

# Junctions 9

## ARCADY 9 - Roundabout Module

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

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**Filename:** J7- Botwell Ln- Pump Ln- Coldharbour Ln Mini Roundabout.j9

**Path:** C:\Users\Demetris Psyllides\Dropbox (Markides Associates)\Markides Associates Team

Folder\Projects\16018.01 - Former Nestle Site, Hayes\Technical\Arcady\2024 and 2029 scenarios

**Report generation date:** 23/01/2017 14:24:45

»2016, AM

»2016, PM

»2024 Baseline , AM

»2024 Baseline , PM

»2024 Baseline+Dev , AM

»2024 Baseline+Dev , PM

»2029 Baseline , AM

»2029 Baseline , PM

»2029 Baseline+Dev , AM

»2029 Baseline+Dev , PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2016</b>								
1 - Coldharbour Lane	3.2	23.11	0.77	C	1.5	13.09	0.61	B
2 - Pump Lane	1.5	12.17	0.61	B	4.6	26.49	0.83	D
3 - Botwell Lane	0.5	2.94	0.33	A	0.7	3.61	0.42	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2024 Baseline</b>								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	12.3	83.37	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.7	39.84	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.2	6.93	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2024 Baseline+Dev</b>								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	11.6	78.30	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.2	36.67	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.0	6.30	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2029 Baseline</b>								
1 - Coldharbour Lane	275.5	1531.97	1.73	F	16.3	104.35	0.99	F
2 - Pump Lane	6.7	39.48	0.88	E	8.3	47.87	0.91	E
3 - Botwell Lane	1.4	5.05	0.56	A	2.3	7.26	0.68	A

4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2029 Baseline+Dev</b>								
1 - Coldharbour Lane	275.5	1531.97	1.73	F	15.4	99.01	0.99	F
2 - Pump Lane	6.7	39.48	0.88	E	7.7	44.32	0.91	E
3 - Botwell Lane	1.4	5.05	0.56	A	2.1	6.60	0.68	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	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	19/11/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DEMETRIS-PSYLL\Demetris Psyllides
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	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016	PM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2029 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

## Analysis Set Details

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

# 2016, 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 71% 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	1,2,3,4	12.21	B

### Junction Network Options

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

## Arms

### Arms

Arm	Name	Description
1	Coldharbour Lane	
2	Pump Lane	
3	Botwell Lane	
4	East Avenue	

### 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 - Coldharbour Lane	3.40	3.40	5.10	1.0	19.60	16.30	0.0	✓
2 - Pump Lane	4.70	4.70	6.00	1.0	16.80	9.90	0.0	✓
3 - Botwell Lane	4.50	4.50	9.20	24.0	20.00	19.40	0.0	✓
4 - East Avenue	3.60	3.60	3.60	0.0	11.00	9.00	0.0	✓

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Coldharbour Lane	0.552	902
2 - Pump Lane	0.555	919
3 - Botwell Lane	0.871	1985
4 - East Avenue	0.503	734

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

## Traffic Demand

### Demand Set Details

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

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	473	100.000
2 - Pump Lane		ONE HOUR	✓	415	100.000
3 - Botwell Lane		ONE HOUR	✓	555	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	0	200	248	25
2 - Pump Lane	111	0	284	20
3 - Botwell Lane	132	374	0	49
4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	0	0	0	0
2 - Pump Lane	0	0	0	0
3 - Botwell Lane	0	0	0	0
4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.77	23.11	3.2	C	434	651
2 - Pump Lane	0.61	12.17	1.5	B	381	571
3 - Botwell Lane	0.33	2.94	0.5	A	509	764
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	356	89	281	747	0.477	353	182	0.0	0.9	9.051	A
2 - Pump Lane	312	78	203	806	0.388	310	430	0.0	0.6	7.222	A
3 - Botwell Lane	418	104	116	1884	0.222	417	397	0.0	0.3	2.453	A
4 - East Avenue	0	0	463	501	0.000	0	70	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	425	106	336	716	0.594	423	218	0.9	1.4	12.188	B
2 - Pump Lane	373	93	244	783	0.476	372	515	0.6	0.9	8.728	A
3 - Botwell Lane	499	125	140	1863	0.268	499	476	0.3	0.4	2.637	A
4 - East Avenue	0	0	554	455	0.000	0	84	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	521	130	411	675	0.772	514	267	1.4	3.1	21.564	C
2 - Pump Lane	457	114	297	754	0.606	455	629	0.9	1.5	11.920	B
3 - Botwell Lane	611	153	171	1837	0.333	611	581	0.4	0.5	2.934	A
4 - East Avenue	0	0	678	393	0.000	0	103	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	521	130	412	675	0.772	520	268	3.1	3.2	23.108	C
2 - Pump Lane	457	114	300	752	0.607	457	632	1.5	1.5	12.174	B
3 - Botwell Lane	611	153	172	1836	0.333	611	585	0.5	0.5	2.939	A
4 - East Avenue	0	0	679	392	0.000	0	103	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	425	106	337	716	0.594	432	219	3.2	1.5	12.961	B
2 - Pump Lane	373	93	249	780	0.478	375	519	1.5	0.9	8.938	A
3 - Botwell Lane	499	125	141	1862	0.268	499	483	0.5	0.4	2.644	A
4 - East Avenue	0	0	556	455	0.000	0	85	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	356	89	282	746	0.477	358	183	1.5	0.9	9.336	A
2 - Pump Lane	312	78	207	804	0.389	314	433	0.9	0.6	7.356	A
3 - Botwell Lane	418	104	118	1883	0.222	418	403	0.4	0.3	2.458	A
4 - East Avenue	0	0	465	500	0.000	0	71	0.0	0.0	0.000	A

# 2016, 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 2 and 3 have 75% 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	1,2,3,4	14.18	B

### 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)	Run automatically
D2	2016	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	392	100.000
2 - Pump Lane		ONE HOUR	✓	591	100.000
3 - Botwell Lane		ONE HOUR	✓	649	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	169	193	30
	2 - Pump Lane	198	0	335	58
	3 - Botwell Lane	243	322	0	84
	4 - East Avenue	0	0	0	0

## Vehicle Mix



1 - Coldharbour Lane	432	108	355	706	0.611	431	485	1.5	1.5	13.095	B
2 - Pump Lane	651	163	245	783	0.831	650	541	4.3	4.6	26.493	D
3 - Botwell Lane	715	179	314	1711	0.418	715	581	0.7	0.7	3.610	A
4 - East Avenue	0	0	840	312	0.000	0	189	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	352	88	290	742	0.475	355	400	1.5	0.9	9.364	A
2 - Pump Lane	531	133	202	807	0.659	541	443	4.6	2.0	14.049	B
3 - Botwell Lane	583	146	262	1757	0.332	584	482	0.7	0.5	3.073	A
4 - East Avenue	0	0	690	387	0.000	0	156	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	295	74	243	768	0.384	296	333	0.9	0.6	7.651	A
2 - Pump Lane	445	111	169	825	0.539	448	370	2.0	1.2	9.627	A
3 - Botwell Lane	489	122	217	1796	0.272	489	400	0.5	0.4	2.754	A
4 - East Avenue	0	0	576	444	0.000	0	130	0.0	0.0	0.000	A

## 2024 Baseline , 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 74% 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	508.32	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)	Run automatically
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A
4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F
2 - Pump Lane	439	110	384	706	0.622	444	721	3.1	1.9	15.415	C

3 - Botwell Lane	681	170	162	1844	0.369	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.000	0	112	0.0	0.0	0.000	A

## 2024 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	34.19	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)	Run automatically
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	83.37	12.3	F	468	702
2 - Pump Lane	0.88	39.84	6.7	E	543	815
3 - Botwell Lane	0.67	6.93	2.2	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.4	12.666	B
2 - Pump Lane	446	111	220	797	0.559	440	549	0.0	1.4	10.946	B
3 - Botwell Lane	785	196	207	1805	0.435	782	453	0.0	0.8	3.860	A
4 - East Avenue	0	0	820	321	0.000	0	169	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.4	2.5	20.338	C
2 - Pump Lane	532	133	263	773	0.689	528	658	1.4	2.3	15.955	C
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.2	4.749	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	533	627	2.5	9.6	56.857	F
2 - Pump Lane	652	163	310	747	0.873	637	796	2.3	5.9	32.494	D
3 - Botwell Lane	1148	287	299	1725	0.666	1145	648	1.2	2.1	6.785	A
4 - East Avenue	0	0	1199	131	0.000	0	245	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	550	632	9.6	12.3	83.372	F
2 - Pump Lane	652	163	319	742	0.879	648	804	5.9	6.7	39.839	E
3 - Botwell Lane	1148	287	305	1720	0.668	1148	663	2.1	2.2	6.926	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	496	523	12.3	3.0	32.353	D
2 - Pump Lane	532	133	288	759	0.701	548	678	6.7	2.7	20.004	C
3 - Botwell Lane	938	234	260	1759	0.533	941	576	2.2	1.3	4.867	A
4 - East Avenue	0	0	994	234	0.000	0	208	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	390	435	3.0	1.4	13.703	B
2 - Pump Lane	446	111	226	793	0.562	451	557	2.7	1.4	11.736	B
3 - Botwell Lane	785	196	213	1800	0.436	787	465	1.3	0.9	3.916	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2024 Baseline+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 74% 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	508.32	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)	Run automatically
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A

4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A
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#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F

2 - Pump Lane	439	110	384	706	0.62 2	444	721	3.1	1.9	15.415	C
3 - Botwell Lane	681	170	162	1844	0.36 9	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.00 0	0	112	0.0	0.0	0.000	A

## 2024 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	31.80	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)	Run automatically
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

## Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	78.30	11.6	F	468	702
2 - Pump Lane	0.88	36.67	6.2	E	543	815
3 - Botwell Lane	0.67	6.30	2.0	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.2	11.547	B
2 - Pump Lane	446	111	220	797	0.559	441	550	0.0	1.2	9.979	A
3 - Botwell Lane	785	196	208	1804	0.435	782	453	0.0	0.8	3.512	A
4 - East Avenue	0	0	821	321	0.000	0	169	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.2	2.3	18.570	C
2 - Pump Lane	532	133	264	773	0.689	529	658	1.2	2.1	14.549	B
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.1	4.320	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	535	628	2.3	9.0	53.337	F
2 - Pump Lane	652	163	310	747	0.873	638	796	2.1	5.5	30.058	D
3 - Botwell Lane	1148	287	300	1724	0.666	1145	649	1.1	2.0	6.180	A
4 - East Avenue	0	0	1200	131	0.000	0	245	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	551	632	9.0	11.6	78.296	F
2 - Pump Lane	652	163	320	741	0.879	649	805	5.5	6.2	36.673	E
3 - Botwell Lane	1148	287	305	1719	0.668	1148	664	2.0	2.0	6.301	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	494	523	11.6	2.7	28.939	D
2 - Pump Lane	532	133	287	760	0.701	547	677	6.2	2.5	17.985	C
3 - Botwell Lane	938	234	260	1759	0.533	941	574	2.0	1.2	4.417	A
4 - East Avenue	0	0	993	235	0.000	0	208	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	389	435	2.7	1.3	12.405	B
2 - Pump Lane	446	111	226	793	0.562	450	556	2.5	1.3	10.629	B
3 - Botwell Lane	785	196	212	1800	0.436	787	464	1.2	0.8	3.556	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2029 Baseline , 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 74% 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	552.40	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)	Run automatically
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	824	100.000
2 - Pump Lane		ONE HOUR	✓	593	100.000
3 - Botwell Lane		ONE HOUR	✓	919	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	0	333	450	41
2 - Pump Lane	147	0	419	27
3 - Botwell Lane	218	620	0	81
4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	10	10	10	10
2 - Pump Lane	10	10	10	10
3 - Botwell Lane	10	10	10	10
4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.73	1531.97	275.5	F	756	1134
2 - Pump Lane	0.88	39.48	6.7	E	544	816
3 - Botwell Lane	0.56	5.05	1.4	A	843	1265
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	465	645	0.962	581	272	0.0	9.9	47.278	E
2 - Pump Lane	446	112	346	727	0.614	440	700	0.0	1.7	13.500	B
3 - Botwell Lane	692	173	158	1848	0.374	689	628	0.0	0.7	3.411	A
4 - East Avenue	0	0	738	363	0.000	0	110	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	557	595	1.246	590	327	9.9	47.6	198.261	F
2 - Pump Lane	533	133	352	724	0.737	528	795	1.7	2.9	19.784	C
3 - Botwell Lane	826	207	184	1825	0.453	825	696	0.7	0.9	3.958	A
4 - East Avenue	0	0	883	290	0.000	0	126	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	681	526	1.726	526	398	47.6	143.0	665.317	F
2 - Pump Lane	653	163	313	745	0.876	640	894	2.9	6.1	33.938	D
3 - Botwell Lane	1012	253	214	1799	0.562	1010	739	0.9	1.4	5.007	A
4 - East Avenue	0	0	1080	191	0.000	0	144	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	683	525	1.728	525	401	143.0	238.6	1318.596	F
2 - Pump Lane	653	163	313	745	0.876	650	895	6.1	6.7	39.479	E
3 - Botwell Lane	1012	253	217	1796	0.563	1012	746	1.4	1.4	5.047	A
4 - East Avenue	0	0	1084	189	0.000	0	145	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	559	593	1.248	593	332	238.6	275.5	1515.700	F

2 - Pump Lane	533	133	354	723	0.738	547	798	6.7	3.3	23.926	C
3 - Botwell Lane	826	207	190	1820	0.454	828	710	1.4	0.9	4.000	A
4 - East Avenue	0	0	891	286	0.000	0	127	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	467	644	0.964	641	276	275.5	270.2	1531.972	F
2 - Pump Lane	446	112	382	707	0.632	452	727	3.3	2.0	15.858	C
3 - Botwell Lane	692	173	165	1842	0.376	693	669	0.9	0.7	3.448	A
4 - East Avenue	0	0	744	360	0.000	0	114	0.0	0.0	0.000	A

## 2029 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	41.67	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)	Run automatically
D8	2029 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	522	100.000
2 - Pump Lane		ONE HOUR	✓	609	100.000

3 - Botwell Lane		ONE HOUR	✓	1061	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	219	265	38
	2 - Pump Lane	193	0	360	56
	3 - Botwell Lane	395	530	0	136
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.99	104.35	16.3	F	479	718
2 - Pump Lane	0.91	47.87	8.3	E	559	838
3 - Botwell Lane	0.68	7.26	2.3	A	974	1460
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	397	683	0.576	387	440	0.0	1.4	13.168	B
2 - Pump Lane	458	115	225	794	0.577	453	560	0.0	1.5	11.413	B
3 - Botwell Lane	799	200	213	1799	0.444	795	464	0.0	0.9	3.930	A
4 - East Avenue	0	0	837	313	0.000	0	172	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	476	639	0.734	464	527	1.4	2.8	21.906	C
2 - Pump Lane	547	137	269	769	0.712	543	670	1.5	2.6	17.158	C
3 - Botwell Lane	954	238	256	1762	0.541	952	557	0.9	1.3	4.877	A
4 - East Avenue	0	0	1002	230	0.000	0	206	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	582	581	0.990	539	640	2.8	11.7	65.963	F
2 - Pump Lane	671	168	313	745	0.900	653	808	2.6	7.0	37.071	E
3 - Botwell Lane	1168	292	306	1719	0.680	1164	659	1.3	2.3	7.092	A
4 - East Avenue	0	0	1222	120	0.000	0	248	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	583	580	0.991	557	646	11.7	16.3	104.349	F
2 - Pump Lane	671	168	323	740	0.907	665	817	7.0	8.3	47.875	E
3 - Botwell Lane	1168	292	313	1713	0.682	1168	676	2.3	2.3	7.262	A
4 - East Avenue	0	0	1229	116	0.000	0	251	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	478	638	0.736	521	537	16.3	3.4	43.429	E
2 - Pump Lane	547	137	302	751	0.729	568	697	8.3	3.2	23.601	C
3 - Botwell Lane	954	238	270	1750	0.545	958	600	2.3	1.3	5.025	A
4 - East Avenue	0	0	1015	224	0.000	0	213	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	400	681	0.577	400	445	3.4	1.6	14.465	B
2 - Pump Lane	458	115	232	790	0.580	465	568	3.2	1.6	12.417	B
3 - Botwell Lane	799	200	219	1794	0.445	801	478	1.3	0.9	3.993	A
4 - East Avenue	0	0	845	309	0.000	0	175	0.0	0.0	0.000	A

## 2029 Baseline+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 74% 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	552.40	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)	Run automatically
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	824	100.000
2 - Pump Lane		ONE HOUR	✓	593	100.000
3 - Botwell Lane		ONE HOUR	✓	919	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	333	450	41
	2 - Pump Lane	147	0	419	27
	3 - Botwell Lane	218	620	0	81
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.73	1531.97	275.5	F	756	1134
2 - Pump Lane	0.88	39.48	6.7	E	544	816
3 - Botwell Lane	0.56	5.05	1.4	A	843	1265
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	465	645	0.962	581	272	0.0	9.9	47.278	E
2 - Pump Lane	446	112	346	727	0.614	440	700	0.0	1.7	13.500	B
3 - Botwell Lane	692	173	158	1848	0.374	689	628	0.0	0.7	3.411	A
4 - East Avenue	0	0	738	363	0.000	0	110	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	557	595	1.246	590	327	9.9	47.6	198.261	F
2 - Pump Lane	533	133	352	724	0.737	528	795	1.7	2.9	19.784	C
3 - Botwell Lane	826	207	184	1825	0.453	825	696	0.7	0.9	3.958	A
4 - East Avenue	0	0	883	290	0.000	0	126	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	681	526	1.726	526	398	47.6	143.0	665.317	F
2 - Pump Lane	653	163	313	745	0.876	640	894	2.9	6.1	33.938	D
3 - Botwell Lane	1012	253	214	1799	0.562	1010	739	0.9	1.4	5.007	A
4 - East Avenue	0	0	1080	191	0.000	0	144	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	683	525	1.728	525	401	143.0	238.6	1318.596	F
2 - Pump Lane	653	163	313	745	0.876	650	895	6.1	6.7	39.479	E
3 - Botwell Lane	1012	253	217	1796	0.563	1012	746	1.4	1.4	5.047	A

4 - East Avenue	0	0	1084	189	0.000	0	145	0.0	0.0	0.000	A
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### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	559	593	1.248	593	332	238.6	275.5	1515.700	F
2 - Pump Lane	533	133	354	723	0.738	547	798	6.7	3.3	23.926	C
3 - Botwell Lane	826	207	190	1820	0.454	828	710	1.4	0.9	4.000	A
4 - East Avenue	0	0	891	286	0.000	0	127	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	467	644	0.964	641	276	275.5	270.2	1531.972	F
2 - Pump Lane	446	112	382	707	0.632	452	727	3.3	2.0	15.858	C
3 - Botwell Lane	692	173	165	1842	0.376	693	669	0.9	0.7	3.448	A
4 - East Avenue	0	0	744	360	0.000	0	114	0.0	0.0	0.000	A

## 2029 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	39.09	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)	Run automatically
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D10	2029 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓
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Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	522	100.000
2 - Pump Lane		ONE HOUR	✓	609	100.000
3 - Botwell Lane		ONE HOUR	✓	1061	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	219	265	38
	2 - Pump Lane	193	0	360	56
	3 - Botwell Lane	395	530	0	136
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.99	99.01	15.4	F	479	718
2 - Pump Lane	0.91	44.32	7.7	E	559	838
3 - Botwell Lane	0.68	6.60	2.1	A	974	1460
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	397	682	0.576	388	440	0.0	1.3	12.014	B
2 - Pump Lane	458	115	225	794	0.577	453	560	0.0	1.3	10.410	B
3 - Botwell Lane	799	200	214	1799	0.444	796	465	0.0	0.8	3.565	A
4 - East Avenue	0	0	837	313	0.000	0	172	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	476	639	0.734	464	527	1.3	2.6	20.012	C
2 - Pump Lane	547	137	270	769	0.712	543	671	1.3	2.3	15.656	C
3 - Botwell Lane	954	238	256	1762	0.541	952	557	0.8	1.2	4.437	A
4 - East Avenue	0	0	1002	230	0.000	0	206	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	582	581	0.990	540	641	2.6	11.1	62.251	F
2 - Pump Lane	671	168	314	745	0.900	654	808	2.3	6.5	34.436	D
3 - Botwell Lane	1168	292	307	1718	0.680	1165	661	1.2	2.1	6.460	A
4 - East Avenue	0	0	1222	119	0.000	0	249	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	583	580	0.991	558	646	11.1	15.4	99.009	F
2 - Pump Lane	671	168	324	739	0.907	666	817	6.5	7.7	44.321	E
3 - Botwell Lane	1168	292	313	1713	0.682	1168	677	2.1	2.1	6.604	A
4 - East Avenue	0	0	1229	116	0.000	0	252	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	478	638	0.736	519	536	15.4	3.1	39.019	E
2 - Pump Lane	547	137	301	752	0.728	567	696	7.7	2.9	21.170	C
3 - Botwell Lane	954	238	270	1750	0.545	957	598	2.1	1.2	4.561	A
4 - East Avenue	0	0	1014	224	0.000	0	213	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	400	681	0.577	400	445	3.1	1.4	13.076	B
2 - Pump Lane	458	115	232	790	0.580	464	567	2.9	1.4	11.237	B
3 - Botwell Lane	799	200	219	1795	0.445	800	477	1.2	0.8	3.628	A
4 - East Avenue	0	0	845	309	0.000	0	174	0.0	0.0	0.000	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []  
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**Filename:** J7- Botwell Ln- Pump Ln- Coldharbour Ln Mini Roundabout.j9

**Path:** C:\Users\Demetris Psyllides\Dropbox (Markides Associates)\Markides Associates Team

Folder\Projects\16018.01 - Former Nestle Site, Hayes\Technical\Arcady\2024 and 2029 scenarios

**Report generation date:** 23/01/2017 14:24:45

»2016, AM

»2016, PM

»2024 Baseline , AM

»2024 Baseline , PM

»2024 Baseline+Dev , AM

»2024 Baseline+Dev , PM

»2029 Baseline , AM

»2029 Baseline , PM

»2029 Baseline+Dev , AM

»2029 Baseline+Dev , PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2016</b>								
1 - Coldharbour Lane	3.2	23.11	0.77	C	1.5	13.09	0.61	B
2 - Pump Lane	1.5	12.17	0.61	B	4.6	26.49	0.83	D
3 - Botwell Lane	0.5	2.94	0.33	A	0.7	3.61	0.42	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2024 Baseline</b>								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	12.3	83.37	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.7	39.84	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.2	6.93	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2024 Baseline+Dev</b>								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	11.6	78.30	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.2	36.67	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.0	6.30	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2029 Baseline</b>								
1 - Coldharbour Lane	275.5	1531.97	1.73	F	16.3	104.35	0.99	F
2 - Pump Lane	6.7	39.48	0.88	E	8.3	47.87	0.91	E
3 - Botwell Lane	1.4	5.05	0.56	A	2.3	7.26	0.68	A

4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2029 Baseline+Dev</b>								
1 - Coldharbour Lane	275.5	1531.97	1.73	F	15.4	99.01	0.99	F
2 - Pump Lane	6.7	39.48	0.88	E	7.7	44.32	0.91	E
3 - Botwell Lane	1.4	5.05	0.56	A	2.1	6.60	0.68	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	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	19/11/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DEMETRIS-PSYLL\Demetris Psyllides
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	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016	PM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2029 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

## Analysis Set Details

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

# 2016, 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 71% 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	1,2,3,4	12.21	B

### Junction Network Options

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

## Arms

### Arms

Arm	Name	Description
1	Coldharbour Lane	
2	Pump Lane	
3	Botwell Lane	
4	East Avenue	

### 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 - Coldharbour Lane	3.40	3.40	5.10	1.0	19.60	16.30	0.0	✓
2 - Pump Lane	4.70	4.70	6.00	1.0	16.80	9.90	0.0	✓
3 - Botwell Lane	4.50	4.50	9.20	24.0	20.00	19.40	0.0	✓
4 - East Avenue	3.60	3.60	3.60	0.0	11.00	9.00	0.0	✓

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Coldharbour Lane	0.552	902
2 - Pump Lane	0.555	919
3 - Botwell Lane	0.871	1985
4 - East Avenue	0.503	734

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

## Traffic Demand

### Demand Set Details

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

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	473	100.000
2 - Pump Lane		ONE HOUR	✓	415	100.000
3 - Botwell Lane		ONE HOUR	✓	555	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	0	200	248	25
2 - Pump Lane	111	0	284	20
3 - Botwell Lane	132	374	0	49
4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	0	0	0	0
2 - Pump Lane	0	0	0	0
3 - Botwell Lane	0	0	0	0
4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.77	23.11	3.2	C	434	651
2 - Pump Lane	0.61	12.17	1.5	B	381	571
3 - Botwell Lane	0.33	2.94	0.5	A	509	764
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	356	89	281	747	0.477	353	182	0.0	0.9	9.051	A
2 - Pump Lane	312	78	203	806	0.388	310	430	0.0	0.6	7.222	A
3 - Botwell Lane	418	104	116	1884	0.222	417	397	0.0	0.3	2.453	A
4 - East Avenue	0	0	463	501	0.000	0	70	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	425	106	336	716	0.594	423	218	0.9	1.4	12.188	B
2 - Pump Lane	373	93	244	783	0.476	372	515	0.6	0.9	8.728	A
3 - Botwell Lane	499	125	140	1863	0.268	499	476	0.3	0.4	2.637	A
4 - East Avenue	0	0	554	455	0.000	0	84	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	521	130	411	675	0.772	514	267	1.4	3.1	21.564	C
2 - Pump Lane	457	114	297	754	0.606	455	629	0.9	1.5	11.920	B
3 - Botwell Lane	611	153	171	1837	0.333	611	581	0.4	0.5	2.934	A
4 - East Avenue	0	0	678	393	0.000	0	103	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	521	130	412	675	0.772	520	268	3.1	3.2	23.108	C
2 - Pump Lane	457	114	300	752	0.607	457	632	1.5	1.5	12.174	B
3 - Botwell Lane	611	153	172	1836	0.333	611	585	0.5	0.5	2.939	A
4 - East Avenue	0	0	679	392	0.000	0	103	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	425	106	337	716	0.594	432	219	3.2	1.5	12.961	B
2 - Pump Lane	373	93	249	780	0.478	375	519	1.5	0.9	8.938	A
3 - Botwell Lane	499	125	141	1862	0.268	499	483	0.5	0.4	2.644	A
4 - East Avenue	0	0	556	455	0.000	0	85	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	356	89	282	746	0.477	358	183	1.5	0.9	9.336	A
2 - Pump Lane	312	78	207	804	0.389	314	433	0.9	0.6	7.356	A
3 - Botwell Lane	418	104	118	1883	0.222	418	403	0.4	0.3	2.458	A
4 - East Avenue	0	0	465	500	0.000	0	71	0.0	0.0	0.000	A

2016, 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 2 and 3 have 75% 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	1,2,3,4	14.18	B

### 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)	Run automatically
D2	2016	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	392	100.000
2 - Pump Lane		ONE HOUR	✓	591	100.000
3 - Botwell Lane		ONE HOUR	✓	649	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	169	193	30
	2 - Pump Lane	198	0	335	58
	3 - Botwell Lane	243	322	0	84
	4 - East Avenue	0	0	0	0

## Vehicle Mix

## Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.61	13.09	1.5	B	360	540
2 - Pump Lane	0.83	26.49	4.6	D	542	813
3 - Botwell Lane	0.42	3.61	0.7	A	596	893
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	295	74	242	768	0.384	293	330	0.0	0.6	7.526	A
2 - Pump Lane	445	111	166	826	0.538	440	368	0.0	1.1	9.219	A
3 - Botwell Lane	489	122	213	1800	0.272	487	394	0.0	0.4	2.741	A
4 - East Avenue	0	0	572	447	0.000	0	129	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	352	88	289	742	0.475	351	395	0.6	0.9	9.183	A
2 - Pump Lane	531	133	200	808	0.658	528	441	1.1	1.8	12.748	B
3 - Botwell Lane	583	146	256	1762	0.331	583	473	0.4	0.5	3.050	A
4 - East Avenue	0	0	685	390	0.000	0	154	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	432	108	354	706	0.611	429	482	0.9	1.5	12.863	B
2 - Pump Lane	651	163	244	783	0.831	641	539	1.8	4.3	23.792	C
3 - Botwell Lane	715	179	311	1715	0.417	714	575	0.5	0.7	3.592	A
4 - East Avenue	0	0	836	314	0.000	0	188	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	432	108	354	706	0.611	429	482	0.9	1.5	12.863	B
2 - Pump Lane	651	163	244	783	0.831	641	539	1.8	4.3	23.792	C
3 - Botwell Lane	715	179	311	1715	0.417	714	575	0.5	0.7	3.592	A
4 - East Avenue	0	0	836	314	0.000	0	188	0.0	0.0	0.000	A

1 - Coldharbour Lane	432	108	355	706	0.611	431	485	1.5	1.5	13.095	B
2 - Pump Lane	651	163	245	783	0.831	650	541	4.3	4.6	26.493	D
3 - Botwell Lane	715	179	314	1711	0.418	715	581	0.7	0.7	3.610	A
4 - East Avenue	0	0	840	312	0.000	0	189	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	352	88	290	742	0.475	355	400	1.5	0.9	9.364	A
2 - Pump Lane	531	133	202	807	0.659	541	443	4.6	2.0	14.049	B
3 - Botwell Lane	583	146	262	1757	0.332	584	482	0.7	0.5	3.073	A
4 - East Avenue	0	0	690	387	0.000	0	156	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	295	74	243	768	0.384	296	333	0.9	0.6	7.651	A
2 - Pump Lane	445	111	169	825	0.539	448	370	2.0	1.2	9.627	A
3 - Botwell Lane	489	122	217	1796	0.272	489	400	0.5	0.4	2.754	A
4 - East Avenue	0	0	576	444	0.000	0	130	0.0	0.0	0.000	A

## 2024 Baseline , 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 74% 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	508.32	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)	Run automatically
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A
4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F
2 - Pump Lane	439	110	384	706	0.622	444	721	3.1	1.9	15.415	C

3 - Botwell Lane	681	170	162	1844	0.369	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.000	0	112	0.0	0.0	0.000	A

## 2024 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	34.19	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)	Run automatically
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	83.37	12.3	F	468	702
2 - Pump Lane	0.88	39.84	6.7	E	543	815
3 - Botwell Lane	0.67	6.93	2.2	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.4	12.666	B
2 - Pump Lane	446	111	220	797	0.559	440	549	0.0	1.4	10.946	B
3 - Botwell Lane	785	196	207	1805	0.435	782	453	0.0	0.8	3.860	A
4 - East Avenue	0	0	820	321	0.000	0	169	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.4	2.5	20.338	C
2 - Pump Lane	532	133	263	773	0.689	528	658	1.4	2.3	15.955	C
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.2	4.749	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	533	627	2.5	9.6	56.857	F
2 - Pump Lane	652	163	310	747	0.873	637	796	2.3	5.9	32.494	D
3 - Botwell Lane	1148	287	299	1725	0.666	1145	648	1.2	2.1	6.785	A
4 - East Avenue	0	0	1199	131	0.000	0	245	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	550	632	9.6	12.3	83.372	F
2 - Pump Lane	652	163	319	742	0.879	648	804	5.9	6.7	39.839	E
3 - Botwell Lane	1148	287	305	1720	0.668	1148	663	2.1	2.2	6.926	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	496	523	12.3	3.0	32.353	D
2 - Pump Lane	532	133	288	759	0.701	548	678	6.7	2.7	20.004	C
3 - Botwell Lane	938	234	260	1759	0.533	941	576	2.2	1.3	4.867	A
4 - East Avenue	0	0	994	234	0.000	0	208	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	390	435	3.0	1.4	13.703	B
2 - Pump Lane	446	111	226	793	0.562	451	557	2.7	1.4	11.736	B
3 - Botwell Lane	785	196	213	1800	0.436	787	465	1.3	0.9	3.916	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2024 Baseline+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 74% 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	508.32	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)	Run automatically
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A

4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A
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#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F

2 - Pump Lane	439	110	384	706	0.62 2	444	721	3.1	1.9	15.415	C
3 - Botwell Lane	681	170	162	1844	0.36 9	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.00 0	0	112	0.0	0.0	0.000	A

## 2024 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	31.80	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)	Run automatically
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

## Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	78.30	11.6	F	468	702
2 - Pump Lane	0.88	36.67	6.2	E	543	815
3 - Botwell Lane	0.67	6.30	2.0	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.2	11.547	B
2 - Pump Lane	446	111	220	797	0.559	441	550	0.0	1.2	9.979	A
3 - Botwell Lane	785	196	208	1804	0.435	782	453	0.0	0.8	3.512	A
4 - East Avenue	0	0	821	321	0.000	0	169	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.2	2.3	18.570	C
2 - Pump Lane	532	133	264	773	0.689	529	658	1.2	2.1	14.549	B
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.1	4.320	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	535	628	2.3	9.0	53.337	F
2 - Pump Lane	652	163	310	747	0.873	638	796	2.1	5.5	30.058	D
3 - Botwell Lane	1148	287	300	1724	0.666	1145	649	1.1	2.0	6.180	A
4 - East Avenue	0	0	1200	131	0.000	0	245	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	551	632	9.0	11.6	78.296	F
2 - Pump Lane	652	163	320	741	0.879	649	805	5.5	6.2	36.673	E
3 - Botwell Lane	1148	287	305	1719	0.668	1148	664	2.0	2.0	6.301	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	494	523	11.6	2.7	28.939	D
2 - Pump Lane	532	133	287	760	0.701	547	677	6.2	2.5	17.985	C
3 - Botwell Lane	938	234	260	1759	0.533	941	574	2.0	1.2	4.417	A
4 - East Avenue	0	0	993	235	0.000	0	208	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	389	435	2.7	1.3	12.405	B
2 - Pump Lane	446	111	226	793	0.562	450	556	2.5	1.3	10.629	B
3 - Botwell Lane	785	196	212	1800	0.436	787	464	1.2	0.8	3.556	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2029 Baseline , 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 74% 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	552.40	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)	Run automatically
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	824	100.000
2 - Pump Lane		ONE HOUR	✓	593	100.000
3 - Botwell Lane		ONE HOUR	✓	919	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	333	450	41
	2 - Pump Lane	147	0	419	27
	3 - Botwell Lane	218	620	0	81
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.73	1531.97	275.5	F	756	1134
2 - Pump Lane	0.88	39.48	6.7	E	544	816
3 - Botwell Lane	0.56	5.05	1.4	A	843	1265
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	465	645	0.962	581	272	0.0	9.9	47.278	E
2 - Pump Lane	446	112	346	727	0.614	440	700	0.0	1.7	13.500	B
3 - Botwell Lane	692	173	158	1848	0.374	689	628	0.0	0.7	3.411	A
4 - East Avenue	0	0	738	363	0.000	0	110	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	557	595	1.246	590	327	9.9	47.6	198.261	F
2 - Pump Lane	533	133	352	724	0.737	528	795	1.7	2.9	19.784	C
3 - Botwell Lane	826	207	184	1825	0.453	825	696	0.7	0.9	3.958	A
4 - East Avenue	0	0	883	290	0.000	0	126	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	681	526	1.726	526	398	47.6	143.0	665.317	F
2 - Pump Lane	653	163	313	745	0.876	640	894	2.9	6.1	33.938	D
3 - Botwell Lane	1012	253	214	1799	0.562	1010	739	0.9	1.4	5.007	A
4 - East Avenue	0	0	1080	191	0.000	0	144	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	683	525	1.728	525	401	143.0	238.6	1318.596	F
2 - Pump Lane	653	163	313	745	0.876	650	895	6.1	6.7	39.479	E
3 - Botwell Lane	1012	253	217	1796	0.563	1012	746	1.4	1.4	5.047	A
4 - East Avenue	0	0	1084	189	0.000	0	145	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	559	593	1.248	593	332	238.6	275.5	1515.700	F

2 - Pump Lane	533	133	354	723	0.738	547	798	6.7	3.3	23.926	C
3 - Botwell Lane	826	207	190	1820	0.454	828	710	1.4	0.9	4.000	A
4 - East Avenue	0	0	891	286	0.000	0	127	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	467	644	0.964	641	276	275.5	270.2	1531.972	F
2 - Pump Lane	446	112	382	707	0.632	452	727	3.3	2.0	15.858	C
3 - Botwell Lane	692	173	165	1842	0.376	693	669	0.9	0.7	3.448	A
4 - East Avenue	0	0	744	360	0.000	0	114	0.0	0.0	0.000	A

## 2029 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	41.67	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)	Run automatically
D8	2029 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	522	100.000
2 - Pump Lane		ONE HOUR	✓	609	100.000

3 - Botwell Lane		ONE HOUR	✓	1061	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	219	265	38
	2 - Pump Lane	193	0	360	56
	3 - Botwell Lane	395	530	0	136
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.99	104.35	16.3	F	479	718
2 - Pump Lane	0.91	47.87	8.3	E	559	838
3 - Botwell Lane	0.68	7.26	2.3	A	974	1460
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	397	683	0.576	387	440	0.0	1.4	13.168	B
2 - Pump Lane	458	115	225	794	0.577	453	560	0.0	1.5	11.413	B
3 - Botwell Lane	799	200	213	1799	0.444	795	464	0.0	0.9	3.930	A
4 - East Avenue	0	0	837	313	0.000	0	172	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	476	639	0.734	464	527	1.4	2.8	21.906	C
2 - Pump Lane	547	137	269	769	0.712	543	670	1.5	2.6	17.158	C
3 - Botwell Lane	954	238	256	1762	0.541	952	557	0.9	1.3	4.877	A
4 - East Avenue	0	0	1002	230	0.000	0	206	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	582	581	0.990	539	640	2.8	11.7	65.963	F
2 - Pump Lane	671	168	313	745	0.900	653	808	2.6	7.0	37.071	E
3 - Botwell Lane	1168	292	306	1719	0.680	1164	659	1.3	2.3	7.092	A
4 - East Avenue	0	0	1222	120	0.000	0	248	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	583	580	0.991	557	646	11.7	16.3	104.349	F
2 - Pump Lane	671	168	323	740	0.907	665	817	7.0	8.3	47.875	E
3 - Botwell Lane	1168	292	313	1713	0.682	1168	676	2.3	2.3	7.262	A
4 - East Avenue	0	0	1229	116	0.000	0	251	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	478	638	0.736	521	537	16.3	3.4	43.429	E
2 - Pump Lane	547	137	302	751	0.729	568	697	8.3	3.2	23.601	C
3 - Botwell Lane	954	238	270	1750	0.545	958	600	2.3	1.3	5.025	A
4 - East Avenue	0	0	1015	224	0.000	0	213	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	400	681	0.577	400	445	3.4	1.6	14.465	B
2 - Pump Lane	458	115	232	790	0.580	465	568	3.2	1.6	12.417	B
3 - Botwell Lane	799	200	219	1794	0.445	801	478	1.3	0.9	3.993	A
4 - East Avenue	0	0	845	309	0.000	0	175	0.0	0.0	0.000	A

## 2029 Baseline+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 74% 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	552.40	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)	Run automatically
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	824	100.000
2 - Pump Lane		ONE HOUR	✓	593	100.000
3 - Botwell Lane		ONE HOUR	✓	919	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	333	450	41
	2 - Pump Lane	147	0	419	27
	3 - Botwell Lane	218	620	0	81
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.73	1531.97	275.5	F	756	1134
2 - Pump Lane	0.88	39.48	6.7	E	544	816
3 - Botwell Lane	0.56	5.05	1.4	A	843	1265
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	465	645	0.962	581	272	0.0	9.9	47.278	E
2 - Pump Lane	446	112	346	727	0.614	440	700	0.0	1.7	13.500	B
3 - Botwell Lane	692	173	158	1848	0.374	689	628	0.0	0.7	3.411	A
4 - East Avenue	0	0	738	363	0.000	0	110	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	557	595	1.246	590	327	9.9	47.6	198.261	F
2 - Pump Lane	533	133	352	724	0.737	528	795	1.7	2.9	19.784	C
3 - Botwell Lane	826	207	184	1825	0.453	825	696	0.7	0.9	3.958	A
4 - East Avenue	0	0	883	290	0.000	0	126	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	681	526	1.726	526	398	47.6	143.0	665.317	F
2 - Pump Lane	653	163	313	745	0.876	640	894	2.9	6.1	33.938	D
3 - Botwell Lane	1012	253	214	1799	0.562	1010	739	0.9	1.4	5.007	A
4 - East Avenue	0	0	1080	191	0.000	0	144	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	683	525	1.728	525	401	143.0	238.6	1318.596	F
2 - Pump Lane	653	163	313	745	0.876	650	895	6.1	6.7	39.479	E
3 - Botwell Lane	1012	253	217	1796	0.563	1012	746	1.4	1.4	5.047	A

4 - East Avenue	0	0	1084	189	0.00 0	0	145	0.0	0.0	0.000	A
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### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	559	593	1.24 8	593	332	238.6	275.5	1515.70 0	F
2 - Pump Lane	533	133	354	723	0.73 8	547	798	6.7	3.3	23.926	C
3 - Botwell Lane	826	207	190	1820	0.45 4	828	710	1.4	0.9	4.000	A
4 - East Avenue	0	0	891	286	0.00 0	0	127	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	467	644	0.96 4	641	276	275.5	270.2	1531.97 2	F
2 - Pump Lane	446	112	382	707	0.63 2	452	727	3.3	2.0	15.858	C
3 - Botwell Lane	692	173	165	1842	0.37 6	693	669	0.9	0.7	3.448	A
4 - East Avenue	0	0	744	360	0.00 0	0	114	0.0	0.0	0.000	A

## 2029 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	39.09	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)	Run automatically
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D10	2029 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓
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Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	522	100.000
2 - Pump Lane		ONE HOUR	✓	609	100.000
3 - Botwell Lane		ONE HOUR	✓	1061	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	219	265	38
	2 - Pump Lane	193	0	360	56
	3 - Botwell Lane	395	530	0	136
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.99	99.01	15.4	F	479	718
2 - Pump Lane	0.91	44.32	7.7	E	559	838
3 - Botwell Lane	0.68	6.60	2.1	A	974	1460
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	397	682	0.576	388	440	0.0	1.3	12.014	B
2 - Pump Lane	458	115	225	794	0.577	453	560	0.0	1.3	10.410	B
3 - Botwell Lane	799	200	214	1799	0.444	796	465	0.0	0.8	3.565	A
4 - East Avenue	0	0	837	313	0.000	0	172	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	476	639	0.734	464	527	1.3	2.6	20.012	C
2 - Pump Lane	547	137	270	769	0.712	543	671	1.3	2.3	15.656	C
3 - Botwell Lane	954	238	256	1762	0.541	952	557	0.8	1.2	4.437	A
4 - East Avenue	0	0	1002	230	0.000	0	206	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	582	581	0.990	540	641	2.6	11.1	62.251	F
2 - Pump Lane	671	168	314	745	0.900	654	808	2.3	6.5	34.436	D
3 - Botwell Lane	1168	292	307	1718	0.680	1165	661	1.2	2.1	6.460	A
4 - East Avenue	0	0	1222	119	0.000	0	249	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	583	580	0.991	558	646	11.1	15.4	99.009	F
2 - Pump Lane	671	168	324	739	0.907	666	817	6.5	7.7	44.321	E
3 - Botwell Lane	1168	292	313	1713	0.682	1168	677	2.1	2.1	6.604	A
4 - East Avenue	0	0	1229	116	0.000	0	252	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	478	638	0.736	519	536	15.4	3.1	39.019	E
2 - Pump Lane	547	137	301	752	0.728	567	696	7.7	2.9	21.170	C
3 - Botwell Lane	954	238	270	1750	0.545	957	598	2.1	1.2	4.561	A
4 - East Avenue	0	0	1014	224	0.000	0	213	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	400	681	0.577	400	445	3.1	1.4	13.076	B
2 - Pump Lane	458	115	232	790	0.580	464	567	2.9	1.4	11.237	B
3 - Botwell Lane	799	200	219	1795	0.445	800	477	1.2	0.8	3.628	A
4 - East Avenue	0	0	845	309	0.000	0	174	0.0	0.0	0.000	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []  
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**Filename:** J7- Botwell Ln- Pump Ln- Coldharbour Ln Mini Rounabout.j9

**Path:** C:\Users\Demetris Psyllides\Dropbox (Markides Associates)\Markides Associates Team

Folder\Projects\16018.01 - Former Nestle Site, Hayes\Technical\Arcady\2024 and 2029 scenarios

**Report generation date:** 23/01/2017 14:24:45

»2016, AM

»2016, PM

»2024 Baseline , AM

»2024 Baseline , PM

»2024 Baseline+Dev , AM

»2024 Baseline+Dev , PM

»2029 Baseline , AM

»2029 Baseline , PM

»2029 Baseline+Dev , AM

»2029 Baseline+Dev , PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2016</b>								
1 - Coldharbour Lane	3.2	23.11	0.77	C	1.5	13.09	0.61	B
2 - Pump Lane	1.5	12.17	0.61	B	4.6	26.49	0.83	D
3 - Botwell Lane	0.5	2.94	0.33	A	0.7	3.61	0.42	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2024 Baseline</b>								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	12.3	83.37	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.7	39.84	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.2	6.93	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2024 Baseline+Dev</b>								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	11.6	78.30	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.2	36.67	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.0	6.30	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2029 Baseline</b>								
1 - Coldharbour Lane	275.5	1531.97	1.73	F	16.3	104.35	0.99	F
2 - Pump Lane	6.7	39.48	0.88	E	8.3	47.87	0.91	E
3 - Botwell Lane	1.4	5.05	0.56	A	2.3	7.26	0.68	A

4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
<b>2029 Baseline+Dev</b>								
1 - Coldharbour Lane	275.5	1531.97	1.73	F	15.4	99.01	0.99	F
2 - Pump Lane	6.7	39.48	0.88	E	7.7	44.32	0.91	E
3 - Botwell Lane	1.4	5.05	0.56	A	2.1	6.60	0.68	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	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	19/11/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DEMETRIS-PSYLL\Demetris Psyllides
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	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016	PM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2029 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

## Analysis Set Details

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

# 2016, 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 71% 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	1,2,3,4	12.21	B

### Junction Network Options

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

## Arms

### Arms

Arm	Name	Description
1	Coldharbour Lane	
2	Pump Lane	
3	Botwell Lane	
4	East Avenue	

### 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 - Coldharbour Lane	3.40	3.40	5.10	1.0	19.60	16.30	0.0	✓
2 - Pump Lane	4.70	4.70	6.00	1.0	16.80	9.90	0.0	✓
3 - Botwell Lane	4.50	4.50	9.20	24.0	20.00	19.40	0.0	✓
4 - East Avenue	3.60	3.60	3.60	0.0	11.00	9.00	0.0	✓

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Coldharbour Lane	0.552	902
2 - Pump Lane	0.555	919
3 - Botwell Lane	0.871	1985
4 - East Avenue	0.503	734

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

## Traffic Demand

### Demand Set Details

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

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	473	100.000
2 - Pump Lane		ONE HOUR	✓	415	100.000
3 - Botwell Lane		ONE HOUR	✓	555	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To				
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	200	248	25
	2 - Pump Lane	111	0	284	20
	3 - Botwell Lane	132	374	0	49
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To				
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.77	23.11	3.2	C	434	651
2 - Pump Lane	0.61	12.17	1.5	B	381	571
3 - Botwell Lane	0.33	2.94	0.5	A	509	764
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	356	89	281	747	0.477	353	182	0.0	0.9	9.051	A
2 - Pump Lane	312	78	203	806	0.388	310	430	0.0	0.6	7.222	A
3 - Botwell Lane	418	104	116	1884	0.222	417	397	0.0	0.3	2.453	A
4 - East Avenue	0	0	463	501	0.000	0	70	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	425	106	336	716	0.594	423	218	0.9	1.4	12.188	B
2 - Pump Lane	373	93	244	783	0.476	372	515	0.6	0.9	8.728	A
3 - Botwell Lane	499	125	140	1863	0.268	499	476	0.3	0.4	2.637	A
4 - East Avenue	0	0	554	455	0.000	0	84	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	521	130	411	675	0.772	514	267	1.4	3.1	21.564	C
2 - Pump Lane	457	114	297	754	0.606	455	629	0.9	1.5	11.920	B
3 - Botwell Lane	611	153	171	1837	0.333	611	581	0.4	0.5	2.934	A
4 - East Avenue	0	0	678	393	0.000	0	103	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	521	130	412	675	0.772	520	268	3.1	3.2	23.108	C
2 - Pump Lane	457	114	300	752	0.607	457	632	1.5	1.5	12.174	B
3 - Botwell Lane	611	153	172	1836	0.333	611	585	0.5	0.5	2.939	A
4 - East Avenue	0	0	679	392	0.000	0	103	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	425	106	337	716	0.594	432	219	3.2	1.5	12.961	B
2 - Pump Lane	373	93	249	780	0.478	375	519	1.5	0.9	8.938	A
3 - Botwell Lane	499	125	141	1862	0.268	499	483	0.5	0.4	2.644	A
4 - East Avenue	0	0	556	455	0.000	0	85	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	356	89	282	746	0.477	358	183	1.5	0.9	9.336	A
2 - Pump Lane	312	78	207	804	0.389	314	433	0.9	0.6	7.356	A
3 - Botwell Lane	418	104	118	1883	0.222	418	403	0.4	0.3	2.458	A
4 - East Avenue	0	0	465	500	0.000	0	71	0.0	0.0	0.000	A

2016, 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 2 and 3 have 75% 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	1,2,3,4	14.18	B

### 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)	Run automatically
D2	2016	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	392	100.000
2 - Pump Lane		ONE HOUR	✓	591	100.000
3 - Botwell Lane		ONE HOUR	✓	649	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	169	193	30
	2 - Pump Lane	198	0	335	58
	3 - Botwell Lane	243	322	0	84
	4 - East Avenue	0	0	0	0

## Vehicle Mix

## Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.61	13.09	1.5	B	360	540
2 - Pump Lane	0.83	26.49	4.6	D	542	813
3 - Botwell Lane	0.42	3.61	0.7	A	596	893
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	295	74	242	768	0.384	293	330	0.0	0.6	7.526	A
2 - Pump Lane	445	111	166	826	0.538	440	368	0.0	1.1	9.219	A
3 - Botwell Lane	489	122	213	1800	0.272	487	394	0.0	0.4	2.741	A
4 - East Avenue	0	0	572	447	0.000	0	129	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	352	88	289	742	0.475	351	395	0.6	0.9	9.183	A
2 - Pump Lane	531	133	200	808	0.658	528	441	1.1	1.8	12.748	B
3 - Botwell Lane	583	146	256	1762	0.331	583	473	0.4	0.5	3.050	A
4 - East Avenue	0	0	685	390	0.000	0	154	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	432	108	354	706	0.611	429	482	0.9	1.5	12.863	B
2 - Pump Lane	651	163	244	783	0.831	641	539	1.8	4.3	23.792	C
3 - Botwell Lane	715	179	311	1715	0.417	714	575	0.5	0.7	3.592	A
4 - East Avenue	0	0	836	314	0.000	0	188	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	432	108	354	706	0.611	429	482	0.9	1.5	12.863	B
2 - Pump Lane	651	163	244	783	0.831	641	539	1.8	4.3	23.792	C
3 - Botwell Lane	715	179	311	1715	0.417	714	575	0.5	0.7	3.592	A
4 - East Avenue	0	0	836	314	0.000	0	188	0.0	0.0	0.000	A

1 - Coldharbour Lane	432	108	355	706	0.611	431	485	1.5	1.5	13.095	B
2 - Pump Lane	651	163	245	783	0.831	650	541	4.3	4.6	26.493	D
3 - Botwell Lane	715	179	314	1711	0.418	715	581	0.7	0.7	3.610	A
4 - East Avenue	0	0	840	312	0.000	0	189	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	352	88	290	742	0.475	355	400	1.5	0.9	9.364	A
2 - Pump Lane	531	133	202	807	0.659	541	443	4.6	2.0	14.049	B
3 - Botwell Lane	583	146	262	1757	0.332	584	482	0.7	0.5	3.073	A
4 - East Avenue	0	0	690	387	0.000	0	156	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	295	74	243	768	0.384	296	333	0.9	0.6	7.651	A
2 - Pump Lane	445	111	169	825	0.539	448	370	2.0	1.2	9.627	A
3 - Botwell Lane	489	122	217	1796	0.272	489	400	0.5	0.4	2.754	A
4 - East Avenue	0	0	576	444	0.000	0	130	0.0	0.0	0.000	A

## 2024 Baseline , 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 74% 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	508.32	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)	Run automatically
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A
4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F
2 - Pump Lane	439	110	384	706	0.622	444	721	3.1	1.9	15.415	C

3 - Botwell Lane	681	170	162	1844	0.369	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.000	0	112	0.0	0.0	0.000	A

## 2024 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	34.19	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)	Run automatically
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	83.37	12.3	F	468	702
2 - Pump Lane	0.88	39.84	6.7	E	543	815
3 - Botwell Lane	0.67	6.93	2.2	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.4	12.666	B
2 - Pump Lane	446	111	220	797	0.559	440	549	0.0	1.4	10.946	B
3 - Botwell Lane	785	196	207	1805	0.435	782	453	0.0	0.8	3.860	A
4 - East Avenue	0	0	820	321	0.000	0	169	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.4	2.5	20.338	C
2 - Pump Lane	532	133	263	773	0.689	528	658	1.4	2.3	15.955	C
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.2	4.749	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	533	627	2.5	9.6	56.857	F
2 - Pump Lane	652	163	310	747	0.873	637	796	2.3	5.9	32.494	D
3 - Botwell Lane	1148	287	299	1725	0.666	1145	648	1.2	2.1	6.785	A
4 - East Avenue	0	0	1199	131	0.000	0	245	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	550	632	9.6	12.3	83.372	F
2 - Pump Lane	652	163	319	742	0.879	648	804	5.9	6.7	39.839	E
3 - Botwell Lane	1148	287	305	1720	0.668	1148	663	2.1	2.2	6.926	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	496	523	12.3	3.0	32.353	D
2 - Pump Lane	532	133	288	759	0.701	548	678	6.7	2.7	20.004	C
3 - Botwell Lane	938	234	260	1759	0.533	941	576	2.2	1.3	4.867	A
4 - East Avenue	0	0	994	234	0.000	0	208	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	390	435	3.0	1.4	13.703	B
2 - Pump Lane	446	111	226	793	0.562	451	557	2.7	1.4	11.736	B
3 - Botwell Lane	785	196	213	1800	0.436	787	465	1.3	0.9	3.916	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2024 Baseline+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 74% 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	508.32	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)	Run automatically
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

## Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A

4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A
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#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F

2 - Pump Lane	439	110	384	706	0.62 2	444	721	3.1	1.9	15.415	C
3 - Botwell Lane	681	170	162	1844	0.36 9	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.00 0	0	112	0.0	0.0	0.000	A

## 2024 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	31.80	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)	Run automatically
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

## Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	78.30	11.6	F	468	702
2 - Pump Lane	0.88	36.67	6.2	E	543	815
3 - Botwell Lane	0.67	6.30	2.0	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.2	11.547	B
2 - Pump Lane	446	111	220	797	0.559	441	550	0.0	1.2	9.979	A
3 - Botwell Lane	785	196	208	1804	0.435	782	453	0.0	0.8	3.512	A
4 - East Avenue	0	0	821	321	0.000	0	169	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.2	2.3	18.570	C
2 - Pump Lane	532	133	264	773	0.689	529	658	1.2	2.1	14.549	B
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.1	4.320	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	535	628	2.3	9.0	53.337	F
2 - Pump Lane	652	163	310	747	0.873	638	796	2.1	5.5	30.058	D
3 - Botwell Lane	1148	287	300	1724	0.666	1145	649	1.1	2.0	6.180	A
4 - East Avenue	0	0	1200	131	0.000	0	245	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	551	632	9.0	11.6	78.296	F
2 - Pump Lane	652	163	320	741	0.879	649	805	5.5	6.2	36.673	E
3 - Botwell Lane	1148	287	305	1719	0.668	1148	664	2.0	2.0	6.301	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	494	523	11.6	2.7	28.939	D
2 - Pump Lane	532	133	287	760	0.701	547	677	6.2	2.5	17.985	C
3 - Botwell Lane	938	234	260	1759	0.533	941	574	2.0	1.2	4.417	A
4 - East Avenue	0	0	993	235	0.000	0	208	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	389	435	2.7	1.3	12.405	B
2 - Pump Lane	446	111	226	793	0.562	450	556	2.5	1.3	10.629	B
3 - Botwell Lane	785	196	212	1800	0.436	787	464	1.2	0.8	3.556	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2029 Baseline , 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 74% 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	552.40	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)	Run automatically
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	824	100.000
2 - Pump Lane		ONE HOUR	✓	593	100.000
3 - Botwell Lane		ONE HOUR	✓	919	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	0	333	450	41
2 - Pump Lane	147	0	419	27
3 - Botwell Lane	218	620	0	81
4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

	To			
	1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From				
1 - Coldharbour Lane	10	10	10	10
2 - Pump Lane	10	10	10	10
3 - Botwell Lane	10	10	10	10
4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.73	1531.97	275.5	F	756	1134
2 - Pump Lane	0.88	39.48	6.7	E	544	816
3 - Botwell Lane	0.56	5.05	1.4	A	843	1265
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	465	645	0.962	581	272	0.0	9.9	47.278	E
2 - Pump Lane	446	112	346	727	0.614	440	700	0.0	1.7	13.500	B
3 - Botwell Lane	692	173	158	1848	0.374	689	628	0.0	0.7	3.411	A
4 - East Avenue	0	0	738	363	0.000	0	110	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	557	595	1.246	590	327	9.9	47.6	198.261	F
2 - Pump Lane	533	133	352	724	0.737	528	795	1.7	2.9	19.784	C
3 - Botwell Lane	826	207	184	1825	0.453	825	696	0.7	0.9	3.958	A
4 - East Avenue	0	0	883	290	0.000	0	126	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	681	526	1.726	526	398	47.6	143.0	665.317	F
2 - Pump Lane	653	163	313	745	0.876	640	894	2.9	6.1	33.938	D
3 - Botwell Lane	1012	253	214	1799	0.562	1010	739	0.9	1.4	5.007	A
4 - East Avenue	0	0	1080	191	0.000	0	144	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	683	525	1.728	525	401	143.0	238.6	1318.596	F
2 - Pump Lane	653	163	313	745	0.876	650	895	6.1	6.7	39.479	E
3 - Botwell Lane	1012	253	217	1796	0.563	1012	746	1.4	1.4	5.047	A
4 - East Avenue	0	0	1084	189	0.000	0	145	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	559	593	1.248	593	332	238.6	275.5	1515.700	F

2 - Pump Lane	533	133	354	723	0.738	547	798	6.7	3.3	23.926	C
3 - Botwell Lane	826	207	190	1820	0.454	828	710	1.4	0.9	4.000	A
4 - East Avenue	0	0	891	286	0.000	0	127	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	467	644	0.964	641	276	275.5	270.2	1531.972	F
2 - Pump Lane	446	112	382	707	0.632	452	727	3.3	2.0	15.858	C
3 - Botwell Lane	692	173	165	1842	0.376	693	669	0.9	0.7	3.448	A
4 - East Avenue	0	0	744	360	0.000	0	114	0.0	0.0	0.000	A

## 2029 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	41.67	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)	Run automatically
D8	2029 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	522	100.000
2 - Pump Lane		ONE HOUR	✓	609	100.000

3 - Botwell Lane		ONE HOUR	✓	1061	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	219	265	38
	2 - Pump Lane	193	0	360	56
	3 - Botwell Lane	395	530	0	136
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.99	104.35	16.3	F	479	718
2 - Pump Lane	0.91	47.87	8.3	E	559	838
3 - Botwell Lane	0.68	7.26	2.3	A	974	1460
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	397	683	0.576	387	440	0.0	1.4	13.168	B
2 - Pump Lane	458	115	225	794	0.577	453	560	0.0	1.5	11.413	B
3 - Botwell Lane	799	200	213	1799	0.444	795	464	0.0	0.9	3.930	A
4 - East Avenue	0	0	837	313	0.000	0	172	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	476	639	0.734	464	527	1.4	2.8	21.906	C
2 - Pump Lane	547	137	269	769	0.712	543	670	1.5	2.6	17.158	C
3 - Botwell Lane	954	238	256	1762	0.541	952	557	0.9	1.3	4.877	A
4 - East Avenue	0	0	1002	230	0.000	0	206	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	582	581	0.990	539	640	2.8	11.7	65.963	F
2 - Pump Lane	671	168	313	745	0.900	653	808	2.6	7.0	37.071	E
3 - Botwell Lane	1168	292	306	1719	0.680	1164	659	1.3	2.3	7.092	A
4 - East Avenue	0	0	1222	120	0.000	0	248	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	583	580	0.991	557	646	11.7	16.3	104.349	F
2 - Pump Lane	671	168	323	740	0.907	665	817	7.0	8.3	47.875	E
3 - Botwell Lane	1168	292	313	1713	0.682	1168	676	2.3	2.3	7.262	A
4 - East Avenue	0	0	1229	116	0.000	0	251	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	478	638	0.736	521	537	16.3	3.4	43.429	E
2 - Pump Lane	547	137	302	751	0.729	568	697	8.3	3.2	23.601	C
3 - Botwell Lane	954	238	270	1750	0.545	958	600	2.3	1.3	5.025	A
4 - East Avenue	0	0	1015	224	0.000	0	213	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	400	681	0.577	400	445	3.4	1.6	14.465	B
2 - Pump Lane	458	115	232	790	0.580	465	568	3.2	1.6	12.417	B
3 - Botwell Lane	799	200	219	1794	0.445	801	478	1.3	0.9	3.993	A
4 - East Avenue	0	0	845	309	0.000	0	175	0.0	0.0	0.000	A

## 2029 Baseline+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 74% 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	552.40	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)	Run automatically
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	824	100.000
2 - Pump Lane		ONE HOUR	✓	593	100.000
3 - Botwell Lane		ONE HOUR	✓	919	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	333	450	41
	2 - Pump Lane	147	0	419	27
	3 - Botwell Lane	218	620	0	81
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.73	1531.97	275.5	F	756	1134
2 - Pump Lane	0.88	39.48	6.7	E	544	816
3 - Botwell Lane	0.56	5.05	1.4	A	843	1265
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	465	645	0.962	581	272	0.0	9.9	47.278	E
2 - Pump Lane	446	112	346	727	0.614	440	700	0.0	1.7	13.500	B
3 - Botwell Lane	692	173	158	1848	0.374	689	628	0.0	0.7	3.411	A
4 - East Avenue	0	0	738	363	0.000	0	110	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	557	595	1.246	590	327	9.9	47.6	198.261	F
2 - Pump Lane	533	133	352	724	0.737	528	795	1.7	2.9	19.784	C
3 - Botwell Lane	826	207	184	1825	0.453	825	696	0.7	0.9	3.958	A
4 - East Avenue	0	0	883	290	0.000	0	126	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	681	526	1.726	526	398	47.6	143.0	665.317	F
2 - Pump Lane	653	163	313	745	0.876	640	894	2.9	6.1	33.938	D
3 - Botwell Lane	1012	253	214	1799	0.562	1010	739	0.9	1.4	5.007	A
4 - East Avenue	0	0	1080	191	0.000	0	144	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	907	227	683	525	1.728	525	401	143.0	238.6	1318.596	F
2 - Pump Lane	653	163	313	745	0.876	650	895	6.1	6.7	39.479	E
3 - Botwell Lane	1012	253	217	1796	0.563	1012	746	1.4	1.4	5.047	A

4 - East Avenue	0	0	1084	189	0.000	0	145	0.0	0.0	0.000	A
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### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	741	185	559	593	1.248	593	332	238.6	275.5	1515.700	F
2 - Pump Lane	533	133	354	723	0.738	547	798	6.7	3.3	23.926	C
3 - Botwell Lane	826	207	190	1820	0.454	828	710	1.4	0.9	4.000	A
4 - East Avenue	0	0	891	286	0.000	0	127	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	620	155	467	644	0.964	641	276	275.5	270.2	1531.972	F
2 - Pump Lane	446	112	382	707	0.632	452	727	3.3	2.0	15.858	C
3 - Botwell Lane	692	173	165	1842	0.376	693	669	0.9	0.7	3.448	A
4 - East Avenue	0	0	744	360	0.000	0	114	0.0	0.0	0.000	A

## 2029 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	39.09	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)	Run automatically
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D10	2029 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓
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Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	522	100.000
2 - Pump Lane		ONE HOUR	✓	609	100.000
3 - Botwell Lane		ONE HOUR	✓	1061	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	219	265	38
	2 - Pump Lane	193	0	360	56
	3 - Botwell Lane	395	530	0	136
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	0	0	0
	2 - Pump Lane	0	0	0	0
	3 - Botwell Lane	0	0	0	0
	4 - East Avenue	0	0	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.99	99.01	15.4	F	479	718
2 - Pump Lane	0.91	44.32	7.7	E	559	838
3 - Botwell Lane	0.68	6.60	2.1	A	974	1460
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	397	682	0.576	388	440	0.0	1.3	12.014	B
2 - Pump Lane	458	115	225	794	0.577	453	560	0.0	1.3	10.410	B
3 - Botwell Lane	799	200	214	1799	0.444	796	465	0.0	0.8	3.565	A
4 - East Avenue	0	0	837	313	0.000	0	172	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	476	639	0.734	464	527	1.3	2.6	20.012	C
2 - Pump Lane	547	137	270	769	0.712	543	671	1.3	2.3	15.656	C
3 - Botwell Lane	954	238	256	1762	0.541	952	557	0.8	1.2	4.437	A
4 - East Avenue	0	0	1002	230	0.000	0	206	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	582	581	0.990	540	641	2.6	11.1	62.251	F
2 - Pump Lane	671	168	314	745	0.900	654	808	2.3	6.5	34.436	D
3 - Botwell Lane	1168	292	307	1718	0.680	1165	661	1.2	2.1	6.460	A
4 - East Avenue	0	0	1222	119	0.000	0	249	0.0	0.0	0.000	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	575	144	583	580	0.991	558	646	11.1	15.4	99.009	F
2 - Pump Lane	671	168	324	739	0.907	666	817	6.5	7.7	44.321	E
3 - Botwell Lane	1168	292	313	1713	0.682	1168	677	2.1	2.1	6.604	A
4 - East Avenue	0	0	1229	116	0.000	0	252	0.0	0.0	0.000	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	469	117	478	638	0.736	519	536	15.4	3.1	39.019	E
2 - Pump Lane	547	137	301	752	0.728	567	696	7.7	2.9	21.170	C
3 - Botwell Lane	954	238	270	1750	0.545	957	598	2.1	1.2	4.561	A
4 - East Avenue	0	0	1014	224	0.000	0	213	0.0	0.0	0.000	A

#### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	393	98	400	681	0.577	400	445	3.1	1.4	13.076	B
2 - Pump Lane	458	115	232	790	0.580	464	567	2.9	1.4	11.237	B
3 - Botwell Lane	799	200	219	1795	0.445	800	477	1.2	0.8	3.628	A
4 - East Avenue	0	0	845	309	0.000	0	174	0.0	0.0	0.000	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []  
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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:** J7- Botwell Ln- Pump Ln- Coldharbour Ln Mini Rounabout.j9

**Path:** C:\Users\Demetris Psyllides\Dropbox (Markides Associates)\Markides Associates Team Folder\Projects\16018.01 - Former Nestle Site, Hayes\Technical\Arcady\2024 Cumulative

**Report generation date:** 24/01/2017 10:09:20

- »2024 Baseline , AM
- »2024 Baseline , PM
- »2024 Baseline+Dev , AM
- »2024 Baseline+Dev , PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2024 Baseline								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	12.3	83.37	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.7	39.84	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.2	6.93	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2024 Baseline+Dev								
1 - Coldharbour Lane	256.0	1408.55	1.68	F	11.6	78.30	0.96	F
2 - Pump Lane	6.1	36.61	0.86	E	6.2	36.67	0.88	E
3 - Botwell Lane	1.4	4.93	0.55	A	2.0	6.30	0.67	A
4 - East Avenue	0.0	0.00	0.00	A	0.0	0.00	0.00	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	19/11/2016
Version	
Status	(new file)
Identifier	

Client	
Jobnumber	
Enumerator	DEMETRIS-PSYLLI\Demetris Psyllides
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	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

## Analysis Set Details

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

# 2024 Baseline , 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 74% 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	508.32	F

### Junction Network Options

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

## Arms

### Arms

Arm	Name	Description
-----	------	-------------

1	Coldharbour Lane	
2	Pump Lane	
3	Botwell Lane	
4	East Avenue	

### 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 - Coldharbour Lane	3.40	3.40	5.10	1.0	19.60	16.30	0.0	✓
2 - Pump Lane	4.70	4.70	6.00	1.0	16.80	9.90	0.0	✓
3 - Botwell Lane	4.50	4.50	9.20	24.0	20.00	19.40	0.0	✓
4 - East Avenue	3.60	3.60	3.60	0.0	11.00	9.00	0.0	✓

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Coldharbour Lane	0.552	902
2 - Pump Lane	0.555	919
3 - Botwell Lane	0.871	1985
4 - East Avenue	0.503	734

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A
4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C
3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F

2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F
2 - Pump Lane	439	110	384	706	0.622	444	721	3.1	1.9	15.415	C
3 - Botwell Lane	681	170	162	1844	0.369	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.000	0	112	0.0	0.0	0.000	A

# 2024 Baseline , 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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	34.19	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)	Run automatically
D4	2024 Baseline	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	0.96	83.37	12.3	F	468	702
2 - Pump Lane	0.88	39.84	6.7	E	543	815
3 - Botwell Lane	0.67	6.93	2.2	A	957	1436
4 - East Avenue	0.00	0.00	0.0	A	0	0

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	391	686	0.560	379	430	0.0	1.4	12.666	B
2 - Pump Lane	446	111	220	797	0.559	440	549	0.0	1.4	10.946	B
3 - Botwell Lane	785	196	207	1805	0.435	782	453	0.0	0.8	3.860	A
4 - East Avenue	0	0	820	321	0.000	0	169	0.0	0.0	0.000	A

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	468	644	0.712	454	515	1.4	2.5	20.338	C
2 - Pump Lane	532	133	263	773	0.689	528	658	1.4	2.3	15.955	C
3 - Botwell Lane	938	234	249	1768	0.530	936	543	0.8	1.2	4.749	A
4 - East Avenue	0	0	983	240	0.000	0	202	0.0	0.0	0.000	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	572	586	0.958	533	627	2.5	9.6	56.857	F
2 - Pump Lane	652	163	310	747	0.873	637	796	2.3	5.9	32.494	D
3 - Botwell Lane	1148	287	299	1725	0.666	1145	648	1.2	2.1	6.785	A
4 - East Avenue	0	0	1199	131	0.000	0	245	0.0	0.0	0.000	A

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	562	140	574	585	0.960	550	632	9.6	12.3	83.372	F
2 - Pump Lane	652	163	319	742	0.879	648	804	5.9	6.7	39.839	E
3 - Botwell Lane	1148	287	305	1720	0.668	1148	663	2.1	2.2	6.926	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	496	523	12.3	3.0	32.353	D
2 - Pump Lane	532	133	288	759	0.701	548	678	6.7	2.7	20.004	C
3 - Botwell Lane	938	234	260	1759	0.533	941	576	2.2	1.3	4.867	A
4 - East Avenue	0	0	994	234	0.000	0	208	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	390	435	3.0	1.4	13.703	B
2 - Pump Lane	446	111	226	793	0.562	451	557	2.7	1.4	11.736	B
3 - Botwell Lane	785	196	213	1800	0.436	787	465	1.3	0.9	3.916	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

## 2024 Baseline+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 74% 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	508.32	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)	Run automatically
D5	2024 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	811	100.000
2 - Pump Lane		ONE HOUR	✓	583	100.000
3 - Botwell Lane		ONE HOUR	✓	904	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

## Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	328	443	40
	2 - Pump Lane	144	0	412	27
	3 - Botwell Lane	215	610	0	79
	4 - East Avenue	0	0	0	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	10	10	10	10
	2 - Pump Lane	10	10	10	10
	3 - Botwell Lane	10	10	10	10
	4 - East Avenue	10	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Coldharbour Lane	1.68	1408.55	256.0	F	744	1116
2 - Pump Lane	0.86	36.61	6.1	E	535	802
3 - Botwell Lane	0.55	4.93	1.4	A	830	1244
4 - East Avenue	0.00	0.00	0.0	A	0	0

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	458	649	0.940	576	268	0.0	8.6	43.043	E
2 - Pump Lane	439	110	343	728	0.603	432	690	0.0	1.6	13.115	B
3 - Botwell Lane	681	170	155	1850	0.368	678	620	0.0	0.6	3.372	A
4 - East Avenue	0	0	726	369	0.000	0	108	0.0	0.0	0.000	A

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	548	599	1.216	594	321	8.6	42.5	177.234	F
2 - Pump Lane	524	131	353	723	0.725	520	788	1.6	2.7	19.082	C

3 - Botwell Lane	813	203	182	1827	0.445	812	691	0.6	0.9	3.897	A
4 - East Avenue	0	0	869	297	0.000	0	124	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	670	532	1.679	532	392	42.5	132.9	606.823	F
2 - Pump Lane	642	160	317	743	0.864	630	885	2.7	5.6	32.022	D
3 - Botwell Lane	995	249	211	1801	0.553	993	736	0.9	1.3	4.891	A
4 - East Avenue	0	0	1062	200	0.000	0	142	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	893	223	672	531	1.681	531	395	132.9	223.4	1217.537	F
2 - Pump Lane	642	160	316	743	0.864	640	886	5.6	6.1	36.608	E
3 - Botwell Lane	995	249	214	1799	0.553	995	742	1.3	1.4	4.927	A
4 - East Avenue	0	0	1066	198	0.000	0	143	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	729	182	550	598	1.218	598	326	223.4	256.0	1408.548	F
2 - Pump Lane	524	131	356	721	0.727	536	792	6.1	3.1	22.591	C
3 - Botwell Lane	813	203	187	1823	0.446	815	706	1.4	0.9	3.935	A
4 - East Avenue	0	0	876	294	0.000	0	126	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	611	153	460	648	0.942	645	272	256.0	247.4	1404.627	F
2 - Pump Lane	439	110	384	706	0.622	444	721	3.1	1.9	15.415	C
3 - Botwell Lane	681	170	162	1844	0.369	682	666	0.9	0.6	3.411	A
4 - East Avenue	0	0	732	366	0.000	0	112	0.0	0.0	0.000	A

2024 Baseline+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 72% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 76% 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	1,2,3,4	31.80	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)	Run automatically
D6	2024 Baseline+Dev	PM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Coldharbour Lane		ONE HOUR	✓	510	100.000
2 - Pump Lane		ONE HOUR	✓	592	100.000
3 - Botwell Lane		ONE HOUR	✓	1043	100.000
4 - East Avenue		ONE HOUR	✓	0	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		1 - Coldharbour Lane	2 - Pump Lane	3 - Botwell Lane	4 - East Avenue
From	1 - Coldharbour Lane	0	214	259	37
	2 - Pump Lane	187	0	350	55
	3 - Botwell Lane	388	521	0	134
	4 - East Avenue	0	0	0	0

## Vehicle Mix



1 - Coldharbour Lane	562	140	574	585	0.960	551	632	9.0	11.6	78.296	F
2 - Pump Lane	652	163	320	741	0.879	649	805	5.5	6.2	36.673	E
3 - Botwell Lane	1148	287	305	1719	0.668	1148	664	2.0	2.0	6.301	A
4 - East Avenue	0	0	1206	128	0.000	0	248	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	458	115	470	642	0.714	494	523	11.6	2.7	28.939	D
2 - Pump Lane	532	133	287	760	0.701	547	677	6.2	2.5	17.985	C
3 - Botwell Lane	938	234	260	1759	0.533	941	574	2.0	1.2	4.417	A
4 - East Avenue	0	0	993	235	0.000	0	208	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Coldharbour Lane	384	96	393	685	0.561	389	435	2.7	1.3	12.405	B
2 - Pump Lane	446	111	226	793	0.562	450	556	2.5	1.3	10.629	B
3 - Botwell Lane	785	196	212	1800	0.436	787	464	1.2	0.8	3.556	A
4 - East Avenue	0	0	828	318	0.000	0	171	0.0	0.0	0.000	A

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []  
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**Filename:** J4 - Botwell Ln- Church Rd Mini Roundabout.j9

**Path:** C:\Users\Demetris Psyllides\Dropbox (Markides Associates)\Markides Associates Team Folder\Projects\16018.01 - Former Nestle Site, Hayes\Technical\Arcady\2029 Cumulative

**Report generation date:** 24/01/2017 15:17:58

- »2029 Baseline, AM
- »2029 Baseline, PM
- »2029 Baseline+Dev, AM
- »2029 Baseline+Dev, PM

### Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
<b>2029 Baseline</b>								
1 - Church Rd	48.3	259.09	1.15	F	2.2	20.97	0.68	C
2 - Botwell Lane (S)	307.8	1652.27	1.57	F	151.1	702.18	1.33	F
3 - Botwell Lane (W)	10.6	52.20	0.93	F	20.3	91.75	1.00	F
<b>2029 Baseline+Dev</b>								
1 - Church Rd	48.3	259.09	1.15	F	2.2	20.97	0.68	C
2 - Botwell Lane (S)	307.8	1652.27	1.57	F	151.1	702.18	1.33	F
3 - Botwell Lane (W)	10.6	52.20	0.93	F	20.3	91.75	1.00	F

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

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

### File summary

#### File Description

Title	(untitled)
Location	
Site number	
Date	19/11/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	

Enumerator	DEMETRIS-PSYLLIDemetris Psyllides
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	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2029 Baseline+Dev	PM	ONE HOUR	16:45	18:15	15	✓

## Analysis Set Details

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

# 2029 Baseline, 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	782.53	F

### Junction Network Options

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

## Arms

### Arms

Arm	Name	Description
1	Church Rd	
2	Botwell Lane (S)	
3	Botwell Lane (W)	

### 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 - Church Rd	3.50	3.50	5.50	1.0	15.30	11.00	0.0	✓
2 - Botwell Lane (S)	3.20	3.20	4.30	1.0	14.80	12.80	0.0	✓
3 - Botwell Lane (W)	3.60	3.60	5.00	1.0	14.80	11.30	0.0	✓

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Church Rd	0.512	886
2 - Botwell Lane (S)	0.504	849
3 - Botwell Lane (W)	0.515	885

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

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Church Rd		ONE HOUR	✓	576	100.000
2 - Botwell Lane (S)		ONE HOUR	✓	942	100.000
3 - Botwell Lane (W)		ONE HOUR	✓	709	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
From	1 - Church Rd	0	183	393
	2 - Botwell Lane (S)	127	0	815
	3 - Botwell Lane (W)	111	598	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
From	1 - Church Rd	10	10	10
	2 - Botwell Lane (S)	10	10	10
	3 - Botwell Lane (W)	10	10	10

# Results

## Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Church Rd	1.15	259.09	48.3	F	529	793
2 - Botwell Lane (S)	1.57	1652.27	307.8	F	864	1297
3 - Botwell Lane (W)	0.93	52.20	10.6	F	651	976

## Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	434	108	444	658	0.659	426	170	0.0	2.0	16.496	C
2 - Botwell Lane (S)	709	177	290	703	1.009	652	579	0.0	14.2	55.457	F
3 - Botwell Lane (W)	534	133	88	840	0.635	526	855	0.0	1.8	12.354	B

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	518	129	533	613	0.845	506	190	2.0	4.9	33.997	D
2 - Botwell Lane (S)	847	212	346	675	1.254	672	694	14.2	57.9	209.360	F
3 - Botwell Lane (W)	637	159	91	839	0.760	632	927	1.8	3.2	18.637	C

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	634	159	639	559	1.135	546	208	4.9	27.0	125.056	F
2 - Botwell Lane (S)	1037	259	372	662	1.567	662	812	57.9	151.8	581.142	F
3 - Botwell Lane (W)	781	195	89	839	0.930	758	945	3.2	9.0	40.034	E

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	634	159	653	551	1.150	549	210	27.0	48.3	259.091	F
2 - Botwell Lane (S)	1037	259	374	661	1.570	661	827	151.8	245.9	1102.896	F
3 - Botwell Lane (W)	781	195	89	840	0.930	774	946	9.0	10.6	52.202	F

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	518	129	561	599	0.865	585	191	48.3	31.4	246.517	F
2 - Botwell Lane (S)	847	212	399	648	1.307	648	747	245.9	295.6	1500.459	F

3 - Botwell Lane (W)	637	159	87	840	0.758	665	960	10.6	3.8	25.253	D
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### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	434	108	456	652	0.665	550	174	31.4	2.4	68.661	F
2 - Botwell Lane (S)	709	177	375	660	1.074	660	631	295.6	307.8	1652.270	F
3 - Botwell Lane (W)	534	133	89	840	0.636	541	946	3.8	2.0	13.551	B

## 2029 Baseline, 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 2 and 3 have 81% 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	350.41	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)	Run automatically
D8	2029 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Church Rd		ONE HOUR	✓	361	100.000
2 - Botwell Lane (S)		ONE HOUR	✓	880	100.000
3 - Botwell Lane (W)		ONE HOUR	✓	737	100.000

## Origin-Destination Data

## Demand (PCU/hr)

		To		
		1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
From	1 - Church Rd	0	146	215
	2 - Botwell Lane (S)	165	0	715
	3 - Botwell Lane (W)	188	549	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
From	1 - Church Rd	10	10	10
	2 - Botwell Lane (S)	10	10	10
	3 - Botwell Lane (W)	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Church Rd	0.68	20.97	2.2	C	331	497
2 - Botwell Lane (S)	1.33	702.18	151.1	F	808	1211
3 - Botwell Lane (W)	1.00	91.75	20.3	F	676	1014

### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	272	68	407	677	0.401	269	259	0.0	0.7	9.629	A
2 - Botwell Lane (S)	663	166	160	769	0.862	641	516	0.0	5.5	27.439	D
3 - Botwell Lane (W)	555	139	120	824	0.674	546	681	0.0	2.2	13.879	B

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	325	81	487	636	0.510	323	303	0.7	1.1	12.579	B
2 - Botwell Lane (S)	791	198	192	753	1.051	728	618	5.5	21.4	83.306	F
3 - Botwell Lane (W)	663	166	136	815	0.813	654	784	2.2	4.2	23.448	C

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	397	99	573	592	0.671	393	333	1.1	2.1	19.530	C

2 - Botwell Lane (S)	969	242	234	731	1.325	730	732	21.4	81.2	266.069	F
3 - Botwell Lane (W)	811	203	137	815	0.996	770	827	4.2	14.7	58.813	F

### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	397	99	588	585	0.680	397	338	2.1	2.2	20.968	C
2 - Botwell Lane (S)	969	242	236	730	1.327	730	748	81.2	140.9	551.288	F
3 - Botwell Lane (W)	811	203	137	815	0.996	789	830	14.7	20.3	91.749	F

### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	325	81	537	611	0.531	328	325	2.2	1.3	14.196	B
2 - Botwell Lane (S)	791	198	196	751	1.054	750	670	140.9	151.1	702.178	F
3 - Botwell Lane (W)	663	166	141	813	0.815	721	805	20.3	5.7	52.844	F

### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	272	68	423	669	0.406	274	288	1.3	0.8	10.070	B
2 - Botwell Lane (S)	663	166	163	767	0.863	762	534	151.1	126.3	656.245	F
3 - Botwell Lane (W)	555	139	143	812	0.683	568	782	5.7	2.5	16.994	C

# 2029 Baseline+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	782.53	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)	Run automatically
D9	2029 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Church Rd		ONE HOUR	✓	576	100.000
2 - Botwell Lane (S)		ONE HOUR	✓	942	100.000
3 - Botwell Lane (W)		ONE HOUR	✓	709	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To		
	1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
1 - Church Rd	0	183	393
2 - Botwell Lane (S)	127	0	815
3 - Botwell Lane (W)	111	598	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
1 - Church Rd	10	10	10
2 - Botwell Lane (S)	10	10	10
3 - Botwell Lane (W)	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Church Rd	1.15	259.09	48.3	F	529	793
2 - Botwell Lane (S)	1.57	1652.27	307.8	F	864	1297
3 - Botwell Lane (W)	0.93	52.20	10.6	F	651	976

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	434	108	444	658	0.659	426	170	0.0	2.0	16.496	C
2 - Botwell Lane (S)	709	177	290	703	1.009	652	579	0.0	14.2	55.457	F
3 - Botwell Lane (W)	534	133	88	840	0.635	526	855	0.0	1.8	12.354	B

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	518	129	533	613	0.845	506	190	2.0	4.9	33.997	D

2 - Botwell Lane (S)	847	212	346	675	1.254	672	694	14.2	57.9	209.360	F
3 - Botwell Lane (W)	637	159	91	839	0.760	632	927	1.8	3.2	18.637	C

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	634	159	639	559	1.135	546	208	4.9	27.0	125.056	F
2 - Botwell Lane (S)	1037	259	372	662	1.567	662	812	57.9	151.8	581.142	F
3 - Botwell Lane (W)	781	195	89	839	0.930	758	945	3.2	9.0	40.034	E

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	634	159	653	551	1.150	549	210	27.0	48.3	259.091	F
2 - Botwell Lane (S)	1037	259	374	661	1.570	661	827	151.8	245.9	1102.896	F
3 - Botwell Lane (W)	781	195	89	840	0.930	774	946	9.0	10.6	52.202	F

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	518	129	561	599	0.865	585	191	48.3	31.4	246.517	F
2 - Botwell Lane (S)	847	212	399	648	1.307	648	747	245.9	295.6	1500.459	F
3 - Botwell Lane (W)	637	159	87	840	0.758	665	960	10.6	3.8	25.253	D

### 09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	434	108	456	652	0.665	550	174	31.4	2.4	68.661	F
2 - Botwell Lane (S)	709	177	375	660	1.074	660	631	295.6	307.8	1652.270	F
3 - Botwell Lane (W)	534	133	89	840	0.636	541	946	3.8	2.0	13.551	B

# 2029 Baseline+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 2 and 3 have 81% 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
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1	untitled	Mini-roundabout	1,2,3	350.41	F
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## 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)	Run automatically
D10	2029 Baseline+Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Church Rd		ONE HOUR	✓	361	100.000
2 - Botwell Lane (S)		ONE HOUR	✓	880	100.000
3 - Botwell Lane (W)		ONE HOUR	✓	737	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
From	1 - Church Rd	0	146	215
	2 - Botwell Lane (S)	165	0	715
	3 - Botwell Lane (W)	188	549	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		1 - Church Rd	2 - Botwell Lane (S)	3 - Botwell Lane (W)
From	1 - Church Rd	10	10	10
	2 - Botwell Lane (S)	10	10	10
	3 - Botwell Lane (W)	10	10	10

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Church Rd	0.68	20.97	2.2	C	331	497
2 - Botwell Lane (S)	1.33	702.18	151.1	F	808	1211
3 - Botwell Lane (W)	1.00	91.75	20.3	F	676	1014

## Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	272	68	407	677	0.401	269	259	0.0	0.7	9.629	A
2 - Botwell Lane (S)	663	166	160	769	0.862	641	516	0.0	5.5	27.439	D
3 - Botwell Lane (W)	555	139	120	824	0.674	546	681	0.0	2.2	13.879	B

### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	325	81	487	636	0.510	323	303	0.7	1.1	12.579	B
2 - Botwell Lane (S)	791	198	192	753	1.051	728	618	5.5	21.4	83.306	F
3 - Botwell Lane (W)	663	166	136	815	0.813	654	784	2.2	4.2	23.448	C

### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	397	99	573	592	0.671	393	333	1.1	2.1	19.530	C
2 - Botwell Lane (S)	969	242	234	731	1.325	730	732	21.4	81.2	266.069	F
3 - Botwell Lane (W)	811	203	137	815	0.996	770	827	4.2	14.7	58.813	F

### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	397	99	588	585	0.680	397	338	2.1	2.2	20.968	C
2 - Botwell Lane (S)	969	242	236	730	1.327	730	748	81.2	140.9	551.288	F
3 - Botwell Lane (W)	811	203	137	815	0.996	789	830	14.7	20.3	91.749	F

### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	325	81	537	611	0.531	328	325	2.2	1.3	14.196	B
2 - Botwell Lane (S)	791	198	196	751	1.054	750	670	140.9	151.1	702.178	F
3 - Botwell Lane (W)	663	166	141	813	0.815	721	805	20.3	5.7	52.844	F

### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Church Rd	272	68	423	669	0.406	274	288	1.3	0.8	10.070	B
2 - Botwell Lane (S)	663	166	163	767	0.863	762	534	151.1	126.3	656.245	F
3 - Botwell Lane (W)	555	139	143	812	0.683	568	782	5.7	2.5	16.994	C