

Junctions 10
ARCADY 10 - Roundabout Module
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Filename: 2 - Bryn-Ash-Aben-Ind Est.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models

Report generation date: 27/03/2024 15:00:33

»Observed 2022, AM
»Observed 2022, PM
»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
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 period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Analysis Set Details

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

Observed 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	5.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.20	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Bryn Lane		
2	Ash Road North		
3	Abenbury Way		
4	Industrial Estate Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Bryn Lane	3.60	7.00	17.7	40.7	59.7	34.6		
2 - Ash Road North	3.60	7.50	21.0	10.0	59.7	35.2		
3 - Abenbury Way	3.60	8.20	20.9	60.3	59.7	34.5		
4 - Industrial Estate Road	7.00	9.70	7.5	48.0	59.7	34.2		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.569	1744
2 - Ash Road North	0.543	1709
3 - Abenbury Way	0.605	1941
4 - Industrial Estate Road	0.708	2536

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 period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	191	100.000
2 - Ash Road North		FLAT	✓	169	100.000
3 - Abenbury Way		FLAT	✓	282	100.000
4 - Industrial Estate Road		FLAT	✓	1817	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	
From	1 - Bryn Lane	0	11	12	168
	2 - Ash Road North	8	0	15	146
	3 - Abenbury Way	15	7	0	260
	4 - Industrial Estate Road	336	777	704	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	
From	1 - Bryn Lane	0	11	22	20
	2 - Ash Road North	40	0	30	43
	3 - Abenbury Way	30	0	0	29
	4 - Industrial Estate Road	10	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.21	6.10	0.3	A	191	287
2 - Ash Road North	0.14	4.80	0.2	A	169	254
3 - Abenbury Way	0.16	3.14	0.2	A	282	423
4 - Industrial Estate Road	0.72	5.46	2.7	A	1817	2726

Observed 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	4.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	377	100.000
2 - Ash Road North		FLAT	✓	775	100.000
3 - Abenbury Way		FLAT	✓	525	100.000
4 - Industrial Estate Road		FLAT	✓	600	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	358
2 - Ash Road North	7	0	10	758
3 - Abenbury Way	14	6	0	505
4 - Industrial Estate Road	187	157	256	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	5
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	13	14	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.25	3.41	0.4	A	377	566
2 - Ash Road North	0.57	6.13	1.3	A	775	1163
3 - Abenbury Way	0.42	5.12	0.7	A	525	788
4 - Industrial Estate Road	0.24	2.07	0.3	A	600	900

Without Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	7.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	239	100.000
2 - Ash Road North		FLAT	✓	179	100.000
3 - Abenbury Way		FLAT	✓	354	100.000
4 - Industrial Estate Road		FLAT	✓	2059	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	216
2 - Ash Road North	8	0	15	156
3 - Abenbury Way	15	7	0	332
4 - Industrial Estate Road	401	832	826	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	20
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	27
4 - Industrial Estate Road	11	3	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.30	7.71	0.5	A	239	359
2 - Ash Road North	0.16	5.23	0.3	A	179	269
3 - Abenbury Way	0.21	3.34	0.3	A	354	531
4 - Industrial Estate Road	0.82	8.40	4.8	A	2059	3089

Without Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	5.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	482	100.000
2 - Ash Road North		FLAT	✓	824	100.000
3 - Abenbury Way		FLAT	✓	624	100.000
4 - Industrial Estate Road		FLAT	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	463
2 - Ash Road North	7	0	10	807
3 - Abenbury Way	14	6	0	604
4 - Industrial Estate Road	245	175	321	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	7
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	14	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.33	3.98	0.5	A	482	723
2 - Ash Road North	0.64	8.02	1.8	A	824	1236
3 - Abenbury Way	0.53	6.92	1.2	A	624	936
4 - Industrial Estate Road	0.29	2.24	0.5	A	741	1112

Without Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	8.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.73	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
DS	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	246	100.000
2 - Ash Road North		FLAT	✓	183	100.000
3 - Abenbury Way		FLAT	✓	361	100.000
4 - Industrial Estate Road		FLAT	✓	2132	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From				
1 - Bryn Lane	0	11	12	223
2 - Ash Road North	8	0	15	160
3 - Abenbury Way	15	7	0	339
4 - Industrial Estate Road	415	864	853	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From				
1 - Bryn Lane	0	11	22	20
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	26
4 - Industrial Estate Road	11	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.32	8.31	0.6	A	246	369
2 - Ash Road North	0.16	5.35	0.3	A	183	275
3 - Abenbury Way	0.21	3.37	0.3	A	361	542
4 - Industrial Estate Road	0.85	9.98	5.8	A	2132	3198

Without Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	5.87	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.87	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	497	100.000
2 - Ash Road North		FLAT	✓	852	100.000
3 - Abenbury Way		FLAT	✓	645	100.000
4 - Industrial Estate Road		FLAT	✓	767	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	478
2 - Ash Road North	7	0	10	835
3 - Abenbury Way	14	6	0	625
4 - Industrial Estate Road	252	182	333	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	7
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	14	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.34	4.09	0.6	A	497	746
2 - Ash Road North	0.67	8.85	2.1	A	852	1278
3 - Abenbury Way	0.56	7.58	1.4	A	645	968
4 - Industrial Estate Road	0.30	2.28	0.5	A	767	1151

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	9.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.44	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	316	100.000
2 - Ash Road North		FLAT	✓	179	100.000
3 - Abenbury Way		FLAT	✓	354	100.000
4 - Industrial Estate Road		FLAT	✓	2159	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	293
2 - Ash Road North	8	0	15	156
3 - Abenbury Way	15	7	0	332
4 - Industrial Estate Road	501	832	826	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	22
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	27
4 - Industrial Estate Road	13	3	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.40	9.08	0.8	A	316	474
2 - Ash Road North	0.16	5.47	0.3	A	179	269
3 - Abenbury Way	0.21	3.46	0.3	A	354	531
4 - Industrial Estate Road	0.86	10.80	6.4	B	2159	3239

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	6.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	600	100.000
2 - Ash Road North		FLAT	✓	824	100.000
3 - Abenbury Way		FLAT	✓	624	100.000
4 - Industrial Estate Road		FLAT	✓	834	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	581
2 - Ash Road North	7	0	10	807
3 - Abenbury Way	14	6	0	604
4 - Industrial Estate Road	338	175	321	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	18	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.41	4.60	0.8	A	600	900
2 - Ash Road North	0.68	9.34	2.1	A	824	1236
3 - Abenbury Way	0.57	7.97	1.4	A	624	936
4 - Industrial Estate Road	0.33	2.40	0.6	A	834	1251

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	11.52	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.52	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	324	100.000
2 - Ash Road North		FLAT	✓	183	100.000
3 - Abenbury Way		FLAT	✓	361	100.000
4 - Industrial Estate Road		FLAT	✓	2232	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	301
2 - Ash Road North	8	0	15	160
3 - Abenbury Way	15	7	0	339
4 - Industrial Estate Road	515	864	853	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	22
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	26
4 - Industrial Estate Road	13	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.42	9.92	0.9	A	324	486
2 - Ash Road North	0.17	5.60	0.3	A	183	275
3 - Abenbury Way	0.22	3.49	0.4	A	361	542
4 - Industrial Estate Road	0.89	13.54	8.3	B	2232	3348

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	6.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.61	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	615	100.000
2 - Ash Road North		FLAT	✓	852	100.000
3 - Abenbury Way		FLAT	✓	645	100.000
4 - Industrial Estate Road		FLAT	✓	860	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	596
2 - Ash Road North	7	0	10	835
3 - Abenbury Way	14	6	0	625
4 - Industrial Estate Road	345	182	333	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	18	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.42	4.74	0.8	A	615	923
2 - Ash Road North	0.71	10.47	2.5	B	852	1278
3 - Abenbury Way	0.60	8.85	1.6	A	645	968
4 - Industrial Estate Road	0.34	2.44	0.6	A	860	1290

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	11.87	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.87	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	313	100.000
2 - Ash Road North		FLAT	✓	179	100.000
3 - Abenbury Way		FLAT	✓	354	100.000
4 - Industrial Estate Road		FLAT	✓	2242	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	290
2 - Ash Road North	8	0	15	156
3 - Abenbury Way	15	7	0	332
4 - Industrial Estate Road	584	832	826	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	28
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	27
4 - Industrial Estate Road	12	3	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.39	9.44	0.8	A	313	470
2 - Ash Road North	0.16	5.46	0.3	A	179	269
3 - Abenbury Way	0.21	3.46	0.3	A	354	531
4 - Industrial Estate Road	0.89	14.05	8.6	B	2242	3363

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	6.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	660	100.000
2 - Ash Road North		FLAT	✓	824	100.000
3 - Abenbury Way		FLAT	✓	624	100.000
4 - Industrial Estate Road		FLAT	✓	806	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	641
2 - Ash Road North	7	0	10	807
3 - Abenbury Way	14	6	0	604
4 - Industrial Estate Road	310	175	321	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	19	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.45	4.96	0.9	A	660	990
2 - Ash Road North	0.70	10.18	2.3	B	824	1236
3 - Abenbury Way	0.59	8.63	1.5	A	624	936
4 - Industrial Estate Road	0.32	2.37	0.5	A	806	1209

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	15.50	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.50	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	320	100.000
2 - Ash Road North		FLAT	✓	183	100.000
3 - Abenbury Way		FLAT	✓	361	100.000
4 - Industrial Estate Road		FLAT	✓	2314	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	297
	2 - Ash Road North	8	0	160
	3 - Abenbury Way	15	7	339
	4 - Industrial Estate Road	597	864	853

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	22
	2 - Ash Road North	40	0	30
	3 - Abenbury Way	30	0	26
	4 - Industrial Estate Road	12	3	7

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 - Bryn Lane	0.42	10.28	0.9	B	320	480
2 - Ash Road North	0.17	5.59	0.3	A	183	275
3 - Abenbury Way	0.22	3.49	0.3	A	361	542
4 - Industrial Estate Road	0.92	18.88	11.8	C	2314	3471

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	7.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.16	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	674	100.000
2 - Ash Road North		FLAT	✓	852	100.000
3 - Abenbury Way		FLAT	✓	645	100.000
4 - Industrial Estate Road		FLAT	✓	833	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	655
2 - Ash Road North	7	0	10	835
3 - Abenbury Way	14	6	0	625
4 - Industrial Estate Road	318	182	333	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	19	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.47	5.12	1.0	A	674	1011
2 - Ash Road North	0.73	11.53	2.7	B	852	1278
3 - Abenbury Way	0.62	9.65	1.7	A	645	968
4 - Industrial Estate Road	0.33	2.40	0.6	A	833	1250