J2:7/2 (with short)	478(In) 355(Out)
J2:7/3 (short)	123
J2:8/1	939
J2:8/2	1096
J2:8/3	123
J2:9/1	941
J2:9/2	950
J2:10/1	917
J2:10/2	958
J2:11/1	241
J2:11/2	215
J2:12/1	864
J2:12/2	1120

Lane Saturation Flows

Junction: J1: M1 Junction 14

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (A509 (S))	3.50	0.00	Y	Arm J1:12 Left	Inf	100.0 %	1965	1965
J1:1/2 (A509 (S))	3.50	0.00	N	Arm J1:2 Ahead	Inf	66.3 %	2105	2105
				Arm J1:12 Left	Inf	33.7 %		
J1:1/3 (A509 (S))	3.50	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1965	1965
J1:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (M1 S/B Off-Slip)	3.50	0.00	Y	Arm J1:9 Left	20.00	100.0 %	1828	1828
J1:3/2 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:3/3 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:4/3	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A509 London Road)	3.50	0.00	Y	Arm J1:10 Left	30.00	100.0 %	1871	1871
J1:5/2 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:5/3 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:6/1 (M1 N/B Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M1 N/B Off-Slip Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:7/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/3	3.50	0.00	Y	Arm J1:2 Right	25.00	100.0 %	1854	1854
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	Infinite Saturation Flow						Inf	Inf
J1:11/2	Infinite Saturation Flow						Inf	Inf
J1:11/3	Infinite Saturation Flow						Inf	Inf
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:12/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Northfields Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	99.0 %	1965	1965
				Arm J2:9 Left	Inf	1.0 %		
J2:1/2 (A4145 Childs Way (S))	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J2:1/3 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1965	1965
J2:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A509 (W))	3.50	0.00	Y	Arm J2:10 Left	Inf	100.0 %	1965	1965
J2:3/2 (A509 (W))	3.50	0.00	N	Arm J2:10 Left	Inf	100.0 %	2105	2105
J2:3/3 (A509 (W))	3.50	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1965	1965
J2:4/1 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	77.3 %	1965	1965
				Arm J2:11 Left	Inf	22.7 %		
J2:4/2 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/3 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/4 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	1965	1965
J2:5/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:7/1 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	63.2 %	1965	1965
				Arm J2:12 Left	Inf	36.8 %		
J2:7/2 (A5130 (E))	3.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2105	2105
J2:7/3 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	100.0 %	1965	1965
J2:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:9/1	Infinite Saturation Flow						Inf	Inf
J2:9/2	Infinite Saturation Flow						Inf	Inf
J2:10/1	Infinite Saturation Flow						Inf	Inf
J2:10/2	Infinite Saturation Flow						Inf	Inf

J2:11/1	Infinite Saturation Flow	Inf	Inf
J2:11/2	Infinite Saturation Flow	Inf	Inf
J2:12/1	Infinite Saturation Flow	Inf	Inf
J2:12/2	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2020 WD AM' (FG3: '2020 WD AM', Plan 1: '2017 Observed AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	4	271	0	610	96	764	1745
	B	145	11	354	254	40	318	1122
	C	2	300	7	641	96	764	1810
	D	394	155	239	5	178	17	988
	E	132	54	83	408	2	117	796
	F	408	168	258	4	44	4	886
	Tot.	1085	959	941	1922	456	1984	7347

Traffic Lane Flows

Lane	Scenario 2: 2020 WD AM
Junction: J1: M1 Junction 14	
J1:1/1 (short)	703
J1:1/2 (with short)	1380(In) 677(Out)
J1:1/3	511
J1:2/1	757
J1:2/2	518
J1:3/1 (short)	271
J1:3/2 (with short)	1035(In) 764(Out)
J1:3/3	710
J1:4/1	329
J1:4/2	1022
J1:4/3	710
J1:5/1	354
J1:5/2 (with short)	768(In) 357(Out)
J1:5/3 (short)	411
J1:6/1	1501
J1:6/2	309
J1:7/1	1121
J1:7/2 (with short)	1121(In) 1040(Out)
J1:7/3 (short)	81
J1:8/1	79
J1:8/2 (with short)	390(In) 383(Out)
J1:8/3 (short)	7
J1:9/1	959
J1:10/1	506
J1:10/2	435
J1:11/1	1019
J1:11/2	1059
J1:11/3	1505
J1:12/1	782
J1:12/2	303
Junction: J2: Northfields Roundabout	
J2:1/1	404
J2:1/2 (with short)	482(In) 434(Out)
J2:1/3 (short)	48

J2:2/1	547
J2:2/2	556
J2:2/3	50
J2:3/1	379
J2:3/2	409
J2:3/3	200
J2:4/1	1019
J2:4/2	1059
J2:4/3 (with short)	1505(In) 756(Out)
J2:4/4 (short)	749
J2:5/1	126
J2:5/2	116
J2:5/3	8
J2:6/1	805
J2:6/2	1062
J2:6/3	757
J2:6/4	753
J2:7/1	317
J2:7/2 (with short)	479(In) 355(Out)
J2:7/3 (short)	124
J2:8/1	957
J2:8/2	1108
J2:8/3	124
J2:9/1	959
J2:9/2	963
J2:10/1	926
J2:10/2	965
J2:11/1	242
J2:11/2	214
J2:12/1	863
J2:12/2	1121

Lane Saturation Flows

Junction: J1: M1 Junction 14

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (A509 (S))	3.50	0.00	Y	Arm J1:12 Left	Inf	100.0 %	1965	1965
J1:1/2 (A509 (S))	3.50	0.00	N	Arm J1:2 Ahead	Inf	65.9 %	2105	2105
				Arm J1:12 Left	Inf	34.1 %		
J1:1/3 (A509 (S))	3.50	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1965	1965
J1:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (M1 S/B Off-Slip)	3.50	0.00	Y	Arm J1:9 Left	20.00	100.0 %	1828	1828
J1:3/2 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:3/3 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:4/3	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A509 London Road)	3.50	0.00	Y	Arm J1:10 Left	30.00	100.0 %	1871	1871
J1:5/2 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:5/3 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:6/1 (M1 N/B Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M1 N/B Off-Slip Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:7/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/3	3.50	0.00	Y	Arm J1:2 Right	25.00	100.0 %	1854	1854
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	Infinite Saturation Flow						Inf	Inf
J1:11/2	Infinite Saturation Flow						Inf	Inf
J1:11/3	Infinite Saturation Flow						Inf	Inf
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:12/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Northfields Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	99.0 %	1965	1965
				Arm J2:9 Left	Inf	1.0 %		
J2:1/2 (A4145 Childs Way (S))	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J2:1/3 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1965	1965
J2:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A509 (W))	3.50	0.00	Y	Arm J2:10 Left	Inf	100.0 %	1965	1965
J2:3/2 (A509 (W))	3.50	0.00	N	Arm J2:10 Left	Inf	100.0 %	2105	2105
J2:3/3 (A509 (W))	3.50	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1965	1965
J2:4/1 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	77.2 %	1965	1965
				Arm J2:11 Left	Inf	22.8 %		
J2:4/2 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/3 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/4 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	1965	1965
J2:5/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:7/1 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	63.1 %	1965	1965
				Arm J2:12 Left	Inf	36.9 %		
J2:7/2 (A5130 (E))	3.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2105	2105
J2:7/3 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	100.0 %	1965	1965
J2:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:9/1	Infinite Saturation Flow						Inf	Inf
J2:9/2	Infinite Saturation Flow						Inf	Inf
J2:10/1	Infinite Saturation Flow						Inf	Inf
J2:10/2	Infinite Saturation Flow						Inf	Inf

J2:11/1	Infinite Saturation Flow	Inf	Inf
J2:11/2	Infinite Saturation Flow	Inf	Inf
J2:12/1	Infinite Saturation Flow	Inf	Inf
J2:12/2	Infinite Saturation Flow	Inf	Inf

Scenario 3: '2031 Bkgd AM' (FG4: '2031 Bkgd AM', Plan 1: '2017 Observed AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	5	275	0	701	111	879	1971
	B	167	13	389	291	46	365	1271
	C	2	346	8	701	111	879	2047
	D	431	177	272	6	205	19	1110
	E	151	62	95	469	2	134	913
	F	467	192	295	5	51	5	1015
	Tot.	1223	1065	1059	2173	526	2281	8327

Traffic Lane Flows

Lane	Scenario 3: 2031 Bkgd AM
Junction: J1: M1 Junction 14	
J1:1/1 (short)	835
J1:1/2 (with short)	1593(In) 758(Out)
J1:1/3	549
J1:2/1	903
J1:2/2	557
J1:3/1 (short)	275
J1:3/2 (with short)	1123(In) 848(Out)
J1:3/3	848
J1:4/1	392
J1:4/2	1126
J1:4/3	848
J1:5/1	389
J1:5/2 (with short)	882(In) 411(Out)
J1:5/3 (short)	471
J1:6/1	1691
J1:6/2	356
J1:7/1	1259
J1:7/2 (with short)	1319(In) 1228(Out)
J1:7/3 (short)	91
J1:8/1	94
J1:8/2 (with short)	447(In) 439(Out)
J1:8/3 (short)	8
J1:9/1	1065
J1:10/1	586
J1:10/2	473
J1:11/1	1161
J1:11/2	1230
J1:11/3	1693
J1:12/1	929
J1:12/2	294
Junction: J2: Northfields Roundabout	
J2:1/1	461
J2:1/2 (with short)	554(In) 498(Out)
J2:1/3 (short)	56

J2:2/1	467
J2:2/2	795
J2:2/3	58
J2:3/1	423
J2:3/2	457
J2:3/3	230
J2:4/1	1161
J2:4/2	1230
J2:4/3 (with short)	1693(In) 950(Out)
J2:4/4 (short)	743
J2:5/1	147
J2:5/2	133
J2:5/3	8
J2:6/1	915
J2:6/2	1232
J2:6/3	950
J2:6/4	749
J2:7/1	294
J2:7/2 (with short)	619(In) 320(Out)
J2:7/3 (short)	299
J2:8/1	1110
J2:8/2	1069
J2:8/3	299
J2:9/1	1112
J2:9/2	1061
J2:10/1	890
J2:10/2	1252
J2:11/1	280
J2:11/2	246
J2:12/1	982
J2:12/2	1299

Lane Saturation Flows

Junction: J1: M1 Junction 14

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (A509 (S))	3.50	0.00	Y	Arm J1:12 Left	Inf	100.0 %	1965	1965
J1:1/2 (A509 (S))	3.50	0.00	N	Arm J1:2 Ahead	Inf	71.8 %	2105	2105
				Arm J1:12 Left	Inf	28.2 %		
J1:1/3 (A509 (S))	3.50	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1965	1965
J1:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (M1 S/B Off-Slip)	3.50	0.00	Y	Arm J1:9 Left	20.00	100.0 %	1828	1828
J1:3/2 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:3/3 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:4/3	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A509 London Road)	3.50	0.00	Y	Arm J1:10 Left	30.00	100.0 %	1871	1871
J1:5/2 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:5/3 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:6/1 (M1 N/B Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M1 N/B Off-Slip Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:7/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/3	3.50	0.00	Y	Arm J1:2 Right	25.00	100.0 %	1854	1854
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	Infinite Saturation Flow						Inf	Inf
J1:11/2	Infinite Saturation Flow						Inf	Inf
J1:11/3	Infinite Saturation Flow						Inf	Inf
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:12/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Northfields Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	98.9 %	1965	1965
				Arm J2:9 Left	Inf	1.1 %		
J2:1/2 (A4145 Childs Way (S))	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J2:1/3 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1965	1965
J2:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A509 (W))	3.50	0.00	Y	Arm J2:10 Left	Inf	100.0 %	1965	1965
J2:3/2 (A509 (W))	3.50	0.00	N	Arm J2:10 Left	Inf	100.0 %	2105	2105
J2:3/3 (A509 (W))	3.50	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1965	1965
J2:4/1 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	76.9 %	1965	1965
				Arm J2:11 Left	Inf	23.1 %		
J2:4/2 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/3 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/4 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	1965	1965
J2:5/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:7/1 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	54.4 %	1965	1965
				Arm J2:12 Left	Inf	45.6 %		
J2:7/2 (A5130 (E))	3.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2105	2105
J2:7/3 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	100.0 %	1965	1965
J2:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:9/1	Infinite Saturation Flow						Inf	Inf
J2:9/2	Infinite Saturation Flow						Inf	Inf
J2:10/1	Infinite Saturation Flow						Inf	Inf
J2:10/2	Infinite Saturation Flow						Inf	Inf

J2:11/1	Infinite Saturation Flow	Inf	Inf
J2:11/2	Infinite Saturation Flow	Inf	Inf
J2:12/1	Infinite Saturation Flow	Inf	Inf
J2:12/2	Infinite Saturation Flow	Inf	Inf

Scenario 4: '2031 WD AM' (FG5: '2031 WD AM', Plan 1: '2017 Observed AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	5	306	0	700	103	857	1971
	B	167	13	404	291	43	356	1274
	C	2	346	8	700	103	857	2016
	D	438	177	272	5	202	20	1114
	E	153	62	95	467	2	135	914
	F	474	192	295	5	50	5	1021
	Tot.	1239	1096	1074	2168	503	2230	8310

Traffic Lane Flows

Lane	Scenario 4: 2031 WD AM
Junction: J1: M1 Junction 14	
J1:1/1 (short)	867
J1:1/2 (with short)	1624(In) 757(Out)
J1:1/3	534
J1:2/1	918
J1:2/2	542
J1:3/1 (short)	306
J1:3/2 (with short)	1150(In) 844(Out)
J1:3/3	821
J1:4/1	399
J1:4/2	1115
J1:4/3	821
J1:5/1	404
J1:5/2 (with short)	870(In) 399(Out)
J1:5/3 (short)	471
J1:6/1	1660
J1:6/2	356
J1:7/1	1243
J1:7/2 (with short)	1292(In) 1200(Out)
J1:7/3 (short)	92
J1:8/1	93
J1:8/2 (with short)	448(In) 440(Out)
J1:8/3 (short)	8
J1:9/1	1096
J1:10/1	601
J1:10/2	473
J1:11/1	1126
J1:11/2	1193
J1:11/3	1691
J1:12/1	960
J1:12/2	279
Junction: J2: Northfields Roundabout	
J2:1/1	465
J2:1/2 (with short)	556(In) 501(Out)
J2:1/3 (short)	55

J2:2/1	473
J2:2/2	798
J2:2/3	57
J2:3/1	428
J2:3/2	459
J2:3/3	227
J2:4/1	1126
J2:4/2	1193
J2:4/3 (with short)	1691(In) 951(Out)
J2:4/4 (short)	740
J2:5/1	142
J2:5/2	130
J2:5/3	12
J2:6/1	895
J2:6/2	1200
J2:6/3	951
J2:6/4	745
J2:7/1	295
J2:7/2 (with short)	619(In) 320(Out)
J2:7/3 (short)	299
J2:8/1	1111
J2:8/2	1065
J2:8/3	299
J2:9/1	1113
J2:9/2	1055
J2:10/1	901
J2:10/2	1257
J2:11/1	265
J2:11/2	238
J2:12/1	962
J2:12/2	1268

Lane Saturation Flows

Junction: J1: M1 Junction 14

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (A509 (S))	3.50	0.00	Y	Arm J1:12 Left	Inf	100.0 %	1965	1965
J1:1/2 (A509 (S))	3.50	0.00	N	Arm J1:2 Ahead	Inf	73.8 %	2105	2105
				Arm J1:12 Left	Inf	26.2 %		
J1:1/3 (A509 (S))	3.50	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1965	1965
J1:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (M1 S/B Off-Slip)	3.50	0.00	Y	Arm J1:9 Left	20.00	100.0 %	1828	1828
J1:3/2 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:3/3 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:4/3	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A509 London Road)	3.50	0.00	Y	Arm J1:10 Left	30.00	100.0 %	1871	1871
J1:5/2 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:5/3 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:6/1 (M1 N/B Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M1 N/B Off-Slip Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:7/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/3	3.50	0.00	Y	Arm J1:2 Right	25.00	100.0 %	1854	1854
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	Infinite Saturation Flow						Inf	Inf
J1:11/2	Infinite Saturation Flow						Inf	Inf
J1:11/3	Infinite Saturation Flow						Inf	Inf
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:12/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Northfields Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	98.9 %	1965	1965
				Arm J2:9 Left	Inf	1.1 %		
J2:1/2 (A4145 Childs Way (S))	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J2:1/3 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1965	1965
J2:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A509 (W))	3.50	0.00	Y	Arm J2:10 Left	Inf	100.0 %	1965	1965
J2:3/2 (A509 (W))	3.50	0.00	N	Arm J2:10 Left	Inf	100.0 %	2105	2105
J2:3/3 (A509 (W))	3.50	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1965	1965
J2:4/1 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	77.9 %	1965	1965
				Arm J2:11 Left	Inf	22.1 %		
J2:4/2 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/3 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/4 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	1965	1965
J2:5/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:7/1 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	54.2 %	1965	1965
				Arm J2:12 Left	Inf	45.8 %		
J2:7/2 (A5130 (E))	3.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2105	2105
J2:7/3 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	100.0 %	1965	1965
J2:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:9/1	Infinite Saturation Flow						Inf	Inf
J2:9/2	Infinite Saturation Flow						Inf	Inf
J2:10/1	Infinite Saturation Flow						Inf	Inf
J2:10/2	Infinite Saturation Flow						Inf	Inf

J2:11/1	Infinite Saturation Flow	Inf	Inf
J2:11/2	Infinite Saturation Flow	Inf	Inf
J2:12/1	Infinite Saturation Flow	Inf	Inf
J2:12/2	Infinite Saturation Flow	Inf	Inf

Scenario 5: '2020 Bkgd PM' (FG7: '2020 Bkgd PM', Plan 1: '2017 Observed AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	2	256	0	270	83	447	1058
	B	234	31	357	149	45	247	1063
	C	0	390	15	229	70	379	1083
	D	612	271	462	4	245	7	1601
	E	192	85	145	241	1	110	774
	F	527	234	398	2	52	6	1219
	Tot.	1567	1267	1377	895	496	1196	6798

Traffic Lane Flows

Lane	Scenario 5: 2020 Bkgd PM
Junction: J1: M1 Junction 14	
J1:1/1 (short)	968
J1:1/2 (with short)	2007(In) 1039(Out)
J1:1/3	919
J1:2/1	1112
J1:2/2	919
J1:3/1 (short)	256
J1:3/2 (with short)	732(In) 476(Out)
J1:3/3	326
J1:4/1	560
J1:4/2	936
J1:4/3	326
J1:5/1	357
J1:5/2 (with short)	706(In) 228(Out)
J1:5/3 (short)	478
J1:6/1	678
J1:6/2	405
J1:7/1	704
J1:7/2 (with short)	804(In) 664(Out)
J1:7/3 (short)	140
J1:8/1	127
J1:8/2 (with short)	545(In) 545(Out)
J1:8/3 (short)	0
J1:9/1	1267
J1:10/1	738
J1:10/2	639
J1:11/1	616
J1:11/2	655
J1:11/3	648
J1:12/1	1095
J1:12/2	472
Junction: J2: Northfields Roundabout	
J2:1/1	559
J2:1/2 (with short)	660(In) 602(Out)
J2:1/3 (short)	58

J2:2/1	663
J2:2/2	918
J2:2/3	59
J2:3/1	649
J2:3/2	696
J2:3/3	256
J2:4/1	616
J2:4/2	655
J2:4/3 (with short)	648(In) 329(Out)
J2:4/4 (short)	319
J2:5/1	31
J2:5/2	277
J2:5/3	7
J2:6/1	428
J2:6/2	658
J2:6/3	329
J2:6/4	323
J2:7/1	243
J2:7/2 (with short)	531(In) 214(Out)
J2:7/3 (short)	317
J2:8/1	462
J2:8/2	537
J2:8/3	317
J2:9/1	463
J2:9/2	432
J2:10/1	1312
J2:10/2	1614
J2:11/1	129
J2:11/2	367
J2:12/1	483
J2:12/2	713

Lane Saturation Flows

Junction: J1: M1 Junction 14

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (A509 (S))	3.50	0.00	Y	Arm J1:12 Left	Inf	100.0 %	1965	1965
J1:1/2 (A509 (S))	3.50	0.00	N	Arm J1:2 Ahead	Inf	65.1 %	2105	2105
				Arm J1:12 Left	Inf	34.9 %		
J1:1/3 (A509 (S))	3.50	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1965	1965
J1:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (M1 S/B Off-Slip)	3.50	0.00	Y	Arm J1:9 Left	20.00	100.0 %	1828	1828
J1:3/2 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:3/3 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:4/3	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A509 London Road)	3.50	0.00	Y	Arm J1:10 Left	30.00	100.0 %	1871	1871
J1:5/2 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:5/3 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:6/1 (M1 N/B Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M1 N/B Off-Slip Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:7/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/3	3.50	0.00	Y	Arm J1:2 Right	25.00	0.0 %	1965	1965
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	Infinite Saturation Flow						Inf	Inf
J1:11/2	Infinite Saturation Flow						Inf	Inf
J1:11/3	Infinite Saturation Flow						Inf	Inf
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:12/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Northfields Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	99.6 %	1965	1965
				Arm J2:9 Left	Inf	0.4 %		
J2:1/2 (A4145 Childs Way (S))	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J2:1/3 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1965	1965
J2:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A509 (W))	3.50	0.00	Y	Arm J2:10 Left	Inf	100.0 %	1965	1965
J2:3/2 (A509 (W))	3.50	0.00	N	Arm J2:10 Left	Inf	100.0 %	2105	2105
J2:3/3 (A509 (W))	3.50	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1965	1965
J2:4/1 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	67.9 %	1965	1965
				Arm J2:11 Left	Inf	32.1 %		
J2:4/2 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/3 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/4 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	1965	1965
J2:5/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:7/1 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	54.7 %	1965	1965
				Arm J2:12 Left	Inf	45.3 %		
J2:7/2 (A5130 (E))	3.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2105	2105
J2:7/3 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	100.0 %	1965	1965
J2:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:9/1	Infinite Saturation Flow						Inf	Inf
J2:9/2	Infinite Saturation Flow						Inf	Inf
J2:10/1	Infinite Saturation Flow						Inf	Inf
J2:10/2	Infinite Saturation Flow						Inf	Inf

J2:11/1	Infinite Saturation Flow	Inf	Inf
J2:11/2	Infinite Saturation Flow	Inf	Inf
J2:12/1	Infinite Saturation Flow	Inf	Inf
J2:12/2	Infinite Saturation Flow	Inf	Inf

Scenario 6: '2020 WD PM' (FG8: '2020 WD PM', Plan 1: '2017 Observed AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	2	275	0	270	83	447	1077
	B	234	31	386	149	45	247	1092
	C	0	390	15	248	70	379	1102
	D	641	271	462	4	245	7	1630
	E	192	85	145	241	1	110	774
	F	527	234	398	2	52	6	1219
	Tot.	1596	1286	1406	914	496	1196	6894

Traffic Lane Flows

Lane	Scenario 6: 2020 WD PM
Junction: J1: M1 Junction 14	
J1:1/1 (short)	979
J1:1/2 (with short)	2023(In) 1044(Out)
J1:1/3	932
J1:2/1	1091
J1:2/2	940
J1:3/1 (short)	275
J1:3/2 (with short)	743(In) 468(Out)
J1:3/3	334
J1:4/1	550
J1:4/2	938
J1:4/3	334
J1:5/1	386
J1:5/2 (with short)	706(In) 253(Out)
J1:5/3 (short)	453
J1:6/1	697
J1:6/2	405
J1:7/1	721
J1:7/2 (with short)	787(In) 637(Out)
J1:7/3 (short)	150
J1:8/1	117
J1:8/2 (with short)	555(In) 547(Out)
J1:8/3 (short)	8
J1:9/1	1286
J1:10/1	743
J1:10/2	663
J1:11/1	617
J1:11/2	654
J1:11/3	667
J1:12/1	1096
J1:12/2	500
Junction: J2: Northfields Roundabout	
J2:1/1	560
J2:1/2 (with short)	659(In) 601(Out)
J2:1/3 (short)	58

J2:2/1	661
J2:2/2	920
J2:2/3	59
J2:3/1	663
J2:3/2	711
J2:3/3	256
J2:4/1	617
J2:4/2	654
J2:4/3 (with short)	667(In) 335(Out)
J2:4/4 (short)	332
J2:5/1	29
J2:5/2	279
J2:5/3	7
J2:6/1	429
J2:6/2	657
J2:6/3	335
J2:6/4	336
J2:7/1	276
J2:7/2 (with short)	498(In) 178(Out)
J2:7/3 (short)	320
J2:8/1	501
J2:8/2	514
J2:8/3	320
J2:9/1	502
J2:9/2	412
J2:10/1	1324
J2:10/2	1631
J2:11/1	127
J2:11/2	369
J2:12/1	484
J2:12/2	712

Lane Saturation Flows

Junction: J1: M1 Junction 14

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (A509 (S))	3.50	0.00	Y	Arm J1:12 Left	Inf	100.0 %	1965	1965
J1:1/2 (A509 (S))	3.50	0.00	N	Arm J1:2 Ahead	Inf	63.5 %	2105	2105
				Arm J1:12 Left	Inf	36.5 %		
J1:1/3 (A509 (S))	3.50	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1965	1965
J1:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (M1 S/B Off-Slip)	3.50	0.00	Y	Arm J1:9 Left	20.00	100.0 %	1828	1828
J1:3/2 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:3/3 (M1 S/B Off-Slip)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:4/3	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A509 London Road)	3.50	0.00	Y	Arm J1:10 Left	30.00	100.0 %	1871	1871
J1:5/2 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:5/3 (A509 London Road)	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:6/1 (M1 N/B Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M1 N/B Off-Slip Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:7/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:7/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:8/3	3.50	0.00	Y	Arm J1:2 Right	25.00	100.0 %	1854	1854
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	Infinite Saturation Flow						Inf	Inf
J1:11/2	Infinite Saturation Flow						Inf	Inf
J1:11/3	Infinite Saturation Flow						Inf	Inf
J1:12/1	Infinite Saturation Flow						Inf	Inf
J1:12/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Northfields Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	99.6 %	1965	1965
				Arm J2:9 Left	Inf	0.4 %		
J2:1/2 (A4145 Childs Way (S))	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J2:1/3 (A4145 Childs Way (S))	3.50	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1965	1965
J2:2/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A509 (W))	3.50	0.00	Y	Arm J2:10 Left	Inf	100.0 %	1965	1965
J2:3/2 (A509 (W))	3.50	0.00	N	Arm J2:10 Left	Inf	100.0 %	2105	2105
J2:3/3 (A509 (W))	3.50	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1965	1965
J2:4/1 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	67.9 %	1965	1965
				Arm J2:11 Left	Inf	32.1 %		
J2:4/2 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/3 (A509 (N))	3.50	0.00	N	Arm J2:6 Ahead	Inf	100.0 %	2105	2105
J2:4/4 (A509 (N))	3.50	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	1965	1965
J2:5/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:6/4	This lane uses a directly entered Saturation Flow						1900	1900
J2:7/1 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	60.1 %	1965	1965
				Arm J2:12 Left	Inf	39.9 %		
J2:7/2 (A5130 (E))	3.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2105	2105
J2:7/3 (A5130 (E))	3.50	0.00	Y	Arm J2:8 Ahead	Inf	100.0 %	1965	1965
J2:8/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/2	This lane uses a directly entered Saturation Flow						1900	1900
J2:8/3	This lane uses a directly entered Saturation Flow						1900	1900
J2:9/1	Infinite Saturation Flow						Inf	Inf
J2:9/2	Infinite Saturation Flow						Inf	Inf
J2:10/1	Infinite Saturation Flow						Inf	Inf
J2:10/2	Infinite Saturation Flow						Inf	Inf