

Junctions 9					
ARCADY 9 - Roundabout Module					
Version: 9.5.1.7462					
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Filename: Plas Coch Rd (Lane Balancing) PM.j9

Path: N:\PROJECTS\2020\Development and Infrastructure\Plas Coch Rd - Wrexham

Report generation date: 7/8/2021 4:11:53 PM

»2018, PM

»2018 + 90 Dwellings, PM

»2018 + 410 Apartments, PM

Summary of junction performance

	PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	[Lane Simulation] - 2018					
1 - Plas Coch Rd (N)	D2	22.0	152.49		F	% []
2 - Access Rd		10.0	258.87		F	
3 - Plas Coch Rd (S)		6.9	20.77		C	
4 - Retail Park		9.5	37.18		E	
	[Lane Simulation] - 2018 + 90 Dwellings					
1 - Plas Coch Rd (N)	D3	29.3	199.85		F	% []
2 - Access Rd		12.2	287.11		F	
3 - Plas Coch Rd (S)		6.5	20.87		C	
4 - Retail Park		10.2	40.28		E	
	[Lane Simulation] - 2018 + 410 Apartments					
1 - Plas Coch Rd (N)	D4	125.0	955.61		F	% []
2 - Access Rd		19.0	308.40		F	
3 - Plas Coch Rd (S)		8.6	22.03		C	
4 - Retail Park		24.2	85.50		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. Arm and junction delays are averages for all movements, including movements with zero delay. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

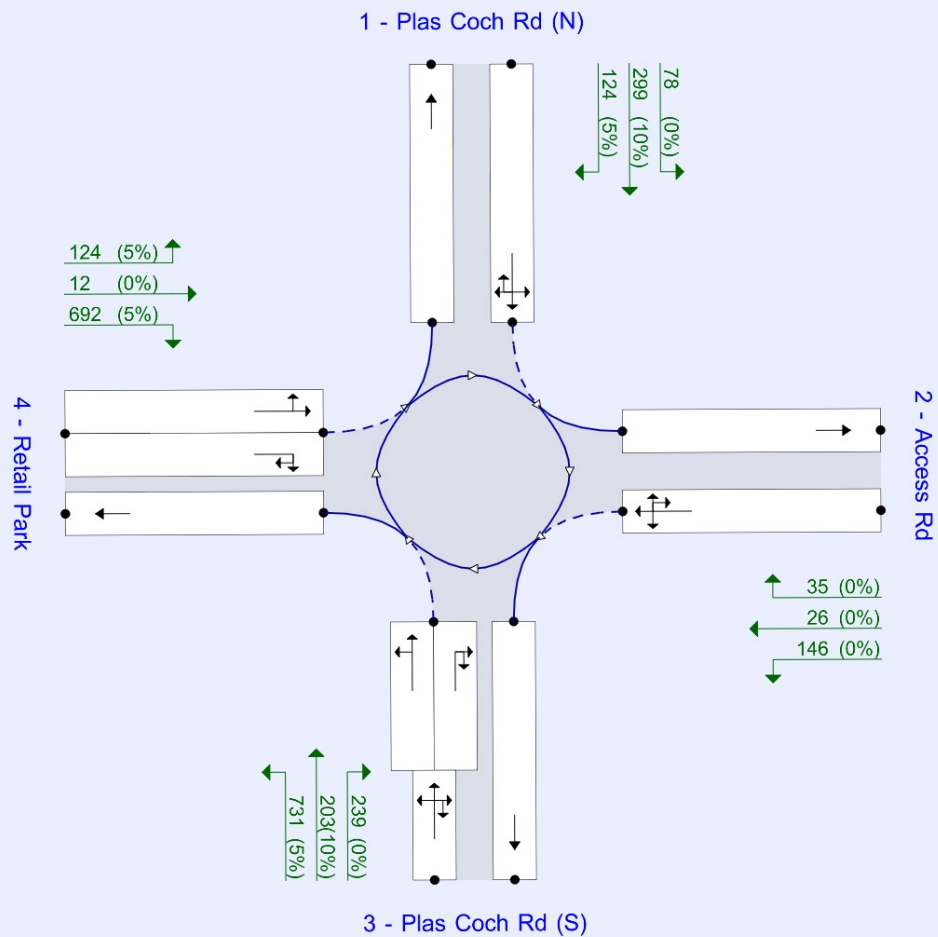
File summary

File Description

Title	Plas Coch Rd / Site Access
Location	Wrexham
Site number	1
Date	1/11/2021
Version	01
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\ahogg
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1890831577	196	16.92

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
D2	2018	PM	ONE HOUR	16:45	18:15	15	✓
D3	2018 + 90 Dwellings	PM	ONE HOUR	16:45	18:15	15	✓
D4	2018 + 410 Apartments	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2018, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	62.07	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Plas Coch Rd (N)	
2	Access Rd	
3	Plas Coch Rd (S)	
4	Retail Park	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Plas Coch Rd (N)	3.80	5.60	13.6	13.6	36.3	39.0	
2 - Access Rd	2.70	3.60	13.1	13.6	36.3	25.5	
3 - Plas Coch Rd (S)	3.40	8.10	26.8	26.8	36.3	17.0	
4 - Retail Park	7.30	7.30	0.0	95.0	36.3	13.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
1 - Plas Coch Rd (N)	Percentage	to match survey	64.50
2 - Access Rd	Percentage		71.50
3 - Plas Coch Rd (S)	Percentage		124.00
4 - Retail Park	Percentage		80.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Plas Coch Rd (N)	0.583	936
2 - Access Rd	0.513	739
3 - Plas Coch Rd (S)	0.739	2547
4 - Retail Park	0.825	1939

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Plas Coch Rd (N)	Evenly split	10.00
2 - Access Rd	Evenly split	10.00
3 - Plas Coch Rd (S)	Evenly split	10.00
4 - Retail Park	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4		Infinity		0	99999	
	Exit	1	1			Infinity				
2 - Access Rd	Entry	1	1	1, 2, 3, 4		Infinity		0	99999	
	Exit	1	1			Infinity				
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	✓	3.00		0	99999	
			2	2, 3	✓	3.00		0	99999	
	Exit	1	1	(1, 2, 3, 4)		Infinity				
			1			Infinity				
4 - Retail Park	Entry	1	1	1, 2		Infinity		0	99999	
			2	3, 4		Infinity		0	99999	
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Plas Coch Rd (N)	Entry	1	1	0.583	936
2 - Access Rd	Entry	1	1	0.513	739
3 - Plas Coch Rd (S)	Entry	1	1	0.369	1274
			2	0.369	1274
4 - Retail Park	Entry	1	1	0.412	970
			2	0.412	970

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			Plas Coch Rd (N)	Access Rd	Plas Coch Rd (S)	Retail Park
1 - Plas Coch Rd (N)	1	1	✓	✓	✓	✓
2 - Access Rd	1	1	✓	✓	✓	✓
3 - Plas Coch Rd (S)	1	1	✓			✓
		2		✓	✓	
4 - Retail Park	1	1	✓	✓		
		2			✓	✓

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	2018	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Plas Coch Rd (N)		ONE HOUR	✓	426	100.000
2 - Access Rd		ONE HOUR	✓	118	100.000
3 - Plas Coch Rd (S)		ONE HOUR	✓	988	100.000
4 - Retail Park		ONE HOUR	✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Plas Coch Rd (N)	2 - Access Rd	3 - Plas Coch Rd (S)	4 - Retail Park
From	1 - Plas Coch Rd (N)	0	3	299	124
	2 - Access Rd	9	0	83	26
	3 - Plas Coch Rd (S)	203	54	0	731
	4 - Retail Park	124	12	692	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Plas Coch Rd (N)	2 - Access Rd	3 - Plas Coch Rd (S)	4 - Retail Park
From	1 - Plas Coch Rd (N)	0	0	10	5
	2 - Access Rd	0	0	0	0
	3 - Plas Coch Rd (S)	10	0	0	5
	4 - Retail Park	5	0	5	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Plas Coch Rd (N)	152.49	22.0	F	390	584
2 - Access Rd	258.87	10.0	F	107	161
3 - Plas Coch Rd (S)	20.77	6.9	C	908	1362
4 - Retail Park	37.18	9.5	E	757	1136

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	319	80	567	319	317	255	0.0	1.1	13.706	B
2 - Access Rd	92	23	836	93	90	51	0.0	0.4	16.226	C
3 - Plas Coch Rd (S)	754	189	121	749	740	808	0.0	1.8	7.296	A
4 - Retail Park	618	154	200	622	616	670	0.0	1.4	9.404	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	377	94	691	372	373	304	1.1	3.1	22.520	C
2 - Access Rd	104	26	997	103	103	66	0.4	1.0	29.747	D
3 - Plas Coch Rd (S)	891	223	140	890	891	961	1.8	2.6	9.715	A
4 - Retail Park	748	187	246	750	740	785	1.4	3.1	13.635	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	475	119	808	432	425	368	3.1	13.9	76.003	F
2 - Access Rd	130	33	1164	115	112	75	1.0	5.4	117.221	F
3 - Plas Coch Rd (S)	1096	274	154	1101	1079	1125	2.6	6.0	18.762	C
4 - Retail Park	904	226	289	887	886	966	3.1	8.2	26.291	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	464	116	839	437	436	362	13.9	22.0	152.492	F
2 - Access Rd	130	33	1199	110	112	77	5.4	10.0	258.868	F
3 - Plas Coch Rd (S)	1089	272	163	1079	1080	1146	6.0	6.9	20.774	C
4 - Retail Park	910	228	289	913	912	954	8.2	9.5	37.178	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	374	94	685	426	439	302	22.0	7.5	112.124	F
2 - Access Rd	102	25	1052	126	127	59	10.0	4.0	181.664	F
3 - Plas Coch Rd (S)	883	221	162	884	905	1015	6.9	2.7	11.808	B
4 - Retail Park	745	186	237	751	768	809	9.5	3.1	19.742	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	328	82	563	336	352	249	7.5	1.4	26.571	D
2 - Access Rd	85	21	851	91	103	48	4.0	0.5	39.931	E
3 - Plas Coch Rd (S)	735	184	128	738	738	814	2.7	1.4	7.315	A
4 - Retail Park	620	155	195	618	629	671	3.1	1.7	10.268	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	319	606	0.527	319	317	0.0	1.1	13.706	B
	Exit	1	1		255			255	252	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	92	311	0.297	93	90	0.0	0.4	16.226	C
	Exit	1	1		51			51	51	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	713	1229	0.580	711	701	0.0	1.3	5.710	A
			2	2, 3	38	1229	0.031	39	40	0.0	0.0	3.139	A
		2	1	(1, 2, 3, 4)	754			751	746	0.0	0.5	1.719	A
	Exit	1	1		808			808	798	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	104	887	0.117	104	103	0.0	0.1	4.942	A
			2	3, 4	514	887	0.580	519	513	0.0	1.3	10.302	B
	Exit	1	1		670			670	662	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	377	533	0.707	372	373	1.1	3.1	22.520	C
	Exit	1	1		304			304	300	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	104	228	0.456	103	103	0.4	1.0	29.747	D
	Exit	1	1		66			66	63	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	840	1222	0.687	839	842	1.3	1.5	6.372	A
			2	2, 3	52	1222	0.042	52	50	0.0	0.0	2.998	A
		2	1	(1, 2, 3, 4)	891			891	892	0.5	1.0	3.542	A
	Exit	1	1		961			961	956	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	122	868	0.140	122	121	0.1	0.2	4.994	A
			2	3, 4	627	868	0.722	628	619	1.3	2.9	15.311	C
	Exit	1	1		785			785	789	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	475	466	1.020	432	425	3.1	13.9	76.003	F
	Exit	1	1		368			368	367	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	130	143	0.914	115	112	1.0	5.4	117.221	F
	Exit	1	1		75			75	75	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	1040	1217	0.855	1042	1020	1.5	2.2	7.554	A
			2	2, 3	60	1217	0.049	59	59	0.0	0.1	3.221	A
		2	1	(1, 2, 3, 4)	1096			1100	1082	1.0	3.8	11.439	B
	Exit	1	1		1125			1125	1114	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	150	850	0.177	150	150	0.2	0.2	5.394	A
			2	3, 4	754	850	0.886	736	736	2.9	7.9	30.463	D
	Exit	1	1		966			966	947	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	464	447	1.037	437	436	13.9	22.0	152.492	F
	Exit	1	1		362			362	365	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	130	126	1.036	110	112	5.4	10.0	258.868	F
	Exit	1	1		77			77	76	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	1021	1213	0.841	1018	1020	2.2	2.4	7.635	A
			2	2, 3	61	1213	0.050	62	60	0.1	0.0	3.276	A
		2	1	(1, 2, 3, 4)	1089			1082	1081	3.8	4.5	13.388	B
	Exit	1	1		1146			1146	1146	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	149	850	0.176	148	150	0.2	0.3	5.318	A
			2	3, 4	761	850	0.895	765	762	7.9	9.2	43.418	E
	Exit	1	1		954			954	953	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	374	537	0.697	426	439	22.0	7.5	112.124	F
	Exit	1	1		302			302	312	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	102	200	0.508	126	127	10.0	4.0	181.664	F
	Exit	1	1		59			59	62	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	840	1214	0.692	839	856	2.4	1.7	6.752	A
			2	2, 3	45	1214	0.037	45	49	0.0	0.0	3.041	A
		2	1	(1, 2, 3, 4)	883			885	902	4.5	1.0	5.308	A
	Exit	1	1		1015			1015	1041	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	122	872	0.140	121	123	0.3	0.2	5.244	A
			2	3, 4	623	872	0.714	629	645	9.2	2.9	22.619	C
	Exit	1	1		809			809	824	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	328	608	0.540	336	352	7.5	1.4	26.571	D
	Exit	1	1		249			249	247	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	85	303	0.282	91	103	4.0	0.5	39.931	E
	Exit	1	1		48			48	50	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	697	1226	0.568	700	699	1.7	1.1	5.752	A
			2	2, 3	38	1226	0.031	38	39	0.0	0.0	2.972	A
		2	1	(1, 2, 3, 4)	735			735	736	1.0	0.3	1.737	A
	Exit	1	1		814			814	846	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	100	889	0.113	100	100	0.2	0.1	4.806	A
			2	3, 4	519	889	0.584	517	529	2.9	1.6	11.313	B
	Exit	1	1		671			671	678	0.0	0.0	0.000	A

2018 + 90 Dwellings, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	74.33	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2018 + 90 Dwellings	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Plas Coch Rd (N)		ONE HOUR	✓	435	100.000
2 - Access Rd		ONE HOUR	✓	132	100.000
3 - Plas Coch Rd (S)		ONE HOUR	✓	1009	100.000
4 - Retail Park		ONE HOUR	✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Plas Coch Rd (N)	2 - Access Rd	3 - Plas Coch Rd (S)	4 - Retail Park
From	1 - Plas Coch Rd (N)	0	12	299	124
	2 - Access Rd	13	0	93	26
	3 - Plas Coch Rd (S)	203	75	0	731
	4 - Retail Park	124	12	692	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Plas Coch Rd (N)	2 - Access Rd	3 - Plas Coch Rd (S)	4 - Retail Park
From	1 - Plas Coch Rd (N)	0	0	10	5
	2 - Access Rd	0	0	0	0
	3 - Plas Coch Rd (S)	10	0	0	5
	4 - Retail Park	5	0	5	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Plas Coch Rd (N)	199.85	29.3	F	399	599
2 - Access Rd	287.11	12.2	F	120	180
3 - Plas Coch Rd (S)	20.87	6.5	C	932	1399
4 - Retail Park	40.28	10.2	E	756	1135

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	329	82	594	331	322	255	0.0	1.4	14.947	B
2 - Access Rd	93	23	848	94	100	77	0.0	0.5	17.809	C
3 - Plas Coch Rd (S)	762	191	124	765	758	819	0.0	1.5	7.179	A
4 - Retail Park	628	157	220	629	618	670	0.0	1.7	9.648	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	393	98	697	390	381	303	1.4	3.4	26.248	D
2 - Access Rd	116	29	999	114	113	88	0.5	1.4	35.225	E
3 - Plas Coch Rd (S)	911	228	151	912	904	962	1.5	2.6	9.579	A
4 - Retail Park	738	185	259	740	738	804	1.7	2.9	13.868	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	487	122	846	430	425	380	3.4	17.9	93.742	F
2 - Access Rd	149	37	1169	121	121	107	1.4	7.1	134.387	F
3 - Plas Coch Rd (S)	1122	281	156	1126	1097	1134	2.6	6.5	18.906	C
4 - Retail Park	910	228	323	903	889	960	2.9	8.7	29.012	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	478	120	847	430	433	375	17.9	29.3	199.848	F
2 - Access Rd	146	36	1169	126	124	109	7.1	12.2	287.108	F
3 - Plas Coch Rd (S)	1112	278	160	1109	1114	1134	6.5	6.5	20.873	C
4 - Retail Park	899	225	316	905	899	953	8.7	10.2	40.279	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	389	97	703	447	452	311	29.3	12.1	155.232	F
2 - Access Rd	114	29	1059	144	140	92	12.2	6.7	232.742	F
3 - Plas Coch Rd (S)	912	228	172	910	922	1031	6.5	2.8	11.463	B
4 - Retail Park	741	185	263	751	773	819	10.2	3.1	20.760	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	320	80	584	332	366	259	12.1	1.7	37.107	E
2 - Access Rd	101	25	842	110	125	74	6.7	0.7	56.487	F
3 - Plas Coch Rd (S)	775	194	129	773	770	823	2.8	1.7	7.375	A
4 - Retail Park	623	156	220	623	629	681	3.1	1.8	10.227	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	329	590	0.558	331	322	0.0	1.4	14.947	B
	Exit	1	1		255			255	258	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	93	304	0.306	94	100	0.0	0.5	17.809	C
	Exit	1	1		77			77	74	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	707	1228	0.576	708	700	0.0	1.2	5.733	A
			2	2, 3	57	1228	0.047	58	57	0.0	0.0	3.047	A
		2	1	(1, 2, 3, 4)	762			765	762	0.0	0.3	1.657	A
	Exit	1	1		819			819	805	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	103	879	0.117	103	103	0.0	0.1	4.967	A
			2	3, 4	525	879	0.597	527	515	0.0	1.6	10.578	B
	Exit	1	1		670			670	660	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	393	530	0.741	390	381	1.4	3.4	26.248	D
	Exit	1	1		303			303	301	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	116	227	0.509	114	113	0.5	1.4	35.225	E
	Exit	1	1		88			88	88	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	844	1218	0.693	845	838	1.2	1.6	6.396	A
			2	2, 3	67	1218	0.055	67	67	0.0	0.1	3.126	A
		2	1	(1, 2, 3, 4)	911			911	906	0.3	1.0	3.428	A
	Exit	1	1		962			962	954	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	121	863	0.140	122	121	0.1	0.1	4.920	A
			2	3, 4	617	863	0.715	619	617	1.6	2.8	15.616	C
	Exit	1	1		804			804	793	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	487	443	1.100	430	425	3.4	17.9	93.742	F
	Exit	1	1		380			380	373	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	149	140	1.063	121	121	1.4	7.1	134.387	F
	Exit	1	1		107			107	105	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	1044	1216	0.859	1043	1017	1.6	2.3	7.514	A
			2	2, 3	84	1216	0.069	84	80	0.1	0.1	3.212	A
		2	1	(1, 2, 3, 4)	1122			1128	1100	1.0	4.2	11.715	B
	Exit	1	1		1134			1134	1117	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	154	836	0.184	153	152	0.1	0.3	5.598	A
			2	3, 4	756	836	0.904	750	737	2.8	8.5	33.708	D
	Exit	1	1		960			960	937	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	478	443	1.080	430	433	17.9	29.3	199.848	F
	Exit	1	1		375			375	374	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	146	140	1.036	126	124	7.1	12.2	287.108	F
	Exit	1	1		109			109	108	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	1026	1214	0.845	1026	1031	2.3	2.2	7.611	A
			2	2, 3	84	1214	0.069	83	83	0.1	0.1	3.339	A
		2	1	(1, 2, 3, 4)	1112			1110	1114	4.2	4.2	13.594	B
	Exit	1	1		1134			1134	1135	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	156	839	0.186	155	150	0.3	0.3	5.445	A
			2	3, 4	743	839	0.886	750	750	8.5	9.9	47.212	E
	Exit	1	1		953			953	954	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	389	526	0.739	447	452	29.3	12.1	155.232	F
	Exit	1	1		311			311	311	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	114	197	0.582	144	140	12.2	6.7	232.742	F
	Exit	1	1		92			92	91	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	842	1210	0.696	842	854	2.2	1.5	6.645	A
			2	2, 3	67	1210	0.056	67	68	0.1	0.1	3.224	A
		2	1	(1, 2, 3, 4)	912			909	919	4.2	1.3	5.115	A
	Exit	1	1		1031			1031	1059	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	126	861	0.147	126	123	0.3	0.1	5.216	A
			2	3, 4	614	861	0.713	625	650	9.9	2.9	23.830	C
	Exit	1	1		819			819	825	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	320	596	0.536	332	366	12.1	1.7	37.107	E
	Exit	1	1		259			259	259	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	101	308	0.327	110	125	6.7	0.7	56.487	F
	Exit	1	1		74			74	75	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	719	1226	0.587	718	714	1.5	1.3	5.780	A
			2	2, 3	56	1226	0.045	56	56	0.1	0.1	3.103	A
		2	1	(1, 2, 3, 4)	775			775	769	1.3	0.3	1.819	A
	Exit	1	1		823			823	864	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	102	879	0.116	103	102	0.1	0.1	4.964	A
			2	3, 4	521	879	0.593	520	526	2.9	1.7	11.270	B
	Exit	1	1		681			681	690	0.0	0.0	0.000	A

2018 + 410 Apartments, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	1 - Plas Coch Rd (N) - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	236.03	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2018 + 410 Apartments	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Plas Coch Rd (N)		ONE HOUR	✓	501	100.000
2 - Access Rd		ONE HOUR	✓	207	100.000
3 - Plas Coch Rd (S)		ONE HOUR	✓	1173	100.000
4 - Retail Park		ONE HOUR	✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Plas Coch Rd (N)	2 - Access Rd	3 - Plas Coch Rd (S)	4 - Retail Park
From	1 - Plas Coch Rd (N)	0	78	299	124
	2 - Access Rd	35	0	146	26
	3 - Plas Coch Rd (S)	203	239	0	731
	4 - Retail Park	124	12	692	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Plas Coch Rd (N)	2 - Access Rd	3 - Plas Coch Rd (S)	4 - Retail Park
From	1 - Plas Coch Rd (N)	0	0	10	5
	2 - Access Rd	0	0	0	0
	3 - Plas Coch Rd (S)	10	0	0	5
	4 - Retail Park	5	0	5	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Plas Coch Rd (N)	955.61	125.0	F	462	693
2 - Access Rd	308.40	19.0	F	191	287
3 - Plas Coch Rd (S)	22.03	8.6	C	1080	1620
4 - Retail Park	85.50	24.2	F	765	1148

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	372	93	720	369	365	267	0.0	3.0	25.104	D
2 - Access Rd	156	39	841	155	154	248	0.0	1.1	24.637	C
3 - Plas Coch Rd (S)	892	223	141	884	875	855	0.0	1.9	6.858	A
4 - Retail Park	623	156	360	628	618	665	0.0	1.7	11.545	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	463	116	856	418	408	327	3.0	13.9	76.455	F
2 - Access Rd	191	48	983	186	177	291	1.1	3.7	55.756	F
3 - Plas Coch Rd (S)	1056	264	161	1062	1050	1008	1.9	2.6	9.752	A
4 - Retail Park	748	187	429	755	736	794	1.7	3.7	17.969	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	564	141	1009	353	375	399	13.9	58.3	355.705	F
2 - Access Rd	232	58	1029	196	193	334	3.7	12.9	170.572	F
3 - Plas Coch Rd (S)	1289	322	145	1307	1272	1080	2.6	7.4	20.040	C
4 - Retail Park	923	231	526	883	868	927	3.7	16.6	48.966	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	556	139	1035	346	346	392	58.3	108.9	838.956	F
2 - Access Rd	226	57	1053	195	201	329	12.9	19.0	295.209	F
3 - Plas Coch Rd (S)	1311	328	145	1302	1297	1103	7.4	8.6	22.029	C
4 - Retail Park	924	231	518	908	887	928	16.6	24.2	85.503	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	449	112	874	422	388	319	108.9	125.0	955.615	F
2 - Access Rd	185	46	1010	196	199	286	19.0	15.5	308.404	F
3 - Plas Coch Rd (S)	1046	261	165	1048	1073	1041	8.6	2.9	11.452	B
4 - Retail Park	736	184	420	773	810	793	24.2	8.1	59.619	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	369	92	732	506	487	281	125.0	97.9	669.434	F
2 - Access Rd	158	39	962	180	193	276	15.5	6.3	149.523	F
3 - Plas Coch Rd (S)	886	222	178	883	890	963	2.9	1.9	7.371	A
4 - Retail Park	636	159	372	641	653	690	8.1	2.3	17.687	C

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	372	517	0.720	369	365	0.0	3.0	25.104	D
	Exit	1	1		267			267	271	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	156	308	0.505	155	154	0.0	1.1	24.637	C
	Exit	1	1		248			248	247	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	705	1221	0.578	702	694	0.0	1.2	5.697	A
			2	2, 3	183	1221	0.150	182	180	0.0	0.2	3.428	A
		2	1	(1, 2, 3, 4)	892			888	880	0.0	0.5	1.644	A
	Exit	1	1		855			855	841	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	98	821	0.120	98	101	0.0	0.1	5.477	A
			2	3, 4	525	821	0.639	530	517	0.0	1.6	12.725	B
	Exit	1	1		665			665	653	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	463	437	1.059	418	408	3.0	13.9	76.455	F
	Exit	1	1		327			327	325	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	191	235	0.809	186	177	1.1	3.7	55.756	F
	Exit	1	1		291			291	285	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	843	1214	0.694	846	838	1.2	1.4	6.490	A
			2	2, 3	216	1214	0.178	216	213	0.2	0.2	3.596	A
		2	1	(1, 2, 3, 4)	1056			1059	1051	0.5	0.9	3.870	A
	Exit	1	1		1008			1008	983	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	126	793	0.159	125	122	0.1	0.2	5.661	A
			2	3, 4	622	793	0.784	630	614	1.6	3.5	20.410	C
	Exit	1	1		794			794	777	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	564	348	1.622	353	375	13.9	58.3	355.705	F
	Exit	1	1		399			399	391	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	232	212	1.095	196	193	3.7	12.9	170.572	F
	Exit	1	1		334			334	328	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	1042	1220	0.854	1045	1017	1.4	2.2	7.491	A
			2	2, 3	263	1220	0.216	263	255	0.2	0.3	3.839	A
		2	1	(1, 2, 3, 4)	1289			1305	1276	0.9	4.9	13.301	B
	Exit	1	1		1080			1080	1080	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	150	753	0.199	151	151	0.2	0.3	6.295	A
			2	3, 4	773	753	1.028	732	718	3.5	16.3	57.401	F
	Exit	1	1		927			927	910	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	556	333	1.668	346	346	58.3	108.9	838.956	F
	Exit	1	1		392			392	394	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	226	200	1.133	195	201	12.9	19.0	295.209	F
	Exit	1	1		329			329	332	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	1038	1220	0.851	1039	1032	2.2	2.3	7.583	A
			2	2, 3	262	1220	0.215	263	265	0.3	0.3	3.940	A
		2	1	(1, 2, 3, 4)	1311			1301	1297	4.9	6.1	15.228	C
	Exit	1	1		1103			1103	1083	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	150	756	0.198	150	152	0.3	0.3	6.193	A
			2	3, 4	774	756	1.025	759	735	16.3	23.9	101.312	F
	Exit	1	1		928			928	921	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	449	427	1.051	422	388	108.9	125.0	955.615	F
	Exit	1	1		319			319	331	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	185	222	0.832	196	199	19.0	15.5	308.404	F
	Exit	1	1		286			286	288	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	835	1213	0.689	837	855	2.3	1.5	6.707	A
			2	2, 3	212	1213	0.174	211	217	0.3	0.2	3.699	A
		2	1	(1, 2, 3, 4)	1046			1047	1069	6.1	1.2	5.414	A
	Exit	1	1		1041			1041	1059	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	120	796	0.151	120	122	0.3	0.2	5.810	A
			2	3, 4	615	796	0.773	653	687	23.9	7.9	70.179	F
	Exit	1	1		793			793	791	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Plas Coch Rd (N)	Entry	1	1	1, 2, 3, 4	369	510	0.723	506	487	125.0	97.9	669.434	F
	Exit	1	1		281			281	284	0.0	0.0	0.000	A
2 - Access Rd	Entry	1	1	1, 2, 3, 4	158	246	0.641	180	193	15.5	6.3	149.523	F
	Exit	1	1		276			276	268	0.0	0.0	0.000	A
3 - Plas Coch Rd (S)	Entry	1	1	1, 4	700	1208	0.580	699	707	1.5	1.2	5.896	A
			2	2, 3	184	1208	0.153	184	184	0.2	0.2	3.451	A
		2	1	(1, 2, 3, 4)	886			884	889	1.2	0.5	2.019	A
	Exit	1	1		963			963	977	0.0	0.0	0.000	A
4 - Retail Park	Entry	1	1	1, 2	103	816	0.126	103	102	0.2	0.2	5.395	A
			2	3, 4	533	816	0.654	538	551	7.9	2.1	20.090	C
	Exit	1	1		690			690	695	0.0	0.0	0.000	A