

LIST OF SITES relevant to selection parameters

1	DV-02-F-02 CHILLPARK BRAKE NEAR EXETER CLYST HONITON Free Standing (PPS6 Out of Town) Out of Town Total Gross floor area: 50000 sqm <i>Survey date: WEDNESDAY 03/04/19</i>	LI DL DISTRIBUTION CENTRE	DEVON	<i>Survey Type: MANUAL</i>
2	EX-02-F-01 BRUNEL WAY COLCHESTER SEVERALLS INDUSTRIAL PK Edge of Town Industrial Zone Total Gross floor area: 6560 sqm <i>Survey date: FRIDAY 18/05/18</i>	SPORTS SUPPLEMENTS	ESSEX	<i>Survey Type: MANUAL</i>
3	HD-02-F-01 NINE ACRES CLOSE HAYES Edge of Town Industrial Zone Total Gross floor area: 8673 sqm <i>Survey date: THURSDAY 27/09/18</i>	FOOD DISTRIBUTOR	HILLINGDON	<i>Survey Type: MANUAL</i>
4	HO-02-F-01 ASCOT ROAD FELTHAM Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 13500 sqm <i>Survey date: WEDNESDAY 23/11/16</i>	LOGISTICS AND FREIGHT	HOUNSLOW	<i>Survey Type: MANUAL</i>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.024	1	50000	0.020	1	50000	0.044
06:00 - 07:00	1	50000	0.046	1	50000	0.030	1	50000	0.076
07:00 - 08:00	4	19683	0.166	4	19683	0.053	4	19683	0.219
08:00 - 09:00	4	19683	0.255	4	19683	0.071	4	19683	0.326
09:00 - 10:00	4	19683	0.192	4	19683	0.100	4	19683	0.292
10:00 - 11:00	4	19683	0.091	4	19683	0.094	4	19683	0.185
11:00 - 12:00	4	19683	0.124	4	19683	0.138	4	19683	0.262
12:00 - 13:00	4	19683	0.127	4	19683	0.173	4	19683	0.300
13:00 - 14:00	4	19683	0.173	4	19683	0.144	4	19683	0.317
14:00 - 15:00	4	19683	0.077	4	19683	0.118	4	19683	0.195
15:00 - 16:00	4	19683	0.086	4	19683	0.111	4	19683	0.197
16:00 - 17:00	4	19683	0.102	4	19683	0.142	4	19683	0.244
17:00 - 18:00	4	19683	0.076	4	19683	0.230	4	19683	0.306
18:00 - 19:00	4	19683	0.056	4	19683	0.171	4	19683	0.227
19:00 - 20:00	1	50000	0.014	1	50000	0.014	1	50000	0.028
20:00 - 21:00	1	50000	0.028	1	50000	0.022	1	50000	0.050
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.637			1.631			3.268

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	6560 - 50000 (units: sqm)
Survey date date range:	01/01/12 - 03/04/19
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
12:00 - 13:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
15:00 - 16:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
16:00 - 17:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
17:00 - 18:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
18:00 - 19:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.002			0.004

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.016	1	50000	0.014	1	50000	0.030
06:00 - 07:00	1	50000	0.034	1	50000	0.018	1	50000	0.052
07:00 - 08:00	4	19683	0.044	4	19683	0.034	4	19683	0.078
08:00 - 09:00	4	19683	0.052	4	19683	0.042	4	19683	0.094
09:00 - 10:00	4	19683	0.066	4	19683	0.042	4	19683	0.108
10:00 - 11:00	4	19683	0.037	4	19683	0.037	4	19683	0.074
11:00 - 12:00	4	19683	0.030	4	19683	0.048	4	19683	0.078
12:00 - 13:00	4	19683	0.034	4	19683	0.052	4	19683	0.086
13:00 - 14:00	4	19683	0.025	4	19683	0.039	4	19683	0.064
14:00 - 15:00	4	19683	0.019	4	19683	0.022	4	19683	0.041
15:00 - 16:00	4	19683	0.028	4	19683	0.018	4	19683	0.046
16:00 - 17:00	4	19683	0.027	4	19683	0.019	4	19683	0.046
17:00 - 18:00	4	19683	0.017	4	19683	0.019	4	19683	0.036
18:00 - 19:00	4	19683	0.011	4	19683	0.020	4	19683	0.031
19:00 - 20:00	1	50000	0.008	1	50000	0.010	1	50000	0.018
20:00 - 21:00	1	50000	0.012	1	50000	0.008	1	50000	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.460			0.442			0.902

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
12:00 - 13:00	4	19683	0.003	4	19683	0.003	4	19683	0.006
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
15:00 - 16:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
16:00 - 17:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
17:00 - 18:00	4	19683	0.004	4	19683	0.003	4	19683	0.007
18:00 - 19:00	4	19683	0.000	4	19683	0.001	4	19683	0.001
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.002	1	50000	0.002	1	50000	0.004
07:00 - 08:00	4	19683	0.004	4	19683	0.000	4	19683	0.004
08:00 - 09:00	4	19683	0.006	4	19683	0.001	4	19683	0.007
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.003	4	19683	0.000	4	19683	0.003
12:00 - 13:00	4	19683	0.003	4	19683	0.000	4	19683	0.003
13:00 - 14:00	4	19683	0.008	4	19683	0.006	4	19683	0.014
14:00 - 15:00	4	19683	0.005	4	19683	0.001	4	19683	0.006
15:00 - 16:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
16:00 - 17:00	4	19683	0.008	4	19683	0.014	4	19683	0.022
17:00 - 18:00	4	19683	0.003	4	19683	0.008	4	19683	0.011
18:00 - 19:00	4	19683	0.001	4	19683	0.004	4	19683	0.005
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.040			0.083

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.032	1	50000	0.024	1	50000	0.056
06:00 - 07:00	1	50000	0.078	1	50000	0.036	1	50000	0.114
07:00 - 08:00	4	19683	0.213	4	19683	0.065	4	19683	0.278
08:00 - 09:00	4	19683	0.326	4	19683	0.085	4	19683	0.411
09:00 - 10:00	4	19683	0.248	4	19683	0.135	4	19683	0.383
10:00 - 11:00	4	19683	0.117	4	19683	0.109	4	19683	0.226
11:00 - 12:00	4	19683	0.149	4	19683	0.173	4	19683	0.322
12:00 - 13:00	4	19683	0.156	4	19683	0.226	4	19683	0.382
13:00 - 14:00	4	19683	0.236	4	19683	0.199	4	19683	0.435
14:00 - 15:00	4	19683	0.097	4	19683	0.144	4	19683	0.241
15:00 - 16:00	4	19683	0.099	4	19683	0.137	4	19683	0.236
16:00 - 17:00	4	19683	0.124	4	19683	0.187	4	19683	0.311
17:00 - 18:00	4	19683	0.090	4	19683	0.291	4	19683	0.381
18:00 - 19:00	4	19683	0.062	4	19683	0.216	4	19683	0.278
19:00 - 20:00	1	50000	0.014	1	50000	0.020	1	50000	0.034
20:00 - 21:00	1	50000	0.036	1	50000	0.032	1	50000	0.068
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.077			2.079			4.156

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.009	4	19683	0.000	4	19683	0.009
08:00 - 09:00	4	19683	0.010	4	19683	0.001	4	19683	0.011
09:00 - 10:00	4	19683	0.005	4	19683	0.000	4	19683	0.005
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
12:00 - 13:00	4	19683	0.011	4	19683	0.017	4	19683	0.028
13:00 - 14:00	4	19683	0.014	4	19683	0.004	4	19683	0.018
14:00 - 15:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
15:00 - 16:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
16:00 - 17:00	4	19683	0.006	4	19683	0.009	4	19683	0.015
17:00 - 18:00	4	19683	0.001	4	19683	0.011	4	19683	0.012
18:00 - 19:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
19:00 - 20:00	1	50000	0.000	1	50000	0.002	1	50000	0.002
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.049			0.106

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.002	1	50000	0.000	1	50000	0.002
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.009	4	19683	0.000	4	19683	0.009
08:00 - 09:00	4	19683	0.023	4	19683	0.000	4	19683	0.023
09:00 - 10:00	4	19683	0.001	4	19683	0.000	4	19683	0.001
10:00 - 11:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
11:00 - 12:00	4	19683	0.003	4	19683	0.000	4	19683	0.003
12:00 - 13:00	4	19683	0.015	4	19683	0.006	4	19683	0.021
13:00 - 14:00	4	19683	0.009	4	19683	0.006	4	19683	0.015
14:00 - 15:00	4	19683	0.001	4	19683	0.006	4	19683	0.007
15:00 - 16:00	4	19683	0.001	4	19683	0.005	4	19683	0.006
16:00 - 17:00	4	19683	0.013	4	19683	0.023	4	19683	0.036
17:00 - 18:00	4	19683	0.006	4	19683	0.020	4	19683	0.026
18:00 - 19:00	4	19683	0.003	4	19683	0.006	4	19683	0.009
19:00 - 20:00	1	50000	0.004	1	50000	0.002	1	50000	0.006
20:00 - 21:00	1	50000	0.004	1	50000	0.000	1	50000	0.004
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.095			0.075			0.170

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.006	4	19683	0.000	4	19683	0.006
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.004	4	19683	0.000	4	19683	0.004
12:00 - 13:00	4	19683	0.001	4	19683	0.003	4	19683	0.004
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
15:00 - 16:00	4	19683	0.000	4	19683	0.001	4	19683	0.001
16:00 - 17:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
17:00 - 18:00	4	19683	0.003	4	19683	0.001	4	19683	0.004
18:00 - 19:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.013			0.027

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
12:00 - 13:00	4	19683	0.018	4	19683	0.019	4	19683	0.037
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.006	4	19683	0.013	4	19683	0.019
15:00 - 16:00	4	19683	0.005	4	19683	0.006	4	19683	0.011
16:00 - 17:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
17:00 - 18:00	4	19683	0.014	4	19683	0.006	4	19683	0.020
18:00 - 19:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.044			0.087

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.002	1	50000	0.000	1	50000	0.002
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.009	4	19683	0.000	4	19683	0.009
08:00 - 09:00	4	19683	0.029	4	19683	0.000	4	19683	0.029
09:00 - 10:00	4	19683	0.001	4	19683	0.000	4	19683	0.001
10:00 - 11:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
11:00 - 12:00	4	19683	0.006	4	19683	0.000	4	19683	0.006
12:00 - 13:00	4	19683	0.034	4	19683	0.028	4	19683	0.062
13:00 - 14:00	4	19683	0.009	4	19683	0.006	4	19683	0.015
14:00 - 15:00	4	19683	0.008	4	19683	0.023	4	19683	0.031
15:00 - 16:00	4	19683	0.006	4	19683	0.013	4	19683	0.019
16:00 - 17:00	4	19683	0.013	4	19683	0.027	4	19683	0.040
17:00 - 18:00	4	19683	0.023	4	19683	0.028	4	19683	0.051
18:00 - 19:00	4	19683	0.003	4	19683	0.006	4	19683	0.009
19:00 - 20:00	1	50000	0.004	1	50000	0.002	1	50000	0.006
20:00 - 21:00	1	50000	0.004	1	50000	0.000	1	50000	0.004
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.152			0.134			0.286

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.034	1	50000	0.024	1	50000	0.058
06:00 - 07:00	1	50000	0.080	1	50000	0.038	1	50000	0.118
07:00 - 08:00	4	19683	0.235	4	19683	0.065	4	19683	0.300
08:00 - 09:00	4	19683	0.372	4	19683	0.088	4	19683	0.460
09:00 - 10:00	4	19683	0.254	4	19683	0.135	4	19683	0.389
10:00 - 11:00	4	19683	0.118	4	19683	0.111	4	19683	0.229
11:00 - 12:00	4	19683	0.159	4	19683	0.174	4	19683	0.333
12:00 - 13:00	4	19683	0.204	4	19683	0.271	4	19683	0.475
13:00 - 14:00	4	19683	0.267	4	19683	0.216	4	19683	0.483
14:00 - 15:00	4	19683	0.109	4	19683	0.168	4	19683	0.277
15:00 - 16:00	4	19683	0.105	4	19683	0.154	4	19683	0.259
16:00 - 17:00	4	19683	0.151	4	19683	0.236	4	19683	0.387
17:00 - 18:00	4	19683	0.117	4	19683	0.338	4	19683	0.455
18:00 - 19:00	4	19683	0.066	4	19683	0.230	4	19683	0.296
19:00 - 20:00	1	50000	0.018	1	50000	0.024	1	50000	0.042
20:00 - 21:00	1	50000	0.040	1	50000	0.032	1	50000	0.072
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.329			2.304			4.633

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.006	1	50000	0.004	1	50000	0.010
06:00 - 07:00	1	50000	0.010	1	50000	0.010	1	50000	0.020
07:00 - 08:00	4	19683	0.109	4	19683	0.014	4	19683	0.123
08:00 - 09:00	4	19683	0.177	4	19683	0.015	4	19683	0.192
09:00 - 10:00	4	19683	0.085	4	19683	0.030	4	19683	0.115
10:00 - 11:00	4	19683	0.020	4	19683	0.027	4	19683	0.047
11:00 - 12:00	4	19683	0.048	4	19683	0.051	4	19683	0.099
12:00 - 13:00	4	19683	0.052	4	19683	0.086	4	19683	0.138
13:00 - 14:00	4	19683	0.124	4	19683	0.081	4	19683	0.205
14:00 - 15:00	4	19683	0.043	4	19683	0.066	4	19683	0.109
15:00 - 16:00	4	19683	0.024	4	19683	0.061	4	19683	0.085
16:00 - 17:00	4	19683	0.047	4	19683	0.097	4	19683	0.144
17:00 - 18:00	4	19683	0.042	4	19683	0.184	4	19683	0.226
18:00 - 19:00	4	19683	0.029	4	19683	0.123	4	19683	0.152
19:00 - 20:00	1	50000	0.006	1	50000	0.004	1	50000	0.010
20:00 - 21:00	1	50000	0.014	1	50000	0.012	1	50000	0.026
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.836			0.865			1.701

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.002	1	50000	0.002	1	50000	0.004
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.011	4	19683	0.005	4	19683	0.016
08:00 - 09:00	4	19683	0.024	4	19683	0.013	4	19683	0.037
09:00 - 10:00	4	19683	0.041	4	19683	0.028	4	19683	0.069
10:00 - 11:00	4	19683	0.034	4	19683	0.030	4	19683	0.064
11:00 - 12:00	4	19683	0.044	4	19683	0.038	4	19683	0.082
12:00 - 13:00	4	19683	0.033	4	19683	0.032	4	19683	0.065
13:00 - 14:00	4	19683	0.018	4	19683	0.020	4	19683	0.038
14:00 - 15:00	4	19683	0.014	4	19683	0.024	4	19683	0.038
15:00 - 16:00	4	19683	0.027	4	19683	0.027	4	19683	0.054
16:00 - 17:00	4	19683	0.022	4	19683	0.023	4	19683	0.045
17:00 - 18:00	4	19683	0.013	4	19683	0.019	4	19683	0.032
18:00 - 19:00	4	19683	0.015	4	19683	0.025	4	19683	0.040
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.002	1	50000	0.002	1	50000	0.004
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.300			0.288			0.588

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.002	1	50000	0.002	1	50000	0.004
07:00 - 08:00	4	19683	0.001	4	19683	0.000	4	19683	0.001
08:00 - 09:00	4	19683	0.001	4	19683	0.000	4	19683	0.001
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.001	4	19683	0.001	4	19683	0.002
12:00 - 13:00	4	19683	0.005	4	19683	0.000	4	19683	0.005
13:00 - 14:00	4	19683	0.005	4	19683	0.003	4	19683	0.008
14:00 - 15:00	4	19683	0.000	4	19683	0.005	4	19683	0.005
15:00 - 16:00	4	19683	0.006	4	19683	0.004	4	19683	0.010
16:00 - 17:00	4	19683	0.005	4	19683	0.003	4	19683	0.008
17:00 - 18:00	4	19683	0.001	4	19683	0.005	4	19683	0.006
18:00 - 19:00	4	19683	0.000	4	19683	0.001	4	19683	0.001
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.027			0.024			0.051

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Underground Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.003	4	19683	0.000	4	19683	0.003
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
12:00 - 13:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
15:00 - 16:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
16:00 - 17:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
17:00 - 18:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
18:00 - 19:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.000			0.003

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Overground Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
12:00 - 13:00	4	19683	0.001	4	19683	0.000	4	19683	0.001
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
15:00 - 16:00	4	19683	0.000	4	19683	0.001	4	19683	0.001
16:00 - 17:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
17:00 - 18:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
18:00 - 19:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.001			0.002

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL National Rail Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
08:00 - 09:00	4	19683	0.004	4	19683	0.000	4	19683	0.004
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.004	4	19683	0.000	4	19683	0.004
12:00 - 13:00	4	19683	0.000	4	19683	0.003	4	19683	0.003
13:00 - 14:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
14:00 - 15:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
15:00 - 16:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
16:00 - 17:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
17:00 - 18:00	4	19683	0.003	4	19683	0.001	4	19683	0.004
18:00 - 19:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.012			0.023

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Bus Passengers

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
06:00 - 07:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
07:00 - 08:00	4	19683	0.008	4	19683	0.000	4	19683	0.008
08:00 - 09:00	4	19683	0.017	4	19683	0.000	4	19683	0.017
09:00 - 10:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
10:00 - 11:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
11:00 - 12:00	4	19683	0.000	4	19683	0.000	4	19683	0.000
12:00 - 13:00	4	19683	0.010	4	19683	0.003	4	19683	0.013
13:00 - 14:00	4	19683	0.005	4	19683	0.001	4	19683	0.006
14:00 - 15:00	4	19683	0.001	4	19683	0.005	4	19683	0.006
15:00 - 16:00	4	19683	0.000	4	19683	0.004	4	19683	0.004
16:00 - 17:00	4	19683	0.013	4	19683	0.023	4	19683	0.036
17:00 - 18:00	4	19683	0.006	4	19683	0.013	4	19683	0.019
18:00 - 19:00	4	19683	0.001	4	19683	0.005	4	19683	0.006
19:00 - 20:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
20:00 - 21:00	1	50000	0.000	1	50000	0.000	1	50000	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.061			0.054			0.115

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Servicing Vehicles

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	50000	0.016	1	50000	0.014	1	50000	0.030
06:00 - 07:00	1	50000	0.034	1	50000	0.018	1	50000	0.052
07:00 - 08:00	4	19683	0.055	4	19683	0.041	4	19683	0.096
08:00 - 09:00	4	19683	0.064	4	19683	0.050	4	19683	0.114
09:00 - 10:00	4	19683	0.090	4	19683	0.062	4	19683	0.152
10:00 - 11:00	4	19683	0.061	4	19683	0.066	4	19683	0.127
11:00 - 12:00	4	19683	0.062	4	19683	0.077	4	19683	0.139
12:00 - 13:00	4	19683	0.056	4	19683	0.076	4	19683	0.132
13:00 - 14:00	4	19683	0.039	4	19683	0.055	4	19683	0.094
14:00 - 15:00	4	19683	0.027	4	19683	0.036	4	19683	0.063
15:00 - 16:00	4	19683	0.050	4	19683	0.037	4	19683	0.087
16:00 - 17:00	4	19683	0.042	4	19683	0.034	4	19683	0.076
17:00 - 18:00	4	19683	0.028	4	19683	0.028	4	19683	0.056
18:00 - 19:00	4	19683	0.023	4	19683	0.041	4	19683	0.064
19:00 - 20:00	1	50000	0.008	1	50000	0.010	1	50000	0.018
20:00 - 21:00	1	50000	0.012	1	50000	0.008	1	50000	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.667			0.653			1.320

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 1880 to 67459 (units: sqm)
 Range Selected by User: 1880 to 67459 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 24/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday 2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 2 days
 Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	1
Village	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

B2 2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Use Class Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	2 days
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This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	2 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	HE-02-C-02 COLLEGE ROAD HEREFORD BURCOTT Edge of Town Commercial Zone Total Gross floor area: 1880 sqm <i>Survey date: TUESDAY 22/10/13</i>	THERMAL PROCESSING	HEREFORDSHIRE	<i>Survey Type: MANUAL</i>
2	WS-02-C-03 STANE STREET NEAR CHICHESTER WESTHAMPNETT Neighbourhood Centre (PPS6 Local Centre) Village Total Gross floor area: 67459 sqm <i>Survey date: TUESDAY 24/09/19</i>	ROLLS ROYCE HQ & PLANT	WEST SUSSEX	<i>Survey Type: MANUAL</i>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.532	1	67459	0.006	1	67459	0.538
06:00 - 07:00	1	67459	0.345	1	67459	0.076	1	67459	0.421
07:00 - 08:00	2	34670	0.374	2	34670	0.046	2	34670	0.420
08:00 - 09:00	2	34670	0.235	2	34670	0.035	2	34670	0.270
09:00 - 10:00	2	34670	0.105	2	34670	0.056	2	34670	0.161
10:00 - 11:00	2	34670	0.074	2	34670	0.052	2	34670	0.126
11:00 - 12:00	2	34670	0.053	2	34670	0.046	2	34670	0.099
12:00 - 13:00	2	34670	0.075	2	34670	0.050	2	34670	0.125
13:00 - 14:00	2	34670	0.232	2	34670	0.076	2	34670	0.308
14:00 - 15:00	2	34670	0.441	2	34670	0.512	2	34670	0.953
15:00 - 16:00	2	34670	0.059	2	34670	0.329	2	34670	0.388
16:00 - 17:00	2	34670	0.052	2	34670	0.296	2	34670	0.348
17:00 - 18:00	2	34670	0.048	2	34670	0.327	2	34670	0.375
18:00 - 19:00	2	34670	0.032	2	34670	0.173	2	34670	0.205
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.657			2.080			4.737

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	1880 - 67459 (units: sqm)
Survey date date range:	01/01/10 - 24/09/19
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.001	1	67459	0.001	1	67459	0.002
06:00 - 07:00	1	67459	0.000	1	67459	0.000	1	67459	0.000
07:00 - 08:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
08:00 - 09:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
09:00 - 10:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
10:00 - 11:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
11:00 - 12:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
12:00 - 13:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
13:00 - 14:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
14:00 - 15:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
15:00 - 16:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
16:00 - 17:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
17:00 - 18:00	2	34670	0.004	2	34670	0.004	2	34670	0.008
18:00 - 19:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.007	1	67459	0.001	1	67459	0.008
06:00 - 07:00	1	67459	0.009	1	67459	0.007	1	67459	0.016
07:00 - 08:00	2	34670	0.009	2	34670	0.010	2	34670	0.019
08:00 - 09:00	2	34670	0.010	2	34670	0.010	2	34670	0.020
09:00 - 10:00	2	34670	0.014	2	34670	0.016	2	34670	0.030
10:00 - 11:00	2	34670	0.012	2	34670	0.010	2	34670	0.022
11:00 - 12:00	2	34670	0.012	2	34670	0.012	2	34670	0.024
12:00 - 13:00	2	34670	0.010	2	34670	0.012	2	34670	0.022
13:00 - 14:00	2	34670	0.007	2	34670	0.007	2	34670	0.014
14:00 - 15:00	2	34670	0.004	2	34670	0.006	2	34670	0.010
15:00 - 16:00	2	34670	0.012	2	34670	0.007	2	34670	0.019
16:00 - 17:00	2	34670	0.007	2	34670	0.009	2	34670	0.016
17:00 - 18:00	2	34670	0.013	2	34670	0.010	2	34670	0.023
18:00 - 19:00	2	34670	0.007	2	34670	0.013	2	34670	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.133			0.130			0.263

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.003	1	67459	0.003	1	67459	0.006
06:00 - 07:00	1	67459	0.003	1	67459	0.003	1	67459	0.006
07:00 - 08:00	2	34670	0.003	2	34670	0.003	2	34670	0.006
08:00 - 09:00	2	34670	0.003	2	34670	0.003	2	34670	0.006
09:00 - 10:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
10:00 - 11:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
11:00 - 12:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
12:00 - 13:00	2	34670	0.003	2	34670	0.003	2	34670	0.006
13:00 - 14:00	2	34670	0.003	2	34670	0.001	2	34670	0.004
14:00 - 15:00	2	34670	0.003	2	34670	0.004	2	34670	0.007
15:00 - 16:00	2	34670	0.003	2	34670	0.003	2	34670	0.006
16:00 - 17:00	2	34670	0.004	2	34670	0.004	2	34670	0.008
17:00 - 18:00	2	34670	0.003	2	34670	0.003	2	34670	0.006
18:00 - 19:00	2	34670	0.003	2	34670	0.003	2	34670	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.037			0.036			0.073

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.018	1	67459	0.000	1	67459	0.018
06:00 - 07:00	1	67459	0.022	1	67459	0.004	1	67459	0.026
07:00 - 08:00	2	34670	0.017	2	34670	0.000	2	34670	0.017
08:00 - 09:00	2	34670	0.003	2	34670	0.000	2	34670	0.003
09:00 - 10:00	2	34670	0.003	2	34670	0.000	2	34670	0.003
10:00 - 11:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
11:00 - 12:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
12:00 - 13:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
13:00 - 14:00	2	34670	0.006	2	34670	0.000	2	34670	0.006
14:00 - 15:00	2	34670	0.026	2	34670	0.017	2	34670	0.043
15:00 - 16:00	2	34670	0.000	2	34670	0.006	2	34670	0.006
16:00 - 17:00	2	34670	0.000	2	34670	0.017	2	34670	0.017
17:00 - 18:00	2	34670	0.004	2	34670	0.006	2	34670	0.010
18:00 - 19:00	2	34670	0.001	2	34670	0.007	2	34670	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.102			0.057			0.159

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.631	1	67459	0.001	1	67459	0.632
06:00 - 07:00	1	67459	0.369	1	67459	0.086	1	67459	0.455
07:00 - 08:00	2	34670	0.415	2	34670	0.048	2	34670	0.463
08:00 - 09:00	2	34670	0.251	2	34670	0.032	2	34670	0.283
09:00 - 10:00	2	34670	0.108	2	34670	0.063	2	34670	0.171
10:00 - 11:00	2	34670	0.087	2	34670	0.063	2	34670	0.150
11:00 - 12:00	2	34670	0.058	2	34670	0.049	2	34670	0.107
12:00 - 13:00	2	34670	0.087	2	34670	0.056	2	34670	0.143
13:00 - 14:00	2	34670	0.245	2	34670	0.087	2	34670	0.332
14:00 - 15:00	2	34670	0.570	2	34670	0.661	2	34670	1.231
15:00 - 16:00	2	34670	0.066	2	34670	0.378	2	34670	0.444
16:00 - 17:00	2	34670	0.061	2	34670	0.337	2	34670	0.398
17:00 - 18:00	2	34670	0.056	2	34670	0.368	2	34670	0.424
18:00 - 19:00	2	34670	0.033	2	34670	0.187	2	34670	0.220
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.037			2.416			5.453

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.030	1	67459	0.000	1	67459	0.030
06:00 - 07:00	1	67459	0.003	1	67459	0.000	1	67459	0.003
07:00 - 08:00	2	34670	0.016	2	34670	0.000	2	34670	0.016
08:00 - 09:00	2	34670	0.014	2	34670	0.003	2	34670	0.017
09:00 - 10:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
10:00 - 11:00	2	34670	0.006	2	34670	0.003	2	34670	0.009
11:00 - 12:00	2	34670	0.000	2	34670	0.001	2	34670	0.001
12:00 - 13:00	2	34670	0.006	2	34670	0.016	2	34670	0.022
13:00 - 14:00	2	34670	0.010	2	34670	0.000	2	34670	0.010
14:00 - 15:00	2	34670	0.040	2	34670	0.039	2	34670	0.079
15:00 - 16:00	2	34670	0.000	2	34670	0.004	2	34670	0.004
16:00 - 17:00	2	34670	0.000	2	34670	0.007	2	34670	0.007
17:00 - 18:00	2	34670	0.000	2	34670	0.020	2	34670	0.020
18:00 - 19:00	2	34670	0.001	2	34670	0.003	2	34670	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.127			0.097			0.224

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.000	1	67459	0.000	1	67459	0.000
06:00 - 07:00	1	67459	0.001	1	67459	0.007	1	67459	0.008
07:00 - 08:00	2	34670	0.010	2	34670	0.000	2	34670	0.010
08:00 - 09:00	2	34670	0.007	2	34670	0.000	2	34670	0.007
09:00 - 10:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
10:00 - 11:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
11:00 - 12:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
12:00 - 13:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
13:00 - 14:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
14:00 - 15:00	2	34670	0.000	2	34670	0.001	2	34670	0.001
15:00 - 16:00	2	34670	0.000	2	34670	0.007	2	34670	0.007
16:00 - 17:00	2	34670	0.000	2	34670	0.007	2	34670	0.007
17:00 - 18:00	2	34670	0.000	2	34670	0.006	2	34670	0.006
18:00 - 19:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.028			0.050

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.001	1	67459	0.000	1	67459	0.001
06:00 - 07:00	1	67459	0.000	1	67459	0.000	1	67459	0.000
07:00 - 08:00	2	34670	0.003	2	34670	0.000	2	34670	0.003
08:00 - 09:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
09:00 - 10:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
10:00 - 11:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
11:00 - 12:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
12:00 - 13:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
13:00 - 14:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
14:00 - 15:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
15:00 - 16:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
16:00 - 17:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
17:00 - 18:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
18:00 - 19:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.004			0.000			0.004

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.095	1	67459	0.000	1	67459	0.095
06:00 - 07:00	1	67459	0.018	1	67459	0.001	1	67459	0.019
07:00 - 08:00	2	34670	0.012	2	34670	0.000	2	34670	0.012
08:00 - 09:00	2	34670	0.006	2	34670	0.007	2	34670	0.013
09:00 - 10:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
10:00 - 11:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
11:00 - 12:00	2	34670	0.004	2	34670	0.000	2	34670	0.004
12:00 - 13:00	2	34670	0.003	2	34670	0.001	2	34670	0.004
13:00 - 14:00	2	34670	0.004	2	34670	0.000	2	34670	0.004
14:00 - 15:00	2	34670	0.000	2	34670	0.082	2	34670	0.082
15:00 - 16:00	2	34670	0.000	2	34670	0.017	2	34670	0.017
16:00 - 17:00	2	34670	0.001	2	34670	0.014	2	34670	0.015
17:00 - 18:00	2	34670	0.000	2	34670	0.001	2	34670	0.001
18:00 - 19:00	2	34670	0.000	2	34670	0.001	2	34670	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.144			0.124			0.268

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.096	1	67459	0.000	1	67459	0.096
06:00 - 07:00	1	67459	0.019	1	67459	0.009	1	67459	0.028
07:00 - 08:00	2	34670	0.025	2	34670	0.000	2	34670	0.025
08:00 - 09:00	2	34670	0.013	2	34670	0.007	2	34670	0.020
09:00 - 10:00	2	34670	0.003	2	34670	0.000	2	34670	0.003
10:00 - 11:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
11:00 - 12:00	2	34670	0.006	2	34670	0.000	2	34670	0.006
12:00 - 13:00	2	34670	0.004	2	34670	0.001	2	34670	0.005
13:00 - 14:00	2	34670	0.004	2	34670	0.000	2	34670	0.004
14:00 - 15:00	2	34670	0.000	2	34670	0.084	2	34670	0.084
15:00 - 16:00	2	34670	0.000	2	34670	0.025	2	34670	0.025
16:00 - 17:00	2	34670	0.001	2	34670	0.022	2	34670	0.023
17:00 - 18:00	2	34670	0.000	2	34670	0.007	2	34670	0.007
18:00 - 19:00	2	34670	0.000	2	34670	0.001	2	34670	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.172			0.156			0.328

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.775	1	67459	0.001	1	67459	0.776
06:00 - 07:00	1	67459	0.414	1	67459	0.099	1	67459	0.513
07:00 - 08:00	2	34670	0.473	2	34670	0.048	2	34670	0.521
08:00 - 09:00	2	34670	0.281	2	34670	0.042	2	34670	0.323
09:00 - 10:00	2	34670	0.115	2	34670	0.065	2	34670	0.180
10:00 - 11:00	2	34670	0.095	2	34670	0.066	2	34670	0.161
11:00 - 12:00	2	34670	0.063	2	34670	0.050	2	34670	0.113
12:00 - 13:00	2	34670	0.098	2	34670	0.074	2	34670	0.172
13:00 - 14:00	2	34670	0.265	2	34670	0.087	2	34670	0.352
14:00 - 15:00	2	34670	0.636	2	34670	0.800	2	34670	1.436
15:00 - 16:00	2	34670	0.066	2	34670	0.412	2	34670	0.478
16:00 - 17:00	2	34670	0.062	2	34670	0.384	2	34670	0.446
17:00 - 18:00	2	34670	0.061	2	34670	0.401	2	34670	0.462
18:00 - 19:00	2	34670	0.036	2	34670	0.199	2	34670	0.235
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.440			2.728			6.168

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.483	1	67459	0.000	1	67459	0.483
06:00 - 07:00	1	67459	0.322	1	67459	0.062	1	67459	0.384
07:00 - 08:00	2	34670	0.349	2	34670	0.030	2	34670	0.379
08:00 - 09:00	2	34670	0.211	2	34670	0.013	2	34670	0.224
09:00 - 10:00	2	34670	0.069	2	34670	0.022	2	34670	0.091
10:00 - 11:00	2	34670	0.040	2	34670	0.027	2	34670	0.067
11:00 - 12:00	2	34670	0.023	2	34670	0.016	2	34670	0.039
12:00 - 13:00	2	34670	0.053	2	34670	0.027	2	34670	0.080
13:00 - 14:00	2	34670	0.198	2	34670	0.049	2	34670	0.247
14:00 - 15:00	2	34670	0.404	2	34670	0.460	2	34670	0.864
15:00 - 16:00	2	34670	0.026	2	34670	0.293	2	34670	0.319
16:00 - 17:00	2	34670	0.035	2	34670	0.265	2	34670	0.300
17:00 - 18:00	2	34670	0.022	2	34670	0.303	2	34670	0.325
18:00 - 19:00	2	34670	0.014	2	34670	0.144	2	34670	0.158
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.249			1.711			3.960

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.021	1	67459	0.000	1	67459	0.021
06:00 - 07:00	1	67459	0.007	1	67459	0.003	1	67459	0.010
07:00 - 08:00	2	34670	0.009	2	34670	0.001	2	34670	0.010
08:00 - 09:00	2	34670	0.009	2	34670	0.006	2	34670	0.015
09:00 - 10:00	2	34670	0.019	2	34670	0.017	2	34670	0.036
10:00 - 11:00	2	34670	0.019	2	34670	0.012	2	34670	0.031
11:00 - 12:00	2	34670	0.016	2	34670	0.016	2	34670	0.032
12:00 - 13:00	2	34670	0.006	2	34670	0.007	2	34670	0.013
13:00 - 14:00	2	34670	0.017	2	34670	0.016	2	34670	0.033
14:00 - 15:00	2	34670	0.014	2	34670	0.023	2	34670	0.037
15:00 - 16:00	2	34670	0.014	2	34670	0.020	2	34670	0.034
16:00 - 17:00	2	34670	0.004	2	34670	0.010	2	34670	0.014
17:00 - 18:00	2	34670	0.006	2	34670	0.007	2	34670	0.013
18:00 - 19:00	2	34670	0.000	2	34670	0.004	2	34670	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.161			0.142			0.303

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	67459	0.016	1	67459	0.000	1	67459	0.016
06:00 - 07:00	1	67459	0.004	1	67459	0.000	1	67459	0.004
07:00 - 08:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
08:00 - 09:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
09:00 - 10:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
10:00 - 11:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
11:00 - 12:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
12:00 - 13:00	2	34670	0.001	2	34670	0.000	2	34670	0.001
13:00 - 14:00	2	34670	0.006	2	34670	0.001	2	34670	0.007
14:00 - 15:00	2	34670	0.014	2	34670	0.017	2	34670	0.031
15:00 - 16:00	2	34670	0.001	2	34670	0.001	2	34670	0.002
16:00 - 17:00	2	34670	0.000	2	34670	0.003	2	34670	0.003
17:00 - 18:00	2	34670	0.000	2	34670	0.000	2	34670	0.000
18:00 - 19:00	2	34670	0.000	2	34670	0.004	2	34670	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.044			0.026			0.070

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BT BRENT	2 days
	HO HOUNSLOW	1 days
02	SOUTH EAST	
	ES EAST SUSSEX	3 days
	HF HERTFORDSHIRE	2 days
	KC KENT	2 days
	SC SURREY	2 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 178 to 114000 (units: sqm)
 Range Selected by User: 178 to 114000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 14/03/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	8 days
Wednesday	6 days
Thursday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	19 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town Centre	9
Suburban Area (PPS6 Out of Centre)	6
Edge of Town	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	2
Development Zone	2
Residential Zone	4
Built-Up Zone	7
No Sub Category	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village,

Secondary Filtering selection:

Use Class:

B1 19 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Use Class Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	4 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	9 days
50,001 to 100,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	2 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	2 days
500,001 or More	4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	9 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	9 days
No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	16 days
1b Very poor	1 days
5 Very Good	1 days
6a Excellent	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BT-02-A-03 EMPIRE WAY WEMBLEY	OFFICES		BRENT
	Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: 920 sqm <i>Survey date: WEDNESDAY 03/06/15</i>			
2	BT-02-A-04 EMPIRE WAY WEMBLEY	OFFICES		BRENT
	Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: 10625 sqm <i>Survey date: THURSDAY 14/05/15</i>			
3	DH-02-A-02 DURHAM ROAD NEAR DURHAM BOWBURN	CONSTRUCTION COMPANY		DURHAM
	Edge of Town Industrial Zone Total Gross floor area: 2000 sqm <i>Survey date: TUESDAY 27/11/12</i>			
4	ES-02-A-11 THE SIDINGS HASTINGS ORE VALLEY	HOUSING COMPANY		EAST SUSSEX
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 186 sqm <i>Survey date: TUESDAY 17/11/15</i>			
5	ES-02-A-12 VICARAGE LANE HAILSHAM	COUNCIL OFFICES		EAST SUSSEX
	Edge of Town Centre Built-Up Zone Total Gross floor area: 3640 sqm <i>Survey date: THURSDAY 26/11/15</i>			
6	ES-02-A-13 ROMAN ROAD HOVE	OFFICES		EAST SUSSEX
	Edge of Town Centre Residential Zone Total Gross floor area: 280 sqm <i>Survey date: WEDNESDAY 04/07/18</i>			
7	HF-02-A-03 60 VICTORIA STREET ST ALBANS	OFFICE		HERTFORDSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area: 610 sqm <i>Survey date: WEDNESDAY 16/10/13</i>			
8	HF-02-A-04 STATION WAY ST ALBANS	OFFICES		HERTFORDSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area: 5000 sqm <i>Survey date: THURSDAY 02/10/14</i>			

LIST OF SITES relevant to selection parameters (Cont.)

9	HO-02-A-01 SYON LANE ISLEWORTH	SKY HEADQUARTERS		HOUNSLOW
	Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: 120000 sqm <i>Survey date: WEDNESDAY 05/07/17</i>			
10	KC-02-A-09 SANDLING ROAD MAIDSTONE	COUNCIL OFFICES		KENT
	Edge of Town Centre Built-Up Zone Total Gross floor area: 1500 sqm <i>Survey date: WEDNESDAY 19/10/11</i>			
11	KC-02-A-10 SANDLING ROAD MAIDSTONE	COUNCIL OFFICES		KENT
	Edge of Town Centre Built-Up Zone Total Gross floor area: 2900 sqm <i>Survey date: WEDNESDAY 19/10/11</i>			
12	LC-02-A-09 FURTHERGATE BLACKBURN	OFFICES		LANCASHIRE
	Suburban Area (PPS6 Out of Centre) Built-Up Zone Total Gross floor area: 2600 sqm <i>Survey date: TUESDAY 04/06/13</i>			
13	MS-02-A-02 MOUNT PLEASANT LIVERPOOL	SCIENCE PARK OFFICES		MERSEYSIDE
	Edge of Town Built-Up Zone Total Gross floor area: 11250 sqm <i>Survey date: TUESDAY 13/11/18</i>			
14	NF-02-A-03 NORTH QUAY GREAT YARMOUTH	OFFICES		NORFOLK
	Edge of Town Centre Commercial Zone Total Gross floor area: 5500 sqm <i>Survey date: TUESDAY 12/09/17</i>			
15	NY-02-A-01 NORTH PARK ROAD HARROGATE	SOLICITORS		NORTH YORKSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area: 178 sqm <i>Survey date: THURSDAY 04/10/18</i>			
16	NY-02-A-02 STATION ROAD RICHMOND	DISTRICT COUNCIL OFFICES		NORTH YORKSHIRE
	Edge of Town Centre No Sub Category Total Gross floor area: 1930 sqm <i>Survey date: THURSDAY 14/03/19</i>			

LIST OF SITES relevant to selection parameters (Cont.)

17	SC-02-A-16 STANHOPE ROAD CAMBERLEY	BANK OF AMERICA		SURREY
	Edge of Town Commercial Zone			
	Total Gross floor area:	39230 sqm		
	Survey date: TUESDAY	10/05/11		Survey Type: MANUAL
18	SC-02-A-17 ST GEORGE'S AVENUE WEYBRIDGE THE HEATH	PHARMACEUTICALS		SURREY
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total Gross floor area:	10293 sqm		
	Survey date: TUESDAY	18/10/11		Survey Type: MANUAL
19	WY-02-A-05 PIONEER WAY CASTLEFORD WHITWOOD	OFFICES		WEST YORKSHIRE
	Edge of Town No Sub Category			
	Total Gross floor area:	1230 sqm		
	Survey date: TUESDAY	23/05/17		Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.361	1	114000	0.055	1	114000	0.416
07:00 - 08:00	18	11353	0.429	18	11353	0.059	18	11353	0.488
08:00 - 09:00	19	10765	0.780	19	10765	0.094	19	10765	0.874
09:00 - 10:00	19	10765	0.534	19	10765	0.132	19	10765	0.666
10:00 - 11:00	19	10765	0.187	19	10765	0.111	19	10765	0.298
11:00 - 12:00	19	10765	0.118	19	10765	0.097	19	10765	0.215
12:00 - 13:00	19	10765	0.158	19	10765	0.178	19	10765	0.336
13:00 - 14:00	19	10765	0.155	19	10765	0.144	19	10765	0.299
14:00 - 15:00	19	10765	0.108	19	10765	0.143	19	10765	0.251
15:00 - 16:00	19	10765	0.085	19	10765	0.215	19	10765	0.300
16:00 - 17:00	19	10765	0.096	19	10765	0.503	19	10765	0.599
17:00 - 18:00	19	10765	0.081	19	10765	0.749	19	10765	0.830
18:00 - 19:00	17	11949	0.059	17	11949	0.333	17	11949	0.392
19:00 - 20:00	1	114000	0.049	1	114000	0.239	1	114000	0.288
20:00 - 21:00	1	114000	0.038	1	114000	0.094	1	114000	0.132
21:00 - 22:00	1	114000	0.050	1	114000	0.075	1	114000	0.125
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.288			3.221			6.509

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	178 - 114000 (units: sqm)
Survey date date range:	01/01/10 - 14/03/19
Number of weekdays (Monday-Friday):	19
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.002	1	114000	0.002	1	114000	0.004
07:00 - 08:00	18	11353	0.005	18	11353	0.005	18	11353	0.010
08:00 - 09:00	19	10765	0.020	19	10765	0.017	19	10765	0.037
09:00 - 10:00	19	10765	0.023	19	10765	0.023	19	10765	0.046
10:00 - 11:00	19	10765	0.009	19	10765	0.010	19	10765	0.019
11:00 - 12:00	19	10765	0.007	19	10765	0.003	19	10765	0.010
12:00 - 13:00	19	10765	0.007	19	10765	0.009	19	10765	0.016
13:00 - 14:00	19	10765	0.007	19	10765	0.009	19	10765	0.016
14:00 - 15:00	19	10765	0.005	19	10765	0.003	19	10765	0.008
15:00 - 16:00	19	10765	0.008	19	10765	0.005	19	10765	0.013
16:00 - 17:00	19	10765	0.012	19	10765	0.012	19	10765	0.024
17:00 - 18:00	19	10765	0.009	19	10765	0.014	19	10765	0.023
18:00 - 19:00	17	11949	0.006	17	11949	0.006	17	11949	0.012
19:00 - 20:00	1	114000	0.011	1	114000	0.012	1	114000	0.023
20:00 - 21:00	1	114000	0.007	1	114000	0.007	1	114000	0.014
21:00 - 22:00	1	114000	0.007	1	114000	0.004	1	114000	0.011
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.145			0.141			0.286

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.001	1	114000	0.000	1	114000	0.001
07:00 - 08:00	18	11353	0.002	18	11353	0.002	18	11353	0.004
08:00 - 09:00	19	10765	0.002	19	10765	0.001	19	10765	0.003
09:00 - 10:00	19	10765	0.002	19	10765	0.003	19	10765	0.005
10:00 - 11:00	19	10765	0.002	19	10765	0.001	19	10765	0.003
11:00 - 12:00	19	10765	0.000	19	10765	0.001	19	10765	0.001
12:00 - 13:00	19	10765	0.000	19	10765	0.000	19	10765	0.000
13:00 - 14:00	19	10765	0.000	19	10765	0.000	19	10765	0.000
14:00 - 15:00	19	10765	0.001	19	10765	0.001	19	10765	0.002
15:00 - 16:00	19	10765	0.001	19	10765	0.001	19	10765	0.002
16:00 - 17:00	19	10765	0.000	19	10765	0.000	19	10765	0.000
17:00 - 18:00	19	10765	0.001	19	10765	0.001	19	10765	0.002
18:00 - 19:00	17	11949	0.000	17	11949	0.000	17	11949	0.000
19:00 - 20:00	1	114000	0.000	1	114000	0.000	1	114000	0.000
20:00 - 21:00	1	114000	0.000	1	114000	0.000	1	114000	0.000
21:00 - 22:00	1	114000	0.000	1	114000	0.000	1	114000	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.011			0.023

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.003	1	114000	0.004	1	114000	0.007
07:00 - 08:00	18	11353	0.005	18	11353	0.009	18	11353	0.014
08:00 - 09:00	19	10765	0.010	19	10765	0.009	19	10765	0.019
09:00 - 10:00	19	10765	0.010	19	10765	0.010	19	10765	0.020
10:00 - 11:00	19	10765	0.007	19	10765	0.007	19	10765	0.014
11:00 - 12:00	19	10765	0.003	19	10765	0.002	19	10765	0.005
12:00 - 13:00	19	10765	0.002	19	10765	0.002	19	10765	0.004
13:00 - 14:00	19	10765	0.002	19	10765	0.002	19	10765	0.004
14:00 - 15:00	19	10765	0.003	19	10765	0.002	19	10765	0.005
15:00 - 16:00	19	10765	0.003	19	10765	0.003	19	10765	0.006
16:00 - 17:00	19	10765	0.007	19	10765	0.008	19	10765	0.015
17:00 - 18:00	19	10765	0.010	19	10765	0.010	19	10765	0.020
18:00 - 19:00	17	11949	0.009	17	11949	0.009	17	11949	0.018
19:00 - 20:00	1	114000	0.012	1	114000	0.010	1	114000	0.022
20:00 - 21:00	1	114000	0.008	1	114000	0.004	1	114000	0.012
21:00 - 22:00	1	114000	0.004	1	114000	0.004	1	114000	0.008
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.098			0.095			0.193

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.023	1	114000	0.002	1	114000	0.025
07:00 - 08:00	18	11353	0.038	18	11353	0.001	18	11353	0.039
08:00 - 09:00	19	10765	0.073	19	10765	0.000	19	10765	0.073
09:00 - 10:00	19	10765	0.044	19	10765	0.000	19	10765	0.044
10:00 - 11:00	19	10765	0.006	19	10765	0.001	19	10765	0.007
11:00 - 12:00	19	10765	0.003	19	10765	0.001	19	10765	0.004
12:00 - 13:00	19	10765	0.002	19	10765	0.003	19	10765	0.005
13:00 - 14:00	19	10765	0.002	19	10765	0.004	19	10765	0.006
14:00 - 15:00	19	10765	0.002	19	10765	0.005	19	10765	0.007
15:00 - 16:00	19	10765	0.001	19	10765	0.010	19	10765	0.011
16:00 - 17:00	19	10765	0.002	19	10765	0.030	19	10765	0.032
17:00 - 18:00	19	10765	0.001	19	10765	0.066	19	10765	0.067
18:00 - 19:00	17	11949	0.002	17	11949	0.043	17	11949	0.045
19:00 - 20:00	1	114000	0.000	1	114000	0.027	1	114000	0.027
20:00 - 21:00	1	114000	0.000	1	114000	0.011	1	114000	0.011
21:00 - 22:00	1	114000	0.002	1	114000	0.004	1	114000	0.006
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.201			0.208			0.409

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.368	1	114000	0.049	1	114000	0.417
07:00 - 08:00	18	11353	0.449	18	11353	0.049	18	11353	0.498
08:00 - 09:00	19	10765	0.863	19	10765	0.066	19	10765	0.929
09:00 - 10:00	19	10765	0.567	19	10765	0.105	19	10765	0.672
10:00 - 11:00	19	10765	0.191	19	10765	0.103	19	10765	0.294
11:00 - 12:00	19	10765	0.124	19	10765	0.102	19	10765	0.226
12:00 - 13:00	19	10765	0.169	19	10765	0.198	19	10765	0.367
13:00 - 14:00	19	10765	0.175	19	10765	0.150	19	10765	0.325
14:00 - 15:00	19	10765	0.117	19	10765	0.155	19	10765	0.272
15:00 - 16:00	19	10765	0.083	19	10765	0.238	19	10765	0.321
16:00 - 17:00	19	10765	0.090	19	10765	0.536	19	10765	0.626
17:00 - 18:00	19	10765	0.075	19	10765	0.841	19	10765	0.916
18:00 - 19:00	17	11949	0.051	17	11949	0.369	17	11949	0.420
19:00 - 20:00	1	114000	0.034	1	114000	0.246	1	114000	0.280
20:00 - 21:00	1	114000	0.029	1	114000	0.094	1	114000	0.123
21:00 - 22:00	1	114000	0.043	1	114000	0.075	1	114000	0.118
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.428			3.376			6.804

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.025	1	114000	0.005	1	114000	0.030
07:00 - 08:00	18	11353	0.045	18	11353	0.011	18	11353	0.056
08:00 - 09:00	19	10765	0.147	19	10765	0.013	19	10765	0.160
09:00 - 10:00	19	10765	0.114	19	10765	0.029	19	10765	0.143
10:00 - 11:00	19	10765	0.047	19	10765	0.052	19	10765	0.099
11:00 - 12:00	19	10765	0.063	19	10765	0.065	19	10765	0.128
12:00 - 13:00	19	10765	0.204	19	10765	0.339	19	10765	0.543
13:00 - 14:00	19	10765	0.292	19	10765	0.230	19	10765	0.522
14:00 - 15:00	19	10765	0.150	19	10765	0.083	19	10765	0.233
15:00 - 16:00	19	10765	0.055	19	10765	0.065	19	10765	0.120
16:00 - 17:00	19	10765	0.029	19	10765	0.078	19	10765	0.107
17:00 - 18:00	19	10765	0.023	19	10765	0.153	19	10765	0.176
18:00 - 19:00	17	11949	0.011	17	11949	0.048	17	11949	0.059
19:00 - 20:00	1	114000	0.005	1	114000	0.036	1	114000	0.041
20:00 - 21:00	1	114000	0.008	1	114000	0.022	1	114000	0.030
21:00 - 22:00	1	114000	0.004	1	114000	0.013	1	114000	0.017
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.222			1.242			2.464

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.032	1	114000	0.004	1	114000	0.036
07:00 - 08:00	18	11353	0.030	18	11353	0.013	18	11353	0.043
08:00 - 09:00	19	10765	0.085	19	10765	0.001	19	10765	0.086
09:00 - 10:00	19	10765	0.059	19	10765	0.004	19	10765	0.063
10:00 - 11:00	19	10765	0.023	19	10765	0.007	19	10765	0.030
11:00 - 12:00	19	10765	0.020	19	10765	0.010	19	10765	0.030
12:00 - 13:00	19	10765	0.018	19	10765	0.027	19	10765	0.045
13:00 - 14:00	19	10765	0.024	19	10765	0.018	19	10765	0.042
14:00 - 15:00	19	10765	0.007	19	10765	0.012	19	10765	0.019
15:00 - 16:00	19	10765	0.007	19	10765	0.021	19	10765	0.028
16:00 - 17:00	19	10765	0.006	19	10765	0.054	19	10765	0.060
17:00 - 18:00	19	10765	0.006	19	10765	0.082	19	10765	0.088
18:00 - 19:00	17	11949	0.004	17	11949	0.026	17	11949	0.030
19:00 - 20:00	1	114000	0.007	1	114000	0.023	1	114000	0.030
20:00 - 21:00	1	114000	0.007	1	114000	0.008	1	114000	0.015
21:00 - 22:00	1	114000	0.010	1	114000	0.005	1	114000	0.015
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.345			0.315			0.660

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.028	1	114000	0.006	1	114000	0.034
07:00 - 08:00	18	11353	0.092	18	11353	0.010	18	11353	0.102
08:00 - 09:00	19	10765	0.417	19	10765	0.009	19	10765	0.426
09:00 - 10:00	19	10765	0.327	19	10765	0.005	19	10765	0.332
10:00 - 11:00	19	10765	0.087	19	10765	0.008	19	10765	0.095
11:00 - 12:00	19	10765	0.027	19	10765	0.014	19	10765	0.041
12:00 - 13:00	19	10765	0.036	19	10765	0.022	19	10765	0.058
13:00 - 14:00	19	10765	0.033	19	10765	0.018	19	10765	0.051
14:00 - 15:00	19	10765	0.013	19	10765	0.019	19	10765	0.032
15:00 - 16:00	19	10765	0.010	19	10765	0.048	19	10765	0.058
16:00 - 17:00	19	10765	0.004	19	10765	0.202	19	10765	0.206
17:00 - 18:00	19	10765	0.004	19	10765	0.432	19	10765	0.436
18:00 - 19:00	17	11949	0.005	17	11949	0.204	17	11949	0.209
19:00 - 20:00	1	114000	0.005	1	114000	0.139	1	114000	0.144
20:00 - 21:00	1	114000	0.007	1	114000	0.055	1	114000	0.062
21:00 - 22:00	1	114000	0.002	1	114000	0.015	1	114000	0.017
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.097			1.206			2.303

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.000	1	114000	0.000	1	114000	0.000
07:00 - 08:00	18	11353	0.014	18	11353	0.000	18	11353	0.014
08:00 - 09:00	19	10765	0.022	19	10765	0.000	19	10765	0.022
09:00 - 10:00	19	10765	0.016	19	10765	0.000	19	10765	0.016
10:00 - 11:00	19	10765	0.001	19	10765	0.000	19	10765	0.001
11:00 - 12:00	19	10765	0.000	19	10765	0.000	19	10765	0.000
12:00 - 13:00	19	10765	0.000	19	10765	0.000	19	10765	0.000
13:00 - 14:00	19	10765	0.000	19	10765	0.000	19	10765	0.000
14:00 - 15:00	19	10765	0.000	19	10765	0.001	19	10765	0.001
15:00 - 16:00	19	10765	0.000	19	10765	0.002	19	10765	0.002
16:00 - 17:00	19	10765	0.000	19	10765	0.009	19	10765	0.009
17:00 - 18:00	19	10765	0.000	19	10765	0.031	19	10765	0.031
18:00 - 19:00	17	11949	0.000	17	11949	0.015	17	11949	0.015
19:00 - 20:00	1	114000	0.000	1	114000	0.034	1	114000	0.034
20:00 - 21:00	1	114000	0.000	1	114000	0.003	1	114000	0.003
21:00 - 22:00	1	114000	0.000	1	114000	0.000	1	114000	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.053			0.095			0.148

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.060	1	114000	0.010	1	114000	0.070
07:00 - 08:00	18	11353	0.136	18	11353	0.023	18	11353	0.159
08:00 - 09:00	19	10765	0.524	19	10765	0.010	19	10765	0.534
09:00 - 10:00	19	10765	0.401	19	10765	0.010	19	10765	0.411
10:00 - 11:00	19	10765	0.112	19	10765	0.015	19	10765	0.127
11:00 - 12:00	19	10765	0.046	19	10765	0.023	19	10765	0.069
12:00 - 13:00	19	10765	0.054	19	10765	0.049	19	10765	0.103
13:00 - 14:00	19	10765	0.057	19	10765	0.036	19	10765	0.093
14:00 - 15:00	19	10765	0.021	19	10765	0.031	19	10765	0.052
15:00 - 16:00	19	10765	0.017	19	10765	0.071	19	10765	0.088
16:00 - 17:00	19	10765	0.010	19	10765	0.265	19	10765	0.275
17:00 - 18:00	19	10765	0.010	19	10765	0.545	19	10765	0.555
18:00 - 19:00	17	11949	0.010	17	11949	0.245	17	11949	0.255
19:00 - 20:00	1	114000	0.012	1	114000	0.196	1	114000	0.208
20:00 - 21:00	1	114000	0.014	1	114000	0.066	1	114000	0.080
21:00 - 22:00	1	114000	0.011	1	114000	0.020	1	114000	0.031
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.495			1.615			3.110

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	114000	0.475	1	114000	0.066	1	114000	0.541
07:00 - 08:00	18	11353	0.667	18	11353	0.084	18	11353	0.751
08:00 - 09:00	19	10765	1.608	19	10765	0.089	19	10765	1.697
09:00 - 10:00	19	10765	1.126	19	10765	0.144	19	10765	1.270
10:00 - 11:00	19	10765	0.356	19	10765	0.172	19	10765	0.528
11:00 - 12:00	19	10765	0.237	19	10765	0.192	19	10765	0.429
12:00 - 13:00	19	10765	0.428	19	10765	0.589	19	10765	1.017
13:00 - 14:00	19	10765	0.526	19	10765	0.421	19	10765	0.947
14:00 - 15:00	19	10765	0.289	19	10765	0.275	19	10765	0.564
15:00 - 16:00	19	10765	0.156	19	10765	0.384	19	10765	0.540
16:00 - 17:00	19	10765	0.131	19	10765	0.908	19	10765	1.039
17:00 - 18:00	19	10765	0.110	19	10765	1.604	19	10765	1.714
18:00 - 19:00	17	11949	0.074	17	11949	0.704	17	11949	0.778
19:00 - 20:00	1	114000	0.052	1	114000	0.505	1	114000	0.557
20:00 - 21:00	1	114000	0.051	1	114000	0.192	1	114000	0.243
21:00 - 22:00	1	114000	0.061	1	114000	0.111	1	114000	0.172
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.347			6.440			12.787

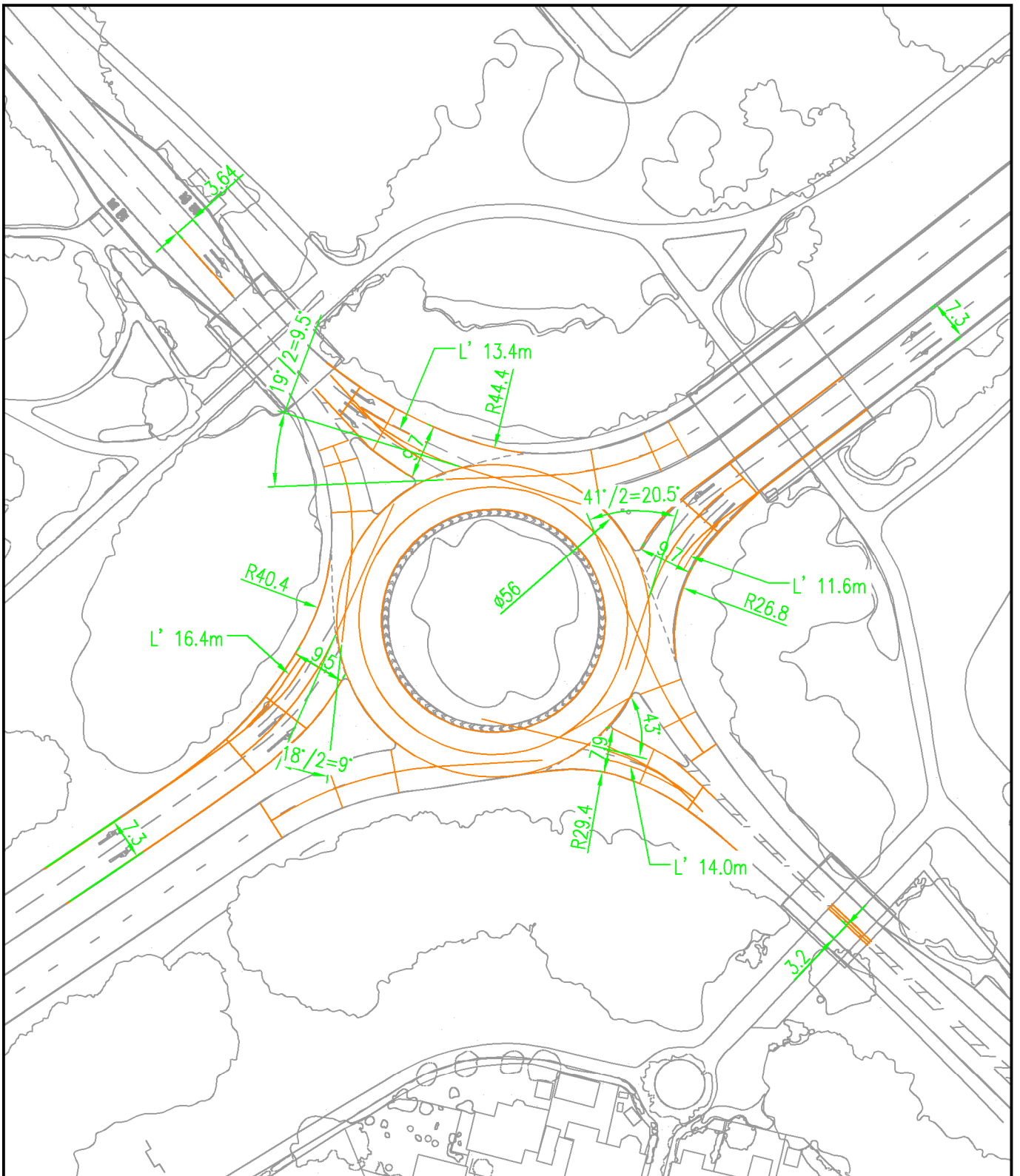
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

Appendix O

BASELINE AND FUTURE YEAR
JUNCTION ASSESSMENTS AND
VALIDATION MEASUREMENTS





ROUNDBABOUT GEOMETRY – BLAKELANDS ROUNDBABOUT (ref E1)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
MONKS WAY (E)	7.30	9.70	11.60	26.80	56.00	20.50
BRICKHILL ST (S)	3.20	7.90	14.00	29.40	56.00	43.00
MONKS WAY (W)	7.30	9.50	16.40	40.40	56.00	9.00
BRICKHILL ST (N)	3.65	9.70	13.40	44.40	56.00	9.50

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 1.Monks Way-Brickhill St (Blakelands Rbt).j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:29:16

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Brickhill St (N)	3.6	15.43	0.78	C	3.0	18.22	0.75	C
B - Monks Way (E)	4.7	11.11	0.82	B	1.0	3.21	0.48	A
C - Brickhill St (S)	5.3	39.52	0.85	E	8.0	37.50	0.90	E
D - Monks Way (W)	2.7	5.41	0.72	A	7.2	12.37	0.88	B
2031 Do Minimum								
A - Brickhill St (N)	3.7	16.38	0.79	C	3.6	25.47	0.79	D
B - Monks Way (E)	6.2	14.15	0.86	B	1.3	3.59	0.66	A
C - Brickhill St (S)	6.6	49.87	0.89	E	7.0	36.80	0.89	E
D - Monks Way (W)	3.4	6.34	0.77	A	8.3	14.27	0.90	B
2048 Do Minimum								
A - Brickhill St (N)	46.5	171.54	1.10	F	89.8	533.20	1.46	F
B - Monks Way (E)	43.0	67.41	1.02	F	2.8	5.40	0.74	A
C - Brickhill St (S)	19.4	146.52	1.05	F	21.5	145.21	1.04	F
D - Monks Way (W)	19.8	31.33	0.97	D	34.7	53.04	1.00	F
2031 Do Something								
A - Brickhill St (N)	3.5	15.70	0.78	C	5.5	48.07	0.87	E
B - Monks Way (E)	9.6	20.65	0.91	C	1.3	3.35	0.55	A
C - Brickhill St (S)	14.3	117.48	1.00	F	8.1	47.08	0.91	E
D - Monks Way (W)	3.4	6.21	0.77	A	12.1	20.43	0.93	C
2048 Do Something								
A - Brickhill St (N)	37.6	142.35	1.07	F	53.8	417.04	1.30	F
B - Monks Way (E)	41.1	82.29	1.01	F	2.8	5.36	0.73	A
C - Brickhill St (S)	41.0	409.30	1.32	F	36.3	215.97	1.12	F
D - Monks Way (W)	25.2	37.93	0.98	E	77.7	92.80	1.05	F

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

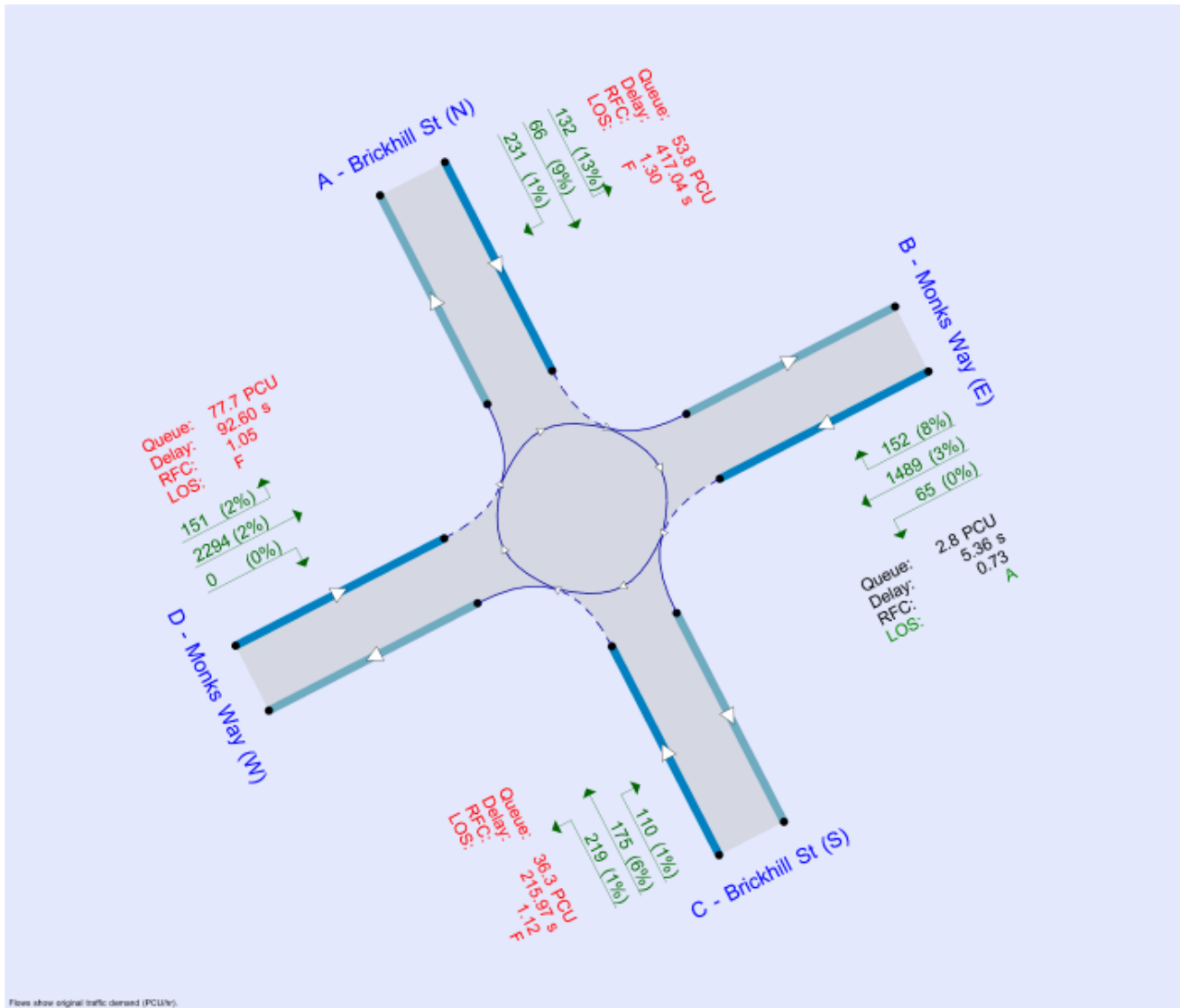
File summary

File Description

Title	H3 Monks Way/Brickhill St Roundabout
Location	Milton Keynes
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	70014859
Enumerator	CORP\UKFX1001
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	12.82	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brickhill St (N)	
B	Monks Way (E)	
C	Brickhill St (S)	
D	Monks Way (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Brickhill St (N)	3.65	9.70	13.4	44.4	56.0	9.5	
B - Monks Way (E)	7.30	9.70	11.6	28.8	56.0	20.5	
C - Brickhill St (S)	3.20	7.90	14.0	29.4	56.0	43.0	
D - Monks Way (W)	7.30	9.50	16.4	40.4	56.0	9.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Brickhill St (N)	0.667	2038
B - Monks Way (E)	0.784	2770
C - Brickhill St (S)	0.554	1607
D - Monks Way (W)	0.829	2940

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	789	100.000
B - Monks Way (E)		ONE HOUR	✓	1425	100.000
C - Brickhill St (S)		ONE HOUR	✓	472	100.000
D - Monks Way (W)		ONE HOUR	✓	1648	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	46	478	265
	B - Monks Way (E)	88	0	55	1282
	C - Brickhill St (S)	381	0	0	91
	D - Monks Way (W)	386	1007	255	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	22	4	4
	B - Monks Way (E)	17	0	4	5
	C - Brickhill St (S)	7	24	0	10
	D - Monks Way (W)	4	6	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.78	15.43	3.6	C	724	1086
B - Monks Way (E)	0.82	11.11	4.7	B	1308	1961
C - Brickhill St (S)	0.85	39.52	5.3	E	433	650
D - Monks Way (W)	0.72	5.41	2.7	A	1512	2268

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	594	149	947	1406	0.422	591	640	0.0	0.8	4.616	A
B - Monks Way (E)	1073	268	748	2183	0.491	1069	790	0.0	1.0	3.399	A
C - Brickhill St (S)	355	89	1226	928	0.383	353	591	0.0	0.7	6.703	A
D - Monks Way (W)	1241	310	351	2649	0.468	1237	1228	0.0	0.9	2.676	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	709	177	1133	1282	0.553	707	786	0.8	1.3	6.542	A
B - Monks Way (E)	1281	320	895	2068	0.619	1278	945	1.0	1.7	4.799	A
C - Brickhill St (S)	424	106	1467	794	0.534	422	707	0.7	1.2	10.341	B
D - Monks Way (W)	1482	370	420	2592	0.572	1480	1469	0.9	1.4	3.400	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	889	217	1388	1114	0.780	880	928	1.3	3.5	14.398	B
B - Monks Way (E)	1569	392	1090	1915	0.819	1558	1156	1.7	4.5	10.329	B
C - Brickhill St (S)	520	130	1788	617	0.842	506	881	1.2	4.7	31.607	D
D - Monks Way (W)	1814	454	505	2521	0.720	1809	1788	1.4	2.6	5.284	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	889	217	1389	1112	0.782	888	939	3.5	3.6	15.426	C
B - Monks Way (E)	1569	392	1098	1909	0.822	1568	1159	4.5	4.7	11.112	B
C - Brickhill St (S)	520	130	1799	610	0.852	517	887	4.7	5.3	39.523	E
D - Monks Way (W)	1814	454	514	2513	0.722	1814	1802	2.6	2.7	5.414	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	709	177	1138	1279	0.555	718	784	3.6	1.3	6.844	A
B - Monks Way (E)	1281	320	907	2059	0.622	1293	950	4.7	1.8	5.037	A
C - Brickhill St (S)	424	106	1484	785	0.541	440	715	5.3	1.3	11.751	B
D - Monks Way (W)	1482	370	435	2579	0.575	1487	1489	2.7	1.4	3.485	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	594	149	952	1403	0.423	596	646	1.3	0.8	4.693	A
B - Monks Way (E)	1073	268	754	2179	0.492	1076	794	1.8	1.0	3.456	A
C - Brickhill St (S)	355	89	1234	923	0.385	358	595	1.3	0.7	6.879	A
D - Monks Way (W)	1241	310	355	2845	0.469	1243	1237	1.4	0.9	2.706	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	15.41	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	564	100.000
B - Monks Way (E)		ONE HOUR	✓	983	100.000
C - Brickhill St (S)		ONE HOUR	✓	744	100.000
D - Monks Way (W)		ONE HOUR	✓	1985	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	19	362	183
	B - Monks Way (E)	125	0	17	841
	C - Brickhill St (S)	377	7	0	360
	D - Monks Way (W)	339	1589	57	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	18	6	1
	B - Monks Way (E)	11	0	14	3
	C - Brickhill St (S)	4	7	0	1
	D - Monks Way (W)	2	2	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.75	18.22	3.0	C	518	776
B - Monks Way (E)	0.48	3.21	1.0	A	902	1353
C - Brickhill St (S)	0.90	37.50	8.0	E	683	1024
D - Monks Way (W)	0.88	12.37	7.2	B	1821	2732

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	425	106	1240	1211	0.351	422	630	0.0	0.6	4.764	A
B - Monks Way (E)	740	185	451	2416	0.306	738	1211	0.0	0.5	2.232	A
C - Brickhill St (S)	560	140	882	1129	0.496	556	327	0.0	1.0	6.400	A
D - Monks Way (W)	1494	374	381	2624	0.570	1489	1038	0.0	1.3	3.223	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	507	127	1483	1049	0.483	505	754	0.6	1.0	6.908	A
B - Monks Way (E)	884	221	540	2347	0.377	883	1449	0.5	0.6	2.559	A
C - Brickhill St (S)	669	167	1032	1035	0.646	666	391	1.0	1.8	9.893	A
D - Monks Way (W)	1784	446	456	2562	0.697	1781	1241	1.3	2.3	4.678	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	621	155	1805	834	0.744	613	912	1.0	2.8	16.525	C
B - Monks Way (E)	1082	271	655	2256	0.480	1081	1763	0.6	1.0	3.188	A
C - Brickhill St (S)	819	205	1261	908	0.902	798	475	1.8	7.0	29.396	D
D - Monks Way (W)	2186	546	550	2484	0.880	2168	1510	2.3	6.8	11.016	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	621	155	1819	825	0.752	620	924	2.8	3.0	18.223	C
B - Monks Way (E)	1082	271	662	2251	0.481	1082	1777	1.0	1.0	3.207	A
C - Brickhill St (S)	819	205	1265	908	0.904	815	480	7.0	8.0	37.500	E
D - Monks Way (W)	2186	546	558	2477	0.882	2184	1522	6.8	7.2	12.371	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	507	127	1502	1036	0.489	515	772	3.0	1.0	7.339	A
B - Monks Way (E)	884	221	550	2339	0.378	885	1468	1.0	0.6	2.580	A
C - Brickhill St (S)	669	167	1037	1033	0.648	693	398	8.0	1.9	11.597	B
D - Monks Way (W)	1784	446	470	2550	0.700	1804	1260	7.2	2.4	5.046	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	425	108	1248	1208	0.352	428	838	1.0	0.8	4.845	A
B - Monks Way (E)	740	185	455	2413	0.307	741	1219	0.8	0.5	2.242	A
C - Brickhill St (S)	580	140	888	1127	0.497	584	330	1.9	1.0	6.594	A
D - Monks Way (W)	1494	374	385	2820	0.570	1499	1045	2.4	1.4	3.288	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	15.15	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	783	100.000
B - Monks Way (E)		ONE HOUR	✓	1499	100.000
C - Brickhill St (S)		ONE HOUR	✓	485	100.000
D - Monks Way (W)		ONE HOUR	✓	1770	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	22	472	289
	B - Monks Way (E)	85	0	80	1334
	C - Brickhill St (S)	355	0	0	110
	D - Monks Way (W)	451	1089	250	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	48	5	4
	B - Monks Way (E)	18	0	8	5
	C - Brickhill St (S)	7	14	0	10
	D - Monks Way (W)	4	5	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.79	16.38	3.7	C	700	1050
B - Monks Way (E)	0.86	14.15	6.2	B	1376	2063
C - Brickhill St (S)	0.89	49.87	6.6	E	427	640
D - Monks Way (W)	0.77	6.34	3.4	A	1624	2436

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	574	144	990	1378	0.417	571	667	0.0	0.7	4.695	A
B - Monks Way (E)	1129	282	743	2187	0.516	1124	819	0.0	1.1	3.568	A
C - Brickhill St (S)	350	88	1266	906	0.386	347	601	0.0	0.7	6.909	A
D - Monks Way (W)	1333	333	329	2667	0.500	1328	1284	0.0	1.0	2.802	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	686	171	1184	1248	0.549	684	798	0.7	1.3	6.706	A
B - Monks Way (E)	1348	337	889	2073	0.650	1344	979	1.1	1.9	5.205	A
C - Brickhill St (S)	418	105	1514	766	0.544	416	719	0.7	1.3	10.923	B
D - Monks Way (W)	1591	398	394	2613	0.609	1589	1536	1.0	1.6	3.663	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	840	210	1447	1073	0.783	831	966	1.3	3.5	15.168	C
B - Monks Way (E)	1650	413	1081	1922	0.859	1635	1197	1.9	5.9	12.639	B
C - Brickhill St (S)	512	128	1840	587	0.872	495	876	1.3	5.5	36.999	E
D - Monks Way (W)	1949	487	471	2549	0.764	1942	1865	1.6	3.3	6.123	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	840	210	1452	1070	0.785	839	977	3.5	3.7	16.382	C
B - Monks Way (E)	1650	413	1090	1915	0.862	1649	1201	5.9	6.2	14.154	B
C - Brickhill St (S)	512	128	1857	578	0.886	507	882	5.5	6.6	49.873	E
D - Monks Way (W)	1949	487	481	2541	0.767	1948	1883	3.3	3.4	6.340	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	686	171	1191	1244	0.551	695	820	3.7	1.3	7.042	A
B - Monks Way (E)	1348	337	901	2063	0.653	1364	985	6.2	2.0	5.578	A
C - Brickhill St (S)	418	105	1537	756	0.553	439	729	6.6	1.4	13.015	B
D - Monks Way (W)	1591	398	412	2598	0.613	1598	1563	3.4	1.7	3.786	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	574	144	995	1374	0.418	577	674	1.3	0.8	4.774	A
B - Monks Way (E)	1129	282	749	2183	0.517	1132	823	2.0	1.1	3.637	A
C - Brickhill St (S)	350	88	1275	901	0.389	353	606	1.4	0.7	7.113	A
D - Monks Way (W)	1333	333	334	2663	0.500	1335	1294	1.7	1.1	2.836	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	16.09	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	492	100.000
B - Monks Way (E)		ONE HOUR	✓	1181	100.000
C - Brickhill St (S)		ONE HOUR	✓	666	100.000
D - Monks Way (W)		ONE HOUR	✓	2000	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	15	355	122
	B - Monks Way (E)	186	0	20	975
	C - Brickhill St (S)	292	58	0	316
	D - Monks Way (W)	215	1763	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	25	6	2
	B - Monks Way (E)	8	0	1	3
	C - Brickhill St (S)	5	4	0	1
	D - Monks Way (W)	2	2	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.79	25.47	3.6	D	451	677
B - Monks Way (E)	0.56	3.59	1.3	A	1084	1626
C - Brickhill St (S)	0.89	36.80	7.0	E	611	917
D - Monks Way (W)	0.90	14.27	8.3	B	1835	2753

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	370	93	1382	1116	0.332	368	519	0.0	0.5	5.062	A
B - Monks Way (E)	889	222	374	2477	0.359	887	1377	0.0	0.6	2.346	A
C - Brickhill St (S)	501	125	963	1073	0.467	498	297	0.0	0.9	6.401	A
D - Monks Way (W)	1506	376	401	2607	0.578	1500	1060	0.0	1.4	3.304	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	442	111	1653	936	0.473	441	621	0.5	0.9	7.643	A
B - Monks Way (E)	1062	265	447	2419	0.439	1061	1647	0.6	0.8	2.747	A
C - Brickhill St (S)	599	150	1152	969	0.618	596	356	0.9	1.6	9.864	A
D - Monks Way (W)	1798	449	480	2542	0.707	1794	1268	1.4	2.4	4.886	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	542	135	2009	699	0.775	532	752	0.9	3.3	21.718	C
B - Monks Way (E)	1300	325	540	2346	0.554	1298	2001	0.8	1.3	3.558	A
C - Brickhill St (S)	733	183	1408	827	0.887	715	430	1.6	6.2	29.392	D
D - Monks Way (W)	2202	551	580	2459	0.896	2181	1543	2.4	7.7	12.383	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	542	135	2027	687	0.789	540	761	3.3	3.6	25.470	D
B - Monks Way (E)	1300	325	548	2340	0.556	1300	2019	1.3	1.3	3.590	A
C - Brickhill St (S)	733	183	1412	825	0.889	730	436	6.2	7.0	36.801	E
D - Monks Way (W)	2202	551	588	2452	0.898	2200	1554	7.7	8.3	14.266	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	442	111	1679	918	0.482	453	635	3.6	1.0	8.337	A
B - Monks Way (E)	1062	265	459	2410	0.441	1064	1673	1.3	0.8	2.777	A
C - Brickhill St (S)	599	150	1158	966	0.620	620	365	7.0	1.7	11.343	B
D - Monks Way (W)	1798	449	493	2531	0.710	1821	1284	8.3	2.6	5.339	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	370	93	1392	1110	0.334	372	524	1.0	0.5	5.161	A
B - Monks Way (E)	889	222	378	2474	0.359	890	1387	0.8	0.6	2.358	A
C - Brickhill St (S)	501	125	967	1071	0.468	505	300	1.7	0.9	6.582	A
D - Monks Way (W)	1508	376	405	2804	0.578	1510	1067	2.6	1.4	3.376	A

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	74.29	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	795	100.000
B - Monks Way (E)		ONE HOUR	✓	1995	100.000
C - Brickhill St (S)		ONE HOUR	✓	416	100.000
D - Monks Way (W)		ONE HOUR	✓	2179	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	149	447	199
	B - Monks Way (E)	335	0	208	1454
	C - Brickhill St (S)	28	162	0	226
	D - Monks Way (W)	624	1432	123	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	8	3	3
	B - Monks Way (E)	9	0	3	3
	C - Brickhill St (S)	21	3	0	4
	D - Monks Way (W)	2	4	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.10	171.54	46.5	F	730	1094
B - Monks Way (E)	1.02	67.41	43.0	F	1831	2746
C - Brickhill St (S)	1.05	146.52	19.4	F	382	573
D - Monks Way (W)	0.97	31.33	19.8	D	1999	2999

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	599	150	1287	1180	0.507	594	740	0.0	1.1	6.341	A
B - Monks Way (E)	1502	375	575	2319	0.648	1494	1306	0.0	1.9	4.501	A
C - Brickhill St (S)	313	78	1489	782	0.400	310	581	0.0	0.7	7.939	A
D - Monks Way (W)	1640	410	393	2614	0.628	1634	1407	0.0	1.7	3.774	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	715	179	1538	1013	0.706	709	884	1.1	2.4	12.126	B
B - Monks Way (E)	1793	448	687	2231	0.804	1785	1560	1.9	4.1	8.222	A
C - Brickhill St (S)	374	93	1778	622	0.601	371	693	0.7	1.5	14.802	B
D - Monks Way (W)	1959	490	469	2551	0.768	1952	1680	1.7	3.3	6.159	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	875	219	1839	811	1.079	785	1054	2.4	24.8	77.557	F
B - Monks Way (E)	2197	549	771	2165	1.014	2100	1854	4.1	28.1	36.383	E
C - Brickhill St (S)	458	115	2080	454	1.008	420	791	1.5	11.1	74.481	F
D - Monks Way (W)	2399	600	544	2488	0.964	2349	1956	3.3	16.0	21.507	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	875	219	1867	793	1.103	789	1070	24.8	46.5	171.537	F
B - Monks Way (E)	2197	549	775	2162	1.016	2137	1880	28.1	43.0	67.412	F
C - Brickhill St (S)	458	115	2114	436	1.051	425	799	11.1	19.4	146.522	F
D - Monks Way (W)	2399	600	553	2481	0.967	2384	1986	16.0	19.8	31.327	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	715	179	1614	961	0.743	887	934	46.5	3.5	83.464	F
B - Monks Way (E)	1793	448	835	2115	0.848	1939	1666	43.0	6.5	31.661	D
C - Brickhill St (S)	374	93	1961	520	0.719	439	813	19.4	3.1	65.016	F
D - Monks Way (W)	1959	490	526	2503	0.783	2023	1874	19.8	3.9	8.735	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	599	150	1302	1170	0.512	608	749	3.5	1.1	6.772	A
B - Monks Way (E)	1502	375	587	2309	0.650	1520	1323	6.5	2.0	4.851	A
C - Brickhill St (S)	313	78	1515	787	0.408	323	592	3.1	0.7	8.637	A
D - Monks Way (W)	1640	410	403	2606	0.630	1649	1435	3.9	1.8	3.925	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	98.54	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	537	100.000
B - Monks Way (E)		ONE HOUR	✓	1714	100.000
C - Brickhill St (S)		ONE HOUR	✓	488	100.000
D - Monks Way (W)		ONE HOUR	✓	2101	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	205	127	205
	B - Monks Way (E)	377	45	34	1258
	C - Brickhill St (S)	79	209	0	180
	D - Monks Way (W)	80	2021	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	9	5	1
	B - Monks Way (E)	6	0	1	2
	C - Brickhill St (S)	7	1	0	1
	D - Monks Way (W)	3	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.46	533.20	89.8	F	493	739
B - Monks Way (E)	0.74	5.40	2.8	A	1573	2359
C - Brickhill St (S)	1.04	145.21	21.5	F	429	644
D - Monks Way (W)	1.00	53.04	34.7	F	1928	2892

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	404	101	1705	901	0.449	401	402	0.0	0.8	7.496	A
B - Monks Way (E)	1290	323	248	2575	0.501	1286	1858	0.0	1.0	2.861	A
C - Brickhill St (S)	352	88	1414	824	0.428	349	120	0.0	0.8	7.692	A
D - Monks Way (W)	1582	395	532	2499	0.633	1575	1231	0.0	1.7	3.947	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	483	121	2037	680	0.710	477	480	0.8	2.4	18.025	C
B - Monks Way (E)	1541	385	295	2539	0.607	1539	2218	1.0	1.6	3.692	A
C - Brickhill St (S)	421	105	1690	671	0.627	417	143	0.8	1.6	14.290	B
D - Monks Way (W)	1889	472	636	2413	0.783	1881	1472	1.7	3.6	6.822	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	591	148	2406	434	1.362	428	578	2.4	43.3	214.128	F
B - Monks Way (E)	1887	472	265	2562	0.737	1882	2569	1.6	2.8	5.400	A
C - Brickhill St (S)	515	129	2008	494	1.043	466	139	1.6	14.1	80.256	F
D - Monks Way (W)	2313	578	750	2318	0.998	2233	1724	3.6	23.5	29.986	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	591	148	2449	405	1.458	405	583	43.3	89.8	533.199	F
B - Monks Way (E)	1887	472	250	2573	0.733	1887	2603	2.8	2.8	5.392	A
C - Brickhill St (S)	515	129	2004	496	1.038	486	133	14.1	21.5	145.206	F
D - Monks Way (W)	2313	578	763	2307	1.003	2268	1727	23.5	34.7	53.043	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	483	121	2197	573	0.843	566	501	89.8	68.9	461.501	F
B - Monks Way (E)	1541	385	350	2495	0.618	1545	2414	2.8	1.7	3.915	A
C - Brickhill St (S)	421	105	1731	648	0.649	499	165	21.5	2.0	36.882	E
D - Monks Way (W)	1889	472	687	2370	0.797	2011	1542	34.7	4.2	13.732	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	404	101	1724	888	0.455	676	405	88.9	0.9	88.918	F
B - Monks Way (E)	1290	323	418	2442	0.528	1292	1982	1.7	1.2	3.228	A
C - Brickhill St (S)	352	88	1525	762	0.462	357	186	2.0	0.9	9.158	A
D - Monks Way (W)	1582	395	538	2494	0.634	1591	1344	4.2	1.8	4.114	A

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	22.42	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	757	100.000
B - Monks Way (E)		ONE HOUR	✓	1618	100.000
C - Brickhill St (S)		ONE HOUR	✓	395	100.000
D - Monks Way (W)		ONE HOUR	✓	1824	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	56	291	410
	B - Monks Way (E)	60	0	101	1457
	C - Brickhill St (S)	294	12	0	89
	D - Monks Way (W)	520	1063	241	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	20	7	2
	B - Monks Way (E)	28	0	2	7
	C - Brickhill St (S)	9	5	0	12
	D - Monks Way (W)	3	7	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.78	15.70	3.5	C	695	1042
B - Monks Way (E)	0.91	20.65	9.6	C	1485	2227
C - Brickhill St (S)	1.00	117.48	14.3	F	362	544
D - Monks Way (W)	0.77	6.21	3.4	A	1674	2511

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	570	142	988	1379	0.413	567	655	0.0	0.7	4.639	A
B - Monks Way (E)	1218	305	706	2216	0.550	1213	849	0.0	1.3	3.831	A
C - Brickhill St (S)	297	74	1444	807	0.369	295	475	0.0	0.6	7.667	A
D - Monks Way (W)	1373	343	273	2713	0.506	1369	1466	0.0	1.1	2.814	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	681	170	1181	1250	0.544	679	783	0.7	1.2	6.591	A
B - Monks Way (E)	1455	364	845	2107	0.690	1450	1015	1.3	2.3	5.843	A
C - Brickhill St (S)	355	89	1727	650	0.546	353	568	0.6	1.3	13.146	B
D - Monks Way (W)	1640	410	327	2669	0.614	1637	1753	1.1	1.7	3.673	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	833	208	1443	1076	0.775	825	936	1.2	3.4	14.615	B
B - Monks Way (E)	1781	445	1028	1963	0.907	1756	1240	2.3	8.7	16.918	C
C - Brickhill St (S)	435	109	2093	447	0.973	403	691	1.3	9.2	66.557	F
D - Monks Way (W)	2008	502	378	2627	0.765	2002	2119	1.7	3.3	6.008	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	833	208	1448	1072	0.777	833	947	3.4	3.5	15.700	C
B - Monks Way (E)	1781	445	1037	1957	0.910	1778	1244	8.7	9.6	20.646	C
C - Brickhill St (S)	435	109	2118	433	1.003	414	696	9.2	14.3	117.485	F
D - Monks Way (W)	2008	502	387	2619	0.767	2008	2145	3.3	3.4	6.205	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	681	170	1189	1245	0.547	689	827	3.5	1.3	6.914	A
B - Monks Way (E)	1455	364	856	2098	0.693	1483	1023	9.6	2.5	6.560	A
C - Brickhill St (S)	355	89	1764	630	0.564	406	575	14.3	1.5	21.695	C
D - Monks Way (W)	1640	410	370	2633	0.623	1646	1801	3.4	1.8	3.873	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	570	142	993	1378	0.414	572	881	1.3	0.7	4.718	A
B - Monks Way (E)	1218	305	712	2212	0.551	1223	853	2.5	1.3	3.924	A
C - Brickhill St (S)	297	74	1458	800	0.372	301	478	1.5	0.7	7.944	A
D - Monks Way (W)	1373	343	278	2709	0.507	1376	1479	1.8	1.1	2.852	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	21.80	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	404	100.000
B - Monks Way (E)		ONE HOUR	✓	1248	100.000
C - Brickhill St (S)		ONE HOUR	✓	803	100.000
D - Monks Way (W)		ONE HOUR	✓	2080	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	88	69	249
	B - Monks Way (E)	111	0	56	1081
	C - Brickhill St (S)	311	139	0	153
	D - Monks Way (W)	115	1945	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	8	27	1
	B - Monks Way (E)	13	0	1	4
	C - Brickhill St (S)	5	2	0	1
	D - Monks Way (W)	3	2	25	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.87	48.07	5.5	E	371	556
B - Monks Way (E)	0.55	3.35	1.3	A	1145	1718
C - Brickhill St (S)	0.91	47.08	8.1	E	553	830
D - Monks Way (W)	0.93	20.43	12.1	C	1890	2835

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	304	76	1562	996	0.305	302	402	0.0	0.5	5.473	A
B - Monks Way (E)	940	235	238	2583	0.364	937	1627	0.0	0.6	2.285	A
C - Brickhill St (S)	454	113	1081	1008	0.450	451	94	0.0	0.8	6.631	A
D - Monks Way (W)	1551	388	420	2592	0.598	1545	1112	0.0	1.5	3.490	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	363	91	1868	792	0.458	362	481	0.5	0.9	8.802	A
B - Monks Way (E)	1122	280	285	2547	0.441	1121	1945	0.6	0.8	2.640	A
C - Brickhill St (S)	542	136	1294	890	0.609	539	112	0.8	1.6	10.499	B
D - Monks Way (W)	1852	463	502	2523	0.734	1847	1331	1.5	2.8	5.391	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	445	111	2260	531	0.837	431	578	0.9	4.4	34.228	D
B - Monks Way (E)	1374	344	339	2504	0.549	1372	2352	0.8	1.3	3.322	A
C - Brickhill St (S)	664	166	1576	734	0.905	643	135	1.6	6.8	35.052	E
D - Monks Way (W)	2288	567	602	2441	0.929	2237	1617	2.8	10.6	16.019	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	445	111	2288	513	0.868	440	588	4.4	5.5	48.070	E
B - Monks Way (E)	1374	344	346	2498	0.550	1374	2381	1.3	1.3	3.349	A
C - Brickhill St (S)	664	166	1584	730	0.910	659	137	6.8	8.1	47.080	E
D - Monks Way (W)	2288	567	614	2431	0.933	2262	1629	10.6	12.1	20.425	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	363	91	1914	762	0.477	381	498	5.5	1.0	10.470	B
B - Monks Way (E)	1122	280	300	2534	0.443	1124	1995	1.3	0.8	2.674	A
C - Brickhill St (S)	542	136	1308	882	0.615	568	116	8.1	1.7	12.730	B
D - Monks Way (W)	1852	463	524	2506	0.739	1888	1352	12.1	3.0	6.293	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	304	76	1575	988	0.308	306	406	1.0	0.5	5.602	A
B - Monks Way (E)	940	235	241	2581	0.364	940	1640	0.8	0.8	2.296	A
C - Brickhill St (S)	454	113	1087	1005	0.452	457	94	1.7	0.9	6.829	A
D - Monks Way (W)	1551	388	425	2587	0.599	1557	1119	3.0	1.5	3.585	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	83.67	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	792	100.000
B - Monks Way (E)		ONE HOUR	✓	2083	100.000
C - Brickhill St (S)		ONE HOUR	✓	311	100.000
D - Monks Way (W)		ONE HOUR	✓	2258	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	261	125	406
	B - Monks Way (E)	291	0	203	1589
	C - Brickhill St (S)	44	188	0	99
	D - Monks Way (W)	701	1483	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	6	8	1
	B - Monks Way (E)	9	0	2	6
	C - Brickhill St (S)	14	3	0	7
	D - Monks Way (W)	2	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.07	142.35	37.6	F	727	1090
B - Monks Way (E)	1.01	62.29	41.1	F	1911	2867
C - Brickhill St (S)	1.32	409.30	41.0	F	285	428
D - Monks Way (W)	0.98	37.93	25.2	E	2070	3105

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	596	149	1291	1177	0.507	592	776	0.0	1.0	6.335	A
B - Monks Way (E)	1568	392	466	2404	0.652	1560	1417	0.0	2.0	4.481	A
C - Brickhill St (S)	234	59	1712	658	0.356	232	314	0.0	0.6	8.871	A
D - Monks Way (W)	1698	425	376	2628	0.646	1691	1568	0.0	1.9	3.939	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	712	178	1542	1010	0.705	707	927	1.0	2.4	12.107	B
B - Monks Way (E)	1873	468	556	2334	0.802	1864	1692	2.0	4.1	7.980	A
C - Brickhill St (S)	280	70	2045	474	0.590	276	376	0.6	1.4	18.902	C
D - Monks Way (W)	2028	507	449	2568	0.790	2021	1872	1.9	3.8	6.703	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	872	218	1813	829	1.052	797	1097	2.4	21.1	68.049	F
B - Monks Way (E)	2293	573	633	2273	1.009	2201	1977	4.1	27.2	34.257	D
C - Brickhill St (S)	342	86	2395	280	1.224	269	439	1.4	19.8	171.929	F
D - Monks Way (W)	2484	621	491	2533	0.981	2420	2173	3.8	19.8	24.779	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	872	218	1836	813	1.072	806	1114	21.1	37.6	142.345	F
B - Monks Way (E)	2293	573	641	2267	1.012	2238	2002	27.2	41.1	62.290	F
C - Brickhill St (S)	342	86	2433	259	1.323	258	446	19.8	41.0	409.297	F
D - Monks Way (W)	2484	621	488	2535	0.980	2462	2202	19.8	25.2	37.933	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	712	178	1644	942	0.756	848	987	37.6	3.7	65.202	F
B - Monks Way (E)	1873	468	655	2256	0.830	2015	1837	41.1	5.6	23.360	C
C - Brickhill St (S)	280	70	2253	359	0.780	349	416	41.0	23.5	318.774	F
D - Monks Way (W)	2028	507	520	2509	0.808	2111	2083	25.2	4.6	11.159	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	596	149	1354	1135	0.525	606	798	3.7	1.2	7.186	A
B - Monks Way (E)	1568	392	476	2396	0.654	1583	1484	5.6	2.0	4.771	A
C - Brickhill St (S)	234	59	1739	643	0.364	326	320	23.5	0.8	16.153	C
D - Monks Way (W)	1698	425	443	2572	0.660	1709	1622	4.6	2.0	4.356	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Blakelands Roundabout	Standard Roundabout		A, B, C, D	102.93	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	429	100.000
B - Monks Way (E)		ONE HOUR	✓	1708	100.000
C - Brickhill St (S)		ONE HOUR	✓	504	100.000
D - Monks Way (W)		ONE HOUR	✓	2445	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	132	66	231
	B - Monks Way (E)	152	0	65	1489
	C - Brickhill St (S)	175	110	0	219
	D - Monks Way (W)	151	2294	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Monks Way (E)	C - Brickhill St (S)	D - Monks Way (W)
From	A - Brickhill St (N)	0	13	9	1
	B - Monks Way (E)	8	0	0	3
	C - Brickhill St (S)	6	1	0	1
	D - Monks Way (W)	2	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.30	417.04	53.8	F	394	590
B - Monks Way (E)	0.73	5.36	2.8	A	1565	2348
C - Brickhill St (S)	1.12	215.97	36.3	F	462	694
D - Monks Way (W)	1.05	92.60	77.7	F	2244	3365

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	323	81	1801	837	0.386	320	358	0.0	0.7	7.321	A
B - Monks Way (E)	1284	321	222	2596	0.495	1280	1899	0.0	1.0	2.819	A
C - Brickhill St (S)	379	95	1404	829	0.458	376	98	0.0	0.9	8.100	A
D - Monks Way (W)	1841	460	327	2669	0.690	1832	1453	0.0	2.2	4.342	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	386	96	2150	605	0.638	381	427	0.7	1.8	16.691	C
B - Monks Way (E)	1534	383	264	2563	0.598	1532	2267	1.0	1.5	3.599	A
C - Brickhill St (S)	453	113	1678	677	0.669	449	117	0.9	2.0	15.887	C
D - Monks Way (W)	2198	550	390	2616	0.840	2187	1737	2.2	5.1	8.334	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	472	118	2481	384	1.231	373	490	1.8	28.6	160.295	F
B - Monks Way (E)	1878	470	258	2567	0.732	1873	2596	1.5	2.8	5.322	A
C - Brickhill St (S)	555	139	2003	497	1.116	479	129	2.0	21.0	105.683	F
D - Monks Way (W)	2692	673	438	2577	1.045	2533	2044	5.1	44.8	43.424	E

17:30 - 17:45

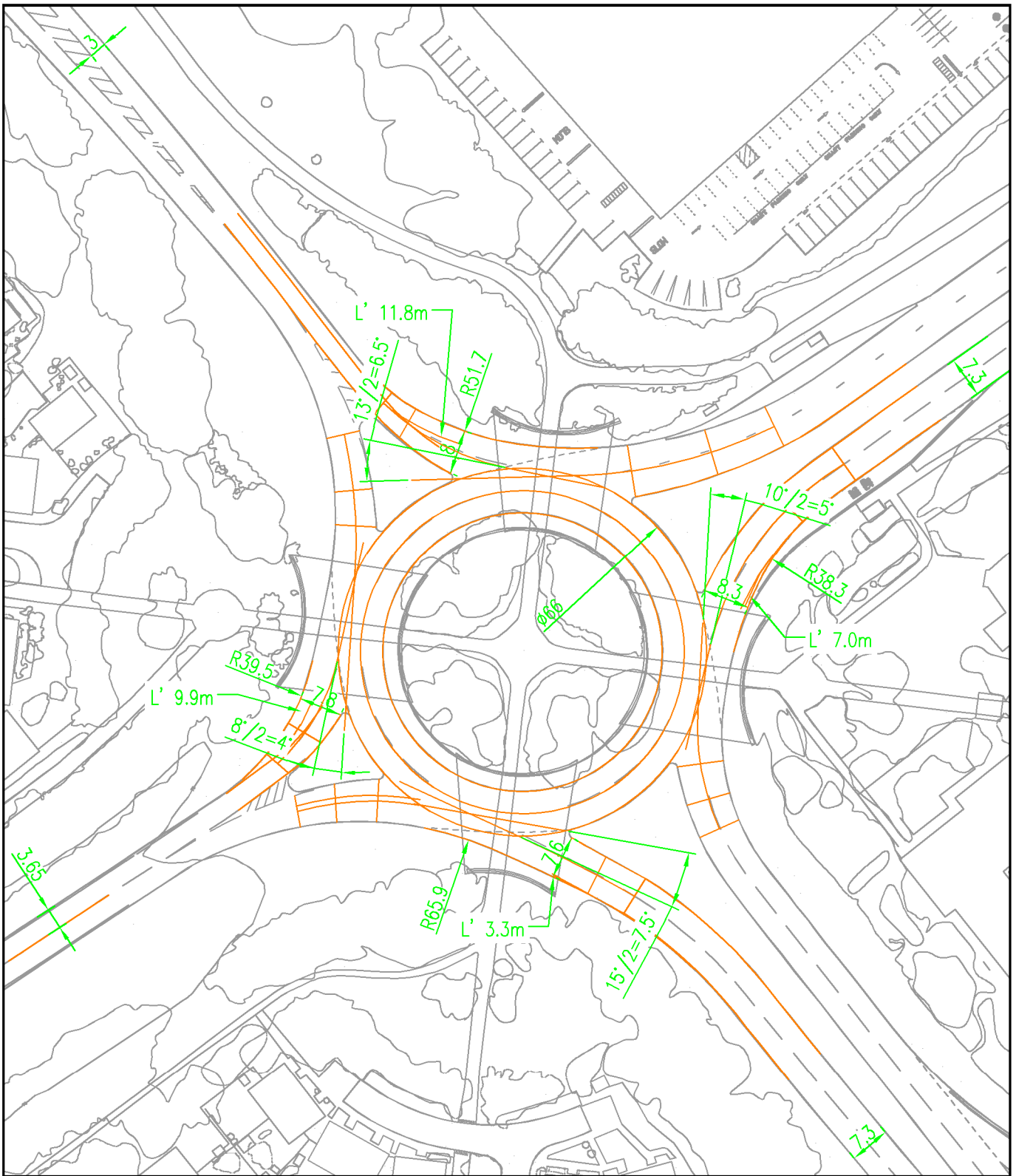
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	472	118	2510	365	1.295	364	497	28.6	53.8	405.122	F
B - Monks Way (E)	1878	470	252	2572	0.730	1878	2622	2.8	2.8	5.357	A
C - Brickhill St (S)	555	139	2003	497	1.116	494	128	21.0	36.3	215.974	F
D - Monks Way (W)	2692	673	446	2570	1.048	2560	2050	44.8	77.7	92.604	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	386	96	2452	403	0.957	395	494	53.8	51.4	417.039	F
B - Monks Way (E)	1534	383	274	2555	0.600	1538	2574	2.8	1.6	3.674	A
C - Brickhill St (S)	453	113	1693	669	0.677	589	119	36.3	2.4	84.853	F
D - Monks Way (W)	2198	550	470	2550	0.862	2477	1811	77.7	8.0	59.873	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	323	81	1833	816	0.396	526	363	51.4	0.7	29.836	D
B - Monks Way (E)	1284	321	364	2484	0.517	1286	1994	1.6	1.1	3.108	A
C - Brickhill St (S)	379	95	1520	765	0.496	385	130	2.4	1.0	9.876	A
D - Monks Way (W)	1841	460	332	2664	0.691	1864	1573	8.0	2.3	4.713	A



ROUNABOUT GEOMETRY – WILLEN ROUNDABOUT (ref E2)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
DANSTEED WAY (E)	7.30	8.30	7.00	38.30	66.00	5.00
BRICKHILL ST (S)	7.30	7.60	3.30	65.90	66.00	7.50
DANSTEED WAY (W)	3.65	7.80	9.90	39.50	66.00	4.00
BRICKHILL ST (N)	3.00	8.00	11.80	51.70	66.00	6.50

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 2.Brickhill St-Danstead W (Willen Rbt).j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:34:10

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Brickhill St (N)	2.6	9.40	0.72	A	3.8	13.46	0.79	B
B - Dansteed Way (E)	0.7	3.25	0.40	A	0.4	2.47	0.26	A
C - Brickhill St (S)	1.3	4.23	0.56	A	0.9	3.23	0.46	A
D - Dansteed Way (W)	1.1	5.57	0.52	A	0.8	4.54	0.43	A
2031 Do Minimum								
A - Brickhill St (N)	2.8	10.04	0.73	B	4.1	15.30	0.81	C
B - Dansteed Way (E)	0.8	3.15	0.42	A	0.4	2.56	0.30	A
C - Brickhill St (S)	1.2	4.10	0.53	A	0.9	3.44	0.48	A
D - Dansteed Way (W)	1.1	5.54	0.52	A	1.1	5.23	0.51	A
2048 Do Minimum								
A - Brickhill St (N)	30.0	98.39	1.03	F	5.4	22.56	0.85	C
B - Dansteed Way (E)	0.7	3.18	0.41	A	1.5	5.59	0.59	A
C - Brickhill St (S)	2.7	7.26	0.73	A	1.6	5.39	0.62	A
D - Dansteed Way (W)	18.7	60.74	0.98	F	3.3	10.48	0.77	B
2031 Do Something								
A - Brickhill St (N)	1.6	6.86	0.61	A	1.9	8.27	0.65	A
B - Dansteed Way (E)	1.0	3.73	0.49	A	0.6	3.24	0.38	A
C - Brickhill St (S)	1.1	4.37	0.52	A	1.1	4.07	0.52	A
D - Dansteed Way (W)	1.1	5.54	0.51	A	1.2	5.41	0.54	A
2048 Do Something								
A - Brickhill St (N)	4.5	19.88	0.82	C	7.9	31.22	0.90	D
B - Dansteed Way (E)	1.2	4.39	0.54	A	1.9	6.74	0.65	A
C - Brickhill St (S)	2.0	6.60	0.67	A	2.5	7.33	0.72	A
D - Dansteed Way (W)	10.6	31.81	0.93	D	3.8	12.37	0.79	B

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

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

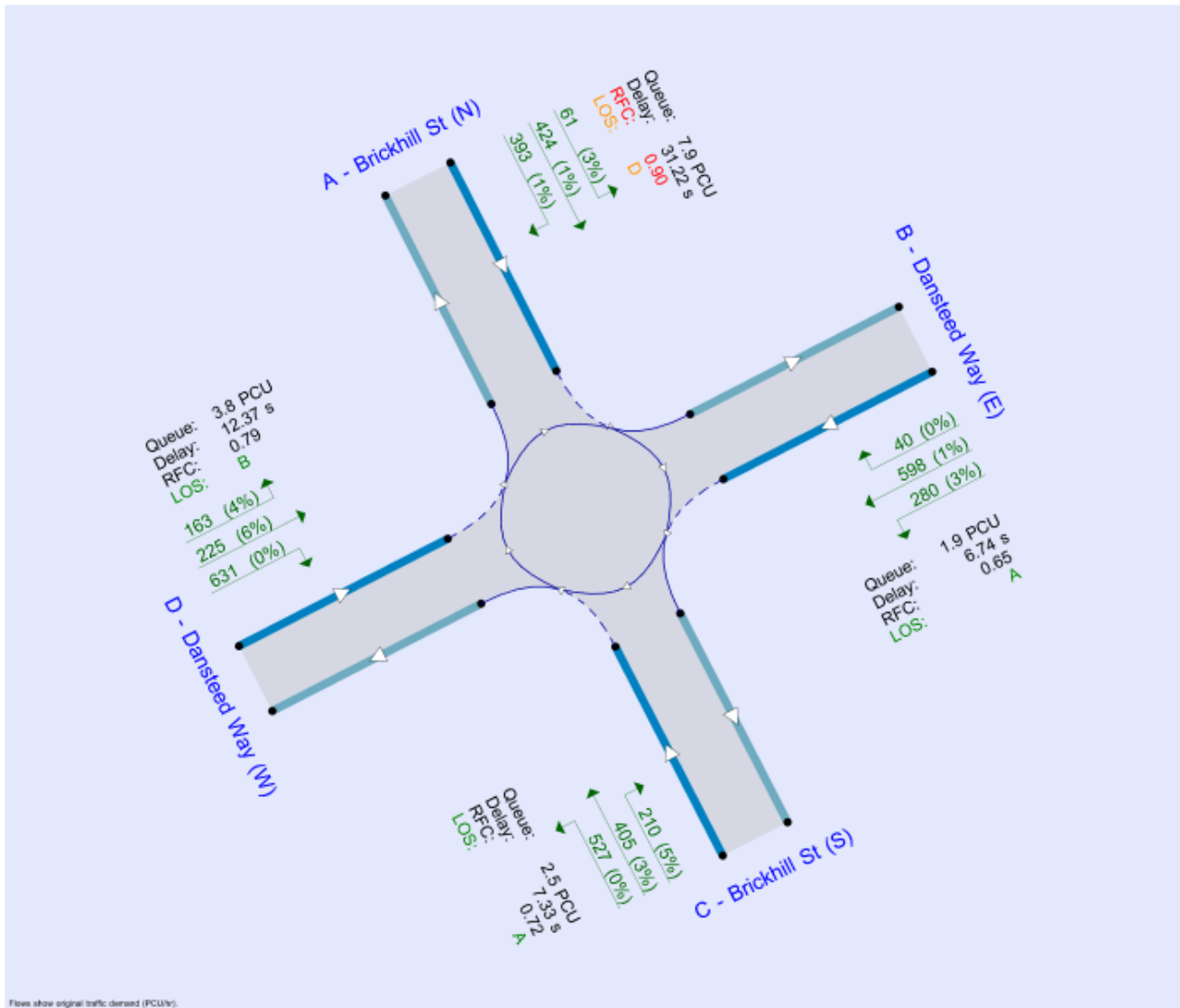
File summary

File Description

Title	Brickhill St-Dansteed W Roundabout
Location	Milton Keynes
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	70014859
Enumerator	CORP\UKFX1001
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	5.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brickhill St (N)	
B	Dansteed Way (E)	
C	Brickhill St (S)	
D	Dansteed Way (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Brickhill St (N)	3.00	8.00	11.8	51.7	66.0	6.5	
B - Dansteed Way (E)	7.30	8.30	7.0	38.3	66.0	5.0	
C - Brickhill St (S)	7.30	7.80	3.3	65.9	66.0	7.5	
D - Dansteed Way (W)	3.65	7.80	9.9	39.5	66.0	4.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Brickhill St (N)	0.556	1725
B - Dansteed Way (E)	0.713	2686
C - Brickhill St (S)	0.689	2538
D - Dansteed Way (W)	0.574	1831

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	917	100.000
B - Dansteed Way (E)		ONE HOUR	✓	715	100.000
C - Brickhill St (S)		ONE HOUR	✓	1016	100.000
D - Dansteed Way (W)		ONE HOUR	✓	658	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	100	630	187
	B - Dansteed Way (E)	2	0	198	515
	C - Brickhill St (S)	598	97	0	321
	D - Dansteed Way (W)	234	297	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	1	4	4
	B - Dansteed Way (E)	2	0	4	5
	C - Brickhill St (S)	6	2	0	1
	D - Dansteed Way (W)	4	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.72	9.40	2.6	7.1	A	841	1262
B - Dansteed Way (E)	0.40	3.25	0.7	3.0	A	656	984
C - Brickhill St (S)	0.56	4.23	1.3	1.5	A	932	1398
D - Dansteed Way (W)	0.52	5.57	1.1	1.7	A	604	906

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	690	173	391	1508	0.458	687	626	0.0	0.9	4.527	A
B - Dansteed Way (E)	538	135	707	2182	0.247	537	370	0.0	0.3	2.289	A
C - Brickhill St (S)	765	191	528	2174	0.352	763	716	0.0	0.8	2.647	A
D - Dansteed Way (W)	495	124	523	1630	0.324	493	768	0.0	0.5	3.568	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	824	206	468	1465	0.563	823	749	0.9	1.3	5.793	A
B - Dansteed Way (E)	643	161	847	2083	0.309	642	443	0.3	0.5	2.617	A
C - Brickhill St (S)	913	228	632	2103	0.434	912	857	0.6	0.8	3.140	A
D - Dansteed Way (W)	592	148	626	1471	0.402	591	919	0.5	0.7	4.205	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1010	252	572	1407	0.718	1005	916	1.3	2.5	9.170	A
B - Dansteed Way (E)	787	197	1035	1949	0.404	786	542	0.5	0.7	3.239	A
C - Brickhill St (S)	1119	280	773	2005	0.558	1117	1048	0.8	1.3	4.203	A
D - Dansteed Way (W)	724	181	766	1391	0.521	723	1124	0.7	1.1	5.534	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1010	252	574	1406	0.718	1009	918	2.5	2.6	9.396	A
B - Dansteed Way (E)	787	197	1039	1946	0.405	787	544	0.7	0.7	3.253	A
C - Brickhill St (S)	1119	280	775	2004	0.558	1119	1051	1.3	1.3	4.227	A
D - Dansteed Way (W)	724	181	767	1390	0.521	724	1126	1.1	1.1	5.566	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	824	206	470	1464	0.563	829	752	2.6	1.4	5.924	A
B - Dansteed Way (E)	643	161	853	2078	0.309	644	446	0.7	0.5	2.629	A
C - Brickhill St (S)	913	228	635	2101	0.435	915	863	1.3	0.8	3.162	A
D - Dansteed Way (W)	592	148	628	1470	0.402	593	922	1.1	0.7	4.233	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	690	173	393	1507	0.458	692	629	1.4	0.9	4.594	A
B - Dansteed Way (E)	538	135	713	2178	0.247	539	373	0.5	0.3	2.301	A
C - Brickhill St (S)	765	191	531	2172	0.352	766	721	0.8	0.6	2.662	A
D - Dansteed Way (W)	495	124	525	1529	0.324	496	771	0.7	0.5	3.592	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.87	0.57	1.04	1.45	1.50			N/A	N/A
B - Dansteed Way (E)	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C - Brickhill St (S)	0.56	0.56	1.04	1.46	1.51			N/A	N/A
D - Dansteed Way (W)	0.49	0.00	0.00	0.49	0.49			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.32	0.08	0.77	2.94	4.20			N/A	N/A
B - Danstead Way (E)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
C - Brickhill St (S)	0.79	0.08	0.80	1.48	1.48			N/A	N/A
D - Danstead Way (W)	0.69	0.09	0.84	1.41	1.48			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	2.55	0.03	0.29	2.55	7.12			N/A	N/A
B - Danstead Way (E)	0.71	0.03	0.26	0.71	0.71			N/A	N/A
C - Brickhill St (S)	1.30	0.03	0.27	1.30	1.30			N/A	N/A
D - Danstead Way (W)	1.11	0.03	0.27	1.11	1.11			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	2.59	0.03	0.28	2.59	2.65			N/A	N/A
B - Danstead Way (E)	0.71	0.03	0.30	1.17	3.03			N/A	N/A
C - Brickhill St (S)	1.31	0.03	0.28	1.31	1.31			N/A	N/A
D - Danstead Way (W)	1.11	0.03	0.28	1.11	1.71			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.36	0.07	0.98	2.80	3.84			N/A	N/A
B - Danstead Way (E)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
C - Brickhill St (S)	0.80	0.54	1.02	1.45	1.51			N/A	N/A
D - Danstead Way (W)	0.70	0.24	0.97	1.43	1.49			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.88	0.05	0.46	1.95	2.98			N/A	N/A
B - Danstead Way (E)	0.34	0.00	0.00	0.34	0.34			N/A	N/A
C - Brickhill St (S)	0.57	0.06	0.67	1.38	1.47			N/A	N/A
D - Danstead Way (W)	0.50	0.04	0.44	1.29	1.42			N/A	N/A

2016 MKMMM Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	6.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	947	100.000
B - Dansteed Way (E)		ONE HOUR	✓	477	100.000
C - Brickhill St (S)		ONE HOUR	✓	892	100.000
D - Dansteed Way (W)		ONE HOUR	✓	571	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	212	521	214
	B - Dansteed Way (E)	0	0	130	347
	C - Brickhill St (S)	415	168	0	309
	D - Dansteed Way (W)	71	374	128	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	0	4	3
	B - Dansteed Way (E)	0	0	0	3
	C - Brickhill St (S)	3	1	0	0
	D - Dansteed Way (W)	10	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.79	13.46	3.8	17.6	B	869	1303
B - Dansteed Way (E)	0.26	2.47	0.4	1.4	A	438	657
C - Brickhill St (S)	0.46	3.23	0.9	1.8	A	819	1228
D - Dansteed Way (W)	0.43	4.54	0.8	2.8	A	524	788

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	713	178	501	1446	0.493	709	365	0.0	1.0	4.995	A
B - Dansteed Way (E)	359	90	645	2227	0.161	358	565	0.0	0.2	1.967	A
C - Brickhill St (S)	672	168	421	2248	0.299	670	582	0.0	0.4	2.315	A
D - Dansteed Way (W)	430	107	438	1580	0.272	428	653	0.0	0.4	3.282	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	851	213	600	1391	0.612	849	437	1.0	1.6	6.795	A
B - Dansteed Way (E)	429	107	772	2136	0.201	429	677	0.2	0.3	2.154	A
C - Brickhill St (S)	802	200	504	2191	0.366	801	697	0.4	0.6	2.629	A
D - Dansteed Way (W)	513	128	524	1530	0.335	513	781	0.4	0.5	3.716	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1043	281	734	1317	0.792	1034	534	1.6	3.7	12.753	B
B - Dansteed Way (E)	525	131	941	2015	0.261	525	827	0.3	0.4	2.467	A
C - Brickhill St (S)	982	246	615	2114	0.465	981	851	0.6	0.9	3.224	A
D - Dansteed Way (W)	629	157	641	1463	0.430	628	955	0.5	0.8	4.524	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1043	281	735	1316	0.792	1042	535	3.7	3.8	13.456	B
B - Dansteed Way (E)	525	131	948	2011	0.261	525	830	0.4	0.4	2.475	A
C - Brickhill St (S)	982	246	618	2113	0.465	982	855	0.9	0.9	3.233	A
D - Dansteed Way (W)	629	157	642	1462	0.430	629	958	0.8	0.8	4.537	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	851	213	602	1390	0.612	860	438	3.8	1.7	7.085	A
B - Danstead Way (E)	429	107	781	2130	0.201	429	681	0.4	0.3	2.163	A
C - Brickhill St (S)	802	200	507	2189	0.366	803	704	0.9	0.6	2.639	A
D - Danstead Way (W)	513	128	525	1530	0.336	514	785	0.8	0.5	3.729	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	713	178	504	1445	0.493	716	366	1.7	1.0	5.094	A
B - Danstead Way (E)	359	90	650	2223	0.162	359	569	0.3	0.2	1.975	A
C - Brickhill St (S)	672	168	423	2247	0.299	672	587	0.6	0.4	2.324	A
D - Danstead Way (W)	430	107	439	1579	0.272	430	656	0.5	0.4	3.295	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.99	0.57	1.03	1.44	1.49			N/A	N/A
B - Danstead Way (E)	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C - Brickhill St (S)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
D - Danstead Way (W)	0.39	0.00	0.00	0.39	0.39			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.59	0.05	0.60	3.97	6.03			N/A	N/A
B - Danstead Way (E)	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Brickhill St (S)	0.58	0.07	0.75	1.37	1.45			N/A	N/A
D - Danstead Way (W)	0.53	0.53	1.05	1.47	1.52			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	3.87	0.03	0.32	4.59	17.62			N/A	N/A
B - Danstead Way (E)	0.36	0.03	0.26	0.46	0.49			N/A	N/A
C - Brickhill St (S)	0.88	0.03	0.26	0.88	0.88			N/A	N/A
D - Danstead Way (W)	0.79	0.03	0.27	0.79	0.79			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	3.79	0.03	0.29	3.79	10.17			N/A	N/A
B - Danstead Way (E)	0.36	0.03	0.34	1.17	1.40			N/A	N/A
C - Brickhill St (S)	0.88	0.03	0.28	0.88	1.85			N/A	N/A
D - Danstead Way (W)	0.79	0.03	0.29	0.79	2.80			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.66	0.05	0.63	4.13	6.32			N/A	N/A
B - Danstead Way (E)	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C - Brickhill St (S)	0.59	0.56	1.02	1.42	1.47			N/A	N/A
D - Danstead Way (W)	0.53	0.53	1.05	1.47	1.52			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.01	0.04	0.37	2.51	4.80			N/A	N/A
B - Danstead Way (E)	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C - Brickhill St (S)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
D - Danstead Way (W)	0.40	0.00	0.00	0.40	0.40			N/A	N/A

2031 Do Minimum, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	5.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	923	100.000
B - Dansteed Way (E)		ONE HOUR	✓	803	100.000
C - Brickhill St (S)		ONE HOUR	✓	948	100.000
D - Dansteed Way (W)		ONE HOUR	✓	652	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	264	471	188
	B - Dansteed Way (E)	51	0	225	527
	C - Brickhill St (S)	527	124	0	297
	D - Dansteed Way (W)	225	316	111	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	0	6	4
	B - Dansteed Way (E)	0	0	4	6
	C - Brickhill St (S)	6	3	0	1
	D - Dansteed Way (W)	4	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.73	10.04	2.8	8.9	B	847	1270
B - Dansteed Way (E)	0.42	3.15	0.8	2.9	A	737	1105
C - Brickhill St (S)	0.53	4.10	1.2	1.5	A	870	1305
D - Dansteed Way (W)	0.52	5.54	1.1	1.8	A	598	897

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	695	174	413	1495	0.465	691	603	0.0	0.9	4.628	A
B - Dansteed Way (E)	605	151	577	2275	0.266	603	528	0.0	0.4	2.259	A
C - Brickhill St (S)	714	178	575	2142	0.333	712	605	0.0	0.5	2.614	A
D - Dansteed Way (W)	491	123	527	1528	0.321	489	760	0.0	0.5	3.561	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	830	207	495	1450	0.572	828	721	0.9	1.4	5.989	A
B - Dansteed Way (E)	722	180	691	2194	0.329	721	632	0.4	0.5	2.588	A
C - Brickhill St (S)	852	213	688	2084	0.413	851	724	0.5	0.7	3.085	A
D - Dansteed Way (W)	586	147	630	1469	0.399	585	909	0.5	0.7	4.193	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1016	254	605	1388	0.732	1011	882	1.4	2.7	9.756	A
B - Dansteed Way (E)	884	221	844	2085	0.424	883	773	0.5	0.8	3.143	A
C - Brickhill St (S)	1044	261	842	1958	0.533	1042	885	0.7	1.2	4.077	A
D - Dansteed Way (W)	718	179	772	1388	0.517	716	1112	0.7	1.1	5.508	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1016	254	607	1388	0.732	1016	884	2.7	2.8	10.038	B
B - Dansteed Way (E)	884	221	848	2082	0.425	884	775	0.8	0.8	3.155	A
C - Brickhill St (S)	1044	261	843	1957	0.533	1044	888	1.2	1.2	4.098	A
D - Dansteed Way (W)	718	179	773	1387	0.518	718	1114	1.1	1.1	5.540	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	830	207	497	1449	0.573	835	723	2.8	1.4	6.142	A
B - Dansteed Way (E)	722	180	696	2190	0.330	723	635	0.8	0.5	2.580	A
C - Brickhill St (S)	852	213	690	2082	0.413	854	729	1.2	0.7	3.101	A
D - Dansteed Way (W)	588	147	632	1468	0.399	588	912	1.1	0.7	4.222	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	695	174	415	1494	0.465	697	605	1.4	0.9	4.701	A
B - Dansteed Way (E)	605	151	581	2272	0.266	605	531	0.5	0.4	2.270	A
C - Brickhill St (S)	714	178	577	2140	0.333	715	609	0.7	0.5	2.628	A
D - Dansteed Way (W)	491	123	529	1527	0.321	492	763	0.7	0.5	3.582	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.89	0.57	1.04	1.45	1.51			N/A	N/A
B - Dansteed Way (E)	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - Brickhill St (S)	0.52	0.00	0.00	0.52	0.52			N/A	N/A
D - Dansteed Way (W)	0.48	0.00	0.00	0.48	0.48			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.37	0.06	0.74	3.10	4.59			N/A	N/A
B - Dansteed Way (E)	0.51	0.00	0.00	0.51	0.51			N/A	N/A
C - Brickhill St (S)	0.73	0.08	0.80	1.45	1.53			N/A	N/A
D - Dansteed Way (W)	0.68	0.09	0.84	1.41	1.48			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	2.73	0.03	0.30	2.73	8.92			N/A	N/A
B - Dansteed Way (E)	0.77	0.03	0.27	0.77	0.77			N/A	N/A
C - Brickhill St (S)	1.18	0.03	0.27	1.18	1.18			N/A	N/A
D - Dansteed Way (W)	1.09	0.03	0.27	1.09	1.09			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	2.78	0.03	0.28	2.78	3.48			N/A	N/A
B - Dansteed Way (E)	0.77	0.03	0.29	0.78	2.86			N/A	N/A
C - Brickhill St (S)	1.18	0.03	0.28	1.18	1.42			N/A	N/A
D - Dansteed Way (W)	1.10	0.03	0.28	1.10	1.76			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.41	0.07	0.94	3.02	4.23			N/A	N/A
B - Dansteed Way (E)	0.52	0.00	0.00	0.52	0.52			N/A	N/A
C - Brickhill St (S)	0.74	0.57	1.04	1.46	1.51			N/A	N/A
D - Dansteed Way (W)	0.69	0.24	0.97	1.43	1.49			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.91	0.04	0.44	2.05	3.29			N/A	N/A
B - Danstead Way (E)	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C - Brickhill St (S)	0.52	0.05	0.50	1.34	1.45			N/A	N/A
D - Danstead Way (W)	0.49	0.04	0.43	1.28	1.41			N/A	N/A

2031 Do Minimum, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	7.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	18:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	903	100.000
B - Dansteed Way (E)		ONE HOUR	✓	567	100.000
C - Brickhill St (S)		ONE HOUR	✓	882	100.000
D - Dansteed Way (W)		ONE HOUR	✓	674	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	248	400	255
	B - Dansteed Way (E)	1	0	161	405
	C - Brickhill St (S)	388	203	0	291
	D - Dansteed Way (W)	75	455	144	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	1	4	3
	B - Dansteed Way (E)	0	0	0	3
	C - Brickhill St (S)	3	1	0	1
	D - Dansteed Way (W)	9	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.81	15.30	4.1	20.2	C	829	1243
B - Dansteed Way (E)	0.30	2.56	0.4	1.6	A	520	780
C - Brickhill St (S)	0.48	3.44	0.9	1.7	A	809	1214
D - Dansteed Way (W)	0.51	5.23	1.1	1.7	A	618	928

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	680	170	602	1390	0.489	676	348	0.0	1.0	5.156	A
B - Dansteed Way (E)	427	107	598	2260	0.189	426	679	0.0	0.2	2.003	A
C - Brickhill St (S)	664	166	496	2197	0.302	662	528	0.0	0.4	2.388	A
D - Dansteed Way (W)	507	127	445	1576	0.322	505	714	0.0	0.5	3.488	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	812	203	720	1325	0.613	809	417	1.0	1.6	7.154	A
B - Dansteed Way (E)	510	127	716	2176	0.234	509	813	0.2	0.3	2.206	A
C - Brickhill St (S)	793	198	593	2129	0.372	792	632	0.4	0.6	2.741	A
D - Dansteed Way (W)	606	151	532	1526	0.397	605	854	0.5	0.7	4.059	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	994	249	881	1235	0.805	985	510	1.6	3.9	14.305	B
B - Dansteed Way (E)	624	156	873	2064	0.302	624	994	0.3	0.4	2.552	A
C - Brickhill St (S)	971	243	725	2039	0.476	970	772	0.6	0.9	3.425	A
D - Dansteed Way (W)	742	186	651	1457	0.509	741	1044	0.7	1.1	5.206	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	994	249	883	1234	0.806	994	511	3.9	4.1	15.304	C
B - Dansteed Way (E)	624	156	879	2060	0.303	624	997	0.4	0.4	2.560	A
C - Brickhill St (S)	971	243	728	2037	0.477	971	776	0.9	0.9	3.440	A
D - Dansteed Way (W)	742	186	652	1457	0.509	742	1047	1.1	1.1	5.232	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	812	203	723	1323	0.614	821	418	4.1	1.7	7.521	A
B - Dansteed Way (E)	510	127	728	2189	0.235	510	818	0.4	0.3	2.216	A
C - Brickhill St (S)	793	198	597	2127	0.373	794	639	0.9	0.6	2.756	A
D - Dansteed Way (W)	606	151	533	1525	0.397	607	858	1.1	0.7	4.082	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	680	170	605	1389	0.490	683	350	1.7	1.0	5.262	A
B - Dansteed Way (E)	427	107	604	2256	0.189	427	683	0.3	0.2	2.011	A
C - Brickhill St (S)	664	166	499	2195	0.303	665	532	0.6	0.4	2.397	A
D - Dansteed Way (W)	507	127	446	1575	0.322	508	717	0.7	0.5	3.510	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.97	0.57	1.03	1.44	1.49			N/A	N/A
B - Dansteed Way (E)	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - Brickhill St (S)	0.44	0.00	0.00	0.44	0.44			N/A	N/A
D - Dansteed Way (W)	0.49	0.00	0.00	0.49	0.49			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.60	0.05	0.59	3.99	6.09			N/A	N/A
B - Dansteed Way (E)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - Brickhill St (S)	0.60	0.08	0.76	1.38	1.45			N/A	N/A
D - Dansteed Way (W)	0.68	0.10	0.85	1.42	1.49			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	3.93	0.03	0.33	6.36	20.24			N/A	N/A
B - Dansteed Way (E)	0.44	0.03	0.26	0.46	0.49			N/A	N/A
C - Brickhill St (S)	0.92	0.03	0.26	0.92	0.92			N/A	N/A
D - Dansteed Way (W)	1.07	0.03	0.27	1.07	1.07			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	4.09	0.03	0.30	4.09	13.70			N/A	N/A
B - Dansteed Way (E)	0.44	0.03	0.34	1.39	1.61			N/A	N/A
C - Brickhill St (S)	0.92	0.03	0.28	0.92	1.73			N/A	N/A
D - Dansteed Way (W)	1.07	0.03	0.28	1.07	1.68			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.67	0.05	0.51	4.27	6.67			N/A	N/A
B - Dansteed Way (E)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - Brickhill St (S)	0.61	0.56	1.02	1.43	1.48			N/A	N/A
D - Dansteed Way (W)	0.69	0.30	0.99	1.44	1.50			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.00	0.04	0.36	2.41	4.70			N/A	N/A
B - Danstead Way (E)	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - Brickhill St (S)	0.44	0.00	0.00	0.44	0.44			N/A	N/A
D - Danstead Way (W)	0.50	0.04	0.43	1.30	1.43			N/A	N/A

2048 Do Minimum, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	42.18	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	952	100.000
B - Dansteed Way (E)		ONE HOUR	✓	744	100.000
C - Brickhill St (S)		ONE HOUR	✓	1253	100.000
D - Dansteed Way (W)		ONE HOUR	✓	1034	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	280	389	303
	B - Dansteed Way (E)	120	0	188	458
	C - Brickhill St (S)	458	482	0	313
	D - Dansteed Way (W)	351	470	213	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	3	1	2
	B - Dansteed Way (E)	7	0	2	7
	C - Brickhill St (S)	1	1	0	1
	D - Dansteed Way (W)	2	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.03	98.39	30.0	88.8	F	874	1310
B - Dansteed Way (E)	0.41	3.18	0.7	3.0	A	683	1024
C - Brickhill St (S)	0.73	7.26	2.7	5.2	A	1150	1725
D - Dansteed Way (W)	0.98	60.74	18.7	77.0	F	949	1423

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	717	179	872	1240	0.578	711	696	0.0	1.4	6.871	A
B - Dansteed Way (E)	560	140	661	2215	0.253	559	922	0.0	0.4	2.298	A
C - Brickhill St (S)	943	236	660	2083	0.453	940	560	0.0	0.8	3.171	A
D - Dansteed Way (W)	778	195	795	1374	0.566	773	805	0.0	1.3	6.020	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	856	214	1043	1145	0.748	850	833	1.4	2.9	12.192	B
B - Dansteed Way (E)	669	167	790	2123	0.315	668	1103	0.4	0.5	2.619	A
C - Brickhill St (S)	1126	282	790	1994	0.565	1125	669	0.8	1.3	4.172	A
D - Dansteed Way (W)	930	232	951	1285	0.724	925	963	1.3	2.6	9.994	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1048	262	1250	1030	1.018	985	1005	2.9	18.7	52.376	F
B - Dansteed Way (E)	819	205	920	2030	0.403	818	1315	0.5	0.7	3.142	A
C - Brickhill St (S)	1380	345	949	1884	0.732	1374	789	1.3	2.7	7.052	A
D - Dansteed Way (W)	1138	285	1163	1163	0.979	1093	1160	2.6	14.0	38.309	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1048	262	1270	1019	1.029	1003	1016	18.7	30.0	98.388	F
B - Dansteed Way (E)	819	205	938	2017	0.406	819	1334	0.7	0.7	3.179	A
C - Brickhill St (S)	1380	345	955	1880	0.734	1379	802	2.7	2.7	7.259	A
D - Dansteed Way (W)	1138	285	1167	1161	0.981	1120	1168	14.0	18.7	60.744	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	856	214	1091	1118	0.765	961	859	30.0	3.6	35.759	E
B - Danstead Way (E)	669	167	883	2057	0.325	670	1170	0.7	0.5	2.750	A
C - Brickhill St (S)	1126	282	826	1969	0.572	1132	727	2.7	1.4	4.373	A
D - Danstead Way (W)	930	232	957	1281	0.726	993	1001	18.7	2.8	15.330	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	717	179	882	1235	0.580	726	702	3.6	1.4	7.324	A
B - Danstead Way (E)	580	140	674	2206	0.254	561	934	0.5	0.4	2.316	A
C - Brickhill St (S)	943	236	667	2079	0.454	945	568	1.4	0.8	3.212	A
D - Danstead Way (W)	778	195	800	1372	0.568	784	812	2.8	1.4	6.272	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.37	0.23	1.25	1.99	2.60			N/A	N/A
B - Danstead Way (E)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - Brickhill St (S)	0.83	0.56	1.01	1.41	1.46			N/A	N/A
D - Danstead Way (W)	1.30	0.38	1.22	1.82	2.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	2.87	0.05	0.58	7.94	12.86			N/A	N/A
B - Danstead Way (E)	0.48	0.00	0.00	0.48	0.48			N/A	N/A
C - Brickhill St (S)	1.30	0.05	0.48	3.19	4.94			N/A	N/A
D - Danstead Way (W)	2.55	0.05	0.48	7.04	11.67			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	18.68	1.07	12.68	42.05	54.61			N/A	N/A
B - Danstead Way (E)	0.71	0.03	0.27	0.71	0.71			N/A	N/A
C - Brickhill St (S)	2.68	0.03	0.28	2.68	5.23			N/A	N/A
D - Danstead Way (W)	13.95	0.20	6.43	36.39	51.09			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	30.05	1.40	21.05	67.21	88.81			N/A	N/A
B - Danstead Way (E)	0.72	0.03	0.30	1.11	3.01			N/A	N/A
C - Brickhill St (S)	2.74	0.03	0.27	2.74	2.74			N/A	N/A
D - Danstead Way (W)	18.66	0.13	6.14	52.14	78.99			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	3.64	0.04	0.42	9.93	18.78			N/A	N/A
B - Danstead Way (E)	0.51	0.00	0.00	0.51	0.51			N/A	N/A
C - Brickhill St (S)	1.37	0.09	1.08	2.63	3.48			N/A	N/A
D - Danstead Way (W)	2.81	0.04	0.38	7.31	14.73			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.44	0.03	0.29	1.44	4.97			N/A	N/A
B - Danstead Way (E)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C - Brickhill St (S)	0.84	0.05	0.46	1.82	2.74			N/A	N/A
D - Danstead Way (W)	1.35	0.03	0.29	1.40	5.57			N/A	N/A

2048 Do Minimum, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	10.68	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	18:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	829	100.000
B - Dansteed Way (E)		ONE HOUR	✓	860	100.000
C - Brickhill St (S)		ONE HOUR	✓	995	100.000
D - Dansteed Way (W)		ONE HOUR	✓	1043	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	92	357	380
	B - Dansteed Way (E)	1	0	229	630
	C - Brickhill St (S)	316	214	0	465
	D - Dansteed Way (W)	185	206	652	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	5	0	1
	B - Dansteed Way (E)	0	0	1	1
	C - Brickhill St (S)	2	3	0	0
	D - Dansteed Way (W)	4	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.85	22.58	5.4	27.3	C	761	1141
B - Dansteed Way (E)	0.59	5.59	1.5	1.5	A	789	1184
C - Brickhill St (S)	0.62	5.39	1.6	2.0	A	913	1370
D - Dansteed Way (W)	0.77	10.48	3.3	12.5	B	957	1438

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	624	156	803	1278	0.488	620	376	0.0	1.0	5.494	A
B - Dansteed Way (E)	647	162	1040	1945	0.333	645	384	0.0	0.5	2.794	A
C - Brickhill St (S)	749	187	758	2016	0.372	747	927	0.0	0.6	2.867	A
D - Dansteed Way (W)	785	196	398	1602	0.490	781	1106	0.0	1.0	4.422	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	745	186	962	1190	0.626	742	451	1.0	1.7	8.068	A
B - Dansteed Way (E)	773	193	1245	1799	0.430	772	459	0.5	0.8	3.537	A
C - Brickhill St (S)	894	224	907	1913	0.468	893	1110	0.6	0.9	3.571	A
D - Dansteed Way (W)	938	234	477	1557	0.602	935	1323	1.0	1.5	5.843	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	913	228	1174	1072	0.851	899	551	1.7	5.0	19.671	C
B - Dansteed Way (E)	947	237	1513	1608	0.589	944	560	0.8	1.4	5.457	A
C - Brickhill St (S)	1096	274	1105	1777	0.617	1093	1352	0.9	1.6	5.306	A
D - Dansteed Way (W)	1148	287	583	1496	0.768	1142	1614	1.5	3.2	10.098	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	913	228	1180	1069	0.854	911	553	5.0	5.4	22.558	C
B - Dansteed Way (E)	947	237	1528	1597	0.593	947	563	1.4	1.5	5.586	A
C - Brickhill St (S)	1096	274	1112	1772	0.618	1095	1362	1.6	1.6	5.388	A
D - Dansteed Way (W)	1148	287	585	1495	0.768	1148	1623	3.2	3.3	10.476	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	745	188	970	1186	0.629	780	453	5.4	1.8	8.825	A
B - Dansteed Way (E)	773	193	1266	1784	0.433	776	464	1.5	0.8	3.618	A
C - Brickhill St (S)	894	224	918	1906	0.469	897	1124	1.6	0.9	3.626	A
D - Dansteed Way (W)	938	234	479	1556	0.603	944	1336	3.3	1.6	6.027	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	624	156	809	1275	0.490	627	379	1.8	1.0	5.640	A
B - Dansteed Way (E)	647	162	1050	1938	0.334	649	387	0.8	0.5	2.823	A
C - Brickhill St (S)	749	187	763	2012	0.372	750	935	0.9	0.6	2.893	A
D - Dansteed Way (W)	785	196	400	1601	0.490	788	1113	1.6	1.0	4.494	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.95	0.56	1.01	1.41	1.46			N/A	N/A
B - Dansteed Way (E)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
C - Brickhill St (S)	0.60	0.56	1.01	1.42	1.47			N/A	N/A
D - Dansteed Way (W)	0.96	0.56	1.01	1.42	1.47			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.65	0.05	0.50	4.25	6.65			N/A	N/A
B - Dansteed Way (E)	0.76	0.07	0.73	1.49	1.51			N/A	N/A
C - Brickhill St (S)	0.88	0.06	0.74	1.59	1.99			N/A	N/A
D - Dansteed Way (W)	1.51	0.05	0.56	3.76	5.73			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	5.04	0.04	0.38	12.65	27.29			N/A	N/A
B - Dansteed Way (E)	1.43	0.03	0.26	1.43	1.43			N/A	N/A
C - Brickhill St (S)	1.60	0.03	0.27	1.60	1.60			N/A	N/A
D - Dansteed Way (W)	3.19	0.03	0.30	3.19	12.52			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	5.44	0.03	0.32	7.51	28.83			N/A	N/A
B - Dansteed Way (E)	1.46	0.03	0.27	1.46	1.46			N/A	N/A
C - Brickhill St (S)	1.63	0.03	0.27	1.63	1.63			N/A	N/A
D - Dansteed Way (W)	3.27	0.03	0.28	3.27	4.94			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.75	0.04	0.44	4.69	7.86			N/A	N/A
B - Dansteed Way (E)	0.78	0.22	0.95	1.41	1.46			N/A	N/A
C - Brickhill St (S)	0.90	0.22	0.98	1.17	1.17			N/A	N/A
D - Dansteed Way (W)	1.56	0.06	0.85	3.69	5.32			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.98	0.03	0.32	1.95	4.89			N/A	N/A
B - Danstead Way (E)	0.51	0.05	0.46	1.29	1.40			N/A	N/A
C - Brickhill St (S)	0.60	0.06	0.60	1.36	1.45			N/A	N/A
D - Danstead Way (W)	0.98	0.04	0.40	2.43	4.01			N/A	N/A

2031 Do Something, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	5.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	767	100.000
B - Dansteed Way (E)		ONE HOUR	✓	901	100.000
C - Brickhill St (S)		ONE HOUR	✓	839	100.000
D - Dansteed Way (W)		ONE HOUR	✓	631	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	22	538	207
	B - Dansteed Way (E)	231	0	122	548
	C - Brickhill St (S)	380	117	0	342
	D - Dansteed Way (W)	207	313	111	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	8	5	4
	B - Dansteed Way (E)	0	0	13	7
	C - Brickhill St (S)	10	3	0	1
	D - Dansteed Way (W)	4	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.61	6.86	1.6	1.9	A	704	1056
B - Dansteed Way (E)	0.49	3.73	1.0	1.7	A	827	1240
C - Brickhill St (S)	0.52	4.37	1.1	1.6	A	770	1155
D - Dansteed Way (W)	0.51	5.54	1.1	2.0	A	579	889

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	577	144	408	1499	0.385	575	614	0.0	0.7	4.089	A
B - Dansteed Way (E)	678	170	642	2229	0.304	676	339	0.0	0.5	2.451	A
C - Brickhill St (S)	632	158	740	2028	0.311	630	578	0.0	0.5	2.704	A
D - Dansteed Way (W)	475	119	546	1517	0.313	473	823	0.0	0.5	3.579	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	690	172	486	1455	0.474	688	735	0.7	0.9	4.915	A
B - Dansteed Way (E)	810	202	768	2139	0.379	809	406	0.5	0.6	2.865	A
C - Brickhill St (S)	754	189	885	1928	0.391	753	692	0.5	0.7	3.222	A
D - Dansteed Way (W)	567	142	654	1455	0.390	567	985	0.5	0.7	4.206	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	844	211	594	1395	0.606	842	899	0.9	1.6	6.797	A
B - Dansteed Way (E)	992	248	940	2017	0.492	991	497	0.6	1.0	3.710	A
C - Brickhill St (S)	924	231	1084	1792	0.516	922	847	0.7	1.1	4.346	A
D - Dansteed Way (W)	695	174	800	1371	0.507	693	1205	0.7	1.1	5.500	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	844	211	596	1394	0.606	844	901	1.6	1.6	6.865	A
B - Dansteed Way (E)	992	248	942	2015	0.492	992	498	1.0	1.0	3.725	A
C - Brickhill St (S)	924	231	1086	1790	0.516	924	849	1.1	1.1	4.370	A
D - Dansteed Way (W)	695	174	802	1371	0.507	695	1208	1.1	1.1	5.536	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	690	172	488	1454	0.474	692	737	1.6	1.0	4.968	A
B - Dansteed Way (E)	810	202	772	2136	0.379	811	407	1.0	0.7	2.882	A
C - Brickhill St (S)	754	189	888	1926	0.392	756	695	1.1	0.7	3.240	A
D - Dansteed Way (W)	567	142	656	1454	0.390	569	988	1.1	0.7	4.233	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	577	144	408	1498	0.385	579	617	1.0	0.7	4.107	A
B - Dansteed Way (E)	678	170	646	2226	0.305	679	341	0.7	0.5	2.466	A
C - Brickhill St (S)	632	158	743	2026	0.312	632	582	0.7	0.5	2.720	A
D - Dansteed Way (W)	475	119	549	1516	0.313	476	827	0.7	0.5	3.600	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.65	0.58	1.05	1.47	1.52			N/A	N/A
B - Dansteed Way (E)	0.46	0.00	0.00	0.46	0.46			N/A	N/A
C - Brickhill St (S)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
D - Dansteed Way (W)	0.47	0.00	0.00	0.47	0.47			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.93	0.08	0.88	1.50	1.91			N/A	N/A
B - Dansteed Way (E)	0.64	0.08	0.79	1.43	1.51			N/A	N/A
C - Brickhill St (S)	0.67	0.08	0.80	1.43	1.51			N/A	N/A
D - Dansteed Way (W)	0.66	0.09	0.84	1.42	1.49			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.58	0.03	0.28	1.58	1.58			N/A	N/A
B - Dansteed Way (E)	1.02	0.03	0.27	1.02	1.02			N/A	N/A
C - Brickhill St (S)	1.11	0.03	0.27	1.11	1.11			N/A	N/A
D - Dansteed Way (W)	1.05	0.03	0.27	1.05	1.05			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.60	0.03	0.28	1.60	1.60			N/A	N/A
B - Dansteed Way (E)	1.02	0.03	0.29	1.02	1.71			N/A	N/A
C - Brickhill St (S)	1.12	0.03	0.28	1.12	1.60			N/A	N/A
D - Dansteed Way (W)	1.06	0.03	0.28	1.06	1.96			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.96	0.15	1.00	1.11	1.63			N/A	N/A
B - Dansteed Way (E)	0.65	0.58	1.06	1.48	1.53			N/A	N/A
C - Brickhill St (S)	0.68	0.58	1.05	1.47	1.53			N/A	N/A
D - Dansteed Way (W)	0.67	0.22	0.97	1.44	1.50			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.66	0.08	0.62	1.45	1.55			N/A	N/A
B - Danstead Way (E)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
C - Brickhill St (S)	0.48	0.04	0.37	1.22	1.40			N/A	N/A
D - Danstead Way (W)	0.48	0.04	0.39	1.25	1.40			N/A	N/A

2031 Do Something, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	5.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	763	100.000
B - Dansteed Way (E)		ONE HOUR	✓	645	100.000
C - Brickhill St (S)		ONE HOUR	✓	872	100.000
D - Dansteed Way (W)		ONE HOUR	✓	731	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	16	341	406
	B - Dansteed Way (E)	3	0	160	482
	C - Brickhill St (S)	444	88	0	340
	D - Dansteed Way (W)	108	301	322	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Dansteed Way (E)	C - Brickhill St (S)	D - Dansteed Way (W)
From	A - Brickhill St (N)	0	3	5	2
	B - Dansteed Way (E)	1	0	3	2
	C - Brickhill St (S)	3	2	0	1
	D - Dansteed Way (W)	7	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.65	8.27	1.9	2.5	A	700	1050
B - Dansteed Way (E)	0.38	3.24	0.6	3.0	A	592	888
C - Brickhill St (S)	0.52	4.07	1.1	1.5	A	800	1200
D - Dansteed Way (W)	0.54	5.41	1.2	1.5	A	671	1008

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	574	144	533	1429	0.402	572	417	0.0	0.7	4.328	A
B - Dansteed Way (E)	488	121	801	2115	0.230	484	304	0.0	0.3	2.256	A
C - Brickhill St (S)	656	164	668	2078	0.316	655	617	0.0	0.5	2.580	A
D - Dansteed Way (W)	550	138	402	1600	0.344	548	921	0.0	0.5	3.530	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	686	171	638	1370	0.501	685	498	0.7	1.0	5.416	A
B - Dansteed Way (E)	580	145	959	2003	0.290	579	364	0.3	0.4	2.586	A
C - Brickhill St (S)	784	196	800	1987	0.395	783	739	0.5	0.7	3.052	A
D - Dansteed Way (W)	657	164	480	1555	0.423	656	1103	0.5	0.8	4.139	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	840	210	781	1291	0.651	837	610	1.0	1.9	8.134	A
B - Dansteed Way (E)	710	178	1173	1850	0.384	709	445	0.4	0.6	3.224	A
C - Brickhill St (S)	960	240	979	1864	0.515	958	904	0.7	1.1	4.052	A
D - Dansteed Way (W)	805	201	588	1493	0.539	803	1349	0.8	1.2	5.379	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	840	210	783	1290	0.651	840	611	1.9	1.9	8.267	A
B - Dansteed Way (E)	710	178	1177	1847	0.384	710	446	0.6	0.6	3.235	A
C - Brickhill St (S)	960	240	981	1862	0.516	960	906	1.1	1.1	4.074	A
D - Dansteed Way (W)	805	201	589	1493	0.539	805	1352	1.2	1.2	5.411	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	686	171	641	1389	0.501	689	500	1.9	1.1	5.505	A
B - Danstead Way (E)	580	145	965	1998	0.290	581	385	0.6	0.4	2.597	A
C - Brickhill St (S)	784	196	803	1985	0.395	786	742	1.1	0.7	3.089	A
D - Danstead Way (W)	657	164	482	1554	0.423	659	1107	1.2	0.8	4.167	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	574	144	536	1427	0.403	576	418	1.1	0.7	4.377	A
B - Danstead Way (E)	488	121	807	2111	0.230	488	305	0.4	0.3	2.264	A
C - Brickhill St (S)	656	164	672	2075	0.316	657	621	0.7	0.5	2.593	A
D - Danstead Way (W)	550	138	403	1599	0.344	551	926	0.8	0.5	3.566	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.69	0.57	1.03	1.45	1.50			N/A	N/A
B - Danstead Way (E)	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C - Brickhill St (S)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
D - Danstead Way (W)	0.54	0.54	1.03	1.45	1.50			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.02	0.07	0.85	1.86	2.50			N/A	N/A
B - Danstead Way (E)	0.42	0.00	0.00	0.42	0.42			N/A	N/A
C - Brickhill St (S)	0.66	0.08	0.78	1.39	1.47			N/A	N/A
D - Danstead Way (W)	0.75	0.09	0.85	1.44	1.52			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.88	0.03	0.28	1.88	2.32			N/A	N/A
B - Danstead Way (E)	0.63	0.03	0.26	0.63	0.63			N/A	N/A
C - Brickhill St (S)	1.07	0.03	0.26	1.07	1.07			N/A	N/A
D - Danstead Way (W)	1.19	0.03	0.27	1.19	1.19			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.91	0.03	0.28	1.91	1.91			N/A	N/A
B - Danstead Way (E)	0.64	0.03	0.30	1.38	2.96			N/A	N/A
C - Brickhill St (S)	1.08	0.03	0.27	1.08	1.32			N/A	N/A
D - Danstead Way (W)	1.20	0.03	0.28	1.20	1.20			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.05	0.10	0.98	1.72	2.03			N/A	N/A
B - Danstead Way (E)	0.42	0.00	0.00	0.42	0.42			N/A	N/A
C - Brickhill St (S)	0.67	0.56	1.02	1.43	1.48			N/A	N/A
D - Danstead Way (W)	0.76	0.30	0.98	1.44	1.50			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.70	0.05	0.50	1.11	1.73			N/A	N/A
B - Danstead Way (E)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - Brickhill St (S)	0.47	0.04	0.38	1.21	1.37			N/A	N/A
D - Danstead Way (W)	0.55	0.05	0.56	1.35	1.45			N/A	N/A

2048 Do Something, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	16.34	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	773	100.000
B - Danstead Way (E)		ONE HOUR	✓	921	100.000
C - Brickhill St (S)		ONE HOUR	✓	1005	100.000
D - Danstead Way (W)		ONE HOUR	✓	1167	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Danstead Way (E)	C - Brickhill St (S)	D - Danstead Way (W)
From	A - Brickhill St (N)	0	5	352	416
	B - Danstead Way (E)	188	0	175	558
	C - Brickhill St (S)	257	261	0	487
	D - Danstead Way (W)	293	627	247	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Danstead Way (E)	C - Brickhill St (S)	D - Danstead Way (W)
From	A - Brickhill St (N)	0	1	3	2
	B - Danstead Way (E)	10	0	7	6
	C - Brickhill St (S)	1	1	0	1
	D - Danstead Way (W)	2	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.82	19.88	4.5	22.4	C	709	1064
B - Dansteed Way (E)	0.54	4.39	1.2	1.6	A	845	1268
C - Brickhill St (S)	0.67	6.60	2.0	2.8	A	922	1383
D - Dansteed Way (W)	0.93	31.81	10.6	58.2	D	1071	1606

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	582	145	850	1252	0.465	578	553	0.0	0.9	5.443	A
B - Dansteed Way (E)	693	173	759	2145	0.323	691	669	0.0	0.5	2.646	A
C - Brickhill St (S)	757	189	871	1938	0.390	754	580	0.0	0.6	3.065	A
D - Dansteed Way (W)	879	220	530	1527	0.575	873	1096	0.0	1.4	5.562	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	695	174	1017	1160	0.599	692	662	0.9	1.5	7.852	A
B - Dansteed Way (E)	828	207	909	2038	0.406	827	800	0.5	0.7	3.178	A
C - Brickhill St (S)	903	226	1043	1820	0.496	902	694	0.6	1.0	3.956	A
D - Dansteed Way (W)	1049	262	634	1467	0.715	1045	1311	1.4	2.5	8.586	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	851	213	1228	1042	0.817	841	804	1.5	4.1	17.472	C
B - Dansteed Way (E)	1014	254	1101	1901	0.533	1012	967	0.7	1.2	4.321	A
C - Brickhill St (S)	1107	277	1272	1662	0.666	1103	841	1.0	2.0	6.460	A
D - Dansteed Way (W)	1285	321	775	1386	0.927	1258	1600	2.5	9.3	24.612	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	851	213	1246	1032	0.824	850	811	4.1	4.5	19.878	C
B - Dansteed Way (E)	1014	254	1115	1892	0.536	1014	980	1.2	1.2	4.388	A
C - Brickhill St (S)	1107	277	1279	1657	0.668	1106	850	2.0	2.0	6.597	A
D - Dansteed Way (W)	1285	321	777	1385	0.928	1279	1608	9.3	10.6	31.813	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	895	174	1045	1144	0.608	706	673	4.5	1.6	8.643	A
B - Danstead Way (E)	828	207	931	2023	0.409	830	821	1.2	0.7	3.235	A
C - Brickhill St (S)	903	226	1052	1813	0.498	907	708	2.0	1.0	4.033	A
D - Danstead Way (W)	1049	262	637	1465	0.716	1081	1323	10.6	2.7	10.288	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	582	145	859	1248	0.466	585	557	1.6	0.9	5.590	A
B - Danstead Way (E)	693	173	768	2139	0.324	694	675	0.7	0.5	2.669	A
C - Brickhill St (S)	757	189	877	1934	0.391	758	585	1.0	0.7	3.095	A
D - Danstead Way (W)	879	220	532	1525	0.576	884	1103	2.7	1.4	5.757	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.88	0.56	1.02	1.43	1.49			N/A	N/A
B - Danstead Way (E)	0.51	0.00	0.00	0.51	0.51			N/A	N/A
C - Brickhill St (S)	0.64	0.56	1.01	1.41	1.46			N/A	N/A
D - Danstead Way (W)	1.36	0.56	1.26	1.78	1.94			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.50	0.05	0.59	3.72	5.62			N/A	N/A
B - Danstead Way (E)	0.73	0.08	0.81	1.48	1.56			N/A	N/A
C - Brickhill St (S)	0.99	0.06	0.65	1.96	2.84			N/A	N/A
D - Danstead Way (W)	2.47	0.05	0.49	6.80	11.16			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	4.13	0.04	0.35	8.68	22.36			N/A	N/A
B - Danstead Way (E)	1.21	0.03	0.27	1.21	1.21			N/A	N/A
C - Brickhill St (S)	1.97	0.03	0.27	1.97	1.97			N/A	N/A
D - Danstead Way (W)	9.28	0.06	1.31	27.13	45.09			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	4.49	0.03	0.31	4.49	19.99			N/A	N/A
B - Danstead Way (E)	1.23	0.03	0.29	1.23	1.25			N/A	N/A
C - Brickhill St (S)	2.00	0.03	0.27	2.00	2.00			N/A	N/A
D - Danstead Way (W)	10.63	0.04	0.44	28.34	58.19			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.62	0.05	0.49	4.19	6.66			N/A	N/A
B - Danstead Way (E)	0.75	0.59	1.07	1.50	1.55			N/A	N/A
C - Brickhill St (S)	1.01	0.12	0.99	1.54	1.87			N/A	N/A
D - Danstead Way (W)	2.66	0.04	0.42	7.23	13.34			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	0.91	0.03	0.34	2.00	4.40			N/A	N/A
B - Danstead Way (E)	0.52	0.05	0.45	1.34	1.47			N/A	N/A
C - Brickhill St (S)	0.85	0.05	0.50	1.47	1.48			N/A	N/A
D - Danstead Way (W)	1.40	0.03	0.31	2.05	8.98			N/A	N/A

2048 Do Something, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Willen Roundabout	Standard Roundabout		A, B, C, D	13.79	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	18:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	878	100.000
B - Danstead Way (E)		ONE HOUR	✓	918	100.000
C - Brickhill St (S)		ONE HOUR	✓	1142	100.000
D - Danstead Way (W)		ONE HOUR	✓	1019	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Danstead Way (E)	C - Brickhill St (S)	D - Danstead Way (W)
From	A - Brickhill St (N)	0	61	424	393
	B - Danstead Way (E)	40	0	280	598
	C - Brickhill St (S)	405	210	0	527
	D - Danstead Way (W)	163	225	631	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Danstead Way (E)	C - Brickhill St (S)	D - Danstead Way (W)
From	A - Brickhill St (N)	0	3	1	1
	B - Danstead Way (E)	0	0	3	1
	C - Brickhill St (S)	3	5	0	0
	D - Danstead Way (W)	4	6	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.90	31.22	7.9	43.2	D	806	1209
B - Dansteed Way (E)	0.65	6.74	1.9	2.2	A	842	1264
C - Brickhill St (S)	0.72	7.33	2.5	4.1	A	1048	1572
D - Dansteed Way (W)	0.79	12.37	3.8	16.8	B	935	1403

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	661	165	799	1281	0.516	657	456	0.0	1.1	5.794	A
B - Dansteed Way (E)	691	173	1084	1914	0.361	689	372	0.0	0.6	2.980	A
C - Brickhill St (S)	860	215	773	2006	0.429	857	1000	0.0	0.8	3.186	A
D - Dansteed Way (W)	767	192	491	1549	0.495	763	1138	0.0	1.0	4.647	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	789	197	956	1193	0.661	786	546	1.1	1.9	8.860	A
B - Dansteed Way (E)	825	206	1297	1762	0.468	824	445	0.6	0.9	3.894	A
C - Brickhill St (S)	1027	257	924	1901	0.540	1025	1197	0.8	1.2	4.182	A
D - Dansteed Way (W)	916	229	588	1493	0.613	914	1362	1.0	1.6	6.301	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	967	242	1166	1077	0.898	947	666	1.9	6.9	24.923	C
B - Dansteed Way (E)	1011	253	1571	1567	0.645	1007	542	0.9	1.8	6.488	A
C - Brickhill St (S)	1257	314	1124	1764	0.713	1252	1454	1.2	2.5	7.102	A
D - Dansteed Way (W)	1122	280	718	1418	0.791	1114	1658	1.6	3.6	11.733	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	967	242	1173	1073	0.901	963	669	6.9	7.9	31.225	D
B - Dansteed Way (E)	1011	253	1591	1553	0.651	1011	546	1.8	1.9	6.738	A
C - Brickhill St (S)	1257	314	1133	1757	0.716	1257	1468	2.5	2.5	7.332	A
D - Dansteed Way (W)	1122	280	721	1417	0.792	1121	1669	3.6	3.8	12.367	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	789	197	968	1188	0.665	812	550	7.9	2.1	10.273	B
B - Danstead Way (E)	825	206	1328	1739	0.474	829	450	1.9	0.9	4.033	A
C - Brickhill St (S)	1027	257	940	1891	0.543	1032	1218	2.5	1.2	4.300	A
D - Danstead Way (W)	916	229	592	1491	0.614	924	1380	3.8	1.7	6.566	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	661	165	805	1277	0.517	665	459	2.1	1.1	5.983	A
B - Danstead Way (E)	691	173	1095	1906	0.363	692	375	0.9	0.8	3.016	A
C - Brickhill St (S)	860	215	779	2002	0.430	862	1009	1.2	0.8	3.226	A
D - Danstead Way (W)	767	192	494	1547	0.496	770	1146	1.7	1.0	4.735	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.06	0.55	1.04	1.09	1.09			N/A	N/A
B - Danstead Way (E)	0.57	0.56	1.02	1.42	1.47			N/A	N/A
C - Brickhill St (S)	0.76	0.56	1.02	1.43	1.48			N/A	N/A
D - Danstead Way (W)	0.99	0.56	1.02	1.43	1.48			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.92	0.05	0.49	5.09	8.15			N/A	N/A
B - Danstead Way (E)	0.89	0.06	0.69	1.67	2.20			N/A	N/A
C - Brickhill St (S)	1.18	0.05	0.51	2.78	4.11			N/A	N/A
D - Danstead Way (W)	1.59	0.05	0.52	4.01	6.20			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	6.94	0.05	0.51	20.00	35.26			N/A	N/A
B - Danstead Way (E)	1.81	0.03	0.27	1.81	1.81			N/A	N/A
C - Brickhill St (S)	2.46	0.03	0.28	2.46	4.08			N/A	N/A
D - Danstead Way (W)	3.63	0.03	0.31	3.91	16.81			N/A	N/A

17:30 - 17:45

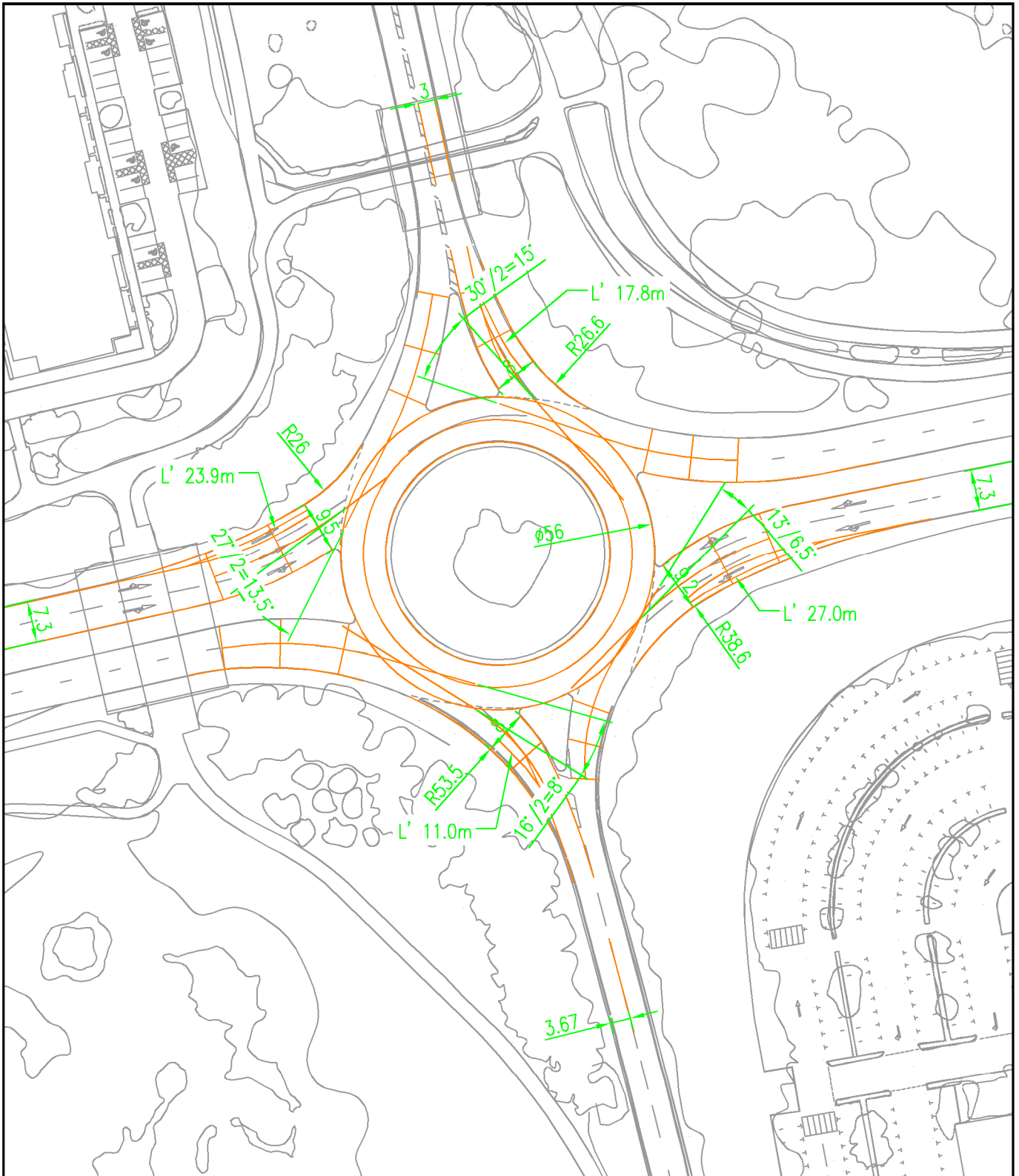
Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	7.86	0.04	0.38	18.80	43.20			N/A	N/A
B - Danstead Way (E)	1.87	0.03	0.27	1.87	1.87			N/A	N/A
C - Brickhill St (S)	2.52	0.03	0.27	2.52	2.52			N/A	N/A
D - Danstead Way (W)	3.75	0.03	0.29	3.75	8.80			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	2.07	0.04	0.41	5.59	10.04			N/A	N/A
B - Danstead Way (E)	0.92	0.13	0.96	1.12	1.60			N/A	N/A
C - Brickhill St (S)	1.22	0.09	1.04	2.12	2.86			N/A	N/A
D - Danstead Way (W)	1.65	0.06	0.69	4.08	6.17			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Brickhill St (N)	1.10	0.03	0.31	1.71	5.45			N/A	N/A
B - Danstead Way (E)	0.58	0.05	0.48	1.38	1.50			N/A	N/A
C - Brickhill St (S)	0.77	0.05	0.47	1.58	2.24			N/A	N/A
D - Danstead Way (W)	1.01	0.04	0.38	2.52	4.53			N/A	N/A



ROUNABOUT GEOMETRY – PAGODA ROUNABOUT (ref E3)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
A509 (E)	7.30	9.20	27.00	38.60	56.00	6.50
BRICKHILL ST (S)	3.65	8.00	11.00	53.50	56.00	8.00
A509 (W)	7.30	9.50	23.90	26.00	56.00	13.50
BRICKHILL ST (N)	3.00	8.00	17.80	26.60	56.00	15.00

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 3.Pagoda Roundabout.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:37:34

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Brickhill St (N)	13.5	45.79	0.95	E	10.3	52.29	0.94	F
B - A509 Portway (E)	9.5	18.94	0.91	C	1.6	4.20	0.62	A
C - Brickhill St (S)	4.2	31.10	0.82	D	2.1	11.61	0.67	B
D - A509 Portway (W)	0.9	3.22	0.48	A	5.0	10.20	0.83	B
2031 Do Minimum								
A - Brickhill St (N)	12.6	49.24	0.95	E	11.4	58.81	0.95	F
B - A509 Portway (E)	10.4	21.90	0.92	C	2.1	5.09	0.68	A
C - Brickhill St (S)	12.5	70.90	0.97	F	3.5	18.69	0.78	C
D - A509 Portway (W)	1.4	3.95	0.58	A	6.6	13.15	0.87	B
2048 Do Minimum								
A - Brickhill St (N)	52.0	144.63	1.07	F	117.3	618.99	1.51	F
B - A509 Portway (E)	54.4	106.65	1.05	F	3.7	7.28	0.79	A
C - Brickhill St (S)	59.9	321.43	1.18	F	10.0	51.51	0.93	F
D - A509 Portway (W)	2.1	4.56	0.68	A	28.5	55.62	1.00	F
2031 Do Something								
A - Brickhill St (N)	18.4	79.04	0.99	F	28.7	164.61	1.09	F
B - A509 Portway (E)	12.7	25.37	0.93	D	2.5	5.38	0.71	A
C - Brickhill St (S)	9.7	59.39	0.94	F	3.1	17.81	0.76	C
D - A509 Portway (W)	2.0	4.52	0.66	A	15.3	28.53	0.95	D
2048 Do Something								
A - Brickhill St (N)	54.0	192.28	1.11	F	114.3	552.75	1.44	F
B - A509 Portway (E)	103.5	154.15	1.10	F	4.9	8.94	0.83	A
C - Brickhill St (S)	46.7	274.15	1.14	F	11.1	62.08	0.95	F
D - A509 Portway (W)	2.4	4.81	0.70	A	28.8	58.22	1.00	F

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

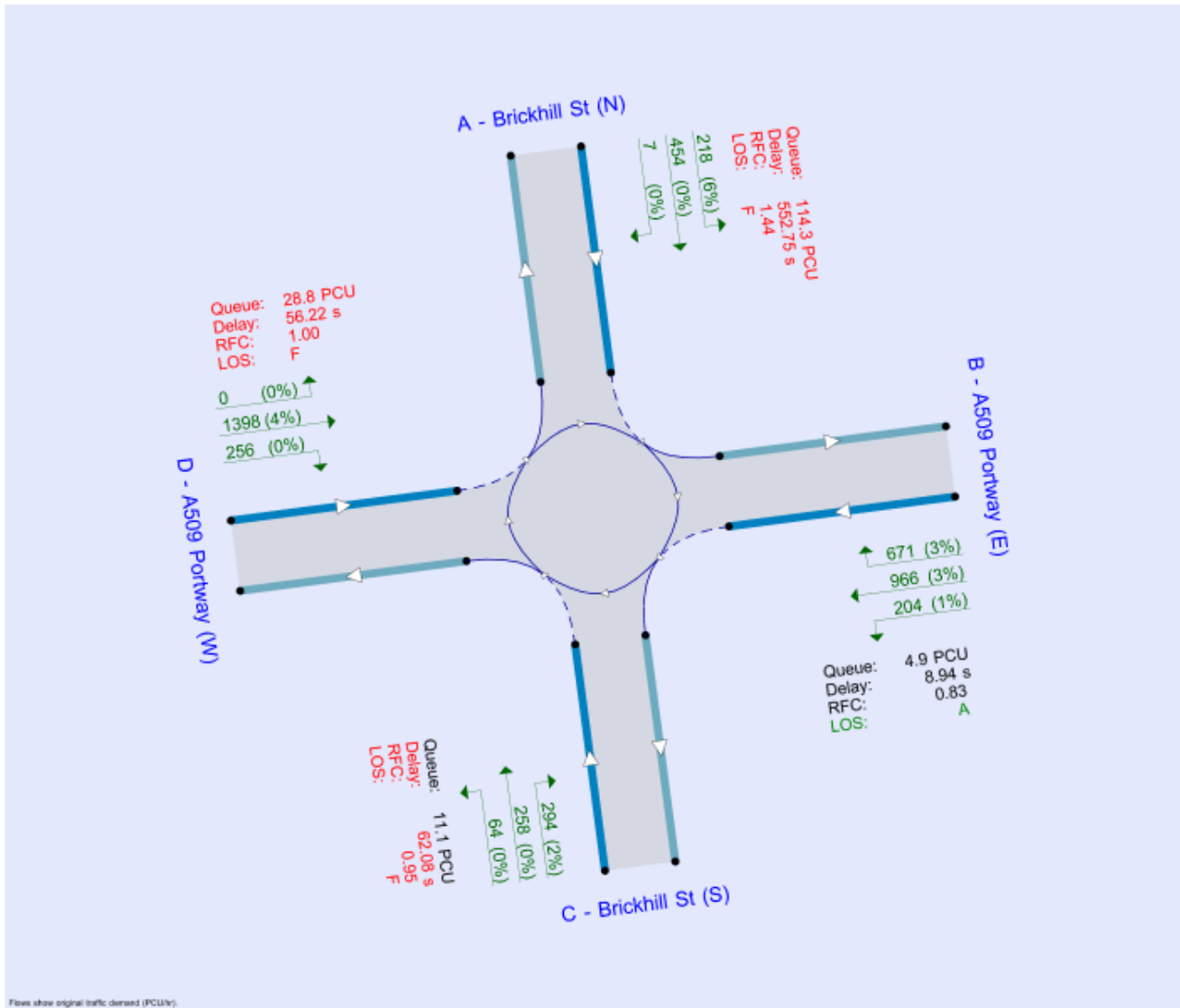
File summary

File Description

Title	Pagoda Roundabout
Location	Milton Keynes
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	70014859
Enumerator	CORP\UKFX1001
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	23.23	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brickhill St (N)	
B	A509 Portway (E)	
C	Brickhill St (S)	
D	A509 Portway (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Brickhill St (N)	3.00	8.00	17.8	26.6	56.0	15.0	
B - A509 Portway (E)	7.30	9.20	27.0	38.6	56.0	6.5	
C - Brickhill St (S)	3.65	8.00	11.0	53.5	56.0	8.0	
D - A509 Portway (W)	7.30	9.50	23.9	26.0	56.0	13.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Brickhill St (N)	0.818	1816
B - A509 Portway (E)	0.835	2984
C - Brickhill St (S)	0.839	1868
D - A509 Portway (W)	0.816	2914

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	1024	100.000
B - A509 Portway (E)		ONE HOUR	✓	1743	100.000
C - Brickhill St (S)		ONE HOUR	✓	487	100.000
D - A509 Portway (W)		ONE HOUR	✓	964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	228	749	47
	B - A509 Portway (E)	401	0	18	1324
	C - Brickhill St (S)	368	10	0	89
	D - A509 Portway (W)	45	786	133	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	8	2	0
	B - A509 Portway (E)	10	0	19	10
	C - Brickhill St (S)	1	20	0	1
	D - A509 Portway (W)	0	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.95	45.79	13.5	E	940	1409
B - A509 Portway (E)	0.91	18.94	9.5	C	1699	2399
C - Brickhill St (S)	0.82	31.10	4.2	D	429	643
D - A509 Portway (W)	0.48	3.22	0.9	A	885	1327

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	771	193	698	1386	0.558	766	610	0.0	1.3	5.946	A
B - A509 Portway (E)	1312	328	695	2383	0.551	1307	768	0.0	1.3	3.665	A
C - Brickhill St (S)	352	88	1329	1020	0.345	349	674	0.0	0.5	5.428	A
D - A509 Portway (W)	726	181	584	2437	0.298	724	1094	0.0	0.4	2.170	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	921	230	834	1301	0.708	916	729	1.3	2.4	9.534	A
B - A509 Portway (E)	1587	392	832	2289	0.691	1583	919	1.3	2.4	5.575	A
C - Brickhill St (S)	420	105	1589	854	0.492	418	806	0.5	1.0	8.338	A
D - A509 Portway (W)	867	217	698	2344	0.370	866	1309	0.4	0.6	2.516	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1127	282	1021	1186	0.951	1093	882	2.4	11.1	32.170	D
B - A509 Portway (E)	1919	480	996	2132	0.900	1895	1118	2.4	8.4	15.384	C
C - Brickhill St (S)	514	129	1926	639	0.805	503	965	1.0	3.6	25.233	D
D - A509 Portway (W)	1061	265	843	2225	0.477	1060	1586	0.6	0.9	3.192	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1127	282	1023	1185	0.952	1118	894	11.1	13.5	45.787	E
B - A509 Portway (E)	1919	480	1015	2116	0.907	1915	1125	8.4	9.5	18.944	C
C - Brickhill St (S)	514	129	1946	626	0.822	512	984	3.6	4.2	31.101	D
D - A509 Portway (W)	1061	265	855	2216	0.479	1061	1603	0.9	0.9	3.223	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	921	230	837	1300	0.708	964	748	13.5	2.6	12.427	B
B - A509 Portway (E)	1587	392	869	2238	0.700	1595	932	9.5	2.6	6.420	A
C - Brickhill St (S)	420	105	1622	832	0.504	432	841	4.2	1.1	9.397	A
D - A509 Portway (W)	867	217	717	2329	0.372	868	1338	0.9	0.6	2.551	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	771	193	700	1384	0.557	776	616	2.6	1.3	6.159	A
B - A509 Portway (E)	1312	328	703	2376	0.552	1317	773	2.6	1.4	3.762	A
C - Brickhill St (S)	352	88	1339	1013	0.347	354	681	1.1	0.5	5.550	A
D - A509 Portway (W)	726	181	589	2433	0.298	726	1104	0.6	0.4	2.181	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	15.46	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	690	100.000
B - A509 Portway (E)		ONE HOUR	✓	1284	100.000
C - Brickhill St (S)		ONE HOUR	✓	590	100.000
D - A509 Portway (W)		ONE HOUR	✓	1648	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	125	552	13
	B - A509 Portway (E)	295	0	10	979
	C - Brickhill St (S)	502	21	0	67
	D - A509 Portway (W)	190	1283	175	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	20	0	0
	B - A509 Portway (E)	3	0	6	2
	C - Brickhill St (S)	1	20	0	0
	D - A509 Portway (W)	0	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.94	52.29	10.3	F	633	950
B - A509 Portway (E)	0.62	4.20	1.6	A	1178	1767
C - Brickhill St (S)	0.67	11.61	2.1	B	541	812
D - A509 Portway (W)	0.83	10.20	5.0	B	1512	2268

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	519	130	1110	1131	0.459	516	740	0.0	0.9	6.000	A
B - A509 Portway (E)	967	242	554	2501	0.387	964	1072	0.0	0.6	2.391	A
C - Brickhill St (S)	444	111	966	1251	0.355	442	552	0.0	0.6	4.502	A
D - A509 Portway (W)	1241	310	613	2413	0.514	1236	795	0.0	1.1	3.165	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	620	155	1327	997	0.622	617	886	0.9	1.7	9.692	A
B - A509 Portway (E)	1154	289	662	2410	0.479	1153	1282	0.6	0.9	2.925	A
C - Brickhill St (S)	530	133	1156	1130	0.469	529	660	0.6	0.9	6.061	A
D - A509 Portway (W)	1482	370	734	2315	0.640	1479	951	1.1	1.8	4.457	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	760	190	1618	817	0.929	733	1081	1.7	8.3	36.304	E
B - A509 Portway (E)	1414	353	792	2302	0.614	1411	1559	0.9	1.6	4.117	A
C - Brickhill St (S)	650	162	1414	965	0.673	645	789	0.9	2.0	11.245	B
D - A509 Portway (W)	1814	454	896	2182	0.831	1802	1163	1.8	4.8	9.557	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	760	190	1628	811	0.937	752	1086	8.3	10.3	52.289	F
B - A509 Portway (E)	1414	353	808	2289	0.618	1414	1571	1.6	1.6	4.205	A
C - Brickhill St (S)	650	162	1417	964	0.674	649	805	2.0	2.1	11.607	B
D - A509 Portway (W)	1814	454	900	2179	0.833	1814	1166	4.8	5.0	10.197	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	620	155	1341	988	0.628	654	893	10.3	1.8	12.210	B
B - A509 Portway (E)	1154	289	695	2383	0.484	1157	1301	1.6	1.0	3.009	A
C - Brickhill St (S)	530	133	1160	1127	0.470	535	691	2.1	0.9	6.213	A
D - A509 Portway (W)	1482	370	740	2310	0.641	1494	955	5.0	1.9	4.651	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	519	130	1116	1127	0.481	523	745	1.8	0.9	6.183	A
B - A509 Portway (E)	967	242	560	2496	0.387	968	1079	1.0	0.6	2.411	A
C - Brickhill St (S)	444	111	970	1249	0.356	446	558	0.9	0.6	4.556	A
D - A509 Portway (W)	1241	310	617	2410	0.515	1244	798	1.9	1.1	3.216	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	29.31	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	887	100.000
B - A509 Portway (E)		ONE HOUR	✓	1652	100.000
C - Brickhill St (S)		ONE HOUR	✓	597	100.000
D - A509 Portway (W)		ONE HOUR	✓	1193	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	140	699	48
	B - A509 Portway (E)	322	0	4	1326
	C - Brickhill St (S)	421	5	0	171
	D - A509 Portway (W)	42	828	323	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	13	3	0
	B - A509 Portway (E)	11	0	87	11
	C - Brickhill St (S)	2	39	0	1
	D - A509 Portway (W)	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.95	49.24	12.6	E	814	1221
B - A509 Portway (E)	0.92	21.90	10.4	C	1516	2274
C - Brickhill St (S)	0.97	70.90	12.5	F	548	822
D - A509 Portway (W)	0.58	3.95	1.4	A	1095	1642

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	668	167	868	1280	0.522	663	588	0.0	1.1	6.041	A
B - A509 Portway (E)	1244	311	801	2294	0.542	1238	730	0.0	1.3	3.770	A
C - Brickhill St (S)	449	112	1271	1056	0.425	446	768	0.0	0.7	5.988	A
D - A509 Portway (W)	898	225	560	2457	0.366	896	1158	0.0	0.6	2.367	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	797	199	1038	1175	0.678	793	703	1.1	2.1	9.727	A
B - A509 Portway (E)	1485	371	958	2163	0.687	1481	873	1.3	2.4	5.824	A
C - Brickhill St (S)	537	134	1520	898	0.598	534	919	0.7	1.5	10.006	B
D - A509 Portway (W)	1072	268	670	2367	0.453	1071	1384	0.6	0.8	2.851	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	977	244	1270	1032	0.946	944	838	2.1	10.3	34.461	D
B - A509 Portway (E)	1819	455	1150	2003	0.908	1792	1064	2.4	9.0	17.192	C
C - Brickhill St (S)	657	164	1839	694	0.947	628	1103	1.5	8.9	43.668	E
D - A509 Portway (W)	1314	328	797	2283	0.580	1311	1669	0.8	1.4	3.877	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	977	244	1273	1031	0.948	967	853	10.3	12.6	49.238	E
B - A509 Portway (E)	1819	455	1170	1986	0.916	1813	1070	9.0	10.4	21.898	C
C - Brickhill St (S)	657	164	1881	680	0.967	643	1122	8.9	12.5	70.902	F
D - A509 Portway (W)	1314	328	812	2251	0.584	1313	1692	1.4	1.4	3.946	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	797	199	1042	1173	0.680	838	742	12.6	2.3	12.531	B
B - A509 Portway (E)	1485	371	997	2131	0.697	1516	883	10.4	2.6	6.829	A
C - Brickhill St (S)	537	134	1558	873	0.614	580	955	12.5	1.7	14.328	B
D - A509 Portway (W)	1072	268	710	2335	0.459	1075	1429	1.4	0.9	2.942	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	668	167	871	1278	0.522	672	595	2.3	1.2	6.240	A
B - A509 Portway (E)	1244	311	810	2287	0.544	1249	734	2.6	1.3	3.870	A
C - Brickhill St (S)	449	112	1282	1050	0.428	453	776	1.7	0.8	6.188	A
D - A509 Portway (W)	898	225	567	2451	0.368	899	1169	0.9	0.6	2.384	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	18.42	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	673	100.000
B - A509 Portway (E)		ONE HOUR	✓	1373	100.000
C - Brickhill St (S)		ONE HOUR	✓	628	100.000
D - A509 Portway (W)		ONE HOUR	✓	1720	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	62	570	41
	B - A509 Portway (E)	283	0	14	1076
	C - Brickhill St (S)	515	27	0	86
	D - A509 Portway (W)	222	1309	189	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	35	0	0
	B - A509 Portway (E)	4	0	4	2
	C - Brickhill St (S)	1	16	0	0
	D - A509 Portway (W)	0	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.95	58.81	11.4	F	618	926
B - A509 Portway (E)	0.88	5.09	2.1	A	1260	1890
C - Brickhill St (S)	0.78	18.69	3.5	C	576	864
D - A509 Portway (W)	0.87	13.15	6.6	B	1578	2387

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	507	127	1144	1110	0.458	503	765	0.0	0.8	6.044	A
B - A509 Portway (E)	1034	258	599	2464	0.420	1031	1048	0.0	0.7	2.568	A
C - Brickhill St (S)	473	118	1051	1197	0.395	470	579	0.0	0.7	5.004	A
D - A509 Portway (W)	1295	324	618	2409	0.538	1290	903	0.0	1.2	3.325	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	605	151	1368	972	0.623	602	915	0.8	1.6	9.885	A
B - A509 Portway (E)	1234	309	716	2366	0.522	1233	1254	0.7	1.1	3.250	A
C - Brickhill St (S)	565	141	1257	1066	0.530	563	692	0.7	1.1	7.231	A
D - A509 Portway (W)	1546	387	740	2310	0.669	1543	1080	1.2	2.1	4.847	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	741	185	1664	789	0.939	712	1113	1.6	8.8	38.938	E
B - A509 Portway (E)	1512	378	853	2251	0.672	1508	1523	1.1	2.1	4.935	A
C - Brickhill St (S)	691	173	1536	888	0.779	683	825	1.1	3.3	17.156	C
D - A509 Portway (W)	1894	473	900	2179	0.869	1877	1319	2.1	6.3	11.771	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	741	185	1678	780	0.950	731	1122	8.8	11.4	58.812	F
B - A509 Portway (E)	1512	378	871	2236	0.676	1511	1537	2.1	2.1	5.086	A
C - Brickhill St (S)	691	173	1541	885	0.782	691	842	3.3	3.5	18.687	C
D - A509 Portway (W)	1894	473	908	2173	0.872	1892	1324	6.3	6.6	13.149	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	605	151	1387	960	0.630	643	928	11.4	1.8	13.029	B
B - A509 Portway (E)	1234	309	756	2332	0.529	1238	1274	2.1	1.2	3.384	A
C - Brickhill St (S)	565	141	1265	1061	0.532	574	730	3.5	1.2	7.631	A
D - A509 Portway (W)	1546	387	750	2301	0.672	1564	1088	6.6	2.2	5.189	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	507	127	1151	1105	0.458	510	770	1.8	0.9	6.238	A
B - A509 Portway (E)	1034	258	606	2457	0.421	1035	1056	1.2	0.7	2.597	A
C - Brickhill St (S)	473	118	1056	1194	0.396	475	586	1.2	0.7	5.091	A
D - A509 Portway (W)	1295	324	623	2405	0.538	1299	907	2.2	1.2	3.386	A

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	112.34	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	1068	100.000
B - A509 Portway (E)		ONE HOUR	✓	1515	100.000
C - Brickhill St (S)		ONE HOUR	✓	669	100.000
D - A509 Portway (W)		ONE HOUR	✓	1537	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	15	682	369
	B - A509 Portway (E)	117	0	0	1398
	C - Brickhill St (S)	402	16	0	251
	D - A509 Portway (W)	485	526	526	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	5	1	0
	B - A509 Portway (E)	5	0	6	10
	C - Brickhill St (S)	1	14	0	0
	D - A509 Portway (W)	1	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.07	144.83	52.0	F	978	1487
B - A509 Portway (E)	1.05	108.85	54.4	F	1390	2085
C - Brickhill St (S)	1.18	321.43	59.9	F	614	921
D - A509 Portway (W)	0.88	4.56	2.1	A	1410	2116

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	803	201	802	1321	0.607	796	752	0.0	1.5	6.831	A
B - A509 Portway (E)	1141	285	1180	1978	0.577	1135	418	0.0	1.5	4.647	A
C - Brickhill St (S)	504	128	1410	988	0.520	499	904	0.0	1.1	7.888	A
D - A509 Portway (W)	1157	289	400	2587	0.447	1154	1510	0.0	0.8	2.556	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	958	240	959	1224	0.783	951	897	1.5	3.4	12.910	B
B - A509 Portway (E)	1362	340	1410	1786	0.763	1354	500	1.5	3.4	8.983	A
C - Brickhill St (S)	601	150	1683	793	0.758	594	1081	1.1	2.9	17.609	C
D - A509 Portway (W)	1382	345	476	2525	0.547	1380	1802	0.8	1.2	3.201	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1174	293	1171	1093	1.073	1067	1028	3.4	30.1	69.157	F
B - A509 Portway (E)	1688	417	1630	1602	1.041	1558	608	3.4	31.0	50.510	F
C - Brickhill St (S)	737	184	1927	638	1.155	624	1260	2.9	31.0	114.647	F
D - A509 Portway (W)	1692	423	510	2497	0.678	1689	2041	1.2	2.1	4.521	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1174	293	1173	1092	1.075	1086	1029	30.1	52.0	144.830	F
B - A509 Portway (E)	1688	417	1650	1585	1.052	1575	609	31.0	54.4	108.850	F
C - Brickhill St (S)	737	184	1951	623	1.183	621	1274	31.0	59.9	278.781	F
D - A509 Portway (W)	1692	423	510	2498	0.678	1692	2062	2.1	2.1	4.557	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	958	240	963	1222	0.784	1149	926	52.0	4.4	76.487	F
B - A509 Portway (E)	1362	340	1607	1622	0.840	1551	505	54.4	7.2	67.316	F
C - Brickhill St (S)	601	150	1948	624	0.963	614	1209	59.9	56.8	321.429	F
D - A509 Portway (W)	1382	345	503	2503	0.552	1385	2059	2.1	1.3	3.294	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	803	201	810	1316	0.610	814	892	4.4	1.8	7.369	A
B - A509 Portway (E)	1141	285	1199	1982	0.581	1163	425	7.2	1.5	5.075	A
C - Brickhill St (S)	504	128	1445	948	0.533	728	917	58.8	1.2	48.879	E
D - A509 Portway (W)	1157	289	543	2470	0.468	1159	1627	1.3	0.9	2.801	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	114.14	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	633	100.000
B - A509 Portway (E)		ONE HOUR	✓	1684	100.000
C - Brickhill St (S)		ONE HOUR	✓	679	100.000
D - A509 Portway (W)		ONE HOUR	✓	1659	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	70	563	0
	B - A509 Portway (E)	601	0	164	919
	C - Brickhill St (S)	239	373	0	67
	D - A509 Portway (W)	0	1366	293	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	5	0	0
	B - A509 Portway (E)	2	0	1	2
	C - Brickhill St (S)	0	1	0	0
	D - A509 Portway (W)	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.51	618.99	117.3	F	581	871
B - A509 Portway (E)	0.79	7.28	3.7	A	1545	2318
C - Brickhill St (S)	0.93	51.51	10.0	F	623	935
D - A509 Portway (W)	1.00	55.62	28.5	F	1522	2283

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	477	119	1522	876	0.544	472	630	0.0	1.2	8.851	A
B - A509 Portway (E)	1288	317	639	2430	0.522	1263	1355	0.0	1.1	3.134	A
C - Brickhill St (S)	511	128	1140	1140	0.448	508	762	0.0	0.8	5.698	A
D - A509 Portway (W)	1249	312	909	2172	0.575	1243	740	0.0	1.4	3.980	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	569	142	1819	693	0.821	558	753	1.2	4.0	24.988	C
B - A509 Portway (E)	1514	378	758	2330	0.650	1511	1619	1.1	1.9	4.460	A
C - Brickhill St (S)	610	153	1384	997	0.612	607	906	0.8	1.5	9.211	A
D - A509 Portway (W)	1491	373	1087	2027	0.736	1486	884	1.4	2.8	6.804	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	697	174	2157	485	1.438	481	913	4.0	58.0	251.987	F
B - A509 Portway (E)	1854	464	739	2347	0.790	1847	1899	1.9	3.7	7.234	A
C - Brickhill St (S)	748	187	1667	804	0.930	721	918	1.5	8.2	36.080	E
D - A509 Portway (W)	1827	457	1309	1845	0.990	1761	1079	2.8	19.3	31.636	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	697	174	2196	460	1.515	460	922	58.0	117.3	618.993	F
B - A509 Portway (E)	1854	464	725	2358	0.786	1854	1931	3.7	3.7	7.279	A
C - Brickhill St (S)	748	187	1673	800	0.935	740	906	8.2	10.0	51.505	F
D - A509 Portway (W)	1827	457	1329	1829	0.999	1790	1085	19.3	28.5	55.620	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	569	142	1946	614	0.926	609	769	117.3	107.2	594.534	F
B - A509 Portway (E)	1514	378	823	2276	0.665	1521	1733	3.7	2.1	4.898	A
C - Brickhill St (S)	610	153	1372	992	0.615	644	971	10.0	1.7	11.366	B
D - A509 Portway (W)	1491	373	1123	1997	0.747	1593	893	28.5	3.2	11.593	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	477	119	1539	866	0.550	858	634	107.2	11.8	254.717	F
B - A509 Portway (E)	1268	317	985	2141	0.592	1270	1412	2.1	1.5	4.223	A
C - Brickhill St (S)	511	128	1146	1136	0.450	514	1109	1.7	0.8	5.850	A
D - A509 Portway (W)	1249	312	917	2165	0.577	1256	744	3.2	1.4	4.119	A

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	32.20	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	773	100.000
B - A509 Portway (E)		ONE HOUR	✓	1739	100.000
C - Brickhill St (S)		ONE HOUR	✓	564	100.000
D - A509 Portway (W)		ONE HOUR	✓	1433	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	208	523	44
	B - A509 Portway (E)	210	0	58	1471
	C - Brickhill St (S)	360	14	0	190
	D - A509 Portway (W)	41	953	439	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	12	3	0
	B - A509 Portway (E)	19	0	7	10
	C - Brickhill St (S)	2	16	0	1
	D - A509 Portway (W)	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.99	79.04	18.4	F	709	1064
B - A509 Portway (E)	0.93	25.37	12.7	D	1596	2394
C - Brickhill St (S)	0.94	59.39	9.7	F	518	776
D - A509 Portway (W)	0.66	4.52	2.0	A	1315	1972

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	582	145	1056	1165	0.500	578	457	0.0	1.0	6.402	A
B - A509 Portway (E)	1309	327	753	2334	0.561	1304	880	0.0	1.4	3.853	A
C - Brickhill St (S)	425	108	1293	1043	0.407	422	764	0.0	0.7	5.887	A
D - A509 Portway (W)	1079	270	437	2557	0.422	1076	1278	0.0	0.7	2.489	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	695	174	1263	1037	0.670	691	547	1.0	2.1	10.805	B
B - A509 Portway (E)	1563	391	901	2211	0.707	1558	1052	1.4	2.6	6.073	A
C - Brickhill St (S)	507	127	1546	881	0.575	504	914	0.7	1.3	9.675	A
D - A509 Portway (W)	1288	322	523	2487	0.518	1287	1528	0.7	1.1	3.073	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	851	213	1544	863	0.986	806	654	2.1	13.3	47.992	E
B - A509 Portway (E)	1915	479	1074	2067	0.926	1882	1277	2.6	10.7	19.038	C
C - Brickhill St (S)	621	155	1865	677	0.917	598	1091	1.3	7.2	38.551	E
D - A509 Portway (W)	1578	394	624	2405	0.656	1574	1839	1.1	1.9	4.432	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	851	213	1548	861	0.989	831	665	13.3	18.4	79.035	F
B - A509 Portway (E)	1915	479	1093	2051	0.934	1907	1286	10.7	12.7	25.366	D
C - Brickhill St (S)	621	155	1891	661	0.939	611	1109	7.2	9.7	59.391	F
D - A509 Portway (W)	1578	394	635	2395	0.659	1578	1866	1.9	2.0	4.518	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	695	174	1268	1033	0.672	759	575	18.4	2.3	17.034	C
B - A509 Portway (E)	1563	391	953	2168	0.721	1602	1075	12.7	2.9	7.525	A
C - Brickhill St (S)	507	127	1592	852	0.595	539	963	9.7	1.5	12.939	B
D - A509 Portway (W)	1288	322	551	2464	0.523	1292	1580	2.0	1.1	3.159	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	582	145	1080	1182	0.501	587	463	2.3	1.1	6.831	A
B - A509 Portway (E)	1309	327	781	2328	0.562	1315	885	2.9	1.4	3.966	A
C - Brickhill St (S)	425	108	1305	1035	0.410	428	772	1.5	0.7	6.079	A
D - A509 Portway (W)	1079	270	443	2552	0.423	1080	1290	1.1	0.8	2.513	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	34.85	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	520	100.000
B - A509 Portway (E)		ONE HOUR	✓	1552	100.000
C - Brickhill St (S)		ONE HOUR	✓	587	100.000
D - A509 Portway (W)		ONE HOUR	✓	1880	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	169	351	0
	B - A509 Portway (E)	334	0	103	1115
	C - Brickhill St (S)	445	67	0	75
	D - A509 Portway (W)	22	1540	298	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	14	1	0
	B - A509 Portway (E)	4	0	1	3
	C - Brickhill St (S)	1	7	0	0
	D - A509 Portway (W)	0	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.09	184.81	28.7	F	477	716
B - A509 Portway (E)	0.71	5.38	2.5	A	1424	2136
C - Brickhill St (S)	0.76	17.81	3.1	C	539	808
D - A509 Portway (W)	0.95	28.53	15.3	D	1707	2580

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	391	98	1428	934	0.419	388	600	0.0	0.7	6.879	A
B - A509 Portway (E)	1188	292	486	2558	0.457	1165	1331	0.0	0.9	2.657	A
C - Brickhill St (S)	442	110	1088	1174	0.377	439	563	0.0	0.6	4.962	A
D - A509 Portway (W)	1400	350	634	2396	0.584	1395	893	0.0	1.4	3.721	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	467	117	1707	762	0.613	464	718	0.7	1.6	12.524	B
B - A509 Portway (E)	1395	349	580	2479	0.583	1393	1591	0.9	1.3	3.412	A
C - Brickhill St (S)	528	132	1301	1038	0.509	526	673	0.6	1.0	7.119	A
D - A509 Portway (W)	1672	418	759	2294	0.729	1667	1068	1.4	2.7	5.925	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	573	143	2057	546	1.048	517	875	1.6	15.6	78.826	F
B - A509 Portway (E)	1709	427	670	2404	0.711	1704	1903	1.3	2.5	5.268	A
C - Brickhill St (S)	646	162	1591	852	0.758	639	784	1.0	3.0	16.539	C
D - A509 Portway (W)	2048	512	924	2180	0.948	2007	1306	2.7	12.8	20.712	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	573	143	2088	527	1.086	520	881	15.6	28.7	164.615	F
B - A509 Portway (E)	1709	427	678	2398	0.713	1709	1930	2.5	2.5	5.382	A
C - Brickhill St (S)	646	162	1595	850	0.761	646	791	3.0	3.1	17.811	C
D - A509 Portway (W)	2048	512	931	2154	0.951	2038	1310	12.8	15.3	28.535	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	467	117	1762	728	0.642	574	728	28.7	2.0	41.734	E
B - A509 Portway (E)	1395	349	663	2410	0.579	1400	1673	2.5	1.4	3.688	A
C - Brickhill St (S)	528	132	1307	1034	0.510	536	756	3.1	1.1	7.450	A
D - A509 Portway (W)	1672	418	769	2286	0.731	1721	1074	15.3	2.9	7.200	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	391	98	1440	927	0.422	396	605	2.0	0.8	7.180	A
B - A509 Portway (E)	1168	292	493	2552	0.458	1171	1344	1.4	0.9	2.690	A
C - Brickhill St (S)	442	110	1093	1170	0.378	444	571	1.1	0.6	5.041	A
D - A509 Portway (W)	1400	350	639	2392	0.585	1406	898	2.9	1.5	3.821	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	128.21	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	827	100.000
B - A509 Portway (E)		ONE HOUR	✓	1939	100.000
C - Brickhill St (S)		ONE HOUR	✓	597	100.000
D - A509 Portway (W)		ONE HOUR	✓	1624	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	179	523	125
	B - A509 Portway (E)	113	0	41	1785
	C - Brickhill St (S)	317	21	0	259
	D - A509 Portway (W)	175	924	525	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	8	2	0
	B - A509 Portway (E)	3	0	9	8
	C - Brickhill St (S)	1	10	0	1
	D - A509 Portway (W)	0	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.11	192.28	54.0	F	759	1138
B - A509 Portway (E)	1.10	154.15	103.5	F	1779	2669
C - Brickhill St (S)	1.14	274.15	46.7	F	548	822
D - A509 Portway (W)	0.70	4.81	2.4	A	1490	2235

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	623	156	1103	1135	0.549	618	453	0.0	1.2	7.097	A
B - A509 Portway (E)	1480	365	878	2230	0.655	1452	843	0.0	2.0	4.932	A
C - Brickhill St (S)	449	112	1514	901	0.499	445	815	0.0	1.0	7.935	A
D - A509 Portway (W)	1223	306	337	2639	0.463	1219	1623	0.0	0.9	2.600	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	743	186	1320	1001	0.742	737	539	1.2	2.8	13.701	B
B - A509 Portway (E)	1743	436	1049	2087	0.835	1731	1008	2.0	5.1	10.525	B
C - Brickhill St (S)	537	134	1806	715	0.750	529	974	1.0	2.8	18.923	C
D - A509 Portway (W)	1460	365	401	2587	0.564	1458	1934	0.9	1.3	3.269	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	911	228	1612	821	1.109	801	606	2.8	30.2	88.719	F
B - A509 Portway (E)	2135	534	1204	1958	1.091	1932	1208	5.1	55.7	65.703	F
C - Brickhill St (S)	657	164	2013	583	1.127	567	1124	2.8	25.3	107.322	F
D - A509 Portway (W)	1788	447	434	2560	0.699	1784	2146	1.3	2.3	4.746	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	911	228	1615	819	1.112	815	610	30.2	54.0	192.283	F
B - A509 Portway (E)	2135	534	1217	1947	1.096	1944	1214	55.7	103.5	154.149	F
C - Brickhill St (S)	657	164	2026	575	1.144	572	1135	25.3	46.7	241.986	F
D - A509 Portway (W)	1788	447	437	2557	0.699	1788	2161	2.3	2.4	4.810	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	743	186	1326	998	0.745	945	567	54.0	3.7	100.415	F
B - A509 Portway (E)	1743	436	1213	1950	0.894	1930	1057	103.5	56.7	150.299	F
C - Brickhill St (S)	537	134	2032	571	0.940	559	1111	46.7	41.2	274.146	F
D - A509 Portway (W)	1460	365	429	2564	0.569	1464	2162	2.4	1.4	3.375	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	623	156	1114	1129	0.552	632	553	3.7	1.3	7.604	A
B - A509 Portway (E)	1480	385	891	2219	0.658	1678	855	56.7	2.1	11.038	B
C - Brickhill St (S)	449	112	1738	758	0.593	608	831	41.2	1.6	55.829	F
D - A509 Portway (W)	1223	306	442	2553	0.479	1224	1904	1.4	1.0	2.790	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pagoda Roundabout	Standard Roundabout		A, B, C, D	109.19	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	679	100.000
B - A509 Portway (E)		ONE HOUR	✓	1841	100.000
C - Brickhill St (S)		ONE HOUR	✓	616	100.000
D - A509 Portway (W)		ONE HOUR	✓	1654	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	218	454	7
	B - A509 Portway (E)	671	0	204	966
	C - Brickhill St (S)	258	294	0	64
	D - A509 Portway (W)	0	1398	256	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - A509 Portway (E)	C - Brickhill St (S)	D - A509 Portway (W)
From	A - Brickhill St (N)	0	6	0	0
	B - A509 Portway (E)	3	0	1	3
	C - Brickhill St (S)	0	2	0	0
	D - A509 Portway (W)	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.44	552.75	114.3	F	623	935
B - A509 Portway (E)	0.83	8.94	4.9	A	1689	2534
C - Brickhill St (S)	0.95	62.08	11.1	F	565	848
D - A509 Portway (W)	1.00	56.22	28.8	F	1518	2277

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	511	128	1480	915	0.559	506	696	0.0	1.3	8.861	A
B - A509 Portway (E)	1386	347	536	2516	0.551	1381	1430	0.0	1.3	3.244	A
C - Brickhill St (S)	464	116	1233	1081	0.429	461	683	0.0	0.8	5.833	A
D - A509 Portway (W)	1245	311	916	2166	0.575	1240	778	0.0	1.4	3.994	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	610	153	1744	739	0.826	599	833	1.3	4.2	24.336	C
B - A509 Portway (E)	1655	414	636	2433	0.680	1651	1707	1.3	2.2	4.715	A
C - Brickhill St (S)	554	138	1475	927	0.598	551	813	0.8	1.5	9.599	A
D - A509 Portway (W)	1487	372	1096	2019	0.736	1481	930	1.4	2.8	6.843	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	748	187	2065	541	1.381	537	1007	4.2	56.8	222.607	F
B - A509 Portway (E)	2027	507	636	2432	0.833	2016	1966	2.2	4.9	8.671	A
C - Brickhill St (S)	678	170	1798	720	0.942	650	854	1.5	8.6	41.272	E
D - A509 Portway (W)	1821	455	1317	1839	0.990	1755	1131	2.8	19.4	31.833	D

17:30 - 17:45

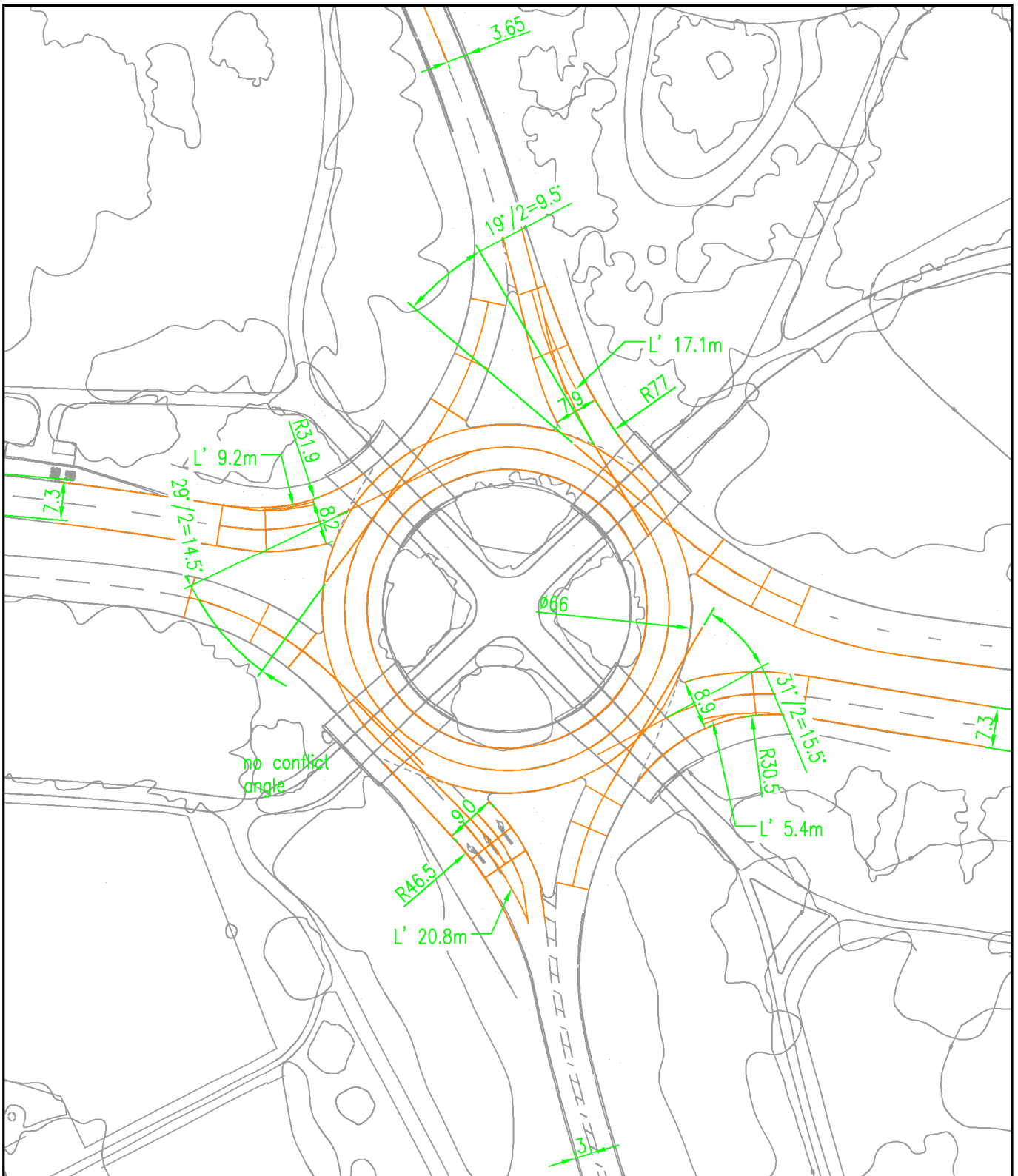
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	748	187	2102	518	1.443	518	1019	56.8	114.3	552.753	F
B - A509 Portway (E)	2027	507	628	2439	0.831	2027	1993	4.9	4.9	8.943	A
C - Brickhill St (S)	678	170	1807	714	0.950	668	847	8.6	11.1	62.082	F
D - A509 Portway (W)	1821	455	1338	1822	1.000	1783	1138	19.4	28.8	56.223	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	610	153	1872	661	0.924	655	855	114.3	103.2	546.591	F
B - A509 Portway (E)	1655	414	690	2387	0.693	1665	1836	4.9	2.4	5.199	A
C - Brickhill St (S)	554	138	1488	918	0.603	592	868	11.1	1.6	12.400	B
D - A509 Portway (W)	1487	372	1137	1985	0.749	1589	942	28.8	3.2	11.913	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	511	128	1475	905	0.565	897	702	103.2	6.8	226.422	F
B - A509 Portway (E)	1386	347	803	2293	0.604	1389	1569	2.4	1.6	4.107	A
C - Brickhill St (S)	464	116	1244	1074	0.432	467	947	1.6	0.8	6.020	A
D - A509 Portway (W)	1245	311	925	2159	0.577	1252	787	3.2	1.4	4.136	A



ROUNABOUT GEOMETRY – WOOLSTONE ROUNABOUT (ref E4)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
BRICKHILL ST (N)	3.65	7.90	17.10	77.00	66.00	9.50
CHILDS WAY (E)	7.30	8.90	5.40	30.50	66.00	15.50
BRICKHILL ST (S)	3.00	9.00	20.80	46.50	66.00	0.00
CHILDS WAY (W)	7.30	8.20	9.20	31.90	66.00	14.50

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 4.Brickhill St -Childs Way (Woolstone Rbt).j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:39:55

-
- »2016 MKMMM Base, AM
 - »2016 MKMMM Base, PM
 - »2031 Do Minimum, AM
 - »2031 Do Minimum, PM
 - »2048 Do Minimum, AM
 - »2048 Do Minimum, PM
 - »2031 Do Something, AM
 - »2031 Do Something, PM
 - »2048 Do Something, AM
 - »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Brickhill St (N)	1.5	5.84	0.59	A	4.4	20.96	0.82	C
B - Childs Way (E)	5.6	12.86	0.85	B	1.5	4.76	0.60	A
C - Brickhill St (S)	2.0	9.54	0.67	A	1.7	7.22	0.62	A
D - Childs Way (W)	0.6	2.74	0.36	A	3.5	8.24	0.78	A
2031 Do Minimum								
A - Brickhill St (N)	2.3	7.91	0.69	A	11.3	52.24	0.95	F
B - Childs Way (E)	14.1	29.10	0.95	D	2.7	7.19	0.73	A
C - Brickhill St (S)	49.8	135.66	1.07	F	10.0	33.52	0.92	D
D - Childs Way (W)	0.7	3.07	0.42	A	9.3	18.29	0.91	C
2048 Do Minimum								
A - Brickhill St (N)	6.6	21.66	0.88	C	59.6	201.07	1.13	F
B - Childs Way (E)	149.0	213.33	1.14	F	15.8	34.31	0.96	D
C - Brickhill St (S)	309.6	1269.39	1.53	F	88.9	246.52	1.17	F
D - Childs Way (W)	1.5	4.29	0.60	A	15.9	28.44	0.95	D
2031 Do Something								
A - Brickhill St (N)	2.2	7.88	0.68	A	19.4	88.93	1.01	F
B - Childs Way (E)	14.2	27.60	0.95	D	2.4	6.20	0.71	A
C - Brickhill St (S)	51.1	134.18	1.07	F	15.9	50.94	0.97	F
D - Childs Way (W)	0.8	3.16	0.44	A	15.9	30.89	0.96	D
2048 Do Something								
A - Brickhill St (N)	3.9	14.11	0.80	B	54.5	189.45	1.12	F
B - Childs Way (E)	130.3	191.94	1.13	F	15.7	33.93	0.96	D
C - Brickhill St (S)	286.1	1175.85	1.52	F	94.5	270.07	1.19	F
D - Childs Way (W)	1.6	4.43	0.62	A	15.5	27.92	0.95	D

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

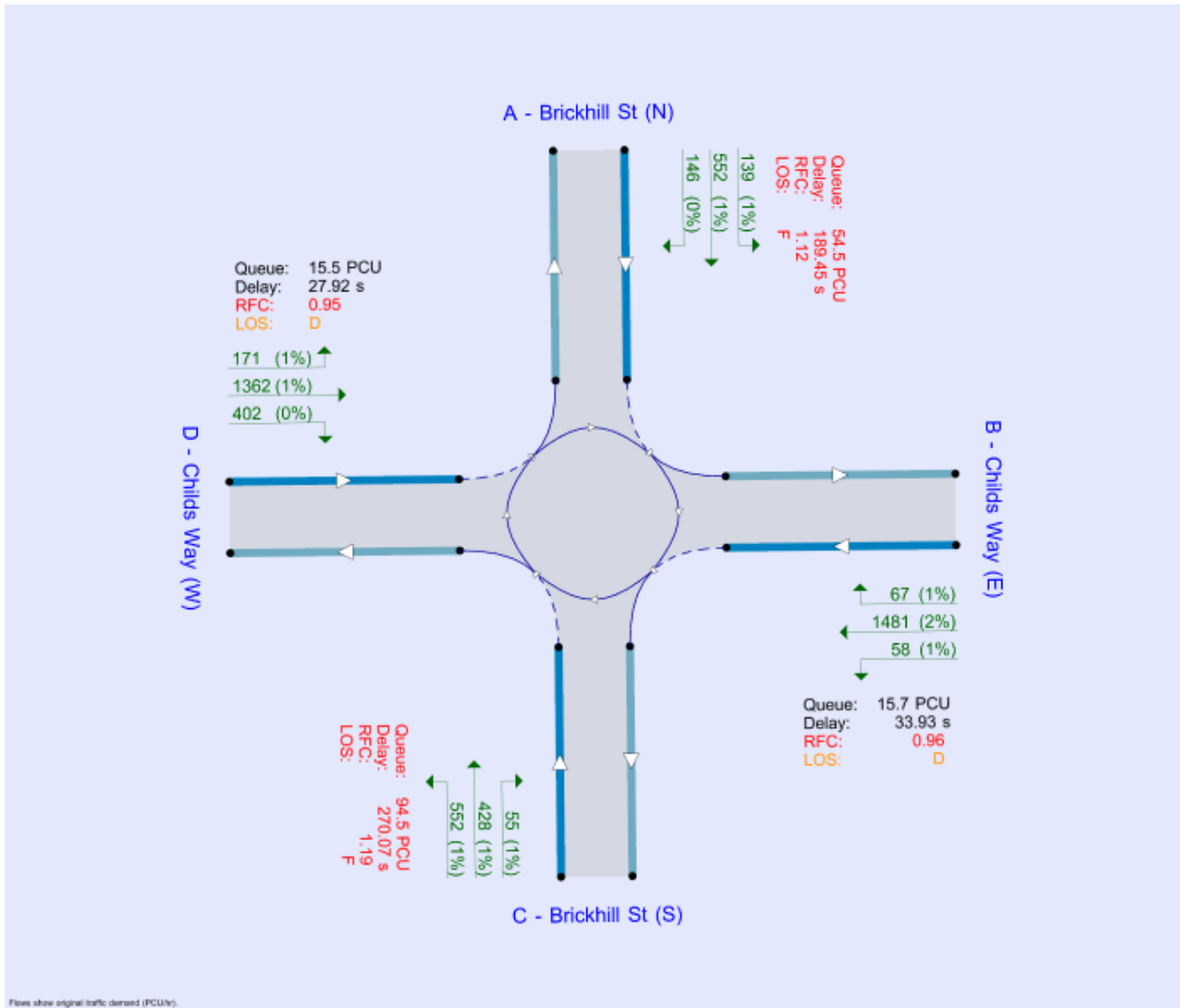
File summary

File Description

Title	Brickhill St/Childs Way
Location	Milton Keynes
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	70014859
Enumerator	CORP\UKFXI001
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D5	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D9	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	8.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brickhill St (N)	
B	Childs Way (E)	
C	Brickhill St (S)	
D	Childs Way (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Brickhill St (N)	3.65	7.90	17.1	77.0	66.0	9.5	
B - Childs Way (E)	7.30	8.90	5.4	30.5	66.0	15.5	
C - Brickhill St (S)	3.00	9.00	20.8	46.5	66.0	0.0	
D - Childs Way (W)	7.30	8.20	9.2	31.9	66.0	14.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Brickhill St (N)	0.603	2019
B - Childs Way (E)	0.692	2626
C - Brickhill St (S)	0.622	2099
D - Childs Way (W)	0.688	2594

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	820	100.000
B - Childs Way (E)		ONE HOUR	✓	1480	100.000
C - Brickhill St (S)		ONE HOUR	✓	701	100.000
D - Childs Way (W)		ONE HOUR	✓	699	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	15	715	90
	B - Childs Way (E)	92	0	192	1196
	C - Brickhill St (S)	415	86	0	200
	D - Childs Way (W)	58	517	124	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	0	3	2
	B - Childs Way (E)	4	0	0	5
	C - Brickhill St (S)	1	1	0	4
	D - Childs Way (W)	0	5	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.59	5.84	1.5	A	752	1129
B - Childs Way (E)	0.85	12.86	5.6	B	1358	2037
C - Brickhill St (S)	0.67	9.54	2.0	A	643	965
D - Childs Way (W)	0.36	2.74	0.6	A	641	962

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	617	154	546	1690	0.365	615	424	0.0	0.6	3.437	A
B - Childs Way (E)	1114	279	697	2144	0.520	1110	464	0.0	1.1	3.617	A
C - Brickhill St (S)	528	132	1033	1456	0.362	525	773	0.0	0.6	3.930	A
D - Childs Way (W)	526	132	445	2288	0.230	525	1114	0.0	0.3	2.138	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	737	184	653	1625	0.454	736	507	0.6	0.8	4.158	A
B - Childs Way (E)	1330	333	834	2049	0.649	1327	555	1.1	1.9	5.181	A
C - Brickhill St (S)	630	158	1236	1330	0.474	629	925	0.6	0.9	5.220	A
D - Childs Way (W)	628	157	532	2228	0.282	628	1333	0.3	0.4	2.357	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	903	226	799	1537	0.587	900	619	0.8	1.4	5.795	A
B - Childs Way (E)	1630	407	1020	1920	0.849	1616	679	1.9	5.4	11.839	B
C - Brickhill St (S)	772	193	1505	1163	0.664	768	1131	0.9	2.0	9.187	A
D - Childs Way (W)	770	192	649	2147	0.358	769	1623	0.4	0.6	2.734	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	903	226	800	1536	0.588	903	622	1.4	1.5	5.844	A
B - Childs Way (E)	1630	407	1023	1918	0.850	1629	680	5.4	5.6	12.863	B
C - Brickhill St (S)	772	193	1516	1155	0.668	772	1135	2.0	2.0	9.541	A
D - Childs Way (W)	770	192	653	2145	0.359	770	1635	0.6	0.6	2.741	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	737	184	655	1624	0.454	740	511	1.5	0.9	4.196	A
B - Childs Way (E)	1330	333	838	2046	0.650	1345	557	5.6	2.0	5.463	A
C - Brickhill St (S)	630	158	1252	1320	0.477	634	931	2.0	0.9	5.379	A
D - Childs Way (W)	628	157	537	2224	0.283	629	1349	0.6	0.4	2.366	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	617	154	548	1688	0.366	618	426	0.9	0.6	3.462	A
B - Childs Way (E)	1114	279	701	2141	0.520	1118	466	2.0	1.1	3.680	A
C - Brickhill St (S)	528	132	1040	1452	0.364	529	778	0.9	0.6	3.981	A
D - Childs Way (W)	526	132	448	2286	0.230	527	1122	0.4	0.3	2.143	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	9.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	719	100.000
B - Childs Way (E)		ONE HOUR	✓	1050	100.000
C - Brickhill St (S)		ONE HOUR	✓	781	100.000
D - Childs Way (W)		ONE HOUR	✓	1422	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	14	641	64
	B - Childs Way (E)	69	0	22	959
	C - Brickhill St (S)	435	288	0	58
	D - Childs Way (W)	95	1114	213	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	7	0	1
	B - Childs Way (E)	1	0	0	2
	C - Brickhill St (S)	1	5	0	8
	D - Childs Way (W)	0	2	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.82	20.96	4.4	C	660	990
B - Childs Way (E)	0.60	4.76	1.5	A	963	1445
C - Brickhill St (S)	0.62	7.22	1.7	A	698	1047
D - Childs Way (W)	0.78	8.24	3.5	A	1305	1957

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	541	135	1196	1297	0.417	538	449	0.0	0.7	4.738	A
B - Childs Way (E)	790	198	688	2150	0.368	788	1047	0.0	0.6	2.689	A
C - Brickhill St (S)	573	143	820	1589	0.361	571	656	0.0	0.6	3.630	A
D - Childs Way (W)	1071	268	579	2195	0.488	1067	811	0.0	1.0	3.234	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	646	162	1431	1156	0.559	644	538	0.7	1.3	7.025	A
B - Childs Way (E)	944	236	823	2056	0.459	943	1253	0.6	0.9	3.291	A
C - Brickhill St (S)	684	171	980	1489	0.459	683	785	0.6	0.9	4.589	A
D - Childs Way (W)	1278	320	693	2117	0.604	1276	971	1.0	1.5	4.343	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	792	198	1748	965	0.821	780	657	1.3	4.1	18.529	C
B - Childs Way (E)	1156	289	998	1935	0.598	1154	1530	0.9	1.5	4.680	A
C - Brickhill St (S)	838	209	1199	1353	0.619	835	963	0.9	1.6	7.105	A
D - Childs Way (W)	1566	391	847	2011	0.779	1558	1187	1.5	3.4	7.953	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	792	198	1756	960	0.825	790	659	4.1	4.4	20.963	C
B - Childs Way (E)	1156	289	1010	1927	0.600	1156	1537	1.5	1.5	4.756	A
C - Brickhill St (S)	838	209	1202	1351	0.620	838	963	1.6	1.7	7.215	A
D - Childs Way (W)	1566	391	850	2009	0.779	1565	1190	3.4	3.5	8.241	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	646	162	1442	1149	0.583	659	541	4.4	1.3	7.539	A
B - Childs Way (E)	944	236	839	2045	0.461	946	1262	1.5	0.9	3.347	A
C - Brickhill St (S)	684	171	985	1486	0.460	687	800	1.7	0.9	4.656	A
D - Childs Way (W)	1278	320	697	2114	0.605	1286	975	3.5	1.6	4.462	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	541	135	1203	1293	0.419	544	452	1.3	0.7	4.830	A
B - Childs Way (E)	790	198	894	2148	0.388	792	1053	0.9	0.8	2.710	A
C - Brickhill St (S)	573	143	823	1587	0.381	574	882	0.9	0.8	3.881	A
D - Childs Way (W)	1071	288	582	2193	0.488	1073	815	1.8	1.0	3.275	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	45.55	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	954	100.000
B - Childs Way (E)		ONE HOUR	✓	1889	100.000
C - Brickhill St (S)		ONE HOUR	✓	1078	100.000
D - Childs Way (W)		ONE HOUR	✓	787	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	202	667	85
	B - Childs Way (E)	101	0	317	1271
	C - Brickhill St (S)	590	29	0	459
	D - Childs Way (W)	55	618	114	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	0	3	2
	B - Childs Way (E)	3	0	0	5
	C - Brickhill St (S)	2	1	0	2
	D - Childs Way (W)	0	4	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.89	7.91	2.3	A	875	1313
B - Childs Way (E)	0.95	29.10	14.1	D	1550	2325
C - Brickhill St (S)	1.07	135.86	49.8	F	989	1484
D - Childs Way (W)	0.42	3.07	0.7	A	722	1083

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	718	180	571	1674	0.429	715	558	0.0	0.8	3.826	A
B - Childs Way (E)	1272	318	649	2178	0.584	1266	637	0.0	1.4	4.083	A
C - Brickhill St (S)	812	203	1092	1420	0.572	806	823	0.0	1.3	5.936	A
D - Childs Way (W)	592	148	539	2223	0.267	591	1360	0.0	0.4	2.291	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	858	214	683	1607	0.534	856	667	0.8	1.2	4.895	A
B - Childs Way (E)	1518	380	777	2088	0.727	1513	762	1.4	2.7	6.453	A
C - Brickhill St (S)	969	242	1306	1287	0.753	963	985	1.3	3.0	11.113	B
D - Childs Way (W)	707	177	643	2151	0.329	707	1625	0.4	0.5	2.592	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1050	283	834	1516	0.693	1046	765	1.2	2.2	7.766	A
B - Childs Way (E)	1860	465	950	1968	0.945	1822	930	2.7	12.1	21.588	C
C - Brickhill St (S)	1187	297	1573	1120	1.060	1088	1199	3.0	27.6	83.164	F
D - Childs Way (W)	867	217	734	2089	0.415	866	1928	0.5	0.7	3.059	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1050	283	835	1515	0.693	1050	772	2.2	2.3	7.915	A
B - Childs Way (E)	1860	465	953	1966	0.946	1852	932	12.1	14.1	29.100	D
C - Brickhill St (S)	1187	297	1598	1105	1.074	1098	1207	27.6	49.8	135.660	F
D - Childs Way (W)	867	217	741	2084	0.416	866	1954	0.7	0.7	3.075	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	858	214	690	1603	0.535	862	774	2.3	1.2	4.997	A
B - Childs Way (E)	1518	380	782	2085	0.728	1563	770	14.1	2.9	7.777	A
C - Brickhill St (S)	969	242	1347	1261	0.769	1153	999	49.8	3.8	61.934	F
D - Childs Way (W)	707	177	755	2074	0.341	708	1744	0.7	0.5	2.744	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	718	180	574	1673	0.429	720	567	1.2	0.8	3.871	A
B - Childs Way (E)	1272	318	653	2174	0.585	1277	640	2.9	1.5	4.197	A
C - Brickhill St (S)	812	203	1102	1414	0.574	821	829	3.8	1.4	6.299	A
D - Childs Way (W)	592	148	548	2217	0.267	593	1375	0.5	0.4	2.306	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	24.04	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	748	100.000
B - Childs Way (E)		ONE HOUR	✓	1238	100.000
C - Brickhill St (S)		ONE HOUR	✓	1038	100.000
D - Childs Way (W)		ONE HOUR	✓	1755	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	39	647	62
	B - Childs Way (E)	67	0	42	1129
	C - Brickhill St (S)	493	68	0	477
	D - Childs Way (W)	88	1378	289	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	3	0	1
	B - Childs Way (E)	1	0	2	2
	C - Brickhill St (S)	1	33	0	1
	D - Childs Way (W)	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.95	52.24	11.3	F	688	1030
B - Childs Way (E)	0.73	7.19	2.7	A	1136	1704
C - Brickhill St (S)	0.92	33.52	10.0	D	952	1429
D - Childs Way (W)	0.91	18.29	9.3	C	1610	2416

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	583	141	1301	1234	0.456	580	485	0.0	0.8	5.324	A
B - Childs Way (E)	932	233	747	2109	0.442	929	1113	0.0	0.8	3.103	A
C - Brickhill St (S)	781	195	944	1512	0.517	777	732	0.0	1.1	5.000	A
D - Childs Way (W)	1321	330	470	2270	0.582	1316	1251	0.0	1.4	3.786	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	672	168	1555	1081	0.622	669	580	0.8	1.6	8.705	A
B - Childs Way (E)	1113	278	894	2007	0.554	1111	1331	0.8	1.3	4.086	A
C - Brickhill St (S)	933	233	1129	1397	0.668	929	876	1.1	2.0	7.846	A
D - Childs Way (W)	1578	394	562	2207	0.715	1573	1496	1.4	2.5	5.697	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	824	206	1886	881	0.934	795	699	1.6	8.6	34.538	D
B - Childs Way (E)	1363	341	1068	1886	0.723	1358	1613	1.3	2.6	6.874	A
C - Brickhill St (S)	1143	286	1378	1242	0.920	1117	1048	2.0	8.6	25.495	D
D - Childs Way (W)	1932	483	677	2128	0.908	1909	1817	2.5	8.4	15.173	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	824	206	1907	869	0.948	813	711	8.6	11.3	52.236	F
B - Childs Way (E)	1363	341	1088	1873	0.728	1363	1631	2.6	2.7	7.187	A
C - Brickhill St (S)	1143	286	1384	1238	0.923	1137	1067	8.6	10.0	33.521	D
D - Childs Way (W)	1932	483	688	2120	0.911	1929	1833	8.4	9.3	18.293	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	672	168	1587	1062	0.633	710	599	11.3	1.8	11.357	B
B - Childs Way (E)	1113	278	938	1977	0.563	1118	1360	2.7	1.3	4.300	A
C - Brickhill St (S)	933	233	1139	1390	0.671	964	917	10.0	2.2	9.289	A
D - Childs Way (W)	1578	394	582	2193	0.719	1604	1522	9.3	2.6	6.433	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	563	141	1311	1228	0.459	567	490	1.8	0.9	5.486	A
B - Childs Way (E)	932	233	756	2103	0.443	934	1122	1.3	0.8	3.147	A
C - Brickhill St (S)	781	195	949	1508	0.518	786	740	2.2	1.1	5.142	A
D - Childs Way (W)	1321	330	475	2267	0.583	1326	1260	2.6	1.4	3.882	A

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	352.16	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	1054	100.000
B - Childs Way (E)		ONE HOUR	✓	2027	100.000
C - Brickhill St (S)		ONE HOUR	✓	1125	100.000
D - Childs Way (W)		ONE HOUR	✓	1158	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	341	601	112
	B - Childs Way (E)	210	0	0	1817
	C - Brickhill St (S)	649	0	0	476
	D - Childs Way (W)	106	876	174	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	0	1	2
	B - Childs Way (E)	3	0	0	3
	C - Brickhill St (S)	1	0	0	2
	D - Childs Way (W)	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.88	21.66	6.6	C	967	1451
B - Childs Way (E)	1.14	213.33	149.0	F	1860	2790
C - Brickhill St (S)	1.53	1289.39	309.6	F	1032	1548
D - Childs Way (W)	0.60	4.29	1.5	A	1061	1591

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	794	198	788	1544	0.514	789	718	0.0	1.1	4.783	A
B - Childs Way (E)	1528	382	665	2168	0.705	1516	913	0.0	2.4	5.628	A
C - Brickhill St (S)	847	212	1600	1103	0.768	834	581	0.0	3.1	13.032	B
D - Childs Way (W)	870	218	638	2154	0.404	868	1796	0.0	0.7	2.867	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	948	237	943	1450	0.653	944	798	1.1	1.9	7.125	A
B - Childs Way (E)	1822	456	795	2076	0.878	1805	1092	2.4	6.6	12.976	B
C - Brickhill St (S)	1011	253	1906	913	1.108	893	695	3.1	32.7	86.946	F
D - Childs Way (W)	1039	260	702	2110	0.492	1038	2097	0.7	1.0	3.445	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1160	290	1154	1323	0.877	1143	787	1.9	6.1	18.678	C
B - Childs Way (E)	2232	558	965	1958	1.140	1945	1333	6.6	78.4	86.819	F
C - Brickhill St (S)	1239	310	2066	813	1.523	813	843	32.7	139.1	390.352	F
D - Childs Way (W)	1273	318	670	2132	0.597	1271	2208	1.0	1.5	4.280	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1160	290	1156	1322	0.878	1159	785	6.1	6.6	21.658	C
B - Childs Way (E)	2232	558	975	1951	1.144	1950	1339	78.4	149.0	213.326	F
C - Brickhill St (S)	1239	310	2073	809	1.531	809	852	139.1	246.5	890.436	F
D - Childs Way (W)	1273	318	669	2134	0.597	1273	2213	1.5	1.5	4.295	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	948	237	946	1448	0.654	966	746	6.6	2.0	7.803	A
B - Childs Way (E)	1822	456	810	2065	0.882	2051	1102	149.0	91.8	211.706	F
C - Brickhill St (S)	1011	253	2153	759	1.333	759	708	246.5	309.6	1289.388	F
D - Childs Way (W)	1039	260	650	2146	0.484	1041	2262	1.5	1.0	3.352	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	794	198	791	1542	0.515	797	778	2.0	1.1	4.896	A
B - Childs Way (E)	1526	382	670	2162	0.706	1883	918	91.8	2.6	41.078	E
C - Brickhill St (S)	847	212	1968	874	0.969	872	588	309.6	303.5	1266.238	F
D - Childs Way (W)	870	218	698	2114	0.412	871	2141	1.0	0.7	2.978	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	99.78	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2048 Do Minimum	PM	ONE HOUR	18:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	861	100.000
B - Childs Way (E)		ONE HOUR	✓	1593	100.000
C - Brickhill St (S)		ONE HOUR	✓	1059	100.000
D - Childs Way (W)		ONE HOUR	✓	1939	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	121	647	93
	B - Childs Way (E)	54	0	53	1486
	C - Brickhill St (S)	453	36	0	570
	D - Childs Way (W)	182	1366	391	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	1	0	0
	B - Childs Way (E)	0	0	1	2
	C - Brickhill St (S)	1	1	0	1
	D - Childs Way (W)	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.13	201.07	59.8	F	790	1185
B - Childs Way (E)	0.96	34.31	15.8	D	1462	2193
C - Brickhill St (S)	1.17	246.52	88.9	F	972	1458
D - Childs Way (W)	0.95	28.44	15.9	D	1779	2669

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	648	162	1344	1209	0.536	644	515	0.0	1.1	6.332	A
B - Childs Way (E)	1199	300	846	2040	0.588	1194	1141	0.0	1.4	4.304	A
C - Brickhill St (S)	797	199	1223	1338	0.596	791	816	0.0	1.5	6.587	A
D - Childs Way (W)	1460	365	406	2314	0.831	1453	1609	0.0	1.7	4.176	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	774	194	1606	1050	0.737	768	615	1.1	2.7	12.502	B
B - Childs Way (E)	1432	358	1010	1927	0.743	1426	1364	1.4	2.9	7.251	A
C - Brickhill St (S)	952	238	1462	1189	0.800	943	975	1.5	3.8	14.251	B
D - Childs Way (W)	1743	436	484	2261	0.771	1737	1921	1.7	3.3	6.833	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	948	237	1931	854	1.110	834	682	2.7	31.1	86.988	F
B - Childs Way (E)	1754	438	1139	1837	0.955	1713	1626	2.9	13.0	24.239	C
C - Brickhill St (S)	1166	291	1747	1012	1.152	998	1106	3.8	45.7	101.577	F
D - Childs Way (W)	2135	534	519	2237	0.954	2094	2226	3.3	13.6	21.059	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	948	237	1960	837	1.133	834	683	31.1	59.6	201.066	F
B - Childs Way (E)	1754	438	1145	1833	0.957	1743	1649	13.0	15.8	34.308	D
C - Brickhill St (S)	1166	291	1775	994	1.172	993	1113	45.7	88.9	246.521	F
D - Childs Way (W)	2135	534	518	2238	0.954	2126	2250	13.6	15.9	28.440	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	774	194	1661	1017	0.761	994	702	59.6	4.6	120.195	F
B - Childs Way (E)	1432	358	1215	1785	0.802	1478	1440	15.8	4.4	13.495	B
C - Brickhill St (S)	952	238	1536	1143	0.833	1130	1157	88.9	44.3	212.760	F
D - Childs Way (W)	1743	436	572	2200	0.792	1790	2094	15.9	4.0	9.798	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	648	162	1363	1197	0.542	662	593	4.6	1.2	6.904	A
B - Childs Way (E)	1199	300	865	2027	0.592	1211	1160	4.4	1.5	4.555	A
C - Brickhill St (S)	797	199	1242	1328	0.601	968	834	44.3	1.6	16.853	C
D - Childs Way (W)	1480	365	488	2258	0.647	1468	1722	4.0	1.9	4.640	A

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	44.92	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	913	100.000
B - Childs Way (E)		ONE HOUR	✓	1787	100.000
C - Brickhill St (S)		ONE HOUR	✓	1118	100.000
D - Childs Way (W)		ONE HOUR	✓	839	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	318	551	44
	B - Childs Way (E)	74	0	438	1277
	C - Brickhill St (S)	573	38	0	507
	D - Childs Way (W)	50	689	120	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	1	3	2
	B - Childs Way (E)	4	0	0	5
	C - Brickhill St (S)	1	1	0	2
	D - Childs Way (W)	0	4	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.68	7.88	2.2	A	838	1257
B - Childs Way (E)	0.95	27.60	14.2	D	1640	2460
C - Brickhill St (S)	1.07	134.18	51.1	F	1026	1539
D - Childs Way (W)	0.44	3.16	0.8	A	770	1155

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	687	172	621	1644	0.418	684	522	0.0	0.7	3.823	A
B - Childs Way (E)	1345	336	536	2255	0.597	1339	769	0.0	1.5	4.051	A
C - Brickhill St (S)	842	210	1046	1448	0.581	836	830	0.0	1.4	5.913	A
D - Childs Way (W)	632	158	512	2241	0.282	630	1369	0.0	0.4	2.322	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	821	205	743	1571	0.522	819	623	0.7	1.1	4.886	A
B - Childs Way (E)	1606	402	642	2182	0.736	1601	920	1.5	2.8	6.374	A
C - Brickhill St (S)	1005	251	1250	1321	0.761	998	993	1.4	3.1	11.087	B
D - Childs Way (W)	754	189	612	2173	0.347	754	1636	0.4	0.6	2.637	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1005	251	906	1472	0.683	1001	714	1.1	2.1	7.742	A
B - Childs Way (E)	1968	492	784	2083	0.945	1930	1123	2.8	12.2	20.695	C
C - Brickhill St (S)	1231	308	1507	1161	1.060	1130	1207	3.1	28.4	82.503	F
D - Childs Way (W)	924	231	697	2114	0.437	923	1940	0.6	0.8	3.140	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1005	251	907	1472	0.683	1005	721	2.1	2.2	7.884	A
B - Childs Way (E)	1968	492	787	2081	0.945	1960	1125	12.2	14.2	27.604	D
C - Brickhill St (S)	1231	308	1530	1147	1.073	1140	1217	28.4	51.1	134.184	F
D - Childs Way (W)	924	231	704	2109	0.438	924	1966	0.8	0.8	3.158	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	821	205	751	1566	0.524	825	725	2.2	1.1	4.994	A
B - Childs Way (E)	1606	402	646	2179	0.737	1651	930	14.2	3.0	7.650	A
C - Brickhill St (S)	1005	251	1288	1297	0.775	1193	1009	51.1	4.0	63.164	F
D - Childs Way (W)	754	189	721	2098	0.360	755	1761	0.8	0.6	2.792	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	887	172	824	1643	0.418	889	530	1.1	0.7	3.885	A
B - Childs Way (E)	1345	338	539	2253	0.597	1351	773	3.0	1.6	4.168	A
C - Brickhill St (S)	842	210	1055	1443	0.583	852	836	4.0	1.4	6.282	A
D - Childs Way (W)	632	158	521	2235	0.283	632	1385	0.6	0.4	2.339	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	37.03	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	697	100.000
B - Childs Way (E)		ONE HOUR	✓	1301	100.000
C - Brickhill St (S)		ONE HOUR	✓	1068	100.000
D - Childs Way (W)		ONE HOUR	✓	1778	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	189	454	54
	B - Childs Way (E)	79	0	61	1161
	C - Brickhill St (S)	443	209	0	414
	D - Childs Way (W)	79	1395	304	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	1	0	1
	B - Childs Way (E)	1	0	1	2
	C - Brickhill St (S)	1	0	0	1
	D - Childs Way (W)	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.01	88.93	19.4	F	640	959
B - Childs Way (E)	0.71	6.20	2.4	A	1194	1791
C - Brickhill St (S)	0.97	50.94	15.9	F	978	1467
D - Childs Way (W)	0.96	30.89	15.9	D	1632	2447

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	525	131	1430	1157	0.454	521	450	0.0	0.8	5.658	A
B - Childs Way (E)	979	245	608	2205	0.444	976	1343	0.0	0.8	2.977	A
C - Brickhill St (S)	803	201	971	1495	0.537	798	613	0.0	1.2	5.173	A
D - Childs Way (W)	1339	335	547	2217	0.804	1332	1221	0.0	1.5	4.081	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	627	157	1709	988	0.634	623	538	0.8	1.7	9.807	A
B - Childs Way (E)	1170	292	727	2123	0.551	1168	1606	0.8	1.2	3.833	A
C - Brickhill St (S)	958	240	1161	1376	0.696	954	733	1.2	2.2	8.504	A
D - Childs Way (W)	1598	400	654	2143	0.746	1593	1461	1.5	2.9	6.536	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	767	192	2055	780	0.984	726	643	1.7	12.1	48.435	E
B - Childs Way (E)	1432	358	857	2033	0.705	1428	1924	1.2	2.4	6.017	A
C - Brickhill St (S)	1174	293	1417	1217	0.964	1133	867	2.2	12.4	33.548	D
D - Childs Way (W)	1958	489	780	2057	0.952	1918	1771	2.9	12.9	21.686	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	767	192	2087	760	1.009	738	655	12.1	19.4	88.928	F
B - Childs Way (E)	1432	358	871	2023	0.708	1432	1954	2.4	2.4	6.201	A
C - Brickhill St (S)	1174	293	1422	1214	0.967	1160	881	12.4	15.9	50.936	F
D - Childs Way (W)	1958	489	796	2046	0.957	1946	1786	12.9	15.9	30.894	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	627	157	1774	949	0.660	696	565	19.4	2.0	18.280	C
B - Childs Way (E)	1170	292	789	2080	0.562	1174	1681	2.4	1.3	4.071	A
C - Brickhill St (S)	958	240	1173	1369	0.700	1012	790	15.9	2.4	11.659	B
D - Childs Way (W)	1598	400	690	2119	0.754	1649	1495	15.9	3.2	8.537	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	525	131	1444	1148	0.457	529	455	2.0	0.9	5.884	A
B - Childs Way (E)	979	245	816	2200	0.445	981	1357	1.3	0.8	3.015	A
C - Brickhill St (S)	803	201	976	1491	0.538	808	621	2.4	1.2	5.345	A
D - Childs Way (W)	1339	335	554	2213	0.605	1345	1230	3.2	1.6	4.218	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	322.40	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	922	100.000
B - Childs Way (E)		ONE HOUR	✓	1958	100.000
C - Brickhill St (S)		ONE HOUR	✓	1088	100.000
D - Childs Way (W)		ONE HOUR	✓	1223	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	190	558	174
	B - Childs Way (E)	180	0	1	1777
	C - Brickhill St (S)	580	2	0	506
	D - Childs Way (W)	97	923	203	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	0	1	1
	B - Childs Way (E)	2	0	97	4
	C - Brickhill St (S)	1	38	0	2
	D - Childs Way (W)	0	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	0.80	14.11	3.9	B	846	1269
B - Childs Way (E)	1.13	191.94	130.3	F	1797	2695
C - Brickhill St (S)	1.52	1175.85	288.1	F	998	1498
D - Childs Way (W)	0.62	4.43	1.6	A	1122	1683

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	694	174	846	1508	0.460	691	638	0.0	0.9	4.419	A
B - Childs Way (E)	1474	369	701	2141	0.689	1465	836	0.0	2.3	5.461	A
C - Brickhill St (S)	819	205	1595	1107	0.740	808	571	0.0	2.7	11.845	B
D - Childs Way (W)	921	230	567	2204	0.418	918	1836	0.0	0.7	2.871	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	829	207	1013	1408	0.589	827	721	0.9	1.4	6.214	A
B - Childs Way (E)	1780	440	839	2045	0.881	1746	1001	2.3	5.9	11.935	B
C - Brickhill St (S)	978	245	1901	916	1.068	888	683	2.7	25.2	71.514	F
D - Childs Way (W)	1099	275	636	2156	0.510	1098	2153	0.7	1.1	3.490	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1015	254	1239	1272	0.798	1006	706	1.4	3.7	13.224	B
B - Childs Way (E)	2156	539	1022	1919	1.124	1902	1223	5.9	69.3	79.600	F
C - Brickhill St (S)	1198	299	2091	798	1.501	797	833	25.2	125.4	351.020	F
D - Childs Way (W)	1347	337	601	2180	0.618	1344	2287	1.1	1.6	4.413	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	1015	254	1241	1270	0.799	1015	704	3.7	3.9	14.112	B
B - Childs Way (E)	2156	539	1029	1914	1.127	1912	1227	69.3	130.3	191.944	F
C - Brickhill St (S)	1198	299	2102	791	1.515	791	839	125.4	227.2	832.373	F
D - Childs Way (W)	1347	337	599	2182	0.617	1347	2294	1.6	1.6	4.428	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	829	207	1016	1406	0.589	838	669	3.9	1.5	6.493	A
B - Childs Way (E)	1780	440	849	2039	0.883	2022	1006	130.3	64.7	174.784	F
C - Brickhill St (S)	978	245	2180	743	1.317	743	691	227.2	288.1	1175.847	F
D - Childs Way (W)	1099	275	583	2193	0.501	1102	2339	1.6	1.0	3.398	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	694	174	850	1506	0.461	697	734	1.5	0.9	4.497	A
B - Childs Way (E)	1474	369	706	2137	0.690	1723	841	64.7	2.4	17.122	C
C - Brickhill St (S)	819	205	1854	945	0.887	942	575	288.1	255.4	1035.238	F
D - Childs Way (W)	921	230	662	2138	0.431	922	2134	1.0	0.8	3.043	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Woolstone Roundabout	Standard Roundabout		A, B, C, D	100.98	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Brickhill St (N)		ONE HOUR	✓	837	100.000
B - Childs Way (E)		ONE HOUR	✓	1808	100.000
C - Brickhill St (S)		ONE HOUR	✓	1035	100.000
D - Childs Way (W)		ONE HOUR	✓	1935	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	139	552	146
	B - Childs Way (E)	67	0	58	1481
	C - Brickhill St (S)	428	55	0	552
	D - Childs Way (W)	171	1362	402	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brickhill St (N)	B - Childs Way (E)	C - Brickhill St (S)	D - Childs Way (W)
From	A - Brickhill St (N)	0	1	1	0
	B - Childs Way (E)	1	0	1	2
	C - Brickhill St (S)	1	1	0	1
	D - Childs Way (W)	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Brickhill St (N)	1.12	189.45	54.5	F	768	1152
B - Childs Way (E)	0.96	33.93	15.7	D	1474	2211
C - Brickhill St (S)	1.19	270.07	94.5	F	950	1425
D - Childs Way (W)	0.95	27.92	15.5	D	1776	2663

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	630	158	1363	1197	0.527	626	498	0.0	1.1	6.309	A
B - Childs Way (E)	1209	302	823	2056	0.588	1203	1166	0.0	1.4	4.275	A
C - Brickhill St (S)	779	195	1269	1309	0.595	773	757	0.0	1.5	6.713	A
D - Childs Way (W)	1457	364	411	2311	0.630	1450	1631	0.0	1.7	4.183	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	752	188	1629	1036	0.726	747	594	1.1	2.5	12.290	B
B - Childs Way (E)	1444	361	983	1946	0.742	1438	1393	1.4	2.8	7.149	A
C - Brickhill St (S)	930	233	1516	1155	0.805	921	904	1.5	3.9	14.932	B
D - Childs Way (W)	1740	435	490	2257	0.771	1733	1948	1.7	3.3	6.846	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	922	230	1957	839	1.099	817	654	2.5	28.7	83.288	F
B - Childs Way (E)	1768	442	1116	1854	0.954	1728	1658	2.8	12.9	23.948	C
C - Brickhill St (S)	1140	285	1808	974	1.170	962	1035	3.9	48.4	110.159	F
D - Childs Way (W)	2130	533	521	2235	0.953	2090	2249	3.3	13.4	20.839	C

17:30 - 17:45

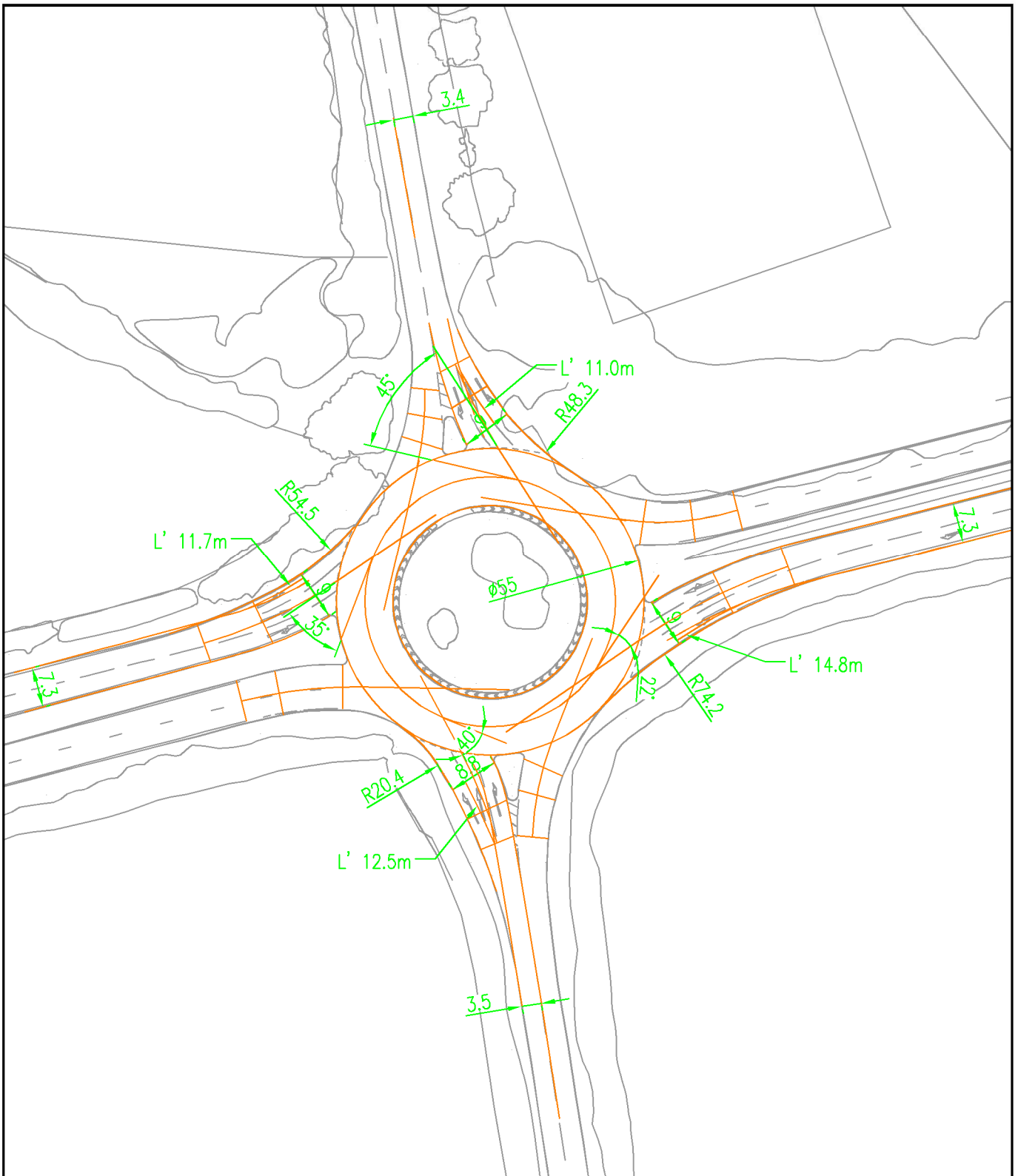
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	922	230	1985	822	1.122	818	656	28.7	54.5	189.451	F
B - Childs Way (E)	1768	442	1123	1848	0.957	1757	1680	12.9	15.7	33.933	D
C - Brickhill St (S)	1140	285	1836	956	1.192	955	1044	48.4	94.5	270.073	F
D - Childs Way (W)	2130	533	519	2237	0.953	2122	2272	13.4	15.5	27.922	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	752	188	1686	1002	0.751	955	671	54.5	3.8	103.145	F
B - Childs Way (E)	1444	361	1168	1818	0.794	1490	1474	15.7	4.2	12.612	B
C - Brickhill St (S)	930	233	1603	1102	0.845	1090	1055	94.5	54.6	244.827	F
D - Childs Way (W)	1740	435	571	2201	0.790	1786	2122	15.5	4.0	9.639	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Brickhill St (N)	630	158	1388	1182	0.533	641	590	3.8	1.2	6.833	A
B - Childs Way (E)	1209	302	839	2045	0.591	1220	1190	4.2	1.5	4.500	A
C - Brickhill St (S)	779	195	1287	1298	0.600	991	771	54.8	1.8	24.939	C
D - Childs Way (W)	1457	364	513	2240	0.650	1465	1785	4.0	1.9	4.727	A



ROUNABOUT GEOMETRY – MARSH END ROUNABOUT (ref E5)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
A422	7.30	9.00	14.80	74.20	55.00	22.00
WILLEN ROAD (S)	3.50	8.80	12.50	20.40	55.00	40.00
MONKS WAY	7.30	9.00	11.70	54.50	55.00	35.00
WILLEN ROAD (N)	3.40	9.00	11.00	48.30	55.00	45.00

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 5.Monks Way-Willen Rd (Marsh End Rbt).j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:42:55

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Willen Road (N)	109.4	269.62	1.18	F	2.4	14.18	0.71	B
B - A422	38.7	69.81	1.01	F	1.3	3.63	0.55	A
C - Willen Road (S)	2.4	15.41	0.71	C	19.8	73.06	0.99	F
D - Monks Way	1.2	3.81	0.53	A	23.2	47.72	0.99	E
2031 Do Minimum								
A - Willen Road (N)	227.0	659.76	1.38	F	3.0	16.90	0.75	C
B - A422	28.1	50.12	0.99	F	1.8	4.49	0.64	A
C - Willen Road (S)	4.2	23.80	0.82	C	156.1	494.52	1.32	F
D - Monks Way	1.4	4.22	0.57	A	71.0	116.77	1.08	F
2048 Do Minimum								
A - Willen Road (N)	289.8	963.21	1.52	F	80.8	311.35	1.15	F
B - A422	82.8	114.56	1.06	F	5.2	10.42	0.84	B
C - Willen Road (S)	85.6	429.75	1.22	F	638.3	2207.35	2.01	F
D - Monks Way	3.4	7.12	0.77	A	139.0	225.56	1.12	F
2031 Do Something								
A - Willen Road (N)	28.3	80.99	1.01	F	5.1	25.65	0.85	D
B - A422	5.8	12.56	0.85	B	1.6	4.60	0.60	A
C - Willen Road (S)	0.6	10.98	0.36	B	1.5	10.96	0.59	B
D - Monks Way	1.1	3.30	0.52	A	60.5	88.27	1.04	F
2048 Do Something								
A - Willen Road (N)	424.5	1253.75	1.65	F	185.9	653.61	1.31	F
B - A422	7.3	14.58	0.88	B	3.1	7.14	0.75	A
C - Willen Road (S)	9.2	60.72	0.92	F	7.4	49.24	0.90	E
D - Monks Way	3.0	6.05	0.75	A	156.8	214.62	1.14	F

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

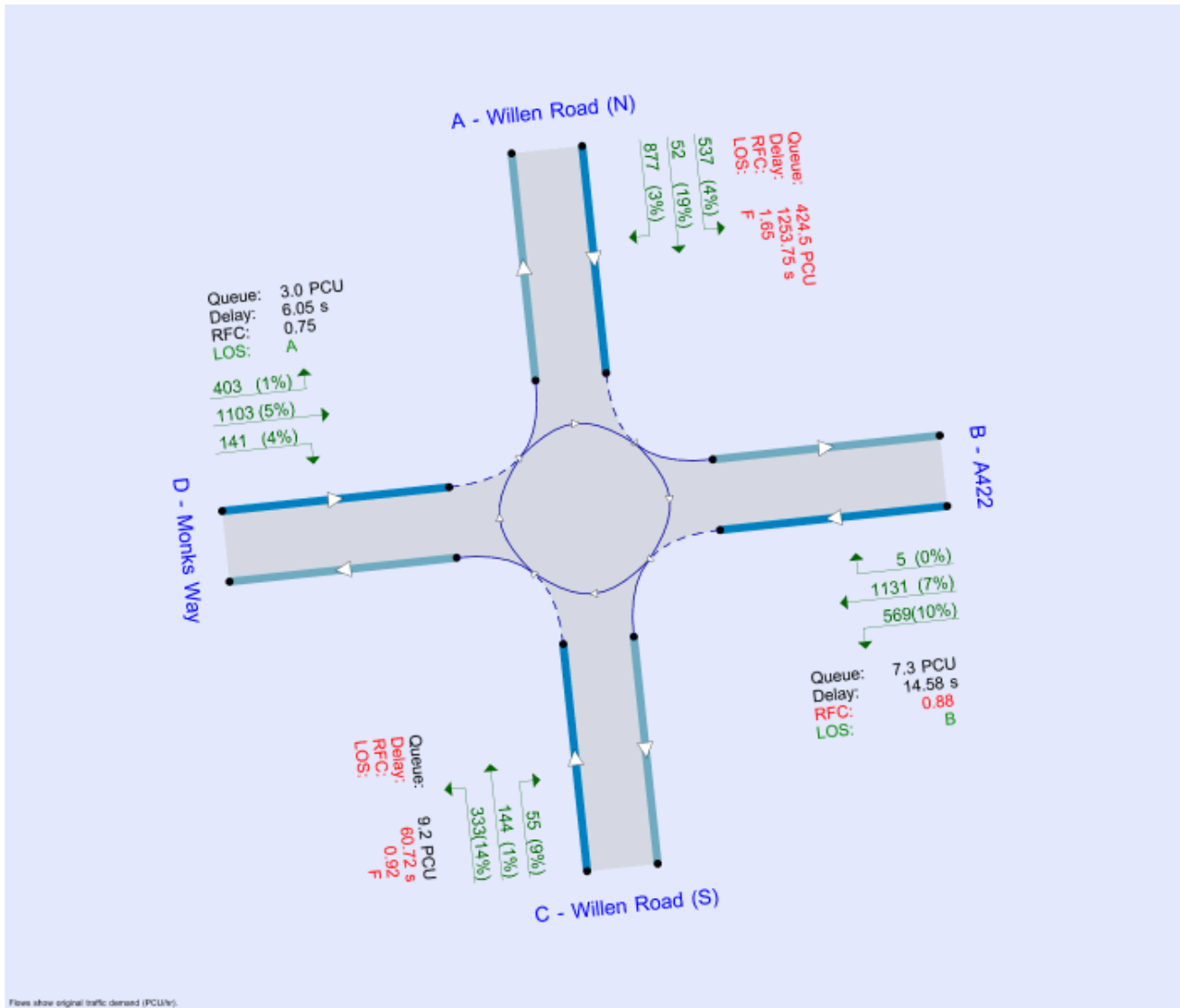
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\uklew001
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	101.58	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Willen Road (N)	
B	A422	
C	Willen Road (S)	
D	Monks Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Willen Road (N)	3.40	9.00	11.0	48.3	55.0	45.0	
B - A422	7.30	9.00	14.8	74.2	55.0	22.0	
C - Willen Road (S)	3.50	8.80	12.5	20.4	55.0	40.0	
D - Monks Way	7.30	9.00	11.7	54.5	55.0	35.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Willen Road (N)	Direct		150
B - A422	None		
C - Willen Road (S)	None		
D - Monks Way	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Willen Road (N)	0.586	1788
B - A422	0.793	2753
C - Willen Road (S)	0.572	1683
D - Monks Way	0.751	2598

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	1213	100.000
B - A422		ONE HOUR	✓	1755	100.000
C - Willen Road (S)		ONE HOUR	✓	527	100.000
D - Monks Way		ONE HOUR	✓	1050	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	69	730	414
	B - A422	9	0	707	1039
	C - Willen Road (S)	270	250	0	7
	D - Monks Way	253	797	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	39	4	6
	B - A422	22	0	7	7
	C - Willen Road (S)	2	5	0	0
	D - Monks Way	2	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.18	269.82	109.4	F	1113	1670
B - A422	1.01	69.81	38.7	F	1610	2416
C - Willen Road (S)	0.71	15.41	2.4	C	484	725
D - Monks Way	0.53	3.81	1.2	A	983	1445

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	913	228	785	1342	0.681	904	399	0.0	2.2	8.583	A
B - A422	1321	330	853	2076	0.636	1314	837	0.0	1.8	5.008	A
C - Willen Road (S)	397	99	1093	1058	0.375	394	1074	0.0	0.6	5.589	A
D - Monks Way	790	198	398	2301	0.344	788	1092	0.0	0.6	2.531	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1090	273	940	1254	0.869	1075	477	2.2	6.1	19.823	C
B - A422	1578	394	1014	1949	0.810	1568	1001	1.8	4.3	9.874	A
C - Willen Road (S)	474	118	1303	938	0.505	472	1279	0.6	1.0	7.962	A
D - Monks Way	944	236	474	2242	0.421	943	1301	0.6	0.8	2.949	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1336	334	1149	1136	1.176	1125	582	6.1	58.6	115.005	F
B - A422	1932	483	1061	1911	1.011	1847	1213	4.3	25.6	38.619	E
C - Willen Road (S)	580	145	1487	832	0.697	575	1421	1.0	2.3	14.207	B
D - Monks Way	1156	289	577	2165	0.534	1154	1485	0.8	1.2	3.787	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1336	334	1152	1134	1.178	1133	585	58.6	109.4	289.617	F
B - A422	1932	483	1068	1906	1.014	1880	1217	25.6	38.7	69.814	F
C - Willen Road (S)	580	145	1509	820	0.708	580	1439	2.3	2.4	15.408	C
D - Monks Way	1156	289	582	2161	0.535	1156	1507	1.2	1.2	3.812	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1090	273	945	1251	0.871	1239	482	109.4	72.2	263.225	F
B - A422	1578	394	1169	1826	0.864	1701	1015	38.7	8.0	40.712	E
C - Willen Road (S)	474	118	1439	880	0.551	478	1431	2.4	1.3	9.850	A
D - Monks Way	944	236	481	2237	0.422	946	1436	1.2	0.8	2.973	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	913	228	790	1339	0.682	1192	402	72.2	2.5	71.704	F
B - A422	1321	330	1124	1881	0.710	1343	858	8.0	2.7	7.722	A
C - Willen Road (S)	397	99	1209	992	0.400	399	1258	1.3	0.7	6.305	A
D - Monks Way	790	198	401	2297	0.344	791	1207	0.8	0.6	2.548	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	36.64	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	572	100.000
B - A422		ONE HOUR	✓	1146	100.000
C - Willen Road (S)		ONE HOUR	✓	901	100.000
D - Monks Way		ONE HOUR	✓	1612	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	69	268	235
	B - A422	107	0	301	738
	C - Willen Road (S)	313	565	0	23
	D - Monks Way	717	895	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	6	3	5
	B - A422	8	0	3	7
	C - Willen Road (S)	9	3	0	0
	D - Monks Way	2	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	0.71	14.18	2.4	B	525	787
B - A422	0.55	3.63	1.3	A	1052	1577
C - Willen Road (S)	0.99	73.06	19.8	F	827	1240
D - Monks Way	0.99	47.72	23.2	E	1479	2219

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	431	108	1093	1168	0.369	428	851	0.0	0.6	5.056	A
B - A422	863	216	377	2454	0.352	860	1144	0.0	0.6	2.392	A
C - Willen Road (S)	678	170	810	1220	0.556	673	427	0.0	1.3	6.849	A
D - Monks Way	1214	303	736	2045	0.593	1208	747	0.0	1.5	4.355	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	514	129	1306	1047	0.491	513	1018	0.6	1.0	7.003	A
B - A422	1030	258	451	2395	0.430	1029	1368	0.6	0.8	2.792	A
C - Willen Road (S)	810	202	970	1129	0.718	805	511	1.3	2.6	11.493	B
D - Monks Way	1449	362	880	1937	0.748	1443	894	1.5	2.9	7.352	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	630	157	1548	910	0.692	625	1211	1.0	2.2	12.944	B
B - A422	1262	315	549	2317	0.545	1260	1623	0.8	1.3	3.604	A
C - Willen Road (S)	992	248	1186	1005	0.987	945	624	2.6	14.4	44.852	E
D - Monks Way	1775	444	1038	1818	0.976	1721	1092	2.9	16.3	28.726	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	630	157	1579	892	0.706	629	1232	2.2	2.4	14.185	B
B - A422	1262	315	553	2314	0.545	1262	1655	1.3	1.3	3.625	A
C - Willen Road (S)	992	248	1189	1003	0.989	970	626	14.4	19.8	73.057	F
D - Monks Way	1775	444	1063	1799	0.988	1747	1096	16.3	23.2	47.718	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	514	129	1399	994	0.517	519	1081	2.4	1.1	7.977	A
B - A422	1030	258	457	2391	0.431	1032	1461	1.3	0.8	2.814	A
C - Willen Road (S)	810	202	974	1126	0.719	878	514	19.8	2.8	19.156	C
D - Monks Way	1449	362	952	1883	0.769	1528	900	23.2	3.6	12.527	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	431	108	1107	1159	0.371	433	882	1.1	0.8	5.177	A
B - A422	883	218	380	2451	0.352	884	1160	0.8	0.8	2.405	A
C - Willen Road (S)	878	170	815	1217	0.557	884	430	2.8	1.3	7.167	A
D - Monks Way	1214	303	747	2037	0.598	1222	751	3.6	1.5	4.550	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	204.62	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	1352	100.000
B - A422		ONE HOUR	✓	1867	100.000
C - Willen Road (S)		ONE HOUR	✓	601	100.000
D - Monks Way		ONE HOUR	✓	1089	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	282	680	390
	B - A422	17	1	748	1101
	C - Willen Road (S)	290	287	0	24
	D - Monks Way	240	849	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	10	5	5
	B - A422	12	0	4	6
	C - Willen Road (S)	1	2	0	0
	D - Monks Way	2	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.38	659.76	227.0	F	1241	1861
B - A422	0.99	50.12	28.1	F	1713	2570
C - Willen Road (S)	0.82	23.80	4.2	C	551	827
D - Monks Way	0.57	4.22	1.4	A	999	1499

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1018	254	853	1304	0.781	1004	410	0.0	3.5	12.210	B
B - A422	1406	351	794	2123	0.662	1397	1062	0.0	2.0	5.168	A
C - Willen Road (S)	452	113	1127	1038	0.436	449	1065	0.0	0.8	6.167	A
D - Monks Way	820	205	445	2264	0.362	817	1132	0.0	0.6	2.648	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1215	304	1020	1209	1.008	1155	490	3.5	18.8	48.920	E
B - A422	1678	420	914	2028	0.828	1668	1261	2.0	4.7	10.211	B
C - Willen Road (S)	540	135	1333	921	0.587	538	1249	0.8	1.4	9.466	A
D - Monks Way	979	245	532	2198	0.445	978	1338	0.6	0.9	3.142	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1489	372	1246	1081	1.377	1079	597	18.8	121.1	242.462	F
B - A422	2056	514	854	2075	0.990	1991	1471	4.7	20.9	31.694	D
C - Willen Road (S)	662	165	1505	823	0.804	652	1340	1.4	3.7	20.422	C
D - Monks Way	1199	300	646	2113	0.567	1197	1511	0.9	1.4	4.179	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1489	372	1251	1078	1.381	1078	601	121.1	223.8	558.216	F
B - A422	2056	514	853	2076	0.990	2027	1476	20.9	28.1	50.116	F
C - Willen Road (S)	662	165	1526	810	0.817	660	1354	3.7	4.2	23.799	C
D - Monks Way	1199	300	653	2108	0.569	1199	1533	1.4	1.4	4.224	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1215	304	1029	1204	1.010	1202	498	223.8	227.0	659.763	F
B - A422	1678	420	952	1998	0.840	1766	1279	28.1	6.0	21.033	C
C - Willen Road (S)	540	135	1406	879	0.615	550	1312	4.2	1.7	11.418	B
D - Monks Way	979	245	545	2189	0.447	981	1411	1.4	0.9	3.183	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1018	254	858	1300	0.783	1294	414	227.0	157.9	538.187	F
B - A422	1408	351	1024	1940	0.724	1418	1128	6.0	2.8	7.429	A
C - Willen Road (S)	452	113	1223	983	0.480	458	1219	1.7	0.9	6.959	A
D - Monks Way	820	205	451	2259	0.383	821	1228	0.9	0.6	2.669	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	159.55	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	603	100.000
B - A422		ONE HOUR	✓	1345	100.000
C - Willen Road (S)		ONE HOUR	✓	1109	100.000
D - Monks Way		ONE HOUR	✓	1798	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	97	256	250
	B - A422	96	0	396	853
	C - Willen Road (S)	368	667	0	74
	D - Monks Way	797	1001	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	4	4	4
	B - A422	3	0	3	4
	C - Willen Road (S)	8	2	0	0
	D - Monks Way	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	0.75	16.90	3.0	C	553	830
B - A422	0.64	4.49	1.8	A	1234	1851
C - Willen Road (S)	1.32	494.52	156.1	F	1018	1526
D - Monks Way	1.06	116.77	71.0	F	1650	2475

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	454	113	1245	1081	0.420	451	942	0.0	0.7	5.913	A
B - A422	1013	253	378	2453	0.413	1010	1317	0.0	0.7	2.579	A
C - Willen Road (S)	835	209	899	1169	0.714	825	489	0.0	2.5	10.584	B
D - Monks Way	1354	338	842	1966	0.689	1345	882	0.0	2.2	5.839	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	542	136	1474	952	0.570	540	1117	0.7	1.3	9.037	A
B - A422	1209	302	453	2394	0.505	1208	1561	0.7	1.1	3.143	A
C - Willen Road (S)	997	249	1076	1068	0.934	970	585	2.5	9.4	31.723	D
D - Monks Way	1616	404	991	1854	0.872	1600	1054	2.2	6.2	13.714	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	664	166	1581	891	0.745	658	1228	1.3	2.9	15.672	C
B - A422	1481	370	552	2315	0.640	1478	1687	1.1	1.8	4.440	A
C - Willen Road (S)	1221	305	1315	931	1.312	927	714	9.4	82.8	190.189	F
D - Monks Way	1980	495	971	1869	1.059	1839	1272	6.2	41.5	56.294	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	664	166	1594	883	0.752	663	1239	2.9	3.0	16.901	C
B - A422	1481	370	557	2311	0.641	1481	1701	1.8	1.8	4.491	A
C - Willen Road (S)	1221	305	1320	928	1.315	928	718	82.8	156.1	450.820	F
D - Monks Way	1980	495	972	1868	1.060	1861	1276	41.5	71.0	116.769	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	542	136	1619	869	0.624	547	1220	3.0	1.8	11.792	B
B - A422	1209	302	459	2389	0.506	1212	1707	1.8	1.1	3.180	A
C - Willen Road (S)	997	249	1082	1064	0.937	1057	589	156.1	141.1	494.518	F
D - Monks Way	1616	404	1073	1792	0.902	1767	1066	71.0	33.5	109.190	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	454	113	1515	928	0.489	457	1109	1.8	1.0	7.998	A
B - A422	1013	253	384	2449	0.414	1014	1589	1.1	0.7	2.602	A
C - Willen Road (S)	835	209	905	1188	0.718	1157	493	141.1	80.5	315.807	F
D - Monks Way	1354	338	1152	1733	0.781	1472	910	33.5	3.9	20.278	C

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	314.82	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	1257	100.000
B - A422		ONE HOUR	✓	2117	100.000
C - Willen Road (S)		ONE HOUR	✓	779	100.000
D - Monks Way		ONE HOUR	✓	1562	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	411	294	552
	B - A422	5	0	847	1285
	C - Willen Road (S)	253	285	0	261
	D - Monks Way	370	1112	80	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	6	5	4
	B - A422	0	0	3	5
	C - Willen Road (S)	0	0	0	1
	D - Monks Way	1	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.52	963.21	289.8	F	1153	1730
B - A422	1.06	114.56	82.8	F	1943	2914
C - Willen Road (S)	1.22	429.75	85.6	F	715	1072
D - Monks Way	0.77	7.12	3.4	A	1433	2150

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	946	237	1091	1168	0.810	930	469	0.0	4.1	14.954	B
B - A422	1594	398	686	2209	0.722	1583	1335	0.0	2.6	5.899	A
C - Willen Road (S)	586	147	1358	906	0.647	579	911	0.0	1.8	10.828	B
D - Monks Way	1176	294	389	2306	0.510	1172	1549	0.0	1.1	3.281	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1130	283	1301	1049	1.077	1024	558	4.1	30.5	75.082	F
B - A422	1903	476	761	2149	0.886	1885	1565	2.6	7.1	13.375	B
C - Willen Road (S)	700	175	1581	779	0.899	681	1066	1.8	6.5	32.207	D
D - Monks Way	1404	351	458	2255	0.623	1402	1805	1.1	1.7	4.367	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1384	346	1547	910	1.520	910	640	30.5	149.1	364.422	F
B - A422	2331	583	700	2198	1.061	2167	1757	7.1	48.1	54.714	F
C - Willen Road (S)	858	214	1700	711	1.206	704	1168	6.5	44.9	146.847	F
D - Monks Way	1720	430	473	2243	0.767	1713	1930	1.7	3.3	6.971	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1384	346	1551	908	1.524	908	641	149.1	268.1	779.444	F
B - A422	2331	583	699	2198	1.060	2192	1760	48.1	82.8	114.558	F
C - Willen Road (S)	858	214	1714	703	1.220	702	1177	44.9	83.8	341.899	F
D - Monks Way	1720	430	472	2244	0.767	1720	1944	3.3	3.4	7.120	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1130	283	1312	1043	1.083	1043	564	268.1	289.8	963.211	F
B - A422	1903	476	774	2139	0.890	2112	1581	82.8	30.6	99.558	F
C - Willen Road (S)	700	175	1725	696	1.006	693	1161	83.8	85.6	429.746	F
D - Monks Way	1404	351	466	2248	0.625	1411	1952	3.4	1.7	4.493	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	946	237	1174	1121	0.844	1117	546	289.8	247.1	885.342	F
B - A422	1594	398	812	2109	0.756	1703	1479	30.6	3.4	11.824	B
C - Willen Road (S)	586	147	1512	818	0.717	809	1003	85.6	30.1	261.377	F
D - Monks Way	1178	294	542	2191	0.537	1178	1779	1.7	1.2	3.693	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	651.73	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	971	100.000
B - A422		ONE HOUR	✓	1668	100.000
C - Willen Road (S)		ONE HOUR	✓	1468	100.000
D - Monks Way		ONE HOUR	✓	2073	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	309	306	356
	B - A422	198	0	578	892
	C - Willen Road (S)	320	656	0	492
	D - Monks Way	892	1104	77	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	4	3	3
	B - A422	8	0	2	4
	C - Willen Road (S)	3	2	0	1
	D - Monks Way	1	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.15	311.35	80.8	F	891	1337
B - A422	0.84	10.42	5.2	B	1531	2296
C - Willen Road (S)	2.01	2207.35	638.3	F	1347	2021
D - Monks Way	1.12	225.56	139.0	F	1902	2853

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	731	183	1335	1030	0.710	721	1035	0.0	2.4	11.710	B
B - A422	1256	314	549	2317	0.542	1251	1507	0.0	1.2	3.487	A
C - Willen Road (S)	1105	276	1082	1064	1.038	1017	718	0.0	22.0	51.478	F
D - Monks Way	1561	390	825	1979	0.789	1546	1274	0.0	3.6	8.241	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	873	218	1467	955	0.914	852	1173	2.4	7.8	30.862	D
B - A422	1499	375	649	2238	0.670	1496	1670	1.2	2.1	5.009	A
C - Willen Road (S)	1320	330	1290	945	1.396	944	855	22.0	115.9	285.904	F
D - Monks Way	1864	466	805	1993	0.935	1835	1429	3.6	10.9	20.218	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1069	267	1512	930	1.149	920	1262	7.8	45.0	116.783	F
B - A422	1837	459	702	2196	0.836	1825	1730	2.1	5.0	9.777	A
C - Willen Road (S)	1616	404	1530	808	2.000	808	997	115.9	317.9	965.955	F
D - Monks Way	2282	571	754	2032	1.123	2020	1584	10.9	76.4	85.987	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1069	267	1516	928	1.153	926	1267	45.0	80.8	255.263	F
B - A422	1837	459	707	2192	0.838	1836	1736	5.0	5.2	10.422	B
C - Willen Road (S)	1616	404	1539	803	2.013	803	1003	317.9	521.3	1887.486	F
D - Monks Way	2282	571	752	2034	1.122	2032	1590	76.4	139.0	196.787	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	873	218	1546	911	0.958	899	1236	80.8	74.2	311.355	F
B - A422	1499	375	687	2208	0.679	1511	1759	5.2	2.2	5.446	A
C - Willen Road (S)	1320	330	1317	930	1.420	930	881	521.3	618.8	2087.768	F
D - Monks Way	1864	466	797	1999	0.932	1985	1449	139.0	108.7	225.556	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	731	183	1573	896	0.816	883	1214	74.2	36.1	227.668	F
B - A422	1258	314	675	2218	0.568	1259	1781	2.2	1.4	3.912	A
C - Willen Road (S)	1105	276	1147	1027	1.076	1027	787	618.8	638.3	2207.351	F
D - Monks Way	1561	390	832	1973	0.791	1955	1342	108.7	10.2	113.588	F

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	29.05	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	1124	100.000
B - A422		ONE HOUR	✓	1582	100.000
C - Willen Road (S)		ONE HOUR	✓	185	100.000
D - Monks Way		ONE HOUR	✓	1125	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	308	323	493
	B - A422	72	0	274	1236
	C - Willen Road (S)	128	37	0	20
	D - Monks Way	264	841	20	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	8	8	5
	B - A422	7	0	7	7
	C - Willen Road (S)	1	18	0	65
	D - Monks Way	2	8	25	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.01	80.99	28.3	F	1031	1547
B - A422	0.85	12.58	5.8	B	1452	2178
C - Willen Road (S)	0.36	10.98	0.6	B	170	255
D - Monks Way	0.52	3.30	1.1	A	1032	1548

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	846	212	674	1405	0.602	840	348	0.0	1.6	6.728	A
B - A422	1191	298	625	2257	0.528	1188	889	0.0	1.2	3.580	A
C - Willen Road (S)	139	35	1349	911	0.153	139	462	0.0	0.2	5.041	A
D - Monks Way	847	212	178	2465	0.344	845	1310	0.0	0.6	2.369	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1010	253	807	1330	0.760	1004	416	1.6	3.2	11.564	B
B - A422	1422	356	747	2161	0.658	1419	1064	1.2	2.0	5.169	A
C - Willen Road (S)	166	42	1613	760	0.219	166	552	0.2	0.3	6.558	A
D - Monks Way	1011	253	213	2439	0.415	1011	1567	0.6	0.8	2.690	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1238	309	987	1227	1.008	1173	509	3.2	19.4	46.570	E
B - A422	1742	435	874	2060	0.846	1728	1287	2.0	5.4	11.178	B
C - Willen Road (S)	204	51	1943	572	0.356	203	658	0.3	0.6	10.570	B
D - Monks Way	1239	310	259	2404	0.515	1237	1887	0.8	1.1	3.291	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1238	309	989	1226	1.009	1202	511	19.4	28.3	80.989	F
B - A422	1742	435	895	2043	0.852	1740	1296	5.4	5.8	12.563	B
C - Willen Road (S)	204	51	1966	559	0.365	204	669	0.6	0.6	10.980	B
D - Monks Way	1239	310	261	2402	0.516	1239	1909	1.1	1.1	3.302	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1010	253	809	1328	0.761	1109	419	28.3	3.6	24.619	C
B - A422	1422	356	823	2100	0.677	1436	1095	5.8	2.3	5.926	A
C - Willen Road (S)	166	42	1674	726	0.229	167	585	0.6	0.3	7.004	A
D - Monks Way	1011	253	215	2437	0.415	1013	1627	1.1	0.8	2.701	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	848	212	877	1403	0.603	854	350	3.6	1.7	7.091	A
B - A422	1191	298	835	2249	0.530	1195	898	2.3	1.2	3.872	A
C - Willen Road (S)	139	35	1363	904	0.154	140	468	0.3	0.2	5.111	A
D - Monks Way	847	212	179	2464	0.344	848	1324	0.8	0.6	2.379	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	48.28	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	692	100.000
B - A422		ONE HOUR	✓	1132	100.000
C - Willen Road (S)		ONE HOUR	✓	443	100.000
D - Monks Way		ONE HOUR	✓	2041	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	10	420	262
	B - A422	157	0	44	931
	C - Willen Road (S)	147	222	0	74
	D - Monks Way	790	1141	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	0	4	4
	B - A422	5	0	5	5
	C - Willen Road (S)	8	3	0	8
	D - Monks Way	2	2	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	0.85	25.65	5.1	D	635	952
B - A422	0.60	4.60	1.6	A	1039	1558
C - Willen Road (S)	0.59	10.96	1.5	B	407	610
D - Monks Way	1.04	88.27	60.5	F	1873	2809

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	521	130	1103	1162	0.448	518	820	0.0	0.8	5.780	A
B - A422	852	213	593	2283	0.373	850	1028	0.0	0.6	2.633	A
C - Willen Road (S)	334	83	1013	1104	0.302	332	430	0.0	0.5	4.905	A
D - Monks Way	1537	384	394	2302	0.667	1528	950	0.0	2.0	4.709	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	622	156	1318	1040	0.598	619	979	0.8	1.5	8.840	A
B - A422	1018	254	709	2191	0.465	1017	1229	0.6	0.9	3.216	A
C - Willen Road (S)	398	100	1212	990	0.402	397	514	0.5	0.7	6.391	A
D - Monks Way	1835	459	472	2244	0.818	1825	1137	2.0	4.4	8.609	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	762	190	1542	913	0.834	750	1153	1.5	4.6	21.441	C
B - A422	1246	312	853	2076	0.600	1244	1438	0.9	1.6	4.525	A
C - Willen Road (S)	488	122	1479	837	0.583	485	618	0.7	1.4	10.688	B
D - Monks Way	2247	562	576	2165	1.038	2119	1388	4.4	36.5	43.535	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	762	190	1563	901	0.845	760	1167	4.6	5.1	25.645	D
B - A422	1246	312	865	2067	0.603	1246	1458	1.6	1.6	4.605	A
C - Willen Road (S)	488	122	1485	833	0.585	488	625	1.4	1.5	10.965	B
D - Monks Way	2247	562	579	2163	1.039	2151	1394	36.5	60.5	88.270	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	622	156	1462	959	0.649	635	1071	5.1	2.0	11.967	B
B - A422	1018	254	736	2169	0.469	1020	1360	1.6	0.9	3.297	A
C - Willen Road (S)	398	100	1221	985	0.404	401	536	1.5	0.7	6.535	A
D - Monks Way	1835	459	476	2241	0.819	2057	1146	60.5	5.1	37.196	E

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	521	130	1117	1154	0.452	525	829	2.0	0.9	5.995	A
B - A422	852	213	601	2276	0.374	853	1041	0.9	0.6	2.659	A
C - Willen Road (S)	334	83	1019	1100	0.303	335	438	0.7	0.5	4.966	A
D - Monks Way	1537	384	397	2300	0.668	1549	957	5.1	2.1	4.974	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	358.10	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	1466	100.000
B - A422		ONE HOUR	✓	1705	100.000
C - Willen Road (S)		ONE HOUR	✓	532	100.000
D - Monks Way		ONE HOUR	✓	1647	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	537	52	877
	B - A422	5	0	569	1131
	C - Willen Road (S)	144	55	0	333
	D - Monks Way	403	1103	141	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	4	19	3
	B - A422	0	0	10	7
	C - Willen Road (S)	1	9	0	14
	D - Monks Way	1	5	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.85	1253.75	424.5	F	1345	2018
B - A422	0.88	14.58	7.3	B	1565	2347
C - Willen Road (S)	0.92	60.72	9.2	F	488	732
D - Monks Way	0.75	6.05	3.0	A	1511	2267

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1104	276	974	1235	0.894	1076	413	0.0	7.0	20.813	C
B - A422	1284	321	787	2128	0.803	1277	1263	0.0	1.6	4.532	A
C - Willen Road (S)	401	100	1494	828	0.484	396	570	0.0	1.0	9.060	A
D - Monks Way	1240	310	152	2484	0.499	1236	1739	0.0	1.0	2.987	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1318	329	1166	1126	1.170	1117	495	7.0	57.4	117.949	F
B - A422	1533	383	834	2091	0.733	1528	1448	1.6	2.9	6.836	A
C - Willen Road (S)	478	120	1686	719	0.665	474	676	1.0	2.1	15.848	C
D - Monks Way	1481	370	182	2462	0.601	1479	1978	1.0	1.6	3.796	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1614	404	1424	980	1.647	980	600	57.4	215.9	509.701	F
B - A422	1877	469	776	2138	0.878	1861	1628	2.9	7.0	13.314	B
C - Willen Road (S)	586	146	1826	639	0.917	564	811	2.1	7.5	43.928	E
D - Monks Way	1813	453	216	2436	0.744	1808	2174	1.6	3.0	5.903	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1614	404	1429	977	1.652	977	606	215.9	375.2	1008.084	F
B - A422	1877	469	774	2139	0.878	1876	1632	7.0	7.3	14.582	B
C - Willen Road (S)	586	146	1834	634	0.924	579	816	7.5	9.2	60.720	F
D - Monks Way	1813	453	222	2432	0.746	1813	2191	3.0	3.0	6.045	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1318	329	1175	1121	1.176	1121	505	375.2	424.5	1253.749	F
B - A422	1533	383	838	2088	0.734	1550	1458	7.3	3.1	7.427	A
C - Willen Road (S)	478	120	1703	709	0.675	505	684	9.2	2.4	21.649	C
D - Monks Way	1481	370	194	2453	0.604	1486	2015	3.0	1.6	3.891	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1104	276	980	1231	0.896	1228	417	424.5	393.3	1198.543	F
B - A422	1284	321	885	2051	0.628	1289	1324	3.1	1.8	5.130	A
C - Willen Road (S)	401	100	1593	772	0.519	405	580	2.4	1.2	10.909	B
D - Monks Way	1240	310	155	2482	0.500	1242	1843	1.6	1.0	3.025	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Marsh End Roundabout	Standard Roundabout		A, B, C, D	237.97	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Road (N)		ONE HOUR	✓	1152	100.000
B - A422		ONE HOUR	✓	1416	100.000
C - Willen Road (S)		ONE HOUR	✓	531	100.000
D - Monks Way		ONE HOUR	✓	2217	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	298	301	553
	B - A422	166	0	197	1053
	C - Willen Road (S)	228	154	2	147
	D - Monks Way	894	1188	137	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Road (N)	B - A422	C - Willen Road (S)	D - Monks Way
From	A - Willen Road (N)	0	3	3	2
	B - A422	4	0	4	3
	C - Willen Road (S)	5	5	0	9
	D - Monks Way	1	3	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Road (N)	1.31	653.61	185.9	F	1057	1586
B - A422	0.75	7.14	3.1	A	1299	1949
C - Willen Road (S)	0.90	49.24	7.4	E	487	731
D - Monks Way	1.14	214.62	156.8	F	2034	3052

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	887	217	1106	1160	0.748	856	983	0.0	2.9	11.727	B
B - A422	1066	267	738	2167	0.492	1062	1223	0.0	1.0	3.351	A
C - Willen Road (S)	400	100	1325	925	0.432	397	475	0.0	0.8	7.180	A
D - Monks Way	1669	417	411	2289	0.729	1658	1310	0.0	2.7	5.757	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1036	259	1317	1041	0.995	985	1148	2.9	15.5	46.191	E
B - A422	1273	318	854	2076	0.613	1270	1448	1.0	1.6	4.604	A
C - Willen Road (S)	477	119	1567	787	0.607	474	558	0.8	1.6	12.083	B
D - Monks Way	1993	498	492	2229	0.894	1973	1549	2.7	7.6	13.527	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1268	317	1444	969	1.309	967	1288	15.5	91.0	209.057	F
B - A422	1559	390	851	2078	0.750	1553	1559	1.6	3.0	7.011	A
C - Willen Road (S)	585	146	1801	653	0.896	565	603	1.6	6.4	37.594	E
D - Monks Way	2441	610	591	2154	1.133	2141	1776	7.6	82.8	83.550	F

17:30 - 17:45

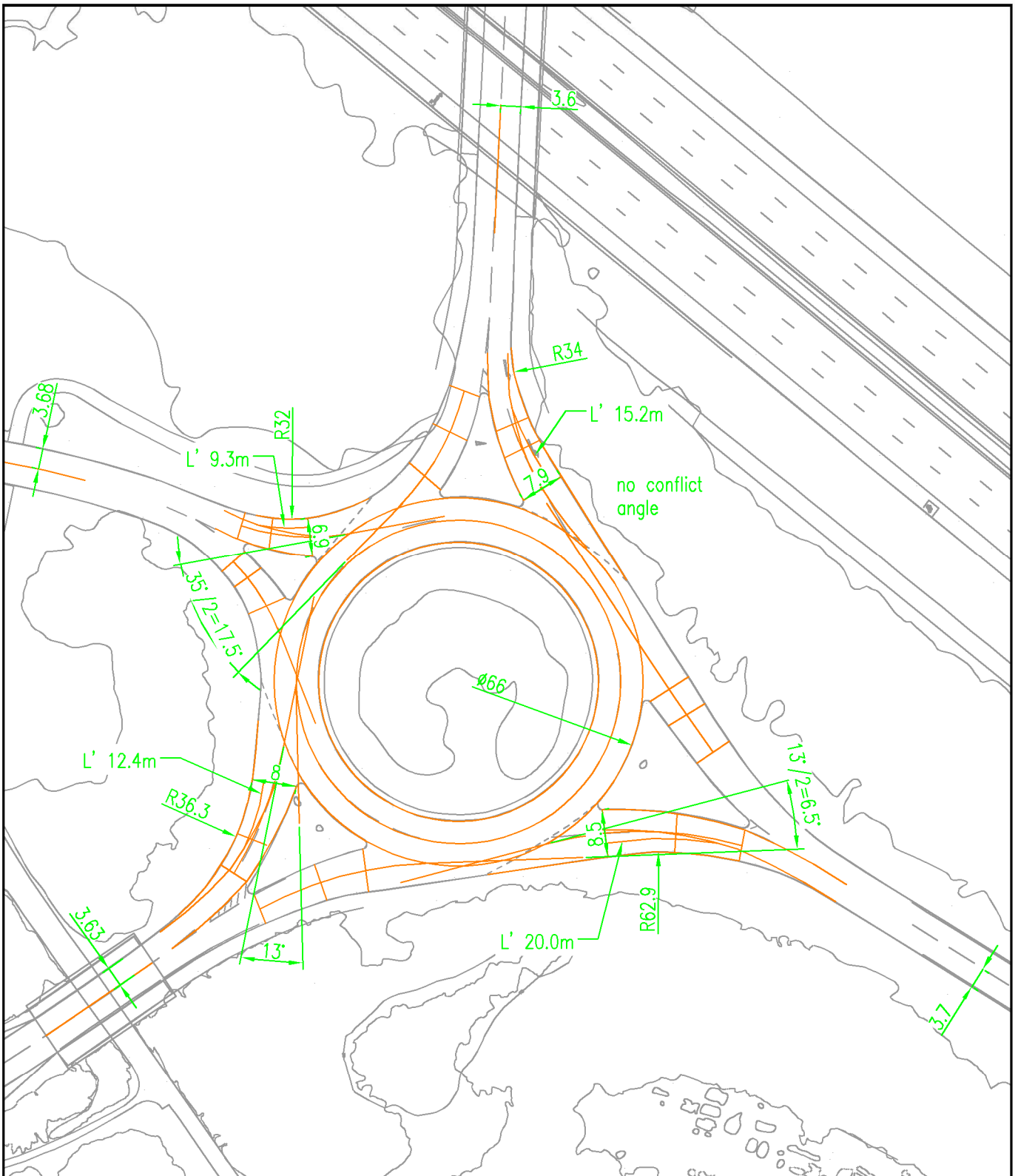
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1268	317	1450	965	1.314	965	1297	91.0	166.9	489.128	F
B - A422	1559	390	850	2079	0.750	1559	1565	3.0	3.1	7.143	A
C - Willen Road (S)	585	146	1805	651	0.899	580	604	6.4	7.4	49.236	E
D - Monks Way	2441	610	603	2146	1.138	2144	1783	82.6	156.8	204.971	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	1036	259	1460	960	1.079	959	1252	166.9	185.9	653.614	F
B - A422	1273	318	849	2079	0.612	1279	1570	3.1	1.7	4.672	A
C - Willen Road (S)	477	119	1561	790	0.604	500	566	7.4	1.7	14.160	B
D - Monks Way	1993	498	512	2214	0.900	2199	1550	156.8	105.2	214.625	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Road (N)	887	217	1358	1017	0.853	1012	1136	185.9	149.9	598.193	F
B - A422	1088	267	880	2055	0.519	1088	1490	1.7	1.1	3.776	A
C - Willen Road (S)	400	100	1405	879	0.455	403	543	1.7	0.9	8.064	A
D - Monks Way	1889	417	417	2285	0.730	2078	1391	105.2	3.0	58.388	F



ROUNABOUT GEOMETRY – TONGWELL ROUNABOUT (ref E6)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
TONGWELL ST	3.65	8.50	20.00	62.90	66.00	6.50
DANSTEED WAY	3.65	8.00	12.40	36.30	66.00	13.00
MICHIGAN DRIVE	3.65	6.90	9.30	32.00	66.00	17.50
WILLEM ROAD	3.65	7.90	15.20	34.00	66.00	0.00

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 6.Tongwell Roundabout.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:46:15

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Willen Rd	4.9	11.58	0.83	B	0.7	3.57	0.38	A
B - Tongwell St	1.3	5.52	0.56	A	0.4	2.55	0.26	A
C - Danstead Way	0.2	3.57	0.15	A	1.0	4.67	0.49	A
D - Michigan Dr	0.1	3.55	0.07	A	0.4	4.82	0.25	A
2031 Do Minimum								
A - Willen Rd	6.6	15.95	0.87	C	0.8	4.03	0.44	A
B - Tongwell St	2.5	8.38	0.71	A	0.6	2.99	0.38	A
C - Danstead Way	0.5	4.74	0.33	A	1.9	7.53	0.66	A
D - Michigan Dr	0.1	4.05	0.10	A	0.5	6.61	0.34	A
2048 Do Minimum								
A - Willen Rd	5.9	17.00	0.86	C	1.8	6.10	0.63	A
B - Tongwell St	4.9	12.18	0.83	B	4.6	10.40	0.82	B
C - Danstead Way	3.2	15.33	0.76	C	1.8	11.65	0.63	B
D - Michigan Dr	0.3	6.15	0.23	A	0.1	9.21	0.07	A
2031 Do Something								
A - Willen Rd	0.8	3.39	0.44	A	0.1	2.04	0.07	A
B - Tongwell St	1.1	4.90	0.51	A	0.0	2.04	0.04	A
C - Danstead Way	0.1	3.26	0.07	A	0.2	2.54	0.16	A
D - Michigan Dr	0.0	2.86	0.04	A	0.1	2.69	0.08	A
2048 Do Something								
A - Willen Rd	0.5	2.80	0.33	A	0.2	2.12	0.14	A
B - Tongwell St	1.8	5.90	0.62	A	0.0	1.86	0.01	A
C - Danstead Way	0.1	3.32	0.09	A	0.1	2.40	0.12	A
D - Michigan Dr	0.1	2.67	0.07	A	0.2	2.80	0.15	A

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

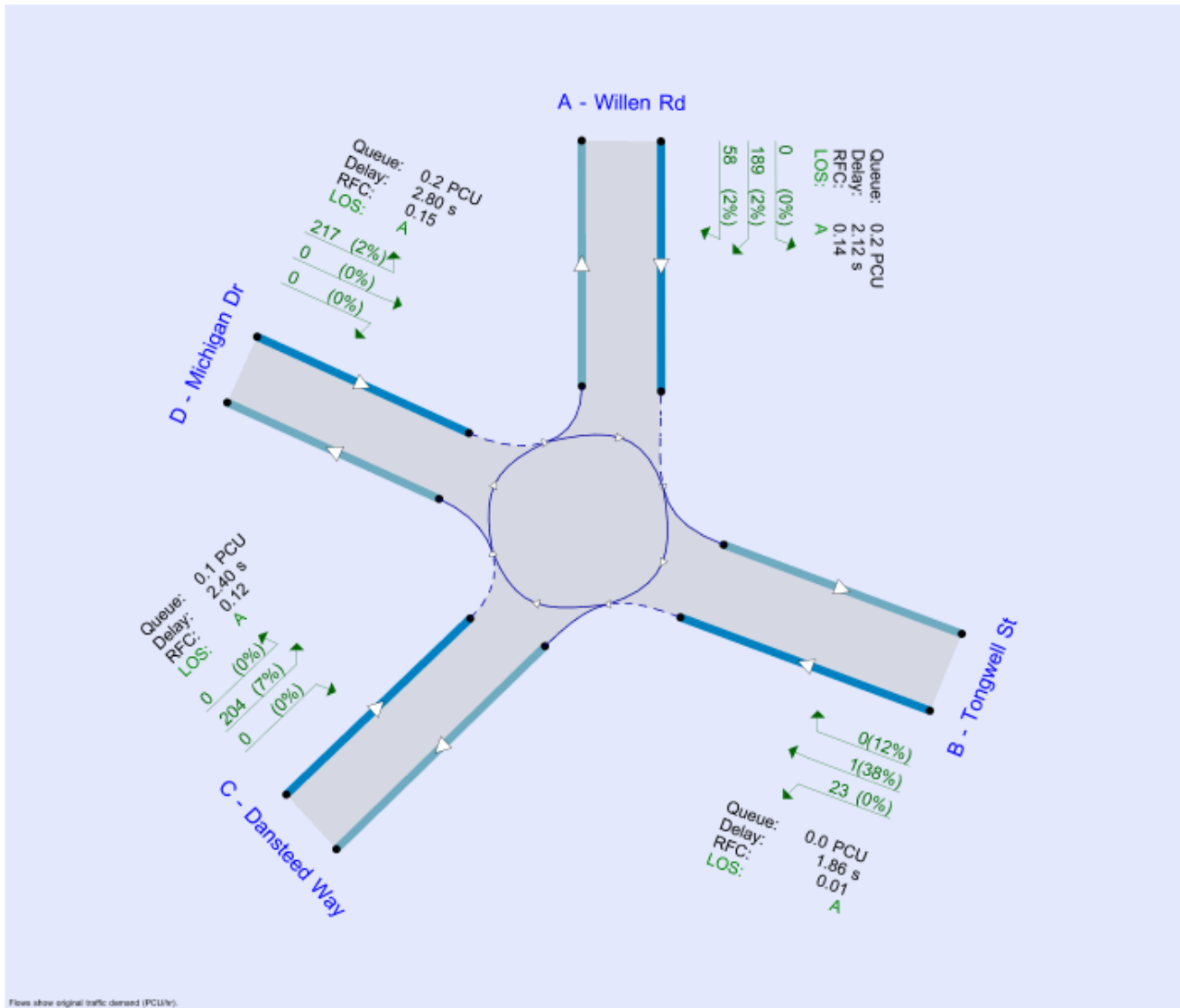
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\uklew001
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	8.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Willen Rd	
B	Tongwell St	
C	Dansteed Way	
D	Michigan Dr	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Willen Rd	3.65	7.90	15.2	34.0	66.0	0.0	
B - Tongwell St	3.65	8.50	20.0	62.9	66.0	6.5	
C - Dansteed Way	3.65	8.00	12.4	36.3	66.0	13.0	
D - Michigan Dr	3.65	6.90	9.3	32.0	66.0	17.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Willen Rd	0.605	2007
B - Tongwell St	0.627	2156
C - Dansteed Way	0.572	1887
D - Michigan Dr	0.535	1668

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	1427	100.000
B - Tongwell St		ONE HOUR	✓	783	100.000
C - Dansteed Way		ONE HOUR	✓	188	100.000
D - Michigan Dr		ONE HOUR	✓	88	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
A - Willen Rd	0	531	652	244
B - Tongwell St	438	0	4	341
C - Dansteed Way	82	88	0	0
D - Michigan Dr	12	76	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
A - Willen Rd	0	6	4	14
B - Tongwell St	4	0	3	3
C - Dansteed Way	6	0	0	0
D - Michigan Dr	7	22	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.83	11.58	4.9	B	1309	1964
B - Tongwell St	0.58	5.52	1.3	A	718	1078
C - Dansteed Way	0.15	3.57	0.2	A	154	231
D - Michigan Dr	0.07	3.55	0.1	A	81	121

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1074	289	122	1934	0.556	1089	399	0.0	1.3	4.401	A
B - Tongwell St	589	147	671	1734	0.340	587	519	0.0	0.5	3.245	A
C - Dansteed Way	128	32	767	1428	0.089	128	491	0.0	0.1	2.843	A
D - Michigan Dr	88	17	455	1425	0.047	88	439	0.0	0.1	3.171	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1283	321	146	1919	0.668	1280	478	1.3	2.1	5.955	A
B - Tongwell St	704	176	804	1651	0.426	703	622	0.5	0.8	3.926	A
C - Dansteed Way	151	38	918	1342	0.113	151	588	0.1	0.1	3.108	A
D - Michigan Dr	79	20	544	1377	0.057	79	525	0.1	0.1	3.320	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1571	393	178	1900	0.827	1561	584	2.1	4.8	10.960	B
B - Tongwell St	862	216	980	1541	0.559	860	759	0.8	1.3	5.457	A
C - Dansteed Way	185	46	1122	1225	0.151	185	717	0.1	0.2	3.559	A
D - Michigan Dr	97	24	666	1312	0.074	97	641	0.1	0.1	3.546	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1571	393	178	1899	0.827	1571	586	4.8	4.9	11.581	B
B - Tongwell St	862	216	986	1537	0.561	862	763	1.3	1.3	5.523	A
C - Dansteed Way	185	46	1126	1223	0.151	185	722	0.2	0.2	3.566	A
D - Michigan Dr	97	24	667	1311	0.074	97	644	0.1	0.1	3.548	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1283	321	146	1919	0.668	1294	480	4.9	2.2	6.223	A
B - Tongwell St	704	176	812	1646	0.428	706	627	1.3	0.8	3.975	A
C - Dansteed Way	151	38	924	1339	0.113	151	595	0.2	0.1	3.120	A
D - Michigan Dr	79	20	546	1376	0.058	79	529	0.1	0.1	3.325	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1074	269	122	1934	0.556	1078	401	2.2	1.3	4.492	A
B - Tongwell St	589	147	677	1731	0.341	590	523	0.8	0.5	3.270	A
C - Dansteed Way	126	32	772	1425	0.089	127	495	0.1	0.1	2.852	A
D - Michigan Dr	66	17	457	1424	0.047	66	441	0.1	0.1	3.177	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	3.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	600	100.000
B - Tongwell St		ONE HOUR	✓	475	100.000
C - Dansteed Way		ONE HOUR	✓	685	100.000
D - Michigan Dr		ONE HOUR	✓	241	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	428	130	42
	B - Tongwell St	376	0	9	90
	C - Dansteed Way	488	197	0	0
	D - Michigan Dr	43	198	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	7	7	14
	B - Tongwell St	8	0	1	4
	C - Dansteed Way	4	0	0	0
	D - Michigan Dr	1	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.38	3.57	0.7	A	551	826
B - Tongwell St	0.26	2.55	0.4	A	436	654
C - Dansteed Way	0.49	4.67	1.0	A	629	943
D - Michigan Dr	0.25	4.82	0.4	A	221	332

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	452	113	296	1828	0.247	450	681	0.0	0.4	2.805	A
B - Tongwell St	358	89	129	2075	0.172	357	617	0.0	0.2	2.243	A
C - Dansteed Way	516	129	381	1649	0.313	514	104	0.0	0.5	3.256	A
D - Michigan Dr	181	45	796	1242	0.146	181	99	0.0	0.2	3.535	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	539	135	355	1793	0.301	539	815	0.4	0.5	3.086	A
B - Tongwell St	427	107	154	2059	0.207	427	739	0.2	0.3	2.362	A
C - Dansteed Way	616	154	456	1606	0.384	615	125	0.5	0.6	3.735	A
D - Michigan Dr	217	54	953	1158	0.187	216	119	0.2	0.2	3.984	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	661	165	434	1745	0.379	660	997	0.5	0.7	3.565	A
B - Tongwell St	523	131	189	2037	0.257	523	905	0.3	0.4	2.545	A
C - Dansteed Way	754	189	559	1547	0.487	753	153	0.6	1.0	4.653	A
D - Michigan Dr	265	66	1167	1044	0.254	265	145	0.2	0.4	4.813	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	661	165	435	1744	0.379	661	999	0.7	0.7	3.569	A
B - Tongwell St	523	131	189	2037	0.257	523	906	0.4	0.4	2.546	A
C - Dansteed Way	754	189	559	1547	0.488	754	153	1.0	1.0	4.669	A
D - Michigan Dr	265	66	1168	1043	0.254	265	145	0.4	0.4	4.824	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	539	135	356	1792	0.301	540	817	0.7	0.5	3.091	A
B - Tongwell St	427	107	155	2058	0.207	427	741	0.4	0.3	2.363	A
C - Dansteed Way	616	154	457	1605	0.384	617	125	1.0	0.6	3.752	A
D - Michigan Dr	217	54	955	1157	0.187	217	119	0.4	0.2	3.996	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	452	113	298	1827	0.247	452	884	0.5	0.4	2.818	A
B - Tongwell St	358	89	130	2074	0.172	358	820	0.3	0.2	2.245	A
C - Danstead Way	518	129	383	1848	0.313	518	105	0.8	0.5	3.275	A
D - Michigan Dr	181	45	800	1240	0.146	182	99	0.2	0.2	3.545	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	11.54	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	1406	100.000
B - Tongwell St		ONE HOUR	✓	984	100.000
C - Dansteed Way		ONE HOUR	✓	342	100.000
D - Michigan Dr		ONE HOUR	✓	103	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	505	673	228
	B - Tongwell St	505	0	89	410
	C - Dansteed Way	89	253	0	0
	D - Michigan Dr	14	89	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	5	5	3
	B - Tongwell St	2	0	0	10
	C - Dansteed Way	6	0	0	0
	D - Michigan Dr	7	21	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.87	15.95	6.6	C	1290	1935
B - Tongwell St	0.71	8.38	2.5	A	903	1354
C - Dansteed Way	0.33	4.74	0.5	A	314	471
D - Michigan Dr	0.10	4.05	0.1	A	95	142

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1059	265	257	1852	0.572	1053	456	0.0	1.4	4.684	A
B - Tongwell St	741	185	675	1732	0.428	738	635	0.0	0.8	3.792	A
C - Dansteed Way	257	64	857	1377	0.187	257	556	0.0	0.2	3.258	A
D - Michigan Dr	78	19	635	1328	0.058	77	478	0.0	0.1	3.421	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1264	316	307	1821	0.694	1260	546	1.4	2.3	6.668	A
B - Tongwell St	885	221	808	1649	0.536	883	760	0.8	1.2	4.925	A
C - Dansteed Way	307	77	1025	1280	0.240	307	665	0.2	0.3	3.754	A
D - Michigan Dr	93	23	760	1281	0.073	93	572	0.1	0.1	3.660	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1548	387	376	1780	0.870	1532	667	2.3	6.2	14.394	B
B - Tongwell St	1083	271	982	1540	0.704	1079	926	1.2	2.4	8.116	A
C - Dansteed Way	377	94	1251	1151	0.327	376	809	0.3	0.5	4.709	A
D - Michigan Dr	113	28	929	1171	0.097	113	698	0.1	0.1	4.046	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1548	387	377	1779	0.870	1547	669	6.2	6.6	15.948	C
B - Tongwell St	1083	271	991	1534	0.706	1083	932	2.4	2.5	8.382	A
C - Dansteed Way	377	94	1258	1147	0.328	377	816	0.5	0.5	4.739	A
D - Michigan Dr	113	28	932	1169	0.097	113	702	0.1	0.1	4.053	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1264	316	308	1821	0.694	1281	549	6.6	2.4	7.178	A
B - Tongwell St	885	221	821	1641	0.539	890	768	2.5	1.2	5.065	A
C - Dansteed Way	307	77	1035	1275	0.241	308	675	0.5	0.3	3.783	A
D - Michigan Dr	93	23	765	1259	0.074	93	578	0.1	0.1	3.669	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1059	285	258	1851	0.572	1083	459	2.4	1.4	4.801	A
B - Tongwell St	741	185	681	1728	0.429	743	639	1.2	0.8	3.844	A
C - Danstead Way	257	64	883	1373	0.187	258	561	0.3	0.2	3.275	A
D - Michigan Dr	78	19	639	1326	0.058	78	482	0.1	0.1	3.427	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	5.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	18:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	857	100.000
B - Tongwell St		ONE HOUR	✓	702	100.000
C - Dansteed Way		ONE HOUR	✓	858	100.000
D - Michigan Dr		ONE HOUR	✓	289	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	497	123	37
	B - Tongwell St	518	0	47	139
	C - Dansteed Way	548	310	0	0
	D - Michigan Dr	54	215	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	4	8	1
	B - Tongwell St	6	0	0	7
	C - Dansteed Way	3	1	0	0
	D - Michigan Dr	2	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.44	4.03	0.8	A	603	904
B - Tongwell St	0.38	2.99	0.6	A	644	966
C - Dansteed Way	0.66	7.53	1.9	A	785	1178
D - Michigan Dr	0.34	6.61	0.5	A	247	370

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	495	124	393	1769	0.280	493	837	0.0	0.4	2.945	A
B - Tongwell St	529	132	120	2080	0.254	527	766	0.0	0.4	2.449	A
C - Dansteed Way	644	161	520	1570	0.411	642	128	0.0	0.7	3.955	A
D - Michigan Dr	203	51	1029	1118	0.181	202	132	0.0	0.2	4.068	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	591	148	471	1722	0.343	590	1002	0.4	0.5	3.322	A
B - Tongwell St	631	158	144	2085	0.306	631	918	0.4	0.5	2.654	A
C - Dansteed Way	770	192	622	1511	0.509	768	153	0.7	1.0	4.945	A
D - Michigan Dr	242	60	1232	1009	0.240	241	158	0.2	0.3	4.855	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	723	181	576	1659	0.436	722	1226	0.5	0.8	4.016	A
B - Tongwell St	773	193	176	2045	0.378	772	1123	0.5	0.6	2.989	A
C - Dansteed Way	942	236	761	1431	0.658	939	187	1.0	1.9	7.422	A
D - Michigan Dr	296	74	1507	862	0.343	295	194	0.3	0.5	6.568	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	723	181	578	1657	0.436	723	1229	0.8	0.8	4.029	A
B - Tongwell St	773	193	176	2045	0.378	773	1125	0.6	0.6	2.992	A
C - Dansteed Way	942	236	762	1431	0.659	942	187	1.9	1.9	7.531	A
D - Michigan Dr	296	74	1511	860	0.344	296	194	0.5	0.5	6.610	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	591	148	474	1720	0.343	592	1006	0.8	0.5	3.339	A
B - Tongwell St	631	158	144	2085	0.306	632	921	0.6	0.5	2.659	A
C - Dansteed Way	770	192	623	1511	0.509	773	153	1.9	1.1	5.014	A
D - Michigan Dr	242	60	1237	1006	0.240	243	158	0.5	0.3	4.890	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	495	124	398	1768	0.280	495	841	0.5	0.4	2.960	A
B - Tongwell St	529	132	121	2080	0.254	529	771	0.5	0.4	2.457	A
C - Dansteed Way	644	161	521	1569	0.411	646	128	1.1	0.7	3.997	A
D - Michigan Dr	203	51	1035	1115	0.182	203	133	0.3	0.2	4.091	A

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	14.18	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	1181	100.000
B - Tongwell St		ONE HOUR	✓	1355	100.000
C - Dansteed Way		ONE HOUR	✓	703	100.000
D - Michigan Dr		ONE HOUR	✓	180	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	661	335	185
	B - Tongwell St	665	20	182	488
	C - Dansteed Way	117	586	0	0
	D - Michigan Dr	46	134	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	2	7	2
	B - Tongwell St	1	0	6	8
	C - Dansteed Way	4	2	0	0
	D - Michigan Dr	3	15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.88	17.00	5.9	C	1084	1626
B - Tongwell St	0.83	12.18	4.9	B	1243	1865
C - Dansteed Way	0.76	15.33	3.2	C	645	968
D - Michigan Dr	0.23	6.15	0.3	A	165	248

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	889	222	554	1672	0.532	884	620	0.0	1.2	4.699	A
B - Tongwell St	1020	255	389	1911	0.534	1015	1049	0.0	1.2	4.161	A
C - Dansteed Way	529	132	1018	1285	0.412	526	387	0.0	0.7	4.840	A
D - Michigan Dr	136	34	1040	1112	0.122	135	504	0.0	0.2	4.112	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1062	265	663	1606	0.661	1058	743	1.2	2.0	6.759	A
B - Tongwell St	1218	305	466	1883	0.654	1215	1256	1.2	1.9	5.755	A
C - Dansteed Way	632	158	1218	1170	0.540	630	463	0.7	1.2	6.795	A
D - Michigan Dr	162	40	1244	1003	0.161	162	603	0.2	0.2	4.779	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1300	325	808	1518	0.858	1286	905	2.0	5.5	15.186	C
B - Tongwell St	1492	373	566	1800	0.829	1481	1528	1.9	4.7	11.352	B
C - Dansteed Way	774	194	1483	1018	0.760	767	564	1.2	3.0	14.222	B
D - Michigan Dr	198	50	1515	858	0.231	198	735	0.2	0.3	6.087	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1300	325	814	1514	0.859	1299	911	5.5	5.9	16.999	C
B - Tongwell St	1492	373	572	1797	0.830	1491	1541	4.7	4.9	12.180	B
C - Dansteed Way	774	194	1494	1012	0.765	773	569	3.0	3.2	15.335	C
D - Michigan Dr	198	50	1527	851	0.233	198	740	0.3	0.3	6.154	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1062	265	672	1600	0.663	1077	751	5.9	2.1	7.304	A
B - Tongwell St	1218	305	474	1858	0.656	1230	1275	4.9	2.0	6.068	A
C - Dansteed Way	632	158	1233	1162	0.544	640	471	3.2	1.2	7.161	A
D - Michigan Dr	162	40	1261	993	0.163	162	612	0.3	0.2	4.841	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	889	222	559	1669	0.533	893	825	2.1	1.2	4.817	A
B - Tongwell St	1020	255	393	1909	0.534	1023	1059	2.0	1.2	4.245	A
C - Dansteed Way	529	132	1026	1280	0.413	531	391	1.2	0.7	4.934	A
D - Michigan Dr	138	34	1049	1107	0.122	138	508	0.2	0.2	4.141	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	9.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	18:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	961	100.000
B - Tongwell St		ONE HOUR	✓	1500	100.000
C - Dansteed Way		ONE HOUR	✓	502	100.000
D - Michigan Dr		ONE HOUR	✓	33	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	739	135	87
	B - Tongwell St	1430	62	7	1
	C - Dansteed Way	79	423	0	0
	D - Michigan Dr	8	25	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	3	3	7
	B - Tongwell St	2	0	0	10
	C - Dansteed Way	7	3	0	0
	D - Michigan Dr	15	18	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.63	6.10	1.8	A	882	1323
B - Tongwell St	0.82	10.40	4.6	B	1376	2065
C - Dansteed Way	0.63	11.65	1.8	B	461	691
D - Michigan Dr	0.07	9.21	0.1	A	30	45

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	723	181	382	1776	0.407	721	1137	0.0	0.7	3.517	A
B - Tongwell St	1129	282	166	2051	0.551	1124	936	0.0	1.2	3.939	A
C - Dansteed Way	378	94	1184	1189	0.318	376	106	0.0	0.5	4.575	A
D - Michigan Dr	25	6	1494	869	0.029	25	66	0.0	0.0	5.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	864	216	457	1731	0.499	863	1361	0.7	1.0	4.281	A
B - Tongwell St	1348	337	199	2031	0.664	1345	1121	1.2	2.0	5.332	A
C - Dansteed Way	451	113	1417	1056	0.427	450	127	0.5	0.8	6.142	A
D - Michigan Dr	30	7	1788	712	0.042	30	79	0.0	0.1	6.188	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1058	265	558	1670	0.634	1055	1660	1.0	1.8	6.025	A
B - Tongwell St	1652	413	244	2003	0.825	1641	1369	2.0	4.5	9.887	A
C - Dansteed Way	553	138	1729	878	0.630	549	156	0.8	1.7	11.211	B
D - Michigan Dr	36	9	2182	501	0.072	36	97	0.1	0.1	9.069	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	1058	265	561	1668	0.635	1058	1670	1.8	1.8	6.101	A
B - Tongwell St	1652	413	244	2002	0.825	1651	1375	4.5	4.6	10.402	B
C - Dansteed Way	553	138	1739	872	0.634	553	156	1.7	1.8	11.648	B
D - Michigan Dr	36	9	2195	494	0.073	36	97	0.1	0.1	9.213	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	864	216	462	1728	0.500	867	1374	1.8	1.0	4.338	A
B - Tongwell St	1348	337	200	2030	0.664	1359	1129	4.6	2.1	5.550	A
C - Dansteed Way	451	113	1431	1048	0.430	455	128	1.8	0.8	6.328	A
D - Michigan Dr	30	7	1807	702	0.042	30	79	0.1	0.1	6.281	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	723	181	385	1774	0.408	725	1145	1.0	0.7	3.551	A
B - Tongwell St	1129	282	167	2051	0.551	1132	943	2.1	1.3	4.009	A
C - Danstead Way	378	94	1193	1185	0.319	379	107	0.8	0.5	4.638	A
D - Michigan Dr	25	6	1506	863	0.029	25	66	0.1	0.0	5.039	A

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	4.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	809	100.000
B - Tongwell St		ONE HOUR	✓	744	100.000
C - Dansteed Way		ONE HOUR	✓	84	100.000
D - Michigan Dr		ONE HOUR	✓	49	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	534	275
	B - Tongwell St	132	0	220	392
	C - Dansteed Way	84	0	0	0
	D - Michigan Dr	49	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	7	2
	B - Tongwell St	4	0	0	10
	C - Dansteed Way	15	0	0	0
	D - Michigan Dr	18	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.44	3.39	0.8	A	742	1114
B - Tongwell St	0.51	4.90	1.1	A	683	1024
C - Dansteed Way	0.07	3.26	0.1	A	77	116
D - Michigan Dr	0.04	2.86	0.0	A	45	67

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	609	152	0	2007	0.303	607	199	0.0	0.5	2.702	A
B - Tongwell St	560	140	607	1775	0.316	558	0	0.0	0.5	3.125	A
C - Dansteed Way	63	16	600	1524	0.042	63	566	0.0	0.0	2.833	A
D - Michigan Dr	37	9	162	1581	0.023	37	501	0.0	0.0	2.750	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	727	182	0	2007	0.362	727	238	0.5	0.6	2.956	A
B - Tongwell St	669	167	727	1700	0.394	668	0	0.5	0.7	3.690	A
C - Dansteed Way	76	19	718	1456	0.052	75	677	0.0	0.1	2.997	A
D - Michigan Dr	44	11	194	1564	0.028	44	599	0.0	0.0	2.794	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	891	223	0	2007	0.444	890	291	0.6	0.8	3.386	A
B - Tongwell St	819	205	890	1597	0.513	817	0	0.7	1.1	4.872	A
C - Dansteed Way	92	23	878	1385	0.068	92	829	0.1	0.1	3.253	A
D - Michigan Dr	54	13	237	1541	0.035	54	733	0.0	0.0	2.856	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	891	223	0	2007	0.444	891	292	0.8	0.8	3.392	A
B - Tongwell St	819	205	891	1597	0.513	819	0	1.1	1.1	4.897	A
C - Dansteed Way	92	23	880	1384	0.068	92	830	0.1	0.1	3.255	A
D - Michigan Dr	54	13	238	1541	0.035	54	734	0.0	0.0	2.856	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	727	182	0	2007	0.362	728	239	0.8	0.6	2.965	A
B - Tongwell St	669	167	728	1699	0.394	671	0	1.1	0.7	3.711	A
C - Dansteed Way	76	19	720	1455	0.052	76	679	0.1	0.1	3.000	A
D - Michigan Dr	44	11	195	1564	0.028	44	601	0.0	0.0	2.794	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	609	152	0	2007	0.303	610	200	0.6	0.5	2.711	A
B - Tongwell St	580	140	610	1773	0.316	581	0	0.7	0.5	3.143	A
C - Danstead Way	63	16	602	1522	0.042	63	568	0.1	0.1	2.837	A
D - Michigan Dr	37	9	163	1581	0.023	37	503	0.0	0.0	2.751	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	2.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	131	100.000
B - Tongwell St		ONE HOUR	✓	79	100.000
C - Dansteed Way		ONE HOUR	✓	267	100.000
D - Michigan Dr		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	77	54
	B - Tongwell St	1	0	18	60
	C - Dansteed Way	267	0	0	0
	D - Michigan Dr	109	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	9	1
	B - Tongwell St	18	0	0	16
	C - Dansteed Way	6	0	0	0
	D - Michigan Dr	4	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.07	2.04	0.1	A	120	180
B - Tongwell St	0.04	2.04	0.0	A	72	109
C - Dansteed Way	0.16	2.54	0.2	A	245	368
D - Michigan Dr	0.08	2.69	0.1	A	100	150

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	99	25	0	2007	0.049	98	283	0.0	0.1	1.990	A
B - Tongwell St	59	15	98	2094	0.028	59	0	0.0	0.0	1.980	A
C - Dansteed Way	201	50	88	1817	0.111	200	71	0.0	0.1	2.360	A
D - Michigan Dr	82	21	201	1580	0.053	82	88	0.0	0.1	2.532	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	118	29	0	2007	0.059	118	339	0.1	0.1	2.010	A
B - Tongwell St	71	18	118	2082	0.034	71	0	0.0	0.0	2.004	A
C - Dansteed Way	240	60	103	1808	0.133	240	85	0.1	0.2	2.433	A
D - Michigan Dr	98	24	241	1539	0.064	98	102	0.1	0.1	2.597	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	144	36	0	2007	0.072	144	415	0.1	0.1	2.039	A
B - Tongwell St	87	22	144	2085	0.042	87	0	0.0	0.0	2.036	A
C - Dansteed Way	294	73	127	1794	0.164	294	105	0.2	0.2	2.542	A
D - Michigan Dr	120	30	295	1510	0.079	120	125	0.1	0.1	2.892	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	144	36	0	2007	0.072	144	415	0.1	0.1	2.039	A
B - Tongwell St	87	22	144	2085	0.042	87	0	0.0	0.0	2.037	A
C - Dansteed Way	294	73	127	1794	0.164	294	105	0.2	0.2	2.542	A
D - Michigan Dr	120	30	295	1510	0.079	120	126	0.1	0.1	2.892	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	118	29	0	2007	0.059	118	339	0.1	0.1	2.012	A
B - Tongwell St	71	18	118	2082	0.034	71	0	0.0	0.0	2.004	A
C - Dansteed Way	240	60	103	1808	0.133	240	85	0.2	0.2	2.434	A
D - Michigan Dr	98	24	241	1539	0.064	98	103	0.1	0.1	2.600	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	99	25	0	2007	0.049	99	284	0.1	0.1	1.990	A
B - Tongwell St	59	15	99	2094	0.028	80	0	0.0	0.0	1.980	A
C - Dansteed Way	201	50	87	1817	0.111	201	72	0.2	0.1	2.382	A
D - Michigan Dr	82	21	202	1580	0.053	82	88	0.1	0.1	2.535	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	4.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	807	100.000
B - Tongwell St		ONE HOUR	✓	984	100.000
C - Dansteed Way		ONE HOUR	✓	111	100.000
D - Michigan Dr		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	341	286
	B - Tongwell St	1	0	336	647
	C - Dansteed Way	111	0	0	0
	D - Michigan Dr	109	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	6	2
	B - Tongwell St	12	0	7	7
	C - Dansteed Way	8	0	0	0
	D - Michigan Dr	10	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.33	2.80	0.5	A	557	835
B - Tongwell St	0.62	5.90	1.8	A	903	1354
C - Dansteed Way	0.09	3.32	0.1	A	102	153
D - Michigan Dr	0.07	2.67	0.1	A	100	150

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	457	114	0	2007	0.228	456	166	0.0	0.3	2.414	A
B - Tongwell St	741	185	456	1870	0.396	738	0	0.0	0.7	3.395	A
C - Dansteed Way	84	21	688	1475	0.057	83	508	0.0	0.1	2.794	A
D - Michigan Dr	82	21	84	1623	0.051	82	685	0.0	0.1	2.569	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	546	136	0	2007	0.272	545	199	0.3	0.4	2.565	A
B - Tongwell St	885	221	545	1813	0.488	883	0	0.7	1.0	4.137	A
C - Dansteed Way	100	25	821	1397	0.071	100	608	0.1	0.1	2.995	A
D - Michigan Dr	98	24	101	1614	0.061	98	820	0.1	0.1	2.611	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	668	167	0	2007	0.333	668	243	0.4	0.5	2.798	A
B - Tongwell St	1083	271	668	1737	0.624	1080	0	1.0	1.7	5.846	A
C - Dansteed Way	122	31	1004	1293	0.095	122	744	0.1	0.1	3.321	A
D - Michigan Dr	120	30	123	1602	0.075	120	1003	0.1	0.1	2.671	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	668	167	0	2007	0.333	668	243	0.5	0.5	2.800	A
B - Tongwell St	1083	271	668	1736	0.624	1083	0	1.7	1.8	5.899	A
C - Dansteed Way	122	31	1006	1291	0.095	122	745	0.1	0.1	3.324	A
D - Michigan Dr	120	30	123	1602	0.075	120	1005	0.1	0.1	2.671	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	546	136	0	2007	0.272	546	199	0.5	0.4	2.567	A
B - Tongwell St	885	221	546	1813	0.488	888	0	1.8	1.0	4.175	A
C - Dansteed Way	100	25	824	1396	0.072	100	610	0.1	0.1	3.000	A
D - Michigan Dr	98	24	101	1614	0.061	98	823	0.1	0.1	2.614	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	457	114	0	2007	0.228	457	167	0.4	0.3	2.422	A
B - Tongwell St	741	185	457	1869	0.398	742	0	1.0	0.7	3.425	A
C - Danstead Way	84	21	689	1473	0.057	84	510	0.1	0.1	2.800	A
D - Michigan Dr	82	21	84	1623	0.051	82	688	0.1	0.1	2.572	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tongwell Roundabout	Standard Roundabout		A, B, C, D	2.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Willen Rd		ONE HOUR	✓	247	100.000
B - Tongwell St		ONE HOUR	✓	24	100.000
C - Dansteed Way		ONE HOUR	✓	204	100.000
D - Michigan Dr		ONE HOUR	✓	217	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	189	58
	B - Tongwell St	0	0	23	1
	C - Dansteed Way	204	0	0	0
	D - Michigan Dr	217	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Willen Rd	B - Tongwell St	C - Dansteed Way	D - Michigan Dr
From	A - Willen Rd	0	0	2	2
	B - Tongwell St	12	0	0	38
	C - Dansteed Way	7	0	0	0
	D - Michigan Dr	2	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Willen Rd	0.14	2.12	0.2	A	227	340
B - Tongwell St	0.01	1.86	0.0	A	22	33
C - Dansteed Way	0.12	2.40	0.1	A	187	281
D - Michigan Dr	0.15	2.80	0.2	A	199	299

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	188	46	0	2007	0.093	188	316	0.0	0.1	2.015	A
B - Tongwell St	18	5	188	2039	0.009	18	0	0.0	0.0	1.800	A
C - Dansteed Way	154	38	44	1841	0.083	153	159	0.0	0.1	2.281	A
D - Michigan Dr	163	41	153	1586	0.103	163	44	0.0	0.1	2.580	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	222	56	0	2007	0.111	222	378	0.1	0.1	2.056	A
B - Tongwell St	22	5	222	2016	0.011	22	0	0.0	0.0	1.824	A
C - Dansteed Way	183	46	53	1836	0.100	183	191	0.1	0.1	2.329	A
D - Michigan Dr	195	49	183	1570	0.124	195	53	0.1	0.1	2.670	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	272	68	0	2007	0.135	272	463	0.1	0.2	2.115	A
B - Tongwell St	26	7	272	1985	0.013	26	0	0.0	0.0	1.858	A
C - Dansteed Way	225	56	65	1830	0.123	224	233	0.1	0.1	2.399	A
D - Michigan Dr	239	60	224	1548	0.154	239	65	0.1	0.2	2.804	A

17:30 - 17:45

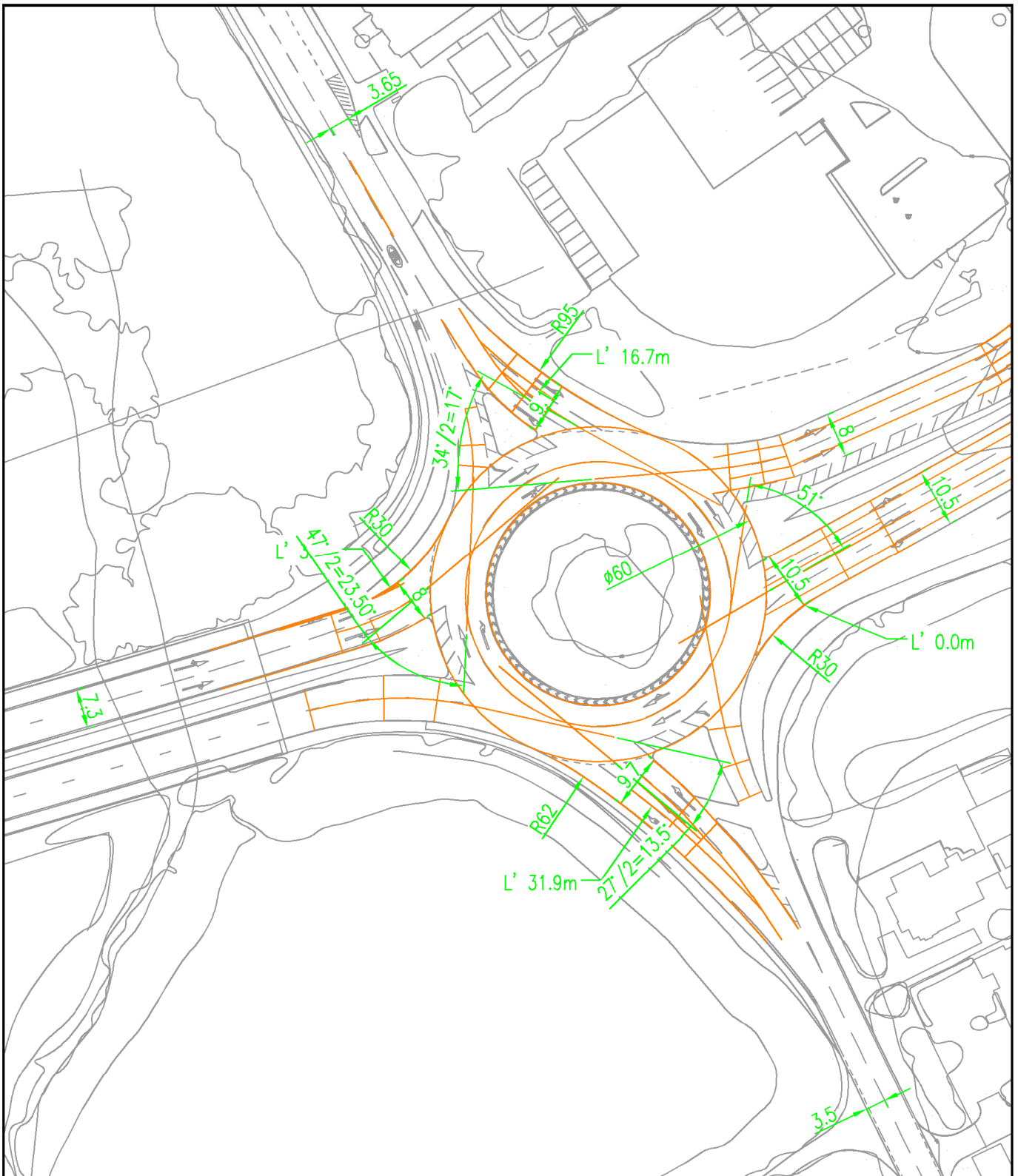
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	272	68	0	2007	0.135	272	464	0.2	0.2	2.115	A
B - Tongwell St	26	7	272	1985	0.013	26	0	0.0	0.0	1.858	A
C - Dansteed Way	225	56	65	1830	0.123	225	233	0.1	0.1	2.399	A
D - Michigan Dr	239	60	225	1548	0.154	239	65	0.2	0.2	2.805	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	222	56	0	2007	0.111	222	379	0.2	0.1	2.058	A
B - Tongwell St	22	5	222	2016	0.011	22	0	0.0	0.0	1.827	A
C - Dansteed Way	183	46	53	1836	0.100	184	191	0.1	0.1	2.332	A
D - Michigan Dr	195	49	184	1570	0.124	195	53	0.2	0.1	2.673	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Willen Rd	188	46	0	2007	0.093	188	317	0.1	0.1	2.017	A
B - Tongwell St	18	5	188	2039	0.009	18	0	0.0	0.0	1.801	A
C - Dansteed Way	154	38	44	1841	0.083	154	160	0.1	0.1	2.282	A
D - Michigan Dr	163	41	154	1588	0.103	163	44	0.1	0.1	2.581	A



ROUNABOUT GEOMETRY – TICKFORD ROUNDABOUT (ref E7)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
A509 (E)	10.50	10.50	0.00	30.00	60.00	51.00
A509 LONDON RD	3.50	9.70	31.90	62.00	60.00	13.50
A422	7.30	8.00	3.20	30.00	60.00	23.50
B526 LONDON RD	3.65	9.10	16.70	95.00	60.00	17.00

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 7.Tickford Roundabout.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 12:48:55

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - B256 London Rd	1.7	7.05	0.63	A	1.2	8.92	0.54	A
B - A509 (E)	2.8	6.65	0.72	A	1.2	3.21	0.53	A
C - A509 London Rd	1.3	7.61	0.51	A	1.8	5.92	0.63	A
D - A422	1.4	4.13	0.56	A	7.9	17.79	0.89	C
2031 Do Minimum								
A - B256 London Rd	3.0	11.75	0.75	B	2.4	15.20	0.71	C
B - A509 (E)	3.2	8.26	0.75	A	1.5	3.76	0.59	A
C - A509 London Rd	1.7	10.05	0.59	B	1.5	6.15	0.59	A
D - A422	2.5	5.76	0.70	A	31.7	58.19	1.00	F
2048 Do Minimum								
A - B256 London Rd	6.6	24.56	0.88	C	2.6	16.18	0.73	C
B - A509 (E)	13.9	35.57	0.95	E	3.8	7.61	0.79	A
C - A509 London Rd	34.6	191.59	1.13	F	1.6	7.74	0.60	A
D - A422	6.7	12.35	0.87	B	40.7	67.24	1.01	F
2031 Do Something								
A - B256 London Rd	2.6	9.63	0.72	A	1.2	9.62	0.53	A
B - A509 (E)	2.0	5.70	0.65	A	1.1	2.96	0.52	A
C - A509 London Rd	1.0	6.18	0.48	A	1.7	6.05	0.61	A
D - A422	1.7	4.79	0.61	A	4.9	12.01	0.83	B
2048 Do Something								
A - B256 London Rd	2.5	11.72	0.71	B	2.0	12.16	0.66	B
B - A509 (E)	2.4	7.74	0.70	A	2.9	5.95	0.74	A
C - A509 London Rd	2.1	9.71	0.66	A	1.5	6.87	0.59	A
D - A422	5.5	11.11	0.85	B	8.0	17.59	0.89	C

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

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

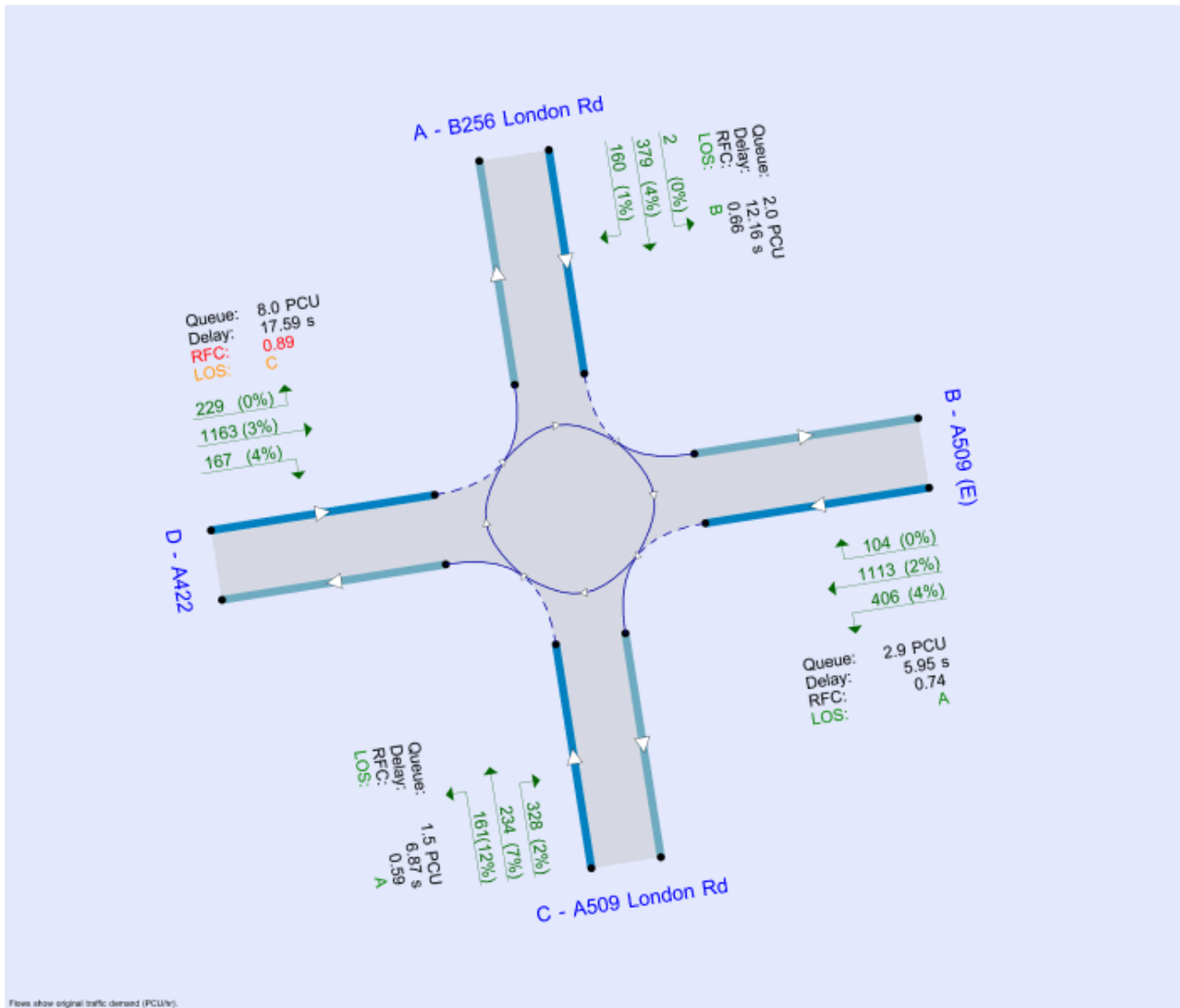
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\UKRJM015
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	6.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	B256 London Rd	
B	A509 (E)	
C	A509 London Rd	
D	A422	

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 - B256 London Rd	3.65	9.10	16.7	95.0	60.0	17.0	
B - A509 (E)	10.50	10.50	0.0	30.0	60.0	51.0	
C - A509 London Rd	3.50	9.70	31.9	62.0	60.0	13.5	
D - A422	7.30	8.00	3.2	30.0	60.0	23.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - B256 London Rd	0.644	2074
B - A509 (E)	0.768	3002
C - A509 London Rd	0.705	2419
D - A422	0.693	2427

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	812	100.000
B - A509 (E)		ONE HOUR	✓	1408	100.000
C - A509 London Rd		ONE HOUR	✓	555	100.000
D - A422		ONE HOUR	✓	1109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	315	497
	B - A509 (E)	0	0	325	1081
	C - A509 London Rd	180	156	0	219
	D - A422	338	566	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	5	1
	B - A509 (E)	0	0	20	7
	C - A509 London Rd	11	48	0	20
	D - A422	1	12	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.63	7.05	1.7	A	745	1118
B - A509 (E)	0.72	6.65	2.8	A	1290	1935
C - A509 London Rd	0.51	7.61	1.3	A	509	764
D - A422	0.56	4.13	1.4	A	1018	1526

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	611	153	696	1626	0.376	609	389	0.0	0.6	3.618	A
B - A509 (E)	1059	285	763	2416	0.438	1055	542	0.0	0.9	2.896	A
C - A509 London Rd	418	104	1184	1584	0.264	416	634	0.0	0.4	3.796	A
D - A422	835	209	252	2253	0.371	832	1348	0.0	0.6	2.755	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	730	182	832	1538	0.475	729	465	0.6	0.9	4.554	A
B - A509 (E)	1264	316	913	2301	0.549	1262	648	0.9	1.3	3.798	A
C - A509 London Rd	499	125	1416	1420	0.351	498	759	0.4	0.7	4.811	A
D - A422	997	249	302	2218	0.449	996	1613	0.6	0.9	3.204	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	894	224	1019	1418	0.630	891	569	0.9	1.7	6.957	A
B - A509 (E)	1548	387	1116	2145	0.722	1542	793	1.3	2.8	6.497	A
C - A509 London Rd	611	153	1731	1198	0.510	609	927	0.7	1.3	7.500	A
D - A422	1221	305	368	2172	0.562	1219	1971	0.9	1.4	4.106	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	894	224	1021	1417	0.631	894	570	1.7	1.7	7.055	A
B - A509 (E)	1548	387	1120	2142	0.723	1548	795	2.8	2.8	6.646	A
C - A509 London Rd	611	153	1737	1194	0.512	611	930	1.3	1.3	7.613	A
D - A422	1221	305	370	2171	0.562	1221	1978	1.4	1.4	4.126	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	730	182	835	1536	0.475	733	467	1.7	0.9	4.613	A
B - A509 (E)	1264	316	918	2297	0.560	1270	651	2.8	1.4	3.869	A
C - A509 London Rd	499	125	1425	1414	0.353	501	763	1.3	0.7	4.876	A
D - A422	997	249	304	2217	0.460	999	1623	1.4	0.9	3.225	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	611	153	699	1624	0.376	613	391	0.9	0.6	3.655	A
B - A509 (E)	1059	265	767	2413	0.439	1060	544	1.4	0.9	2.927	A
C - A509 London Rd	418	104	1190	1580	0.265	419	637	0.7	0.4	3.826	A
D - A422	835	209	254	2252	0.371	836	1356	0.9	0.6	2.770	A

2016 MKMMM Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	9.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	447	100.000
B - A509 (E)		ONE HOUR	✓	1237	100.000
C - A509 London Rd		ONE HOUR	✓	983	100.000
D - A422		ONE HOUR	✓	1518	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	321	126
	B - A509 (E)	0	0	470	787
	C - A509 London Rd	356	372	0	255
	D - A422	255	1201	62	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	6	3
	B - A509 (E)	0	0	13	5
	C - A509 London Rd	2	7	0	10
	D - A422	0	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.54	8.92	1.2	A	410	615
B - A509 (E)	0.53	3.21	1.2	A	1135	1703
C - A509 London Rd	0.63	5.92	1.8	A	902	1353
D - A422	0.89	17.79	7.9	C	1393	2089

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	337	84	1226	1285	0.262	335	458	0.0	0.4	3.980	A
B - A509 (E)	931	233	382	2709	0.344	929	1179	0.0	0.6	2.180	A
C - A509 London Rd	740	185	670	1946	0.380	737	640	0.0	0.6	3.146	A
D - A422	1143	286	546	2049	0.558	1138	862	0.0	1.3	4.033	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	402	100	1466	1130	0.356	401	548	0.4	0.6	5.187	A
B - A509 (E)	1112	278	457	2651	0.419	1111	1411	0.6	0.8	2.521	A
C - A509 London Rd	884	221	802	1854	0.477	882	766	0.6	1.0	3.920	A
D - A422	1385	341	654	1974	0.691	1361	1031	1.3	2.2	5.983	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	492	123	1782	927	0.531	490	668	0.6	1.2	8.618	A
B - A509 (E)	1362	340	557	2574	0.529	1360	1715	0.8	1.2	3.197	A
C - A509 London Rd	1082	271	981	1727	0.627	1079	936	1.0	1.7	5.856	A
D - A422	1671	418	799	1873	0.892	1651	1261	2.2	7.3	15.401	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	492	123	1798	916	0.537	492	672	1.2	1.2	8.919	A
B - A509 (E)	1362	340	560	2571	0.530	1362	1730	1.2	1.2	3.210	A
C - A509 London Rd	1082	271	983	1726	0.627	1082	939	1.7	1.8	5.920	A
D - A422	1671	418	801	1872	0.893	1669	1264	7.3	7.9	17.788	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	402	100	1489	1115	0.360	404	554	1.2	0.6	5.344	A
B - A509 (E)	1112	278	461	2648	0.420	1114	1433	1.2	0.8	2.536	A
C - A509 London Rd	884	221	805	1852	0.477	887	770	1.8	1.0	3.964	A
D - A422	1365	341	657	1972	0.692	1387	1035	7.9	2.4	6.540	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	337	84	1235	1279	0.263	337	461	0.6	0.4	4.025	A
B - A509 (E)	931	233	384	2707	0.344	932	1188	0.8	0.6	2.191	A
C - A509 London Rd	740	185	673	1944	0.381	741	643	1.0	0.7	3.172	A
D - A422	1143	288	549	2047	0.558	1147	865	2.4	1.3	4.126	A

2031 Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	8.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	862	100.000
B - A509 (E)		ONE HOUR	✓	1292	100.000
C - A509 London Rd		ONE HOUR	✓	548	100.000
D - A422		ONE HOUR	✓	1409	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	162	700
	B - A509 (E)	0	0	186	1106
	C - A509 London Rd	148	123	0	277
	D - A422	380	586	443	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	6	0
	B - A509 (E)	0	0	19	8
	C - A509 London Rd	10	44	0	9
	D - A422	1	11	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.75	11.75	3.0	B	791	1186
B - A509 (E)	0.75	8.26	3.2	A	1186	1778
C - A509 London Rd	0.59	10.05	1.7	B	503	754
D - A422	0.70	5.76	2.5	A	1293	1939

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	649	162	864	1518	0.428	646	396	0.0	0.7	4.161	A
B - A509 (E)	973	243	978	2250	0.432	969	532	0.0	0.8	3.068	A
C - A509 London Rd	413	103	1354	1464	0.282	411	593	0.0	0.5	3.945	A
D - A422	1061	265	203	2287	0.464	1057	1562	0.0	0.9	3.130	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	775	194	1034	1408	0.550	773	474	0.7	1.2	5.711	A
B - A509 (E)	1161	290	1171	2103	0.552	1159	636	0.8	1.3	4.168	A
C - A509 London Rd	493	123	1620	1276	0.386	492	710	0.5	0.7	5.294	A
D - A422	1267	317	243	2259	0.561	1265	1869	0.9	1.4	3.875	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	949	237	1264	1260	0.753	942	579	1.2	2.9	11.217	B
B - A509 (E)	1423	356	1429	1905	0.747	1415	778	1.3	3.1	7.939	A
C - A509 London Rd	603	151	1977	1025	0.589	600	867	0.7	1.6	9.710	A
D - A422	1551	388	297	2222	0.698	1547	2280	1.4	2.4	5.683	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	949	237	1268	1257	0.755	949	581	2.9	3.0	11.754	B
B - A509 (E)	1423	356	1436	1899	0.749	1422	781	3.1	3.2	8.256	A
C - A509 London Rd	603	151	1988	1017	0.593	603	871	1.6	1.7	10.047	B
D - A422	1551	388	298	2221	0.699	1551	2293	2.4	2.5	5.763	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	775	194	1040	1405	0.552	782	477	3.0	1.3	5.910	A
B - A509 (E)	1161	290	1182	2094	0.555	1169	640	3.2	1.4	4.291	A
C - A509 London Rd	493	123	1636	1266	0.389	496	715	1.7	0.7	5.436	A
D - A422	1267	317	245	2257	0.561	1271	1886	2.5	1.4	3.930	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	649	162	869	1515	0.428	651	398	1.3	0.8	4.224	A
B - A509 (E)	973	243	985	2245	0.433	975	535	1.4	0.8	3.106	A
C - A509 London Rd	413	103	1363	1458	0.283	414	597	0.7	0.5	3.991	A
D - A422	1061	265	205	2286	0.464	1063	1572	1.4	0.9	3.159	A

2031 Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	27.19	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	533	100.000
B - A509 (E)		ONE HOUR	✓	1338	100.000
C - A509 London Rd		ONE HOUR	✓	811	100.000
D - A422		ONE HOUR	✓	1787	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	339	194
	B - A509 (E)	0	0	353	983
	C - A509 London Rd	401	233	0	177
	D - A422	218	1457	92	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	6	2
	B - A509 (E)	0	0	11	3
	C - A509 London Rd	2	6	0	9
	D - A422	0	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.71	15.20	2.4	C	489	734
B - A509 (E)	0.59	3.76	1.5	A	1228	1839
C - A509 London Rd	0.59	6.15	1.5	A	744	1116
D - A422	1.00	58.19	31.7	F	1621	2432

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	401	100	1335	1215	0.330	399	464	0.0	0.5	4.603	A
B - A509 (E)	1006	251	468	2642	0.381	1003	1266	0.0	0.6	2.306	A
C - A509 London Rd	611	153	883	1796	0.340	608	588	0.0	0.5	3.165	A
D - A422	1330	333	476	2098	0.634	1323	1016	0.0	1.8	4.733	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	479	120	1595	1047	0.458	478	555	0.5	0.9	6.596	A
B - A509 (E)	1201	300	560	2572	0.467	1200	1513	0.6	0.9	2.753	A
C - A509 London Rd	729	182	1057	1674	0.436	728	703	0.5	0.8	3.977	A
D - A422	1588	397	569	2033	0.781	1581	1216	1.8	3.5	8.064	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	587	147	1896	854	0.688	582	671	0.9	2.2	13.576	B
B - A509 (E)	1471	368	679	2480	0.593	1469	1798	0.9	1.5	3.726	A
C - A509 London Rd	893	223	1292	1508	0.592	890	855	0.8	1.5	6.071	A
D - A422	1946	486	696	1945	1.000	1871	1486	3.5	22.3	33.837	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	587	147	1929	832	0.705	586	677	2.2	2.4	15.204	C
B - A509 (E)	1471	368	685	2475	0.594	1471	1830	1.5	1.5	3.762	A
C - A509 London Rd	893	223	1296	1505	0.593	893	861	1.5	1.5	6.147	A
D - A422	1946	486	698	1944	1.001	1908	1490	22.3	31.7	58.189	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	479	120	1700	979	0.489	485	572	2.4	1.0	7.690	A
B - A509 (E)	1201	300	573	2661	0.469	1203	1612	1.5	0.9	2.789	A
C - A509 London Rd	729	182	1062	1670	0.437	732	715	1.5	0.8	4.024	A
D - A422	1588	397	572	2031	0.782	1700	1222	31.7	3.9	14.929	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	401	100	1349	1205	0.333	403	468	1.0	0.5	4.703	A
B - A509 (E)	1006	251	473	2638	0.381	1007	1279	0.9	0.6	2.318	A
C - A509 London Rd	611	153	888	1793	0.341	612	592	0.8	0.5	3.191	A
D - A422	1330	333	478	2096	0.635	1339	1021	3.9	1.8	4.936	A

2048 Do Minimum, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	41.70	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	929	100.000
B - A509 (E)		ONE HOUR	✓	1353	100.000
C - A509 London Rd		ONE HOUR	✓	521	100.000
D - A422		ONE HOUR	✓	1835	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	98	831
	B - A509 (E)	0	0	28	1325
	C - A509 London Rd	149	10	0	382
	D - A422	560	507	453	315

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	10	1
	B - A509 (E)	0	0	70	5
	C - A509 London Rd	10	82	0	10
	D - A422	1	8	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.88	24.56	6.6	C	852	1279
B - A509 (E)	0.95	35.57	13.9	E	1242	1862
C - A509 London Rd	1.13	191.59	34.8	F	478	717
D - A422	0.87	12.35	6.7	B	1684	2526

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	699	175	963	1454	0.481	696	531	0.0	0.9	4.815	A
B - A509 (E)	1019	255	1271	2025	0.503	1014	388	0.0	1.1	3.753	A
C - A509 London Rd	392	98	1852	1113	0.352	390	434	0.0	0.6	5.500	A
D - A422	1381	345	119	2345	0.589	1376	2123	0.0	1.5	3.853	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	835	209	1152	1332	0.627	832	635	0.9	1.7	7.293	A
B - A509 (E)	1216	304	1521	1834	0.663	1212	464	1.1	2.0	6.091	A
C - A509 London Rd	468	117	2214	857	0.546	466	519	0.6	1.3	10.113	B
D - A422	1650	412	142	2329	0.708	1646	2538	1.5	2.5	5.465	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	1023	256	1403	1171	0.874	1006	757	1.7	5.9	20.421	C
B - A509 (E)	1490	372	1845	1585	0.940	1454	564	2.0	11.0	24.344	C
C - A509 London Rd	574	143	2667	538	1.067	509	631	1.3	17.4	85.836	F
D - A422	2020	505	155	2320	0.871	2005	3021	2.5	6.4	11.391	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	1023	256	1413	1164	0.878	1020	781	5.9	6.6	24.556	C
B - A509 (E)	1490	372	1885	1589	0.949	1478	568	11.0	13.9	35.570	E
C - A509 London Rd	574	143	2707	510	1.125	505	637	17.4	34.6	191.590	F
D - A422	2020	505	154	2321	0.871	2019	3058	6.4	6.7	12.349	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	835	209	1169	1321	0.632	854	680	6.6	1.8	8.162	A
B - A509 (E)	1216	304	1551	1810	0.672	1263	472	13.9	2.2	7.546	A
C - A509 London Rd	468	117	2287	806	0.581	600	527	34.8	1.6	34.855	D
D - A422	1650	412	183	2300	0.717	1666	2704	6.7	2.7	6.061	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	699	175	971	1449	0.483	703	536	1.8	1.0	4.938	A
B - A509 (E)	1019	255	1283	2017	0.505	1023	391	2.2	1.1	3.851	A
C - A509 London Rd	392	98	1888	1101	0.356	396	438	1.6	0.6	5.690	A
D - A422	1381	345	121	2344	0.589	1386	2144	2.7	1.5	3.944	A

2048 Do Minimum, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	32.31	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	549	100.000
B - A509 (E)		ONE HOUR	✓	1660	100.000
C - A509 London Rd		ONE HOUR	✓	672	100.000
D - A422		ONE HOUR	✓	1901	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	288	261
	B - A509 (E)	0	0	397	1263
	C - A509 London Rd	314	163	0	195
	D - A422	268	1361	272	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	5	1
	B - A509 (E)	0	0	7	2
	C - A509 London Rd	2	7	0	15
	D - A422	1	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.73	16.18	2.6	C	504	756
B - A509 (E)	0.79	7.61	3.8	A	1523	2285
C - A509 London Rd	0.60	7.74	1.6	A	617	925
D - A422	1.01	67.24	40.7	F	1744	2617

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	413	103	1345	1208	0.342	411	436	0.0	0.5	4.644	A
B - A509 (E)	1250	312	615	2529	0.494	1246	1141	0.0	1.0	2.885	A
C - A509 London Rd	506	126	1143	1613	0.314	504	717	0.0	0.5	3.458	A
D - A422	1431	358	358	2179	0.657	1423	1290	0.0	1.9	4.862	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	494	123	1607	1039	0.475	492	522	0.5	0.9	6.761	A
B - A509 (E)	1492	373	735	2437	0.612	1490	1364	1.0	1.6	3.910	A
C - A509 London Rd	604	151	1367	1455	0.415	603	858	0.5	0.8	4.505	A
D - A422	1709	427	428	2131	0.802	1701	1542	1.9	4.0	8.474	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	604	151	1898	852	0.709	599	626	0.9	2.4	14.314	B
B - A509 (E)	1828	457	885	2322	0.787	1819	1611	1.6	3.7	7.268	A
C - A509 London Rd	740	185	1669	1242	0.596	737	1035	0.8	1.5	7.556	A
D - A422	2093	523	523	2065	1.014	2001	1883	4.0	27.0	36.851	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	604	151	1930	831	0.727	604	633	2.4	2.6	16.176	C
B - A509 (E)	1828	457	895	2314	0.790	1827	1639	3.7	3.8	7.609	A
C - A509 London Rd	740	185	1677	1236	0.599	740	1045	1.5	1.6	7.737	A
D - A422	2093	523	525	2063	1.014	2038	1892	27.0	40.7	67.237	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	494	123	1740	954	0.517	500	545	2.6	1.1	8.273	A
B - A509 (E)	1492	373	765	2414	0.618	1501	1475	3.8	1.7	4.100	A
C - A509 London Rd	604	151	1379	1446	0.418	607	886	1.6	0.8	4.597	A
D - A422	1709	427	431	2129	0.803	1854	1558	40.7	4.5	20.396	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	413	103	1361	1198	0.345	416	440	1.1	0.5	4.758	A
B - A509 (E)	1250	312	622	2524	0.495	1252	1155	1.7	1.0	2.927	A
C - A509 London Rd	506	126	1150	1608	0.315	507	724	0.8	0.5	3.495	A
D - A422	1431	358	360	2178	0.657	1441	1298	4.5	2.0	5.105	A

2031 Do Something, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	6.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	888	100.000
B - A509 (E)		ONE HOUR	✓	1129	100.000
C - A509 London Rd		ONE HOUR	✓	558	100.000
D - A422		ONE HOUR	✓	1170	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	427	481
	B - A509 (E)	0	0	106	1023
	C - A509 London Rd	309	114	0	135
	D - A422	274	511	385	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	3	1
	B - A509 (E)	0	0	10	8
	C - A509 London Rd	6	16	0	25
	D - A422	1	12	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.72	9.63	2.6	A	815	1222
B - A509 (E)	0.65	5.70	2.0	A	1038	1554
C - A509 London Rd	0.48	6.18	1.0	A	512	768
D - A422	0.61	4.79	1.7	A	1074	1610

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	669	167	758	1586	0.422	666	437	0.0	0.7	3.975	A
B - A509 (E)	850	212	954	2269	0.375	847	469	0.0	0.6	2.735	A
C - A509 London Rd	420	105	1113	1634	0.257	419	689	0.0	0.4	3.316	A
D - A422	881	220	317	2207	0.399	878	1215	0.0	0.7	2.934	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	798	200	907	1490	0.536	797	523	0.7	1.2	5.280	A
B - A509 (E)	1015	254	1142	2125	0.478	1014	561	0.6	1.0	3.500	A
C - A509 London Rd	502	125	1332	1480	0.339	501	824	0.4	0.6	4.120	A
D - A422	1052	263	380	2164	0.486	1051	1453	0.7	1.0	3.507	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	978	244	1110	1360	0.719	972	640	1.2	2.5	9.348	A
B - A509 (E)	1243	311	1395	1930	0.644	1239	687	1.0	1.9	5.606	A
C - A509 London Rd	614	154	1628	1271	0.483	613	1007	0.6	1.0	6.110	A
D - A422	1288	322	464	2106	0.612	1286	1776	1.0	1.7	4.752	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	978	244	1112	1358	0.720	977	642	2.5	2.6	9.631	A
B - A509 (E)	1243	311	1401	1926	0.646	1243	688	1.9	2.0	5.702	A
C - A509 London Rd	614	154	1634	1267	0.485	614	1011	1.0	1.0	6.184	A
D - A422	1288	322	466	2105	0.612	1288	1782	1.7	1.7	4.787	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	798	200	910	1488	0.537	804	528	2.6	1.2	5.407	A
B - A509 (E)	1015	254	1151	2118	0.479	1019	583	2.0	1.0	3.554	A
C - A509 London Rd	502	125	1340	1474	0.340	503	829	1.0	0.6	4.166	A
D - A422	1052	283	382	2183	0.488	1054	1462	1.7	1.0	3.534	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	669	167	761	1584	0.422	670	440	1.2	0.8	4.025	A
B - A509 (E)	850	212	961	2264	0.375	851	471	1.0	0.7	2.761	A
C - A509 London Rd	420	105	1119	1630	0.258	421	693	0.6	0.4	3.342	A
D - A422	881	220	319	2206	0.399	882	1221	1.0	0.7	2.956	A

2031 Do Something, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	7.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	405	100.000
B - A509 (E)		ONE HOUR	✓	1282	100.000
C - A509 London Rd		ONE HOUR	✓	909	100.000
D - A422		ONE HOUR	✓	1379	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	280	125
	B - A509 (E)	0	0	370	892
	C - A509 London Rd	186	606	0	117
	D - A422	235	1142	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	5	1
	B - A509 (E)	0	0	7	3
	C - A509 London Rd	7	2	0	26
	D - A422	0	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.53	9.82	1.2	A	372	557
B - A509 (E)	0.52	2.96	1.1	A	1158	1737
C - A509 London Rd	0.61	6.05	1.7	A	834	1251
D - A422	0.83	12.01	4.9	B	1265	1898

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	305	76	1312	1229	0.248	304	316	0.0	0.3	4.029	A
B - A509 (E)	950	238	305	2767	0.343	948	1311	0.0	0.5	2.057	A
C - A509 London Rd	684	171	764	1881	0.364	682	489	0.0	0.6	3.164	A
D - A422	1038	260	594	2016	0.515	1034	851	0.0	1.1	3.741	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	364	91	1570	1083	0.342	363	378	0.3	0.5	5.331	A
B - A509 (E)	1135	284	365	2721	0.417	1134	1568	0.5	0.7	2.360	A
C - A509 London Rd	817	204	913	1775	0.480	816	585	0.6	0.9	3.959	A
D - A422	1240	310	711	1935	0.641	1237	1018	1.1	1.8	5.265	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	446	111	1915	841	0.530	443	461	0.5	1.1	9.337	A
B - A509 (E)	1389	347	446	2659	0.522	1388	1913	0.7	1.1	2.944	A
C - A509 London Rd	1001	250	1118	1631	0.614	998	716	0.9	1.6	5.978	A
D - A422	1518	380	869	1825	0.832	1507	1246	1.8	4.7	11.204	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	446	111	1926	834	0.535	446	463	1.1	1.2	9.618	A
B - A509 (E)	1389	347	448	2658	0.523	1389	1924	1.1	1.1	2.955	A
C - A509 London Rd	1001	250	1120	1629	0.614	1001	718	1.6	1.7	6.046	A
D - A422	1518	380	872	1823	0.833	1518	1248	4.7	4.9	12.008	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	384	91	1585	1053	0.346	387	381	1.2	0.6	5.457	A
B - A509 (E)	1135	284	368	2719	0.417	1136	1584	1.1	0.7	2.372	A
C - A509 London Rd	817	204	916	1773	0.461	820	588	1.7	0.9	4.003	A
D - A422	1240	310	715	1932	0.642	1252	1022	4.9	1.9	5.517	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	305	76	1321	1224	0.249	306	318	0.6	0.3	4.072	A
B - A509 (E)	950	238	307	2766	0.344	951	1319	0.7	0.5	2.066	A
C - A509 London Rd	684	171	766	1879	0.364	686	492	0.9	0.6	3.188	A
D - A422	1038	260	597	2013	0.516	1041	855	1.9	1.1	3.808	A

2048 Do Something, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	10.13	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	704	100.000
B - A509 (E)		ONE HOUR	✓	1038	100.000
C - A509 London Rd		ONE HOUR	✓	721	100.000
D - A422		ONE HOUR	✓	1882	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	188	516
	B - A509 (E)	0	0	4	1034
	C - A509 London Rd	309	4	0	408
	D - A422	295	480	900	7

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	6	1
	B - A509 (E)	0	0	98	7
	C - A509 London Rd	6	8	0	18
	D - A422	1	9	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.71	11.72	2.5	B	646	989
B - A509 (E)	0.70	7.74	2.4	A	952	1429
C - A509 London Rd	0.66	9.71	2.1	A	662	992
D - A422	0.85	11.11	5.5	B	1543	2315

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	530	133	1043	1403	0.378	528	453	0.0	0.6	4.197	A
B - A509 (E)	781	195	1208	2074	0.377	779	363	0.0	0.6	2.972	A
C - A509 London Rd	543	136	1168	1595	0.340	541	819	0.0	0.6	3.829	A
D - A422	1266	317	235	2265	0.559	1261	1474	0.0	1.3	3.739	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	633	158	1248	1271	0.498	631	542	0.6	1.0	5.746	A
B - A509 (E)	933	233	1445	1892	0.493	932	434	0.6	1.0	4.010	A
C - A509 London Rd	648	162	1397	1434	0.452	647	979	0.6	0.9	5.137	A
D - A422	1512	378	281	2233	0.677	1509	1763	1.3	2.2	5.187	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	775	194	1521	1095	0.708	770	661	1.0	2.4	11.143	B
B - A509 (E)	1143	286	1761	1649	0.693	1138	529	1.0	2.4	7.463	A
C - A509 London Rd	794	198	1705	1217	0.656	789	1194	0.9	2.1	9.379	A
D - A422	1852	463	343	2190	0.846	1839	2152	2.2	5.3	10.397	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	775	194	1531	1088	0.712	775	665	2.4	2.5	11.717	B
B - A509 (E)	1143	286	1773	1640	0.697	1143	533	2.4	2.4	7.743	A
C - A509 London Rd	794	198	1714	1210	0.656	794	1202	2.1	2.1	9.706	A
D - A422	1852	463	345	2189	0.846	1851	2163	5.3	5.5	11.112	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	833	158	1261	1262	0.502	639	547	2.5	1.0	5.962	A
B - A509 (E)	933	233	1461	1880	0.496	939	439	2.4	1.1	4.122	A
C - A509 London Rd	648	162	1409	1425	0.455	653	990	2.1	0.9	5.275	A
D - A422	1512	378	283	2231	0.678	1525	1779	5.5	2.2	5.445	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	530	133	1050	1398	0.379	532	456	1.0	0.6	4.259	A
B - A509 (E)	781	195	1216	2068	0.378	783	365	1.1	0.7	3.007	A
C - A509 London Rd	543	136	1175	1590	0.341	544	824	0.9	0.6	3.877	A
D - A422	1266	317	236	2264	0.559	1270	1483	2.2	1.3	3.809	A

2048 Do Something, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A509 London Rd - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tickford Roundabout	Standard Roundabout		A, B, C, D	10.94	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B256 London Rd		ONE HOUR	✓	541	100.000
B - A509 (E)		ONE HOUR	✓	1623	100.000
C - A509 London Rd		ONE HOUR	✓	723	100.000
D - A422		ONE HOUR	✓	1559	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	2	379	160
	B - A509 (E)	104	0	406	1113
	C - A509 London Rd	234	328	0	161
	D - A422	229	1163	167	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - B256 London Rd	B - A509 (E)	C - A509 London Rd	D - A422
From	A - B256 London Rd	0	0	4	1
	B - A509 (E)	0	0	4	2
	C - A509 London Rd	7	2	0	12
	D - A422	0	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - B256 London Rd	0.66	12.16	2.0	B	496	745
B - A509 (E)	0.74	5.95	2.9	A	1489	2234
C - A509 London Rd	0.59	6.87	1.5	A	663	995
D - A422	0.89	17.59	8.0	C	1431	2146

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	407	102	1243	1274	0.320	405	425	0.0	0.5	4.263	A
B - A509 (E)	1222	305	529	2595	0.471	1218	1119	0.0	0.9	2.669	A
C - A509 London Rd	544	136	1033	1690	0.322	542	714	0.0	0.5	3.309	A
D - A422	1174	293	500	2081	0.564	1168	1076	0.0	1.3	4.026	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	486	122	1487	1117	0.435	485	509	0.5	0.8	5.864	A
B - A509 (E)	1459	365	633	2516	0.580	1457	1339	0.9	1.4	3.476	A
C - A509 London Rd	650	162	1236	1547	0.420	649	854	0.5	0.8	4.231	A
D - A422	1402	350	598	2013	0.696	1398	1287	1.3	2.3	5.967	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	596	149	1807	911	0.654	591	620	0.8	1.9	11.463	B
B - A509 (E)	1787	447	771	2410	0.742	1781	1627	1.4	2.9	5.807	A
C - A509 London Rd	796	199	1510	1354	0.588	793	1041	0.8	1.5	6.752	A
D - A422	1716	429	731	1921	0.894	1696	1573	2.3	7.4	15.224	C

17:30 - 17:45

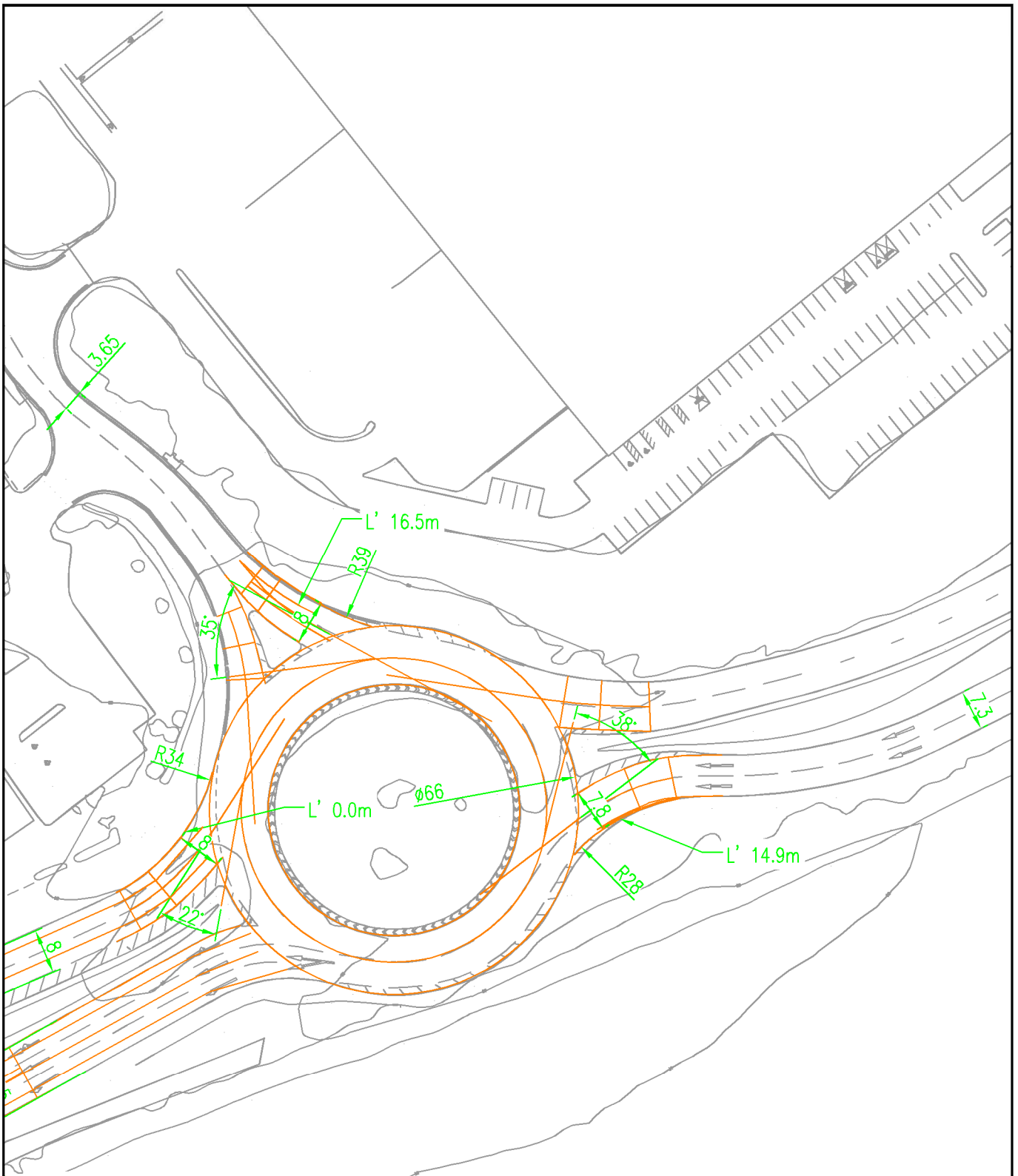
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	596	149	1824	900	0.662	595	624	1.9	2.0	12.155	B
B - A509 (E)	1787	447	777	2405	0.743	1787	1642	2.9	2.9	5.955	A
C - A509 London Rd	796	199	1516	1350	0.590	796	1048	1.5	1.5	6.865	A
D - A422	1716	429	733	1919	0.894	1714	1579	7.4	8.0	17.592	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	486	122	1511	1101	0.442	491	514	2.0	0.8	6.123	A
B - A509 (E)	1459	365	642	2509	0.582	1465	1360	2.9	1.4	3.548	A
C - A509 London Rd	650	162	1244	1542	0.422	653	863	1.5	0.8	4.293	A
D - A422	1402	350	601	2011	0.697	1424	1295	8.0	2.4	6.529	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - B256 London Rd	407	102	1252	1268	0.321	409	428	0.8	0.5	4.327	A
B - A509 (E)	1222	305	533	2592	0.471	1224	1128	1.4	0.9	2.696	A
C - A509 London Rd	544	136	1039	1687	0.323	545	719	0.8	0.5	3.336	A
D - A422	1174	293	502	2079	0.565	1178	1082	2.4	1.3	4.119	A



ROUNDBOUT GEOMETRY – RENNY LODGE ROUNDBOUT (ref E8)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
A509 (E)	7.30	7.80	14.90	28.00	66.00	38.00
A509 (W)	8.00	8.00	0.00	34.00	66.00	22.00
RENNY PARK RD	3.65	8.00	16.50	39.00	66.00	35.00

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 8.Renny Lodge Roundabout.j9
Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions
Report generation date: 25/03/2021 12:54:07

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Renny Park Rd	0.1	2.97	0.07	A	0.6	6.19	0.37	A
B - A509 (E)	2.7	5.99	0.72	A	1.3	4.06	0.55	A
C - A509 (W)	0.6	2.59	0.32	A	1.9	4.29	0.65	A
2031 Do Minimum								
A - Renny Park Rd	0.1	2.96	0.08	A	0.9	7.37	0.47	A
B - A509 (E)	2.8	6.10	0.73	A	1.4	4.29	0.57	A
C - A509 (W)	0.6	2.61	0.33	A	1.9	4.24	0.64	A
2048 Do Minimum								
A - Renny Park Rd	0.1	2.73	0.11	A	1.3	8.22	0.56	A
B - A509 (E)	3.4	7.04	0.77	A	3.6	8.39	0.78	A
C - A509 (W)	0.3	2.21	0.24	A	1.7	4.11	0.62	A
2031 Do Something								
A - Renny Park Rd	0.1	2.93	0.09	A	0.7	7.61	0.40	A
B - A509 (E)	1.5	4.04	0.59	A	2.4	5.85	0.71	A
C - A509 (W)	0.4	2.25	0.28	A	4.3	8.58	0.81	A
2048 Do Something								
A - Renny Park Rd	0.5	3.48	0.32	A	1.3	8.16	0.56	A
B - A509 (E)	2.1	5.01	0.67	A	5.1	11.22	0.84	B
C - A509 (W)	0.3	2.26	0.24	A	2.1	4.95	0.67	A

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

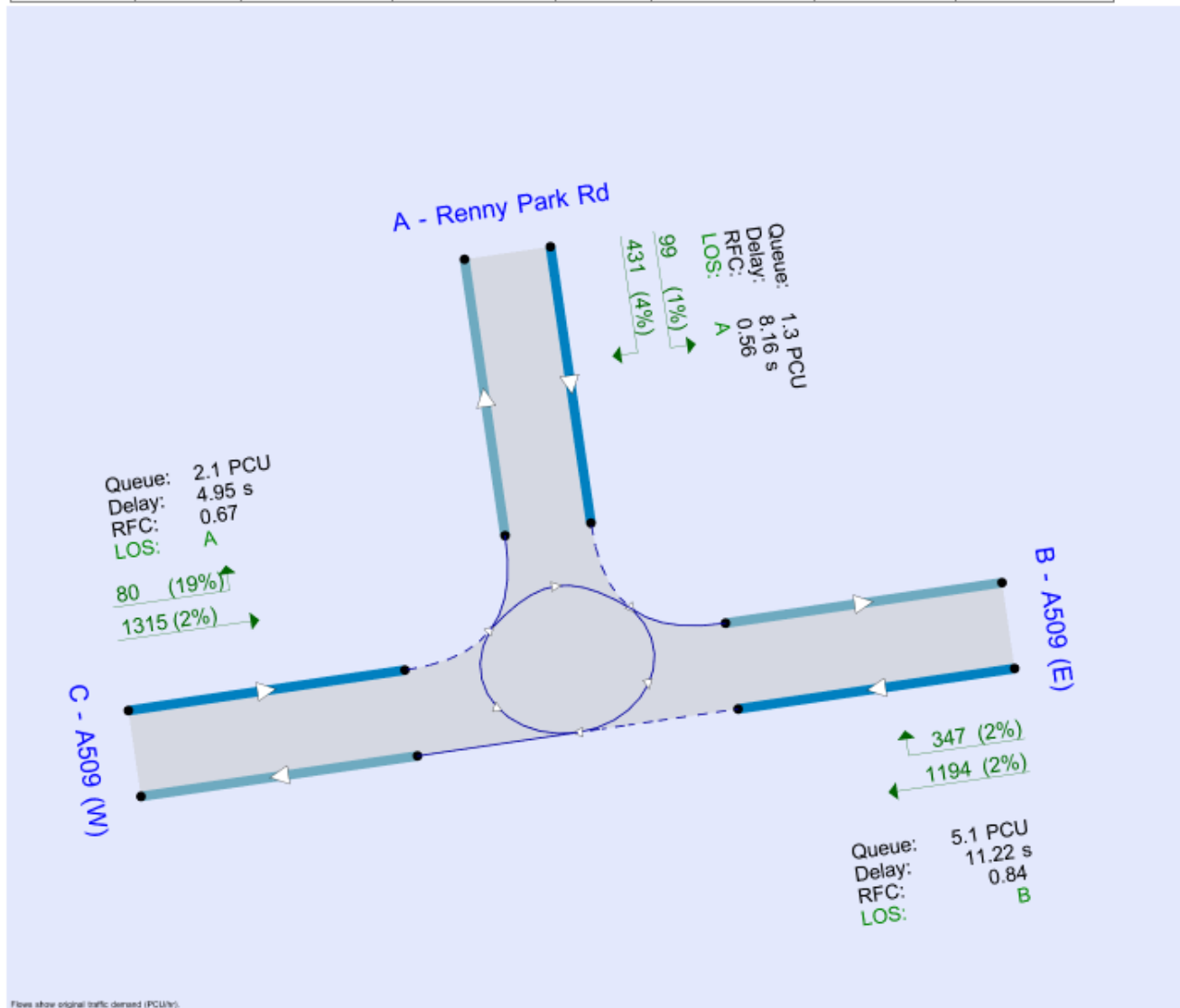
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\UKRJM015
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	4.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Renny Park Rd	
B	A509 (E)	
C	A509 (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Renny Park Rd	3.65	8.00	16.5	39.0	66.0	35.0	
B - A509 (E)	7.30	7.80	14.9	28.0	66.0	38.0	
C - A509 (W)	8.00	8.00	0.0	34.0	66.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Renny Park Rd	0.548	1833
B - A509 (E)	0.622	2316
C - A509 (W)	0.674	2540

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	92	100.000
B - A509 (E)		ONE HOUR	✓	1503	100.000
C - A509 (W)		ONE HOUR	✓	722	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Renny Park Rd	B - A509 (E)	C - A509 (W)	
A - Renny Park Rd	0	78	14	
B - A509 (E)	111	0	1392	
C - A509 (W)	23	699	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Renny Park Rd	B - A509 (E)	C - A509 (W)	
A - Renny Park Rd	0	0	97	
B - A509 (E)	4	0	9	
C - A509 (W)	100	18	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.07	2.97	0.1	A	84	127
B - A509 (E)	0.72	5.99	2.7	A	1379	2089
C - A509 (W)	0.32	2.59	0.6	A	663	994

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	89	17	525	1545	0.045	89	101	0.0	0.1	2.636	A
B - A509 (E)	1132	283	11	2310	0.490	1127	584	0.0	1.0	3.297	A
C - A509 (W)	544	136	83	2484	0.219	542	1055	0.0	0.3	2.216	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	83	21	628	1489	0.056	83	120	0.1	0.1	2.767	A
B - A509 (E)	1351	338	13	2309	0.585	1349	698	1.0	1.5	4.068	A
C - A509 (W)	649	162	100	2473	0.262	649	1262	0.3	0.4	2.359	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	101	25	789	1411	0.072	101	147	0.1	0.1	2.989	A
B - A509 (E)	1655	414	15	2307	0.717	1650	855	1.5	2.7	5.912	A
C - A509 (W)	795	199	122	2458	0.323	794	1544	0.4	0.6	2.587	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	101	25	770	1411	0.072	101	148	0.1	0.1	2.970	A
B - A509 (E)	1655	414	15	2307	0.717	1655	855	2.7	2.7	5.994	A
C - A509 (W)	795	199	122	2458	0.323	795	1548	0.6	0.6	2.587	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	83	21	629	1488	0.056	83	121	0.1	0.1	2.768	A
B - A509 (E)	1351	338	13	2308	0.585	1356	699	2.7	1.5	4.124	A
C - A509 (W)	649	162	100	2473	0.263	650	1268	0.6	0.4	2.361	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	69	17	527	1544	0.045	69	101	0.1	0.1	2.640	A
B - A509 (E)	1132	283	11	2310	0.490	1134	585	1.5	1.1	3.329	A
C - A509 (W)	544	136	84	2484	0.219	544	1080	0.4	0.3	2.218	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	4.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	323	100.000
B - A509 (E)		ONE HOUR	✓	1058	100.000
C - A509 (W)		ONE HOUR	✓	1442	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	29	294
	B - A509 (E)	114	0	944
	C - A509 (W)	11	1431	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	1	6
	B - A509 (E)	1	0	8
	C - A509 (W)	100	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.37	6.19	0.6	A	296	445
B - A509 (E)	0.55	4.06	1.3	A	971	1456
C - A509 (W)	0.65	4.29	1.9	A	1323	1985

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	243	61	1074	1244	0.195	242	94	0.0	0.3	3.788	A
B - A509 (E)	797	199	220	2179	0.366	794	1096	0.0	0.6	2.781	A
C - A509 (W)	1086	271	86	2482	0.437	1082	929	0.0	0.8	2.653	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	290	73	1285	1129	0.257	290	112	0.3	0.4	4.528	A
B - A509 (E)	951	238	264	2152	0.442	950	1311	0.6	0.8	3.209	A
C - A509 (W)	1296	324	102	2471	0.525	1295	1112	0.8	1.1	3.162	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	356	89	1573	971	0.366	355	137	0.4	0.6	6.144	A
B - A509 (E)	1165	291	323	2116	0.551	1163	1604	0.8	1.3	4.044	A
C - A509 (W)	1588	397	125	2456	0.647	1585	1361	1.1	1.9	4.258	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	356	89	1576	970	0.367	356	138	0.6	0.6	6.187	A
B - A509 (E)	1165	291	324	2115	0.551	1165	1607	1.3	1.3	4.061	A
C - A509 (W)	1588	397	126	2456	0.647	1588	1363	1.9	1.9	4.287	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	290	73	1289	1128	0.258	291	113	0.6	0.4	4.556	A
B - A509 (E)	951	238	265	2151	0.442	953	1315	1.3	0.9	3.224	A
C - A509 (W)	1296	324	103	2471	0.525	1299	1115	1.9	1.1	3.183	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	243	61	1079	1242	0.196	244	94	0.4	0.3	3.807	A
B - A509 (E)	797	199	222	2178	0.366	797	1101	0.9	0.6	2.797	A
C - A509 (W)	1086	271	86	2482	0.437	1087	933	1.1	0.8	2.669	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	4.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	98	100.000
B - A509 (E)		ONE HOUR	✓	1522	100.000
C - A509 (W)		ONE HOUR	✓	703	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	84	14
	B - A509 (E)	244	0	1278
	C - A509 (W)	30	673	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	1	99
	B - A509 (E)	2	0	8
	C - A509 (W)	100	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.08	2.96	0.1	A	90	135
B - A509 (E)	0.73	6.10	2.8	A	1397	2095
C - A509 (W)	0.33	2.61	0.6	A	645	968

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	74	18	505	1556	0.047	74	206	0.0	0.1	2.638	A
B - A509 (E)	1146	286	11	2310	0.496	1142	568	0.0	1.0	3.285	A
C - A509 (W)	529	132	183	2417	0.219	528	969	0.0	0.3	2.193	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	88	22	605	1501	0.059	88	246	0.1	0.1	2.766	A
B - A509 (E)	1368	342	13	2309	0.593	1366	680	1.0	1.5	4.080	A
C - A509 (W)	632	158	219	2393	0.264	632	1160	0.3	0.4	2.353	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	108	27	740	1427	0.076	108	301	0.1	0.1	2.964	A
B - A509 (E)	1676	419	15	2307	0.726	1671	833	1.5	2.8	6.010	A
C - A509 (W)	774	194	268	2360	0.328	773	1418	0.4	0.6	2.613	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	108	27	741	1427	0.076	108	302	0.1	0.1	2.965	A
B - A509 (E)	1676	419	15	2307	0.726	1676	833	2.8	2.8	6.098	A
C - A509 (W)	774	194	269	2359	0.328	774	1422	0.6	0.6	2.614	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	88	22	606	1501	0.059	88	247	0.1	0.1	2.770	A
B - A509 (E)	1368	342	13	2308	0.593	1373	681	2.8	1.6	4.139	A
C - A509 (W)	632	158	220	2392	0.264	633	1166	0.6	0.4	2.358	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	74	18	507	1555	0.047	74	207	0.1	0.1	2.640	A
B - A509 (E)	1146	286	11	2310	0.496	1148	570	1.6	1.1	3.322	A
C - A509 (W)	529	132	184	2416	0.219	530	974	0.4	0.3	2.197	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	4.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	419	100.000
B - A509 (E)		ONE HOUR	✓	1071	100.000
C - A509 (W)		ONE HOUR	✓	1440	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	50	369
	B - A509 (E)	104	0	967
	C - A509 (W)	13	1427	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	1	5
	B - A509 (E)	1	0	6
	C - A509 (W)	100	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.47	7.37	0.9	A	384	577
B - A509 (E)	0.57	4.29	1.4	A	983	1474
C - A509 (W)	0.64	4.24	1.9	A	1321	1982

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	315	79	1071	1246	0.253	314	88	0.0	0.4	4.032	A
B - A509 (E)	806	202	277	2144	0.376	804	1109	0.0	0.6	2.828	A
C - A509 (W)	1084	271	78	2488	0.436	1081	1002	0.0	0.8	2.642	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	377	94	1282	1131	0.333	376	105	0.4	0.5	4.982	A
B - A509 (E)	963	241	331	2110	0.456	962	1326	0.6	0.9	3.303	A
C - A509 (W)	1295	324	93	2477	0.523	1293	1200	0.8	1.1	3.143	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	461	115	1568	973	0.474	460	129	0.5	0.9	7.299	A
B - A509 (E)	1179	295	405	2065	0.571	1177	1623	0.9	1.4	4.270	A
C - A509 (W)	1585	396	114	2463	0.644	1583	1468	1.1	1.8	4.216	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	461	115	1571	972	0.475	461	129	0.9	0.9	7.367	A
B - A509 (E)	1179	295	406	2064	0.571	1179	1626	1.4	1.4	4.293	A
C - A509 (W)	1585	396	115	2463	0.644	1585	1471	1.8	1.9	4.243	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	377	94	1286	1128	0.334	378	105	0.9	0.5	5.026	A
B - A509 (E)	963	241	333	2109	0.456	965	1331	1.4	0.9	3.326	A
C - A509 (W)	1295	324	94	2477	0.523	1297	1204	1.9	1.1	3.164	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	315	79	1076	1243	0.254	316	88	0.5	0.4	4.060	A
B - A509 (E)	806	202	278	2143	0.376	807	1113	0.9	0.6	2.844	A
C - A509 (W)	1084	271	78	2487	0.436	1085	1007	1.1	0.8	2.658	A

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	5.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	153	100.000
B - A509 (E)		ONE HOUR	✓	1610	100.000
C - A509 (W)		ONE HOUR	✓	515	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	142	11
	B - A509 (E)	268	0	1342
	C - A509 (W)	67	448	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	2	100
	B - A509 (E)	5	0	5
	C - A509 (W)	33	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.11	2.73	0.1	A	140	211
B - A509 (E)	0.77	7.04	3.4	A	1477	2216
C - A509 (W)	0.24	2.21	0.3	A	473	709

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	115	29	337	1648	0.070	115	251	0.0	0.1	2.482	A
B - A509 (E)	1212	303	8	2311	0.524	1207	443	0.0	1.1	3.411	A
C - A509 (W)	388	97	201	2405	0.161	387	1015	0.0	0.2	1.941	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	138	34	403	1612	0.085	137	301	0.1	0.1	2.580	A
B - A509 (E)	1447	362	10	2310	0.627	1445	530	1.1	1.7	4.356	A
C - A509 (W)	463	116	241	2378	0.195	463	1214	0.2	0.3	2.046	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	168	42	493	1563	0.108	168	368	0.1	0.1	2.729	A
B - A509 (E)	1773	443	12	2309	0.768	1766	649	1.7	3.4	6.884	A
C - A509 (W)	567	142	294	2342	0.242	567	1484	0.3	0.3	2.207	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	168	42	493	1562	0.108	168	369	0.1	0.1	2.729	A
B - A509 (E)	1773	443	12	2309	0.768	1772	650	3.4	3.4	7.041	A
C - A509 (W)	567	142	295	2341	0.242	567	1490	0.3	0.3	2.208	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	138	34	403	1612	0.085	138	302	0.1	0.1	2.583	A
B - A509 (E)	1447	362	10	2310	0.627	1454	531	3.4	1.8	4.447	A
C - A509 (W)	463	116	242	2377	0.195	463	1222	0.3	0.3	2.048	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	115	29	337	1648	0.070	115	253	0.1	0.1	2.485	A
B - A509 (E)	1212	303	8	2311	0.524	1215	444	1.8	1.2	3.453	A
C - A509 (W)	388	97	202	2404	0.161	388	1021	0.3	0.2	1.944	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	6.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	520	100.000
B - A509 (E)		ONE HOUR	✓	1431	100.000
C - A509 (W)		ONE HOUR	✓	1352	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	79	441
	B - A509 (E)	208	0	1223
	C - A509 (W)	14	1338	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	1	4
	B - A509 (E)	0	0	3
	C - A509 (W)	100	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.56	8.22	1.3	A	477	716
B - A509 (E)	0.78	8.39	3.6	A	1313	1970
C - A509 (W)	0.62	4.11	1.7	A	1241	1881

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	391	98	1004	1282	0.305	390	166	0.0	0.5	4.166	A
B - A509 (E)	1077	269	330	2111	0.510	1073	1064	0.0	1.1	3.543	A
C - A509 (W)	1018	254	156	2435	0.418	1015	1248	0.0	0.7	2.593	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	467	117	1202	1174	0.398	467	199	0.5	0.7	5.259	A
B - A509 (E)	1286	322	396	2070	0.621	1284	1273	1.1	1.7	4.681	A
C - A509 (W)	1215	304	187	2414	0.503	1214	1493	0.7	1.0	3.072	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	573	143	1471	1027	0.557	570	243	0.7	1.3	8.115	A
B - A509 (E)	1576	394	484	2016	0.782	1568	1557	1.7	3.5	8.114	A
C - A509 (W)	1489	372	228	2387	0.624	1486	1824	1.0	1.7	4.087	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	573	143	1473	1026	0.558	572	244	1.3	1.3	8.222	A
B - A509 (E)	1576	394	485	2014	0.782	1575	1560	3.5	3.6	8.390	A
C - A509 (W)	1489	372	229	2386	0.624	1489	1832	1.7	1.7	4.112	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	467	117	1205	1172	0.399	470	201	1.3	0.7	5.323	A
B - A509 (E)	1286	322	398	2069	0.622	1294	1277	3.6	1.7	4.813	A
C - A509 (W)	1215	304	188	2413	0.504	1218	1504	1.7	1.0	3.093	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	391	98	1009	1280	0.306	392	168	0.7	0.5	4.202	A
B - A509 (E)	1077	269	333	2109	0.511	1080	1088	1.7	1.1	3.596	A
C - A509 (W)	1018	254	157	2434	0.418	1019	1256	1.0	0.7	2.609	A

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	3.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	119	100.000
B - A509 (E)		ONE HOUR	✓	1233	100.000
C - A509 (W)		ONE HOUR	✓	626	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	107	12
	B - A509 (E)	115	0	1118
	C - A509 (W)	32	594	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	4	100
	B - A509 (E)	4	0	7
	C - A509 (W)	100	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.09	2.93	0.1	A	109	184
B - A509 (E)	0.59	4.04	1.5	A	1131	1697
C - A509 (W)	0.28	2.25	0.4	A	574	882

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	90	22	446	1588	0.056	89	110	0.0	0.1	2.624	A
B - A509 (E)	928	232	9	2311	0.402	925	527	0.0	0.7	2.767	A
C - A509 (W)	471	118	86	2482	0.190	470	848	0.0	0.3	1.978	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	107	27	534	1540	0.069	107	132	0.1	0.1	2.744	A
B - A509 (E)	1108	277	11	2310	0.480	1107	630	0.7	1.0	3.192	A
C - A509 (W)	563	141	103	2471	0.228	562	1015	0.3	0.3	2.086	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	131	33	654	1475	0.089	131	162	0.1	0.1	2.927	A
B - A509 (E)	1358	339	13	2308	0.588	1355	771	1.0	1.5	4.023	A
C - A509 (W)	689	172	126	2455	0.281	689	1242	0.3	0.4	2.254	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	131	33	654	1474	0.089	131	162	0.1	0.1	2.928	A
B - A509 (E)	1358	339	13	2308	0.588	1358	772	1.5	1.5	4.041	A
C - A509 (W)	689	172	127	2455	0.281	689	1244	0.4	0.4	2.254	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	107	27	534	1540	0.069	107	132	0.1	0.1	2.747	A
B - A509 (E)	1108	277	11	2310	0.480	1111	631	1.5	1.0	3.211	A
C - A509 (W)	563	141	104	2470	0.228	563	1018	0.4	0.3	2.089	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	90	22	447	1588	0.056	90	111	0.1	0.1	2.628	A
B - A509 (E)	928	232	9	2311	0.402	929	528	1.0	0.7	2.784	A
C - A509 (W)	471	118	87	2482	0.190	472	852	0.3	0.3	1.982	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	7.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	299	100.000
B - A509 (E)		ONE HOUR	✓	1373	100.000
C - A509 (W)		ONE HOUR	✓	1672	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	44	255
	B - A509 (E)	368	0	1007
	C - A509 (W)	11	1661	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	1	7
	B - A509 (E)	1	0	3
	C - A509 (W)	100	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.40	7.61	0.7	A	274	412
B - A509 (E)	0.71	5.85	2.4	A	1260	1890
C - A509 (W)	0.81	8.58	4.3	A	1534	2301

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	225	56	1246	1150	0.196	224	283	0.0	0.3	4.119	A
B - A509 (E)	1034	258	191	2198	0.470	1030	1279	0.0	0.9	3.151	A
C - A509 (W)	1259	315	275	2355	0.534	1254	947	0.0	1.2	3.332	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	269	67	1490	1016	0.265	268	338	0.3	0.4	5.103	A
B - A509 (E)	1234	309	229	2174	0.568	1233	1530	0.9	1.3	3.910	A
C - A509 (W)	1503	376	329	2319	0.648	1500	1133	1.2	1.9	4.485	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	329	82	1820	836	0.394	328	414	0.4	0.7	7.500	A
B - A509 (E)	1512	378	280	2142	0.706	1507	1868	1.3	2.4	5.770	A
C - A509 (W)	1841	460	402	2269	0.811	1832	1385	1.9	4.2	8.241	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	329	82	1828	831	0.396	329	415	0.7	0.7	7.609	A
B - A509 (E)	1512	378	281	2142	0.706	1512	1877	2.4	2.4	5.851	A
C - A509 (W)	1841	460	403	2269	0.811	1841	1389	4.2	4.3	8.580	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	269	67	1503	1009	0.266	270	340	0.7	0.4	5.174	A
B - A509 (E)	1234	309	230	2173	0.568	1239	1542	2.4	1.4	3.965	A
C - A509 (W)	1503	376	330	2318	0.649	1513	1139	4.3	1.9	4.628	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	225	56	1253	1146	0.196	226	284	0.4	0.3	4.152	A
B - A509 (E)	1034	258	192	2197	0.471	1035	1287	1.4	0.9	3.180	A
C - A509 (W)	1259	315	276	2354	0.535	1262	952	1.9	1.2	3.380	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	4.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	478	100.000
B - A509 (E)		ONE HOUR	✓	1407	100.000
C - A509 (W)		ONE HOUR	✓	484	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	466	12
	B - A509 (E)	381	0	1026
	C - A509 (W)	150	334	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	6	45
	B - A509 (E)	5	0	6
	C - A509 (W)	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.32	3.48	0.5	A	439	658
B - A509 (E)	0.67	5.01	2.1	A	1291	1937
C - A509 (W)	0.24	2.26	0.3	A	444	666

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	360	90	251	1695	0.212	359	399	0.0	0.3	2.872	A
B - A509 (E)	1059	265	9	2311	0.458	1056	601	0.0	0.9	3.024	A
C - A509 (W)	364	91	286	2348	0.155	364	779	0.0	0.2	1.967	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	430	107	300	1668	0.258	429	477	0.3	0.4	3.101	A
B - A509 (E)	1265	316	11	2310	0.548	1263	719	0.9	1.3	3.633	A
C - A509 (W)	435	109	342	2310	0.188	435	932	0.2	0.3	2.083	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	526	132	368	1631	0.323	526	584	0.4	0.5	3.473	A
B - A509 (E)	1549	387	13	2308	0.671	1546	880	1.3	2.1	4.969	A
C - A509 (W)	533	133	419	2258	0.236	533	1140	0.3	0.3	2.263	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	526	132	368	1631	0.323	526	585	0.5	0.5	3.476	A
B - A509 (E)	1549	387	13	2308	0.671	1549	881	2.1	2.1	5.014	A
C - A509 (W)	533	133	419	2258	0.236	533	1143	0.3	0.3	2.264	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	430	107	300	1668	0.258	430	478	0.5	0.4	3.104	A
B - A509 (E)	1265	316	11	2310	0.548	1268	720	2.1	1.3	3.665	A
C - A509 (W)	435	109	343	2309	0.188	435	936	0.3	0.3	2.085	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	360	90	252	1695	0.212	360	400	0.4	0.3	2.881	A
B - A509 (E)	1059	265	9	2311	0.458	1061	603	1.3	0.9	3.050	A
C - A509 (W)	364	91	287	2347	0.155	365	783	0.3	0.2	1.970	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Renny Lodge roundabout	Standard Roundabout		A, B, C	8.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Renny Park Rd		ONE HOUR	✓	530	100.000
B - A509 (E)		ONE HOUR	✓	1541	100.000
C - A509 (W)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	99	431
	B - A509 (E)	347	0	1194
	C - A509 (W)	80	1315	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Renny Park Rd	B - A509 (E)	C - A509 (W)
From	A - Renny Park Rd	0	1	4
	B - A509 (E)	2	0	2
	C - A509 (W)	19	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Renny Park Rd	0.56	8.16	1.3	A	488	730
B - A509 (E)	0.84	11.22	5.1	B	1414	2121
C - A509 (W)	0.67	4.95	2.1	A	1280	1920

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	399	100	987	1292	0.309	397	320	0.0	0.5	4.153	A
B - A509 (E)	1160	290	323	2116	0.548	1155	1061	0.0	1.2	3.805	A
C - A509 (W)	1050	263	260	2365	0.444	1047	1218	0.0	0.8	2.802	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	476	119	1181	1186	0.402	476	383	0.5	0.7	5.236	A
B - A509 (E)	1385	346	387	2076	0.667	1382	1270	1.2	2.0	5.269	A
C - A509 (W)	1254	314	311	2330	0.538	1253	1458	0.8	1.2	3.430	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	584	146	1444	1041	0.560	581	467	0.7	1.3	8.049	A
B - A509 (E)	1697	424	473	2022	0.839	1685	1553	2.0	5.0	10.525	B
C - A509 (W)	1536	384	379	2285	0.672	1532	1778	1.2	2.1	4.898	A

17:30 - 17:45

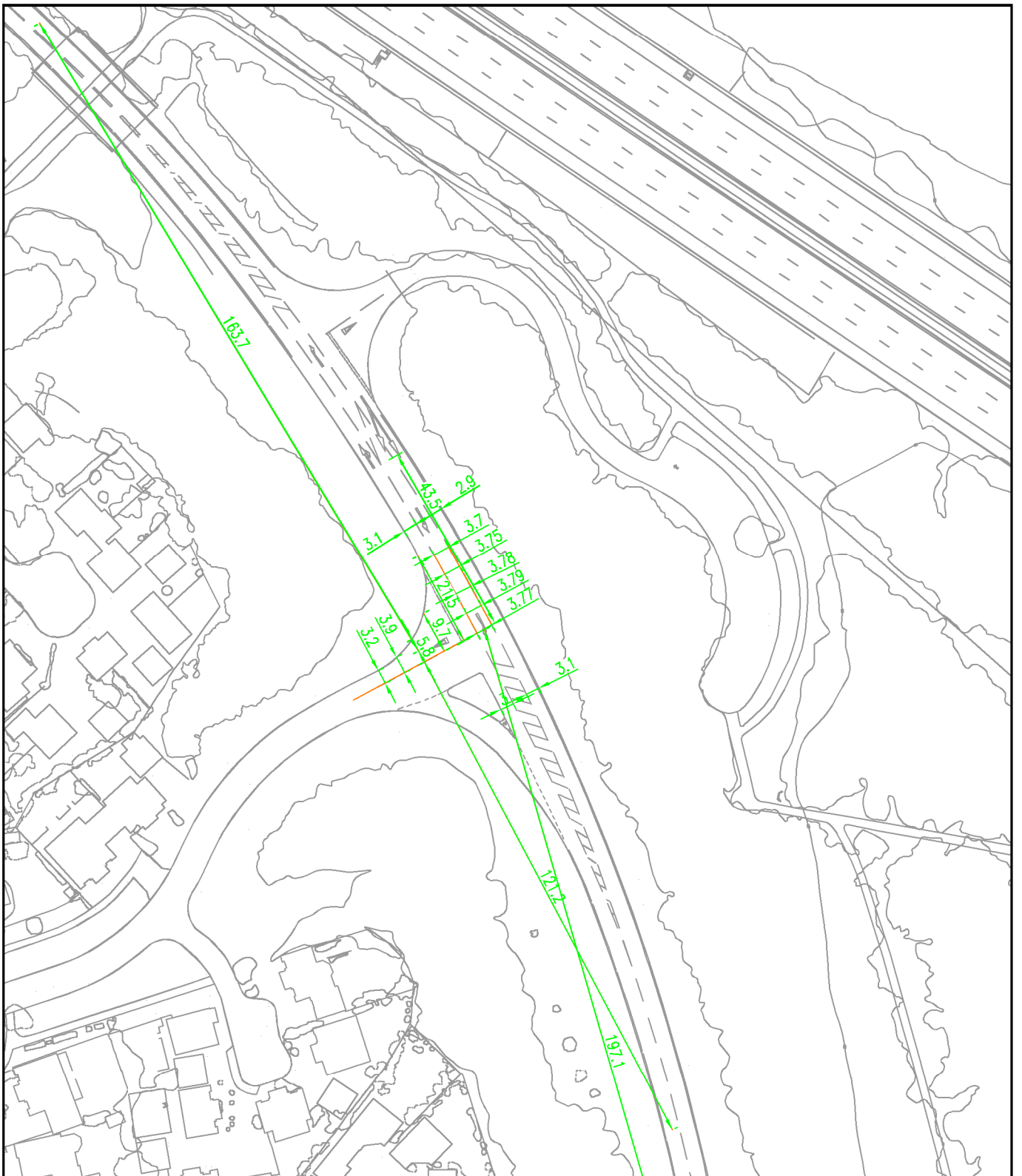
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	584	146	1448	1040	0.561	583	470	1.3	1.3	8.162	A
B - A509 (E)	1697	424	474	2021	0.839	1696	1557	5.0	5.1	11.222	B
C - A509 (W)	1536	384	382	2283	0.673	1536	1789	2.1	2.1	4.954	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	476	119	1185	1183	0.403	479	387	1.3	0.7	5.303	A
B - A509 (E)	1385	346	389	2074	0.668	1398	1275	5.1	2.1	5.520	A
C - A509 (W)	1254	314	315	2328	0.539	1258	1472	2.1	1.2	3.468	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Renny Park Rd	399	100	991	1290	0.309	400	322	0.7	0.5	4.191	A
B - A509 (E)	1160	290	325	2114	0.549	1163	1066	2.1	1.3	3.876	A
C - A509 (W)	1050	263	262	2364	0.444	1052	1227	1.2	0.8	2.824	A



One lane + flare

Major arm – width of carriageway:
 $3.1+2.9+3.0+3.1=12.1/2=6.05(\sim 6m)$

Blocking queue:
 $43.5m/6m(PCU\ length)=7.25(\sim 7\ PCU)$

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 9.Tongwell St-Carleton Gate.j9
 Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions
 Report generation date: 25/03/2021 13:00:33

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	1.4	38.52	0.59	E	0.5	18.10	0.35	C
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2031 Do Minimum								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	5.1	163.44	0.90	F	1.2	42.34	0.55	E
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2048 Do Minimum								
Stream B-C	26.8	2462.52	999999999.00	F	165.2	2541.83	999999999.00	F
Stream B-A	71.8	2409.80	999999999.00	F	85.3	2562.73	999999999.00	F
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2031 Do Something								
Stream B-C	11.0	9674.72	15.81	F	21.2	1468.82	999999999.00	F
Stream B-A	61.7	20880.91	15.30	F	59.5	1441.10	999999999.00	F
Stream C-AB	0.3	13.13	0.25	B	0.1	12.56	0.11	B
2048 Do Something								
Stream B-C	243.3	4093.24	999999999.00	F	171.5	3514.27	999999999.00	F
Stream B-A	50.6	4190.23	999999999.00	F	67.0	3576.00	999999999.00	F
Stream C-AB	1.6	30.99	0.59	D	0.5	21.29	0.33	C

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

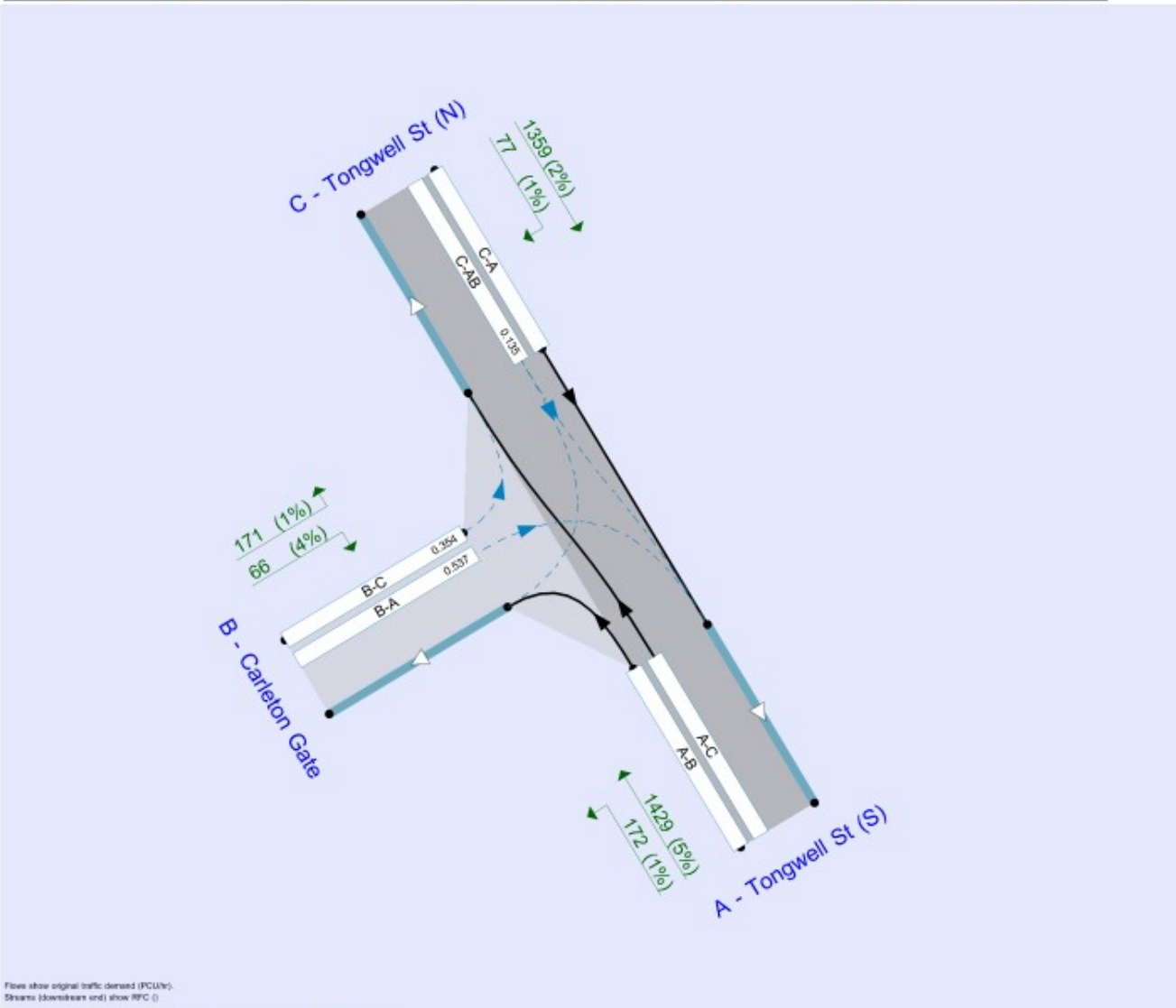
File summary

File Description

Title	
Location	
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\UKFX1001
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D5	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D9	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		2.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Tongwell St (S)		Major
B	Carleton Gate		Minor
C	Tongwell St (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Tongwell St (N)	6.00		✓	3.75	197.1	✓	7.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Carleton Gate	One lane plus flare	10.00	9.70	5.80	3.90	3.20	✓	2.00	164	121

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	679	0.124	0.312	0.197	0.446
1	B-C	735	0.113	0.285	-	-
1	C-B	804	0.312	0.312	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	961	100.000
B - Carleton Gate		ONE HOUR	✓	125	100.000
C - Tongwell St (N)		ONE HOUR	✓	693	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	177	784
	B - Carleton Gate	125	0	0
	C - Tongwell St (N)	693	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	3	4
	B - Carleton Gate	5	0	0
	C - Tongwell St (N)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.59	38.52	1.4	E	115	172
C-AB	0.00	0.00	0.0	A	0	0
C-A					636	954
A-B					162	244
A-C					719	1079

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	517	0.000	0	0.0	0.0	0.000	A
B-A	94	24	375	0.251	93	0.0	0.3	13.319	B
C-AB	0	0	1198	0.000	0	0.0	0.0	0.000	A
C-A	522	130			522				
A-B	133	33			133				
A-C	590	148			590				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	470	0.000	0	0.0	0.0	0.000	A
B-A	112	28	316	0.355	112	0.3	0.6	18.375	C
C-AB	0	0	1107	0.000	0	0.0	0.0	0.000	A
C-A	623	156			623				
A-B	159	40			159				
A-C	705	176			705				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	398	0.000	0	0.0	0.0	0.000	A
B-A	138	34	235	0.588	134	0.6	1.4	36.540	E
C-AB	0	0	982	0.000	0	0.0	0.0	0.000	A
C-A	763	191			763				
A-B	195	49			195				
A-C	863	216			863				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	396	0.000	0	0.0	0.0	0.000	A
B-A	138	34	235	0.588	137	1.4	1.4	38.523	E
C-AB	0	0	982	0.000	0	0.0	0.0	0.000	A
C-A	763	191			763				
A-B	195	49			195				
A-C	863	216			863				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	468	0.000	0	0.0	0.0	0.000	A
B-A	112	28	316	0.355	116	1.4	0.6	19.123	C
C-AB	0	0	1107	0.000	0	0.0	0.0	0.000	A
C-A	623	156			623				
A-B	159	40			159				
A-C	705	176			705				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	517	0.000	0	0.0	0.0	0.000	A
B-A	94	24	375	0.251	95	0.6	0.4	13.536	B
C-AB	0	0	1198	0.000	0	0.0	0.0	0.000	A
C-A	522	130			522				
A-B	133	33			133				
A-C	590	148			590				

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		1.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	624	100.000
B - Carleton Gate		ONE HOUR	✓	100	100.000
C - Tongwell St (N)		ONE HOUR	✓	823	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	149	475
	B - Carleton Gate	100	0	0
	C - Tongwell St (N)	823	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	1	7
	B - Carleton Gate	4	0	0
	C - Tongwell St (N)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.35	18.10	0.5	C	92	138
C-AB	0.00	0.00	0.0	A	0	0
C-A					755	1133
A-B					137	205
A-C					438	654

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	594	0.000	0	0.0	0.0	0.000	A
B-A	75	19	431	0.175	74	0.0	0.2	10.467	B
C-AB	0	0	1349	0.000	0	0.0	0.0	0.000	A
C-A	620	155			620				
A-B	112	28			112				
A-C	358	89			358				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	563	0.000	0	0.0	0.0	0.000	A
B-A	90	22	383	0.235	90	0.2	0.3	12.729	B
C-AB	0	0	1290	0.000	0	0.0	0.0	0.000	A
C-A	740	185			740				
A-B	134	33			134				
A-C	427	107			427				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	518	0.000	0	0.0	0.0	0.000	A
B-A	110	28	317	0.347	109	0.3	0.5	17.949	C
C-AB	0	0	1210	0.000	0	0.0	0.0	0.000	A
C-A	906	227			906				
A-B	164	41			164				
A-C	523	131			523				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	517	0.000	0	0.0	0.0	0.000	A
B-A	110	28	317	0.347	110	0.5	0.5	18.099	C
C-AB	0	0	1210	0.000	0	0.0	0.0	0.000	A
C-A	906	227			906				
A-B	164	41			164				
A-C	523	131			523				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	562	0.000	0	0.0	0.0	0.000	A
B-A	90	22	383	0.235	91	0.5	0.3	12.838	B
C-AB	0	0	1290	0.000	0	0.0	0.0	0.000	A
C-A	740	185			740				
A-B	134	33			134				
A-C	427	107			427				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	593	0.000	0	0.0	0.0	0.000	A
B-A	75	19	431	0.175	76	0.3	0.2	10.540	B
C-AB	0	0	1349	0.000	0	0.0	0.0	0.000	A
C-A	620	155			620				
A-B	112	28			112				
A-C	358	89			358				

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		8.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1173	100.000
B - Carleton Gate		ONE HOUR	✓	109	100.000
C - Tongwell St (N)		ONE HOUR	✓	840	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	189	984
	B - Carleton Gate	109	0	0
	C - Tongwell St (N)	840	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	3	5
	B - Carleton Gate	6	0	0
	C - Tongwell St (N)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.90	163.44	5.1	F	100	150
C-AB	0.00	0.00	0.0	A	0	0
C-A					771	1156
A-B					173	260
A-C					903	1354

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	474	0.000	0	0.0	0.0	0.000	A
B-A	82	21	305	0.269	81	0.0	0.4	16.869	C
C-AB	0	0	1085	0.000	0	0.0	0.0	0.000	A
C-A	632	158			632				
A-B	142	36			142				
A-C	741	185			741				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	414	0.000	0	0.0	0.0	0.000	A
B-A	98	24	233	0.421	97	0.4	0.7	27.719	D
C-AB	0	0	975	0.000	0	0.0	0.0	0.000	A
C-A	755	189			755				
A-B	170	42			170				
A-C	885	221			885				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	310	0.000	0	0.0	0.0	0.000	A
B-A	120	30	133	0.905	107	0.7	4.0	116.696	F
C-AB	0	0	824	0.000	0	0.0	0.0	0.000	A
C-A	925	231			925				
A-B	208	52			208				
A-C	1083	271			1083				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	302	0.000	0	0.0	0.0	0.000	A
B-A	120	30	133	0.905	115	4.0	5.1	163.437	F
C-AB	0	0	824	0.000	0	0.0	0.0	0.000	A
C-A	925	231			925				
A-B	208	52			208				
A-C	1083	271			1083				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	405	0.000	0	0.0	0.0	0.000	A
B-A	98	24	233	0.421	115	5.1	0.8	36.611	E
C-AB	0	0	975	0.000	0	0.0	0.0	0.000	A
C-A	755	189			755				
A-B	170	42			170				
A-C	885	221			885				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	473	0.000	0	0.0	0.0	0.000	A
B-A	82	21	305	0.269	84	0.8	0.4	17.345	C
C-AB	0	0	1085	0.000	0	0.0	0.0	0.000	A
C-A	632	158			632				
A-B	142	36			142				
A-C	741	185			741				

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		2.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	852	100.000
B - Carleton Gate		ONE HOUR	✓	98	100.000
C - Tongwell St (N)		ONE HOUR	✓	1022	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	150	702
	B - Carleton Gate	98	0	0
	C - Tongwell St (N)	1022	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	2	6
	B - Carleton Gate	4	0	0
	C - Tongwell St (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.55	42.34	1.2	E	90	135
C-AB	0.00	0.00	0.0	A	0	0
C-A					938	1407
A-B					138	206
A-C					644	966

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	542	0.000	0	0.0	0.0	0.000	A
B-A	74	18	348	0.212	73	0.0	0.3	13.531	B
C-AB	0	0	1227	0.000	0	0.0	0.0	0.000	A
C-A	769	192			769				
A-B	113	28			113				
A-C	529	132			529				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	498	0.000	0	0.0	0.0	0.000	A
B-A	88	22	284	0.310	87	0.3	0.5	18.949	C
C-AB	0	0	1148	0.000	0	0.0	0.0	0.000	A
C-A	919	230			919				
A-B	135	34			135				
A-C	631	158			631				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	427	0.000	0	0.0	0.0	0.000	A
B-A	108	27	196	0.552	105	0.5	1.2	40.175	E
C-AB	0	0	1039	0.000	0	0.0	0.0	0.000	A
C-A	1125	281			1125				
A-B	165	41			165				
A-C	773	193			773				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	425	0.000	0	0.0	0.0	0.000	A
B-A	108	27	196	0.552	108	1.2	1.2	42.340	E
C-AB	0	0	1039	0.000	0	0.0	0.0	0.000	A
C-A	1125	281			1125				
A-B	165	41			165				
A-C	773	193			773				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	496	0.000	0	0.0	0.0	0.000	A
B-A	88	22	284	0.310	91	1.2	0.5	19.657	C
C-AB	0	0	1148	0.000	0	0.0	0.0	0.000	A
C-A	919	230			919				
A-B	135	34			135				
A-C	631	158			631				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	541	0.000	0	0.0	0.0	0.000	A
B-A	74	18	348	0.212	75	0.5	0.3	13.716	B
C-AB	0	0	1227	0.000	0	0.0	0.0	0.000	A
C-A	769	192			769				
A-B	113	28			113				
A-C	529	132			529				

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		95.89	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1828	100.000
B - Carleton Gate		ONE HOUR	✓	122	100.000
C - Tongwell St (N)		ONE HOUR	✓	1334	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	306	1322
	B - Carleton Gate	89	0	33
	C - Tongwell St (N)	1334	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	2	4
	B - Carleton Gate	7	0	0
	C - Tongwell St (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	999999999.00	2462.52	26.8	F	30	45
B-A	999999999.00	2409.80	71.8	F	82	123
C-AB	0.00	0.00	0.0	A	0	0
C-A					1224	1836
A-B					281	421
A-C					1213	1820

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	366	0.068	25	0.0	0.1	10.526	B
B-A	67	17	140	0.479	63	0.0	0.9	48.509	E
C-AB	0	0	857	0.000	0	0.0	0.0	0.000	A
C-A	1004	251			1004				
A-B	230	58			230				
A-C	995	249			995				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	7	13	2.228	11	0.1	4.7	2106.658	F
B-A	80	20	37	2.154	35	0.9	12.1	1865.356	F
C-AB	0	0	707	0.000	0	0.0	0.0	0.000	A
C-A	1199	300			1199				
A-B	275	69			275				
A-C	1188	297			1188				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	9	0	999999999.000	0	4.7	13.8	1502.082	F
B-A	98	24	0	999999999.000	0	12.1	36.6	1476.953	F
C-AB	0	0	499	0.000	0	0.0	0.0	0.000	A
C-A	1469	367			1469				
A-B	337	84			337				
A-C	1456	364			1456				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	9	0	999999999.000	0	13.8	22.9	1334.248	F
B-A	98	24	0	999999999.000	0	36.6	61.1	1310.809	F
C-AB	0	0	499	0.000	0	0.0	0.0	0.000	A
C-A	1469	367			1469				
A-B	337	84			337				
A-C	1456	364			1456				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	7	14	2.140	14	22.9	26.8	2462.518	F
B-A	80	20	37	2.156	37	61.1	71.8	2409.801	F
C-AB	0	0	707	0.000	0	0.0	0.0	0.000	A
C-A	1199	300			1199				
A-B	275	69			275				
A-C	1188	297			1188				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	52	0.478	50	26.8	20.5	1710.198	F
B-A	67	17	139	0.481	137	71.8	54.3	1656.565	F
C-AB	0	0	857	0.000	0	0.0	0.0	0.000	A
C-A	1004	251			1004				
A-B	230	58			230				
A-C	995	249			995				

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		300.46	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1518	100.000
B - Carleton Gate		ONE HOUR	✓	380	100.000
C - Tongwell St (N)		ONE HOUR	✓	1176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	256	1262
	B - Carleton Gate	122	0	238
	C - Tongwell St (N)	1176	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	1	2
	B - Carleton Gate	3	0	0
	C - Tongwell St (N)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	999999999.00	2541.83	165.2	F	218	328
B-A	999999999.00	2562.73	85.3	F	112	168
C-AB	0.00	0.00	0.0	A	0	0
C-A					1079	1619
A-B					235	352
A-C					1158	1737

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	179	45	402	0.445	176	0.0	0.8	15.706	C
B-A	92	23	170	0.539	88	0.0	1.1	42.841	E
C-AB	0	0	910	0.000	0	0.0	0.0	0.000	A
C-A	885	221			885				
A-B	193	48			193				
A-C	950	238			950				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	214	53	149	1.434	143	0.8	18.5	877.102	F
B-A	110	27	78	1.400	73	1.1	10.2	989.912	F
C-AB	0	0	769	0.000	0	0.0	0.0	0.000	A
C-A	1057	284			1057				
A-B	230	58			230				
A-C	1135	284			1135				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	262	68	0	999999999.000	0	18.5	84.0	815.658	F
B-A	134	34	0	999999999.000	0	10.2	43.8	818.687	F
C-AB	0	0	575	0.000	0	0.0	0.0	0.000	A
C-A	1295	324			1295				
A-B	282	70			282				
A-C	1389	347			1389				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	262	68	0	999999999.000	0	84.0	149.5	811.866	F
B-A	134	34	0	999999999.000	0	43.8	77.4	812.812	F
C-AB	0	0	575	0.000	0	0.0	0.0	0.000	A
C-A	1295	324			1295				
A-B	282	70			282				
A-C	1389	347			1389				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	214	53	151	1.414	151	149.5	165.2	2541.829	F
B-A	110	27	78	1.404	78	77.4	85.3	2562.728	F
C-AB	0	0	769	0.000	0	0.0	0.0	0.000	A
C-A	1057	264			1057				
A-B	230	58			230				
A-C	1135	284			1135				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	179	45	265	0.677	263	165.2	144.2	2117.941	F
B-A	92	23	136	0.673	135	85.3	74.5	2136.079	F
C-AB	0	0	910	0.000	0	0.0	0.0	0.000	A
C-A	885	221			885				
A-B	193	48			193				
A-C	950	238			950				

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		1032.33	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1245	100.000
B - Carleton Gate		ONE HOUR	✓	136	100.000
C - Tongwell St (N)		ONE HOUR	✓	1143	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	142	1103
	B - Carleton Gate	115	0	21
	C - Tongwell St (N)	1057	88	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	2	6
	B - Carleton Gate	5	0	7
	C - Tongwell St (N)	7	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	15.81	9674.72	11.0	F	19	29
B-A	15.30	20880.91	61.7	F	106	158
C-AB	0.25	13.13	0.3	B	79	118
C-A					970	1455
A-B					130	195
A-C					1012	1518

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	429	0.037	16	0.0	0.0	9.312	A
B-A	87	22	220	0.393	84	0.0	0.6	27.257	D
C-AB	65	16	512	0.126	64	0.0	0.1	8.266	A
C-A	796	199			796				
A-B	107	27			107				
A-C	830	208			830				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	208	0.091	19	0.0	0.1	20.316	C
B-A	103	26	131	0.787	96	0.6	2.6	91.842	F
C-AB	77	19	455	0.170	77	0.1	0.2	9.793	A
C-A	950	238			950				
A-B	128	32			128				
A-C	992	248			992				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	1	15.805	1	0.1	5.6	9674.716	F
B-A	127	32	9	14.872	8	2.6	32.1	7808.867	F
C-AB	95	24	377	0.251	94	0.2	0.3	13.078	B
C-A	1164	291			1164				
A-B	156	39			156				
A-C	1214	304			1214				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	1	15.698	1	5.6	11.0	2094.699	F
B-A	127	32	8	15.298	8	32.1	61.7	20880.912	F
C-AB	95	24	377	0.251	95	0.3	0.3	13.126	B
C-A	1164	291			1164				
A-B	156	39			156				
A-C	1214	304			1214				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	23	0.804	21	11.0	10.4	1425.203	F
B-A	103	28	131	0.790	129	61.7	55.4	1342.007	F
C-AB	77	19	455	0.170	78	0.3	0.2	9.832	A
C-A	950	238			950				
A-B	128	32			128				
A-C	992	248			992				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	41	0.388	37	10.4	5.1	787.267	F
B-A	87	22	220	0.394	215	55.4	23.2	664.673	F
C-AB	65	16	512	0.126	65	0.2	0.2	8.297	A
C-A	796	199			796				
A-B	107	27			107				
A-C	830	208			830				

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		80.07	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1389	100.000
B - Carleton Gate		ONE HOUR	✓	141	100.000
C - Tongwell St (N)		ONE HOUR	✓	1028	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	84	1305
	B - Carleton Gate	103	0	38
	C - Tongwell St (N)	994	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	1	4
	B - Carleton Gate	3	0	4
	C - Tongwell St (N)	4	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	999999999.00	1468.82	21.2	F	35	52
B-A	999999999.00	1441.10	59.5	F	95	142
C-AB	0.11	12.56	0.1	B	29	44
C-A					912	1368
A-B					77	116
A-C					1197	1796

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	7	407	0.070	28	0.0	0.1	9.889	A
B-A	78	19	203	0.382	75	0.0	0.6	28.453	D
C-AB	24	6	478	0.050	24	0.0	0.1	8.076	A
C-A	748	187			748				
A-B	63	16			63				
A-C	982	246			982				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	175	0.196	33	0.1	0.2	26.421	D
B-A	93	23	113	0.822	84	0.6	2.8	108.688	F
C-AB	29	7	415	0.069	29	0.1	0.1	9.500	A
C-A	894	223			894				
A-B	76	19			76				
A-C	1173	293			1173				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	10	0	999999999.000	0	0.2	10.7	48.238	E
B-A	113	28	0	999999999.000	0	2.8	31.1	12.882	B
C-AB	35	9	328	0.108	35	0.1	0.1	12.540	B
C-A	1094	274			1094				
A-B	92	23			92				
A-C	1437	359			1437				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	10	0	999999999.000	0	10.7	21.2	34.772	D
B-A	113	28	0	999999999.000	0	31.1	59.5	9.191	A
C-AB	35	9	328	0.108	35	0.1	0.1	12.555	B
C-A	1094	274			1094				
A-B	92	23			92				
A-C	1437	359			1437				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	40	0.846	38	21.2	20.1	1468.816	F
B-A	93	23	112	0.824	110	59.5	55.0	1441.101	F
C-AB	29	7	415	0.069	29	0.1	0.1	9.512	A
C-A	894	223			894				
A-B	76	19			76				
A-C	1173	293			1173				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	7	74	0.388	70	20.1	9.7	785.293	F
B-A	78	19	201	0.385	198	55.0	25.0	736.428	F
C-AB	24	6	478	0.050	24	0.1	0.1	8.086	A
C-A	748	187			748				
A-B	63	16			63				
A-C	982	246			982				

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		336.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1628	100.000
B - Carleton Gate		ONE HOUR	✓	291	100.000
C - Tongwell St (N)		ONE HOUR	✓	1648	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	219	1409
	B - Carleton Gate	49	0	242
	C - Tongwell St (N)	1516	132	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	1	7
	B - Carleton Gate	7	0	2
	C - Tongwell St (N)	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	999999999.00	4093.24	243.3	F	222	333
B-A	999999999.00	4190.23	50.6	F	45	67
C-AB	0.59	30.99	1.6	D	130	195
C-A					1382	2073
A-B					201	301
A-C					1293	1939

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	182	46	312	0.583	177	0.0	1.3	26.185	D
B-A	37	9	51	0.729	30	0.0	1.6	163.634	F
C-AB	99	25	422	0.235	98	0.0	0.3	11.284	B
C-A	1141	285			1141				
A-B	165	41			165				
A-C	1061	265			1061				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	218	54	0	999999999.000	0	1.3	55.7	3645.678	F
B-A	44	11	0	999999999.000	0	1.6	12.6	3813.436	F
C-AB	119	30	349	0.341	118	0.3	0.5	15.847	C
C-A	1363	341			1363				
A-B	197	49			197				
A-C	1267	317			1267				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	266	67	0	999999999.000	0	55.7	122.3	3760.686	F
B-A	54	13	0	999999999.000	0	12.6	26.1	3905.623	F
C-AB	172	43	291	0.592	168	0.5	1.5	29.287	D
C-A	1642	411			1642				
A-B	241	60			241				
A-C	1551	388			1551				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	266	67	0	999999999.000	0	122.3	188.9	3978.231	F
B-A	54	13	0	999999999.000	0	26.1	39.6	4098.042	F
C-AB	172	43	291	0.592	172	1.5	1.6	30.994	D
C-A	1642	411			1642				
A-B	241	60			241				
A-C	1551	388			1551				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	218	54	0	999999999.000	0	188.9	243.3	4093.239	F
B-A	44	11	0	999999999.000	0	39.6	50.6	4190.229	F
C-AB	119	30	349	0.341	123	1.6	0.5	16.554	C
C-A	1363	341			1363				
A-B	197	49			197				
A-C	1267	317			1267				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	182	46	215	0.849	214	243.3	235.5	4033.459	F
B-A	37	9	44	0.830	44	50.6	49.0	4119.160	F
C-AB	99	25	422	0.235	100	0.5	0.3	11.434	B
C-A	1141	285			1141				
A-B	165	41			165				
A-C	1061	265			1061				

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Tongwell St-Carleton Gate	T-Junction	Two-way		256.14	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St (S)		ONE HOUR	✓	1801	100.000
B - Carleton Gate		ONE HOUR	✓	237	100.000
C - Tongwell St (N)		ONE HOUR	✓	1438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	172	1429
	B - Carleton Gate	88	0	171
	C - Tongwell St (N)	1359	77	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Tongwell St (S)	B - Carleton Gate	C - Tongwell St (N)
From	A - Tongwell St (S)	0	1	5
	B - Carleton Gate	4	0	1
	C - Tongwell St (N)	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	999999999.00	3514.27	171.5	F	157	235
B-A	999999999.00	3576.00	67.0	F	61	91
C-AB	0.33	21.29	0.5	C	71	106
C-A					1247	1870
A-B					158	237
A-C					1311	1967

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	129	32	364	0.354	127	0.0	0.5	15.196	C
B-A	50	12	93	0.537	46	0.0	1.0	74.934	F
C-AB	58	14	429	0.135	57	0.0	0.2	9.778	A
C-A	1023	256			1023				
A-B	129	32			129				
A-C	1076	269			1076				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	154	38	0	999999999.000	0	0.5	39.0	3514.274	F
B-A	59	15	0	999999999.000	0	1.0	15.8	3575.997	F
C-AB	69	17	356	0.195	69	0.2	0.2	12.659	B
C-A	1222	305			1222				
A-B	155	39			155				
A-C	1285	321			1285				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	188	47	0	999999999.000	0	39.0	86.0	3364.234	F
B-A	73	18	0	999999999.000	0	15.8	34.0	3418.370	F
C-AB	85	21	256	0.333	84	0.2	0.5	21.065	C
C-A	1496	374			1496				
A-B	189	47			189				
A-C	1573	393			1573				

17:30 - 17:45

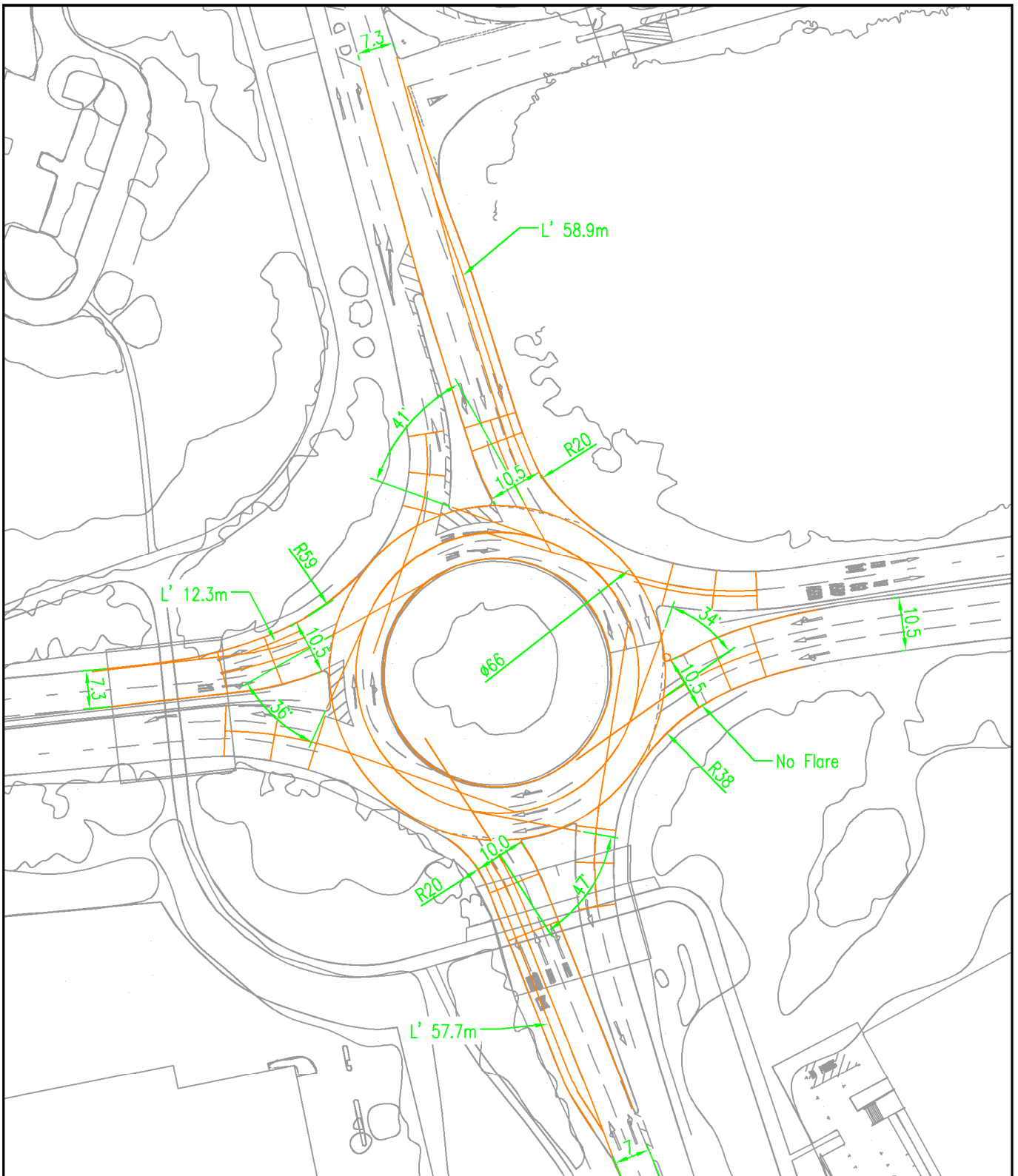
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	188	47	0	999999999.000	0	86.0	133.1	3289.956	F
B-A	73	18	0	999999999.000	0	34.0	52.2	3335.739	F
C-AB	85	21	256	0.333	85	0.5	0.5	21.291	C
C-A	1496	374			1496				
A-B	189	47			189				
A-C	1573	393			1573				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	154	38	0	999999999.000	0	133.1	171.5	3139.916	F
B-A	59	15	0	999999999.000	0	52.2	67.0	3178.112	F
C-AB	69	17	358	0.195	70	0.5	0.2	12.776	B
C-A	1222	305			1222				
A-B	155	39			155				
A-C	1285	321			1285				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	129	32	205	0.627	204	171.5	152.7	2862.106	F
B-A	50	12	80	0.621	79	67.0	59.7	2898.514	F
C-AB	58	14	429	0.135	58	0.2	0.2	9.829	A
C-A	1023	256			1023				
A-B	129	32			129				
A-C	1076	269			1076				



ROUNDABOUT GEOMETRY – PINEHAM ROUNDABOUT (ref E10)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
TONGWELL ST (N)	7.30	10.50	58.90	20.00	66.00	41.00
A509 (E)	10.50	10.50	0.00	38.00	66.00	34.00
TONGWELL ST (S)	7.00	10.00	57.70	20.00	66.00	47.00
A509 (W)	7.30	10.50	12.30	59.00	66.00	36.00

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 10.Pineham Roundabout (PCU) existing.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions\10. Pineham Roundabout

Report generation date: 25/03/2021 13:19:18

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 DM, AM
- »2031 DM, PM
- »2031 DS, AM
- »2031 DS, PM
- »2048 DM, AM
- »2048 DM, PM
- »2048 DS, AM
- »2048 DS, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Tongwell St N	0.8	3.04	0.42	A	2.1	7.12	0.67	A
B - A509 E	4.1	7.57	0.80	A	0.7	2.62	0.42	A
C - Tongwell St S	1.9	7.84	0.66	A	2.1	5.61	0.68	A
D - A509 W	1.2	3.89	0.54	A	3.1	7.40	0.76	A
2031 DM								
A - Tongwell St N	1.0	3.58	0.49	A	4.9	13.38	0.83	B
B - A509 E	6.0	10.59	0.85	B	1.0	3.15	0.50	A
C - Tongwell St S	3.1	11.61	0.76	B	3.4	8.33	0.77	A
D - A509 W	1.4	4.63	0.57	A	3.9	9.31	0.79	A
2031 DS								
A - Tongwell St N	1.9	5.26	0.64	A	8.1	18.46	0.90	C
B - A509 E	7.1	13.38	0.87	B	1.3	3.68	0.55	A
C - Tongwell St S	4.1	15.44	0.81	C	10.4	26.01	0.92	D
D - A509 W	2.1	6.21	0.68	A	68.8	116.86	1.06	F
2048 DM								
A - Tongwell St N	5.2	9.39	0.84	A	34.4	70.52	1.02	F
B - A509 E	53.3	74.14	1.03	F	1.3	3.87	0.57	A
C - Tongwell St S	5.0	18.72	0.84	C	39.1	74.69	1.02	F
D - A509 W	0.6	3.68	0.37	A	19.7	41.54	0.98	E
2048 DS								
A - Tongwell St N	32.3	54.55	1.00	F	32.4	63.98	1.01	F
B - A509 E	98.5	132.86	1.08	F	1.6	4.38	0.60	A
C - Tongwell St S	5.0	19.63	0.84	C	82.0	150.70	1.09	F
D - A509 W	2.1	6.34	0.67	A	16.1	33.54	0.98	D

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

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

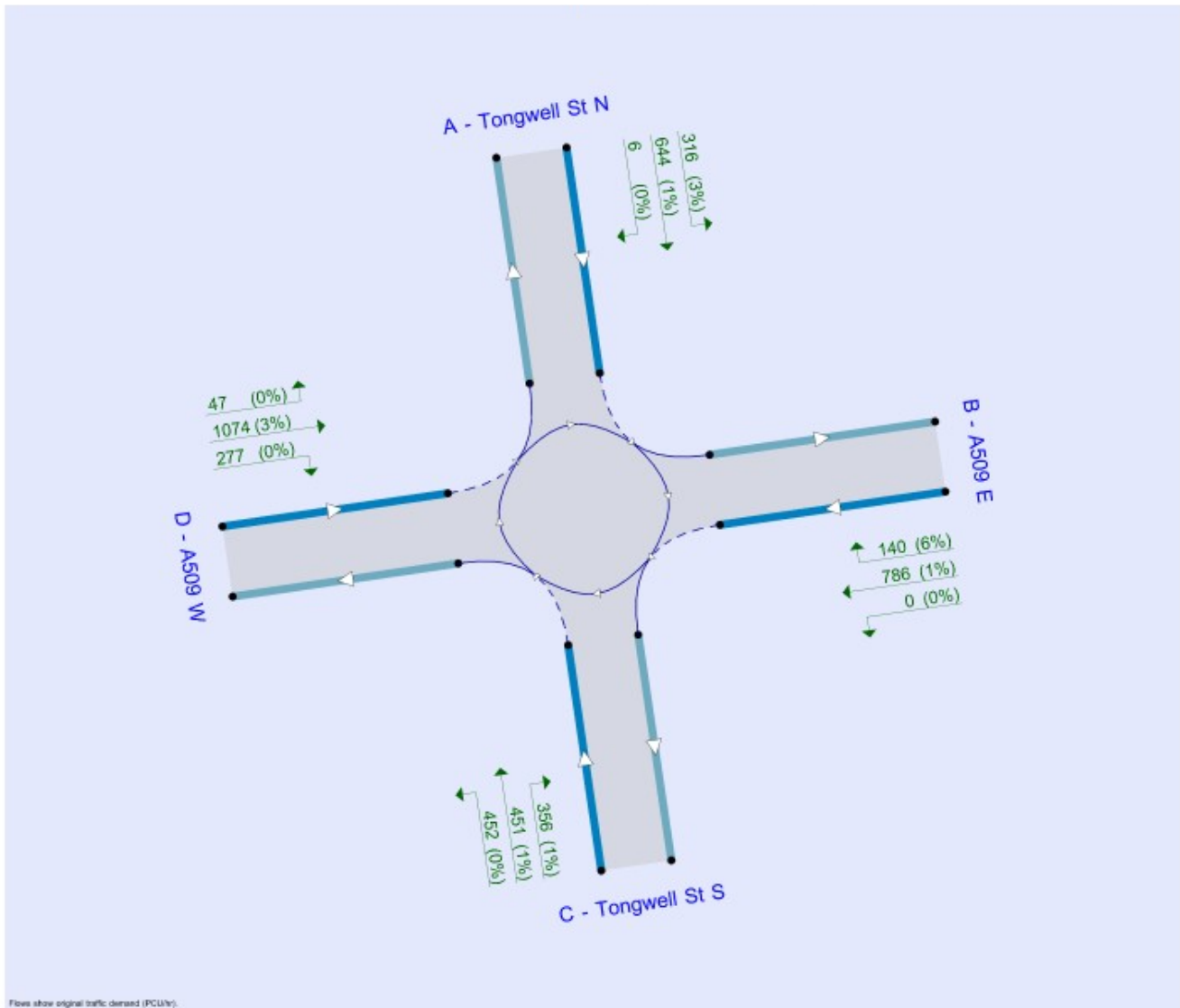
File summary

File Description

Title	J10
Location	52.054734, -0.712296
Site number	10
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 DM	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 DS	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 DS	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 DM	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 DM	PM	ONE HOUR	16:45	18:15	15	✓
D9	2048 DS	AM	ONE HOUR	07:45	09:15	15	✓
D10	2048 DS	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2016 MKMMM Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	5.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

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

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Tongwell St N	7.30	10.50	58.9	20.0	66.0	41.0	
B - A509 E	10.50	10.50	0.0	38.0	66.0	34.0	
C - Tongwell St S	7.00	10.00	57.7	20.0	66.0	47.0	
D - A509 W	7.30	10.50	12.3	56.0	66.0	36.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Tongwell St N	None		
B - A509 E	Direct		0
C - Tongwell St S	None		
D - A509 W	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Tongwell St N	0.715	2922
B - A509 E	0.773	3211
C - Tongwell St S	0.678	2729
D - A509 W	0.702	2770

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	812	100.000
B - A509 E		ONE HOUR	✓	1816	100.000
C - Tongwell St S		ONE HOUR	✓	823	100.000
D - A509 W		ONE HOUR	✓	1005	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	174	632	6
	B - A509 E	333	10	0	1473
	C - Tongwell St S	577	17	0	229
	D - A509 W	1	801	203	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	6	2	0
	B - A509 E	2	9	0	5
	C - Tongwell St S	1	2	0	1
	D - A509 W	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.42	3.04	0.8	A	745	1118
B - A509 E	0.80	7.57	4.1	A	1666	2500
C - Tongwell St S	0.66	7.84	1.9	A	755	1133
D - A509 W	0.54	3.89	1.2	A	922	1383

2016 MKMMM Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	5.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	966	100.000
B - A509 E		ONE HOUR	✓	929	100.000
C - Tongwell St S		ONE HOUR	✓	1259	100.000
D - A509 W		ONE HOUR	✓	1398	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	316	644	6
	B - A509 E	140	3	0	788
	C - Tongwell St S	451	356	0	452
	D - A509 W	47	1074	277	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	3	1	0
	B - A509 E	6	0	0	1
	C - Tongwell St S	1	1	0	0
	D - A509 W	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.67	7.12	2.1	A	886	1330
B - A509 E	0.42	2.62	0.7	A	852	1279
C - Tongwell St S	0.68	5.61	2.1	A	1155	1733
D - A509 W	0.76	7.40	3.1	A	1283	1924

2031 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	8.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 DM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	945	100.000
B - A509 E		ONE HOUR	✓	1900	100.000
C - Tongwell St S		ONE HOUR	✓	902	100.000
D - A509 W		ONE HOUR	✓	961	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	232	705	8
	B - A509 E	488	35	0	1379
	C - Tongwell St S	598	48	0	258
	D - A509 W	3	798	162	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	11	4	0
	B - A509 E	8	9	0	12
	C - Tongwell St S	1	2	0	2
	D - A509 W	0	5	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.49	3.58	1.0	A	867	1301
B - A509 E	0.85	10.59	6.0	B	1743	2815
C - Tongwell St S	0.76	11.61	3.1	B	828	1242
D - A509 W	0.57	4.63	1.4	A	882	1323

2031 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	8.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1253	100.000
B - A509 E		ONE HOUR	✓	1065	100.000
C - Tongwell St S		ONE HOUR	✓	1343	100.000
D - A509 W		ONE HOUR	✓	1383	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	420	810	23
	B - A509 E	195	9	0	861
	C - Tongwell St S	546	339	0	458
	D - A509 W	118	1104	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	4	3	0
	B - A509 E	12	0	0	3
	C - Tongwell St S	2	4	0	0
	D - A509 W	3	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.83	13.38	4.9	B	1150	1725
B - A509 E	0.50	3.15	1.0	A	977	1466
C - Tongwell St S	0.77	8.33	3.4	A	1232	1849
D - A509 W	0.79	9.31	3.9	A	1289	1904

2031 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	10.23	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 DS	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1175	100.000
B - A509 E		ONE HOUR	✓	1805	100.000
C - Tongwell St S		ONE HOUR	✓	907	100.000
D - A509 W		ONE HOUR	✓	1142	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	188	784	203
	B - A509 E	505	28	1	1271
	C - Tongwell St S	601	44	0	262
	D - A509 W	63	974	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	15	5	1
	B - A509 E	8	7	0	12
	C - Tongwell St S	2	0	0	2
	D - A509 W	0	5	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.64	5.28	1.9	A	1078	1617
B - A509 E	0.87	13.38	7.1	B	1656	2484
C - Tongwell St S	0.81	15.44	4.1	C	832	1248
D - A509 W	0.68	6.21	2.1	A	1048	1572

2031 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	46.62	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 DS	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1509	100.000
B - A509 E		ONE HOUR	✓	1134	100.000
C - Tongwell St S		ONE HOUR	✓	1394	100.000
D - A509 W		ONE HOUR	✓	1707	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	447	764	298
	B - A509 E	251	31	2	850
	C - Tongwell St S	748	274	0	372
	D - A509 W	579	1068	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	5	3	0
	B - A509 E	9	3	0	2
	C - Tongwell St S	2	6	0	1
	D - A509 W	3	6	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.90	18.46	8.1	C	1385	2077
B - A509 E	0.55	3.68	1.3	A	1041	1561
C - Tongwell St S	0.92	28.01	10.4	D	1279	1919
D - A509 W	1.06	118.86	68.8	F	1566	2350

2048 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	38.10	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 DM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1848	100.000
B - A509 E		ONE HOUR	✓	2182	100.000
C - Tongwell St S		ONE HOUR	✓	918	100.000
D - A509 W		ONE HOUR	✓	545	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	834	1003	11
	B - A509 E	900	48	70	1164
	C - Tongwell St S	535	43	0	340
	D - A509 W	5	533	7	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
A - Tongwell St N	0	4	2	0
B - A509 E	6	6	0	10
C - Tongwell St S	0	2	0	1
D - A509 W	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.84	9.39	5.2	A	1696	2544
B - A509 E	1.03	74.14	53.3	F	2002	3003
C - Tongwell St S	0.84	18.72	5.0	C	842	1264
D - A509 W	0.37	3.68	0.6	A	500	750

2048 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	50.88	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1519	100.000
B - A509 E		ONE HOUR	✓	1140	100.000
C - Tongwell St S		ONE HOUR	✓	1628	100.000
D - A509 W		ONE HOUR	✓	1605	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	500	848	171
	B - A509 E	159	55	5	921
	C - Tongwell St S	674	385	0	569
	D - A509 W	396	1015	194	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	5	2	1
	B - A509 E	4	2	0	2
	C - Tongwell St S	1	4	0	0
	D - A509 W	1	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	1.02	70.52	34.4	F	1394	2091
B - A509 E	0.57	3.87	1.3	A	1046	1569
C - Tongwell St S	1.02	74.69	39.1	F	1494	2241
D - A509 W	0.98	41.54	19.7	E	1473	2209

2048 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	68.37	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2048 DS	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1922	100.000
B - A509 E		ONE HOUR	✓	2112	100.000
C - Tongwell St S		ONE HOUR	✓	874	100.000
D - A509 W		ONE HOUR	✓	1081	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	737	849	338
	B - A509 E	828	55	162	1089
	C - Tongwell St S	432	38	0	404
	D - A509 W	146	848	87	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	4	3	1
	B - A509 E	8	9	1	10
	C - Tongwell St S	1	0	0	1
	D - A509 W	1	5	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	1.00	54.55	32.3	F	1764	2645
B - A509 E	1.08	132.86	98.5	F	1938	2907
C - Tongwell St S	0.84	19.63	5.0	C	802	1203
D - A509 W	0.87	6.34	2.1	A	992	1488

2048 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Tongwell St N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Tongwell St S - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Pineham Roundabout	Standard Roundabout		A, B, C, D	66.56	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2048 DS	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	1601	100.000
B - A509 E		ONE HOUR	✓	1168	100.000
C - Tongwell St S		ONE HOUR	✓	1566	100.000
D - A509 W		ONE HOUR	✓	1666	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	488	724	389
	B - A509 E	174	67	6	921
	C - Tongwell St S	658	288	0	620
	D - A509 W	494	990	182	0

Vehicle Mix

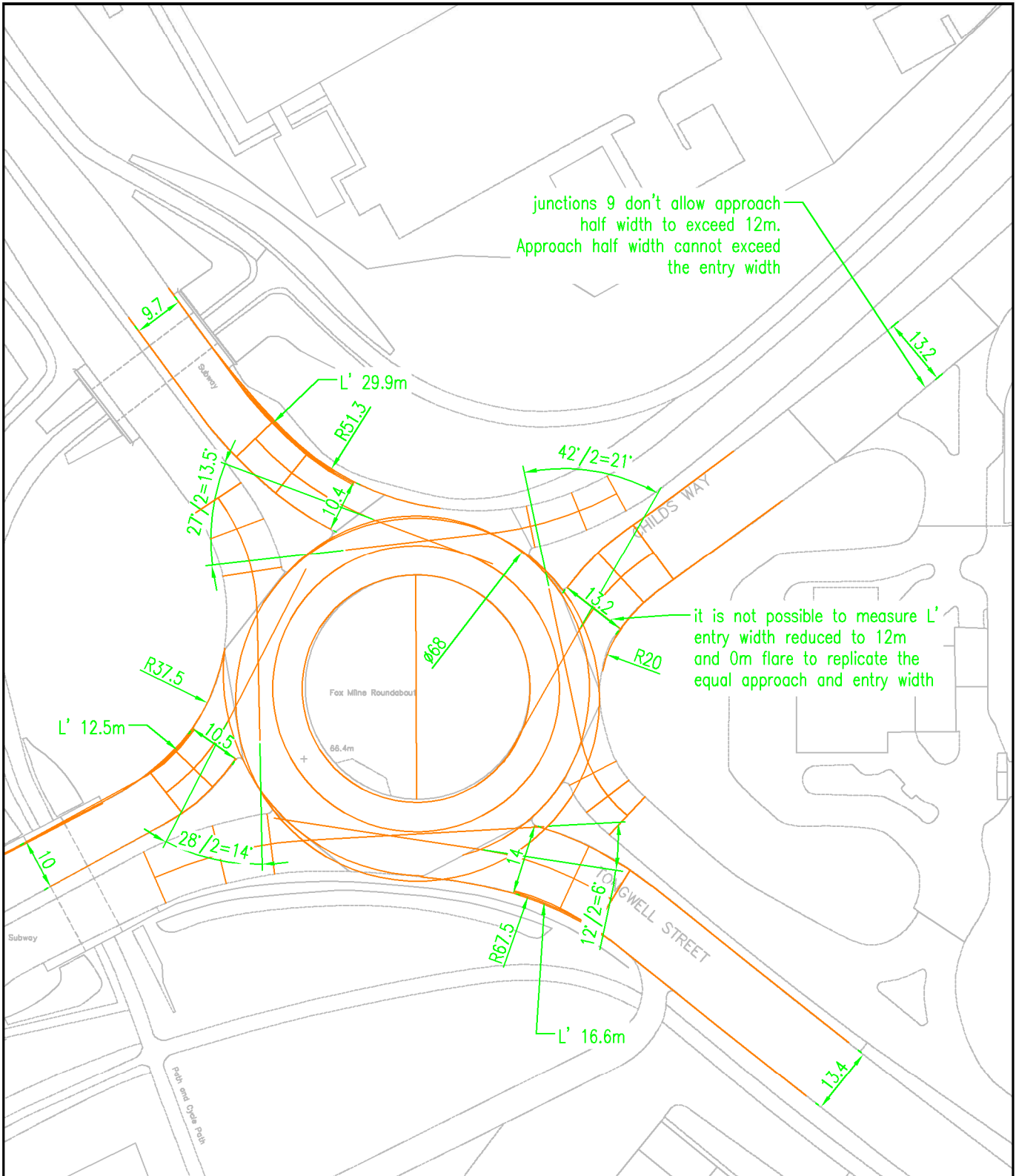
Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A509 E	C - Tongwell St S	D - A509 W
From	A - Tongwell St N	0	4	1	1
	B - A509 E	6	1	0	3
	C - Tongwell St S	2	6	0	0
	D - A509 W	3	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	1.01	63.98	32.4	F	1469	2204
B - A509 E	0.80	4.38	1.6	A	1072	1608
C - Tongwell St S	1.09	150.70	82.0	F	1437	2155
D - A509 W	0.96	33.54	16.1	D	1529	2293



ROUNDABOUT GEOMETRY – FOX MILNE ROUNDABOUT (ref E11)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
TONGWELL ST (N)	9.70	10.40	29.90	51.30	68.00	13.50
A4146 (E)	13.2 (12.0)	13.2 (12.0)	0.00	20.00	68.00	21.00
TONGWELL ST (S)	13.40	14.00	16.60	46.50	68.00	6.00
CHILDS WAY	10.00	10.50	12.50	37.50	68.00	14.00

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: 11.Fox Milne Roundabout.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 13:29:56

-
- »2016 MKMMM Base, AM
 - »2016 MKMMM Base, PM
 - »2031 Do Minimum, AM
 - »2031 Do Minimum, PM
 - »2048 Do Minimum, AM
 - »2048 Do Minimum, PM
 - »2031 Do Something, AM
 - »2031 Do Something, PM
 - »2048 Do Something, AM
 - »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Tongwell St N	0.5	2.18	0.33	A	0.8	2.89	0.44	A
B - A4146 E	3.5	5.76	0.76	A	0.8	2.60	0.43	A
C - Tongwell St S	1.3	2.72	0.54	A	0.8	1.88	0.43	A
D - H6 Childs Way	0.5	2.60	0.32	A	1.8	4.38	0.64	A
2031 Do Minimum								
A - Tongwell St N	0.6	2.66	0.37	A	0.9	2.95	0.46	A
B - A4146 E	11.1	17.55	0.92	C	2.0	4.73	0.66	A
C - Tongwell St S	2.1	3.97	0.66	A	0.8	2.06	0.44	A
D - H6 Childs Way	0.9	3.54	0.47	A	2.2	4.90	0.68	A
2048 Do Minimum								
A - Tongwell St N	1.5	5.19	0.60	A	1.2	3.94	0.53	A
B - A4146 E	132.2	170.28	1.11	F	3.7	7.83	0.79	A
C - Tongwell St S	7.1	9.59	0.88	A	3.4	5.06	0.77	A
D - H6 Childs Way	6.6	18.91	0.88	C	7.1	16.60	0.88	C
2031 Do Something								
A - Tongwell St N	0.8	3.14	0.43	A	0.8	3.09	0.42	A
B - A4146 E	31.1	45.97	0.99	E	1.9	4.28	0.64	A
C - Tongwell St S	2.7	5.02	0.72	A	1.0	2.27	0.49	A
D - H6 Childs Way	1.4	4.62	0.59	A	5.6	10.68	0.85	B
2048 Do Something								
A - Tongwell St N	1.8	6.07	0.64	A	0.9	3.58	0.48	A
B - A4146 E	119.3	156.08	1.10	F	3.8	7.74	0.79	A
C - Tongwell St S	9.9	12.92	0.91	B	3.4	4.96	0.77	A
D - H6 Childs Way	7.5	23.62	0.90	C	7.8	17.88	0.90	C

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

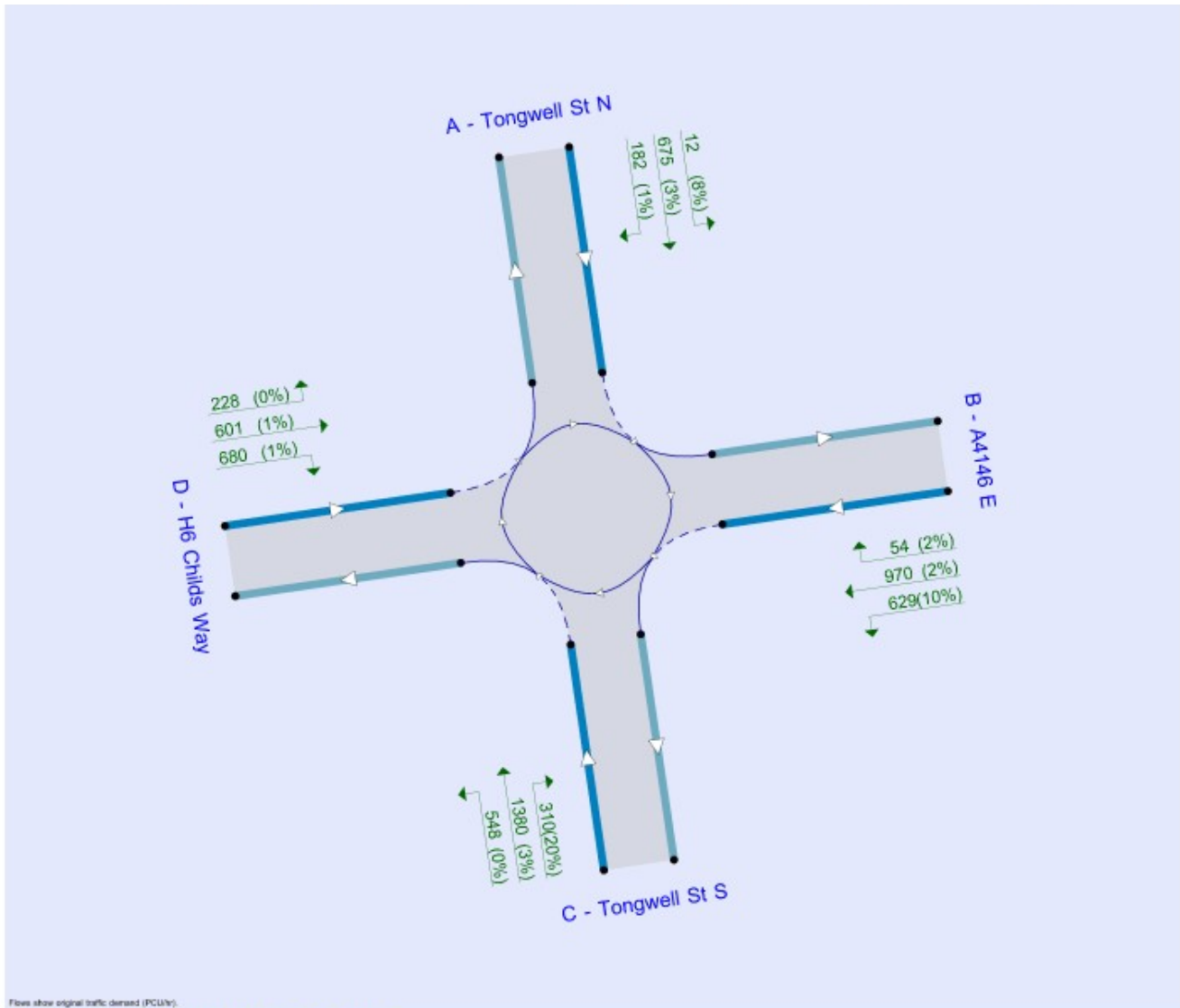
File summary

File Description

Title	J11
Location	52.048508, -0.707388
Site number	11
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D3,D4,D5,D6,D7,D8,D9,D10,D11,D12	100.000	100.000

2016 MKMMM Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Rounabout	Standard Roundabout		A, B, C, D	3.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Tongwell St N	
B	A4146 E	
C	Tongwell St S	
D	H6 Childs Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Tongwell St N	9.70	10.40	29.9	51.3	68.0	13.5	
B - A4146 E	12.00	12.00	0.0	20.0	68.0	21.0	
C - Tongwell St S	12.00	14.00	16.6	67.5	68.0	6.0	
D - H6 Childs Way	10.00	10.50	12.5	37.5	68.0	14.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Tongwell St N	0.810	3410
B - A4146 E	0.850	3750
C - Tongwell St S	1.000	4553
D - H6 Childs Way	0.808	3412

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	762	100.000
B - A4146 E		ONE HOUR	✓	2008	100.000
C - Tongwell St S		ONE HOUR	✓	1548	100.000
D - H6 Childs Way		ONE HOUR	✓	605	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	8	660	94
	B - A4146 E	67	0	824	1117
	C - Tongwell St S	920	507	0	121
	D - H6 Childs Way	151	302	152	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	25	4	3
	B - A4146 E	12	0	19	5
	C - Tongwell St S	2	27	0	2
	D - H6 Childs Way	1	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.33	2.18	0.5	A	699	1049
B - A4146 E	0.76	5.76	3.5	A	1843	2764
C - Tongwell St S	0.54	2.72	1.3	A	1420	2131
D - H6 Childs Way	0.32	2.60	0.5	A	555	833

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	574	143	722	2825	0.203	573	855	0.0	0.3	1.663	A
B - A4146 E	1512	378	681	3171	0.477	1508	614	0.0	1.0	2.387	A
C - Tongwell St S	1165	291	960	3593	0.324	1163	1229	0.0	0.5	1.613	A
D - H6 Childs Way	455	114	1123	2505	0.182	455	1000	0.0	0.2	1.794	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	685	171	883	2711	0.253	685	1022	0.3	0.4	1.848	A
B - A4146 E	1805	451	814	3057	0.590	1803	734	1.0	1.6	3.168	A
C - Tongwell St S	1392	348	1147	3405	0.409	1391	1469	0.5	0.8	1.947	A
D - H6 Childs Way	544	136	1342	2328	0.234	544	1196	0.2	0.3	2.062	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	839	210	1057	2554	0.329	838	1251	0.4	0.5	2.183	A
B - A4146 E	2211	553	997	2902	0.762	2203	899	1.6	3.4	5.640	A
C - Tongwell St S	1704	426	1403	3150	0.541	1702	1797	0.8	1.3	2.707	A
D - H6 Childs Way	666	167	1643	2085	0.319	665	1462	0.3	0.5	2.590	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	839	210	1058	2553	0.329	839	1253	0.5	0.5	2.185	A
B - A4146 E	2211	553	998	2901	0.762	2211	900	3.4	3.5	5.760	A
C - Tongwell St S	1704	426	1407	3146	0.542	1704	1801	1.3	1.3	2.722	A
D - H6 Childs Way	666	167	1645	2083	0.320	666	1466	0.5	0.5	2.595	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	685	171	885	2709	0.253	686	1025	0.5	0.4	1.850	A
B - A4146 E	1805	451	815	3056	0.591	1813	735	3.5	1.6	3.221	A
C - Tongwell St S	1392	348	1153	3399	0.409	1394	1475	1.3	0.8	1.958	A
D - H6 Childs Way	544	136	1345	2325	0.234	545	1202	0.5	0.3	2.068	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	574	143	724	2823	0.203	574	857	0.4	0.3	1.664	A
B - A4146 E	1512	378	683	3169	0.477	1514	616	1.6	1.0	2.408	A
C - Tongwell St S	1165	291	964	3589	0.325	1166	1233	0.8	0.5	1.619	A
D - H6 Childs Way	455	114	1126	2503	0.182	456	1004	0.3	0.2	1.799	A

2016 MKMMM Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Rounabout	Standard Roundabout		A, B, C, D	2.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	923	100.000
B - A4146 E		ONE HOUR	✓	1023	100.000
C - Tongwell St S		ONE HOUR	✓	1437	100.000
D - H6 Childs Way		ONE HOUR	✓	1388	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	17	777	129
	B - A4146 E	30	0	346	647
	C - Tongwell St S	915	225	1	296
	D - H6 Childs Way	392	686	310	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	18	5	2
	B - A4146 E	3	0	22	1
	C - Tongwell St S	4	42	0	0
	D - H6 Childs Way	1	2	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.44	2.89	0.8	A	847	1270
B - A4146 E	0.43	2.60	0.8	A	939	1408
C - Tongwell St S	0.43	1.86	0.8	A	1319	1978
D - H6 Childs Way	0.64	4.36	1.8	A	1274	1910

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	695	174	918	2666	0.261	693	1005	0.0	0.4	1.912	A
B - A4146 E	770	193	914	2972	0.259	769	697	0.0	0.4	1.753	A
C - Tongwell St S	1082	270	606	3947	0.274	1080	1077	0.0	0.4	1.351	A
D - H6 Childs Way	1045	261	880	2701	0.387	1042	806	0.0	0.6	2.210	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	830	207	1098	2521	0.329	829	1201	0.4	0.5	2.229	A
B - A4146 E	920	230	1093	2820	0.326	919	834	0.4	0.5	2.032	A
C - Tongwell St S	1292	323	724	3829	0.337	1291	1288	0.4	0.5	1.526	A
D - H6 Childs Way	1248	312	1052	2562	0.487	1246	963	0.6	1.0	2.787	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1016	254	1343	2323	0.438	1015	1470	0.5	0.8	2.882	A
B - A4146 E	1126	282	1338	2612	0.431	1125	1020	0.5	0.8	2.596	A
C - Tongwell St S	1582	396	886	3666	0.432	1581	1577	0.5	0.8	1.858	A
D - H6 Childs Way	1528	382	1288	2371	0.644	1525	1179	1.0	1.8	4.318	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1016	254	1345	2320	0.438	1016	1472	0.8	0.8	2.891	A
B - A4146 E	1126	282	1340	2610	0.432	1126	1022	0.8	0.8	2.603	A
C - Tongwell St S	1582	396	887	3665	0.432	1582	1579	0.8	0.8	1.858	A
D - H6 Childs Way	1528	382	1289	2371	0.645	1528	1180	1.8	1.8	4.355	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	830	207	1101	2518	0.330	831	1204	0.8	0.5	2.237	A
B - A4146 E	920	230	1096	2617	0.326	921	836	0.8	0.5	2.037	A
C - Tongwell St S	1292	323	726	3827	0.338	1293	1291	0.8	0.5	1.528	A
D - H6 Childs Way	1248	312	1054	2561	0.487	1251	965	1.8	1.0	2.808	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	695	174	921	2664	0.261	695	1007	0.5	0.4	1.918	A
B - A4146 E	770	193	917	2970	0.259	771	699	0.5	0.4	1.756	A
C - Tongwell St S	1082	270	607	3946	0.274	1082	1081	0.5	0.4	1.352	A
D - H6 Childs Way	1045	261	882	2700	0.387	1046	808	1.0	0.6	2.222	A

2031 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Roundabout	Standard Roundabout		A, B, C, D	9.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	770	100.000
B - A4146 E		ONE HOUR	✓	2193	100.000
C - Tongwell St S		ONE HOUR	✓	1708	100.000
D - H6 Childs Way		ONE HOUR	✓	838	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	12	666	92
	B - A4146 E	62	0	737	1394
	C - Tongwell St S	1039	542	0	125
	D - H6 Childs Way	99	295	444	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	17	5	3
	B - A4146 E	13	0	16	4
	C - Tongwell St S	2	21	0	1
	D - H6 Childs Way	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.37	2.66	0.6	A	707	1080
B - A4146 E	0.92	17.55	11.1	C	2012	3019
C - Tongwell St S	0.66	3.97	2.1	A	1565	2348
D - H6 Childs Way	0.47	3.54	0.9	A	769	1153

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	580	145	962	2631	0.220	579	902	0.0	0.3	1.840	A
B - A4146 E	1651	413	903	2982	0.554	1646	638	0.0	1.3	2.898	A
C - Tongwell St S	1284	321	1162	3391	0.379	1282	1387	0.0	0.7	1.829	A
D - H6 Childs Way	631	158	1234	2415	0.261	629	1209	0.0	0.4	2.037	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	692	173	1151	2478	0.279	692	1078	0.3	0.4	2.114	A
B - A4146 E	1971	493	1080	2831	0.696	1967	763	1.3	2.4	4.475	A
C - Tongwell St S	1534	383	1389	3164	0.485	1532	1658	0.7	1.0	2.364	A
D - H6 Childs Way	753	188	1476	2220	0.339	753	1445	0.4	0.5	2.480	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	848	212	1408	2270	0.373	847	1318	0.4	0.6	2.653	A
B - A4146 E	2415	604	1322	2625	0.920	2383	933	2.4	10.2	14.530	B
C - Tongwell St S	1878	470	1684	2869	0.655	1874	2022	1.0	2.0	3.866	A
D - H6 Childs Way	923	231	1804	1955	0.472	921	1754	0.5	0.9	3.519	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	848	212	1410	2268	0.374	848	1321	0.6	0.6	2.659	A
B - A4146 E	2415	604	1323	2624	0.920	2411	935	10.2	11.1	17.549	C
C - Tongwell St S	1878	470	1702	2851	0.659	1878	2032	2.0	2.1	3.969	A
D - H6 Childs Way	923	231	1809	1951	0.473	923	1771	0.9	0.9	3.540	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	692	173	1154	2475	0.280	693	1082	0.6	0.4	2.120	A
B - A4146 E	1971	493	1082	2829	0.697	2006	765	11.1	2.5	4.915	A
C - Tongwell St S	1534	383	1415	3138	0.489	1538	1674	2.1	1.0	2.418	A
D - H6 Childs Way	753	188	1482	2215	0.340	755	1471	0.9	0.5	2.497	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	580	145	965	2628	0.221	580	905	0.4	0.3	1.846	A
B - A4146 E	1651	413	906	2979	0.554	1656	640	2.5	1.4	2.947	A
C - Tongwell St S	1284	321	1169	3384	0.380	1286	1393	1.0	0.7	1.840	A
D - H6 Childs Way	631	158	1238	2412	0.262	632	1216	0.5	0.4	2.046	A

2031 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Roundabout	Standard Roundabout		A, B, C, D	3.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	964	100.000
B - A4146 E		ONE HOUR	✓	1427	100.000
C - Tongwell St S		ONE HOUR	✓	1347	100.000
D - H6 Childs Way		ONE HOUR	✓	1474	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	13	825	126
	B - A4146 E	41	0	457	929
	C - Tongwell St S	1011	117	0	219
	D - H6 Childs Way	379	586	509	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	8	4	2
	B - A4146 E	2	0	18	2
	C - Tongwell St S	4	67	0	0
	D - H6 Childs Way	0	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.46	2.95	0.9	A	885	1327
B - A4146 E	0.66	4.73	2.0	A	1309	1964
C - Tongwell St S	0.44	2.06	0.8	A	1236	1854
D - H6 Childs Way	0.68	4.90	2.2	A	1353	2029

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	726	181	910	2673	0.272	724	1075	0.0	0.4	1.915	A
B - A4146 E	1074	269	1097	2817	0.381	1072	538	0.0	0.7	2.197	A
C - Tongwell St S	1014	254	823	3730	0.272	1013	1345	0.0	0.4	1.415	A
D - H6 Childs Way	1110	277	879	2702	0.411	1107	957	0.0	0.7	2.299	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	867	217	1088	2528	0.343	866	1286	0.4	0.5	2.247	A
B - A4146 E	1283	321	1311	2634	0.487	1281	643	0.7	1.0	2.835	A
C - Tongwell St S	1211	303	984	3569	0.339	1210	1609	0.4	0.5	1.630	A
D - H6 Childs Way	1325	331	1050	2564	0.517	1324	1144	0.7	1.1	2.959	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1061	265	1331	2332	0.455	1060	1573	0.5	0.9	2.935	A
B - A4146 E	1571	393	1605	2385	0.659	1567	786	1.0	2.0	4.671	A
C - Tongwell St S	1483	371	1204	3349	0.443	1482	1968	0.5	0.8	2.058	A
D - H6 Childs Way	1623	406	1286	2373	0.684	1619	1400	1.1	2.2	4.841	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1061	265	1334	2329	0.456	1061	1576	0.9	0.9	2.946	A
B - A4146 E	1571	393	1607	2383	0.659	1571	788	2.0	2.0	4.730	A
C - Tongwell St S	1483	371	1207	3346	0.443	1483	1972	0.8	0.8	2.063	A
D - H6 Childs Way	1623	406	1287	2372	0.684	1623	1403	2.2	2.2	4.900	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	867	217	1093	2525	0.343	866	1289	0.9	0.5	2.258	A
B - A4146 E	1283	321	1315	2631	0.488	1287	646	2.0	1.0	2.866	A
C - Tongwell St S	1211	303	988	3565	0.340	1212	1614	0.8	0.6	1.634	A
D - H6 Childs Way	1325	331	1052	2562	0.517	1329	1148	2.2	1.1	2.990	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	728	181	914	2670	0.272	728	1078	0.5	0.4	1.922	A
B - A4146 E	1074	269	1100	2814	0.382	1076	540	1.0	0.7	2.211	A
C - Tongwell St S	1014	254	826	3727	0.272	1015	1350	0.6	0.4	1.419	A
D - H6 Childs Way	1110	277	881	2701	0.411	1111	960	1.1	0.7	2.313	A

2048 Do Minimum, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Roundabout	Standard Roundabout		A, B, C, D	62.12	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	983	100.000
B - A4146 E		ONE HOUR	✓	2199	100.000
C - Tongwell St S		ONE HOUR	✓	2491	100.000
D - H6 Childs Way		ONE HOUR	✓	1207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	21	823	119
	B - A4146 E	19	0	890	1290
	C - Tongwell St S	1222	895	2	372
	D - H6 Childs Way	288	197	742	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	10	3	2
	B - A4146 E	37	0	12	4
	C - Tongwell St S	1	11	0	1
	D - H6 Childs Way	0	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.60	5.19	1.5	A	884	1325
B - A4146 E	1.11	170.28	132.2	F	2018	3027
C - Tongwell St S	0.88	9.59	7.1	A	2286	3429
D - H6 Childs Way	0.88	18.91	6.6	C	1108	1661

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	725	181	1378	2294	0.316	723	1133	0.0	0.5	2.357	A
B - A4146 E	1656	414	1286	2673	0.619	1649	836	0.0	1.7	3.747	A
C - Tongwell St S	1875	469	1071	3482	0.539	1871	1843	0.0	1.2	2.325	A
D - H6 Childs Way	909	227	1605	2115	0.430	906	1336	0.0	0.8	2.992	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	866	216	1647	2076	0.417	865	1354	0.5	0.7	3.058	A
B - A4146 E	1977	494	1513	2463	0.803	1967	999	1.7	4.2	7.646	A
C - Tongwell St S	2239	560	1278	3275	0.684	2235	2202	1.2	2.2	3.597	A
D - H6 Childs Way	1085	271	1918	1862	0.583	1083	1595	0.8	1.4	4.638	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1060	265	2001	1790	0.592	1057	1646	0.7	1.5	5.042	A
B - A4146 E	2421	605	1842	2183	1.109	2160	1216	4.2	69.5	69.301	F
C - Tongwell St S	2743	686	1416	3136	0.874	2725	2586	2.2	6.7	8.765	A
D - H6 Childs Way	1329	332	2336	1525	0.872	1311	1805	1.4	6.0	15.768	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1060	265	2019	1775	0.597	1060	1658	1.5	1.5	5.185	A
B - A4146 E	2421	605	1855	2172	1.115	2170	1225	69.5	132.2	170.275	F
C - Tongwell St S	2743	686	1423	3130	0.876	2741	2602	6.7	7.1	9.593	A
D - H6 Childs Way	1329	332	2351	1513	0.878	1326	1813	6.0	6.6	18.912	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	866	216	1672	2056	0.421	869	1373	1.5	0.8	3.133	A
B - A4146 E	1977	494	1531	2447	0.808	2428	1010	132.2	19.6	115.692	F
C - Tongwell St S	2239	560	1552	3000	0.746	2255	2407	7.1	3.1	5.145	A
D - H6 Childs Way	1085	271	1939	1846	0.588	1106	1868	6.6	1.5	5.038	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	725	181	1387	2287	0.317	726	1141	0.8	0.5	2.377	A
B - A4146 E	1656	414	1272	2668	0.621	1727	841	19.6	1.8	4.424	A
C - Tongwell St S	1875	469	1118	3435	0.546	1883	1881	3.1	1.3	2.433	A
D - H6 Childs Way	909	227	1617	2106	0.431	911	1384	1.5	0.8	3.042	A

2048 Do Minimum, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Roundabout	Standard Roundabout		A, B, C, D	8.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	980	100.000
B - A4146 E		ONE HOUR	✓	1584	100.000
C - Tongwell St S		ONE HOUR	✓	2215	100.000
D - H6 Childs Way		ONE HOUR	✓	1476	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	13	779	188
	B - A4146 E	58	6	527	993
	C - Tongwell St S	1376	328	3	508
	D - H6 Childs Way	249	564	661	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	8	3	1
	B - A4146 E	2	0	11	1
	C - Tongwell St S	3	18	0	0
	D - H6 Childs Way	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.53	3.94	1.2	A	899	1349
B - A4146 E	0.79	7.83	3.7	A	1454	2180
C - Tongwell St S	0.77	5.06	3.4	A	2033	3049
D - H6 Childs Way	0.88	16.60	7.1	C	1354	2032

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	738	184	1174	2459	0.300	736	1264	0.0	0.4	2.143	A
B - A4146 E	1193	298	1226	2707	0.441	1189	684	0.0	0.8	2.465	A
C - Tongwell St S	1668	417	936	3616	0.461	1664	1479	0.0	0.9	1.919	A
D - H6 Childs Way	1111	278	1330	2337	0.475	1108	1270	0.0	0.9	2.943	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	881	220	1403	2274	0.387	880	1511	0.4	0.6	2.651	A
B - A4146 E	1424	356	1466	2503	0.569	1422	817	0.8	1.4	3.460	A
C - Tongwell St S	1991	498	1119	3433	0.580	1989	1768	0.9	1.4	2.595	A
D - H6 Childs Way	1327	332	1590	2127	0.624	1324	1518	0.9	1.6	4.501	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1079	270	1704	2030	0.532	1077	1845	0.6	1.2	3.871	A
B - A4146 E	1744	436	1787	2230	0.782	1735	994	1.4	3.6	7.447	A
C - Tongwell St S	2439	610	1367	3186	0.765	2431	2155	1.4	3.3	4.922	A
D - H6 Childs Way	1625	406	1944	1842	0.882	1605	1854	1.6	6.6	14.286	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1079	270	1720	2017	0.535	1079	1853	1.2	1.2	3.940	A
B - A4146 E	1744	436	1797	2221	0.785	1744	1002	3.6	3.7	7.830	A
C - Tongwell St S	2439	610	1373	3180	0.767	2439	2168	3.3	3.4	5.057	A
D - H6 Childs Way	1625	406	1950	1837	0.885	1623	1881	6.6	7.1	16.601	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	881	220	1425	2256	0.391	883	1522	1.2	0.7	2.696	A
B - A4146 E	1424	356	1480	2491	0.572	1433	828	3.7	1.4	3.577	A
C - Tongwell St S	1991	498	1128	3425	0.581	1999	1785	3.4	1.5	2.646	A
D - H6 Childs Way	1327	332	1598	2121	0.626	1349	1528	7.1	1.7	4.829	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	738	184	1180	2454	0.301	739	1289	0.7	0.4	2.155	A
B - A4146 E	1193	298	1232	2702	0.441	1195	887	1.4	0.8	2.490	A
C - Tongwell St S	1668	417	941	3612	0.462	1670	1486	1.5	0.9	1.935	A
D - H6 Childs Way	1111	278	1335	2334	0.478	1114	1275	1.7	0.9	2.984	A

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Roundabout	Standard Roundabout		A, B, C, D	20.39	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	813	100.000
B - A4146 E		ONE HOUR	✓	2236	100.000
C - Tongwell St S		ONE HOUR	✓	1771	100.000
D - H6 Childs Way		ONE HOUR	✓	1012	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	14	648	151
	B - A4146 E	57	0	702	1477
	C - Tongwell St S	1048	592	0	131
	D - H6 Childs Way	139	320	553	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	14	6	3
	B - A4146 E	12	0	18	5
	C - Tongwell St S	2	21	0	1
	D - H6 Childs Way	1	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.43	3.14	0.8	A	746	1119
B - A4146 E	0.99	45.97	31.1	E	2052	3078
C - Tongwell St S	0.72	5.02	2.7	A	1625	2438
D - H6 Childs Way	0.59	4.62	1.4	A	929	1393

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	612	153	1100	2519	0.243	611	934	0.0	0.3	1.991	A
B - A4146 E	1683	421	1015	2886	0.583	1677	696	0.0	1.5	3.229	A
C - Tongwell St S	1333	333	1264	3289	0.405	1330	1429	0.0	0.7	1.975	A
D - H6 Childs Way	762	190	1275	2382	0.320	760	1320	0.0	0.5	2.248	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	731	183	1316	2345	0.312	730	1117	0.3	0.5	2.354	A
B - A4146 E	2010	503	1214	2717	0.740	2004	832	1.5	3.0	5.455	A
C - Tongwell St S	1592	398	1511	3042	0.523	1590	1708	0.7	1.2	2.663	A
D - H6 Childs Way	910	227	1524	2181	0.417	909	1577	0.5	0.7	2.868	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	895	224	1609	2107	0.425	894	1364	0.5	0.8	3.129	A
B - A4146 E	2462	615	1486	2486	0.990	2383	1017	3.0	22.8	27.465	D
C - Tongwell St S	1950	487	1801	2752	0.709	1944	2088	1.2	2.6	4.761	A
D - H6 Childs Way	1114	279	1861	1909	0.584	1111	1884	0.7	1.4	4.563	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	895	224	1613	2104	0.425	895	1369	0.8	0.8	3.142	A
B - A4146 E	2462	615	1489	2484	0.991	2429	1019	22.8	31.1	45.966	E
C - Tongwell St S	1950	487	1832	2720	0.717	1949	2085	2.6	2.7	5.019	A
D - H6 Childs Way	1114	279	1867	1904	0.585	1114	1915	1.4	1.4	4.621	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	731	183	1321	2340	0.312	732	1125	0.8	0.5	2.366	A
B - A4146 E	2010	503	1218	2714	0.741	2122	835	31.1	3.2	7.940	A
C - Tongwell St S	1592	398	1592	2961	0.538	1598	1748	2.7	1.3	2.851	A
D - H6 Childs Way	910	227	1534	2173	0.419	913	1656	1.4	0.7	2.900	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	612	153	1105	2515	0.243	613	938	0.5	0.3	1.998	A
B - A4146 E	1683	421	1019	2883	0.584	1690	698	3.2	1.5	3.307	A
C - Tongwell St S	1333	333	1273	3280	0.407	1335	1436	1.3	0.7	1.993	A
D - H6 Childs Way	762	190	1280	2378	0.320	763	1329	0.7	0.5	2.259	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Rounabout	Standard Roundabout		A, B, C, D	5.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	797	100.000
B - A4146 E		ONE HOUR	✓	1455	100.000
C - Tongwell St S		ONE HOUR	✓	1516	100.000
D - H6 Childs Way		ONE HOUR	✓	1769	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	12	665	120
	B - A4146 E	36	0	513	906
	C - Tongwell St S	1041	191	0	284
	D - H6 Childs Way	486	737	546	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	17	5	2
	B - A4146 E	3	0	18	2
	C - Tongwell St S	5	50	0	0
	D - H6 Childs Way	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.42	3.09	0.8	A	731	1097
B - A4146 E	0.64	4.28	1.9	A	1335	2003
C - Tongwell St S	0.49	2.27	1.0	A	1391	2087
D - H6 Childs Way	0.85	10.68	5.6	B	1623	2435

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	800	150	1107	2514	0.239	599	1174	0.0	0.3	1.967	A
B - A4146 E	1095	274	1000	2900	0.378	1093	706	0.0	0.6	2.132	A
C - Tongwell St S	1141	285	798	3755	0.304	1139	1295	0.0	0.5	1.487	A
D - H6 Childs Way	1332	333	953	2642	0.504	1328	984	0.0	1.0	2.751	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	716	179	1323	2339	0.306	716	1404	0.3	0.5	2.323	A
B - A4146 E	1308	327	1195	2733	0.479	1307	844	0.6	1.0	2.701	A
C - Tongwell St S	1383	341	954	3599	0.379	1382	1548	0.5	0.7	1.739	A
D - H6 Childs Way	1590	398	1139	2492	0.638	1587	1177	1.0	1.8	3.996	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	878	219	1612	2104	0.417	876	1716	0.5	0.7	3.066	A
B - A4146 E	1602	400	1460	2508	0.639	1598	1029	1.0	1.9	4.223	A
C - Tongwell St S	1669	417	1167	3386	0.493	1668	1891	0.7	1.0	2.262	A
D - H6 Childs Way	1948	487	1395	2285	0.852	1933	1440	1.8	5.4	9.909	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	878	219	1622	2096	0.419	877	1721	0.7	0.8	3.092	A
B - A4146 E	1602	400	1465	2504	0.640	1602	1035	1.9	1.9	4.278	A
C - Tongwell St S	1669	417	1169	3384	0.493	1669	1898	1.0	1.0	2.268	A
D - H6 Childs Way	1948	487	1396	2284	0.853	1947	1442	5.4	5.6	10.679	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	716	179	1336	2328	0.308	718	1410	0.8	0.5	2.342	A
B - A4146 E	1308	327	1202	2727	0.480	1312	852	1.9	1.0	2.731	A
C - Tongwell St S	1383	341	957	3596	0.379	1384	1557	1.0	0.7	1.746	A
D - H6 Childs Way	1590	398	1141	2490	0.639	1606	1180	5.6	1.8	4.166	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	800	150	1112	2509	0.239	801	1178	0.5	0.3	1.978	A
B - A4146 E	1095	274	1004	2898	0.378	1097	709	1.0	0.7	2.148	A
C - Tongwell St S	1141	285	800	3752	0.304	1142	1300	0.7	0.5	1.492	A
D - H6 Childs Way	1332	333	955	2640	0.504	1335	987	1.8	1.0	2.783	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Rounabout	Standard Roundabout		A, B, C, D	58.53	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	992	100.000
B - A4146 E		ONE HOUR	✓	2162	100.000
C - Tongwell St S		ONE HOUR	✓	2637	100.000
D - H6 Childs Way		ONE HOUR	✓	1108	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	22	803	167
	B - A4146 E	16	0	975	1171
	C - Tongwell St S	1194	1100	1	342
	D - H6 Childs Way	288	87	731	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	9	3	2
	B - A4146 E	44	0	13	5
	C - Tongwell St S	1	10	0	1
	D - H6 Childs Way	0	11	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.64	6.07	1.8	A	910	1385
B - A4146 E	1.10	156.08	119.3	F	1984	2976
C - Tongwell St S	0.91	12.92	9.9	B	2420	3630
D - H6 Childs Way	0.90	23.62	7.5	C	1015	1522

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	747	187	1440	2243	0.333	745	1125	0.0	0.5	2.470	A
B - A4146 E	1628	407	1277	2663	0.611	1621	908	0.0	1.7	3.730	A
C - Tongwell St S	1985	496	1015	3537	0.561	1980	1883	0.0	1.3	2.409	A
D - H6 Childs Way	833	208	1735	2010	0.414	830	1280	0.0	0.7	3.065	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	892	223	1721	2016	0.442	891	1344	0.5	0.8	3.290	A
B - A4146 E	1944	486	1527	2451	0.793	1934	1085	1.7	4.0	7.446	A
C - Tongwell St S	2371	593	1212	3341	0.710	2366	2250	1.3	2.5	3.843	A
D - H6 Childs Way	994	249	2073	1737	0.572	992	1504	0.7	1.3	4.850	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1092	273	2086	1721	0.635	1088	1630	0.8	1.8	5.829	A
B - A4146 E	2380	595	1857	2171	1.097	2144	1318	4.0	63.1	64.536	F
C - Tongwell St S	2903	726	1360	3192	0.909	2877	2640	2.5	9.2	11.099	B
D - H6 Childs Way	1218	304	2519	1377	0.884	1197	1718	1.3	6.5	18.432	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	1092	273	2109	1703	0.642	1092	1645	1.8	1.8	6.067	A
B - A4146 E	2380	595	1871	2158	1.103	2156	1330	63.1	119.3	156.082	F
C - Tongwell St S	2903	726	1367	3185	0.911	2901	2659	9.2	9.9	12.917	B
D - H6 Childs Way	1218	304	2540	1360	0.895	1214	1728	6.5	7.5	23.620	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	892	223	1754	1990	0.448	896	1368	1.8	0.8	3.401	A
B - A4146 E	1944	486	1550	2431	0.799	2397	1100	119.3	6.0	95.552	F
C - Tongwell St S	2371	593	1467	3086	0.768	2396	2480	9.9	3.6	5.651	A
D - H6 Childs Way	994	249	2103	1713	0.580	1019	1760	7.5	1.4	5.407	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	747	187	1450	2235	0.334	748	1133	0.8	0.5	2.495	A
B - A4146 E	1628	407	1284	2657	0.613	1645	914	6.0	1.7	3.927	A
C - Tongwell St S	1985	496	1029	3524	0.583	1994	1900	3.6	1.4	2.476	A
D - H6 Childs Way	833	208	1748	2000	0.416	835	1275	1.4	0.7	3.123	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Fox Milne Roundabout	Standard Roundabout		A, B, C, D	8.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Tongwell St N		ONE HOUR	✓	889	100.000
B - A4146 E		ONE HOUR	✓	1654	100.000
C - Tongwell St S		ONE HOUR	✓	2241	100.000
D - H6 Childs Way		ONE HOUR	✓	1510	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	12	675	182
	B - A4146 E	54	1	629	970
	C - Tongwell St S	1380	310	3	548
	D - H6 Childs Way	228	601	680	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Tongwell St N	B - A4146 E	C - Tongwell St S	D - H6 Childs Way
From	A - Tongwell St N	0	8	3	1
	B - A4146 E	2	0	10	2
	C - Tongwell St S	3	20	0	0
	D - H6 Childs Way	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Tongwell St N	0.48	3.58	0.9	A	797	1196
B - A4146 E	0.79	7.74	3.8	A	1518	2277
C - Tongwell St S	0.77	4.96	3.4	A	2056	3085
D - H6 Childs Way	0.90	17.88	7.8	C	1386	2078

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	654	164	1198	2440	0.268	653	1248	0.0	0.4	2.065	A
B - A4146 E	1245	311	1157	2768	0.450	1242	694	0.0	0.9	2.473	A
C - Tongwell St S	1687	422	907	3646	0.463	1684	1492	0.0	0.9	1.909	A
D - H6 Childs Way	1137	284	1313	2351	0.483	1133	1277	0.0	0.9	2.972	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	781	195	1432	2250	0.347	781	1492	0.4	0.5	2.512	A
B - A4146 E	1487	372	1383	2573	0.578	1485	829	0.9	1.4	3.462	A
C - Tongwell St S	2015	504	1084	3468	0.581	2012	1783	0.9	1.4	2.575	A
D - H6 Childs Way	1357	339	1570	2144	0.633	1354	1527	0.9	1.7	4.578	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	957	239	1737	2003	0.478	955	1822	0.5	0.9	3.522	A
B - A4146 E	1821	455	1685	2316	0.786	1812	1008	1.4	3.7	7.355	A
C - Tongwell St S	2467	617	1324	3229	0.764	2460	2173	1.4	3.3	4.835	A
D - H6 Childs Way	1683	416	1919	1862	0.893	1641	1865	1.7	7.2	15.103	C

17:30 - 17:45

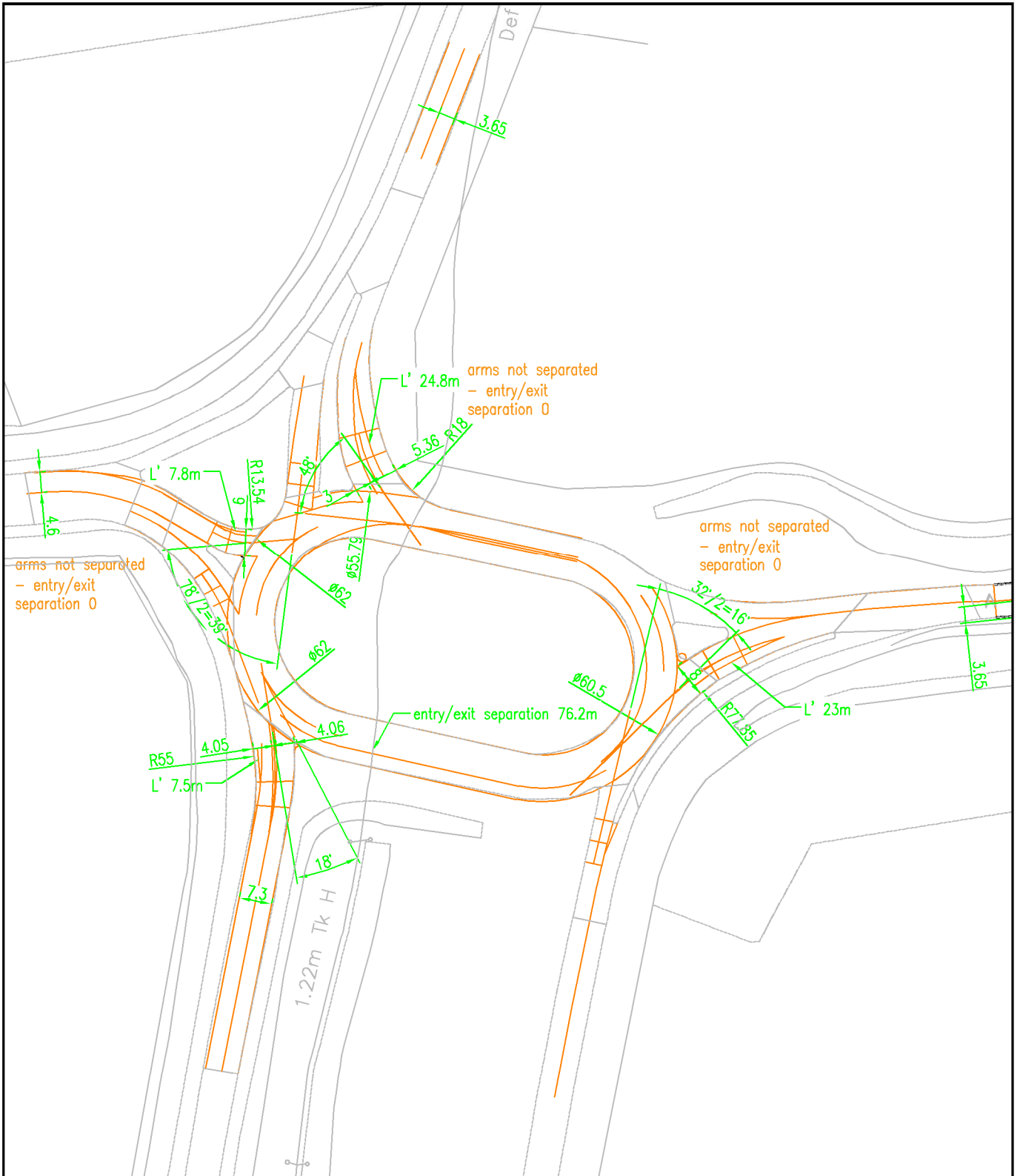
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	957	239	1755	1989	0.481	957	1829	0.9	0.9	3.579	A
B - A4146 E	1821	455	1695	2308	0.789	1821	1016	3.7	3.8	7.736	A
C - Tongwell St S	2467	617	1330	3223	0.766	2467	2186	3.3	3.4	4.963	A
D - H6 Childs Way	1683	416	1924	1858	0.895	1660	1872	7.2	7.8	17.883	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	781	195	1456	2231	0.350	783	1503	0.9	0.6	2.556	A
B - A4146 E	1487	372	1398	2561	0.581	1496	841	3.8	1.5	3.577	A
C - Tongwell St S	2015	504	1092	3461	0.582	2022	1802	3.4	1.5	2.624	A
D - H6 Childs Way	1357	339	1577	2138	0.635	1382	1537	7.8	1.8	4.953	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Tongwell St N	654	164	1205	2434	0.269	655	1253	0.6	0.4	2.077	A
B - A4146 E	1245	311	1162	2761	0.451	1248	697	1.5	0.9	2.498	A
C - Tongwell St S	1687	422	911	3642	0.463	1689	1499	1.5	0.9	1.926	A
D - H6 Childs Way	1137	284	1318	2348	0.484	1140	1283	1.8	1.0	3.014	A



ROUNDBOUT GEOMETRY – CHICHELEY HILL ROUNDBOUT (ref E12)

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
A509 (N)	3.65	8.40	24.80	18.00	55.80	48.00
A422	3.65	8.00	23.00	77.80	60.50	16.00
A509 (S)	7.30	0.00	0.00	0.00	0.00	0.00
Chicheley Hill	4.60	6.00	7.80	13.50	62.00	39.00



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: 12.Chicheley Hill Roundabout.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\Existing junctions

Report generation date: 25/03/2021 13:48:58

- »2016 MKMMM Base, AM
- »2016 MKMMM Base, PM
- »2031 Do Minimum, AM
- »2031 Do Minimum, PM
- »2048 Do Minimum, AM
- »2048 Do Minimum, PM
- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2016 MKMMM Base								
A - Chicheley Hill West	0.1	2.92	0.10	A	0.4	5.90	0.29	A
B - A509 North	1.1	3.54	0.52	A	1.1	4.94	0.52	A
C - A422 East	0.3	3.11	0.25	A	0.1	2.26	0.12	A
D - A509 South	0.5	2.09	0.33	A	1.3	3.04	0.57	A
2031 Do Minimum								
A - Chicheley Hill West	0.1	2.99	0.12	A	0.6	7.17	0.38	A
B - A509 North	1.6	4.47	0.62	A	1.5	6.01	0.61	A
C - A422 East	0.8	4.76	0.46	A	0.2	2.64	0.19	A
D - A509 South	0.6	2.52	0.36	A	1.6	3.50	0.61	A
2048 Do Minimum								
A - Chicheley Hill West	0.3	3.40	0.24	A	1.6	12.19	0.62	B
B - A509 North	3.8	8.71	0.80	A	7.1	21.68	0.89	C
C - A422 East	3.8	14.80	0.80	B	0.6	4.17	0.37	A
D - A509 South	0.5	2.98	0.34	A	1.8	4.11	0.64	A
2031 Do Something								
A - Chicheley Hill West	0.2	3.18	0.15	A	1.6	23.11	0.63	C
B - A509 North	2.8	6.78	0.74	A	2.0	8.36	0.67	A
C - A422 East	1.0	6.55	0.50	A	0.2	2.49	0.18	A
D - A509 South	0.6	2.50	0.39	A	5.1	8.47	0.84	A
2048 Do Something								
A - Chicheley Hill West	0.6	4.18	0.37	A	3.9	32.31	0.81	D
B - A509 North	22.0	45.79	0.98	E	12.3	38.46	0.95	E
C - A422 East	0.9	9.94	0.48	A	0.5	3.70	0.32	A
D - A509 South	0.7	2.28	0.40	A	3.2	6.12	0.76	A

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

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

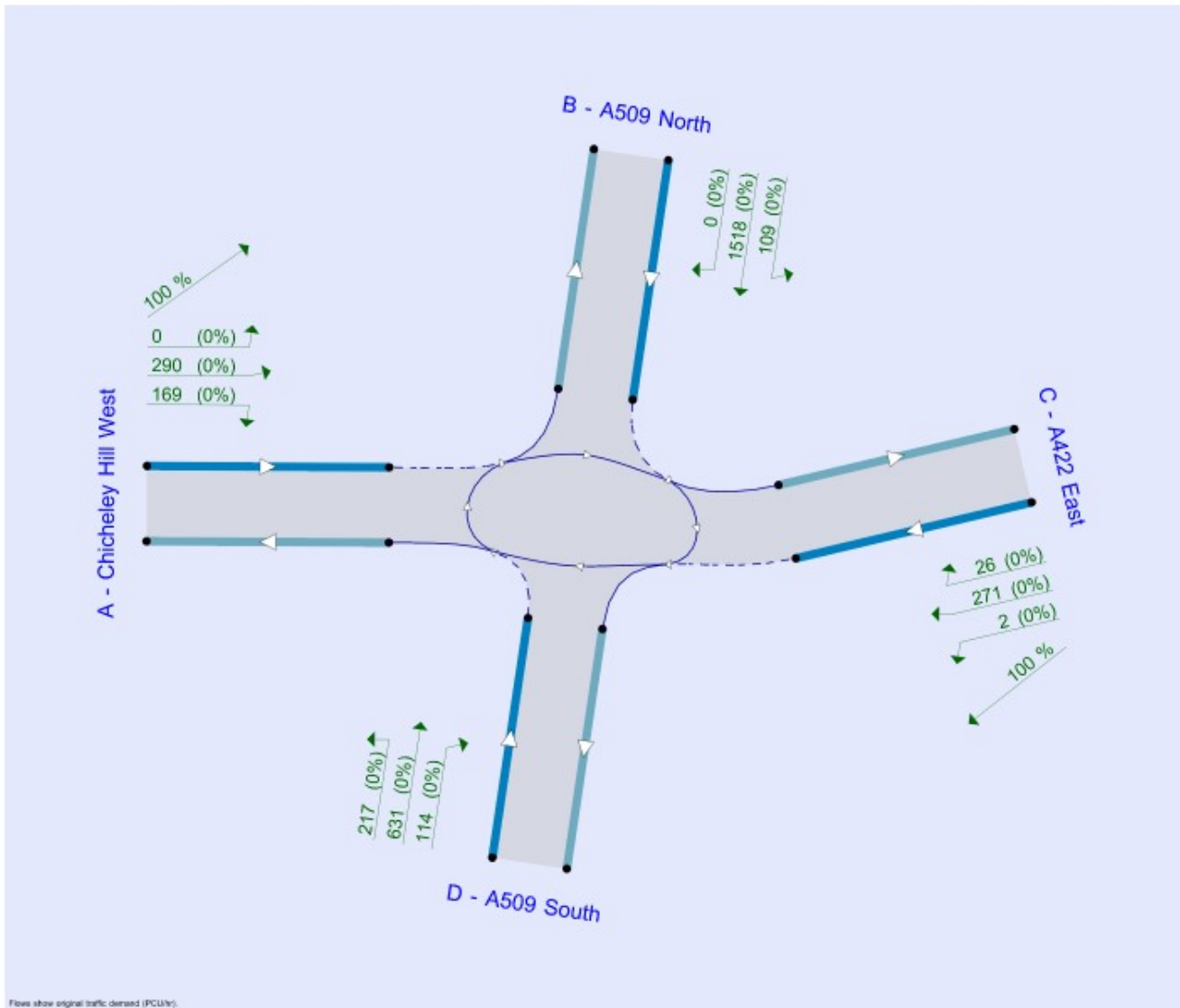
File summary

File Description

Title	
Location	
Site number	
Date	18/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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



Flows show original traffic demand (PCU/hr).
The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D5	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓
D6	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓
D9	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓
D10	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2016 MKMMM Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	2.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Chicheley Hill West	
B	A509 North	
C	A422 East	
D	A509 South	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Chicheley Hill West	4.60	6.00	7.8	13.5	62.0	39.0	
B - A509 North	3.65	8.40	24.8	18.0	55.8	48.0	
C - A422 East	3.65	8.00	23.0	77.8	60.5	16.0	
D - A509 South	7.30	8.00	7.5	55.0	62.0	18.0	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1176	0.00
D - A509 South	794	80.10

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A - Chicheley Hill West	✓	100
B - A509 North		
C - A422 East	✓	100
D - A509 South		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Chicheley Hill West	0.859	1926
B - A509 North	0.994	2454
C - A422 East	1.087	2887
D - A509 South	1.301	3082

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016 MKMMM Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	130	100.000
B - A509 North		ONE HOUR	✓	1000	100.000
C - A422 East		ONE HOUR	✓	350	100.000
D - A509 South		ONE HOUR	✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	127	3
	B - A509 North	0	0	47	953
	C - A422 East	305	45	0	0
	D - A509 South	47	538	177	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.10	2.92	0.1	A	119	179
B - A509 North	0.52	3.54	1.1	A	918	1376
C - A422 East	0.25	3.11	0.3	A	321	482
D - A509 South	0.33	2.09	0.5	A	699	1049

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	98	98	24	0	0	571	1550	0.063	98	264	0.0	0.1	2.478	
B - A509 North	753	753	188	0	0	231	2225	0.338	751	438	0.0	0.5	2.439	
C - A422 East	263	263	66	0	0	718	1907	0.138	263	264	0.0	0.2	2.190	
D - A509 South	574	574	143	0	0	263	2720	0.211	573	718	0.0	0.3	1.676	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	117	117	29	0	0	683	1476	0.079	117	316	0.1	0.1	2.647	
B - A509 North	899	899	225	0	0	276	2180	0.412	898	524	0.5	0.7	2.808	
C - A422 East	315	315	79	0	0	859	1753	0.179	314	315	0.2	0.2	2.501	
D - A509 South	685	685	171	0	0	314	2653	0.258	685	859	0.3	0.3	1.828	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	143	143	36	0	0	836	1375	0.104	143	387	0.1	0.1	2.921	
B - A509 North	1101	1101	275	0	0	338	2118	0.520	1100	641	0.7	1.1	3.530	
C - A422 East	385	385	96	0	0	1051	1544	0.250	385	386	0.2	0.3	3.103	
D - A509 South	839	839	210	0	0	385	2561	0.328	838	1051	0.3	0.5	2.089	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	143	143	36	0	0	837	1375	0.104	143	388	0.1	0.1	2.922	
B - A509 North	1101	1101	275	0	0	338	2118	0.520	1101	642	1.1	1.1	3.539	
C - A422 East	385	385	96	0	0	1053	1543	0.250	385	386	0.3	0.3	3.110	
D - A509 South	839	839	210	0	0	385	2561	0.328	839	1053	0.5	0.5	2.090	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	117	117	29	0	0	684	1476	0.079	117	317	0.1	0.1	2.651	
B - A509 North	899	899	225	0	0	276	2179	0.413	900	525	1.1	0.7	2.817	
C - A422 East	315	315	79	0	0	861	1751	0.180	315	316	0.3	0.2	2.509	
D - A509 South	685	685	171	0	0	315	2652	0.258	688	861	0.5	0.3	1.830	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	98	98	24	0	0	573	1549	0.063	98	265	0.1	0.1	2.482	
B - A509 North	753	753	188	0	0	231	2224	0.339	754	439	0.7	0.5	2.451	
C - A422 East	263	263	66	0	0	720	1904	0.138	264	264	0.2	0.2	2.195	
D - A509 South	574	574	143	0	0	264	2719	0.211	574	720	0.3	0.3	1.677	

2016 MKMMM Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	3.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1176	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016 MKMMM Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	230	100.000
B - A509 North		ONE HOUR	✓	726	100.000
C - A422 East		ONE HOUR	✓	197	100.000
D - A509 South		ONE HOUR	✓	1451	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	189	41
	B - A509 North	0	0	38	690
	C - A422 East	164	33	0	0
	D - A509 South	19	816	616	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.29	5.90	0.4	A	211	317
B - A509 North	0.52	4.94	1.1	A	666	999
C - A422 East	0.12	2.26	0.1	A	181	271
D - A509 South	0.57	3.04	1.3	A	1331	1997

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	173	173	43	0	0	1100	1201	0.144	172	137	0.0	0.2	3.499	
B - A509 North	547	547	137	0	0	635	1823	0.300	545	638	0.0	0.4	2.814	
C - A422 East	148	148	37	0	0	549	2091	0.071	148	631	0.0	0.1	1.852	
D - A509 South	1092	1092	273	0	0	148	2869	0.381	1090	549	0.0	0.6	2.020	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	207	207	52	0	0	1316	1059	0.195	206	164	0.2	0.2	4.223	
B - A509 North	653	653	163	0	0	760	1699	0.384	652	763	0.4	0.6	3.438	
C - A422 East	177	177	44	0	0	656	1973	0.090	177	755	0.1	0.1	2.003	
D - A509 South	1304	1304	326	0	0	177	2832	0.461	1303	656	0.6	0.8	2.354	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	253	253	63	0	0	1611	864	0.293	253	201	0.2	0.4	5.879	
B - A509 North	799	799	200	0	0	930	1530	0.523	797	934	0.6	1.1	4.906	
C - A422 East	217	217	54	0	0	803	1814	0.120	217	924	0.1	0.1	2.253	
D - A509 South	1598	1598	399	0	0	217	2780	0.575	1596	803	0.8	1.3	3.034	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	253	253	63	0	0	1613	863	0.293	253	201	0.4	0.4	5.903	
B - A509 North	799	799	200	0	0	931	1528	0.523	799	935	1.1	1.1	4.939	
C - A422 East	217	217	54	0	0	805	1812	0.120	217	926	0.1	0.1	2.256	
D - A509 South	1598	1598	399	0	0	217	2780	0.575	1598	805	1.3	1.3	3.044	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	207	207	52	0	0	1319	1057	0.196	207	165	0.4	0.2	4.241	
B - A509 North	653	653	163	0	0	762	1697	0.385	655	764	1.1	0.6	3.462	
C - A422 East	177	177	44	0	0	659	1970	0.090	177	758	0.1	0.1	2.007	
D - A509 South	1304	1304	326	0	0	177	2831	0.461	1306	659	1.3	0.9	2.363	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	173	173	43	0	0	1104	1199	0.144	173	138	0.2	0.2	3.514	
B - A509 North	547	547	137	0	0	638	1620	0.300	547	640	0.6	0.4	2.831	
C - A422 East	148	148	37	0	0	551	2088	0.071	148	634	0.1	0.1	1.858	
D - A509 South	1092	1092	273	0	0	148	2669	0.381	1093	551	0.9	0.6	2.028	

2031 Do Minimum, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	3.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1176	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	146	100.000
B - A509 North		ONE HOUR	✓	1189	100.000
C - A422 East		ONE HOUR	✓	575	100.000
D - A509 South		ONE HOUR	✓	738	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	143	3
	B - A509 North	0	0	108	1081
	C - A422 East	492	83	0	0
	D - A509 South	47	525	164	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.12	2.99	0.1	A	134	201
B - A509 North	0.62	4.47	1.6	A	1091	1637
C - A422 East	0.46	4.76	0.8	A	528	791
D - A509 South	0.36	2.52	0.6	A	675	1013

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	110	110	27	0	0	580	1544	0.071	110	405	0.0	0.1	2.509	
B - A509 North	895	895	224	0	0	233	2223	0.403	892	457	0.0	0.7	2.700	
C - A422 East	433	433	108	0	0	814	1802	0.240	432	312	0.0	0.3	2.624	
D - A509 South	554	554	139	0	0	432	2501	0.222	553	814	0.0	0.3	1.848	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	131	131	33	0	0	694	1469	0.089	131	484	0.1	0.1	2.690	
B - A509 North	1089	1089	267	0	0	279	2177	0.491	1068	546	0.7	1.0	3.242	
C - A422 East	517	517	129	0	0	973	1629	0.317	516	373	0.3	0.5	3.235	
D - A509 South	662	662	165	0	0	516	2390	0.277	661	973	0.3	0.4	2.082	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	161	161	40	0	0	849	1367	0.118	161	592	0.1	0.1	2.984	
B - A509 North	1309	1309	327	0	0	341	2115	0.619	1307	669	1.0	1.6	4.438	
C - A422 East	633	633	158	0	0	1191	1392	0.455	632	456	0.5	0.8	4.727	
D - A509 South	810	810	203	0	0	632	2240	0.362	810	1191	0.4	0.6	2.515	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	161	161	40	0	0	850	1366	0.118	161	593	0.1	0.1	2.988	
B - A509 North	1309	1309	327	0	0	341	2115	0.619	1309	669	1.6	1.6	4.468	
C - A422 East	633	633	158	0	0	1193	1389	0.456	633	457	0.8	0.8	4.759	
D - A509 South	810	810	203	0	0	633	2238	0.362	810	1193	0.6	0.6	2.520	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	131	131	33	0	0	695	1468	0.089	131	486	0.1	0.1	2.694	
B - A509 North	1089	1089	267	0	0	279	2177	0.491	1071	547	1.6	1.0	3.264	
C - A422 East	517	517	129	0	0	977	1625	0.318	518	374	0.8	0.5	3.259	
D - A509 South	662	662	165	0	0	518	2388	0.277	662	977	0.6	0.4	2.088	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	110	110	27	0	0	582	1543	0.071	110	406	0.1	0.1	2.513	
B - A509 North	895	895	224	0	0	234	2222	0.403	896	458	1.0	0.7	2.717	
C - A422 East	433	433	108	0	0	817	1799	0.241	433	313	0.5	0.3	2.640	
D - A509 South	554	554	139	0	0	433	2498	0.222	554	817	0.4	0.3	1.851	

2031 Do Minimum, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	4.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1178	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	283	100.000
B - A509 North		ONE HOUR	✓	839	100.000
C - A422 East		ONE HOUR	✓	293	100.000
D - A509 South		ONE HOUR	✓	1465	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	240	43
	B - A509 North	0	0	46	793
	C - A422 East	208	85	0	0
	D - A509 South	17	880	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.38	7.17	0.6	A	260	390
B - A509 North	0.61	6.01	1.5	A	770	1155
C - A422 East	0.19	2.64	0.2	A	269	403
D - A509 South	0.61	3.50	1.6	A	1344	2016

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	213	213	53	0	0	1151	1167	0.183	212	169	0.0	0.2	3.765	
B - A509 North	632	632	158	0	0	639	1819	0.347	630	725	0.0	0.5	3.021	
C - A422 East	221	221	55	0	0	627	2005	0.110	220	641	0.0	0.1	2.017	
D - A509 South	1103	1103	276	0	0	220	2776	0.397	1100	627	0.0	0.7	2.149	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	254	254	64	0	0	1377	1019	0.250	254	202	0.2	0.3	4.706	
B - A509 North	754	754	189	0	0	764	1694	0.445	753	867	0.5	0.8	3.822	
C - A422 East	263	263	66	0	0	750	1871	0.141	263	767	0.1	0.2	2.238	
D - A509 South	1317	1317	329	0	0	263	2720	0.484	1316	750	0.7	0.9	2.562	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	312	312	78	0	0	1685	815	0.382	310	247	0.3	0.6	7.115	
B - A509 North	924	924	231	0	0	935	1525	0.606	921	1061	0.8	1.5	5.933	
C - A422 East	323	323	81	0	0	918	1689	0.191	322	938	0.2	0.2	2.633	
D - A509 South	1613	1613	403	0	0	322	2643	0.610	1611	918	0.9	1.6	3.478	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	312	312	78	0	0	1688	814	0.383	312	248	0.6	0.6	7.169	
B - A509 North	924	924	231	0	0	937	1523	0.607	924	1062	1.5	1.5	6.010	
C - A422 East	323	323	81	0	0	920	1686	0.191	323	940	0.2	0.2	2.639	
D - A509 South	1613	1613	403	0	0	323	2642	0.610	1613	920	1.6	1.6	3.496	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	254	254	64	0	0	1381	1016	0.250	256	203	0.6	0.3	4.741	
B - A509 North	754	754	189	0	0	767	1691	0.446	757	869	1.5	0.8	3.864	
C - A422 East	263	263	66	0	0	754	1867	0.141	264	770	0.2	0.2	2.245	
D - A509 South	1317	1317	329	0	0	264	2719	0.484	1319	754	1.6	0.9	2.578	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	213	213	53	0	0	1155	1165	0.183	214	170	0.3	0.2	3.785	
B - A509 North	632	632	158	0	0	642	1616	0.348	633	727	0.8	0.5	3.043	
C - A422 East	221	221	55	0	0	630	2002	0.110	221	644	0.2	0.1	2.021	
D - A509 South	1103	1103	276	0	0	221	2775	0.397	1104	630	0.9	0.7	2.155	

2048 Do Minimum, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	8.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1178	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2048 Do Minimum	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	299	100.000
B - A509 North		ONE HOUR	✓	1462	100.000
C - A422 East		ONE HOUR	✓	863	100.000
D - A509 South		ONE HOUR	✓	561	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	257	42
	B - A509 North	0	0	254	1208
	C - A422 East	634	229	0	0
	D - A509 South	46	419	96	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.24	3.40	0.3	A	274	412
B - A509 North	0.80	8.71	3.8	A	1342	2012
C - A422 East	0.80	14.80	3.8	B	792	1188
D - A509 South	0.34	2.98	0.5	A	515	772

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	225	225	56	0	0	559	1558	0.144	224	510	0.0	0.2	2.897	
B - A509 North	1101	1101	275	0	0	297	2159	0.510	1097	488	0.0	1.0	3.378	
C - A422 East	650	650	162	0	0	938	1668	0.390	647	456	0.0	0.6	3.519	
D - A509 South	422	422	106	0	0	647	2220	0.190	421	938	0.0	0.2	2.000	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	269	269	67	0	0	668	1486	0.181	269	610	0.2	0.2	2.956	
B - A509 North	1314	1314	329	0	0	355	2101	0.625	1312	582	1.0	1.6	4.545	
C - A422 East	776	776	194	0	0	1122	1467	0.529	774	545	0.6	1.1	5.175	
D - A509 South	504	504	126	0	0	774	2055	0.245	504	1122	0.2	0.3	2.320	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	329	329	82	0	0	816	1389	0.237	329	741	0.2	0.3	3.397	
B - A509 North	1610	1610	402	0	0	434	2022	0.796	1601	710	1.6	3.7	8.392	
C - A422 East	950	950	238	0	0	1369	1198	0.793	940	666	1.1	3.6	13.484	
D - A509 South	618	618	154	0	0	940	1839	0.336	617	1369	0.3	0.5	2.945	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	329	329	82	0	0	819	1386	0.237	329	748	0.3	0.3	3.404	
B - A509 North	1610	1610	402	0	0	435	2022	0.796	1609	713	3.7	3.8	8.712	
C - A422 East	950	950	238	0	0	1376	1191	0.798	949	668	3.6	3.8	14.799	
D - A509 South	618	618	154	0	0	949	1827	0.338	618	1376	0.5	0.5	2.976	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	269	269	67	0	0	672	1483	0.181	269	619	0.3	0.2	2.965	
B - A509 North	1314	1314	329	0	0	356	2101	0.626	1323	586	3.8	1.7	4.679	
C - A422 East	776	776	194	0	0	1131	1457	0.532	788	548	3.8	1.2	5.444	
D - A509 South	504	504	126	0	0	788	2039	0.247	505	1131	0.5	0.3	2.347	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	225	225	56	0	0	561	1557	0.145	225	513	0.2	0.2	2.704	
B - A509 North	1101	1101	275	0	0	298	2158	0.510	1103	489	1.7	1.0	3.423	
C - A422 East	650	650	162	0	0	943	1661	0.391	652	458	1.2	0.6	3.574	
D - A509 South	422	422	106	0	0	652	2214	0.191	423	943	0.3	0.2	2.009	

2048 Do Minimum, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	10.96	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1176	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2048 Do Minimum	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	441	100.000
B - A509 North		ONE HOUR	✓	1129	100.000
C - A422 East		ONE HOUR	✓	451	100.000
D - A509 South		ONE HOUR	✓	1400	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
A - Chicheley Hill West	0	0	323	118
B - A509 North	0	0	136	993
C - A422 East	252	199	0	0
D - A509 South	20	859	521	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
A - Chicheley Hill West	0	0	0	0
B - A509 North	0	0	0	0
C - A422 East	0	0	0	0
D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.62	12.19	1.6	B	405	607
B - A509 North	0.89	21.68	7.1	C	1036	1554
C - A422 East	0.37	4.17	0.6	A	414	621
D - A509 South	0.64	4.11	1.8	A	1285	1927

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	332	332	83	0	0	1185	1145	0.290	330	204	0.0	0.4	4.412	
B - A509 North	850	850	212	0	0	722	1737	0.489	848	794	0.0	1.0	4.028	
C - A422 East	340	340	85	0	0	833	1782	0.191	339	735	0.0	0.2	2.493	
D - A509 South	1054	1054	283	0	0	339	2622	0.402	1051	833	0.0	0.7	2.288	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	396	396	99	0	0	1418	991	0.400	395	244	0.4	0.7	6.030	
B - A509 North	1015	1015	254	0	0	883	1596	0.636	1012	950	1.0	1.7	6.133	
C - A422 East	405	405	101	0	0	996	1604	0.253	405	879	0.2	0.3	3.002	
D - A509 South	1259	1259	315	0	0	405	2535	0.496	1257	996	0.7	1.0	2.815	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	486	486	121	0	0	1735	782	0.621	482	299	0.7	1.6	11.834	
B - A509 North	1243	1243	311	0	0	1054	1406	0.884	1224	1163	1.7	6.5	18.184	
C - A422 East	497	497	124	0	0	1206	1376	0.361	496	1073	0.3	0.6	4.084	
D - A509 South	1541	1541	385	0	0	496	2417	0.638	1538	1206	1.0	1.7	4.082	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	486	486	121	0	0	1738	780	0.622	485	299	1.6	1.6	12.194	
B - A509 North	1243	1243	311	0	0	1059	1401	0.887	1241	1165	6.5	7.1	21.681	
C - A422 East	497	497	124	0	0	1221	1359	0.365	497	1079	0.6	0.6	4.172	
D - A509 South	1541	1541	385	0	0	497	2416	0.638	1541	1221	1.7	1.8	4.115	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	396	396	99	0	0	1423	988	0.401	400	245	1.6	0.7	6.158	
B - A509 North	1015	1015	254	0	0	870	1589	0.639	1036	953	7.1	1.8	6.747	
C - A422 East	405	405	101	0	0	1018	1580	0.257	406	887	0.6	0.3	3.069	
D - A509 South	1259	1259	315	0	0	406	2533	0.497	1262	1018	1.8	1.0	2.838	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	332	332	83	0	0	1190	1142	0.291	333	205	0.7	0.4	4.458	
B - A509 North	850	850	212	0	0	726	1733	0.491	853	797	1.8	1.0	4.110	
C - A422 East	340	340	85	0	0	840	1774	0.191	340	739	0.3	0.2	2.510	
D - A509 South	1054	1054	283	0	0	340	2620	0.402	1055	840	1.0	0.7	2.302	

2031 Do Something, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	5.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1178	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	178	100.000
B - A509 North		ONE HOUR	✓	1372	100.000
C - A422 East		ONE HOUR	✓	508	100.000
D - A509 South		ONE HOUR	✓	818	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	148	30
	B - A509 North	0	0	82	1290
	C - A422 East	447	59	0	0
	D - A509 South	50	589	199	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.15	3.18	0.2	A	163	245
B - A509 North	0.74	6.78	2.8	A	1259	1888
C - A422 East	0.50	6.55	1.0	A	464	696
D - A509 South	0.39	2.50	0.6	A	751	1126

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	134	134	34	0	0	621	1517	0.088	134	373	0.0	0.1	2.802	
B - A509 North	1033	1033	258	0	0	283	2173	0.475	1029	472	0.0	0.9	3.149	
C - A422 East	381	381	95	0	0	990	1610	0.237	380	322	0.0	0.3	2.923	
D - A509 South	616	616	154	0	0	380	2568	0.240	615	990	0.0	0.3	1.843	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	160	160	40	0	0	743	1437	0.111	160	446	0.1	0.1	2.819	
B - A509 North	1233	1233	308	0	0	339	2117	0.583	1231	564	0.9	1.4	4.055	
C - A422 East	455	455	114	0	0	1185	1399	0.325	454	385	0.3	0.5	3.810	
D - A509 South	735	735	184	0	0	454	2471	0.298	735	1185	0.3	0.4	2.073	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	196	196	49	0	0	910	1327	0.148	196	545	0.1	0.2	3.182	
B - A509 North	1511	1511	378	0	0	415	2042	0.740	1505	691	1.4	2.8	6.639	
C - A422 East	557	557	139	0	0	1448	1112	0.501	555	472	0.5	1.0	6.438	
D - A509 South	901	901	225	0	0	555	2340	0.385	900	1448	0.4	0.6	2.498	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	196	196	49	0	0	911	1326	0.148	196	547	0.2	0.2	3.184	
B - A509 North	1511	1511	378	0	0	415	2041	0.740	1510	691	2.8	2.8	6.776	
C - A422 East	557	557	139	0	0	1453	1107	0.503	557	472	1.0	1.0	6.547	
D - A509 South	901	901	225	0	0	557	2337	0.385	901	1453	0.6	0.6	2.505	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	160	160	40	0	0	744	1438	0.111	160	449	0.2	0.1	2.824	
B - A509 North	1233	1233	308	0	0	339	2117	0.583	1239	565	2.8	1.4	4.128	
C - A422 East	455	455	114	0	0	1192	1391	0.327	457	386	1.0	0.5	3.862	
D - A509 South	735	735	184	0	0	457	2468	0.298	736	1192	0.6	0.4	2.081	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	134	134	34	0	0	623	1516	0.088	134	375	0.1	0.1	2.605	
B - A509 North	1033	1033	258	0	0	284	2172	0.476	1035	473	1.4	0.9	3.174	
C - A422 East	381	381	95	0	0	996	1604	0.237	382	323	0.5	0.3	2.945	
D - A509 South	616	616	154	0	0	382	2566	0.240	616	996	0.4	0.3	1.846	

2031 Do Something, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	8.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1176	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	239	100.000
B - A509 North		ONE HOUR	✓	805	100.000
C - A422 East		ONE HOUR	✓	279	100.000
D - A509 South		ONE HOUR	✓	2034	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	204	35
	B - A509 North	0	0	61	744
	C - A422 East	204	75	0	0
	D - A509 South	30	1203	801	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.63	23.11	1.6	C	219	329
B - A509 North	0.67	8.36	2.0	A	739	1108
C - A422 East	0.18	2.49	0.2	A	256	384
D - A509 South	0.84	8.47	5.1	A	1866	2800

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	180	180	45	0	0	1560	898	0.200	179	176	0.0	0.2	5.001	
B - A509 North	606	606	152	0	0	780	1679	0.361	604	959	0.0	0.6	3.342	
C - A422 East	210	210	53	0	0	584	2052	0.102	210	800	0.0	0.1	1.954	
D - A509 South	1531	1531	383	0	0	210	2789	0.549	1528	584	0.0	1.2	2.840	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	215	215	54	0	0	1886	696	0.309	214	210	0.2	0.4	7.453	
B - A509 North	724	724	181	0	0	933	1527	0.474	722	1147	0.6	0.9	4.469	
C - A422 East	251	251	63	0	0	699	1927	0.130	251	956	0.1	0.1	2.147	
D - A509 South	1829	1829	457	0	0	251	2736	0.668	1825	699	1.2	2.0	3.940	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	263	263	66	0	0	2277	425	0.619	259	257	0.4	1.5	21.116	
B - A509 North	886	886	222	0	0	1136	1325	0.669	882	1400	0.9	2.0	8.051	
C - A422 East	307	307	77	0	0	853	1759	0.175	307	1165	0.1	0.2	2.478	
D - A509 South	2239	2239	560	0	0	307	2663	0.841	2227	853	2.0	5.0	8.054	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	263	263	66	0	0	2288	418	0.630	263	258	1.5	1.6	23.113	
B - A509 North	886	886	222	0	0	1144	1316	0.673	886	1407	2.0	2.0	8.356	
C - A422 East	307	307	77	0	0	857	1755	0.175	307	1173	0.2	0.2	2.486	
D - A509 South	2239	2239	560	0	0	307	2662	0.841	2239	857	5.0	5.1	8.471	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	215	215	54	0	0	1881	686	0.313	220	211	1.6	0.5	7.791	
B - A509 North	724	724	181	0	0	945	1515	0.478	728	1156	2.0	0.9	4.600	
C - A422 East	251	251	63	0	0	705	1920	0.131	251	968	0.2	0.2	2.158	
D - A509 South	1829	1829	457	0	0	251	2735	0.668	1841	705	5.1	2.0	4.080	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	180	180	45	0	0	1568	892	0.202	181	176	0.5	0.3	5.064	
B - A509 North	606	606	152	0	0	785	1674	0.362	607	964	0.9	0.6	3.380	
C - A422 East	210	210	53	0	0	588	2048	0.103	210	805	0.2	0.1	1.958	
D - A509 South	1531	1531	383	0	0	210	2789	0.549	1535	588	2.0	1.2	2.877	

2048 Do Something, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	24.37	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1178	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2048 Do Something	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	459	100.000
B - A509 North		ONE HOUR	✓	1627	100.000
C - A422 East		ONE HOUR	✓	299	100.000
D - A509 South		ONE HOUR	✓	962	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	290	169
	B - A509 North	0	0	109	1518
	C - A422 East	271	26	0	2
	D - A509 South	217	631	114	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.37	4.18	0.6	A	421	632
B - A509 North	0.98	45.79	22.0	E	1493	2239
C - A422 East	0.48	9.94	0.9	A	274	409
D - A509 South	0.40	2.28	0.7	A	883	1324

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	346	346	86	0	0	579	1544	0.224	344	366	0.0	0.3	2.997	
B - A509 North	1225	1225	306	0	0	430	2028	0.604	1219	494	0.0	1.5	4.425	
C - A422 East	225	224	56	2	0	1264	1313	0.170	223	385	0.0	0.2	3.302	
D - A509 South	724	724	181	0	2	223	2772	0.261	723	1264	0.0	0.4	1.758	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	413	413	103	0	0	693	1470	0.281	412	438	0.3	0.4	3.404	
B - A509 North	1483	1463	386	0	0	515	1942	0.753	1457	590	1.5	3.0	7.327	
C - A422 East	269	267	67	2	0	1511	1044	0.256	266	460	0.2	0.3	4.627	
D - A509 South	865	865	216	0	2	266	2715	0.318	864	1511	0.4	0.5	1.945	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	505	505	126	0	0	848	1367	0.370	505	535	0.4	0.6	4.169	
B - A509 North	1791	1791	448	0	0	630	1828	0.980	1736	723	3.0	16.9	29.194	
C - A422 East	329	327	82	2	0	1805	724	0.452	325	561	0.3	0.8	8.978	
D - A509 South	1059	1059	285	0	2	325	2639	0.401	1058	1805	0.5	0.7	2.276	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	505	505	126	0	0	849	1367	0.370	505	537	0.6	0.6	4.178	
B - A509 North	1791	1791	448	0	0	631	1827	0.981	1771	723	16.9	22.0	45.786	
C - A422 East	329	327	82	2	0	1838	688	0.475	327	563	0.8	0.9	9.945	
D - A509 South	1059	1059	285	0	2	327	2637	0.402	1059	1838	0.7	0.7	2.281	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	413	413	103	0	0	694	1469	0.281	413	441	0.6	0.4	3.414	
B - A509 North	1483	1463	386	0	0	516	1941	0.754	1538	591	22.0	3.2	10.595	
C - A422 East	269	267	67	2	0	1587	961	0.278	269	467	0.9	0.4	5.215	
D - A509 South	865	865	216	0	2	269	2712	0.319	866	1587	0.7	0.5	1.950	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	346	346	86	0	0	581	1543	0.224	346	368	0.4	0.3	3.006	
B - A509 North	1225	1225	306	0	0	432	2025	0.605	1231	495	3.2	1.6	4.575	
C - A422 East	225	224	56	2	0	1276	1299	0.172	224	387	0.4	0.2	3.350	
D - A509 South	724	724	181	0	2	224	2770	0.261	725	1276	0.5	0.4	1.759	

2048 Do Something, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Chicheley Hill Roundabout	Large Roundabout		A, B, C, D	18.66	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A - Chicheley Hill West	2211	0.00
B - A509 North	1195	0.00
C - A422 East	1176	0.00
D - A509 South	794	80.10

Bypass

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2048 Do Something	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Chicheley Hill West		ONE HOUR	✓	419	100.000
B - A509 North		ONE HOUR	✓	1107	100.000
C - A422 East		ONE HOUR	✓	409	100.000
D - A509 South		ONE HOUR	✓	1715	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	319	100
	B - A509 North	0	0	143	964
	C - A422 East	228	181	0	0
	D - A509 South	25	1043	647	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Chicheley Hill West	B - A509 North	C - A422 East	D - A509 South
From	A - Chicheley Hill West	0	0	0	0
	B - A509 North	0	0	0	0
	C - A422 East	0	0	0	0
	D - A509 South	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Chicheley Hill West	0.81	32.31	3.9	D	384	577
B - A509 North	0.95	38.46	12.3	E	1016	1524
C - A422 East	0.32	3.70	0.5	A	375	563
D - A509 South	0.76	6.12	3.2	A	1574	2361

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	315	315	79	0	0	1405	1000	0.315	314	190	0.0	0.5	5.228	
B - A509 North	833	833	208	0	0	799	1659	0.502	829	919	0.0	1.0	4.316	
C - A422 East	308	308	77	0	0	797	1820	0.169	307	832	0.0	0.2	2.378	
D - A509 South	1291	1291	323	0	0	307	2663	0.485	1287	797	0.0	0.9	2.612	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	377	377	94	0	0	1680	819	0.460	375	227	0.5	0.8	8.083	
B - A509 North	995	995	249	0	0	956	1504	0.662	992	1099	1.0	1.9	6.978	
C - A422 East	368	368	92	0	0	953	1651	0.223	367	995	0.2	0.3	2.804	
D - A509 South	1542	1542	385	0	0	367	2584	0.597	1540	953	0.9	1.5	3.439	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	461	461	115	0	0	2053	573	0.805	450	278	0.8	3.6	27.358	
B - A509 North	1219	1219	305	0	0	1160	1301	0.937	1187	1343	1.9	9.8	26.590	
C - A422 East	450	450	113	0	0	1141	1446	0.311	450	1206	0.3	0.4	3.611	
D - A509 South	1888	1888	472	0	0	450	2477	0.762	1882	1141	1.5	3.1	5.979	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	461	461	115	0	0	2060	568	0.812	460	279	3.6	3.9	32.313	
B - A509 North	1219	1219	305	0	0	1172	1289	0.946	1209	1348	9.8	12.3	38.456	
C - A422 East	450	450	113	0	0	1163	1423	0.316	450	1219	0.4	0.5	3.700	
D - A509 South	1888	1888	472	0	0	450	2476	0.763	1888	1163	3.1	3.2	6.116	

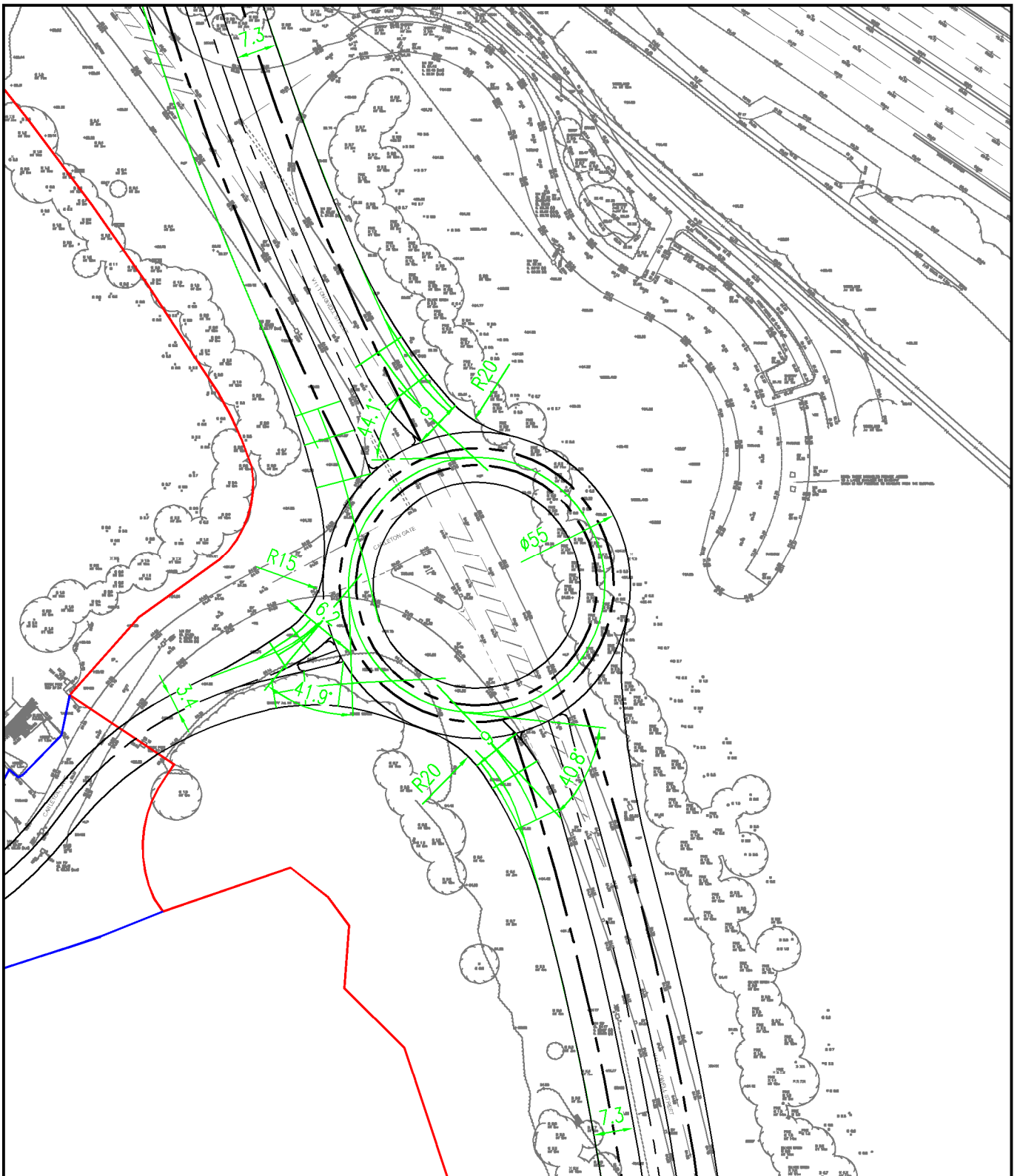
17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	377	377	94	0	0	1689	813	0.463	389	228	3.9	0.9	8.721	
B - A509 North	995	995	249	0	0	973	1487	0.669	1036	1105	12.3	2.1	8.687	
C - A422 East	368	368	92	0	0	995	1605	0.229	368	1014	0.5	0.3	2.913	
D - A509 South	1542	1542	385	0	0	368	2583	0.597	1548	995	3.2	1.5	3.501	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
A - Chicheley Hill West	315	315	79	0	0	1411	996	0.317	317	191	0.9	0.5	5.315	
B - A509 North	833	833	208	0	0	805	1654	0.504	838	923	2.1	1.0	4.432	
C - A422 East	308	308	77	0	0	805	1812	0.170	308	838	0.3	0.2	2.394	
D - A509 South	1291	1291	323	0	0	308	2661	0.485	1293	805	1.5	0.9	2.635	





ROUNDBOUT GEOMETRY – NEW JUNCTION 1

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
North	7.30	9.00	20.10	20.00	55.00	44.10
West	3.38	6.25	12.30	15.00	55.00	41.90
South	7.30	9.00	16.00	20.00	55.00	40.80

Junctions 9
ARCADY 9 - Roundabout Module
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Filename: 1. New Junction 1.j9
Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\New junctions
Report generation date: 25/03/2021 14:38:38

- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Do Something								
A - North Arm	1.2	3.37	0.52	A	0.9	2.93	0.47	A
B - South Arm	1.4	3.58	0.56	A	1.7	3.96	0.62	A
C - West Arm	0.2	5.81	0.19	A	0.3	7.00	0.23	A
2048 Do Something								
A - North Arm	2.9	5.82	0.74	A	1.9	4.29	0.65	A
B - South Arm	3.1	6.34	0.75	A	2.7	5.57	0.72	A
C - West Arm	1.1	12.07	0.51	B	0.7	10.34	0.42	B

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

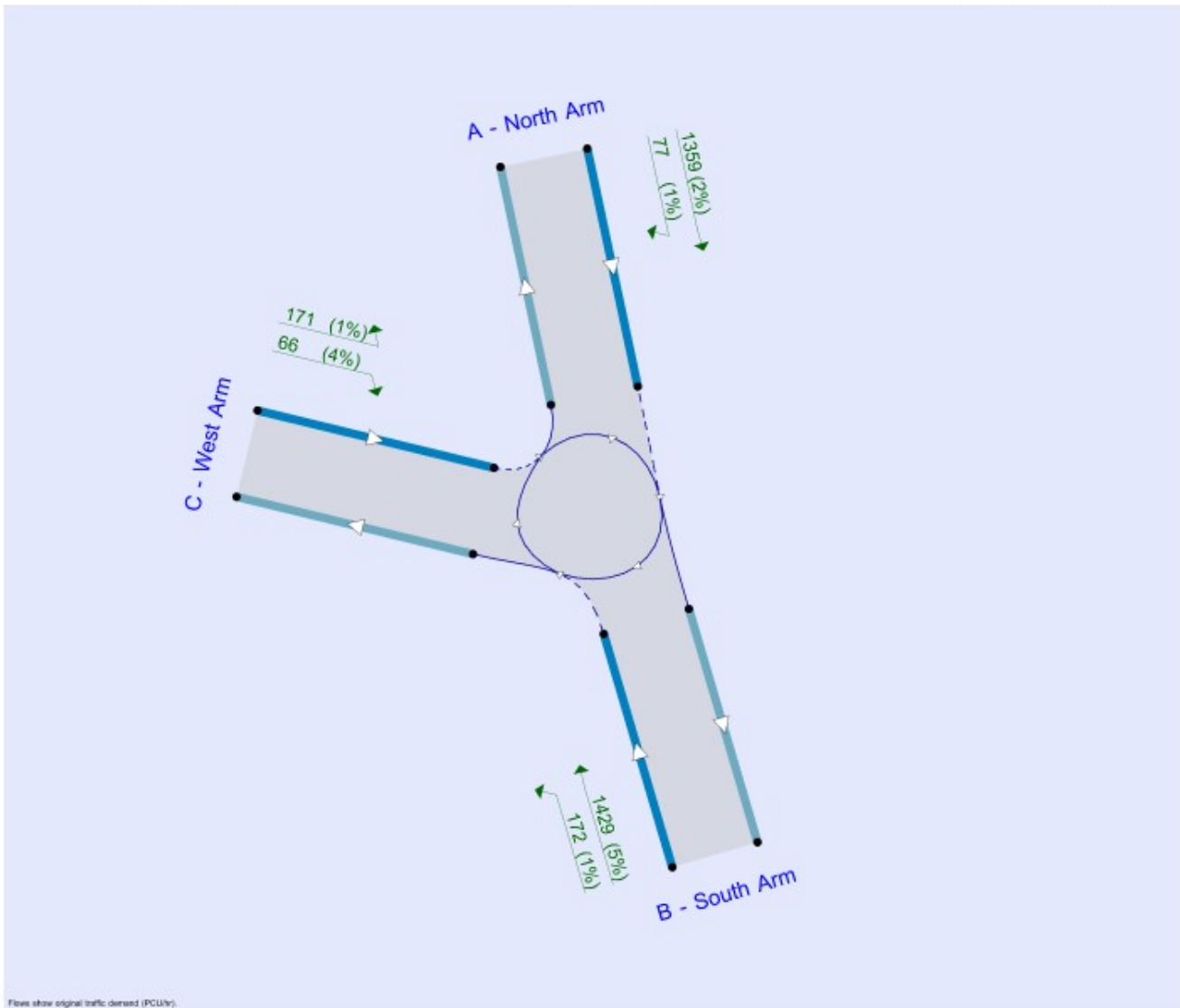
File summary

File Description

Title	
Location	
Site number	
Date	19/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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



Flows show original traffic demand (PCU/hr).
The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	3.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	North Arm	
B	South Arm	
C	West Arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - North Arm	7.30	9.00	20.1	20.0	55.0	44.1	
B - South Arm	7.30	9.00	16.0	20.0	55.0	40.8	
C - West Arm	3.38	6.25	12.3	15.0	55.0	41.9	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - North Arm	0.714	2489
B - South Arm	0.719	2499
C - West Arm	0.520	1433

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	1143	100.000
B - South Arm		✓	1245	100.000
C - West Arm		✓	138	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	1057	88
	B - South Arm	1103	0	142
	C - West Arm	21	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	7	3
	B - South Arm	6	0	2
	C - West Arm	7	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.52	3.37	1.2	A
B - South Arm	0.58	3.58	1.4	A
C - West Arm	0.19	5.81	0.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	861	86	2428	0.354	858	0.6	2.444	A
B - South Arm	937	65	2453	0.382	935	0.6	2.498	A
C - West Arm	102	828	1003	0.102	102	0.1	4.206	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1028	103	2415	0.425	1027	0.8	2.764	A
B - South Arm	1119	77	2443	0.458	1118	0.9	2.868	A
C - West Arm	122	991	918	0.133	122	0.2	4.760	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1258	128	2399	0.525	1257	1.2	3.358	A
B - South Arm	1371	95	2431	0.564	1369	1.4	3.571	A
C - West Arm	150	1213	803	0.187	149	0.2	5.800	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1258	127	2399	0.525	1258	1.2	3.367	A
B - South Arm	1371	95	2431	0.564	1371	1.4	3.582	A
C - West Arm	150	1214	802	0.187	150	0.2	5.812	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1028	104	2415	0.425	1029	0.8	2.775	A
B - South Arm	1119	77	2443	0.458	1121	0.9	2.876	A
C - West Arm	122	993	917	0.133	123	0.2	4.773	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	861	87	2427	0.355	861	0.6	2.455	A
B - South Arm	937	65	2452	0.382	938	0.7	2.510	A
C - West Arm	102	831	1001	0.102	103	0.1	4.221	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	3.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	1026	100.000
B - South Arm		✓	1389	100.000
C - West Arm		✓	141	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	994	32
	B - South Arm	1305	0	84
	C - West Arm	38	103	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	4	2
	B - South Arm	4	0	1
	C - West Arm	4	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.47	2.93	0.9	A
B - South Arm	0.62	3.96	1.7	A
C - West Arm	0.23	7.00	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	772	77	2434	0.317	771	0.5	2.247	A
B - South Arm	1046	24	2482	0.421	1043	0.8	2.591	A
C - West Arm	106	980	924	0.115	106	0.1	4.540	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	922	92	2423	0.381	922	0.6	2.490	A
B - South Arm	1249	29	2478	0.504	1248	1.0	3.033	A
C - West Arm	127	1172	824	0.154	127	0.2	5.330	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1130	113	2408	0.469	1129	0.9	2.920	A
B - South Arm	1529	35	2474	0.618	1527	1.7	3.937	A
C - West Arm	155	1435	687	0.226	155	0.3	6.974	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1130	113	2408	0.469	1130	0.9	2.925	A
B - South Arm	1529	35	2474	0.618	1529	1.7	3.957	A
C - West Arm	155	1437	688	0.226	155	0.3	7.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	922	93	2423	0.381	923	0.6	2.498	A
B - South Arm	1249	29	2478	0.504	1251	1.1	3.050	A
C - West Arm	127	1175	822	0.154	127	0.2	5.352	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	772	78	2434	0.317	773	0.5	2.255	A
B - South Arm	1046	24	2482	0.421	1047	0.8	2.608	A
C - West Arm	106	984	922	0.115	106	0.1	4.561	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	6.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	1648	100.000
B - South Arm		✓	1628	100.000
C - West Arm		✓	291	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	1516	132
	B - South Arm	1409	0	219
	C - West Arm	242	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	3	2
	B - South Arm	7	0	1
	C - West Arm	2	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.74	5.82	2.9	A
B - South Arm	0.75	6.34	3.1	A
C - West Arm	0.51	12.07	1.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1241	37	2463	0.504	1237	1.0	3.011	A
B - South Arm	1226	99	2428	0.505	1221	1.1	3.155	A
C - West Arm	219	1057	884	0.248	218	0.3	5.546	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1482	44	2458	0.603	1479	1.5	3.779	A
B - South Arm	1464	119	2414	0.606	1461	1.6	4.004	A
C - West Arm	262	1265	776	0.337	261	0.5	7.178	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1814	54	2451	0.740	1809	2.9	5.727	A
B - South Arm	1792	145	2395	0.748	1787	3.1	6.224	A
C - West Arm	320	1546	629	0.509	318	1.0	11.822	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1814	54	2451	0.740	1814	2.9	5.818	A
B - South Arm	1792	145	2394	0.749	1792	3.1	6.342	A
C - West Arm	320	1551	627	0.511	320	1.1	12.071	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1482	44	2458	0.603	1487	1.6	3.836	A
B - South Arm	1464	119	2413	0.606	1469	1.7	4.074	A
C - West Arm	262	1272	772	0.339	264	0.5	7.309	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1241	37	2463	0.504	1243	1.1	3.043	A
B - South Arm	1226	100	2427	0.505	1228	1.1	3.193	A
C - West Arm	219	1063	881	0.249	220	0.3	5.605	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	5.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	1436	100.000
B - South Arm		✓	1801	100.000
C - West Arm		✓	237	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	1359	77
	B - South Arm	1429	0	172
	C - West Arm	171	66	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - North Arm	B - South Arm	C - West Arm
From	A - North Arm	0	2	1
	B - South Arm	5	0	1
	C - West Arm	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.65	4.29	1.9	A
B - South Arm	0.72	5.57	2.7	A
C - West Arm	0.42	10.34	0.7	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1081	49	2454	0.441	1078	0.8	2.662	A
B - South Arm	1205	58	2457	0.490	1201	1.0	2.988	A
C - West Arm	178	1072	876	0.204	177	0.3	5.241	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1291	59	2447	0.528	1290	1.1	3.169	A
B - South Arm	1439	69	2449	0.588	1437	1.5	3.714	A
C - West Arm	213	1283	766	0.278	213	0.4	6.615	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1581	72	2438	0.649	1578	1.9	4.256	A
B - South Arm	1763	85	2438	0.723	1758	2.7	5.496	A
C - West Arm	261	1569	617	0.423	260	0.7	10.203	B

17:30 - 17:45

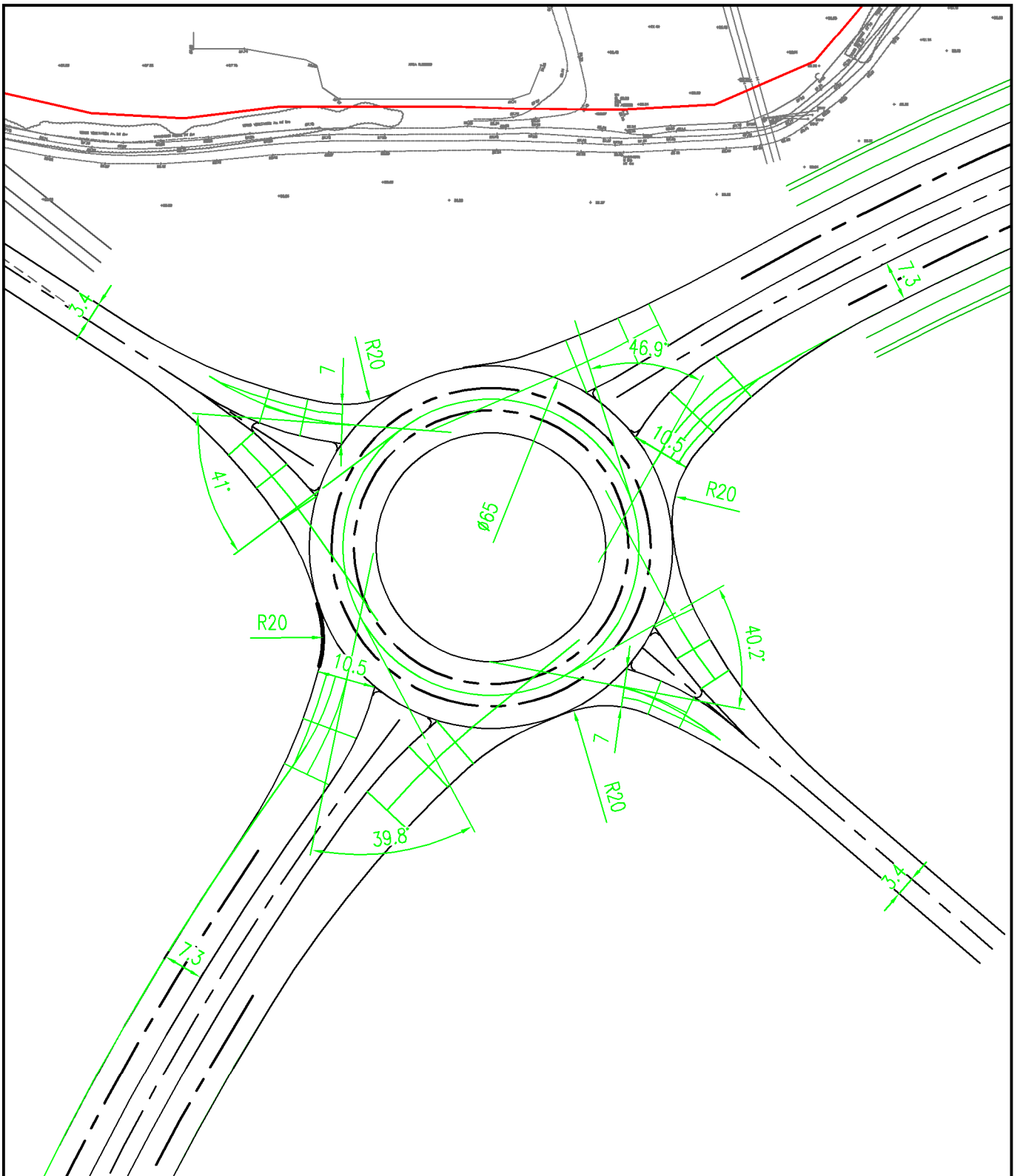
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1581	73	2437	0.649	1581	1.9	4.285	A
B - South Arm	1763	85	2438	0.723	1763	2.7	5.571	A
C - West Arm	261	1573	615	0.424	261	0.7	10.340	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1291	60	2447	0.528	1294	1.1	3.190	A
B - South Arm	1439	69	2449	0.588	1444	1.5	3.764	A
C - West Arm	213	1289	763	0.279	214	0.4	6.695	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1081	50	2454	0.441	1082	0.8	2.678	A
B - South Arm	1205	58	2457	0.491	1207	1.0	3.015	A
C - West Arm	178	1078	873	0.204	179	0.3	5.286	A



ROUNDAABOUT GEOMETRY – NEW JUNCTION 2

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
North East	7.30	10.50	21.20	20.00	65.00	46.90
South East	3.38	7.00	18.50	20.00	65.00	40.20
South West	7.30	10.50	17.20	20.00	65.00	39.80
North West	3.38	7.00	23.00	20.00	65.00	41.00

Junctions 9
ARCADY 9 - Roundabout Module
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Filename: 2. New Junction 2.j9
Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\New junctions
Report generation date: 25/03/2021 14:41:23

- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Do Something								
A - East Arm	1.4	3.68	0.57	A	0.6	2.41	0.36	A
B - South East Arm	0.0	0.00	0.00	A	0.0	0.00	0.00	A
C - South West Arm	0.2	1.94	0.18	A	1.2	3.01	0.53	A
D - West Arm	0.6	4.22	0.32	A	3.5	15.59	0.78	C
2048 Do Something								
A - East Arm	3.1	6.14	0.75	A	1.2	3.39	0.53	A
B - South East Arm	0.1	7.99	0.12	A	0.0	4.86	0.03	A
C - South West Arm	0.4	2.15	0.29	A	2.0	4.25	0.66	A
D - West Arm	0.5	3.87	0.29	A	4.4	20.98	0.81	C

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

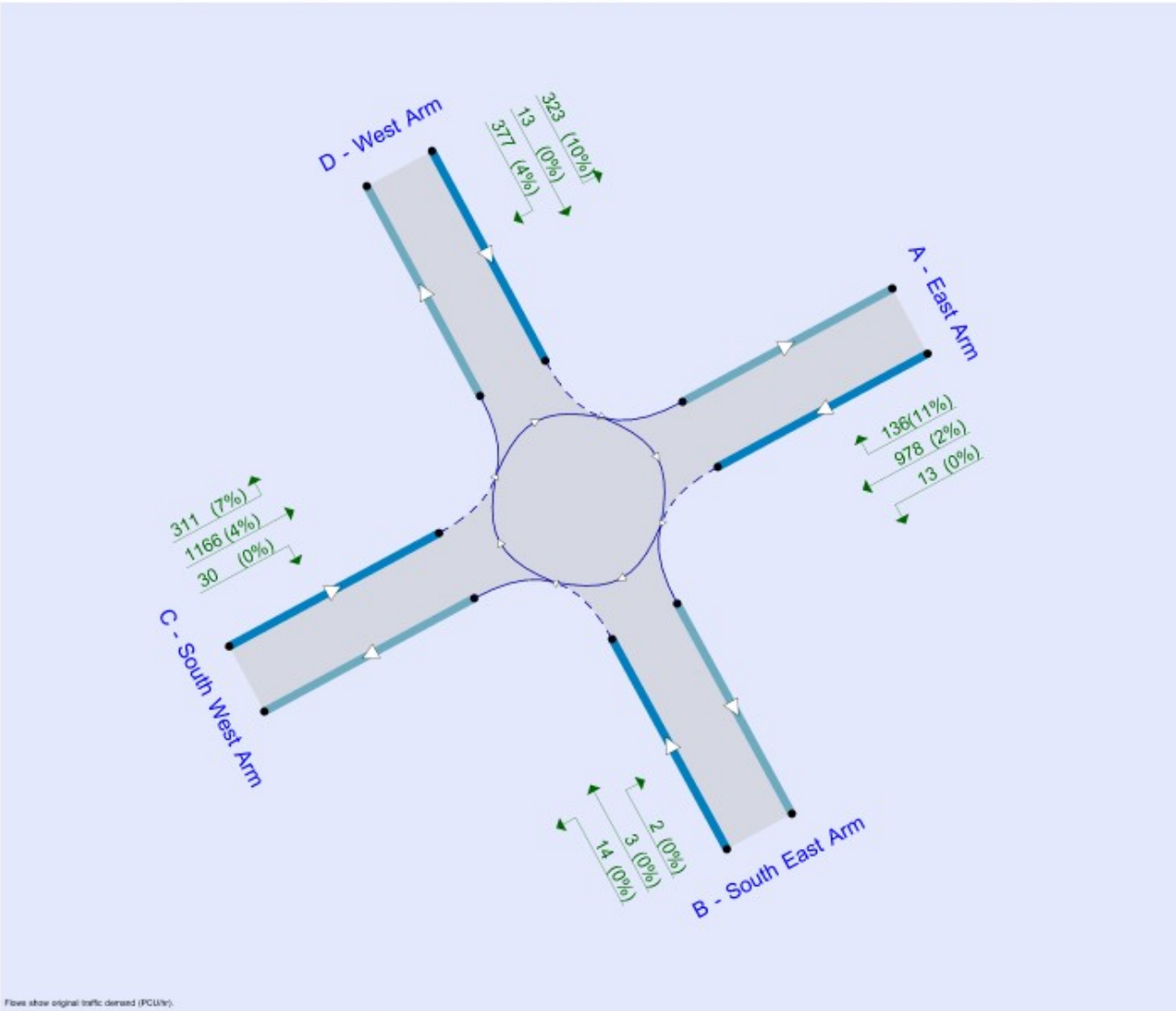
File summary

File Description

Title	
Location	
Site number	
Date	19/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	New Junction 2	Standard Roundabout		A, B, C, D	3.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	East Arm	
B	South East Arm	
C	South West Arm	
D	West Arm	

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 - East Arm	7.30	10.50	21.2	20.0	65.0	46.9	
B - South East Arm	3.38	7.00	18.5	20.0	65.0	40.2	
C - South West Arm	7.30	10.50	17.2	20.0	65.0	39.8	
D - West Arm	3.38	7.00	23.0	20.0	65.0	41.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - East Arm	0.680	2698
B - South East Arm	0.511	1639
C - South West Arm	0.690	2724
D - West Arm	0.518	1687

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	1279	100.000
B - South East Arm		✓	0	100.000
C - South West Arm		✓	379	100.000
D - West Arm		✓	433	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	820	459
	B - South East Arm	0	0	0	0
	C - South West Arm	383	0	0	16
	D - West Arm	109	0	324	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	3	15
	B - South East Arm	0	0	0	0
	C - South West Arm	5	0	0	13
	D - West Arm	22	0	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.57	3.68	1.4	A
B - South East Arm	0.00	0.00	0.0	A
C - South West Arm	0.18	1.94	0.2	A
D - West Arm	0.32	4.22	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	963	243	2533	0.380	960	0.7	2.446	A
B - South East Arm	0	1203	1024	0.000	0	0.0	0.000	A
C - South West Arm	285	345	2486	0.115	285	0.1	1.721	A
D - West Arm	326	273	1545	0.211	325	0.3	3.461	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1150	291	2500	0.460	1149	0.9	2.850	A
B - South East Arm	0	1440	903	0.000	0	0.0	0.000	A
C - South West Arm	341	412	2439	0.140	341	0.2	1.805	A
D - West Arm	389	326	1518	0.256	389	0.4	3.746	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1408	356	2456	0.573	1408	1.4	3.662	A
B - South East Arm	0	1762	738	0.000	0	0.0	0.000	A
C - South West Arm	417	505	2376	0.176	417	0.2	1.935	A
D - West Arm	477	399	1480	0.322	476	0.6	4.210	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1408	357	2455	0.574	1408	1.4	3.678	A
B - South East Arm	0	1765	737	0.000	0	0.0	0.000	A
C - South West Arm	417	505	2375	0.176	417	0.2	1.936	A
D - West Arm	477	400	1480	0.322	477	0.6	4.215	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1150	292	2499	0.460	1152	0.9	2.864	A
B - South East Arm	0	1444	901	0.000	0	0.0	0.000	A
C - South West Arm	341	413	2439	0.140	341	0.2	1.806	A
D - West Arm	389	327	1518	0.257	390	0.4	3.750	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	963	244	2532	0.380	964	0.7	2.458	A
B - South East Arm	0	1208	1021	0.000	0	0.0	0.000	A
C - South West Arm	285	346	2485	0.115	285	0.1	1.725	A
D - West Arm	326	273	1545	0.211	326	0.3	3.472	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	New Junction 2	Standard Roundabout		A, B, C, D	6.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	791	100.000
B - South East Arm		✓	0	100.000
C - South West Arm		✓	1263	100.000
D - West Arm		✓	767	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	675	116
	B - South East Arm	0	0	0	0
	C - South West Arm	1052	0	0	211
	D - West Arm	416	0	351	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	4	11
	B - South East Arm	0	0	0	0
	C - South West Arm	3	0	0	10
	D - West Arm	7	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.36	2.41	0.6	A
B - South East Arm	0.00	0.00	0.0	A
C - South West Arm	0.53	3.01	1.2	A
D - West Arm	0.78	15.59	3.5	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	596	263	2519	0.236	594	0.3	1.962	A
B - South East Arm	0	857	1201	0.000	0	0.0	0.000	A
C - South West Arm	951	87	2664	0.357	949	0.6	2.182	A
D - West Arm	577	790	1277	0.452	574	0.9	5.380	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	711	315	2484	0.286	711	0.4	2.131	A
B - South East Arm	0	1025	1115	0.000	0	0.0	0.000	A
C - South West Arm	1135	104	2652	0.428	1135	0.8	2.469	A
D - West Arm	690	945	1197	0.576	687	1.4	7.424	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	871	383	2438	0.357	870	0.6	2.409	A
B - South East Arm	0	1253	998	0.000	0	0.0	0.000	A
C - South West Arm	1391	128	2636	0.528	1389	1.2	3.002	A
D - West Arm	844	1157	1087	0.777	836	3.4	14.701	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	871	386	2435	0.358	871	0.6	2.415	A
B - South East Arm	0	1257	996	0.000	0	0.0	0.000	A
C - South West Arm	1391	128	2636	0.528	1391	1.2	3.009	A
D - West Arm	844	1158	1087	0.777	844	3.5	15.585	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	711	319	2481	0.287	712	0.4	2.138	A
B - South East Arm	0	1031	1112	0.000	0	0.0	0.000	A
C - South West Arm	1135	104	2652	0.428	1137	0.8	2.477	A
D - West Arm	690	947	1196	0.576	698	1.5	7.752	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	596	265	2517	0.237	596	0.3	1.968	A
B - South East Arm	0	861	1199	0.000	0	0.0	0.000	A
C - South West Arm	951	87	2663	0.357	952	0.6	2.191	A
D - West Arm	577	793	1276	0.453	580	0.9	5.477	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	New Junction 2	Standard Roundabout		A, B, C, D	4.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	1647	100.000
B - South East Arm		✓	54	100.000
C - South West Arm		✓	644	100.000
D - West Arm		✓	402	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	2	1328	317
	B - South East Arm	4	0	27	23
	C - South West Arm	187	7	116	334
	D - West Arm	153	3	246	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	2	10
	B - South East Arm	0	0	0	0
	C - South West Arm	7	0	0	5
	D - West Arm	16	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.75	6.14	3.1	A
B - South East Arm	0.12	7.99	0.1	A
C - South West Arm	0.29	2.15	0.4	A
D - West Arm	0.29	3.87	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1240	279	2508	0.494	1236	1.0	2.917	A
B - South East Arm	41	1506	869	0.047	40	0.0	4.342	A
C - South West Arm	485	258	2546	0.190	484	0.2	1.825	A
D - West Arm	303	236	1564	0.193	302	0.3	3.264	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1481	334	2471	0.599	1479	1.5	3.746	A
B - South East Arm	49	1802	718	0.068	48	0.1	5.376	A
C - South West Arm	579	309	2511	0.231	579	0.3	1.948	A
D - West Arm	361	282	1541	0.235	361	0.3	3.499	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1813	409	2420	0.749	1807	3.0	6.024	A
B - South East Arm	59	2203	513	0.116	59	0.1	7.929	A
C - South West Arm	709	377	2463	0.288	709	0.4	2.145	A
D - West Arm	443	345	1508	0.294	442	0.5	3.871	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1813	410	2419	0.750	1813	3.1	6.140	A
B - South East Arm	59	2210	510	0.117	59	0.1	7.992	A
C - South West Arm	709	379	2462	0.288	709	0.4	2.146	A
D - West Arm	443	346	1508	0.294	443	0.5	3.874	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1481	335	2470	0.599	1487	1.6	3.807	A
B - South East Arm	49	1811	714	0.068	49	0.1	5.415	A
C - South West Arm	579	311	2510	0.231	579	0.3	1.952	A
D - West Arm	361	283	1540	0.235	362	0.4	3.502	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1240	280	2507	0.495	1242	1.0	2.948	A
B - South East Arm	41	1513	865	0.047	41	0.0	4.366	A
C - South West Arm	485	259	2545	0.191	485	0.2	1.827	A
D - West Arm	303	237	1564	0.193	303	0.3	3.272	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	New Junction 2	Standard Roundabout		A, B, C, D	7.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	1127	100.000
B - South East Arm		✓	19	100.000
C - South West Arm		✓	1575	100.000
D - West Arm		✓	713	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	13	978	136
	B - South East Arm	2	0	14	3
	C - South West Arm	1166	30	68	311
	D - West Arm	323	13	377	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	2	11
	B - South East Arm	0	0	0	0
	C - South West Arm	4	0	0	7
	D - West Arm	10	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.53	3.39	1.2	A
B - South East Arm	0.03	4.86	0.0	A
C - South West Arm	0.66	4.25	2.0	A
D - West Arm	0.81	20.98	4.4	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	848	365	2449	0.346	846	0.5	2.309	A
B - South East Arm	14	1170	1041	0.014	14	0.0	3.505	A
C - South West Arm	1186	106	2651	0.447	1182	0.8	2.552	A
D - West Arm	537	950	1194	0.449	533	0.9	5.774	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1013	437	2401	0.422	1012	0.7	2.669	A
B - South East Arm	17	1399	924	0.018	17	0.0	3.970	A
C - South West Arm	1416	127	2636	0.537	1414	1.2	3.069	A
D - West Arm	641	1137	1098	0.584	639	1.5	8.309	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1241	531	2337	0.531	1239	1.2	3.374	A
B - South East Arm	21	1709	766	0.027	21	0.0	4.834	A
C - South West Arm	1734	155	2617	0.663	1731	2.0	4.224	A
D - West Arm	785	1391	966	0.813	774	4.2	19.034	C

17:30 - 17:45

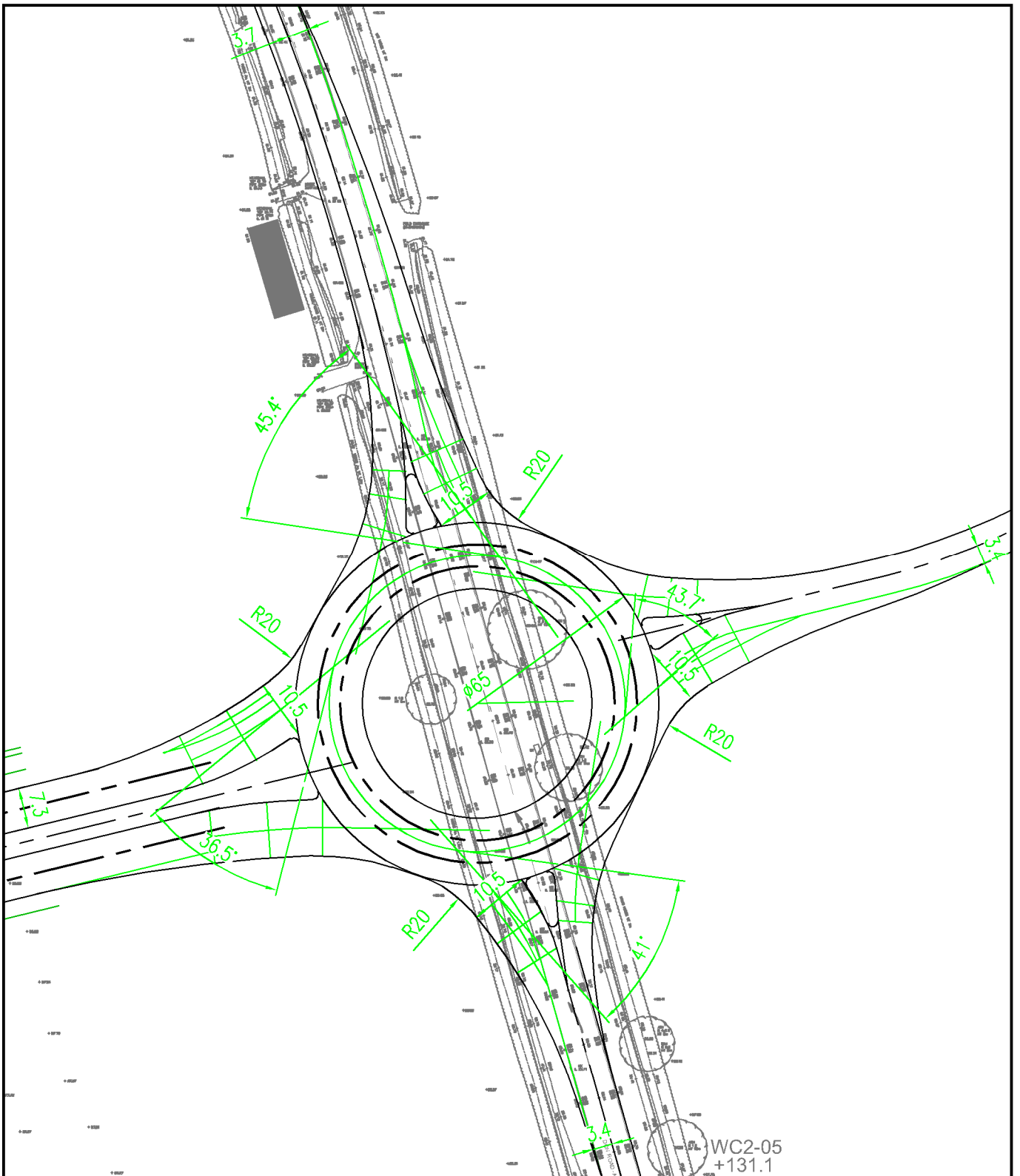
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1241	537	2333	0.532	1241	1.2	3.394	A
B - South East Arm	21	1716	762	0.027	21	0.0	4.857	A
C - South West Arm	1734	155	2617	0.663	1734	2.0	4.254	A
D - West Arm	785	1394	965	0.814	784	4.4	20.982	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1013	445	2395	0.423	1015	0.8	2.688	A
B - South East Arm	17	1409	919	0.019	17	0.0	3.993	A
C - South West Arm	1416	127	2636	0.537	1419	1.2	3.095	A
D - West Arm	641	1141	1096	0.585	652	1.5	8.864	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	848	389	2447	0.347	849	0.5	2.321	A
B - South East Arm	14	1178	1038	0.014	14	0.0	3.519	A
C - South West Arm	1186	106	2850	0.447	1187	0.8	2.570	A
D - West Arm	537	954	1192	0.450	539	0.9	5.897	A



ROUNABOUT GEOMETRY – NEW JUNCTION 3

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
North	3.65	10.50	32.00	20.00	65.00	45.40
East	3.38	10.50	25.10	20.00	65.00	43.70
South	3.38	10.50	21.50	20.00	65.00	41.00
West	7.30	10.50	21.60	20.00	65.00	36.50

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 3. New Junction 3.j9
Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\New junctions
Report generation date: 25/03/2021 14:43:41

- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Do Something								
A - North Arm	1.0	3.56	0.48	A	0.8	3.84	0.42	A
B - East Arm	0.7	4.28	0.40	A	0.2	3.03	0.16	A
C - South Arm	0.8	6.21	0.39	A	0.4	3.66	0.25	A
D - West Arm	0.3	1.92	0.21	A	1.6	3.64	0.61	A
2048 Do Something								
A - North Arm	1.5	4.63	0.60	A	2.2	7.81	0.68	A
B - East Arm	21.2	58.60	0.99	F	0.3	3.68	0.23	A
C - South Arm	3.3	19.93	0.74	C	0.8	5.00	0.43	A
D - West Arm	0.2	2.15	0.17	A	1.8	4.02	0.64	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	19/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Do Something, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	New Junction 3	Standard Roundabout		A, B, C, D	3.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	North Arm	
B	East Arm	
C	South Arm	
D	West Arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - North Arm	3.65	10.50	32.0	20.0	65.0	45.4	
B - East Arm	3.38	10.50	25.1	20.0	65.0	43.7	
C - South Arm	3.38	10.50	17.6	20.0	65.0	41.0	
D - West Arm	7.30	10.50	21.6	20.0	65.0	36.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - North Arm	0.601	2213
B - East Arm	0.576	2051
C - South Arm	0.551	1888
D - West Arm	0.706	2805

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	914	100.000
B - East Arm		✓	538	100.000
C - South Arm		✓	425	100.000
D - West Arm		✓	483	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	67	251	596
	B - East Arm	54	0	5	479
	C - South Arm	219	1	0	205
	D - West Arm	284	126	73	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	8	18	2
	B - East Arm	5	0	0	4
	C - South Arm	26	0	0	28
	D - West Arm	3	17	33	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.48	3.56	1.0	A
B - East Arm	0.40	4.28	0.7	A
C - South Arm	0.39	6.21	0.8	A
D - West Arm	0.21	1.92	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	688	150	2122	0.324	688	0.5	2.663	A
B - East Arm	405	691	1654	0.245	404	0.3	2.994	A
C - South Arm	320	847	1421	0.225	318	0.4	4.138	A
D - West Arm	364	205	2660	0.137	363	0.2	1.726	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	822	180	2105	0.390	821	0.7	2.982	A
B - East Arm	484	828	1578	0.307	483	0.5	3.427	A
C - South Arm	382	1014	1329	0.287	382	0.5	4.816	A
D - West Arm	434	248	2831	0.165	434	0.2	1.804	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1006	220	2081	0.484	1005	1.0	3.559	A
B - East Arm	592	1012	1469	0.403	591	0.7	4.265	A
C - South Arm	468	1241	1204	0.389	467	0.8	6.185	A
D - West Arm	532	301	2592	0.205	532	0.3	1.924	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1006	220	2080	0.484	1006	1.0	3.564	A
B - East Arm	592	1013	1468	0.403	592	0.7	4.276	A
C - South Arm	468	1243	1203	0.389	468	0.8	6.213	A
D - West Arm	532	302	2592	0.205	532	0.3	1.925	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	822	180	2105	0.390	823	0.7	2.990	A
B - East Arm	484	828	1575	0.307	485	0.5	3.441	A
C - South Arm	382	1017	1328	0.288	383	0.5	4.843	A
D - West Arm	434	247	2831	0.165	434	0.2	1.805	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	688	151	2122	0.324	689	0.5	2.672	A
B - East Arm	405	693	1652	0.245	406	0.3	3.005	A
C - South Arm	320	851	1419	0.225	321	0.4	4.159	A
D - West Arm	364	207	2659	0.137	364	0.2	1.727	A

2031 Do Something, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	New Junction 3	Standard Roundabout		A, B, C, D	3.64	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	653	100.000
B - East Arm		✓	213	100.000
C - South Arm		✓	341	100.000
D - West Arm		✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	8	220	425
	B - East Arm	4	0	3	206
	C - South Arm	173	7	0	161
	D - West Arm	732	507	239	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - North Arm	B - East Arm	C - South Arm	D - West Arm
A - North Arm	0	1	11	4
B - East Arm	97	0	0	5
C - South Arm	20	30	0	9
D - West Arm	2	6	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.42	3.84	0.8	A
B - East Arm	0.16	3.03	0.2	A
C - South Arm	0.25	3.66	0.4	A
D - West Arm	0.61	3.64	1.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	492	565	1873	0.262	490	0.4	2.763	A
B - East Arm	160	664	1669	0.096	160	0.1	2.524	A
C - South Arm	257	477	1625	0.158	256	0.2	3.014	A
D - West Arm	1113	138	2707	0.411	1110	0.7	2.353	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	587	676	1806	0.325	587	0.5	3.132	A
B - East Arm	191	794	1594	0.120	191	0.1	2.715	A
C - South Arm	307	570	1574	0.195	306	0.3	3.258	A
D - West Arm	1329	165	2688	0.494	1328	1.0	2.764	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	719	828	1715	0.419	718	0.8	3.830	A
B - East Arm	235	972	1492	0.157	234	0.2	3.030	A
C - South Arm	375	698	1503	0.250	375	0.4	3.660	A
D - West Arm	1627	202	2662	0.611	1625	1.6	3.620	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	719	829	1715	0.419	719	0.8	3.840	A
B - East Arm	235	973	1491	0.157	235	0.2	3.032	A
C - South Arm	375	699	1503	0.250	375	0.4	3.662	A
D - West Arm	1627	203	2662	0.611	1627	1.6	3.638	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	587	678	1805	0.325	588	0.5	3.143	A
B - East Arm	191	798	1593	0.120	192	0.1	2.719	A
C - South Arm	307	572	1573	0.195	307	0.3	3.284	A
D - West Arm	1329	188	2888	0.494	1331	1.0	2.779	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	492	567	1872	0.263	492	0.4	2.774	A
B - East Arm	160	666	1668	0.096	160	0.1	2.529	A
C - South Arm	257	479	1624	0.158	257	0.2	3.019	A
D - West Arm	1113	139	2707	0.411	1114	0.7	2.388	A

2048 Do Something, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	New Junction 3	Standard Roundabout		A, B, C, D	27.33	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	1091	100.000
B - East Arm		✓	1210	100.000
C - South Arm		✓	558	100.000
D - West Arm		✓	355	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	133	389	569
	B - East Arm	261	0	11	938
	C - South Arm	403	9	0	146
	D - West Arm	60	150	145	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	3	10	1
	B - East Arm	2	0	0	2
	C - South Arm	21	0	0	17
	D - West Arm	1	13	19	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.60	4.63	1.5	A
B - East Arm	0.99	58.60	21.2	F
C - South Arm	0.74	19.93	3.3	C
D - West Arm	0.17	2.15	0.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	821	228	2076	0.396	819	0.7	2.981	A
B - East Arm	911	828	1575	0.578	905	1.4	5.440	A
C - South Arm	420	1324	1158	0.363	417	0.7	5.787	A
D - West Arm	267	503	2449	0.109	267	0.1	1.864	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	981	273	2049	0.479	980	1.0	3.509	A
B - East Arm	1088	991	1481	0.734	1082	2.7	9.087	A
C - South Arm	502	1584	1015	0.494	500	1.1	8.316	A
D - West Arm	319	602	2379	0.134	319	0.2	1.975	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1201	334	2012	0.597	1199	1.5	4.605	A
B - East Arm	1332	1212	1353	0.984	1280	15.8	36.417	E
C - South Arm	614	1894	844	0.728	607	3.0	17.619	C
D - West Arm	391	724	2293	0.170	391	0.2	2.138	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1201	335	2012	0.597	1201	1.5	4.631	A
B - East Arm	1332	1214	1352	0.985	1311	21.2	58.602	F
C - South Arm	614	1925	827	0.743	613	3.3	19.934	C
D - West Arm	391	735	2286	0.171	391	0.2	2.147	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	981	274	2048	0.479	983	1.0	3.533	A
B - East Arm	1088	994	1479	0.735	1161	3.0	14.107	B
C - South Arm	502	1663	972	0.516	510	1.3	9.464	A
D - West Arm	319	627	2362	0.135	319	0.2	1.993	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	821	229	2075	0.396	822	0.7	2.999	A
B - East Arm	911	831	1573	0.579	917	1.4	5.652	A
C - South Arm	420	1338	1151	0.365	423	0.7	5.929	A
D - West Arm	267	510	2445	0.109	267	0.1	1.868	A

2048 Do Something, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	New Junction 3	Standard Roundabout		A, B, C, D	5.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	946	100.000
B - East Arm		✓	271	100.000
C - South Arm		✓	536	100.000
D - West Arm		✓	1501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	69	287	590
	B - East Arm	5	0	8	258
	C - South Arm	249	9	0	278
	D - West Arm	464	764	273	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - East Arm	C - South Arm	D - West Arm
From	A - North Arm	0	0	12	1
	B - East Arm	81	0	0	4
	C - South Arm	11	22	0	6
	D - West Arm	2	6	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.68	7.81	2.2	A
B - East Arm	0.23	3.68	0.3	A
C - South Arm	0.43	5.00	0.8	A
D - West Arm	0.64	4.02	1.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	712	785	1741	0.409	709	0.7	3.619	A
B - East Arm	204	863	1555	0.131	203	0.2	2.787	A
C - South Arm	404	640	1536	0.263	402	0.4	3.441	A
D - West Arm	1130	197	2666	0.424	1127	0.8	2.472	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	850	939	1648	0.516	849	1.1	4.676	A
B - East Arm	244	1032	1457	0.167	243	0.2	3.105	A
C - South Arm	482	766	1466	0.329	481	0.5	3.963	A
D - West Arm	1349	236	2638	0.511	1348	1.1	2.953	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1042	1150	1522	0.684	1037	2.2	7.652	A
B - East Arm	298	1262	1325	0.225	298	0.3	3.670	A
C - South Arm	590	936	1372	0.430	589	0.8	4.980	A
D - West Arm	1653	289	2601	0.635	1650	1.8	3.997	A

17:30 - 17:45

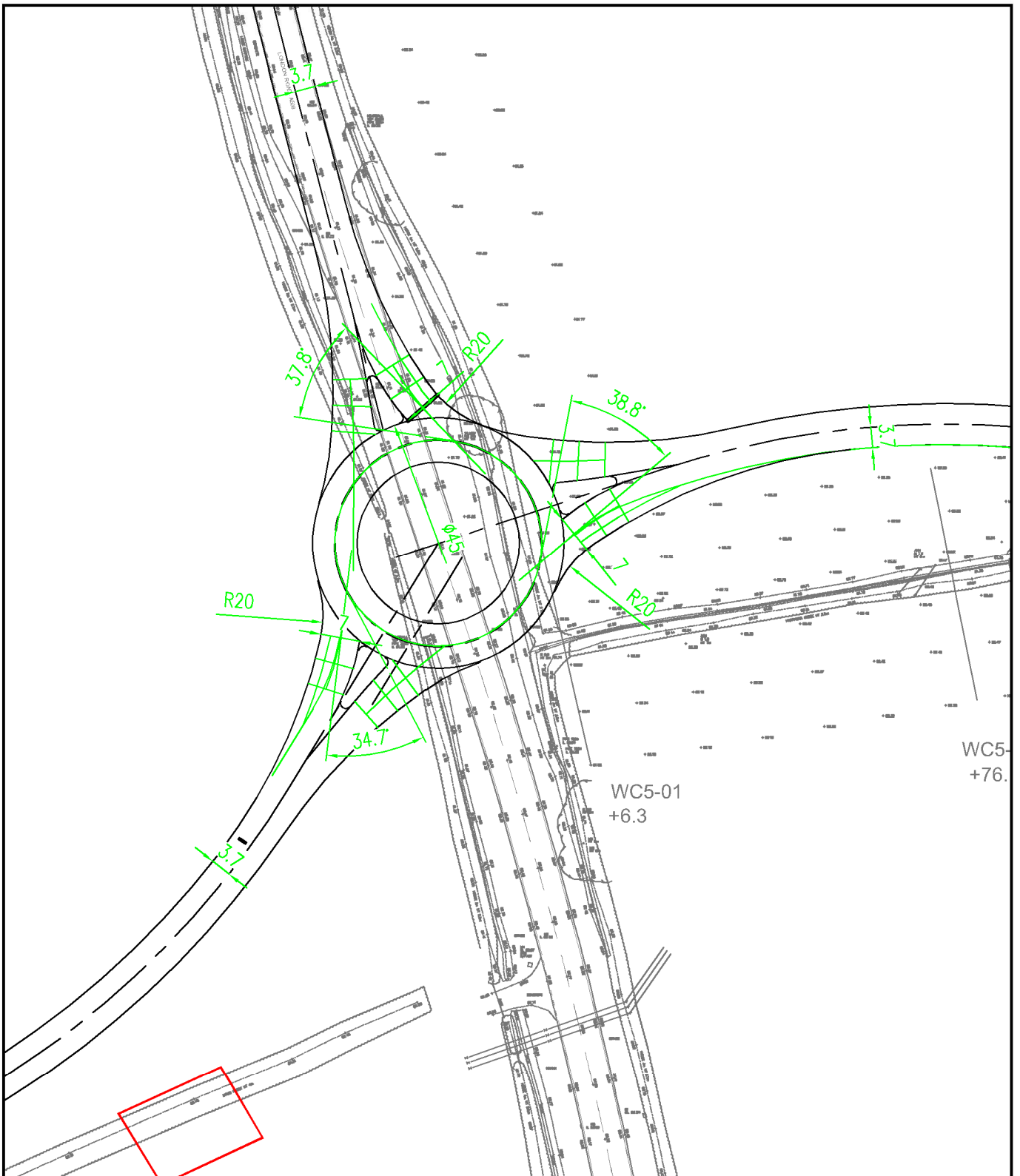
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1042	1152	1521	0.685	1041	2.2	7.807	A
B - East Arm	298	1266	1322	0.226	298	0.3	3.679	A
C - South Arm	590	939	1371	0.431	590	0.8	5.005	A
D - West Arm	1653	290	2600	0.636	1653	1.8	4.022	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	850	942	1647	0.517	855	1.1	4.757	A
B - East Arm	244	1038	1454	0.168	244	0.2	3.118	A
C - South Arm	482	770	1464	0.329	483	0.5	3.988	A
D - West Arm	1349	237	2838	0.512	1352	1.1	2.974	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	712	788	1739	0.410	714	0.7	3.657	A
B - East Arm	204	867	1552	0.131	204	0.2	2.796	A
C - South Arm	404	643	1534	0.263	404	0.4	3.459	A
D - West Arm	1130	198	2665	0.424	1131	0.8	2.487	A



ROUNABOUT GEOMETRY – NEW JUNCTION 4

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
East	3.65	7.00	20.90	20.00	45.00	38.80
South West	3.65	7.00	16.90	20.00	45.00	34.70
North	3.65	7.00	20.40	20.00	45.00	37.80

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 4. New Junction 4.j9
Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\New junctions
Report generation date: 25/03/2021 14:45:28

- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Do Something								
A - East Arm	0.8	4.54	0.40	A	0.3	3.16	0.17	A
B - South West Arm	0.1	4.48	0.06	A	0.3	3.16	0.19	A
C - North West Arm	0.3	3.29	0.22	A	0.5	3.56	0.31	A
2048 Do Something								
A - East Arm	1.3	5.64	0.51	A	0.3	3.28	0.20	A
B - South West Arm	0.3	4.81	0.14	A	0.8	4.39	0.42	A
C - North West Arm	0.8	4.22	0.42	A	0.6	4.10	0.33	A

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

File summary

File Description

Title	
Location	
Site number	
Date	19/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	38.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	4.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	East Arm	
B	South West Arm	
C	North West Arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - East Arm	3.65	7.00	20.9	20.0	45.0	38.9	
B - South West Arm	3.65	7.00	16.9	20.0	45.0	34.7	
C - North West Arm	3.65	7.00	20.4	20.0	45.0	37.8	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - East Arm	0.623	1722
B - South West Arm	0.623	1699
C - North West Arm	0.624	1723

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	614	100.000
B - South West Arm		✓	82	100.000
C - North West Arm		✓	329	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	208	406
	B - South West Arm	61	0	21
	C - North West Arm	264	65	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	27	26
	B - South West Arm	73	0	47
	C - North West Arm	24	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.40	4.54	0.8	A
B - South West Arm	0.06	4.48	0.1	A
C - North West Arm	0.22	3.29	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	462	49	1692	0.273	460	0.5	3.689	A
B - South West Arm	62	304	1509	0.041	61	0.1	4.115	A
C - North West Arm	248	46	1695	0.146	247	0.2	2.999	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	552	58	1686	0.327	551	0.6	4.007	A
B - South West Arm	74	365	1472	0.050	74	0.1	4.261	A
C - North West Arm	296	55	1689	0.175	296	0.3	3.118	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	676	72	1678	0.403	675	0.8	4.533	A
B - South West Arm	90	446	1421	0.064	90	0.1	4.477	A
C - North West Arm	362	67	1682	0.215	362	0.3	3.293	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	676	72	1678	0.403	676	0.8	4.540	A
B - South West Arm	90	447	1420	0.064	90	0.1	4.478	A
C - North West Arm	362	67	1681	0.215	362	0.3	3.293	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	552	58	1686	0.327	553	0.6	4.019	A
B - South West Arm	74	366	1471	0.050	74	0.1	4.265	A
C - North West Arm	296	55	1689	0.175	296	0.3	3.122	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	462	49	1692	0.273	463	0.5	3.701	A
B - South West Arm	62	306	1508	0.041	62	0.1	4.118	A
C - North West Arm	248	46	1695	0.146	248	0.2	3.003	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	3.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	281	100.000
B - South West Arm		✓	272	100.000
C - North West Arm		✓	458	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	39	222
	B - South West Arm	180	0	112
	C - North West Arm	423	33	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	55	20
	B - South West Arm	14	0	4
	C - North West Arm	10	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.17	3.16	0.3	A
B - South West Arm	0.19	3.16	0.3	A
C - North West Arm	0.31	3.56	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	196	25	1707	0.115	196	0.2	2.957	A
B - South West Arm	205	167	1595	0.128	204	0.2	2.836	A
C - North West Arm	343	120	1648	0.208	342	0.3	3.030	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	235	30	1704	0.138	234	0.2	3.042	A
B - South West Arm	245	199	1575	0.155	244	0.2	2.967	A
C - North West Arm	410	144	1634	0.251	410	0.4	3.237	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	287	36	1700	0.169	287	0.3	3.165	A
B - South West Arm	299	244	1547	0.194	299	0.3	3.164	A
C - North West Arm	502	176	1613	0.311	502	0.5	3.561	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	287	36	1700	0.169	287	0.3	3.165	A
B - South West Arm	299	244	1547	0.194	299	0.3	3.164	A
C - North West Arm	502	176	1613	0.311	502	0.5	3.564	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	235	30	1704	0.138	235	0.2	3.045	A
B - South West Arm	245	200	1574	0.155	245	0.2	2.968	A
C - North West Arm	410	144	1634	0.251	410	0.4	3.242	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	196	25	1707	0.115	197	0.2	2.960	A
B - South West Arm	205	167	1595	0.128	205	0.2	2.840	A
C - North West Arm	343	121	1648	0.208	344	0.3	3.037	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	4.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	750	100.000
B - South West Arm		✓	184	100.000
C - North West Arm		✓	623	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	362	388
	B - South West Arm	135	0	49
	C - North West Arm	481	142	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	29	22
	B - South West Arm	73	0	45
	C - North West Arm	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.51	5.64	1.3	A
B - South West Arm	0.14	4.81	0.3	A
C - North West Arm	0.42	4.22	0.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	565	107	1656	0.341	562	0.6	4.115	A
B - South West Arm	139	291	1518	0.091	138	0.2	4.290	A
C - North West Arm	469	101	1660	0.283	467	0.4	3.340	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	674	128	1643	0.410	673	0.9	4.649	A
B - South West Arm	165	348	1482	0.112	165	0.2	4.498	A
C - North West Arm	560	121	1648	0.340	560	0.6	3.664	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	826	156	1625	0.508	824	1.3	5.621	A
B - South West Arm	203	426	1433	0.141	202	0.3	4.810	A
C - North West Arm	686	148	1631	0.421	685	0.8	4.214	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	826	156	1625	0.508	826	1.3	5.644	A
B - South West Arm	203	427	1433	0.141	203	0.3	4.814	A
C - North West Arm	686	149	1631	0.421	686	0.8	4.222	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	674	128	1643	0.410	676	0.9	4.674	A
B - South West Arm	165	350	1481	0.112	166	0.2	4.503	A
C - North West Arm	560	122	1648	0.340	561	0.6	3.676	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	565	107	1655	0.341	566	0.7	4.141	A
B - South West Arm	139	293	1517	0.091	139	0.2	4.298	A
C - North West Arm	469	102	1660	0.283	470	0.4	3.355	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	New Junction 1	Standard Roundabout		A, B, C	4.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	298	100.000
B - South West Arm		✓	585	100.000
C - North West Arm		✓	443	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	74	224
	B - South West Arm	324	0	281
	C - North West Arm	373	70	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - East Arm	B - South West Arm	C - North West Arm
From	A - East Arm	0	53	15
	B - South West Arm	16	0	3
	C - North West Arm	15	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.20	3.28	0.3	A
B - South West Arm	0.42	4.39	0.8	A
C - North West Arm	0.33	4.10	0.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	224	53	1689	0.133	224	0.2	3.008	A
B - South West Arm	440	168	1594	0.276	439	0.4	3.417	A
C - North West Arm	334	243	1572	0.212	332	0.3	3.346	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	268	63	1683	0.159	268	0.2	3.117	A
B - South West Arm	526	201	1574	0.334	525	0.5	3.769	A
C - North West Arm	398	291	1542	0.258	398	0.4	3.629	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	328	77	1674	0.196	328	0.3	3.276	A
B - South West Arm	644	246	1545	0.417	643	0.8	4.377	A
C - North West Arm	488	356	1501	0.325	487	0.6	4.091	A

17:30 - 17:45

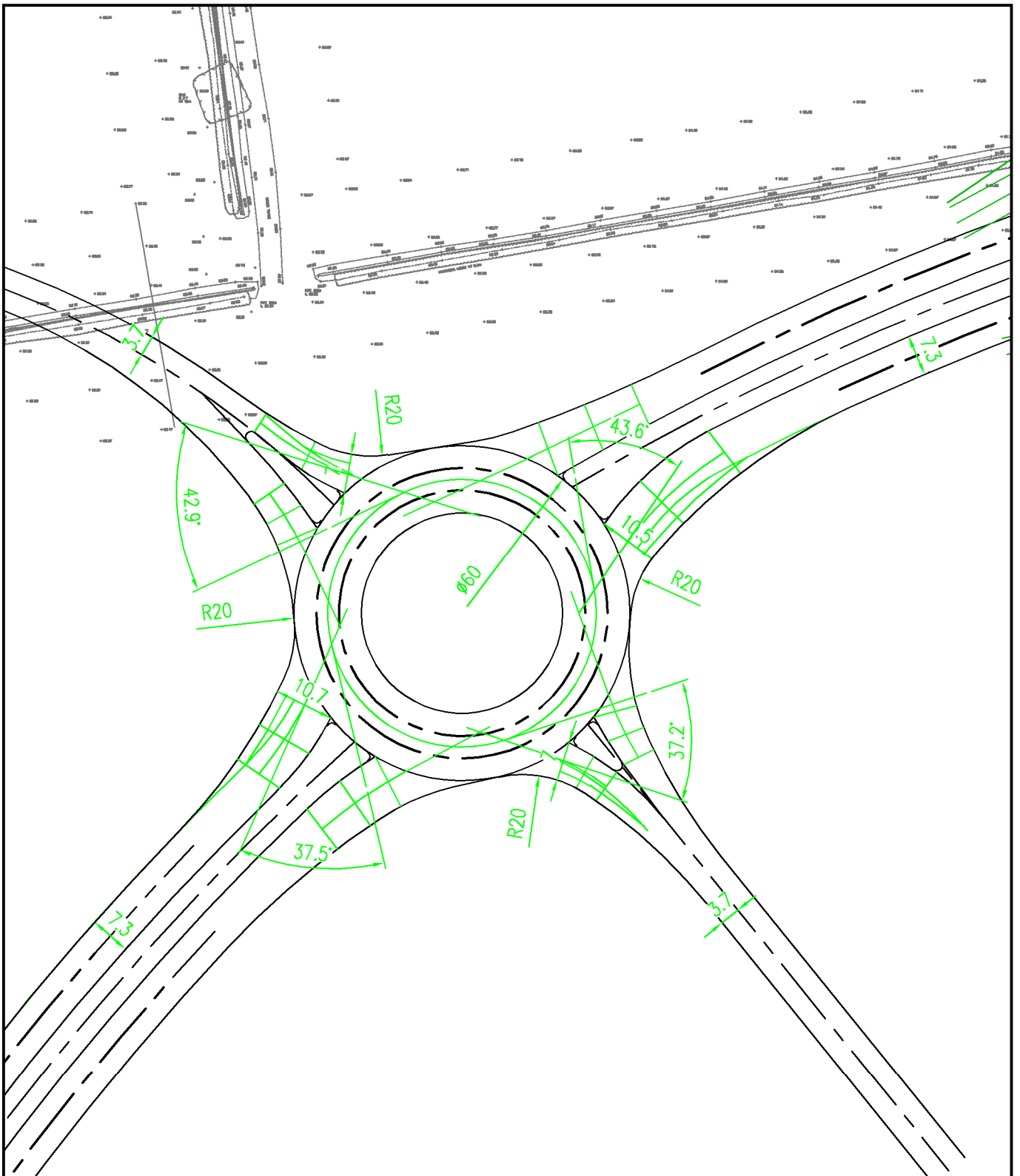
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	328	77	1674	0.196	328	0.3	3.277	A
B - South West Arm	644	247	1545	0.417	644	0.8	4.386	A
C - North West Arm	488	357	1501	0.325	488	0.6	4.097	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	268	63	1683	0.159	268	0.2	3.118	A
B - South West Arm	526	202	1573	0.334	527	0.6	3.782	A
C - North West Arm	398	292	1541	0.258	399	0.4	3.634	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	224	53	1689	0.133	225	0.2	3.011	A
B - South West Arm	440	169	1594	0.276	441	0.4	3.430	A
C - North West Arm	334	244	1571	0.212	334	0.3	3.358	A



ROUNABOUT GEOMETRY – NEW JUNCTION 5

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
North East	7.30	10.50	25.20	20.00	60.00	43.60
South East	3.65	7.00	18.10	20.00	60.00	37.20
South West	7.30	10.50	14.40	20.00	60.00	37.50
North West	3.65	7.00	9.30	20.00	60.00	42.90

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 5. New Junction 5.j9

Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\New junctions

Report generation date: 25/03/2021 14:48:20

- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Do Something								
A - East Arm	0.6	2.58	0.36	A	0.1	1.93	0.11	A
B - South East Arm	0.1	6.16	0.08	A	0.2	3.96	0.18	A
C - South West Arm	0.9	2.97	0.43	A	0.5	2.18	0.30	A
D - West Arm	0.5	5.38	0.29	A	1.2	6.94	0.53	A
2048 Do Something								
A - East Arm	2.0	5.32	0.65	A	0.2	2.05	0.16	A
B - South East Arm	0.6	12.54	0.27	B	0.6	5.20	0.33	A
C - South West Arm	1.4	3.68	0.54	A	0.5	2.22	0.30	A
D - West Arm	1.8	9.80	0.60	A	1.9	9.00	0.62	A

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

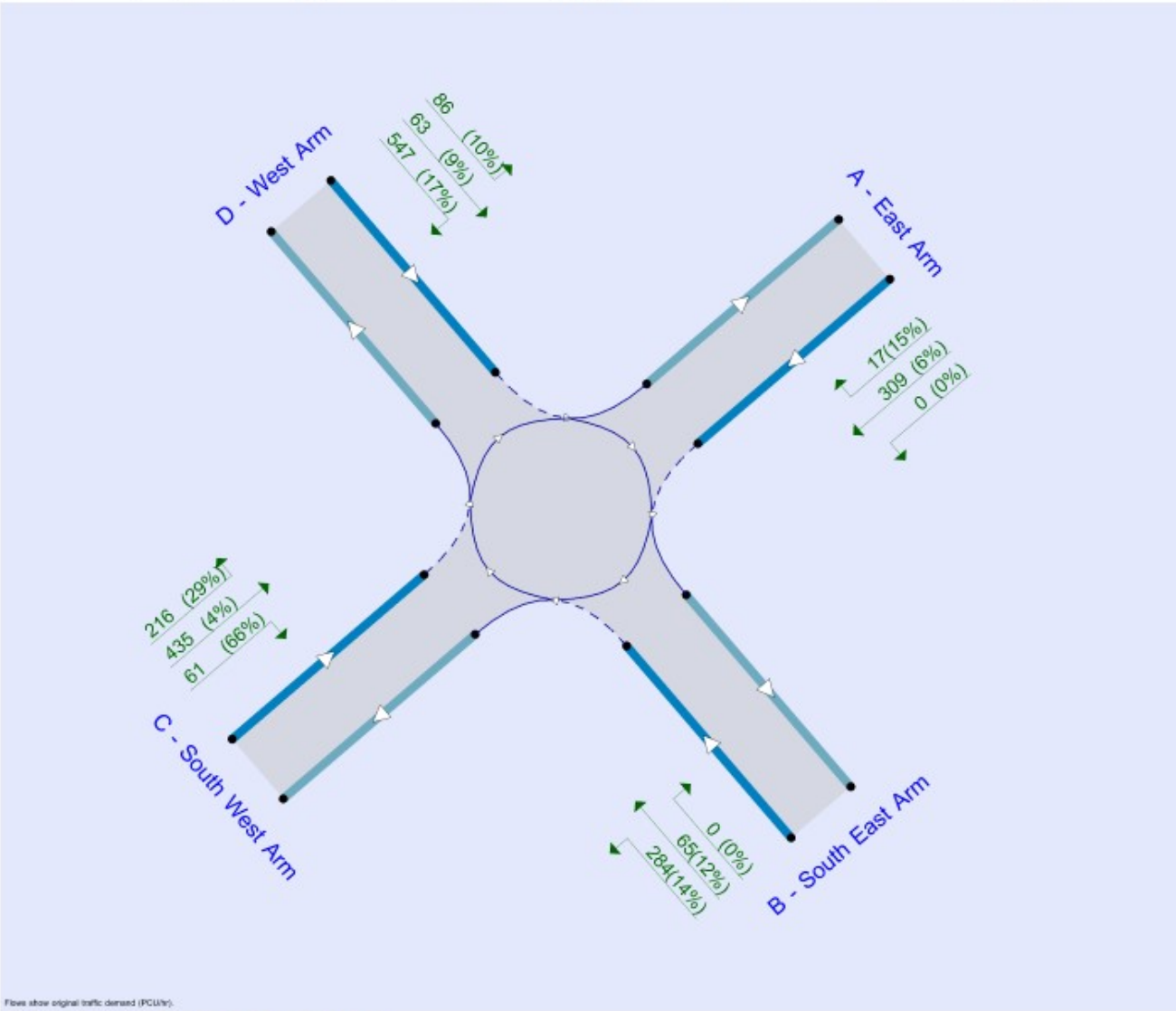
File summary

File Description

Title	
Location	
Site number	
Date	19/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	New Junction 5	Standard Roundabout		A, B, C, D	3.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	East Arm	
B	South East Arm	
C	South West Arm	
D	West Arm	

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 - East Arm	7.30	10.50	25.2	20.0	60.0	43.6	
B - South East Arm	3.65	7.00	18.1	20.0	60.0	37.2	
C - South West Arm	7.30	10.50	14.4	20.0	60.0	37.5	
D - West Arm	3.65	7.00	9.3	20.0	60.0	42.9	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - East Arm	0.729	2764
B - South East Arm	0.550	1700
C - South West Arm	0.725	2706
D - West Arm	0.512	1507

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	768	100.000
B - South East Arm		✓	78	100.000
C - South West Arm		✓	1034	100.000
D - West Arm		✓	328	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	737	29
	B - South East Arm	0	0	61	17
	C - South West Arm	278	187	0	569
	D - West Arm	3	49	274	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	8	18
	B - South East Arm	0	0	71	59
	C - South West Arm	27	27	0	26
	D - West Arm	56	11	37	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.36	2.58	0.6	A
B - South East Arm	0.08	6.16	0.1	A
C - South West Arm	0.43	2.97	0.9	A
D - West Arm	0.29	5.38	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	577	382	2486	0.232	575	0.3	2.041	A
B - South East Arm	59	781	1270	0.046	58	0.1	4.996	A
C - South West Arm	778	35	2681	0.290	776	0.5	2.388	A
D - West Arm	245	349	1328	0.185	244	0.3	4.396	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	689	458	2430	0.283	688	0.4	2.238	A
B - South East Arm	70	934	1186	0.059	70	0.1	5.428	A
C - South West Arm	930	41	2676	0.347	929	0.7	2.605	A
D - West Arm	293	418	1293	0.227	293	0.4	4.767	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	843	561	2356	0.358	843	0.6	2.576	A
B - South East Arm	86	1144	1070	0.080	86	0.1	6.152	A
C - South West Arm	1138	51	2670	0.426	1137	0.9	2.970	A
D - West Arm	359	511	1245	0.288	358	0.5	5.375	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	843	562	2355	0.358	843	0.6	2.579	A
B - South East Arm	86	1145	1070	0.080	86	0.1	6.156	A
C - South West Arm	1138	51	2670	0.426	1138	0.9	2.972	A
D - West Arm	359	512	1245	0.288	359	0.5	5.383	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	689	459	2430	0.283	689	0.4	2.243	A
B - South East Arm	70	936	1185	0.059	70	0.1	5.437	A
C - South West Arm	930	41	2676	0.347	931	0.7	2.610	A
D - West Arm	293	418	1293	0.227	294	0.4	4.776	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	577	384	2484	0.232	577	0.3	2.045	A
B - South East Arm	59	784	1268	0.046	59	0.1	5.008	A
C - South West Arm	778	35	2681	0.290	779	0.5	2.395	A
D - West Arm	245	350	1328	0.185	246	0.3	4.411	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	New Junction 5	Standard Roundabout		A, B, C, D	3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	228	100.000
B - South East Arm		✓	200	100.000
C - South West Arm		✓	720	100.000
D - West Arm		✓	582	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	222	4
	B - South East Arm	0	0	149	51
	C - South West Arm	489	45	0	208
	D - West Arm	24	19	539	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	9	15
	B - South East Arm	0	0	13	8
	C - South West Arm	5	49	0	30
	D - West Arm	17	10	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.11	1.93	0.1	A
B - South East Arm	0.18	3.96	0.2	A
C - South West Arm	0.30	2.18	0.5	A
D - West Arm	0.53	6.94	1.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	170	452	2435	0.070	170	0.1	1.733	A
B - South East Arm	151	574	1384	0.109	150	0.1	3.255	A
C - South West Arm	542	41	2676	0.203	541	0.3	1.910	A
D - West Arm	438	386	1309	0.335	436	0.6	4.573	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	203	541	2370	0.086	203	0.1	1.811	A
B - South East Arm	180	687	1322	0.136	180	0.2	3.519	A
C - South West Arm	647	49	2670	0.242	647	0.4	2.016	A
D - West Arm	523	462	1270	0.412	522	0.8	5.347	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	249	662	2282	0.109	249	0.1	1.931	A
B - South East Arm	220	841	1237	0.178	220	0.2	3.951	A
C - South West Arm	793	60	2662	0.298	792	0.5	2.181	A
D - West Arm	641	566	1217	0.526	639	1.2	6.901	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	249	664	2280	0.109	249	0.1	1.933	A
B - South East Arm	220	842	1236	0.178	220	0.2	3.956	A
C - South West Arm	793	61	2662	0.298	793	0.5	2.181	A
D - West Arm	641	566	1217	0.526	641	1.2	6.944	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	203	544	2368	0.086	203	0.1	1.813	A
B - South East Arm	180	689	1320	0.136	180	0.2	3.525	A
C - South West Arm	647	50	2670	0.242	648	0.4	2.017	A
D - West Arm	523	462	1270	0.412	525	0.8	5.386	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	170	455	2433	0.070	170	0.1	1.737	A
B - South East Arm	151	577	1382	0.109	151	0.1	3.266	A
C - South West Arm	542	41	2876	0.203	542	0.3	1.914	A
D - West Arm	438	387	1309	0.335	439	0.6	4.607	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	New Junction 5	Standard Roundabout		A, B, C, D	5.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	1228	100.000
B - South East Arm		✓	163	100.000
C - South West Arm		✓	1260	100.000
D - West Arm		✓	616	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	1112	114
	B - South East Arm	0	0	121	42
	C - South West Arm	402	264	0	594
	D - West Arm	18	113	485	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	6	15
	B - South East Arm	0	0	75	52
	C - South West Arm	13	32	0	25
	D - West Arm	37	6	28	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.65	5.32	2.0	A
B - South East Arm	0.27	12.54	0.6	B
C - South West Arm	0.54	3.68	1.4	A
D - West Arm	0.60	9.80	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	923	646	2294	0.402	920	0.7	2.792	A
B - South East Arm	123	1283	994	0.124	122	0.2	6.947	A
C - South West Arm	949	117	2622	0.362	946	0.7	2.621	A
D - West Arm	464	500	1251	0.371	461	0.7	5.608	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1102	773	2200	0.501	1101	1.1	3.490	A
B - South East Arm	147	1536	854	0.171	146	0.3	8.554	A
C - South West Arm	1133	140	2605	0.435	1132	0.9	2.985	A
D - West Arm	554	598	1201	0.461	552	1.0	6.846	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1350	946	2075	0.651	1346	2.0	5.249	A
B - South East Arm	179	1878	666	0.269	178	0.6	12.405	B
C - South West Arm	1387	171	2582	0.537	1385	1.4	3.669	A
D - West Arm	678	732	1132	0.599	675	1.8	9.670	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1350	949	2073	0.651	1350	2.0	5.316	A
B - South East Arm	179	1884	663	0.271	179	0.6	12.538	B
C - South West Arm	1387	172	2582	0.537	1387	1.4	3.662	A
D - West Arm	678	733	1132	0.599	678	1.8	9.802	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	1102	778	2197	0.502	1106	1.1	3.532	A
B - South East Arm	147	1544	850	0.172	148	0.4	8.647	A
C - South West Arm	1133	141	2604	0.435	1135	0.9	2.999	A
D - West Arm	554	600	1200	0.462	557	1.1	6.948	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	923	650	2290	0.403	924	0.7	2.816	A
B - South East Arm	123	1291	989	0.124	123	0.2	7.005	A
C - South West Arm	949	118	2821	0.362	950	0.7	2.835	A
D - West Arm	464	502	1250	0.371	465	0.7	5.875	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5	New Junction 5	Standard Roundabout		A, B, C, D	4.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - East Arm		✓	328	100.000
B - South East Arm		✓	349	100.000
C - South West Arm		✓	712	100.000
D - West Arm		✓	696	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	309	17
	B - South East Arm	0	0	284	65
	C - South West Arm	435	61	0	216
	D - West Arm	86	63	547	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - East Arm	B - South East Arm	C - South West Arm	D - West Arm
From	A - East Arm	0	0	6	15
	B - South East Arm	0	0	14	12
	C - South West Arm	4	66	0	29
	D - West Arm	10	9	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - East Arm	0.16	2.05	0.2	A
B - South East Arm	0.33	5.20	0.6	A
C - South West Arm	0.30	2.22	0.5	A
D - West Arm	0.62	9.00	1.9	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	245	502	2398	0.102	245	0.1	1.779	A
B - South East Arm	263	654	1340	0.196	262	0.3	3.791	A
C - South West Arm	536	62	2662	0.201	535	0.3	1.935	A
D - West Arm	524	373	1316	0.398	521	0.8	5.201	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	293	602	2325	0.126	293	0.2	1.884	A
B - South East Arm	314	784	1269	0.247	313	0.4	4.280	A
C - South West Arm	640	74	2653	0.241	640	0.4	2.045	A
D - West Arm	626	446	1279	0.489	624	1.1	6.331	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	359	736	2228	0.161	359	0.2	2.049	A
B - South East Arm	384	959	1172	0.328	384	0.5	5.182	A
C - South West Arm	784	90	2641	0.297	783	0.5	2.217	A
D - West Arm	766	546	1228	0.624	763	1.9	8.882	A

17:30 - 17:45

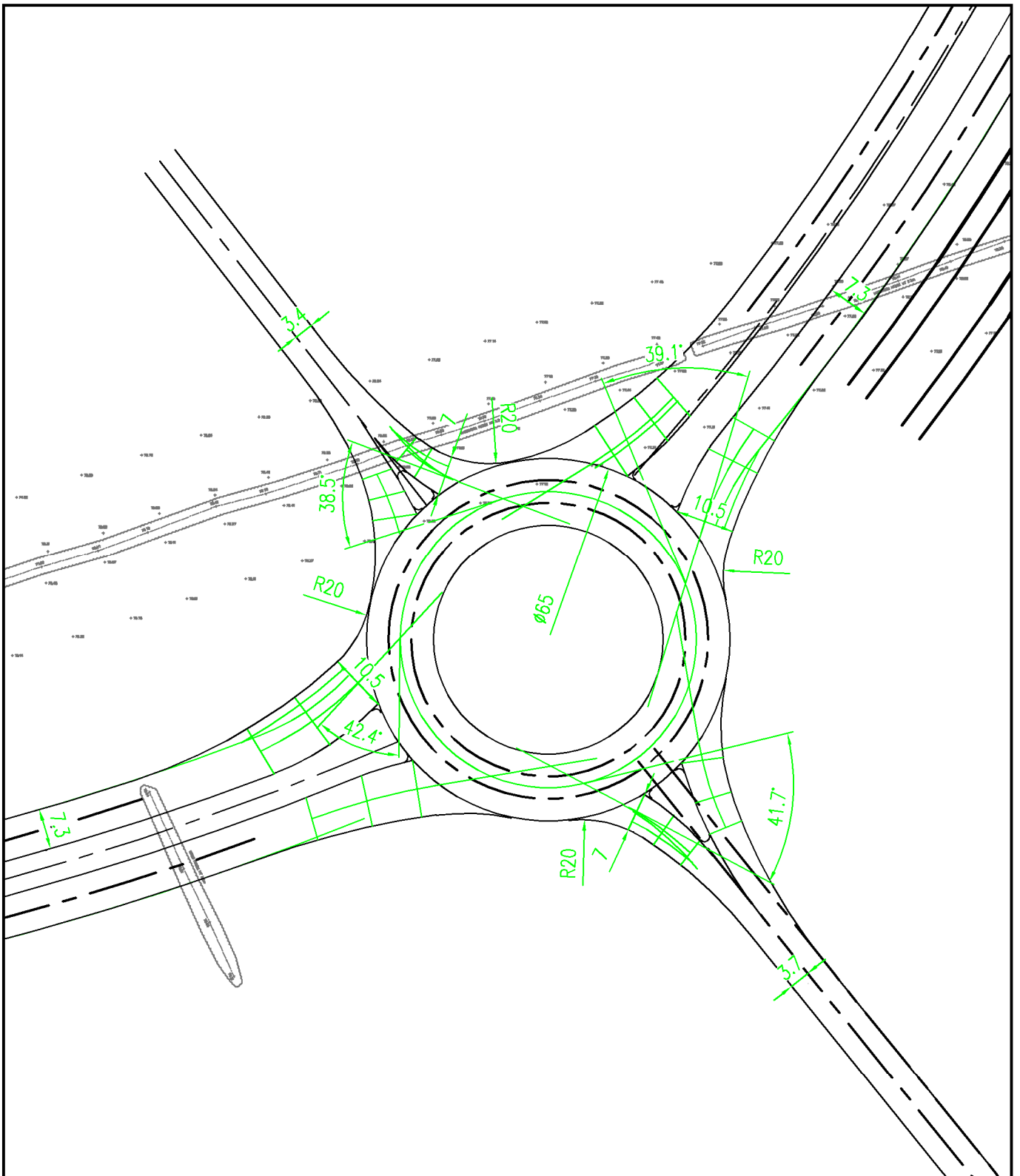
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	359	739	2226	0.161	359	0.2	2.052	A
B - South East Arm	384	961	1171	0.328	384	0.6	5.199	A
C - South West Arm	784	90	2641	0.297	784	0.5	2.217	A
D - West Arm	766	546	1227	0.624	766	1.9	8.997	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	293	606	2323	0.126	293	0.2	1.890	A
B - South East Arm	314	787	1266	0.248	314	0.4	4.299	A
C - South West Arm	640	74	2653	0.241	641	0.4	2.046	A
D - West Arm	626	446	1278	0.489	629	1.1	6.419	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - East Arm	245	506	2395	0.102	246	0.1	1.784	A
B - South East Arm	263	658	1337	0.196	263	0.3	3.810	A
C - South West Arm	538	62	2661	0.201	536	0.3	1.939	A
D - West Arm	524	374	1316	0.398	525	0.8	5.264	A



ROUNABOUT GEOMETRY – NEW JUNCTION 6

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
North East	7.30	10.50	15.50	20.00	65.00	39.10
South East	3.65	7.00	13.20	20.00	65.00	41.80
South West	7.30	10.50	22.60	20.00	65.00	42.40
North West	3.38	7.00	12.20	20.00	65.00	38.50

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: 6. New Junction 6.j9
Path: \\uk.wspgroup.com\central data\Projects\700575xx\70057521 - MKE - PLANNING APPLICATION\03 WIP\TP Transport Planning\05 Analysis\2021 Junction Models\New junctions
Report generation date: 25/03/2021 14:50:09

- »2031 Do Something, AM
- »2031 Do Something, PM
- »2048 Do Something, AM
- »2048 Do Something, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Do Something								
A - North Arm	0.4	2.15	0.29	A	0.1	1.67	0.08	A
B - South Arm	0.7	5.02	0.39	A	0.5	3.76	0.35	A
C - South West Arm	0.2	2.09	0.12	A	0.3	2.00	0.22	A
D - North West Arm	0.1	3.08	0.09	A	0.3	4.18	0.21	A
2048 Do Something								
A - North Arm	1.0	3.05	0.60	A	0.2	1.84	0.14	A
B - South Arm	7.8	33.28	0.90	D	0.7	4.31	0.42	A
C - South West Arm	0.3	2.29	0.21	A	0.3	2.08	0.24	A
D - North West Arm	0.3	4.00	0.23	A	0.7	5.67	0.39	A

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

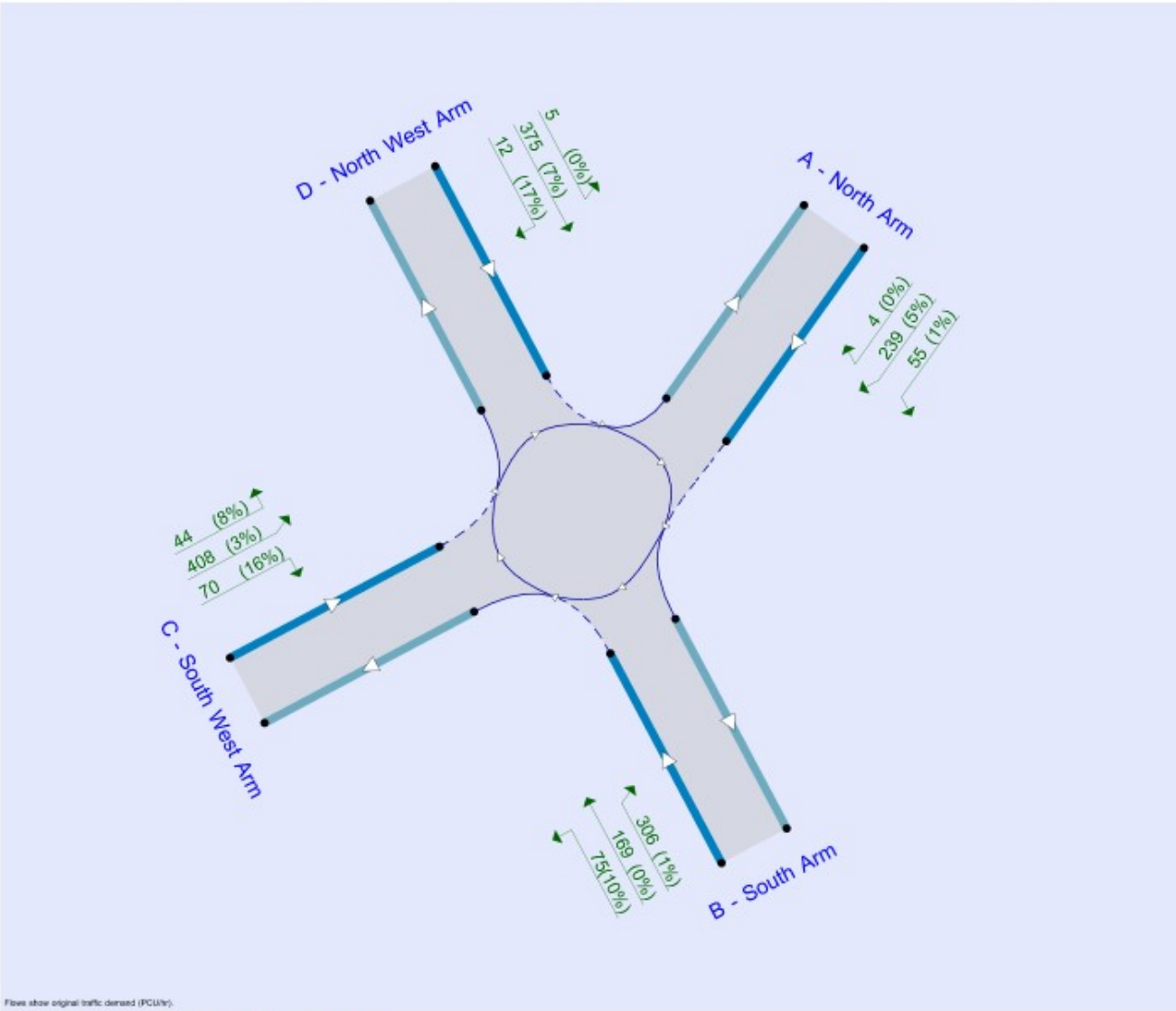
File summary

File Description

Title	
Location	
Site number	
Date	19/03/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2031 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	New Junction 6	Standard Roundabout		A, B, C, D	3.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	North Arm	
B	South Arm	
C	South West Arm	
D	North West Arm	

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 - North Arm	7.30	10.50	15.5	20.0	65.0	39.1	
B - South Arm	3.65	7.00	13.2	20.0	65.0	41.8	
C - South West Arm	7.30	10.50	22.6	20.0	65.0	42.4	
D - North West Arm	3.38	7.00	12.3	20.0	65.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - North Arm	0.688	2707
B - South Arm	0.503	1598
C - South West Arm	0.693	2755
D - North West Arm	0.496	1540

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2031 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	674	100.000
B - South Arm		✓	438	100.000
C - South West Arm		✓	282	100.000
D - North West Arm		✓	114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	26	648	0
	B - South Arm	53	0	92	291
	C - South West Arm	190	90	0	2
	D - North West Arm	0	88	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	9	8	0
	B - South Arm	1	0	9	3
	C - South West Arm	34	13	0	100
	D - North West Arm	0	3	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.29	2.15	0.4	A
B - South Arm	0.39	5.02	0.7	A
C - South West Arm	0.12	2.09	0.2	A
D - North West Arm	0.09	3.08	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	507	153	2802	0.195	506	0.3	1.855	A
B - South Arm	328	506	1343	0.244	327	0.3	3.677	A
C - South West Arm	212	258	2577	0.082	212	0.1	1.930	A
D - North West Arm	86	250	1416	0.061	86	0.1	2.855	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	606	183	2581	0.235	606	0.3	1.968	A
B - South Arm	392	606	1293	0.303	391	0.4	4.148	A
C - South West Arm	254	309	2541	0.100	253	0.1	1.994	A
D - North West Arm	102	299	1392	0.074	102	0.1	2.945	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	742	224	2553	0.291	742	0.4	2.147	A
B - South Arm	480	742	1225	0.392	479	0.7	5.013	A
C - South West Arm	310	378	2493	0.125	310	0.2	2.090	A
D - North West Arm	126	366	1358	0.092	125	0.1	3.080	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	742	225	2553	0.291	742	0.4	2.147	A
B - South Arm	480	742	1225	0.392	480	0.7	5.024	A
C - South West Arm	310	379	2493	0.125	310	0.2	2.091	A
D - North West Arm	126	367	1358	0.092	126	0.1	3.080	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	606	184	2581	0.235	606	0.3	1.969	A
B - South Arm	392	606	1293	0.303	393	0.5	4.160	A
C - South West Arm	254	310	2541	0.100	254	0.1	1.995	A
D - North West Arm	102	300	1391	0.074	103	0.1	2.946	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	507	154	2602	0.195	508	0.3	1.859	A
B - South Arm	328	508	1343	0.244	329	0.3	3.691	A
C - South West Arm	212	259	2576	0.082	212	0.1	1.932	A
D - North West Arm	86	251	1416	0.061	86	0.1	2.856	A

2031 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	New Junction 6	Standard Roundabout		A, B, C, D	2.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2031 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	193	100.000
B - South Arm		✓	477	100.000
C - South West Arm		✓	493	100.000
D - North West Arm		✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	17	178	0
	B - South Arm	273	0	49	155
	C - South West Arm	425	41	0	27
	D - North West Arm	0	213	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	2	7	0
	B - South Arm	1	0	12	0
	C - South West Arm	3	21	0	14
	D - North West Arm	0	4	100	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.08	1.67	0.1	A
B - South Arm	0.35	3.76	0.5	A
C - South West Arm	0.22	2.00	0.3	A
D - North West Arm	0.21	4.18	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	145	192	2575	0.056	145	0.1	1.577	A
B - South Arm	359	134	1531	0.235	358	0.3	3.119	A
C - South West Arm	371	321	2533	0.147	370	0.2	1.745	A
D - North West Arm	162	555	1265	0.128	161	0.2	3.406	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	174	230	2549	0.068	173	0.1	1.613	A
B - South Arm	429	160	1517	0.283	428	0.4	3.362	A
C - South West Arm	443	384	2489	0.178	443	0.2	1.844	A
D - North West Arm	193	664	1211	0.160	193	0.2	3.695	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	212	282	2514	0.085	212	0.1	1.665	A
B - South Arm	525	196	1499	0.350	525	0.5	3.754	A
C - South West Arm	543	471	2429	0.223	543	0.3	2.000	A
D - North West Arm	237	813	1137	0.208	236	0.3	4.176	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	212	282	2514	0.085	212	0.1	1.665	A
B - South Arm	525	196	1499	0.350	525	0.5	3.757	A
C - South West Arm	543	471	2429	0.223	543	0.3	2.001	A
D - North West Arm	237	814	1136	0.208	237	0.3	4.179	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	174	230	2549	0.068	174	0.1	1.616	A
B - South Arm	429	160	1517	0.283	429	0.4	3.368	A
C - South West Arm	443	385	2488	0.178	443	0.2	1.845	A
D - North West Arm	193	665	1210	0.160	194	0.2	3.702	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	145	193	2575	0.056	145	0.1	1.580	A
B - South Arm	359	134	1530	0.235	359	0.3	3.128	A
C - South West Arm	371	323	2532	0.147	371	0.2	1.746	A
D - North West Arm	162	557	1264	0.128	162	0.2	3.415	A

2048 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	New Junction 6	Standard Roundabout		A, B, C, D	12.50	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2048 Do Something	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	1123	100.000
B - South Arm		✓	817	100.000
C - South West Arm		✓	420	100.000
D - North West Arm		✓	245	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	106	1008	9
	B - South Arm	252	0	158	407
	C - South West Arm	327	54	0	39
	D - North West Arm	9	176	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	8	6	0
	B - South Arm	3	0	10	2
	C - South West Arm	14	18	0	4
	D - North West Arm	0	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.50	3.05	1.0	A
B - South Arm	0.90	33.28	7.8	D
C - South West Arm	0.21	2.29	0.3	A
D - North West Arm	0.23	4.00	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	845	218	2558	0.331	843	0.5	2.225	A
B - South Arm	615	809	1191	0.516	611	1.1	6.388	A
C - South West Arm	316	499	2409	0.131	316	0.2	1.951	A
D - North West Arm	184	475	1305	0.141	184	0.2	3.302	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1010	280	2528	0.399	1009	0.7	2.513	A
B - South Arm	734	968	1111	0.661	731	2.0	9.727	A
C - South West Arm	378	598	2341	0.161	377	0.2	2.080	A
D - North West Arm	220	568	1258	0.175	220	0.2	3.566	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1236	319	2488	0.497	1235	1.0	3.047	A
B - South Arm	900	1184	1002	0.897	879	7.0	26.902	D
C - South West Arm	462	719	2257	0.205	462	0.3	2.276	A
D - North West Arm	270	690	1197	0.225	269	0.3	3.990	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1236	319	2488	0.497	1236	1.0	3.052	A
B - South Arm	900	1186	1002	0.896	896	7.8	33.282	D
C - South West Arm	462	733	2247	0.206	462	0.3	2.288	A
D - North West Arm	270	696	1195	0.226	270	0.3	4.003	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	1010	281	2528	0.399	1011	0.7	2.520	A
B - South Arm	734	969	1110	0.661	757	2.1	11.215	B
C - South West Arm	378	619	2326	0.162	378	0.2	2.096	A
D - North West Arm	220	576	1254	0.176	221	0.2	3.566	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	845	219	2557	0.331	846	0.5	2.235	A
B - South Arm	615	812	1190	0.517	619	1.1	6.588	A
C - South West Arm	316	506	2405	0.131	316	0.2	1.957	A
D - North West Arm	184	478	1303	0.142	185	0.2	3.314	A

2048 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
6	New Junction 6	Standard Roundabout		A, B, C, D	3.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2048 Do Something	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - North Arm		✓	298	100.000
B - South Arm		✓	550	100.000
C - South West Arm		✓	522	100.000
D - North West Arm		✓	392	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	55	239	4
	B - South Arm	306	0	75	169
	C - South West Arm	408	70	0	44
	D - North West Arm	5	375	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - North Arm	B - South Arm	C - South West Arm	D - North West Arm
From	A - North Arm	0	1	5	0
	B - South Arm	1	0	10	0
	C - South West Arm	3	16	0	8
	D - North West Arm	0	7	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A - North Arm	0.14	1.84	0.2	A
B - South Arm	0.42	4.31	0.7	A
C - South West Arm	0.24	2.08	0.3	A
D - North West Arm	0.39	5.67	0.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	224	343	2472	0.091	224	0.1	1.667	A
B - South Arm	414	192	1502	0.276	413	0.4	3.362	A
C - South West Arm	393	359	2506	0.157	392	0.2	1.787	A
D - North West Arm	295	589	1248	0.236	294	0.3	4.038	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	268	410	2425	0.110	268	0.1	1.737	A
B - South Arm	494	229	1483	0.333	494	0.5	3.705	A
C - South West Arm	469	430	2457	0.191	469	0.2	1.900	A
D - North West Arm	352	704	1191	0.296	352	0.4	4.599	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	328	502	2362	0.139	328	0.2	1.842	A
B - South Arm	606	281	1457	0.416	605	0.7	4.297	A
C - South West Arm	575	527	2390	0.240	574	0.3	2.081	A
D - North West Arm	432	862	1112	0.388	431	0.7	5.655	A

17:30 - 17:45

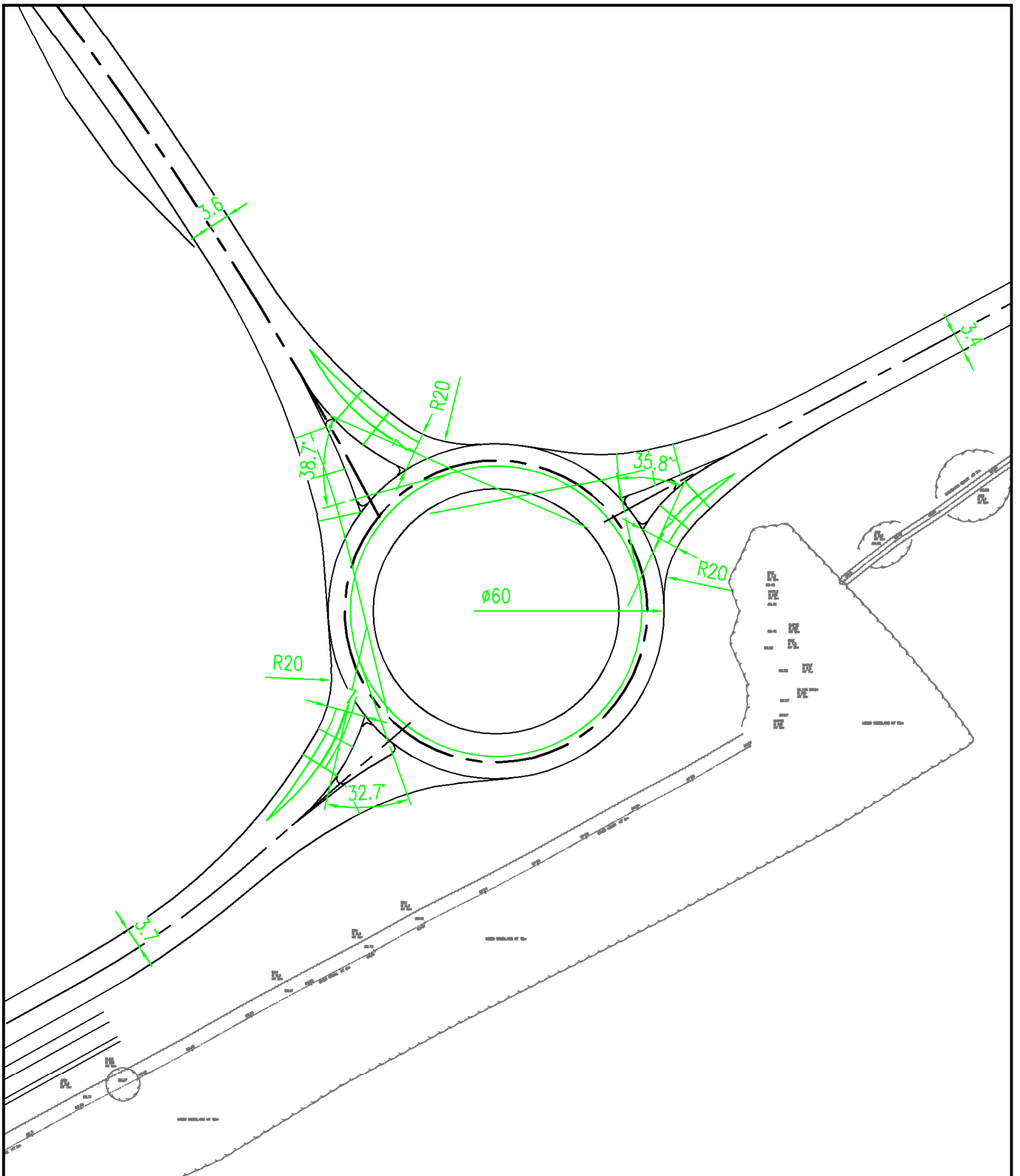
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	328	503	2361	0.139	328	0.2	1.843	A
B - South Arm	606	281	1457	0.416	606	0.7	4.306	A
C - South West Arm	575	527	2390	0.240	575	0.3	2.081	A
D - North West Arm	432	863	1112	0.388	432	0.7	5.672	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	268	412	2424	0.111	268	0.1	1.741	A
B - South Arm	494	229	1483	0.334	495	0.5	3.717	A
C - South West Arm	469	431	2456	0.191	470	0.2	1.901	A
D - North West Arm	352	706	1190	0.296	353	0.5	4.618	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - North Arm	224	345	2470	0.091	224	0.1	1.871	A
B - South Arm	414	192	1501	0.276	415	0.4	3.376	A
C - South West Arm	393	381	2505	0.157	393	0.2	1.788	A
D - North West Arm	295	591	1247	0.237	296	0.3	4.057	A



ROUNABOUT GEOMETRY – NEW JUNCTION 7

Arm	Approach road half width (m)	Entry width (m)	Effective flare length (m)	Entry radius (m)	ICD (m)	Conflict angle (°)
North East	3.38	7.00	17.20	20.00	60.00	35.80
South West	3.65	7.00	23.70	20.00	60.00	32.70
North West	3.65	7.00	25.70	20.00	60.00	38.80