

Appendix F

Junctions 9			
PICADY 9 - Priority Intersection Module			
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Filename: Junction 1 Site access- Mount Pleasant Road T-junction.j9

Path: P:\Eastern\1031-1040\1033 Chase New Homes\1033.0002 Mount Pleasant Road, Saffron Walden\03

Technical\TPL\Modelling\Junction 1 Site access- Mount Pleasant Road T-junction

Report generation date: 04/04/2025 12:48:20

»2023, AM
»2023, PM
»2030, AM
»2030, PM
»2030 + COM, AM
»2030 + COM, PM
»2030 + COM + DEV, AM
»2030 + COM + DEV, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2023								
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2030								
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2030 + COM								
Stream B-AC	0.1	9.52	0.10	A	0.1	9.94	0.06	A
Stream C-AB	0.0	4.75	0.00	A	0.0	4.60	0.02	A
2030 + COM + DEV								
Stream B-AC	0.2	10.53	0.18	B	0.1	10.56	0.10	B
Stream C-AB	0.0	4.75	0.01	A	0.0	4.59	0.03	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	(untitled)
Location	
Site number	
Date	20/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
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	2023	AM	ONE HOUR	07:45	09:15	15
D2	2023	PM	ONE HOUR	16:45	18:15	15
D3	2030	AM	ONE HOUR	07:45	09:15	15
D4	2030	PM	ONE HOUR	16:45	18:15	15
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15
D7	2030 + COM + DEV	AM	ONE HOUR	07:45	09:15	15
D8	2030 + COM + DEV	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Mount Pleasant Road East		Major
B	Site Access		Minor
C	Mount Pleasant Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.40			180.3	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	17	48

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	506	0.095	0.239	0.150	0.342
1	B-C	654	0.103	0.260	-	-
1	C-B	678	0.270	0.270	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023	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		✓	229	100.000
B		✓	0	100.000
C		✓	264	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	0	229
	B	0	0	0
	C	264	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

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

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	508	0.000	0	0.0	0.000	A
C-AB	0	632	0.000	0	0.0	0.000	A
C-A	199			199			
A-B	0			0			
A-C	172			172			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	495	0.000	0	0.0	0.000	A
C-AB	0	623	0.000	0	0.0	0.000	A
C-A	237			237			
A-B	0			0			
A-C	206			206			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	478	0.000	0	0.0	0.000	A
C-AB	0	610	0.000	0	0.0	0.000	A
C-A	291			291			
A-B	0			0			
A-C	252			252			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	478	0.000	0	0.0	0.000	A
C-AB	0	610	0.000	0	0.0	0.000	A
C-A	291			291			
A-B	0			0			
A-C	252			252			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	495	0.000	0	0.0	0.000	A
C-AB	0	623	0.000	0	0.0	0.000	A
C-A	237			237			
A-B	0			0			
A-C	206			206			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	508	0.000	0	0.0	0.000	A
C-AB	0	632	0.000	0	0.0	0.000	A
C-A	199			199			
A-B	0			0			
A-C	172			172			

2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023	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		✓	290	100.000
B		✓	0	100.000
C		✓	366	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	290
	B	0	0	0
	C	366	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

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

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	488	0.000	0	0.0	0.000	A
C-AB	0	619	0.000	0	0.0	0.000	A
C-A	276			276			
A-B	0			0			
A-C	218			218			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	472	0.000	0	0.0	0.000	A
C-AB	0	608	0.000	0	0.0	0.000	A
C-A	329			329			
A-B	0			0			
A-C	261			261			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	449	0.000	0	0.0	0.000	A
C-AB	0	592	0.000	0	0.0	0.000	A
C-A	403			403			
A-B	0			0			
A-C	319			319			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	449	0.000	0	0.0	0.000	A
C-AB	0	592	0.000	0	0.0	0.000	A
C-A	403			403			
A-B	0			0			
A-C	319			319			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	472	0.000	0	0.0	0.000	A
C-AB	0	608	0.000	0	0.0	0.000	A
C-A	329			329			
A-B	0			0			
A-C	261			261			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	488	0.000	0	0.0	0.000	A
C-AB	0	619	0.000	0	0.0	0.000	A
C-A	276			276			
A-B	0			0			
A-C	218			218			

2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030	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		✓	241	100.000
B		✓	0	100.000
C		✓	278	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	241
	B	0	0	0
	C	278	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

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

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	504	0.000	0	0.0	0.000	A
C-AB	0	629	0.000	0	0.0	0.000	A
C-A	209			209			
A-B	0			0			
A-C	181			181			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	491	0.000	0	0.0	0.000	A
C-AB	0	620	0.000	0	0.0	0.000	A
C-A	250			250			
A-B	0			0			
A-C	217			217			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	473	0.000	0	0.0	0.000	A
C-AB	0	607	0.000	0	0.0	0.000	A
C-A	306			306			
A-B	0			0			
A-C	265			265			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	473	0.000	0	0.0	0.000	A
C-AB	0	607	0.000	0	0.0	0.000	A
C-A	306			306			
A-B	0			0			
A-C	265			265			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	491	0.000	0	0.0	0.000	A
C-AB	0	620	0.000	0	0.0	0.000	A
C-A	250			250			
A-B	0			0			
A-C	217			217			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	504	0.000	0	0.0	0.000	A
C-AB	0	629	0.000	0	0.0	0.000	A
C-A	209			209			
A-B	0			0			
A-C	181			181			

2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030	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		✓	306	100.000
B		✓	0	100.000
C		✓	387	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	0	306
	B	0	0	0
	C	387	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

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

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	483	0.000	0	0.0	0.000	A
C-AB	0	616	0.000	0	0.0	0.000	A
C-A	291			291			
A-B	0			0			
A-C	230			230			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	466	0.000	0	0.0	0.000	A
C-AB	0	604	0.000	0	0.0	0.000	A
C-A	348			348			
A-B	0			0			
A-C	275			275			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	441	0.000	0	0.0	0.000	A
C-AB	0	588	0.000	0	0.0	0.000	A
C-A	426			426			
A-B	0			0			
A-C	337			337			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	441	0.000	0	0.0	0.000	A
C-AB	0	588	0.000	0	0.0	0.000	A
C-A	426			426			
A-B	0			0			
A-C	337			337			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	466	0.000	0	0.0	0.000	A
C-AB	0	604	0.000	0	0.0	0.000	A
C-A	348			348			
A-B	0			0			
A-C	275			275			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	0	483	0.000	0	0.0	0.000	A
C-AB	0	616	0.000	0	0.0	0.000	A
C-A	291			291			
A-B	0			0			
A-C	230			230			

2030 + COM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.66	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)
D5	2030 + COM	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		✓	250	100.000
B		✓	38	100.000
C		✓	280	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	9	241
	B	31	0	7
	C	278	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	9.52	0.1	A
C-AB	0.00	4.75	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	29	455	0.063	28	0.1	8.441	A
C-AB	2	764	0.003	2	0.0	4.750	A
C-A	209			209			
A-B	7			7			
A-C	181			181			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	34	440	0.078	34	0.1	8.865	A
C-AB	3	782	0.003	3	0.0	4.646	A
C-A	249			249			
A-B	8			8			
A-C	217			217			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	42	420	0.100	42	0.1	9.512	A
C-AB	4	807	0.004	4	0.0	4.508	A
C-A	305			305			
A-B	10			10			
A-C	265			265			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	42	420	0.100	42	0.1	9.516	A
C-AB	4	807	0.004	4	0.0	4.512	A
C-A	305			305			
A-B	10			10			
A-C	265			265			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	34	440	0.078	34	0.1	8.873	A
C-AB	3	782	0.003	3	0.0	4.653	A
C-A	249			249			
A-B	8			8			
A-C	217			217			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	29	455	0.063	29	0.1	8.454	A
C-AB	2	764	0.003	2	0.0	4.752	A
C-A	209			209			
A-B	7			7			
A-C	181			181			

2030 + COM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 + COM	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		✓	335	100.000
B		✓	20	100.000
C		✓	394	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	29	306
	B	16	0	4
	C	387	7	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.06	9.94	0.1	A
C-AB	0.02	4.60	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	15	431	0.035	15	0.0	8.651	A
C-AB	8	803	0.010	8	0.0	4.594	A
C-A	288			288			
A-B	22			22			
A-C	230			230			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	411	0.044	18	0.0	9.148	A
C-AB	11	830	0.013	11	0.0	4.464	A
C-A	343			343			
A-B	26			26			
A-C	275			275			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	22	384	0.057	22	0.1	9.937	A
C-AB	15	868	0.017	15	0.0	4.297	A
C-A	419			419			
A-B	32			32			
A-C	337			337			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	22	384	0.057	22	0.1	9.939	A
C-AB	15	868	0.017	15	0.0	4.302	A
C-A	419			419			
A-B	32			32			
A-C	337			337			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	18	411	0.044	18	0.0	9.153	A
C-AB	11	830	0.013	11	0.0	4.478	A
C-A	343			343			
A-B	26			26			
A-C	275			275			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	15	431	0.035	15	0.0	8.659	A
C-AB	8	803	0.010	8	0.0	4.600	A
C-A	288			288			
A-B	22			22			
A-C	230			230			

2030 + COM + DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	1.26	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)
D7	2030 + COM + DEV	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		✓	257	100.000
B		✓	70	100.000
C		✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	16	241
	B	57	0	13
	C	278	4	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	10.53	0.2	B
C-AB	0.01	4.75	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	53	454	0.116	52	0.1	8.952	A
C-AB	4	763	0.005	4	0.0	4.745	A
C-A	208			208			
A-B	12			12			
A-C	181			181			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	63	439	0.143	63	0.2	9.565	A
C-AB	5	780	0.007	5	0.0	4.643	A
C-A	248			248			
A-B	14			14			
A-C	217			217			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	77	419	0.184	77	0.2	10.517	B
C-AB	7	806	0.009	7	0.0	4.507	A
C-A	303			303			
A-B	18			18			
A-C	265			265			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	77	419	0.184	77	0.2	10.531	B
C-AB	7	806	0.009	7	0.0	4.508	A
C-A	303			303			
A-B	18			18			
A-C	265			265			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	63	439	0.143	63	0.2	9.581	A
C-AB	5	780	0.007	5	0.0	4.643	A
C-A	248			248			
A-B	14			14			
A-C	217			217			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	53	454	0.116	53	0.1	8.983	A
C-AB	4	763	0.005	4	0.0	4.747	A
C-A	208			208			
A-B	12			12			
A-C	181			181			

2030 + COM + DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	0.57	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)
D8	2030 + COM + DEV	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		✓	358	100.000
B		✓	33	100.000
C		✓	399	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	52	306
	B	27	0	6
	C	387	12	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	10.56	0.1	B
C-AB	0.03	4.59	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	25	425	0.058	25	0.1	8.976	A
C-AB	14	799	0.018	14	0.0	4.586	A
C-A	286			286			
A-B	39			39			
A-C	230			230			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	30	405	0.073	30	0.1	9.583	A
C-AB	19	825	0.023	19	0.0	4.463	A
C-A	340			340			
A-B	47			47			
A-C	275			275			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	36	377	0.096	36	0.1	10.554	B
C-AB	26	863	0.030	26	0.0	4.302	A
C-A	413			413			
A-B	57			57			
A-C	337			337			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	36	377	0.096	36	0.1	10.561	B
C-AB	26	863	0.030	26	0.0	4.303	A
C-A	413			413			
A-B	57			57			
A-C	337			337			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	30	405	0.073	30	0.1	9.590	A
C-AB	19	825	0.023	19	0.0	4.465	A
C-A	340			340			
A-B	47			47			
A-C	275			275			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	25	425	0.058	25	0.1	8.990	A
C-AB	14	799	0.018	14	0.0	4.587	A
C-A	286			286			
A-B	39			39			
A-C	230			230			

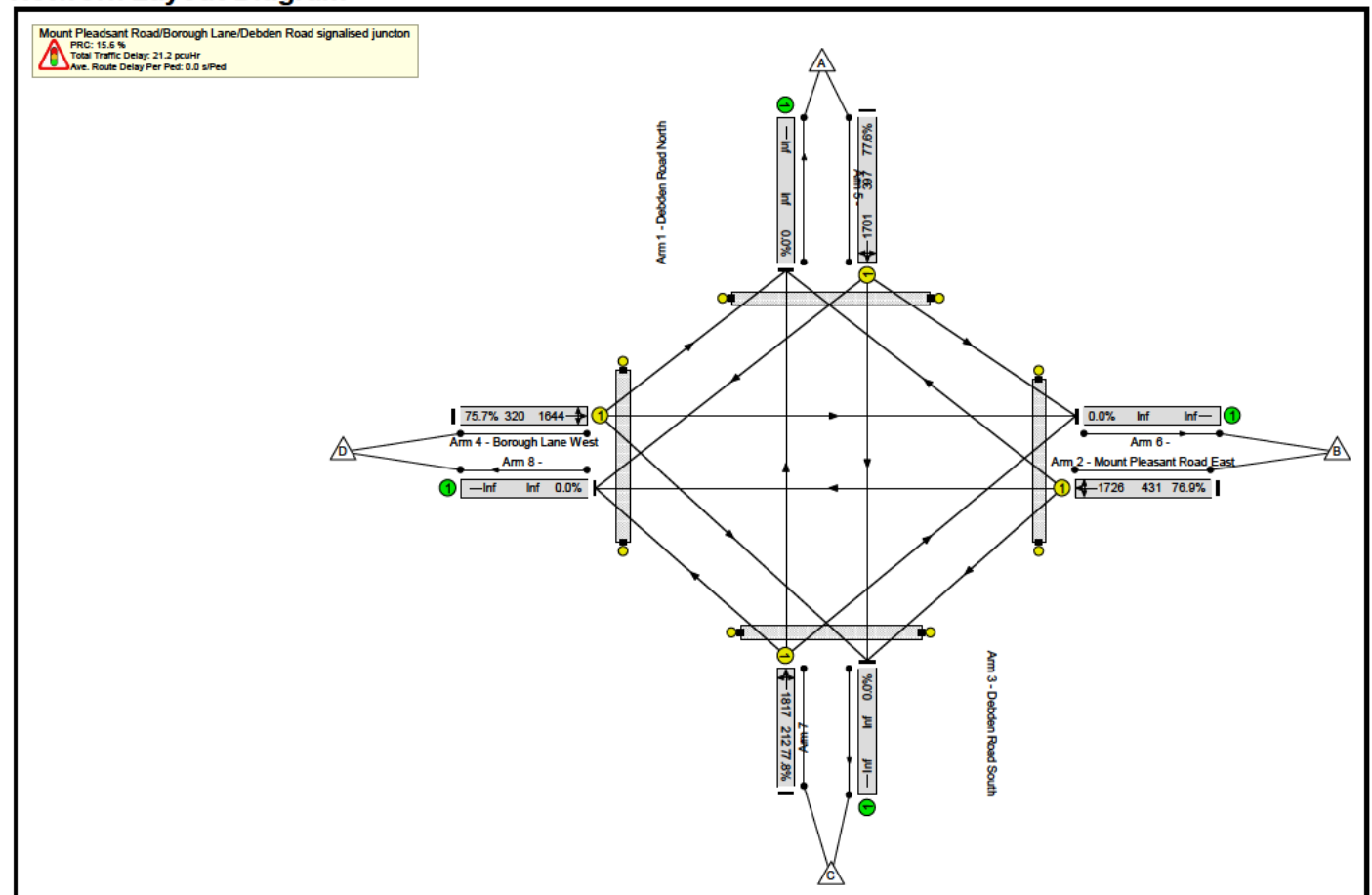
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Mount Pleasant Road-Debden Road-Borough Lane - 2025.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2023 AM' (FG1: '2023 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

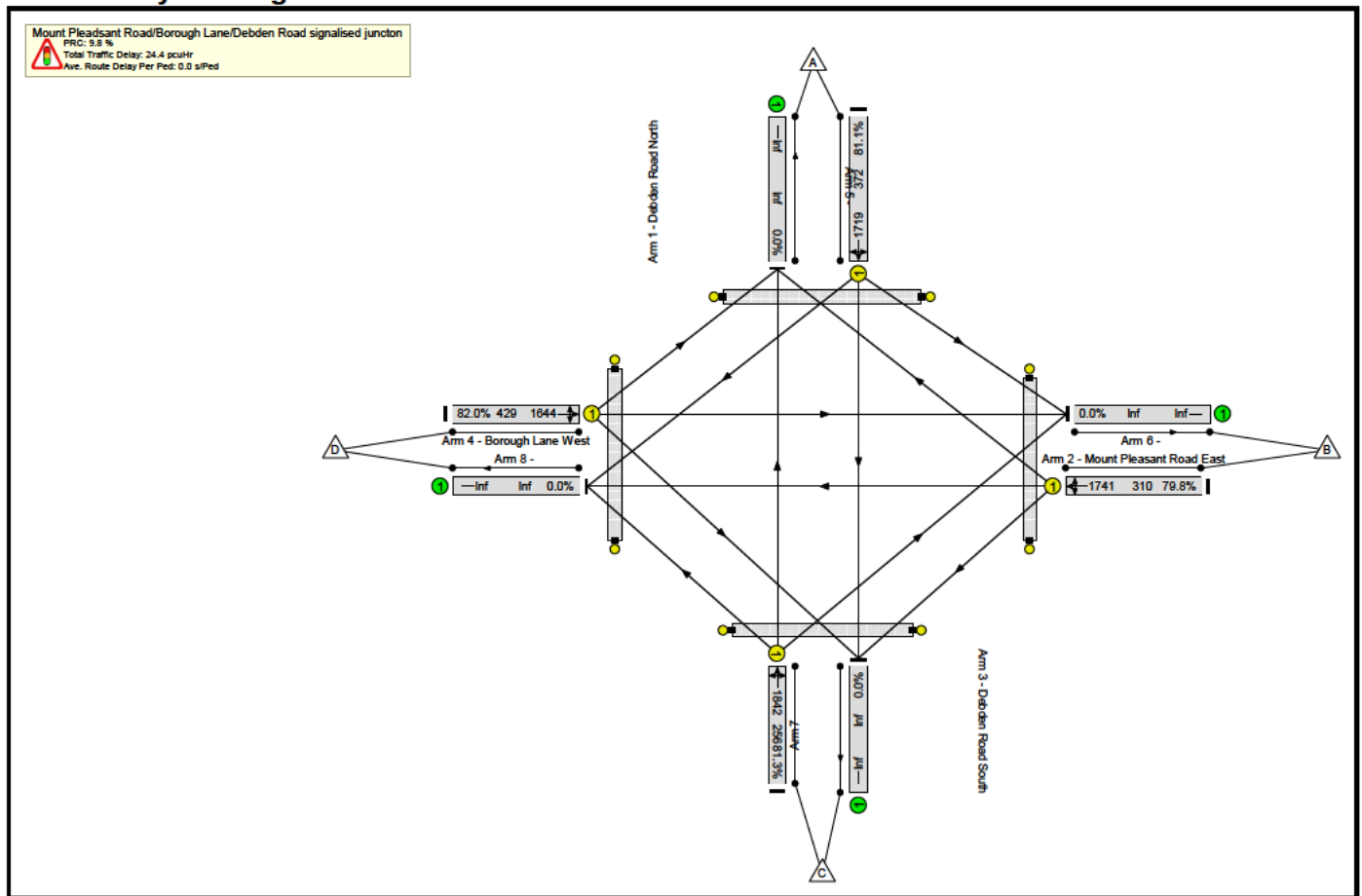


Network Results

Basic Results Summary

Scenario 2: '2023 PM' (FG2: '2023 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

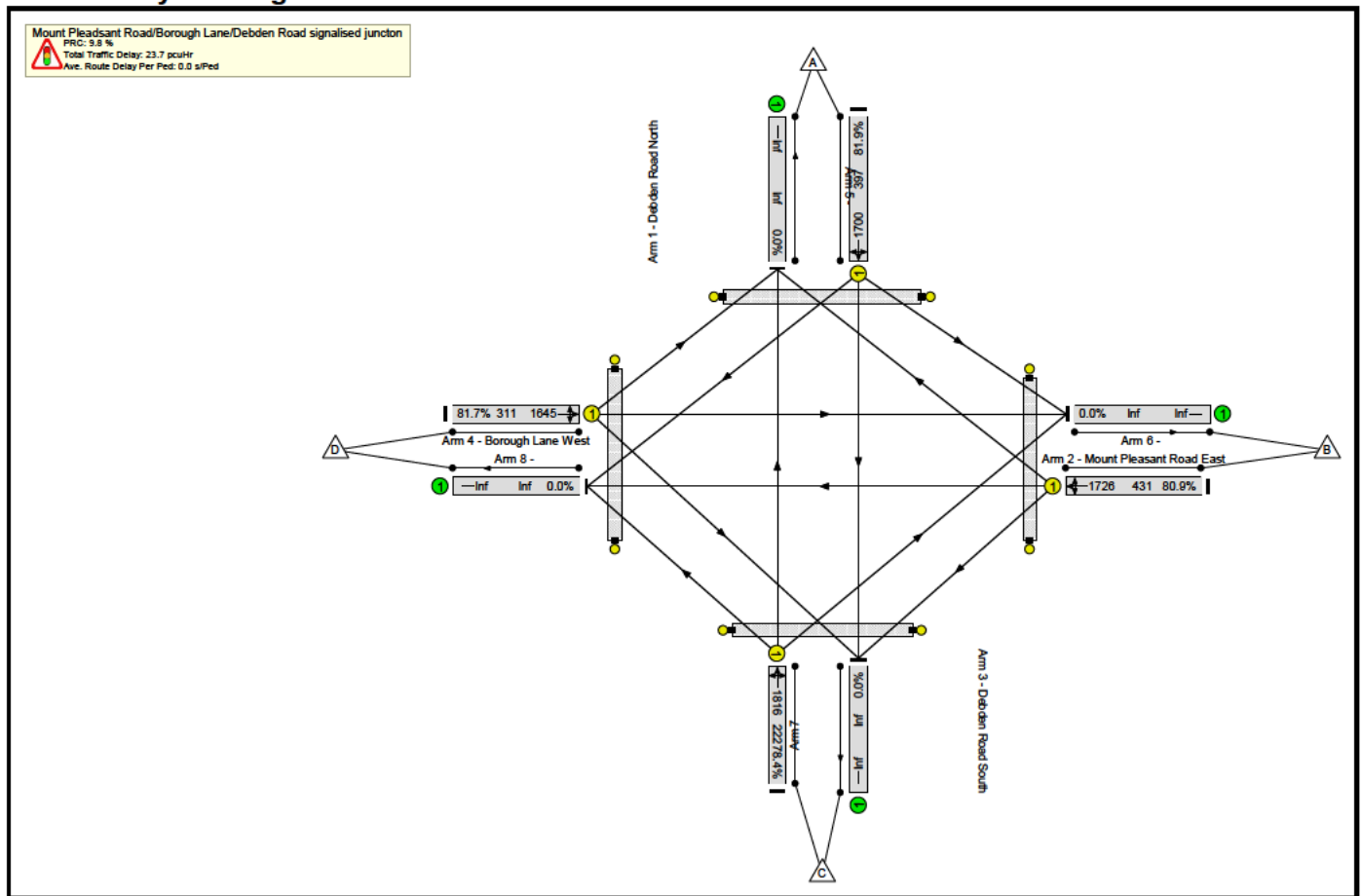


Network Results

Basic Results Summary

Scenario 3: '2030 AM' (FG3: '2030 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

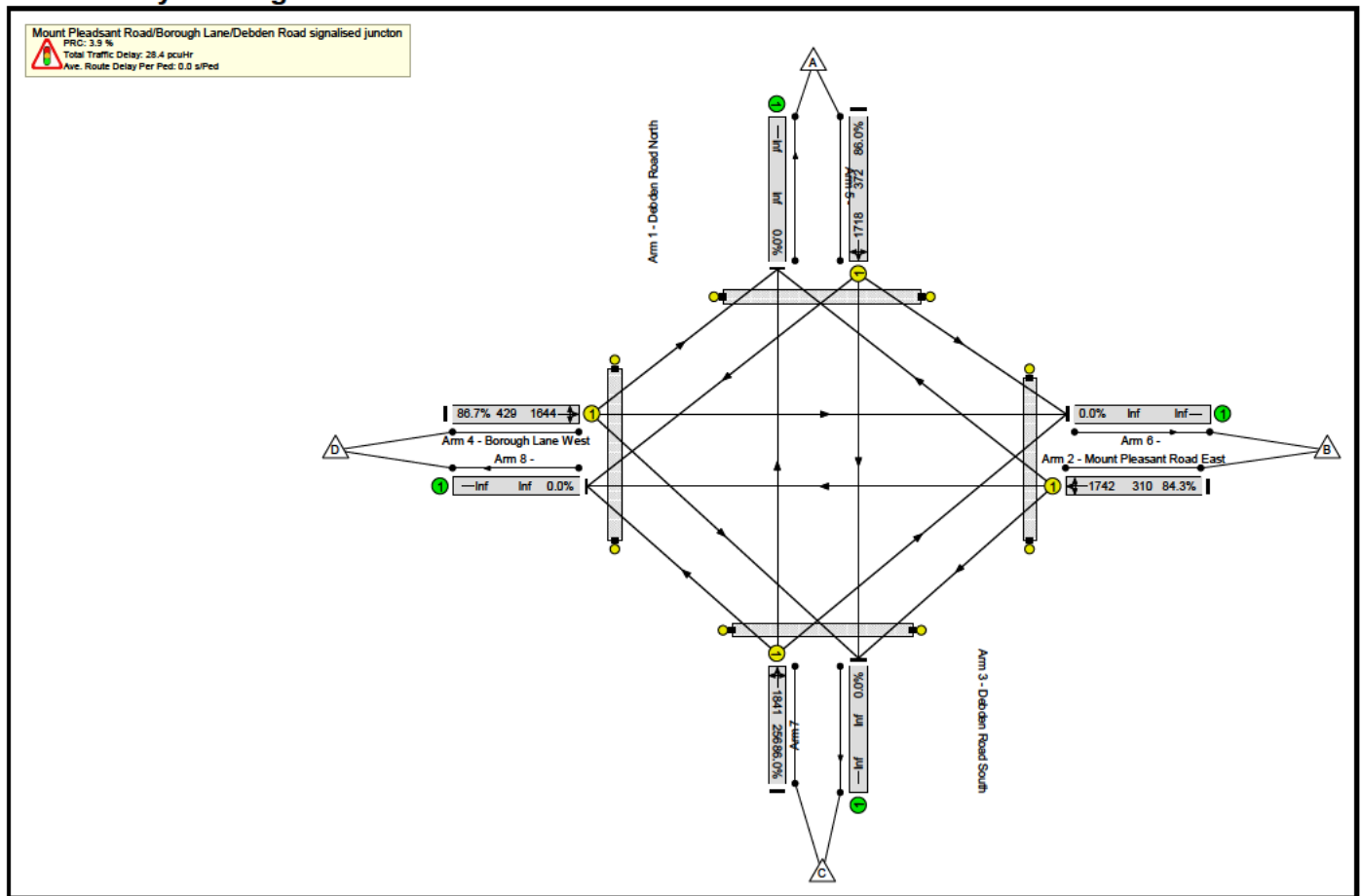


Network Results

Basic Results Summary

Scenario 4: '2030 PM' (FG4: '2030 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

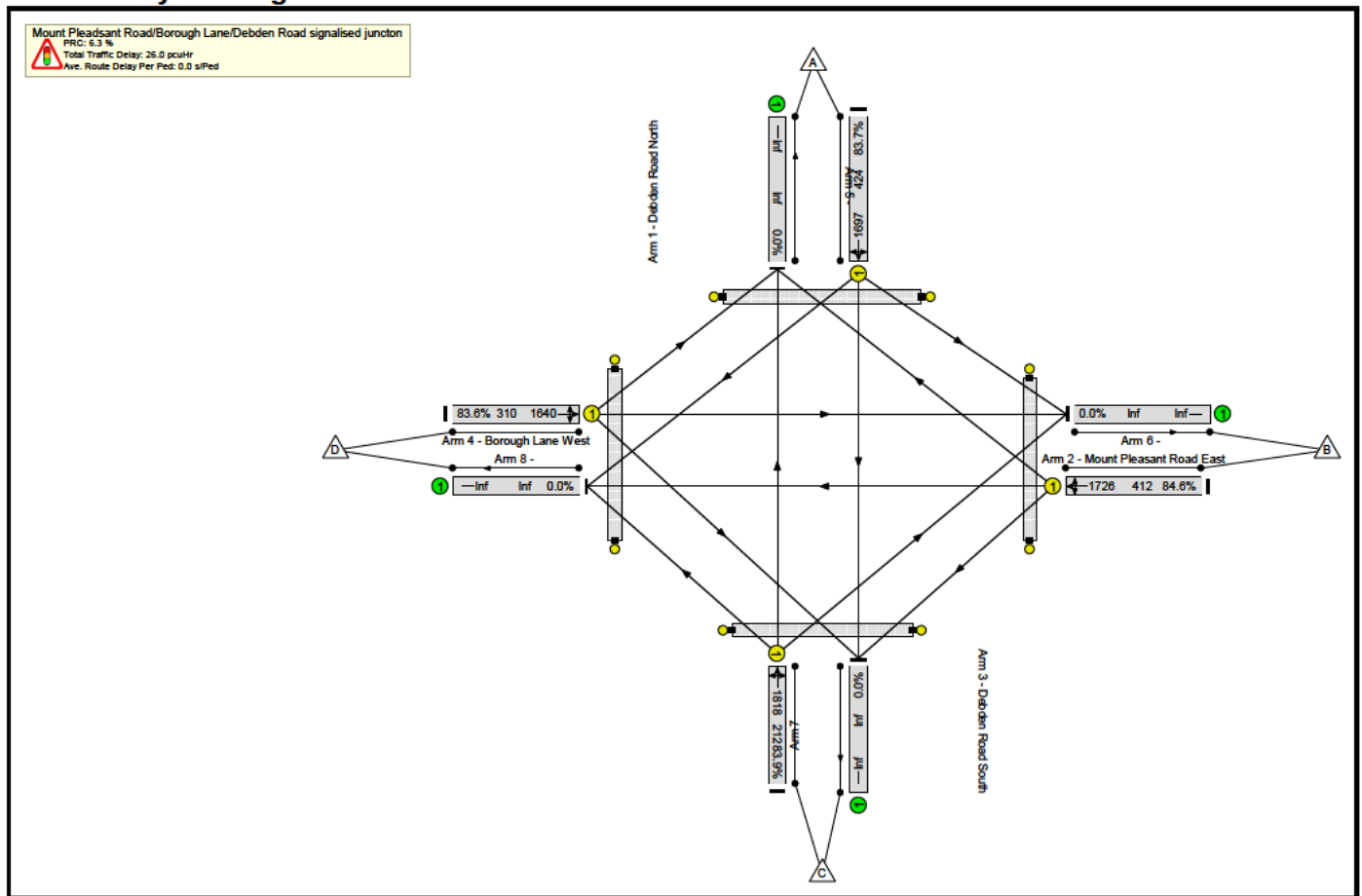


Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	86.7%	0	0	0	28.4	-	-
Mount Pleasants Road/Borough Lane/Debden Road signalised junction	-	-	-		-	-	-	-	-	-	86.7%	0	0	0	28.4	-	-
1/1	Debden Road North Left Ahead Right	U	A		1	38	-	320	1718	372	86.0%	-	-	-	8.8	99.0	18.1
2/1	Mount Pleasant Road East Right Left Ahead	U	B		2	30	-	261	1742	310	84.3%	-	-	-	5.1	69.8	9.4
3/1	Debden Road South Ahead Right Left	U	C		2	23	-	220	1841	256	86.0%	-	-	-	5.0	82.3	8.7
4/1	Borough Lane West Left Ahead Right	U	D		1	46	-	372	1644	429	86.7%	-	-	-	9.5	92.0	20.6
Ped Link: P1	Debden Road North	-	E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Mount Pleasant Road East	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Debden Road South	-	G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Borough Lane West	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		3.9		Total Delay for Signalled Lanes (pcuHr):		28.40		Cycle Time (s):		180					
		PRC Over All Lanes (%):		3.9		Total Delay Over All Lanes (pcuHr):		28.40									

Network Layout Diagram

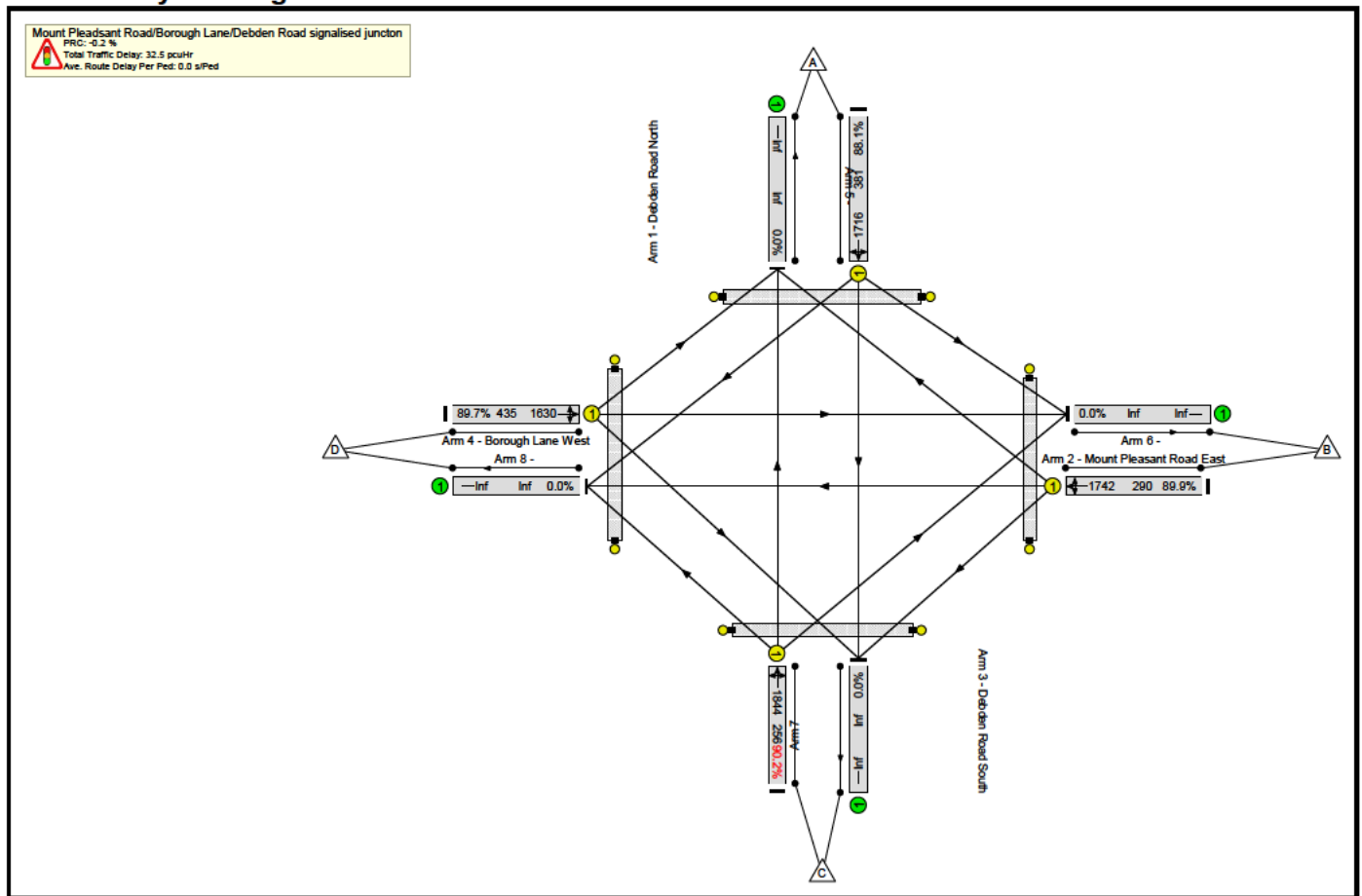


Network Results

Basic Results Summary

Scenario 6: '2030 +Com PM' (FG6: '2030 + Com PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

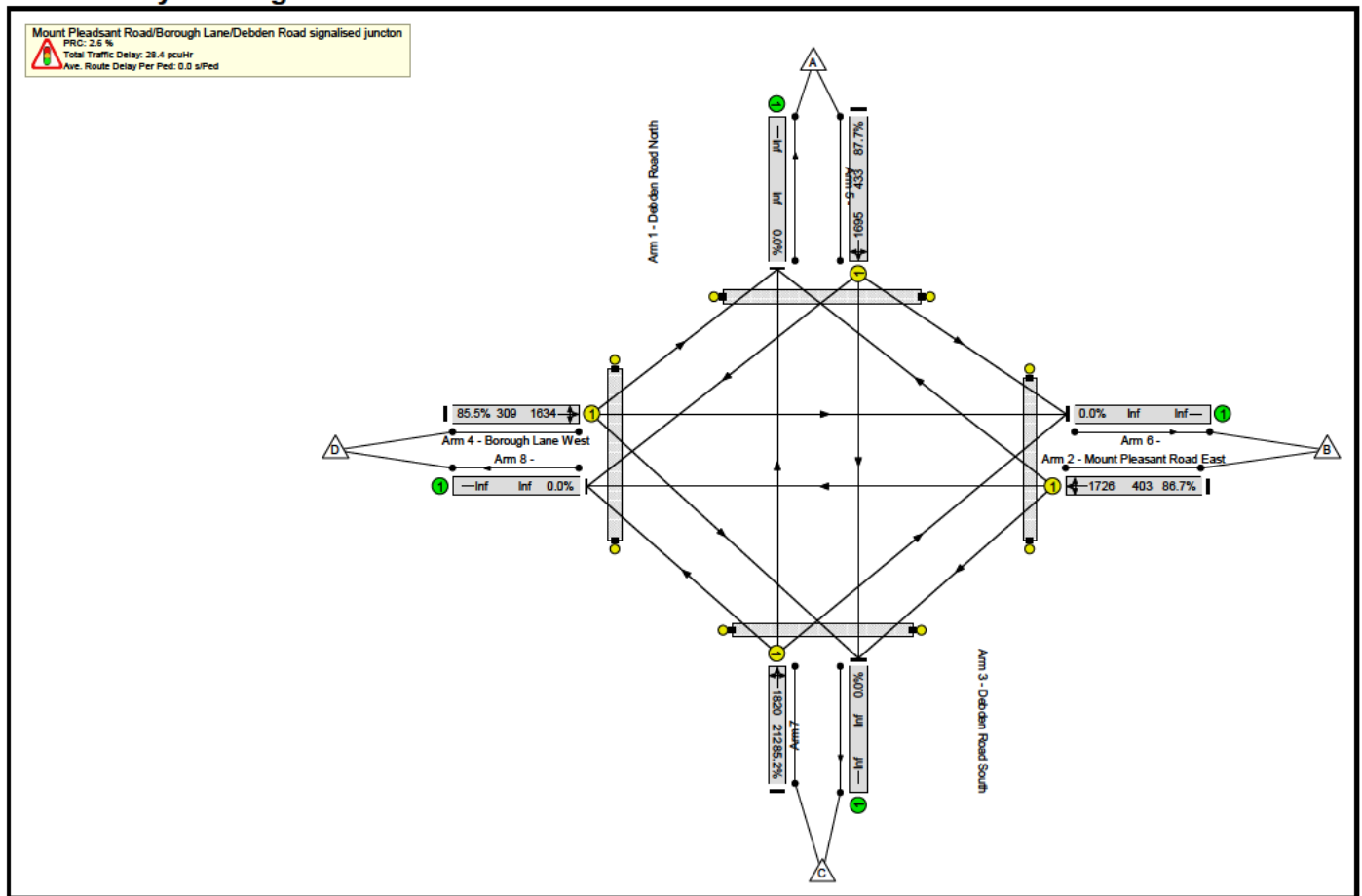


Network Results

Basic Results Summary

Scenario 7: '2030 + Com + Dev AM' (FG7: '2030 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

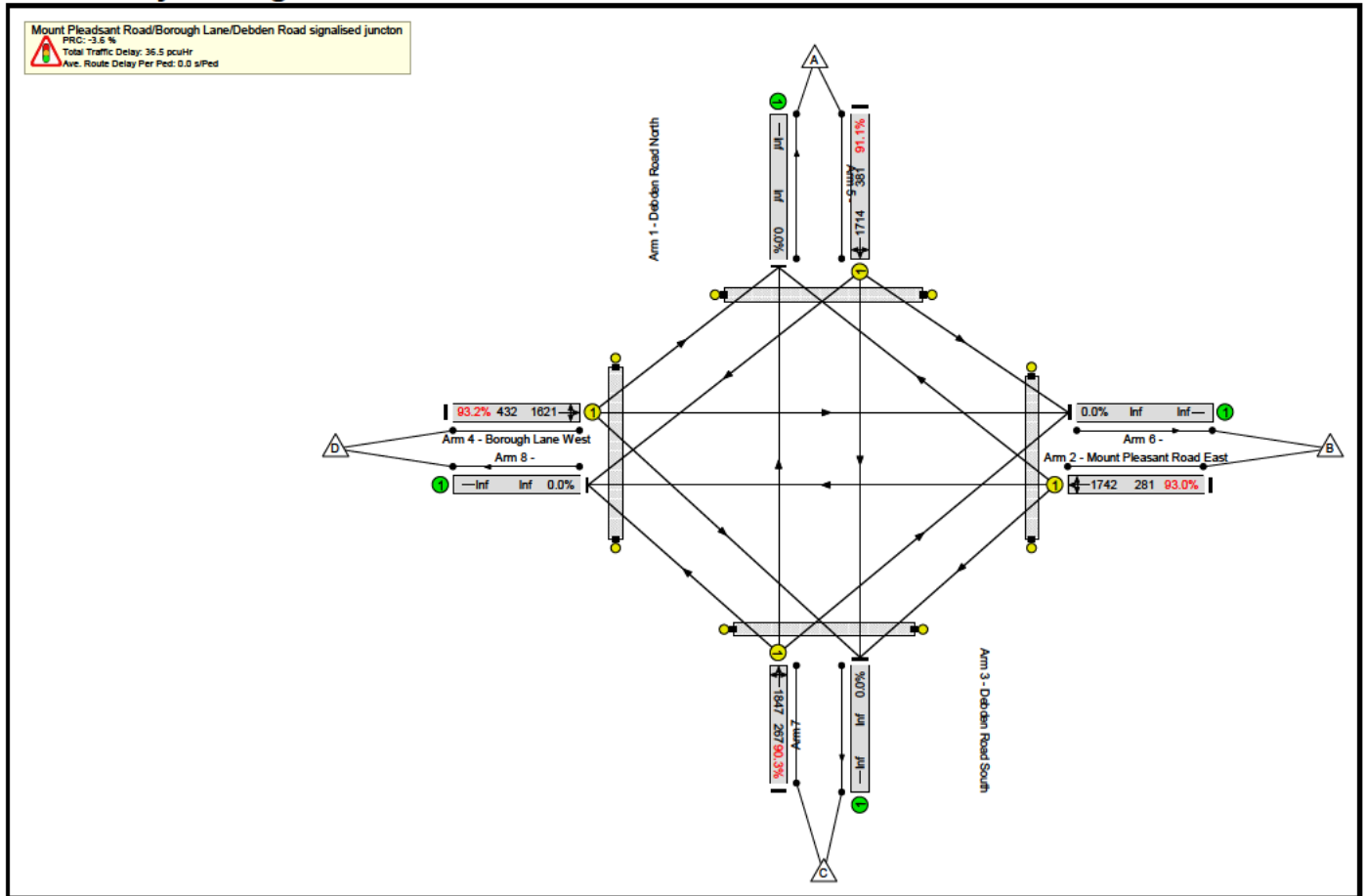


Network Results

Basic Results Summary

Scenario 8: '2030 + Com + Dev PM' (FG8: '2030 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Network Results

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.0.2.5947 © Copyright TRL Limited, 2017			
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk			
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution			

Filename: Junction 3 Peaslands Road- Hop Fields Mini-Roundabout - 2025.j9

Path: P:\Eastern\1031-1040\1033 Chase New Homes\1033.0002 Mount Pleasant Road, Saffron Walden\03

Technical\TPL\Modelling\Junction 3 Peaslands Road- Hop Fields Mini-Roundabout

Report generation date: 04/04/2025 13:04:20

»2023, AM
»2023, PM
»2030, AM
»2030, PM
»2030 + COM, AM
»2030 + COM, PM
»2030 + COM + PROPOSED DEV, AM
»2030 + COM + PROPOSED DEV, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2023								
Arm 1	0.6	6.05	0.36	A	0.3	5.00	0.26	A
Arm 2	0.1	4.99	0.08	A	0.0	4.31	0.01	A
Arm 3	0.6	6.25	0.39	A	0.2	4.53	0.18	A
2030								
Arm 1	0.6	6.25	0.38	A	0.4	5.11	0.27	A
Arm 2	0.1	5.09	0.09	A	0.0	4.35	0.01	A
Arm 3	0.7	6.48	0.41	A	0.2	4.59	0.19	A
2030 + COM								
Arm 1	0.7	6.33	0.39	A	0.4	5.11	0.27	A
Arm 2	0.1	5.12	0.09	A	0.0	4.35	0.01	A
Arm 3	0.7	6.50	0.41	A	0.3	4.63	0.20	A
2030 + COM + PROPOSED DEV								
Arm 1	0.7	6.22	0.40	A	0.4	5.13	0.28	A
Arm 2	0.1	5.15	0.09	A	0.0	4.36	0.01	A
Arm 3	0.7	6.40	0.41	A	0.3	4.67	0.21	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	(untitled)
Location	
Site number	
Date	19/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			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	2023	AM	ONE HOUR	07:45	09:15	15
D2	2023	PM	ONE HOUR	16:45	18:15	15
D3	2030	AM	ONE HOUR	07:45	09:15	15
D4	2030	PM	ONE HOUR	16:45	18:15	15
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 92% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	6.06	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Peaslands Road West	
2	Hop Fields North	
3	Peaslands Road East	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.00	3.00	3.00	0.0	5.00	2.00	0.0	
2	3.00	3.00	3.00	0.0	5.00	2.00	0.0	
3	3.00	3.00	3.00	0.0	5.00	2.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.590	985
2	0.590	985
3	0.590	985

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	2023	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	320	100.000
2		✓	57	100.000
3		✓	339	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	11	309
	2	30	0	27
	3	316	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	0	4
	2	0	0	0
	3	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.36	6.05	0.6	A
2	0.08	4.99	0.1	A
3	0.39	6.25	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)	LOS
1	241	17	975	0.247	240	0.3	5.076	A
2	43	231	848	0.051	43	0.1	4.467	A
3	255	22	972	0.263	254	0.4	5.144	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)	LOS
1	288	21	973	0.296	287	0.4	5.453	A
2	51	277	821	0.062	51	0.1	4.675	A
3	305	27	969	0.315	304	0.5	5.564	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)	LOS
1	352	25	970	0.363	352	0.6	6.041	A
2	63	340	784	0.080	63	0.1	4.987	A
3	373	33	965	0.387	373	0.6	6.233	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)	LOS
1	352	25	970	0.363	352	0.6	6.053	A
2	63	340	784	0.080	63	0.1	4.990	A
3	373	33	965	0.387	373	0.6	6.248	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)	LOS
1	288	21	973	0.296	288	0.4	5.469	A
2	51	278	821	0.062	51	0.1	4.679	A
3	305	27	969	0.315	305	0.5	5.582	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)	LOS
1	241	17	975	0.247	241	0.3	5.100	A
2	43	233	847	0.051	43	0.1	4.475	A
3	255	23	972	0.263	256	0.4	5.171	A

2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 97% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	4.79	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2023	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	229	100.000
2		✓	10	100.000
3		✓	163	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	1	0	16	213
	2	5	0	5
	3	153	10	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
	1	0	0	1
	2	0	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.26	5.00	0.3	A
2	0.01	4.31	0.0	A
3	0.18	4.53	0.2	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)	LOS
1	172	7	980	0.176	172	0.2	4.487	A
2	8	160	891	0.008	7	0.0	4.075	A
3	123	4	983	0.125	122	0.1	4.220	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)	LOS
1	206	9	980	0.210	206	0.3	4.693	A
2	9	191	872	0.010	9	0.0	4.171	A
3	147	4	982	0.149	146	0.2	4.347	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)	LOS
1	252	11	978	0.258	252	0.3	4.998	A
2	11	234	847	0.013	11	0.0	4.307	A
3	179	5	982	0.183	179	0.2	4.527	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)	LOS
1	252	11	978	0.258	252	0.3	5.002	A
2	11	235	846	0.013	11	0.0	4.308	A
3	179	6	982	0.183	179	0.2	4.529	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)	LOS
1	206	9	980	0.210	206	0.3	4.701	A
2	9	192	872	0.010	9	0.0	4.172	A
3	147	5	982	0.149	147	0.2	4.349	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)	LOS
1	172	8	980	0.176	173	0.2	4.500	A
2	8	161	890	0.008	8	0.0	4.078	A
3	123	4	983	0.125	123	0.1	4.226	A

2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 92% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	6.27	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	337	100.000
2		✓	60	100.000
3		✓	357	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	12	325
	2	32	0	28
	3	333	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	0	4
	2	0	0	0
	3	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.38	6.25	0.6	A
2	0.09	5.09	0.1	A
3	0.41	6.48	0.7	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)	LOS
1	254	18	974	0.260	252	0.4	5.167	A
2	45	243	841	0.054	45	0.1	4.519	A
3	269	24	971	0.277	267	0.4	5.248	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)	LOS
1	303	22	972	0.312	303	0.5	5.579	A
2	54	292	813	0.066	54	0.1	4.744	A
3	321	29	968	0.332	320	0.5	5.712	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)	LOS
1	371	26	969	0.383	370	0.6	6.236	A
2	66	357	774	0.085	66	0.1	5.083	A
3	393	35	964	0.408	392	0.7	6.461	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)	LOS
1	371	26	969	0.383	371	0.6	6.248	A
2	66	358	774	0.085	66	0.1	5.086	A
3	393	35	964	0.408	393	0.7	6.479	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)	LOS
1	303	22	972	0.312	304	0.5	5.597	A
2	54	293	812	0.066	54	0.1	4.749	A
3	321	29	968	0.332	322	0.5	5.735	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)	LOS
1	254	18	974	0.260	254	0.4	5.194	A
2	45	245	840	0.054	45	0.1	4.529	A
3	269	24	971	0.277	269	0.4	5.281	A

2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 97% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	4.88	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	242	100.000
2		✓	10	100.000
3		✓	173	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	1	0	17	225
	2	5	0	5
	3	162	11	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
	1	0	0	1
	2	0	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.27	5.11	0.4	A
2	0.01	4.35	0.0	A
3	0.19	4.59	0.2	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)	LOS
1	182	8	980	0.186	181	0.2	4.544	A
2	8	169	885	0.009	7	0.0	4.100	A
3	130	4	983	0.133	130	0.2	4.257	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)	LOS
1	218	10	979	0.222	217	0.3	4.769	A
2	9	202	866	0.010	9	0.0	4.202	A
3	156	4	982	0.158	155	0.2	4.395	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)	LOS
1	266	12	978	0.273	266	0.4	5.103	A
2	11	247	839	0.013	11	0.0	4.348	A
3	190	5	982	0.194	190	0.2	4.590	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)	LOS
1	266	12	978	0.273	266	0.4	5.107	A
2	11	248	839	0.013	11	0.0	4.349	A
3	190	6	982	0.194	190	0.2	4.592	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)	LOS
1	218	10	979	0.222	218	0.3	4.775	A
2	9	203	865	0.010	9	0.0	4.203	A
3	156	5	982	0.158	156	0.2	4.399	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)	LOS
1	182	8	980	0.186	182	0.2	4.556	A
2	8	170	885	0.009	8	0.0	4.105	A
3	130	4	983	0.133	130	0.2	4.265	A

2030 + COM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 92% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	6.32	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	344	100.000
2		✓	60	100.000
3		✓	359	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	12	332
	2	32	0	28
	3	335	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	0	4
	2	0	0	0
	3	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.39	6.33	0.7	A
2	0.09	5.12	0.1	A
3	0.41	6.50	0.7	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)	LOS
1	259	18	974	0.266	257	0.4	5.206	A
2	45	249	838	0.054	45	0.1	4.537	A
3	270	24	971	0.278	269	0.4	5.259	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)	LOS
1	309	22	972	0.318	309	0.5	5.632	A
2	54	298	809	0.067	54	0.1	4.767	A
3	323	29	968	0.333	322	0.5	5.728	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)	LOS
1	379	26	969	0.391	378	0.7	6.315	A
2	66	365	770	0.086	66	0.1	5.116	A
3	395	35	964	0.410	394	0.7	6.486	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)	LOS
1	379	26	969	0.391	379	0.7	6.330	A
2	66	366	769	0.086	66	0.1	5.119	A
3	395	35	964	0.410	395	0.7	6.505	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)	LOS
1	309	22	972	0.318	310	0.5	5.651	A
2	54	299	808	0.067	54	0.1	4.772	A
3	323	29	968	0.333	323	0.5	5.749	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)	LOS
1	259	18	974	0.266	259	0.4	5.233	A
2	45	250	837	0.054	45	0.1	4.545	A
3	270	24	971	0.278	271	0.4	5.290	A

2030 + COM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 97% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	4.89	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	242	100.000
2		✓	10	100.000
3		✓	179	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	17	225
	2	5	0	5
	3	168	11	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	0	1
	2	0	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.27	5.11	0.4	A
2	0.01	4.35	0.0	A
3	0.20	4.63	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)	LOS
1	182	8	980	0.186	181	0.2	4.544	A
2	8	169	885	0.009	7	0.0	4.100	A
3	135	4	983	0.137	134	0.2	4.280	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)	LOS
1	218	10	979	0.222	217	0.3	4.769	A
2	9	202	866	0.010	9	0.0	4.202	A
3	161	4	982	0.164	161	0.2	4.424	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)	LOS
1	266	12	978	0.273	266	0.4	5.103	A
2	11	247	839	0.013	11	0.0	4.348	A
3	197	5	982	0.201	197	0.3	4.629	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)	LOS
1	266	12	978	0.273	266	0.4	5.107	A
2	11	248	839	0.013	11	0.0	4.349	A
3	197	6	982	0.201	197	0.3	4.631	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)	LOS
1	218	10	979	0.222	218	0.3	4.777	A
2	9	203	865	0.010	9	0.0	4.203	A
3	161	5	982	0.164	161	0.2	4.426	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)	LOS
1	182	8	980	0.186	182	0.2	4.556	A
2	8	170	885	0.009	8	0.0	4.105	A
3	135	4	983	0.137	135	0.2	4.288	A

2030 + COM + PROPOSED DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 92% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	6.22	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	350	100.000
2		✓	60	100.000
3		✓	360	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	12	338
	2	32	0	28
	3	336	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	0	1
	2	0	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.40	6.22	0.7	A
2	0.09	5.15	0.1	A
3	0.41	6.40	0.7	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)	LOS
1	263	18	974	0.270	262	0.4	5.093	A
2	45	253	836	0.054	45	0.1	4.552	A
3	271	24	971	0.279	269	0.4	5.170	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)	LOS
1	315	22	972	0.324	314	0.5	5.521	A
2	54	303	806	0.067	54	0.1	4.787	A
3	324	29	968	0.334	323	0.5	5.632	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)	LOS
1	385	26	969	0.398	385	0.7	6.209	A
2	66	371	766	0.086	66	0.1	5.145	A
3	396	35	964	0.411	396	0.7	6.381	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)	LOS
1	385	26	969	0.398	385	0.7	6.224	A
2	66	372	765	0.086	66	0.1	5.148	A
3	396	35	964	0.411	396	0.7	6.399	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)	LOS
1	315	22	972	0.324	315	0.5	5.541	A
2	54	305	805	0.067	54	0.1	4.792	A
3	324	29	968	0.334	324	0.5	5.655	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)	LOS
1	263	18	974	0.270	264	0.4	5.120	A
2	45	255	834	0.054	45	0.1	4.561	A
3	271	24	971	0.279	271	0.4	5.202	A

2030 + COM + PROPOSED DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 97% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	4.92	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	245	100.000
2		✓	10	100.000
3		✓	185	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	17	228
	2	5	0	5
	3	174	11	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	0	1
	2	0	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.28	5.13	0.4	A
2	0.01	4.36	0.0	A
3	0.21	4.67	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)	LOS
1	184	8	980	0.188	184	0.2	4.557	A
2	8	171	884	0.009	7	0.0	4.106	A
3	139	4	983	0.142	139	0.2	4.305	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)	LOS
1	220	10	979	0.225	220	0.3	4.786	A
2	9	205	864	0.010	9	0.0	4.209	A
3	166	4	982	0.169	166	0.2	4.453	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)	LOS
1	270	12	978	0.276	269	0.4	5.127	A
2	11	251	837	0.013	11	0.0	4.358	A
3	204	5	982	0.208	203	0.3	4.668	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)	LOS
1	270	12	978	0.276	270	0.4	5.131	A
2	11	251	837	0.013	11	0.0	4.359	A
3	204	6	982	0.208	204	0.3	4.670	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)	LOS
1	220	10	979	0.225	221	0.3	4.794	A
2	9	205	864	0.010	9	0.0	4.213	A
3	166	5	982	0.169	167	0.2	4.455	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)	LOS
1	184	8	980	0.188	185	0.2	4.571	A
2	8	172	883	0.009	8	0.0	4.109	A
3	139	4	983	0.142	139	0.2	4.310	A

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.0.2.5947 © Copyright TRL Limited, 2017			
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Filename: Junction 4 Peaslands Road -Thaxted Road Mini-Rbt - 2025.j9

Path: P:\Eastern\1031-1040\1033 Chase New Homes\1033.0002 Mount Pleasant Road, Saffron Walden\03

Technical\TPL\Modelling\Junction 4 Peaslands Road- Thaxted Road Mini-Roundabout

Report generation date: 04/04/2025 11:10:56

»2023, AM
»2023, PM
»2030, AM
»2030, PM
»2030 + COM, AM
»2030 + COM, PM
»2030 + COM + PROPOSED DEV, AM
»2030 + COM + PROPOSED DEV, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2023								
Arm 1	1.0	9.44	0.48	A	3.2	21.67	0.77	C
Arm 2	2.0	14.73	0.66	B	1.3	11.89	0.56	B
Arm 3	2.7	18.87	0.73	C	2.1	14.86	0.68	B
2030								
Arm 1	1.1	10.08	0.51	B	4.4	28.16	0.83	D
Arm 2	2.3	16.83	0.70	C	1.5	13.31	0.60	B
Arm 3	3.4	22.78	0.78	C	2.6	17.42	0.73	C
2030 + COM								
Arm 1	1.1	10.22	0.52	B	4.5	28.89	0.83	D
Arm 2	2.4	16.96	0.70	C	1.6	13.60	0.61	B
Arm 3	3.7	24.03	0.79	C	2.6	17.70	0.73	C
2030 + COM + PROPOSED DEV								
Arm 1	1.1	10.03	0.52	B	4.6	29.64	0.83	D
Arm 2	2.3	16.73	0.70	C	1.6	13.89	0.62	B
Arm 3	3.8	24.44	0.80	C	2.7	17.98	0.74	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	(untitled)
Location	
Site number	
Date	16/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			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	2023	AM	ONE HOUR	07:45	09:15	15
D2	2023	PM	ONE HOUR	16:45	18:15	15
D3	2030	AM	ONE HOUR	07:45	09:15	15
D4	2030	PM	ONE HOUR	16:45	18:15	15
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	14.93	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Thaxsted Road North	Thaxsted Road North
2	Thaxsted Road South	
3	Peasland Road West	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	2.50	2.50	3.50	1.0	10.00	2.00	0.0	
2	3.00	3.00	4.50	2.0	8.50	6.00	0.0	
3	3.00	3.00	3.00	0.0	13.50	2.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.580	886
2	0.607	877
3	0.590	871

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	2023	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	333	100.000
2		✓	445	100.000
3		✓	488	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	133	200
	2	214	0	231
	3	290	198	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	3	3
	2	5	0	3
	3	1	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.48	9.44	1.0	A
2	0.66	14.73	2.0	B
3	0.73	18.87	2.7	C

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)	LOS
1	251	148	800	0.313	249	0.5	6.705	A
2	335	149	786	0.426	332	0.8	8.183	A
3	367	160	777	0.473	364	0.9	8.892	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)	LOS
1	299	177	783	0.382	299	0.6	7.648	A
2	400	179	768	0.521	399	1.1	10.089	B
3	439	192	758	0.579	437	1.4	11.464	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	367	216	760	0.482	365	0.9	9.359	A
2	490	219	744	0.659	487	1.9	14.369	B
3	537	234	733	0.733	532	2.6	17.990	C

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)	LOS
1	367	218	759	0.483	367	1.0	9.441	A
2	490	220	743	0.659	490	2.0	14.728	B
3	537	236	732	0.734	537	2.7	18.867	C

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)	LOS
1	299	180	781	0.383	301	0.6	7.735	A
2	400	181	767	0.521	403	1.2	10.366	B
3	439	194	757	0.580	444	1.5	12.020	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	251	150	799	0.314	251	0.5	6.783	A
2	335	151	785	0.427	337	0.8	8.366	A
3	367	162	776	0.474	369	0.9	9.168	A

2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	16.65	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2023	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	505	100.000
2		✓	356	100.000
3		✓	473	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	238	267
	2	166	0	190
	3	215	258	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	0
	2	2	0	1
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.77	21.67	3.2	C
2	0.56	11.89	1.3	B
3	0.68	14.86	2.1	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)	LOS
1	380	192	774	0.491	376	1.0	9.015	A
2	268	199	756	0.354	266	0.5	7.416	A
3	356	124	798	0.446	353	0.8	8.072	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)	LOS
1	454	231	752	0.604	452	1.5	11.984	B
2	320	239	732	0.437	319	0.8	8.827	A
3	425	149	784	0.543	424	1.2	10.017	B

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)	LOS
1	556	282	722	0.770	550	3.1	20.263	C
2	392	291	701	0.559	390	1.3	11.687	B
3	521	182	764	0.682	517	2.1	14.453	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)	LOS
1	556	284	721	0.771	555	3.2	21.670	C
2	392	294	699	0.561	392	1.3	11.893	B
3	521	183	764	0.682	521	2.1	14.865	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)	LOS
1	454	234	750	0.605	461	1.6	12.762	B
2	320	243	729	0.439	322	0.8	9.008	A
3	425	150	783	0.543	429	1.2	10.321	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	380	195	772	0.492	383	1.0	9.336	A
2	268	202	754	0.355	269	0.6	7.544	A
3	356	125	797	0.447	358	0.8	8.262	A

2030, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	17.35	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	350	100.000
2		✓	468	100.000
3		✓	513	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	140	210
	2	225	0	243
	3	305	208	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	3	3
	2	5	0	3
	3	1	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.51	10.08	1.1	B
2	0.70	16.83	2.3	C
3	0.78	22.78	3.4	C

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)	LOS
1	263	155	796	0.331	261	0.5	6.914	A
2	352	157	782	0.451	349	0.8	8.582	A
3	386	168	772	0.500	382	1.0	9.407	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)	LOS
1	315	186	778	0.405	314	0.7	7.983	A
2	421	188	763	0.552	419	1.2	10.837	B
3	461	201	752	0.613	459	1.6	12.525	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385	226	754	0.511	384	1.1	9.970	A
2	515	230	737	0.699	511	2.3	16.253	C
3	565	246	726	0.778	558	3.3	21.193	C

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)	LOS
1	385	229	753	0.512	385	1.1	10.084	B
2	515	231	737	0.699	515	2.3	16.828	C
3	565	248	725	0.779	564	3.4	22.776	C

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)	LOS
1	315	190	775	0.406	316	0.7	8.095	A
2	421	190	762	0.552	425	1.3	11.235	B
3	461	204	751	0.614	468	1.7	13.412	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	263	158	794	0.332	264	0.5	7.007	A
2	352	159	781	0.451	354	0.9	8.807	A
3	386	170	771	0.501	389	1.1	9.764	A

2030, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	20.38	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	533	100.000
2		✓	377	100.000
3		✓	500	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	251	282
	2	176	0	201
	3	227	273	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	0
	2	2	0	1
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.83	28.16	4.4	D
2	0.60	13.31	1.5	B
3	0.73	17.42	2.6	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)	LOS
1	401	204	767	0.523	397	1.1	9.654	A
2	284	210	750	0.379	281	0.6	7.763	A
3	376	131	794	0.474	373	0.9	8.528	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)	LOS
1	479	244	744	0.644	476	1.7	13.392	B
2	339	252	724	0.468	338	0.9	9.433	A
3	449	158	778	0.578	448	1.3	10.887	B

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)	LOS
1	587	298	713	0.823	578	4.1	25.173	D
2	415	306	692	0.600	413	1.5	12.988	B
3	551	193	758	0.727	546	2.5	16.713	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)	LOS
1	587	300	711	0.825	586	4.4	28.159	D
2	415	310	689	0.603	415	1.5	13.314	B
3	551	194	757	0.727	550	2.6	17.423	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)	LOS
1	479	248	742	0.646	489	1.9	14.816	B
2	339	259	720	0.471	341	0.9	9.703	A
3	449	159	777	0.578	454	1.4	11.357	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	401	207	766	0.524	404	1.1	10.093	B
2	284	214	747	0.380	285	0.6	7.924	A
3	376	133	793	0.475	378	0.9	8.773	A

2030 + COM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	17.94	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	351	100.000
2		✓	469	100.000
3		✓	521	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	140	211
	2	225	0	244
	3	307	214	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	3	3
	2	5	0	3
	3	1	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	10.22	1.1	B
2	0.70	16.96	2.4	C
3	0.79	24.03	3.7	C

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)	LOS
1	264	159	793	0.333	262	0.5	6.958	A
2	353	158	781	0.452	350	0.8	8.603	A
3	392	168	772	0.508	388	1.0	9.549	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)	LOS
1	316	191	775	0.407	315	0.7	8.051	A
2	422	189	762	0.553	420	1.3	10.881	B
3	468	201	752	0.622	466	1.6	12.830	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	386	233	751	0.515	385	1.1	10.097	B
2	516	231	737	0.701	512	2.3	16.369	C
3	574	246	726	0.790	566	3.5	22.177	C

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)	LOS
1	386	235	749	0.516	386	1.1	10.219	B
2	516	232	736	0.702	516	2.4	16.960	C
3	574	248	725	0.791	573	3.7	24.028	C

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)	LOS
1	316	195	772	0.409	317	0.7	8.173	A
2	422	191	761	0.554	426	1.3	11.286	B
3	468	204	751	0.624	476	1.8	13.838	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	264	162	791	0.334	265	0.5	7.056	A
2	353	159	780	0.453	355	0.9	8.833	A
3	392	170	771	0.509	395	1.1	9.932	A

2030 + COM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	20.82	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	535	100.000
2		✓	381	100.000
3		✓	503	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	251	284
	2	176	0	205
	3	228	275	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	0
	2	2	0	1
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.83	28.89	4.5	D
2	0.61	13.60	1.6	B
3	0.73	17.70	2.6	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)	LOS
1	403	205	767	0.525	398	1.1	9.712	A
2	287	212	749	0.383	284	0.6	7.827	A
3	379	131	794	0.477	375	0.9	8.573	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)	LOS
1	481	246	743	0.648	478	1.8	13.525	B
2	343	254	723	0.474	341	0.9	9.543	A
3	452	158	778	0.581	450	1.4	10.974	B

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)	LOS
1	589	300	711	0.828	579	4.2	25.685	D
2	419	308	690	0.608	417	1.5	13.241	B
3	554	193	758	0.731	549	2.6	16.951	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)	LOS
1	589	303	710	0.830	588	4.5	28.885	D
2	419	312	688	0.610	419	1.6	13.597	B
3	554	194	757	0.732	553	2.6	17.700	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)	LOS
1	481	250	741	0.649	491	1.9	15.037	C
2	343	261	719	0.477	345	0.9	9.833	A
3	452	159	777	0.582	457	1.4	11.462	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	403	208	765	0.527	406	1.1	10.164	B
2	287	216	746	0.384	288	0.6	7.994	A
3	379	133	793	0.478	381	0.9	8.824	A

2030 + COM + PROPOSED DEV, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	18.00	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	351	100.000
2		✓	471	100.000
3		✓	527	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	140	211
	2	225	0	246
	3	309	218	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	1	0
	2	2	0	1
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	10.03	1.1	B
2	0.70	16.73	2.3	C
3	0.80	24.44	3.8	C

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)	LOS
1	264	162	791	0.334	262	0.5	6.807	A
2	355	158	781	0.454	351	0.8	8.431	A
3	397	168	772	0.514	393	1.0	9.420	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)	LOS
1	316	195	772	0.408	315	0.7	7.884	A
2	423	189	762	0.556	422	1.2	10.681	B
3	474	201	752	0.630	471	1.6	12.743	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	386	237	748	0.517	385	1.0	9.911	A
2	519	231	737	0.704	514	2.3	16.138	C
3	580	246	726	0.799	573	3.6	22.433	C

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)	LOS
1	386	240	747	0.518	386	1.1	10.031	B
2	519	232	736	0.705	518	2.3	16.726	C
3	580	248	725	0.800	579	3.8	24.444	C

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)	LOS
1	316	199	770	0.410	317	0.7	8.004	A
2	423	191	761	0.556	428	1.3	11.076	B
3	474	204	751	0.631	482	1.8	13.799	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	264	165	790	0.335	265	0.5	6.900	A
2	355	159	780	0.454	356	0.9	8.654	A
3	397	170	771	0.515	400	1.1	9.806	A

2030 + COM + PROPOSED DEV, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	21.27	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	537	100.000
2		✓	385	100.000
3		✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	251	286
	2	176	0	209
	3	229	277	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	0
	2	2	0	1
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.83	29.64	4.6	D
2	0.62	13.89	1.6	B
3	0.74	17.98	2.7	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)	LOS
1	404	207	766	0.528	400	1.1	9.774	A
2	290	213	748	0.388	287	0.6	7.890	A
3	381	131	794	0.480	377	0.9	8.616	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)	LOS
1	483	248	742	0.651	480	1.8	13.665	B
2	346	256	722	0.479	345	0.9	9.660	A
3	455	158	778	0.584	453	1.4	11.061	B

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)	LOS
1	591	302	710	0.832	581	4.3	26.219	D
2	424	310	689	0.615	421	1.6	13.505	B
3	557	193	758	0.735	552	2.6	17.195	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)	LOS
1	591	305	709	0.834	590	4.6	29.645	D
2	424	314	686	0.618	424	1.6	13.889	B
3	557	194	757	0.736	557	2.7	17.985	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)	LOS
1	483	252	740	0.653	493	2.0	15.261	C
2	346	263	718	0.482	349	1.0	9.970	A
3	455	159	777	0.585	460	1.5	11.574	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	404	210	764	0.529	408	1.2	10.239	B
2	290	217	745	0.389	291	0.7	8.063	A
3	381	133	793	0.480	383	0.9	8.876	A

Junctions 9			
ARCADY 9 - Roundabout Module			
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Filename: Junction 5 London Road-Debden Road- High Street mini-rbt - 2025.j9

Path: P:\Eastern\1031-1040\1033 Chase New Homes\1033.0002 Mount Pleasant Road, Saffron Walden\03

Technical\TPL\Modelling\Junction 5 London Road- Debden Road- High Street Mini-Roundabout

Report generation date: 04/04/2025 13:06:53

»2023, AM
»2023, PM
»2030, AM
»2030, PM
»2030 + COM, AM
»2030 + COM, PM
»2030 + COM + PROPOSED DEV, AM
»2030 + COM + PROPOSED DEV, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2023								
Arm 1	2.9	16.93	0.74	C	14.6	65.64	0.97	F
Arm 2	3.8	36.72	0.81	E	1.0	14.85	0.51	B
Arm 3	2.3	18.05	0.69	C	1.8	13.41	0.64	B
2030								
Arm 1	3.7	20.17	0.79	C	27.2	108.00	1.02	F
Arm 2	5.7	53.80	0.88	F	1.2	16.29	0.55	C
Arm 3	2.8	21.64	0.74	C	2.1	15.41	0.68	C
2030 + COM								
Arm 1	3.8	20.76	0.79	C	33.9	128.86	1.05	F
Arm 2	7.7	68.88	0.92	F	1.3	16.72	0.56	C
Arm 3	3.0	23.10	0.75	C	2.2	15.84	0.69	C
2030 + COM + PROPOSED DEV								
Arm 1	3.8	20.67	0.80	C	39.5	145.49	1.06	F
Arm 2	10.4	88.13	0.96	F	1.3	16.65	0.57	C
Arm 3	3.0	23.34	0.76	C	2.2	16.02	0.70	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	13/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			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	2023	AM	ONE HOUR	07:45	09:15	15
D2	2023	PM	ONE HOUR	16:45	18:15	15
D3	2030	AM	ONE HOUR	07:45	09:15	15
D4	2030	PM	ONE HOUR	16:45	18:15	15
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	22.46	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	London Road North	
2	Debden Road South	
3	London Road West	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.00	3.00	3.00	0.0	14.00	12.00	0.0	
2	3.00	3.00	3.50	2.5	9.00	5.50	0.0	
3	3.00	3.00	3.00	0.0	17.00	17.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.596	904
2	0.602	771
3	0.658	897

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	2023	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	584	100.000
2		✓	356	100.000
3		✓	421	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	154	430
	2	309	0	47
	3	362	59	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	5	5
	2	0	0	4
	3	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.74	16.93	2.9	C
2	0.81	36.72	3.8	E
3	0.69	18.05	2.3	C

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)	LOS
1	440	44	877	0.501	436	1.0	8.479	A
2	268	321	578	0.463	265	0.8	11.416	B
3	317	230	745	0.425	314	0.8	8.770	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)	LOS
1	525	53	872	0.602	523	1.5	10.763	B
2	320	385	540	0.593	318	1.4	16.148	C
3	378	276	715	0.529	377	1.2	11.215	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	643	64	865	0.743	638	2.8	16.247	C
2	392	470	489	0.802	384	3.5	32.190	D
3	464	333	677	0.684	459	2.2	17.167	C

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)	LOS
1	643	65	865	0.743	643	2.9	16.933	C
2	392	473	487	0.806	391	3.8	36.722	E
3	464	339	673	0.688	463	2.3	18.053	C

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)	LOS
1	525	54	872	0.602	530	1.6	11.236	B
2	320	390	536	0.597	329	1.6	18.119	C
3	378	285	709	0.534	383	1.2	11.821	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	440	45	877	0.501	442	1.1	8.735	A
2	268	325	575	0.466	271	0.9	11.970	B
3	317	235	742	0.427	319	0.8	9.040	A

2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	41.38	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2023	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	763	100.000
2		✓	234	100.000
3		✓	440	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	356	407
	2	195	0	39
	3	387	53	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	2	2
	2	3	0	0
	3	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.97	65.64	14.6	F
2	0.51	14.85	1.0	B
3	0.64	13.41	1.8	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)	LOS
1	574	40	880	0.653	567	1.8	11.482	B
2	176	302	589	0.299	174	0.4	8.859	A
3	331	145	801	0.414	328	0.7	7.661	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)	LOS
1	686	47	875	0.784	680	3.4	18.200	C
2	210	363	553	0.380	210	0.6	10.717	B
3	396	175	782	0.506	394	1.0	9.367	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)	LOS
1	840	58	869	0.967	808	11.4	45.306	E
2	258	431	512	0.503	256	1.0	14.332	B
3	484	213	756	0.641	482	1.7	13.117	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)	LOS
1	840	58	869	0.967	827	14.6	65.641	F
2	258	441	506	0.509	257	1.0	14.850	B
3	484	215	755	0.641	484	1.8	13.409	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)	LOS
1	686	48	875	0.784	728	4.1	29.974	D
2	210	388	538	0.391	212	0.7	11.377	B
3	396	177	780	0.507	398	1.1	9.598	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)	LOS
1	574	40	880	0.653	583	2.0	12.699	B
2	176	311	584	0.302	177	0.4	9.081	A
3	331	148	799	0.414	333	0.7	7.820	A

2030, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	29.42	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	615	100.000
2		✓	375	100.000
3		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	162	453
	2	325	0	50
	3	381	63	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	5	5
	2	0	0	4
	3	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.79	20.17	3.7	C
2	0.88	53.80	5.7	F
3	0.74	21.64	2.8	C

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)	LOS
1	463	47	876	0.529	458	1.2	8.966	A
2	282	338	568	0.497	278	1.0	12.336	B
3	334	241	738	0.453	331	0.9	9.288	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)	LOS
1	553	56	870	0.636	550	1.8	11.734	B
2	337	405	527	0.639	334	1.7	18.457	C
3	399	290	706	0.565	397	1.3	12.263	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	677	69	863	0.785	670	3.5	18.964	C
2	413	494	474	0.871	400	4.9	42.688	E
3	489	347	669	0.731	484	2.7	20.026	C

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)	LOS
1	677	69	862	0.785	677	3.7	20.175	C
2	413	498	471	0.876	410	5.7	53.800	F
3	489	355	663	0.737	488	2.8	21.638	C

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)	LOS
1	553	57	869	0.636	560	1.9	12.480	B
2	337	412	523	0.644	352	1.9	22.811	C
3	399	305	696	0.574	405	1.5	13.325	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	463	48	875	0.529	466	1.2	9.298	A
2	282	343	565	0.500	286	1.0	13.132	B
3	334	248	734	0.456	337	0.9	9.655	A

2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	64.72	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	806	100.000
2		✓	247	100.000
3		✓	465	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	1	0	376	430
	2	206	0	41
	3	409	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
	1	0	2	2
	2	3	0	0
	3	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.02	108.00	27.2	F
2	0.55	16.29	1.2	C
3	0.68	15.41	2.1	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)	LOS
1	607	42	879	0.691	598	2.2	12.726	B
2	186	319	579	0.321	184	0.5	9.292	A
3	350	153	796	0.440	347	0.8	8.061	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)	LOS
1	725	50	874	0.829	716	4.4	22.072	C
2	222	382	541	0.410	221	0.7	11.486	B
3	418	184	775	0.539	417	1.2	10.106	B

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)	LOS
1	887	61	867	1.023	832	18.2	63.120	F
2	272	444	504	0.539	270	1.2	15.639	C
3	512	225	748	0.684	508	2.1	14.928	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)	LOS
1	887	62	867	1.024	851	27.2	108.003	F
2	272	454	498	0.546	272	1.2	16.286	C
3	512	227	747	0.685	512	2.1	15.407	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)	LOS
1	725	51	873	0.830	809	6.2	67.571	F
2	222	431	512	0.434	224	0.8	12.881	B
3	418	187	774	0.540	422	1.2	10.445	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	607	42	878	0.691	622	2.4	15.081	C
2	186	332	572	0.325	187	0.5	9.627	A
3	350	156	794	0.441	352	0.8	8.264	A

2030 + COM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	34.46	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	620	100.000
2		✓	393	100.000
3		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	167	453
	2	343	0	50
	3	381	63	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	5	5
	2	0	0	4
	3	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.79	20.76	3.8	C
2	0.92	68.88	7.7	F
3	0.75	23.10	3.0	C

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)	LOS
1	467	47	876	0.533	462	1.2	9.043	A
2	296	338	568	0.521	292	1.1	12.897	B
3	334	255	729	0.458	331	0.9	9.494	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)	LOS
1	557	56	870	0.641	555	1.8	11.895	B
2	353	405	527	0.670	350	1.9	19.993	C
3	399	305	696	0.574	397	1.4	12.678	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	683	69	863	0.791	675	3.6	19.441	C
2	433	493	474	0.912	415	6.3	50.559	F
3	489	362	658	0.743	483	2.8	21.098	C

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)	LOS
1	683	69	862	0.792	682	3.8	20.763	C
2	433	498	471	0.918	427	7.7	68.882	F
3	489	373	651	0.751	488	3.0	23.104	C

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)	LOS
1	557	57	869	0.641	565	1.9	12.697	B
2	353	413	523	0.676	375	2.2	27.420	D
3	399	327	681	0.586	405	1.5	14.075	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	467	48	875	0.533	470	1.2	9.388	A
2	296	343	565	0.524	300	1.1	13.894	B
3	334	262	724	0.462	337	0.9	9.900	A

2030 + COM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	76.23	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	823	100.000
2		✓	256	100.000
3		✓	465	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
	1	0	393	430
	2	215	0	41
	3	409	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
	1	0	2	2
	2	3	0	0
	3	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.05	128.86	33.9	F
2	0.56	16.72	1.3	C
3	0.69	15.84	2.2	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)	LOS
1	620	42	879	0.705	610	2.3	13.266	B
2	193	319	579	0.333	191	0.5	9.450	A
3	350	160	791	0.442	347	0.8	8.138	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)	LOS
1	740	50	874	0.847	730	4.8	23.920	C
2	230	381	542	0.425	229	0.7	11.766	B
3	418	192	770	0.543	416	1.2	10.253	B

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)	LOS
1	906	61	867	1.045	839	21.6	71.341	F
2	282	439	507	0.555	280	1.2	16.076	C
3	512	235	742	0.690	508	2.1	15.316	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)	LOS
1	906	62	867	1.045	857	33.9	128.863	F
2	282	448	502	0.562	282	1.3	16.724	C
3	512	237	741	0.691	512	2.2	15.840	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)	LOS
1	740	51	873	0.847	843	8.1	95.134	F
2	230	440	506	0.455	232	0.9	13.525	B
3	418	195	768	0.544	422	1.2	10.615	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	620	42	878	0.705	642	2.6	16.819	C
2	193	335	569	0.338	194	0.5	9.867	A
3	350	163	789	0.444	352	0.8	8.351	A

2030 + COM + PROPOSED DEV, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	40.15	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	624	100.000
2		✓	409	100.000
3		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	171	453
	2	359	0	50
	3	381	63	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1	2	3	
From	1	0	2	2
	2	3	0	0
	3	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.80	20.67	3.8	C
2	0.96	88.13	10.4	F
3	0.76	23.34	3.0	C

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)	LOS
1	470	47	876	0.537	465	1.2	8.852	A
2	308	338	568	0.542	303	1.2	13.719	B
3	334	266	721	0.463	331	0.9	9.243	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)	LOS
1	561	56	870	0.645	558	1.8	11.687	B
2	368	405	527	0.697	364	2.2	22.012	C
3	399	319	687	0.581	397	1.4	12.488	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	687	69	863	0.796	680	3.6	19.306	C
2	450	493	474	0.949	427	8.0	60.026	F
3	489	375	650	0.752	483	2.8	21.101	C

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)	LOS
1	687	69	862	0.797	686	3.8	20.665	C
2	450	498	471	0.955	441	10.4	88.125	F
3	489	387	642	0.761	488	3.0	23.338	C

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)	LOS
1	561	57	869	0.645	568	1.9	12.493	B
2	368	413	523	0.703	399	2.7	35.330	E
3	399	350	666	0.599	405	1.6	14.235	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	470	48	875	0.537	473	1.2	9.190	A
2	308	343	565	0.545	313	1.3	15.005	C
3	334	275	716	0.467	337	0.9	9.682	A

2030 + COM + PROPOSED DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 83% of the total flow for the roundabout for one or more time segments]
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout	1, 2, 3	85.33	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	836	100.000
2		✓	263	100.000
3		✓	465	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1	2	3
From	1	0	406	430
	2	222	0	41
	3	409	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.06	145.49	39.5	F
2	0.57	16.65	1.3	C
3	0.70	16.02	2.2	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)	LOS
1	629	42	879	0.716	620	2.4	13.457	B
2	198	319	579	0.342	196	0.5	9.339	A
3	350	165	788	0.444	347	0.8	8.111	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)	LOS
1	752	50	874	0.860	740	5.2	25.067	D
2	236	381	542	0.436	235	0.8	11.700	B
3	418	199	766	0.546	416	1.2	10.258	B

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)	LOS
1	920	61	867	1.062	844	24.3	77.464	F
2	290	434	510	0.568	288	1.3	16.031	C
3	512	243	737	0.695	508	2.2	15.463	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)	LOS
1	920	62	867	1.062	860	39.5	145.485	F
2	290	442	505	0.573	289	1.3	16.649	C
3	512	244	736	0.696	512	2.2	16.016	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)	LOS
1	752	51	873	0.861	852	14.4	119.611	F
2	236	438	508	0.466	238	0.9	13.435	B
3	418	201	764	0.547	422	1.2	10.632	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	629	42	878	0.717	676	2.7	21.508	C
2	198	348	562	0.352	199	0.6	9.967	A
3	350	168	786	0.445	352	0.8	8.327	A

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.0.2.5947 © Copyright TRL Limited, 2017	
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Junction 6 and 7 Combined.j9

Path: P:\Eastern\1031-1040\1033 Chase New Homes\1033.0002 Mount Pleasant Road, Saffron Walden\03

Technical\TPL\Modelling\Junction 6 and 7 combined

Report generation date: 04/04/2025 13:09:54

»2023, AM
 »2023, PM
 »2030, AM
 »2030, PM
 »2030 + COM, AM
 »2030 + COM, PM
 »2030 + COM + PROPOSED DEV, AM
 »2030 + COM + PROPOSED DEV, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2023								
Junction 1 - Arm 1	1.5	10.58	0.59	B	1.6	11.25	0.61	B
Junction 1 - Arm 2	0.9	12.03	0.48	B	0.7	10.56	0.42	B
Junction 1 - Arm 3	1.9	11.45	0.65	B	2.3	12.82	0.70	B
Junction 2 - Arm 1	5.4	27.21	0.85	D	4.8	24.62	0.83	C
Junction 2 - Arm 2	9.7	91.64	0.95	F	3.1	31.47	0.77	D
Junction 2 - Arm 3	0.9	8.30	0.46	A	1.1	9.32	0.54	A
2030								
Junction 1 - Arm 1	1.7	11.52	0.62	B	1.9	12.62	0.65	B
Junction 1 - Arm 2	1.1	13.31	0.51	B	0.8	11.61	0.46	B
Junction 1 - Arm 3	2.1	12.26	0.67	B	2.8	14.66	0.74	B
Junction 2 - Arm 1	7.5	36.80	0.90	E	6.6	33.05	0.88	D
Junction 2 - Arm 2	17.6	148.86	1.03	F	4.2	41.43	0.82	E
Junction 2 - Arm 3	1.0	8.77	0.49	A	1.3	10.27	0.57	B
2030 + COM								
Junction 1 - Arm 1	1.7	11.59	0.62	B	1.9	12.96	0.66	B
Junction 1 - Arm 2	1.2	13.97	0.54	B	0.9	11.91	0.47	B
Junction 1 - Arm 3	2.1	12.29	0.67	B	3.0	15.44	0.75	C
Junction 2 - Arm 1	8.5	41.07	0.91	E	7.1	35.13	0.89	E
Junction 2 - Arm 2	19.3	160.33	1.04	F	4.7	45.72	0.84	E
Junction 2 - Arm 3	1.0	8.79	0.49	A	1.4	10.60	0.58	B
2030 + COM + PROPOSED DEV								
Junction 1 - Arm 1	1.7	11.65	0.62	B	2.0	13.23	0.66	B
Junction 1 - Arm 2	1.3	14.64	0.56	B	0.9	12.08	0.48	B
Junction 1 - Arm 3	2.1	12.34	0.67	B	3.1	16.07	0.76	C
Junction 2 - Arm 1	9.6	45.65	0.92	E	7.4	36.40	0.90	E
Junction 2 - Arm 2	20.4	168.49	1.05	F	5.1	49.21	0.86	E
Junction 2 - Arm 3	1.0	8.82	0.49	A	1.4	10.86	0.59	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	(untitled)
Location	
Site number	
Date	13/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
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

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			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	2023	AM	ONE HOUR	07:45	09:15	15
D2	2023	PM	ONE HOUR	16:45	18:15	15
D3	2030	AM	ONE HOUR	07:45	09:15	15
D4	2030	PM	ONE HOUR	16:45	18:15	15
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	11.25	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	39.30	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1	1	London Road North	
	2	Borough Lane South	
	3	London Road West	
2	1	London Road	
	2	Newport Road	
	3	Audley End Road	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	1	3.00	3.00	3.50	1.0	7.00	5.00	0.0	
	2	3.00	3.00	4.50	2.0	7.50	5.50	0.0	
	3	3.00	3.00	3.00	0.0	13.00	13.00	0.0	
2	1	3.00	3.00	4.00	2.0	12.50	11.50	0.0	
	2	3.00	3.00	3.00	0.0	11.00	8.00	0.0	
	3	3.00	3.00	3.00	0.0	18.50	18.50	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1	1	0.597	965
	2	0.607	888
	3	0.599	955
2	1	0.609	930
	2	0.591	680
	3	0.734	1060

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	2023	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	465	100.000
	2		✓	254	100.000
	3	✓			
2	1	✓			
	2		✓	367	100.000
	3		✓	354	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	14	451
	2	24	0	230
	3	408	148	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	292	393
	2	277	0	90
	3	283	71	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	5
	2	0	0	3
	3	6	3	0

Heavy Vehicle Percentages

Junction 2

From	To			
		1	2	3
	1	0	8	2
	2	8	0	0
	3	3	9	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.59	10.58	1.5	B
	2	0.48	12.03	0.9	B
	3	0.65	11.45	1.9	B
2	1	0.85	27.21	5.4	D
	2	0.95	91.64	9.7	F
	3	0.46	8.30	0.9	A

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	350	110	900	0.389	347	0.7	6.804	A
	2	191	337	684	0.280	190	0.4	7.459	A
	3	417	18	944	0.441	413	0.8	7.089	A
2	1	509	53	898	0.567	503	1.3	9.421	A
	2	276	289	509	0.543	271	1.2	15.751	C
	3	267	205	910	0.293	265	0.4	5.797	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	418	133	886	0.472	417	0.9	8.028	A
	2	228	404	643	0.355	228	0.6	8.893	A
	3	500	22	942	0.530	498	1.2	8.505	A
2	1	611	64	891	0.685	607	2.2	13.089	B
	2	330	348	474	0.696	326	2.2	25.062	D
	3	318	246	880	0.362	318	0.6	6.663	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	512	159	870	0.588	510	1.5	10.408	B
	2	280	494	588	0.476	278	0.9	11.877	B
	3	600	26	939	0.639	597	1.8	10.990	B
2	1	746	78	882	0.846	735	4.9	23.939	C
	2	404	422	430	0.939	383	7.4	63.178	F
	3	390	289	848	0.460	389	0.9	8.140	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	512	162	868	0.590	512	1.5	10.579	B
	2	280	496	587	0.476	280	0.9	12.025	B
	3	610	26	939	0.649	609	1.9	11.450	B
2	1	750	78	882	0.850	748	5.4	27.207	D
	2	404	429	426	0.948	395	9.7	91.639	F
	3	390	298	841	0.463	390	0.9	8.296	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	418	140	881	0.474	420	1.0	8.220	A
	2	228	407	641	0.356	230	0.6	9.022	A
	3	525	22	942	0.557	527	1.4	9.177	A
2	1	615	64	891	0.691	627	2.4	14.837	B
	2	330	360	467	0.706	357	2.8	40.808	E
	3	318	270	862	0.369	319	0.6	6.918	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	350	114	897	0.390	351	0.7	6.927	A
	2	191	341	682	0.281	192	0.4	7.561	A
	3	427	18	944	0.452	429	0.9	7.368	A
2	1	514	54	897	0.573	518	1.4	10.033	B
	2	276	297	504	0.548	282	1.3	17.628	C
	3	267	213	904	0.295	267	0.4	5.894	A

2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	Junction 1	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 82% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	11.86	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	21.85	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2023	PM	ONE HOUR	16:45	18:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	466	100.000
	2		✓	226	100.000
	3	✓			
2	1	✓			
	2		✓	337	100.000
	3		✓	406	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	19	447
	2	9	0	217
	3	411	191	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	364	301
	2	282	0	55
	3	325	81	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	2
	2	0	0	0
	3	1	0	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	2	2
	2	2	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.61	11.25	1.6	B
	2	0.42	10.56	0.7	B
	3	0.70	12.82	2.3	B
2	1	0.83	24.62	4.8	C
	2	0.77	31.47	3.1	D
	3	0.54	9.32	1.1	A

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	351	142	880	0.399	348	0.7	6.862	A
	2	170	334	686	0.248	169	0.3	6.950	A
	3	453	7	951	0.476	449	0.9	7.169	A
2	1	496	61	893	0.556	491	1.2	9.030	A
	2	254	222	548	0.463	250	0.9	12.148	B
	3	306	209	907	0.337	304	0.5	5.953	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	419	172	863	0.486	418	0.9	8.227	A
	2	203	401	645	0.315	203	0.5	8.132	A
	3	543	8	950	0.572	542	1.3	8.833	A
2	1	595	73	886	0.672	592	2.0	12.385	B
	2	303	268	521	0.581	301	1.4	16.457	C
	3	365	252	875	0.417	364	0.7	7.029	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	513	209	840	0.610	511	1.6	11.041	B
	2	249	490	591	0.421	248	0.7	10.458	B
	3	662	10	949	0.697	658	2.2	12.143	B
2	1	728	89	876	0.831	718	4.4	22.036	C
	2	371	325	488	0.761	365	2.9	28.492	D
	3	447	305	836	0.535	445	1.1	9.171	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	513	212	839	0.612	513	1.6	11.250	B
	2	249	492	590	0.422	249	0.7	10.561	B
	3	668	10	949	0.703	667	2.3	12.816	B
2	1	731	89	876	0.835	730	4.8	24.621	C
	2	371	330	485	0.766	370	3.1	31.474	D
	3	447	310	833	0.537	447	1.1	9.322	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	419	176	860	0.487	421	1.0	8.409	A
	2	203	404	643	0.316	204	0.5	8.222	A
	3	552	8	950	0.581	556	1.4	9.271	A
2	1	600	73	885	0.678	610	2.2	13.800	B
	2	303	276	516	0.587	309	1.5	18.160	C
	3	365	259	870	0.419	367	0.7	7.172	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	351	146	878	0.400	352	0.7	6.996	A
	2	170	338	683	0.249	171	0.3	7.031	A
	3	460	7	951	0.483	462	1.0	7.432	A
2	1	502	61	893	0.562	505	1.3	9.562	A
	2	254	229	545	0.466	256	0.9	12.792	B
	3	306	214	903	0.339	307	0.5	6.046	A

2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	12.20	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	59.11	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	489	100.000
	2		✓	267	100.000
	3	✓			
2	1	✓			
	2		✓	387	100.000
	3		✓	373	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	15	474
	2	25	0	242
	3	430	155	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	307	413
	2	292	0	95
	3	298	75	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	5
	2	0	0	3
	3	6	3	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	8	2
	2	8	0	0
	3	3	9	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.62	11.52	1.7	B
	2	0.51	13.31	1.1	B
	3	0.67	12.26	2.1	B
2	1	0.90	36.80	7.5	E
	2	1.03	148.86	17.6	F
	3	0.49	8.77	1.0	A

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	368	115	896	0.411	365	0.7	7.068	A
	2	201	354	673	0.299	199	0.4	7.772	A
	3	438	19	944	0.464	435	0.9	7.388	A
2	1	535	56	896	0.597	529	1.5	10.089	B
	2	291	303	500	0.582	286	1.4	17.336	C
	3	281	216	902	0.311	279	0.5	5.999	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	440	139	882	0.498	438	1.0	8.478	A
	2	240	425	630	0.381	239	0.6	9.436	A
	3	526	22	942	0.558	524	1.3	9.028	A
2	1	642	67	889	0.722	638	2.6	14.706	B
	2	348	366	464	0.750	342	2.8	30.047	D
	3	335	258	871	0.385	335	0.6	6.985	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	538	164	867	0.621	536	1.7	11.301	B
	2	294	519	573	0.513	292	1.1	13.087	B
	3	622	27	939	0.663	620	2.0	11.759	B
2	1	784	82	880	0.892	768	6.6	30.032	D
	2	426	441	419	1.016	391	11.5	87.520	F
	3	411	295	844	0.487	409	1.0	8.609	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	538	167	865	0.622	538	1.7	11.524	B
	2	294	522	572	0.514	294	1.1	13.308	B
	3	631	28	939	0.672	631	2.1	12.265	B
2	1	788	83	880	0.896	784	7.5	36.795	E
	2	426	450	414	1.030	402	17.6	148.865	F
	3	411	303	838	0.490	411	1.0	8.772	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	440	152	874	0.503	442	1.1	8.778	A
	2	240	429	628	0.382	242	0.6	9.610	A
	3	572	23	942	0.607	573	1.7	10.337	B
2	1	648	68	889	0.729	666	3.0	18.070	C
	2	348	382	454	0.766	401	4.3	86.699	F
	3	335	303	838	0.400	336	0.7	7.492	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	368	121	893	0.412	369	0.7	7.228	A
	2	201	358	671	0.300	202	0.4	7.896	A
	3	453	19	944	0.480	456	1.0	7.801	A
2	1	541	57	895	0.604	546	1.6	10.938	B
	2	291	313	494	0.589	302	1.6	20.800	C
	3	281	228	893	0.314	282	0.5	6.142	A

2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	Junction 1	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 82% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	13.39	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	28.48	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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	2030	PM	ONE HOUR	16:45	18:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	492	100.000
	2		✓	239	100.000
	3	✓			
2	1	✓			
	2		✓	355	100.000
	3		✓	428	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	20	472
	2	10	0	229
	3	434	202	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	384	318
	2	297	0	58
	3	343	85	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	2
	2	0	0	0
	3	1	0	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	2	0
	2	2	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.65	12.62	1.9	B
	2	0.46	11.61	0.8	B
	3	0.74	14.66	2.8	B
2	1	0.88	33.05	6.6	D
	2	0.82	41.43	4.2	E
	3	0.57	10.27	1.3	B

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	370	150	876	0.423	367	0.7	7.180	A
	2	180	353	674	0.267	178	0.4	7.241	A
	3	477	7	951	0.502	473	1.0	7.526	A
2	1	524	64	891	0.587	518	1.4	9.612	A
	2	267	235	541	0.494	263	1.0	13.012	B
	3	322	220	899	0.359	320	0.6	6.199	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	442	181	857	0.516	441	1.1	8.790	A
	2	215	423	631	0.340	214	0.5	8.616	A
	3	572	9	950	0.603	571	1.5	9.505	A
2	1	628	76	883	0.711	624	2.4	13.838	B
	2	319	283	513	0.623	317	1.6	18.435	C
	3	385	265	866	0.444	384	0.8	7.452	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	542	220	834	0.649	539	1.8	12.292	B
	2	263	517	575	0.458	262	0.8	11.465	B
	3	696	11	949	0.733	691	2.6	13.834	B
2	1	768	93	873	0.879	754	5.9	27.589	D
	2	391	341	478	0.818	382	3.8	35.294	E
	3	471	320	826	0.571	469	1.3	10.042	B

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	542	223	832	0.651	542	1.9	12.615	B
	2	263	520	573	0.459	263	0.8	11.615	B
	3	703	11	949	0.741	702	2.8	14.657	B
2	1	772	94	873	0.884	769	6.6	33.053	D
	2	391	348	474	0.825	389	4.2	41.429	E
	3	471	326	821	0.574	471	1.3	10.271	B

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	442	187	853	0.518	445	1.1	9.053	A
	2	215	427	629	0.342	216	0.5	8.746	A
	3	585	9	950	0.616	589	1.7	10.181	B
2	1	634	77	883	0.718	650	2.7	16.534	C
	2	319	294	506	0.631	329	1.8	21.649	C
	3	385	275	858	0.448	387	0.8	7.663	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	370	155	873	0.424	372	0.8	7.347	A
	2	180	357	672	0.268	181	0.4	7.337	A
	3	485	8	951	0.511	488	1.1	7.869	A
2	1	530	64	891	0.595	534	1.5	10.348	B
	2	267	242	537	0.498	270	1.0	13.912	B
	3	322	226	894	0.360	323	0.6	6.318	A

2030 + COM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	12.38	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	64.10	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 + COM	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	489	100.000
	2		✓	279	100.000
	3	✓			
2	1	✓			
	2		✓	389	100.000
	3		✓	374	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	15	474
	2	25	0	254
	3	430	159	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	314	419
	2	294	0	95
	3	299	75	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	5
	2	0	0	3
	3	6	3	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	8	2
	2	8	0	0
	3	3	9	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.62	11.59	1.7	B
	2	0.54	13.97	1.2	B
	3	0.67	12.29	2.1	B
2	1	0.91	41.07	8.5	E
	2	1.04	160.33	19.3	F
	3	0.49	8.79	1.0	A

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	368	118	895	0.411	365	0.7	7.090	A
	2	210	354	673	0.312	208	0.5	7.920	A
	3	441	19	944	0.467	437	0.9	7.418	A
2	1	544	56	896	0.607	537	1.6	10.325	B
	2	293	307	498	0.588	287	1.4	17.625	C
	3	282	217	901	0.313	280	0.5	6.016	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	440	142	880	0.499	438	1.0	8.515	A
	2	251	425	630	0.398	250	0.7	9.701	A
	3	528	22	942	0.561	526	1.3	9.080	A
2	1	653	67	889	0.734	648	2.7	15.308	C
	2	350	370	461	0.759	344	2.9	31.025	D
	3	336	260	870	0.387	335	0.6	7.009	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	538	168	865	0.622	536	1.7	11.368	B
	2	307	519	573	0.536	305	1.2	13.708	B
	3	624	27	939	0.664	621	2.0	11.805	B
2	1	797	82	880	0.906	779	7.3	32.475	D
	2	428	445	417	1.028	391	12.3	92.051	F
	3	412	295	843	0.488	410	1.0	8.633	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	538	170	863	0.624	538	1.7	11.594	B
	2	307	522	572	0.537	307	1.2	13.969	B
	3	632	28	939	0.673	631	2.1	12.288	B
2	1	801	83	880	0.911	796	8.5	41.065	E
	2	428	455	411	1.043	400	19.3	160.333	F
	3	412	303	838	0.491	412	1.0	8.787	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	440	156	872	0.504	442	1.1	8.834	A
	2	251	429	628	0.399	253	0.7	9.898	A
	3	578	23	942	0.614	580	1.7	10.511	B
2	1	659	68	889	0.741	680	3.2	19.578	C
	2	350	389	450	0.777	408	4.7	100.372	F
	3	336	308	834	0.403	337	0.7	7.568	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	368	124	891	0.413	369	0.7	7.252	A
	2	210	358	671	0.313	211	0.5	8.056	A
	3	457	19	944	0.484	459	1.0	7.861	A
2	1	550	57	895	0.614	556	1.7	11.271	B
	2	293	318	492	0.595	305	1.6	21.624	C
	3	282	231	891	0.316	282	0.5	6.170	A

2030 + COM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	Junction 1	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 82% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	13.94	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	30.61	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 + COM	PM	ONE HOUR	16:45	18:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	492	100.000
	2		✓	246	100.000
	3	✓			
2	1	✓			
	2		✓	362	100.000
	3		✓	433	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	20	472
	2	10	0	236
	3	434	214	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	388	321
	2	304	0	58
	3	348	85	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	2
	2	0	0	0
	3	1	0	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	2	0
	2	2	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.66	12.96	1.9	B
	2	0.47	11.91	0.9	B
	3	0.75	15.44	3.0	C
2	1	0.89	35.13	7.1	E
	2	0.84	45.72	4.7	E
	3	0.58	10.60	1.4	B

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	370	159	870	0.426	367	0.7	7.256	A
	2	185	352	674	0.275	184	0.4	7.316	A
	3	486	7	951	0.511	482	1.0	7.666	A
2	1	529	64	891	0.593	523	1.4	9.739	A
	2	273	237	540	0.505	269	1.0	13.308	B
	3	326	225	895	0.364	324	0.6	6.279	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	442	192	851	0.520	441	1.1	8.925	A
	2	221	423	632	0.350	221	0.5	8.746	A
	3	583	9	950	0.614	581	1.6	9.768	A
2	1	635	76	883	0.718	631	2.4	14.155	B
	2	325	285	511	0.637	323	1.7	19.153	C
	3	389	271	861	0.452	388	0.8	7.594	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	542	232	827	0.655	539	1.9	12.599	B
	2	271	517	575	0.471	269	0.9	11.744	B
	3	708	11	949	0.746	703	2.8	14.456	B
2	1	775	93	873	0.888	760	6.3	28.837	D
	2	399	344	476	0.837	389	4.2	37.985	E
	3	477	326	821	0.581	475	1.4	10.335	B

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	542	236	824	0.657	542	1.9	12.961	B
	2	271	520	573	0.473	271	0.9	11.909	B
	3	716	11	949	0.755	715	3.0	15.438	C
2	1	779	94	873	0.893	776	7.1	35.125	E
	2	399	351	472	0.844	396	4.7	45.724	E
	3	477	333	816	0.584	477	1.4	10.598	B

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	442	199	846	0.523	445	1.1	9.216	A
	2	221	427	629	0.352	222	0.6	8.887	A
	3	597	9	950	0.629	602	1.8	10.565	B
2	1	641	77	883	0.726	658	2.8	17.233	C
	2	325	298	504	0.646	336	2.0	23.135	C
	3	389	283	853	0.456	391	0.9	7.835	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	370	164	867	0.427	372	0.8	7.432	A
	2	185	357	672	0.276	186	0.4	7.421	A
	3	495	8	951	0.520	497	1.1	8.039	A
2	1	535	64	891	0.601	540	1.6	10.522	B
	2	273	245	535	0.509	276	1.1	14.309	B
	3	326	232	890	0.366	327	0.6	6.407	A

2030 + COM + PROPOSED DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	12.58	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	68.30	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D7	2030 + COM + PROPOSED DEV	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	489	100.000
	2		✓	290	100.000
	3	✓			
2	1	✓			
	2		✓	390	100.000
	3		✓	376	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	15	474
	2	25	0	265
	3	430	162	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	320	423
	2	295	0	95
	3	301	75	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	5
	2	0	0	3
	3	6	3	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	8	2
	2	8	0	0
	3	3	9	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.62	11.65	1.7	B
	2	0.56	14.64	1.3	B
	3	0.67	12.34	2.1	B
2	1	0.92	45.65	9.6	E
	2	1.05	168.49	20.4	F
	3	0.49	8.82	1.0	A

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	368	120	893	0.412	365	0.7	7.107	A
	2	218	354	673	0.324	216	0.5	8.060	A
	3	443	19	944	0.469	439	0.9	7.446	A
2	1	552	56	896	0.616	545	1.6	10.550	B
	2	294	310	496	0.592	288	1.5	17.827	C
	3	283	218	900	0.314	281	0.5	6.035	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	440	145	879	0.500	438	1.0	8.546	A
	2	261	425	630	0.414	260	0.7	9.956	A
	3	531	22	942	0.563	529	1.3	9.133	A
2	1	662	67	889	0.745	657	2.9	15.901	C
	2	351	374	459	0.765	344	3.0	31.747	D
	3	338	261	869	0.389	337	0.7	7.039	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	538	170	863	0.624	536	1.7	11.423	B
	2	319	519	573	0.557	317	1.2	14.329	B
	3	626	27	939	0.666	623	2.0	11.871	B
2	1	809	82	880	0.920	788	8.1	34.956	D
	2	429	449	415	1.036	390	12.8	95.212	F
	3	414	295	844	0.491	413	1.0	8.673	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	538	173	862	0.625	538	1.7	11.653	B
	2	319	522	572	0.559	319	1.3	14.638	B
	3	633	28	939	0.674	633	2.1	12.345	B
2	1	813	83	880	0.925	807	9.6	45.652	E
	2	429	460	408	1.052	399	20.4	168.492	F
	3	414	302	839	0.494	414	1.0	8.820	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	440	160	870	0.505	442	1.1	8.876	A
	2	261	429	628	0.415	263	0.7	10.180	B
	3	583	23	942	0.619	584	1.8	10.648	B
2	1	669	68	889	0.752	694	3.4	21.303	C
	2	351	395	446	0.785	412	5.2	111.292	F
	3	338	311	832	0.406	339	0.7	7.630	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	368	127	890	0.414	370	0.8	7.278	A
	2	218	358	671	0.325	219	0.5	8.208	A
	3	460	19	944	0.487	463	1.0	7.920	A
2	1	559	57	895	0.624	565	1.8	11.604	B
	2	294	322	490	0.600	308	1.7	22.352	C
	3	283	233	890	0.318	284	0.5	6.202	A

2030 + COM + PROPOSED DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	Junction 1	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 82% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	Junction 1 - Arm 3	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	Junction 2 - Arm 1	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	London Road / Borough Road Mini Roundabout	Mini-roundabout	1, 2, 3	14.36	B
2	London Road / Audley End Road / Newport Road Mini Roundabout	Mini-roundabout	1, 2, 3	32.13	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	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)
D8	2030 + COM + PROPOSED DEV	PM	ONE HOUR	16:45	18:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	1	Simple (vertical queueing)	Normal	0	100.00	
2	1	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		✓	492	100.000
	2		✓	250	100.000
	3	✓			
2	1	✓			
	2		✓	367	100.000
	3		✓	437	100.000

Origin-Destination Data

Demand (PCU/hr)

Junction 1

	To			
		1	2	3
From	1	0	20	472
	2	10	0	240
	3	434	223	0

Demand (PCU/hr)

Junction 2

	To			
		1	2	3
From	1	0	390	323
	2	309	0	58
	3	352	85	0

Vehicle Mix

Heavy Vehicle Percentages

Junction 1

	To			
		1	2	3
From	1	0	0	2
	2	0	0	0
	3	1	0	0

Heavy Vehicle Percentages

Junction 2

	To			
		1	2	3
From	1	0	2	0
	2	2	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1	0.66	13.23	2.0	B
	2	0.48	12.08	0.9	B
	3	0.76	16.07	3.1	C
2	1	0.90	36.40	7.4	E
	2	0.86	49.21	5.1	E
	3	0.59	10.86	1.4	B

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	370	166	866	0.428	367	0.8	7.311	A
	2	188	352	674	0.279	187	0.4	7.361	A
	3	492	7	951	0.518	488	1.1	7.765	A
2	1	532	64	891	0.597	526	1.5	9.813	A
	2	276	238	539	0.513	272	1.0	13.523	B
	3	329	229	892	0.369	327	0.6	6.342	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	442	200	846	0.523	441	1.1	9.029	A
	2	225	423	632	0.356	224	0.5	8.821	A
	3	591	9	950	0.622	589	1.6	9.975	A
2	1	638	76	883	0.722	634	2.5	14.340	B
	2	330	287	510	0.647	327	1.8	19.688	C
	3	393	275	858	0.458	392	0.8	7.702	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	542	242	821	0.660	538	1.9	12.840	B
	2	275	517	575	0.479	274	0.9	11.908	B
	3	717	11	949	0.756	712	2.9	14.956	B
2	1	779	93	873	0.893	764	6.5	29.582	D
	2	404	346	475	0.850	393	4.5	40.079	E
	3	481	331	817	0.589	479	1.4	10.566	B

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	542	246	818	0.662	542	2.0	13.232	B
	2	275	519	573	0.480	275	0.9	12.084	B
	3	725	11	949	0.765	725	3.1	16.071	C
2	1	784	94	873	0.898	780	7.4	36.398	E
	2	404	353	471	0.858	401	5.1	49.207	E
	3	481	338	812	0.592	481	1.4	10.857	B

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	442	208	841	0.526	445	1.2	9.345	A
	2	225	427	629	0.357	226	0.6	8.969	A
	3	606	9	950	0.638	612	1.8	10.876	B
2	1	644	77	883	0.730	663	2.9	17.670	C
	2	330	300	502	0.657	342	2.1	24.347	C
	3	393	288	849	0.463	395	0.9	7.973	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1	370	171	863	0.429	372	0.8	7.493	A
	2	188	357	672	0.280	189	0.4	7.465	A
	3	502	8	951	0.528	504	1.1	8.172	A
2	1	538	64	891	0.604	543	1.6	10.626	B
	2	276	246	534	0.517	280	1.1	14.611	B
	3	329	236	887	0.371	330	0.6	6.477	A