

Technical Note - Highways

Project: Land North of Bryn Lane, Wrexham Industrial Estate

Project reference: P/2023/0497

Date: 5th February 2026

- 1.1.1 This Technical Note has been prepared to provide further information to Wrexham County Borough Council (WCBC) in relation to the above planning application.

Bryn Lane Site Access

- 1.1.2 The Bryn Lane Access has now been upgraded to include a full right turn into the Bryn Lane Business Centre.
- 1.1.3 **Appendix TN1** provides the update access and tracking drawing.

Bryn Lane / Industrial Estate Road

- 1.1.4 The proposed Utopia access roundabout has been further amended following comments from the Council. **Appendix TN2** provides the updated roundabout and tracking drawing.
- 1.1.5 The Council queries the development traffic flows figures where negative values were shown. This can be confirmed as the development passby trips for the retail / drivethru uses which are rerouted into the site and then route back onto their primary journeys.
- 1.1.6 The Council also queried the trip distribution used for Phase 1 and Phase 2. For robustness all of Phase 1 has been assumed to arrive and depart from Bryn Lane and all of Phase 2 to arrive and depart from the new roundabout access. In practice, the second access off Bryn Lane will be used by some traffic and reduce the number of trips from the roundabout.
- 1.1.7 **Table 1.1** provides a comparison of the 2023 surveyed capacity assessments with hourly average queue length surveys undertaken alongside the turning count surveys with slope / intercept calibration. The full ARCADY output is provided in **Appendix TN3**.
- 1.1.8 It should be noted that Transport Research Laboratory (TRL) advise to avoid “forcing” the model by changing geometry unless it was measured incorrectly, therefore, the junction model has been calibrated via the slope / intercept values of each arm.
- 1.1.9 The disadvantage of this is that when adjusting slope / intercept values this results in fixed saturation flows. Subsequent improvements to geometries then won’t be considered within ARCADY and results won’t reflect any future improvements made.

**Tables 1.1: Existing Bryn Lane / Industrial Estate Road – Capacity Summary (Calibrated) –
2023 Base / Queue Length Survey Comparison**

	2023 Base (Surveyed) AM [0800-0900]		2023 Base (Surveyed) PM [1630-1730]	
Arm	RFC	Queue	RFC	Queue
Bryn Lane	0.23	1	0.22	0
Ash Road North	0.20	0	0.82	5
Abenbury Way	0.24	0	0.92	8
Industrial Estate Road	0.63	2	0.20	0
	2022 Observed (Kingsmoor TA) AM		2022 Observed (Kingsmoor TA) PM	
Arm	RFC	Queue	RFC	Queue
Bryn Lane	0.21	0	0.25	0
Ash Road North	0.14	0	0.57	1
Abenbury Way	0.24	0	0.68	2
Industrial Estate Road	0.72	3	0.24	0
	Queue Length Survey AM [0800-0900]		Queue Length Survey PM [1630-1730]	
Arm	Hourly Average Queues (Vehicles)		Hourly Average Queues (Vehicles)	
Bryn Lane	2		2	
Ash Road North	2		6	
Abenbury Way	1		9	
Industrial Estate Road	1		0	

1.1.10 **Table 1.2** presents the 2030 base assessment without the proposed development.

Table 1.2: Existing Bryn Lane / Industrial Estate Road – 2030 Base

Arm	2030 Base AM Peak		2030 Base PM Peak	
	RFC	Queue	RFC	Queue
Bryn Lane	0.26	1	0.23	0
Ash Road North	0.22	0	0.89	7
Abenbury Way	0.25	0	1.04	23
Industrial Estate Road	0.66	2	0.29	0

1.1.11 **Table 1.2** shows that in the 2030 Base assessment the Abenbury Way junction operates over capacity even without the proposed development.

1.1.12 **Table 1.3** presents the corresponding capacity assessment with the proposed development in place.

Table 1.3: Existing Bryn Lane / Industrial Estate Road – 2030 Base + Development [Phase 1] (Sensitivity – No Committed Developments)

Arm	2030 Base + Development (Phase 1) AM Peak		2030 Base + Development (Phase 1) PM Peak	
	RFC	Queue	RFC	Queue
Bryn Lane	0.35	1	0.34	1
Ash Road North	0.22	0	1.02	16
Abenbury Way	0.26	0	1.21	56
Industrial Estate Road	0.73	3	0.25	0

1.1.13 As can be seen from table above, Phase 1 of the developments would have a marginal impact on the existing roundabout operation although Abenbury Way and Ash Road North would operate over capacity.

1.1.14 As part of the Phase 2 development significant improvements are to be made to the roundabout as provided in **Appendix TN2**. **Tables 1.4** shows the results of the capacity assessment with the proposed development in place. Note the slope / intercept values have been removed for this assessment to allow the improvements to be considered within ARCADY. The full ARCADY output is provided in **Appendix TN4**.

**Tables 1.4: Proposed Site Access / Industrial Estate Road (Improvements) – 2030 & 2037
Base + Development (Sensitivity – No Committed Developments)**

	2030 Base + Development (Phase 1) AM Peak [Sensitivity - No Comm Dev]		2030 Base + Development (Phase 1) PM Peak [Sensitivity - No Comm Dev]		2037 Base + Development (Phase 1 & 2) AM Peak [Sensitivity - No Comm Dev]		2037 Base + Development (Phase 1 & 2) PM Peak [Sensitivity – No Comm Dev]	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Bryn Lane	0.31	1	0.33	1	0.40	1	0.43	1
Ash Road North	0.12	0	0.60	2	0.15	0	0.78	3
Abenbury Way	0.17	0	0.47	1	0.18	0	0.68	2
Industrial Estate Road	0.67	2	0.23	0	0.80	4	0.32	1
Proposed Site Access	0.00	0	0.00	0	0.43	1	0.35	1

1.1.15 The assessment demonstrates that the proposed Phase 2 roundabout improvement would operate well within capacity and would result in an improvement to the operation of the junction. In order to mitigate the traffic impact for Phase 1 the improvements could be brought forward prior final occupation of the last unit.

1.1.16 There is no LDP improvement for this junction, therefore the Council could request further contributions from future planning applications where there may be an impact at this junction.

A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane

1.1.17 **Tables 1.5** below provides a comparison of the 2023 Surveyed capacity assessments and the “hourly average” queue length surveys undertaken in conjunction with the turning count surveys. The full ARCADY output is provided in **Appendix TN5**.

Tables 1.5: A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Junction (Calibrated) – 2023 Base / Queue Length Survey Comparison

	2023 Base (Surveyed) AM [0800-0900]		2023 Base (Surveyed) PM [1630-1730]	
Arm	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.25	0	0.04	0
Wrexham Road	0.09	8	0.43	1
Industrial Estate Road	0.26	1	0.83	6
Sandy Lane	0.04	0	0.06	0
A534	0.62	2	0.31	1
	2022 Observed (Kingsmoor TA) AM		2022 Observed (Kingsmoor TA) PM	
Arm	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.13	0	0.02	0
Wrexham Road	0.64	2	0.34	1
Industrial Estate Road	0.24	0	0.71	3
Sandy Lane	0.03	0	0.06	0
A534	0.75	3	0.33	1

	Queue Length Survey AM [0800-0900]	Queue Length Survey PM [1630-1730]
Arm	Hourly Average Queues (Vehicles)	Hourly Average Queues (Vehicles)

Borras Hall Lane	4	1
Wrexham Road	10	4
Industrial Estate Road	2	8
Sandy Lane	1	1
A534	2	2

1.1.18 **Table 1.6** shows the 2030 Base assessment of the roundabout without the development in place.

1.1.19 **Table 1.7** shows the results of the capacity assessment with Phase 1 and 2 in place but without any committed developments.

Tables 1.6: A534 / Industrial Estate Road / Sandy Lane / Borras Hall Lane Roundabout Junction – 2030 & 2037 Base

	2030 Base AM Peak		2030 Base PM Peak		2037 Base AM Peak		2037 Base PM	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Borras Hall Lane	0.29	1	0.04	0	0.33	1	0.04	0
Wrexham Road	0.89	7	0.43	1	1.03	23	0.46	1
Industrial Estate Road	0.27	1	0.89	7	0.28	1	0.95	15
Sandy Lane	0.04	0	0.07	0	0.04	0	0.09	0
A534	0.65	2	0.33	1	0.69	3	0.35	1

Tables 1.7: A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Junction – 2030 & 2037 Base + Development (Sensitivity – No Committed Developments)

	2030 Base + Development (Phase 1) AM Peak [Sensitivity - No Comm Dev]		2030 Base + Development (Phase 1) PM Peak [Sensitivity - No Comm Dev]		2037 Base + Development (Phase 1 & 2) AM Peak [Sensitivity - No Comm Dev]		2037 Base + Development (Phase 1 & 2) PM Peak [Sensitivity – No Comm Dev]	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.34	1	0.03	0	0.49	1	0.06	0
Wrexham Road	1.32	74	0.49	1	2.33	198.8	0.54	1
Industrial Estate Road	0.31	1	1.00	33	0.38	1	1.17	174
Sandy Lane	0.04	0	0.08	0	0.04	0	0.10	0
A534	0.72	3	0.37	1	0.83	5	0.45	1

- 1.1.20 The junction would operate above capacity for both Phase 1 and 2. Where RFC exceeds 1.0, the junction is operating beyond theoretical capacity and ARCADY results should be treated as indicative only as the 2037 with Phase 2 assessment shows RFC of 2.33 on the Wrexham arm.
- 1.1.21 It is proposed that in order to mitigate the traffic impact at the A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane roundabout junction, the Industrial Estate Road arm, Wrexham Road arm and circulatory roundabout are improved. The proposed improvement drawing is provided in **Appendix TN6**.
- 1.1.22 **Tables 1.8** summarises the 2030 (Phase 1) & 2037 (Phase 1 & 2) Base with development capacity assessments with the improvements in place. The results show that the roundabout would operate within capacity with reduced queues. **Appendix TN6** provides the ARCADY Output.

Table 1.8: A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Junction – 2030 & 2037 Base + Development (Sensitivity – No Committed Developments)

	2030 Base + Development (Phase 1) AM Peak [Sensitivity - Without KSS2]		2030 Base + Development (Phase 1) PM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) AM Peak [Sensitivity - Without KSS2]		2037 Base + Development (Phase 1 & 2) PM Peak [Sensitivity - Without KSS2]	
Arm	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Borrass Hall Lane	0.34	1	0.04	0	0.49	1	0.06	0
Wrexham Road	0.33	1	0.22	0	0.40	1	0.25	0
Industrial Estate Road	0.21	0	0.63	2	0.26	1	0.73	3
Sandy Lane	0.04	0	0.08	0	0.05	0	0.17	0
A534	0.72	3	0.37	1	0.83	5	0.46	1

1.1.23 The above assessments show the RFC and queue numbers along both Wrexham Road and Industrial Estate Road decrease, and the proposed improved junction works within capacity.

1.1.24 As there is an LDP improvement scheme (proposed as part of KSS2 North) at this junction, it is proposed that these improvements are costed by a Quantity Surveyor and secured via a S106 contribution for WCBC to deliver these holistically.

A534 / A5156 / Stryt Holt Roundabout Junction

1.1.25 **Tables 1.9** provides a comparison of the 2023 Base capacity assessments and the “hourly average” queue length surveys undertaken in conjunction with the turning count surveys. The full ARCADY output is provided in **Appendix TN7**.

Tables 1.9: Stryt Holt Roundabout Junction (Calibrated) – 2023 Base / Queue Length

	2023 Base (Surveyed) AM [0800-0900]		2023 Base (Surveyed) PM [1630-1730]	
Arm	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.34	1	0.16	0
A534 (East)	0.39	1	0.85	6
Stryt Holt	0.60	2	0.82	4
A5156	0.71	3	0.37	1
	2022 Observed (Kingsmoor TA) AM		2022 Observed (Kingsmoor TA) PM	
Arm	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.33	1	0.17	0
A534 (East)	0.30	1	0.70	2
Stryt Holt	0.44	1	0.44	1
A5156	0.73	3	0.34	1
	Queue Length Survey AM [0800-0900]		Queue Length Survey PM [1630-1730]	
Arm	Hourly Average Queues (Vehicles)		Hourly Average Queues (Vehicles)	
Shell / Golf Site Access	3		2	
A534 (East)	3		7	
Stryt Holt	4		5	
A5156	5		2	

1.1.26 **Table 1.10** shows the 2030 / 2037 Base assessment without the development in place.

Table 1.10: A534 / A5156 / Stryt Holt Roundabout Junction – 2030 / 2037 Base

Arm	2030 Base AM Peak		2030 Base PM Peak		2037 Base AM Peak		2037 Base PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.40	1	0.18	0	0.47	1	0.19	0
A534 (East)	0.41	1	0.91	9	0.44	1	0.97	19
Stryt Holt	0.64	2	0.94	10	0.69	2	1.09	20
A5156	0.76	3	0.39	1	0.81	4	0.41	1

1.1.27 **Tables 1.11** shows the results of the capacity assessment, without any committed developments in place.

Tables 1.11: A534 / A5156 / Stryt Holt Roundabout Junction – 2030 & 2037 Base + Development (Sensitivity – No Committed Developments)

Arm	2030 Base + Development (Phase 1) AM Peak [Sensitivity - No Comm Dev]		2030 Base + Development (Phase 1) PM Peak [Sensitivity - No Comm Dev]		2037 Base + Development (Phase 1 & 2) AM Peak [Sensitivity - No Comm Dev]		2037 Base + Development (Phase 1 & 2) PM Peak [Sensitivity - No Comm Dev]	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.47	1	0.19	0	0.57	1	0.22	0
A534 (East)	0.45	1	0.98	22	0.48	1	1.12	139
Stryt Holt	0.69	2	1.07	25	0.74	3	1.22	65
A5156	0.83	5	0.43	1	0.89	8	0.51	1

1.1.28 The junction would operate over capacity in the 2030 PM peak scenario along the A534 and Stryt Holt arms of the roundabout.

1.1.29 As part of Phase 2 the improvements are to be provided as set out in **Appendix TN8**.

1.1.30 **Tables 1.12 & 1.13** summarises the 2030 (Phase 1) & 2037 (Phase 1 & 2) with and without development capacity assessments with the improvements in place. The results show that the roundabout would within capacity with reduced queues. **Appendix TN8** provides the ARCADY Output.

Table 1.12: A534 / A5156 / Stryt Holt Roundabout Junction Roundabout Junction –2030 & 2037 Base + Development (Improved)

Arm	2030 Base + Development (Phase 1) AM Peak		2030 Base + Development (Phase 1) PM Peak		2037 Base + Development (Phase 1 & 2) AM Peak		2037 Base + Development (Phase 1 & 2) PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Shell / Golf Site Access	0.47	1	0.19	0	0.57	1	0.23	0
A534 (East)	0.27	0	0.58	1	0.28	1	0.66	2
Stryt Holt	0.51	1	0.63	2	0.55	2	0.71	4
A5156	0.83	5	0.43	1	0.89	8	0.52	1

1.1.31 The above assessments show the RFC and queue numbers along the A545 arm decrease, and the proposed improved junction works within capacity.

1.1.32 As there is an LDP improvement scheme (proposed as part of KSS2 North) at this junction, it is proposed that these improvements are costed by a Quantity Surveyor and secured via a S106 contribution for WCBC to deliver these holistically.

Parking Provision

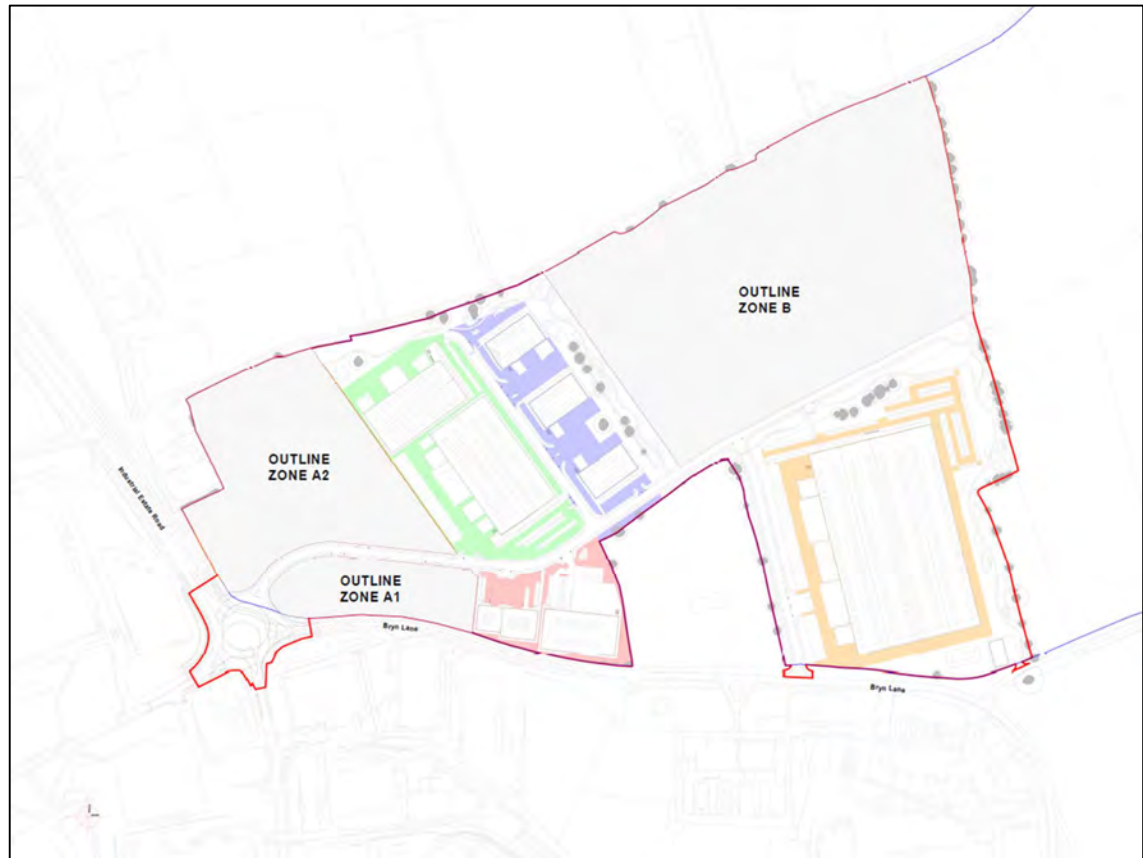
1.1.33 There are no end occupiers confirm yet, therefore, in order to provide flexibility Use Classes for the units cannot be provided at this stage. The Council could include planning conditions to allocate land use classes to the units depending on parking levels.

Internal Site Area

1.1.34 The internal site has been designed to industrial standards with 7.3m carriageways including 2m footways and 2m cycle on both sides of the carriageway. All junctions and accesses have 15m radii.

Appendix TN9 provides the phasing plan with an extract provided in **Figure 1**. Tracking has already been provided for the two cul-de-sacs within the site. Additional tracking will be provided at the detailed design stage.

Figure 1: Phasing Plan

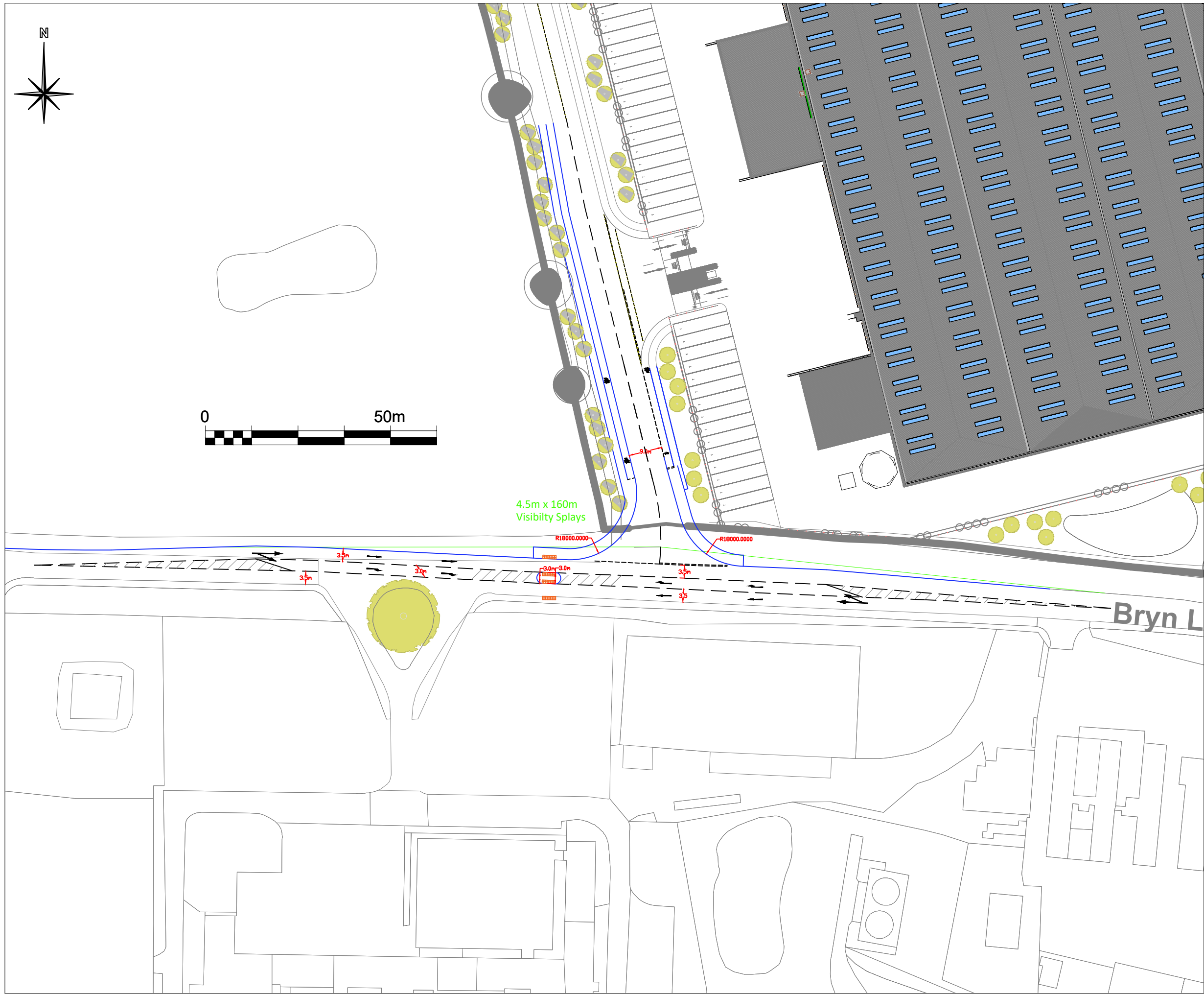


Conclusion

- 1.1.35 The assessments demonstrate that the proposed development can be accommodated on the local highway network.
- 1.1.36 Phase 2 junction improvements provide a clear operational benefit and ensure that the network continues to operate within acceptable capacity limits, subject to the mitigation measures identified.

Appendices

Appendix TN1 – Bryn Lane Access



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

D	04/03/26	Updated to Council's comments	TC	MC
C	07/01/26	Updated to capacity assessment	TC	MC
B	31/01/23	Updated to Council and RSA comments	TC	MC
A	26/06/23	Updated to team comments	TC	MC

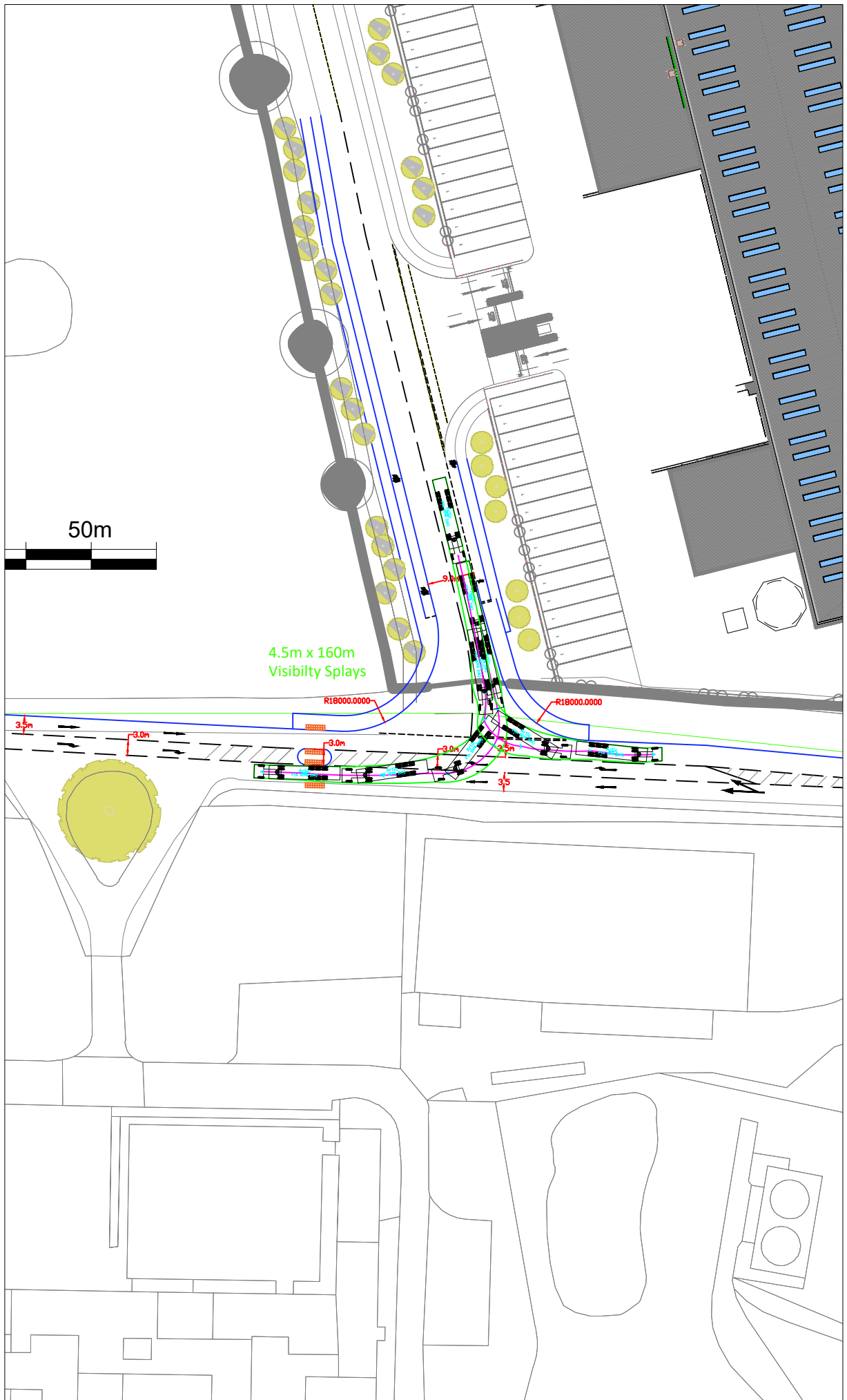
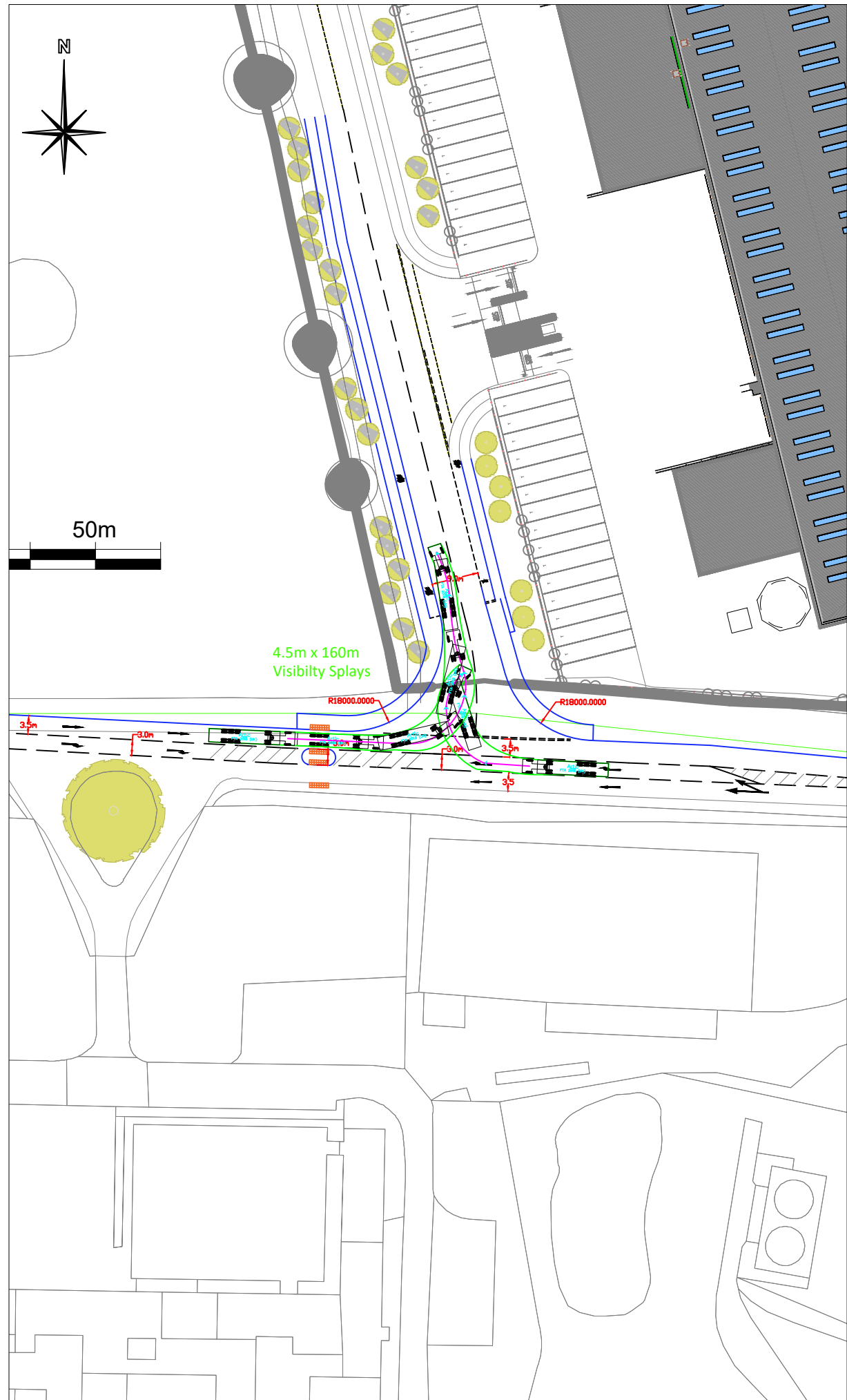
Rev	Date	Description	Ckd	By
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CoraiHt

Adamson House, Towers Business Park
Wilmslow Road
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M20 2YJ

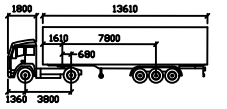
Tel: 0161 955 4422
Email: manchester@coraiht.com
Web: www.coraiht.com

Client				
Net World Sports Limited				
Project				
North of Bryn Lane Wrexham				
Title				
Proposed Bryn Lane Access Arrangement				
Drawing Status				
Job No. 16-2067				
Drawn MC	Checked TC	Scale at A3 1:1000	Date 24/05/23	Issue Date -
Drawing No. 102				D



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Artic			
Tractor Width	2550	Lock to Lock Time	6.0
Tractor Width	2550	Steering Angle	42.7
Tractor Track	2550	Articulating Angle	75.0
Tractor Track	2550		

Rev	Date	Description	Ckd	By
B	04/02/26	Updated to Council's comments	TC	MC
A	21/01/26	Updated to Council's comments	TC	MC

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Client

Net World Sports Limited

Project

North of Bryn Lane
Wrexham

Title

Proposed Bryn Lane Access
Arrangement

Drawing Status

Job No.

16-2067

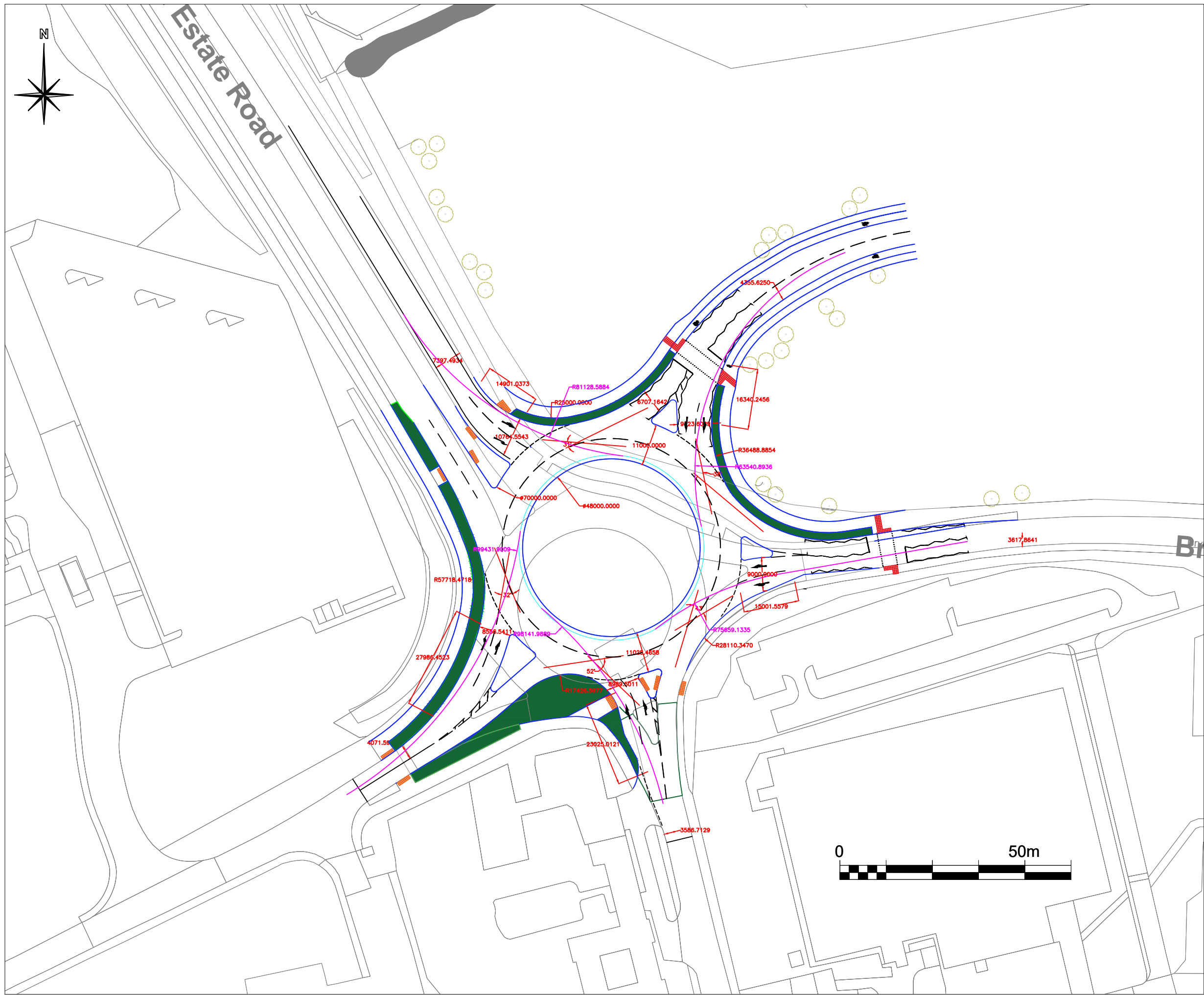
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MC	TC	1:1000	24/05/23	-

Drawing No.

106

B

Appendix TN2 - Bryn Lane / Industrial Estate Road Roundabout Drawings



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

A	04/02/26	Updated to Council's comments	TC	MC
Rev	Date	Description	Ckd	By

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Title

Proposed Roundabout Access
Arrangement

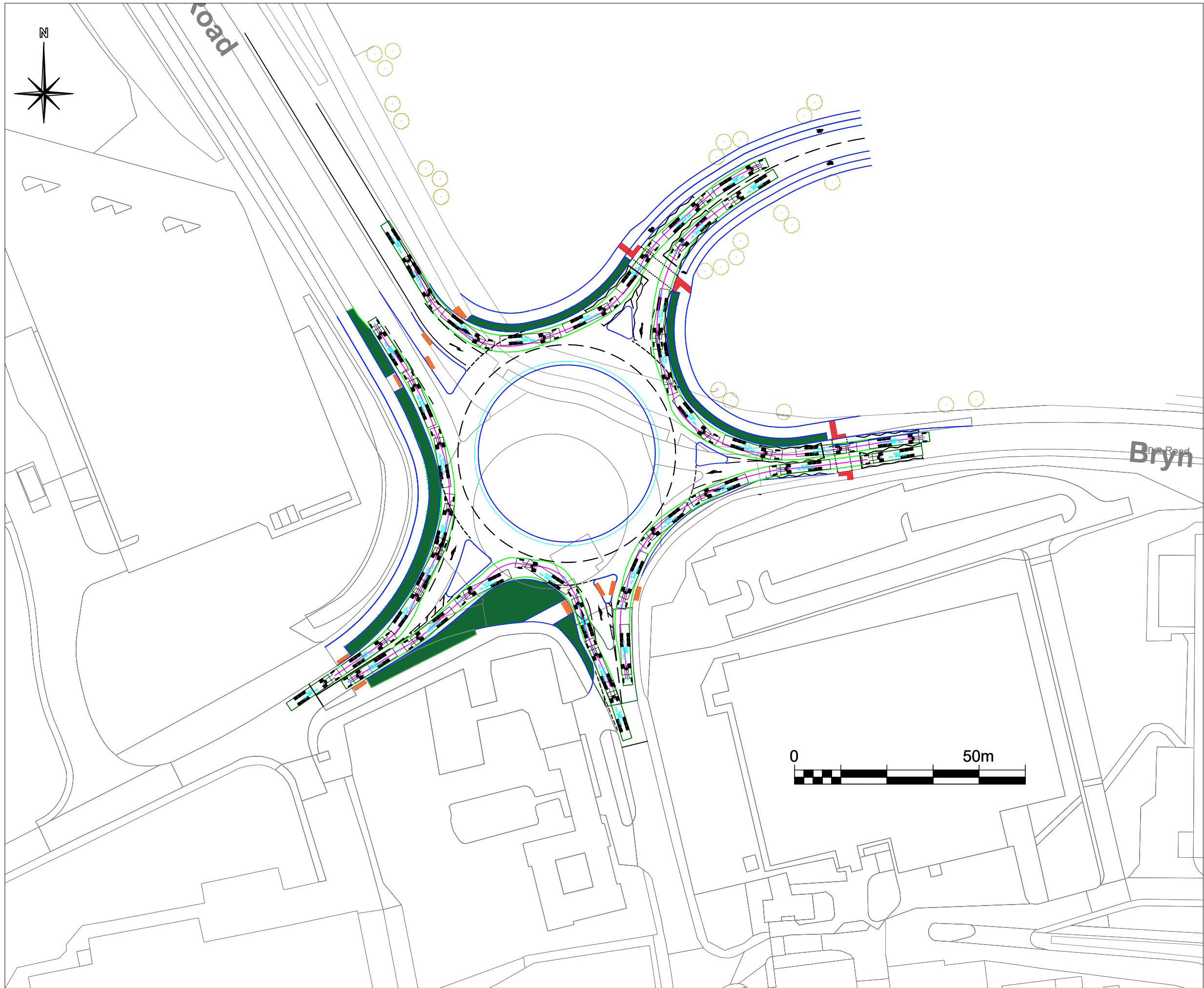
Drawing Status

Job No. 16-2067

Drawn MC	Checked TC	Scale at A3 1:1000	Date 27/01/26	Issue Date -
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Drawing No. 201

A



- Notes:**
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 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

A	04/02/26	Updated to Council's comments	TC	MC
Rev	Date	Description	Ckd	By

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Client

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Project

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Title

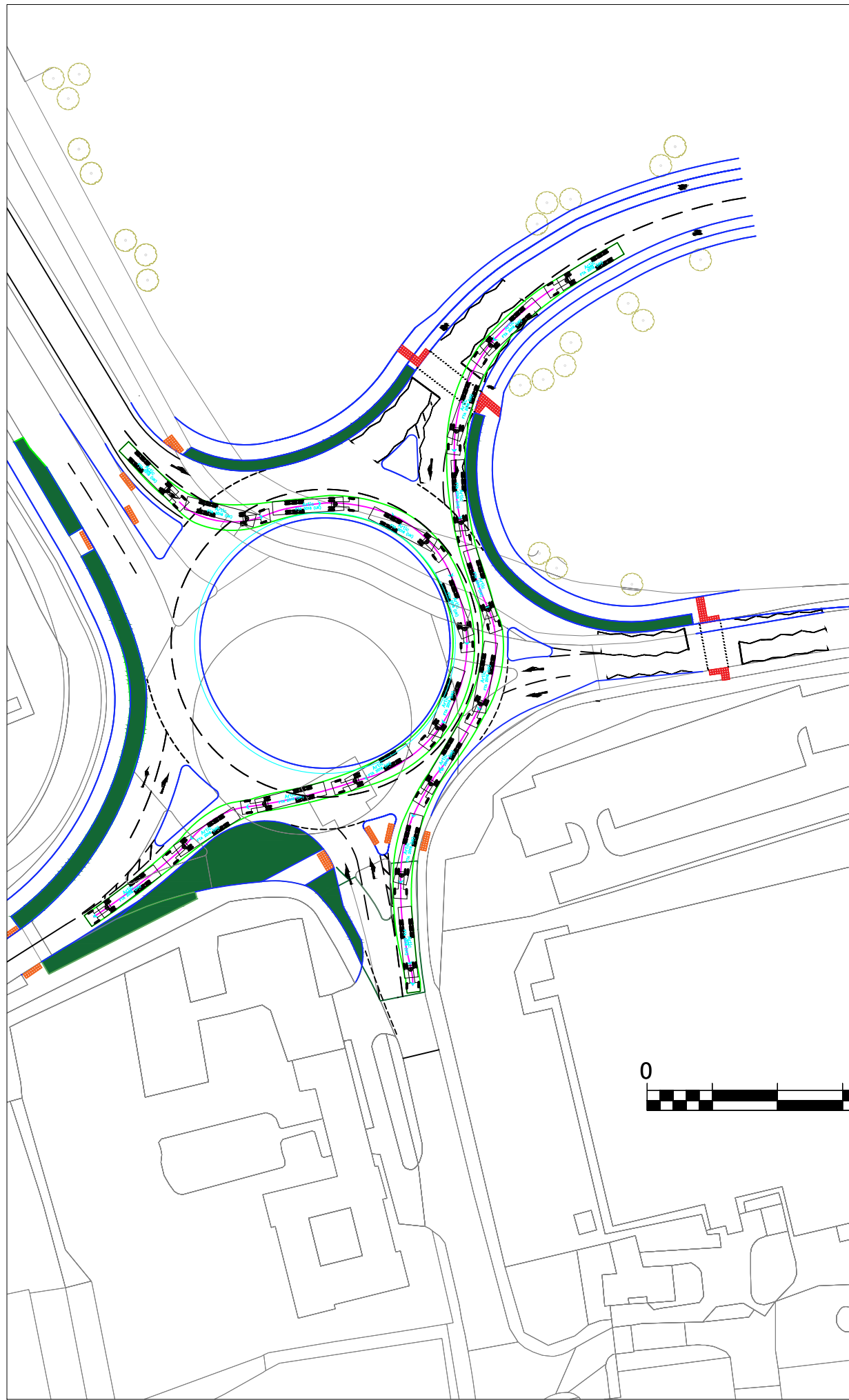
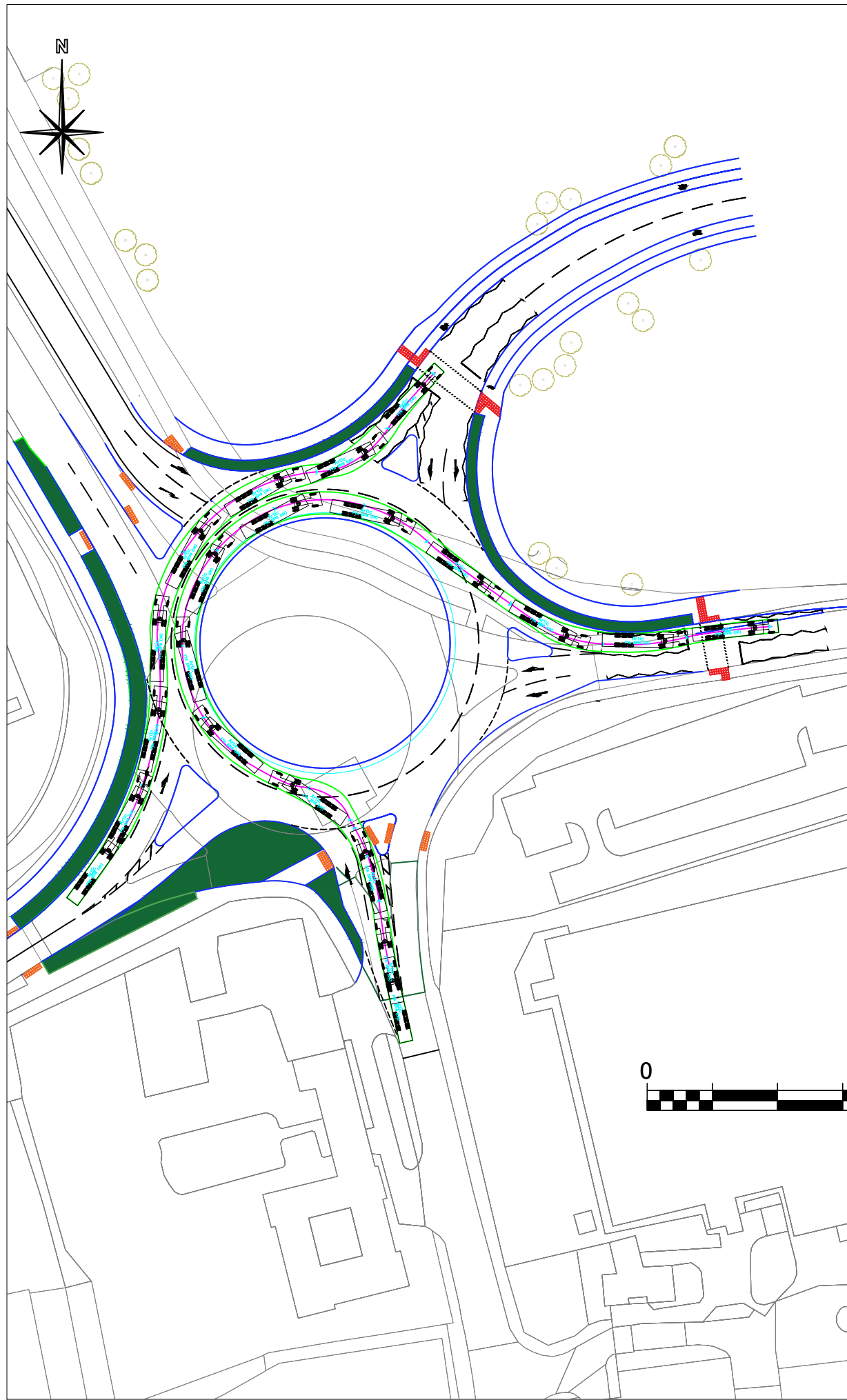
Proposed Roundabout Access
Arrangement
Tracking

Drawing Status

Job No. 16-2067

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Notes:

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A	04/02/26	Updated to Council's comments	TC	MC
Rev	Date	Description	Ckd	By

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Client

Net World Sports Limited

Project

North of Bryn Lane
Wrexham

Title

Proposed Roundabout Access
Arrangement
Tracking

Drawing Status

Job No.

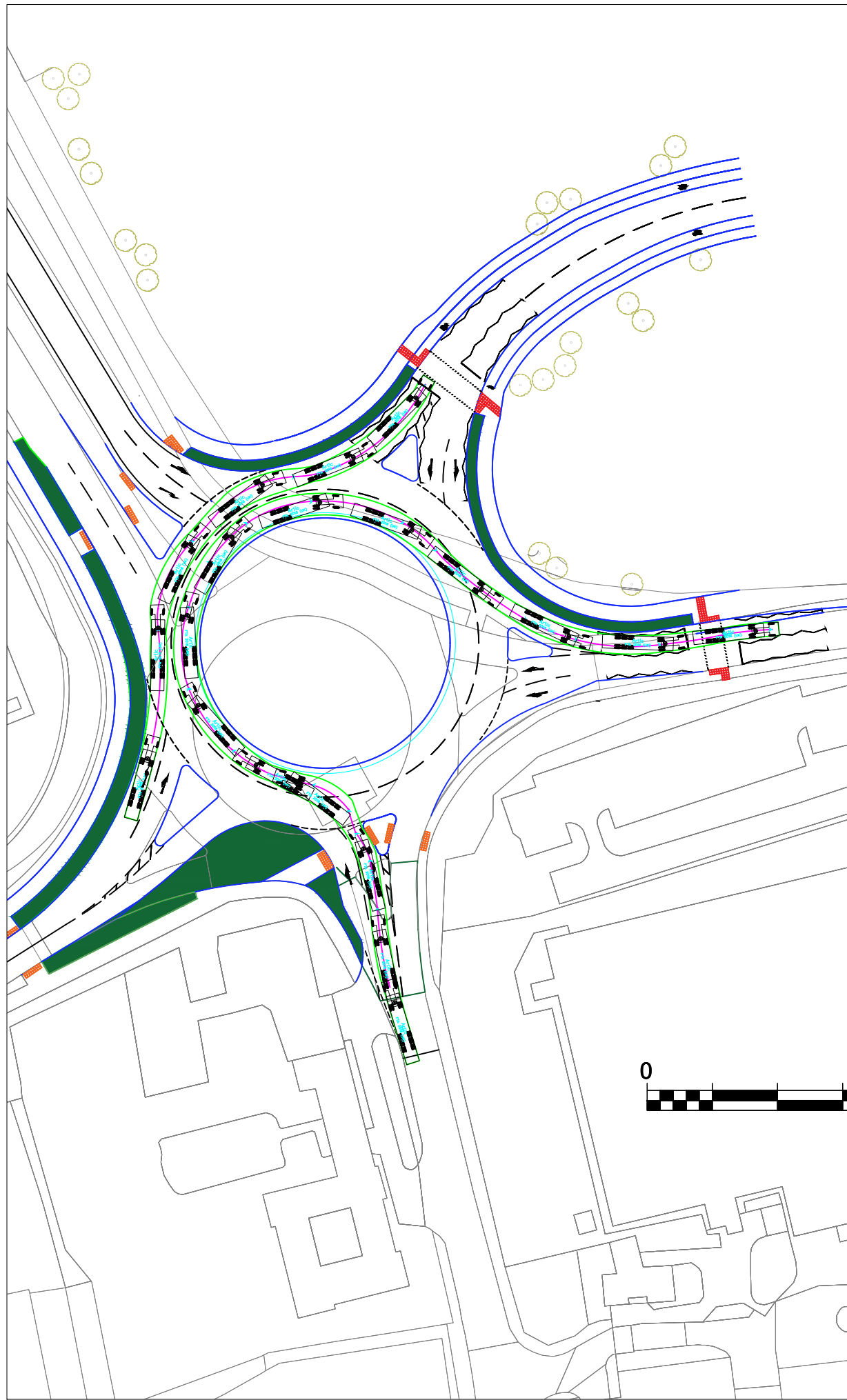
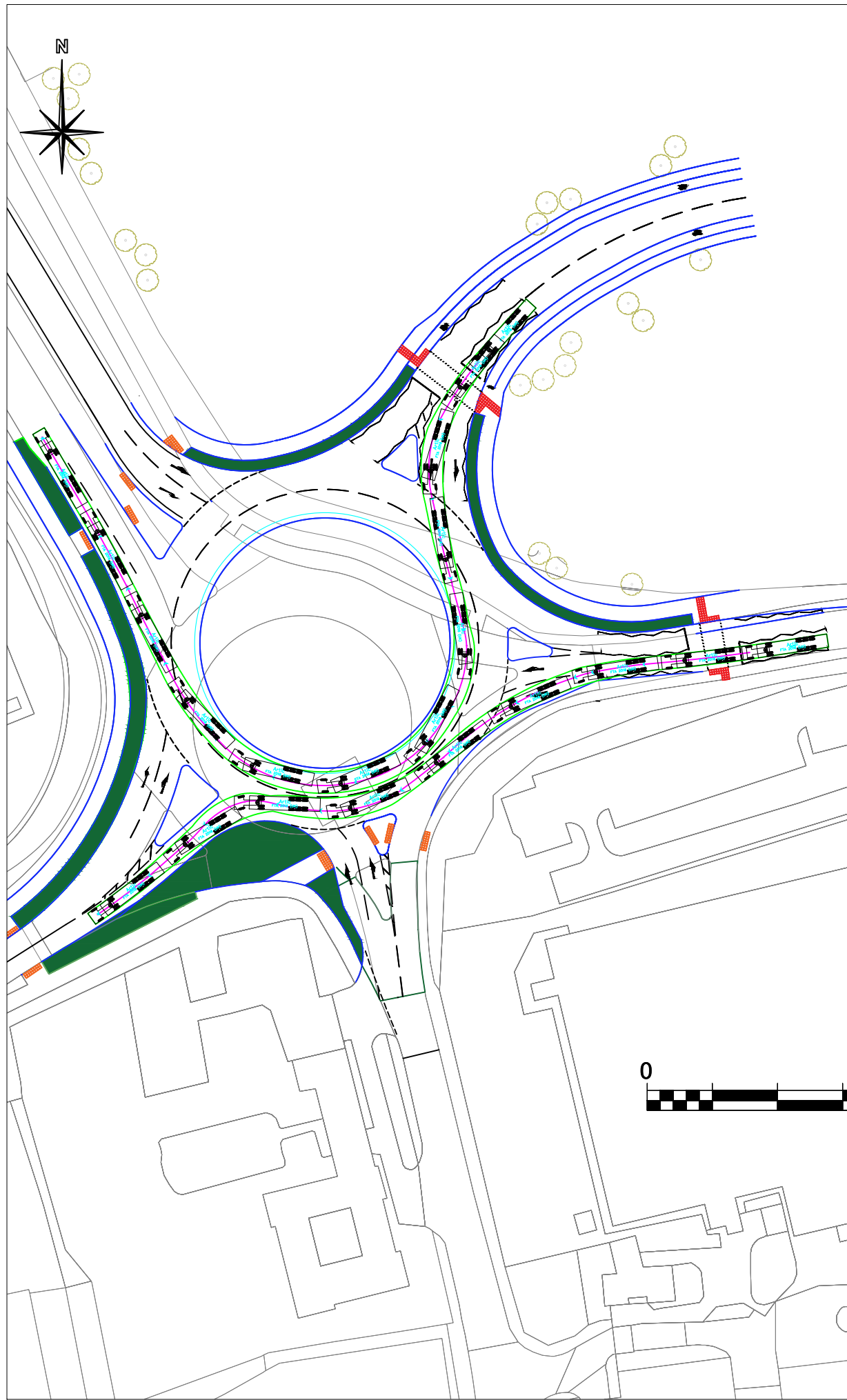
16-2067

Drawn	Checked	Scale at A3	Date	Issue Date
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Drawing No.

203

A



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

A	04/02/26	Updated to Council's comments	TC	MC
Rev	Date	Description	Ckd	By

Cora^{iHt}

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Client	Net World Sports Limited			
Project	North of Bryn Lane Wrexham			
Title	Proposed Roundabout Access Arrangement Tracking			
Drawing Status				
Job No.	16-2067			
Drawn MC	Checked TC	Scale at A3 1:1000	Date 27/01/26	Issue Date -
Drawing No.	204			A

Appendix TN3 –Bryn lane / Industrial Estate Road ARCADY

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
© Copyright TRL Software Limited, 2021	
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com	
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: Industrial Estate Road, Wrexham ARCADY (Existing) - calib.j10

Path: D:\Cora IHT\Wrexham (2)\January 2026

Report generation date: 03/02/2026 16:01:12

-
- »2030 Base, AM
 - »2030 Base, PM
 - »2030 Base + Committed, AM
 - »2030 Base + Committed, PM
 - »2030 Base + Committed + Development (Phase 1), AM
 - »2030 Base + Committed + Development (Phase 1), PM
 - »2030 Base + Committed + Development (Phase 1) [Sens], AM
 - »2030 Base + Committed + Development (Phase 1) [Sens], PM
 - »2030 Base + Development (Phase 1), AM
 - »2030 Base + Development (Phase 1), PM
 - »2023 Base, AM
 - »2023 Base, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base									
1 - Bryn Lane	D1	0.4	6.07	0.26	A	D2	0.3	3.24	0.23	A
2 - Ash Road North		0.4	7.33	0.22	A		7.3	31.27	0.89	D
3 - Abenbury Way		0.3	4.21	0.25	A		22.7	127.54	1.04	F
4 - Industrial Estate Road		2.0	4.47	0.66	A		0.3	2.00	0.21	A
	2030 Base + Committed									
1 - Bryn Lane	D3	0.9	8.90	0.41	A	D4	0.7	4.20	0.39	A
2 - Ash Road North		0.6	9.59	0.33	A		123.0	437.80	1.28	F
3 - Abenbury Way		0.4	4.81	0.28	A		73.7	540.43	1.26	F
4 - Industrial Estate Road		4.3	7.81	0.81	A		0.5	2.22	0.29	A
	2030 Base + Committed + Development (Phase 1)									
1 - Bryn Lane	D5	1.3	11.05	0.52	B	D6	1.1	5.13	0.50	A
2 - Ash Road North		0.7	11.21	0.36	B		204.4	832.24	1.51	F
3 - Abenbury Way		0.4	5.20	0.29	A		97.0	723.44	1.32	F
4 - Industrial Estate Road		7.3	12.35	0.88	B		0.5	2.34	0.33	A
	2030 Base + Committed + Development (Phase 1) [Sens]									
1 - Bryn Lane	D7	1.1	8.97	0.47	A	D8	1.0	4.84	0.49	A
2 - Ash Road North		0.5	9.75	0.27	A		113.2	441.99	1.30	F
3 - Abenbury Way		0.4	4.93	0.28	A		89.9	667.12	1.32	F
4 - Industrial Estate Road		4.5	8.10	0.81	A		0.5	2.23	0.30	A
	2030 Base + Development (Phase 1)									
1 - Bryn Lane	D9	0.7	7.16	0.35	A	D10	0.5	3.75	0.34	A
2 - Ash Road North		0.4	8.25	0.24	A		26.1	102.55	1.02	F
3 - Abenbury Way		0.4	4.50	0.26	A		55.5	303.24	1.21	F
4 - Industrial Estate Road		2.9	5.69	0.73	A		0.4	2.09	0.25	A
	2023 Base									
1 - Bryn Lane	D1-2	0.4	5.61	0.23	A	D2-1	0.3	3.15	0.22	A
2 - Ash Road North		0.3	6.86	0.20	A		4.5	19.83	0.82	C
3 - Abenbury Way		0.3	4.14	0.24	A		8.0	53.52	0.92	F
4 - Industrial Estate Road		1.8	4.05	0.63	A		0.3	1.97	0.20	A

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

File summary

File Description

Title	Industrial Estate Road / Bryn Lane / Ash Road North / Abenbury Way
Location	Wrexham
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	
Enumerator	LAPTOP-DTQ9HGBB\mchau
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D9	2030 Base + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D10	2030 Base + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D1-2	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2-1	2023 Base	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.81	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	5.00	5.0	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	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane				0.569	1744
2 - Ash Road North	✓	0.780	1425	0.780	1425
3 - Abenbury Way	✓	0.630	1365	0.630	1365
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 segment length (min)
D1	2030 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	218	100.000
2 - Ash Road North		✓	160	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1506	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	52	43	123
	2 - Ash Road North	4	1	11	144
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	246	716	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.26	6.07	0.4	A
2 - Ash Road North	0.22	7.33	0.4	A
3 - Abenbury Way	0.25	4.21	0.3	A
4 - Industrial Estate Road	0.66	4.47	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	164	963	1197	0.137	163	0.2	4.118	A
2 - Ash Road North	120	533	1009	0.119	120	0.2	5.260	A
3 - Abenbury Way	200	215	1230	0.163	199	0.2	3.565	A
4 - Industrial Estate Road	1134	28	2516	0.451	1130	0.9	2.729	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	196	1152	1089	0.180	196	0.3	4.765	A
2 - Ash Road North	144	638	928	0.155	144	0.2	5.976	A
3 - Abenbury Way	239	258	1203	0.199	239	0.3	3.811	A
4 - Industrial Estate Road	1354	34	2512	0.539	1352	1.2	3.265	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	240	1410	942	0.255	239	0.4	6.051	A
2 - Ash Road North	176	780	817	0.216	176	0.4	7.310	A
3 - Abenbury Way	293	315	1166	0.251	293	0.3	4.202	A
4 - Industrial Estate Road	1658	42	2506	0.662	1655	2.0	4.435	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	240	1413	941	0.255	240	0.4	6.074	A
2 - Ash Road North	176	782	815	0.216	176	0.4	7.332	A
3 - Abenbury Way	293	316	1166	0.251	293	0.3	4.207	A
4 - Industrial Estate Road	1658	42	2506	0.662	1658	2.0	4.469	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	196	1156	1087	0.180	197	0.3	4.787	A
2 - Ash Road North	144	640	926	0.155	144	0.2	6.001	A
3 - Abenbury Way	239	259	1202	0.199	239	0.3	3.820	A
4 - Industrial Estate Road	1354	34	2512	0.539	1357	1.2	3.294	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	164	967	1194	0.137	164	0.2	4.135	A
2 - Ash Road North	120	535	1007	0.120	121	0.2	5.288	A
3 - Abenbury Way	200	216	1229	0.163	200	0.2	3.576	A
4 - Industrial Estate Road	1134	29	2516	0.451	1135	0.9	2.748	A

2030 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	45.43	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	45.43	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	325	100.000
2 - Ash Road North		✓	810	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	475	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	300
	2 - Ash Road North	16	0	10	784
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	131	164	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.23	3.24	0.3	A
2 - Ash Road North	0.89	31.27	7.3	D
3 - Abenbury Way	1.04	127.54	22.7	F
4 - Industrial Estate Road	0.21	2.00	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	245	261	1596	0.153	244	0.2	2.798	A
2 - Ash Road North	610	371	1136	0.537	605	1.2	6.878	A
3 - Abenbury Way	420	836	838	0.501	416	1.0	8.471	A
4 - Industrial Estate Road	358	29	2515	0.142	357	0.2	1.836	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	292	313	1566	0.187	292	0.2	2.969	A
2 - Ash Road North	728	444	1079	0.675	725	2.1	10.285	B
3 - Abenbury Way	502	1001	734	0.683	497	2.1	14.967	B
4 - Industrial Estate Road	427	35	2511	0.170	427	0.2	1.901	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	358	383	1527	0.234	358	0.3	3.237	A
2 - Ash Road North	892	543	1001	0.891	874	6.6	25.875	D
3 - Abenbury Way	614	1213	601	1.022	567	13.9	68.121	F
4 - Industrial Estate Road	523	41	2507	0.209	523	0.3	1.997	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	358	383	1526	0.234	358	0.3	3.237	A
2 - Ash Road North	892	544	1001	0.891	889	7.3	31.272	D
3 - Abenbury Way	614	1228	591	1.039	579	22.7	127.545	F
4 - Industrial Estate Road	523	41	2507	0.209	523	0.3	1.998	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	292	314	1566	0.187	292	0.2	2.974	A
2 - Ash Road North	728	444	1078	0.675	748	2.2	11.793	B
3 - Abenbury Way	502	1025	719	0.698	582	2.5	39.648	E
4 - Industrial Estate Road	427	39	2509	0.170	427	0.2	1.907	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	245	262	1595	0.153	245	0.2	2.805	A
2 - Ash Road North	610	372	1135	0.537	614	1.2	7.118	A
3 - Abenbury Way	420	846	832	0.505	426	1.0	9.003	A
4 - Industrial Estate Road	358	30	2515	0.142	358	0.2	1.837	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4	7.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.79	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	317	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1837	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	52	43	222
	2 - Ash Road North	4	1	11	202
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	418	875	529	15

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.41	8.90	0.9	A
2 - Ash Road North	0.33	9.59	0.6	A
3 - Abenbury Way	0.28	4.81	0.4	A
4 - Industrial Estate Road	0.81	7.81	4.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1082	1129	0.211	237	0.3	4.906	A
2 - Ash Road North	164	606	952	0.172	163	0.3	5.956	A
3 - Abenbury Way	200	332	1156	0.173	199	0.2	3.839	A
4 - Industrial Estate Road	1383	28	2516	0.550	1378	1.3	3.315	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1294	1008	0.283	284	0.5	6.047	A
2 - Ash Road North	196	726	859	0.228	196	0.4	7.088	A
3 - Abenbury Way	239	398	1114	0.215	239	0.3	4.196	A
4 - Industrial Estate Road	1651	34	2512	0.657	1649	2.0	4.374	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1581	845	0.413	348	0.8	8.778	A
2 - Ash Road North	240	887	733	0.327	239	0.6	9.499	A
3 - Abenbury Way	293	487	1058	0.277	292	0.4	4.795	A
4 - Industrial Estate Road	2023	42	2506	0.807	2014	4.2	7.555	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1587	841	0.415	349	0.9	8.896	A
2 - Ash Road North	240	891	730	0.329	240	0.6	9.591	A
3 - Abenbury Way	293	489	1057	0.277	293	0.4	4.807	A
4 - Industrial Estate Road	2023	42	2506	0.807	2022	4.3	7.812	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1303	1003	0.284	286	0.5	6.126	A
2 - Ash Road North	196	731	855	0.229	197	0.4	7.164	A
3 - Abenbury Way	239	401	1112	0.215	240	0.3	4.211	A
4 - Industrial Estate Road	1651	34	2512	0.657	1660	2.0	4.498	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1088	1125	0.212	239	0.3	4.946	A
2 - Ash Road North	164	610	949	0.173	165	0.3	6.003	A
3 - Abenbury Way	200	335	1154	0.174	201	0.2	3.854	A
4 - Industrial Estate Road	1383	29	2516	0.550	1386	1.3	3.365	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4	266.70	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	266.70	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	530	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	670	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	505
	2 - Ash Road North	16	0	10	930
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	252	238	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.39	4.20	0.7	A
2 - Ash Road North	1.28	437.80	123.0	F
3 - Abenbury Way	1.26	540.43	73.7	F
4 - Industrial Estate Road	0.29	2.22	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	317	1564	0.255	398	0.4	3.226	A
2 - Ash Road North	720	525	1016	0.709	710	2.4	11.701	B
3 - Abenbury Way	420	1095	675	0.622	414	1.6	13.499	B
4 - Industrial Estate Road	504	29	2516	0.201	503	0.3	1.959	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	379	1529	0.312	476	0.5	3.578	A
2 - Ash Road North	859	628	935	0.919	837	8.0	31.962	D
3 - Abenbury Way	502	1298	547	0.917	481	6.7	45.173	E
4 - Industrial Estate Road	602	34	2512	0.240	602	0.3	2.065	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	463	1481	0.394	583	0.7	4.194	A
2 - Ash Road North	1053	769	825	1.275	821	65.9	174.573	F
3 - Abenbury Way	614	1387	491	1.251	486	38.8	187.309	F
4 - Industrial Estate Road	738	34	2512	0.294	737	0.5	2.222	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	464	1480	0.394	584	0.7	4.201	A
2 - Ash Road North	1053	770	825	1.276	824	123.0	406.039	F
3 - Abenbury Way	614	1391	488	1.258	488	70.5	416.694	F
4 - Industrial Estate Road	738	34	2512	0.294	738	0.5	2.222	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	380	1528	0.312	477	0.5	3.587	A
2 - Ash Road North	859	629	934	0.920	926	106.2	437.804	F
3 - Abenbury Way	502	1388	491	1.022	489	73.7	540.428	F
4 - Industrial Estate Road	602	36	2511	0.240	603	0.3	2.067	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	318	1563	0.255	399	0.4	3.241	A
2 - Ash Road North	720	527	1014	0.710	1004	35.0	256.405	F
3 - Abenbury Way	420	1388	490	0.857	484	57.7	490.180	F
4 - Industrial Estate Road	504	37	2510	0.201	505	0.3	1.968	A

2030 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4	11.43	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.43	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	400	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	2002	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	52	43	305
	2 - Ash Road North	4	1	11	202
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	583	875	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.52	11.05	1.3	B
2 - Ash Road North	0.36	11.21	0.7	B
3 - Abenbury Way	0.29	5.20	0.4	A
4 - Industrial Estate Road	0.88	12.35	7.3	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1081	1129	0.267	299	0.4	5.339	A
2 - Ash Road North	164	668	904	0.182	163	0.3	6.342	A
3 - Abenbury Way	200	394	1117	0.179	199	0.2	4.002	A
4 - Industrial Estate Road	1507	28	2516	0.599	1501	1.6	3.714	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1293	1009	0.357	359	0.7	6.821	A
2 - Ash Road North	196	800	801	0.245	195	0.4	7.762	A
3 - Abenbury Way	239	473	1067	0.224	239	0.3	4.433	A
4 - Industrial Estate Road	1800	34	2512	0.716	1796	2.6	5.261	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1575	848	0.519	438	1.3	10.752	B
2 - Ash Road North	240	975	664	0.361	239	0.7	11.023	B
3 - Abenbury Way	293	577	1001	0.292	292	0.4	5.178	A
4 - Industrial Estate Road	2204	42	2507	0.879	2187	7.0	11.289	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1587	842	0.523	440	1.3	11.051	B
2 - Ash Road North	240	982	659	0.364	240	0.7	11.214	B
3 - Abenbury Way	293	580	1000	0.293	293	0.4	5.198	A
4 - Industrial Estate Road	2204	42	2506	0.879	2203	7.3	12.355	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1309	1000	0.360	362	0.7	6.991	A
2 - Ash Road North	196	809	794	0.247	197	0.4	7.898	A
3 - Abenbury Way	239	477	1064	0.225	240	0.3	4.457	A
4 - Industrial Estate Road	1800	34	2512	0.717	1818	2.7	5.605	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1089	1125	0.268	302	0.5	5.401	A
2 - Ash Road North	164	674	900	0.182	165	0.3	6.405	A
3 - Abenbury Way	200	398	1114	0.180	201	0.2	4.023	A
4 - Industrial Estate Road	1507	29	2516	0.599	1512	1.6	3.795	A

2030 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4	407.36	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	407.36	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	679	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	764	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	654
	2 - Ash Road North	16	0	10	930
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	346	238	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.50	5.13	1.1	A
2 - Ash Road North	1.51	832.24	204.4	F
3 - Abenbury Way	1.32	723.44	97.0	F
4 - Industrial Estate Road	0.33	2.34	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	317	1564	0.327	509	0.5	3.562	A
2 - Ash Road North	720	636	929	0.775	707	3.3	15.758	C
3 - Abenbury Way	420	1203	607	0.692	412	2.1	17.784	C
4 - Industrial Estate Road	575	29	2516	0.229	574	0.3	2.020	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	379	1529	0.399	610	0.7	4.091	A
2 - Ash Road North	859	762	831	1.034	797	18.8	65.486	F
3 - Abenbury Way	502	1392	488	1.028	459	12.9	78.456	F
4 - Industrial Estate Road	687	32	2513	0.273	686	0.4	2.148	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	463	1481	0.505	746	1.1	5.112	A
2 - Ash Road North	1053	932	698	1.508	697	107.7	338.202	F
3 - Abenbury Way	614	1428	465	1.321	463	50.7	264.793	F
4 - Industrial Estate Road	841	31	2514	0.335	841	0.5	2.344	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	464	1481	0.505	748	1.1	5.133	A
2 - Ash Road North	1053	934	697	1.511	697	196.7	733.032	F
3 - Abenbury Way	614	1429	465	1.322	464	88.2	550.805	F
4 - Industrial Estate Road	841	31	2514	0.335	841	0.5	2.344	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	379	1528	0.399	612	0.7	4.112	A
2 - Ash Road North	859	764	829	1.036	829	204.4	832.236	F
3 - Abenbury Way	502	1426	467	1.074	466	97.0	723.435	F
4 - Industrial Estate Road	687	33	2513	0.273	687	0.4	2.151	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	318	1563	0.327	512	0.5	3.581	A
2 - Ash Road North	720	639	926	0.777	922	153.8	700.283	F
3 - Abenbury Way	420	1419	471	0.892	466	85.5	705.241	F
4 - Industrial Estate Road	575	35	2512	0.229	576	0.3	2.028	A

2030 Base + Committed + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4	8.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.01	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	400	100.000
2 - Ash Road North		✓	162	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1852	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	52	43	305
	2 - Ash Road North	4	1	11	146
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	583	725	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.47	8.97	1.1	A
2 - Ash Road North	0.27	9.75	0.5	A
3 - Abenbury Way	0.28	4.93	0.4	A
4 - Industrial Estate Road	0.81	8.10	4.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	969	1193	0.252	299	0.4	4.959	A
2 - Ash Road North	122	669	904	0.135	121	0.2	5.985	A
3 - Abenbury Way	200	353	1143	0.175	199	0.2	3.891	A
4 - Industrial Estate Road	1394	28	2516	0.554	1389	1.3	3.354	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1159	1085	0.331	359	0.6	6.109	A
2 - Ash Road North	146	800	801	0.182	145	0.3	7.149	A
3 - Abenbury Way	239	422	1099	0.218	239	0.3	4.271	A
4 - Industrial Estate Road	1665	34	2512	0.663	1662	2.0	4.449	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1416	939	0.469	439	1.1	8.841	A
2 - Ash Road North	178	978	662	0.269	178	0.5	9.656	A
3 - Abenbury Way	293	516	1040	0.282	292	0.4	4.913	A
4 - Industrial Estate Road	2039	42	2506	0.814	2030	4.4	7.807	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1422	935	0.471	440	1.1	8.967	A
2 - Ash Road North	178	982	659	0.271	178	0.5	9.751	A
3 - Abenbury Way	293	519	1038	0.282	293	0.4	4.927	A
4 - Industrial Estate Road	2039	42	2506	0.814	2039	4.5	8.096	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1168	1080	0.333	361	0.6	6.197	A
2 - Ash Road North	146	806	796	0.183	146	0.3	7.222	A
3 - Abenbury Way	239	426	1097	0.218	240	0.3	4.287	A
4 - Industrial Estate Road	1665	34	2512	0.663	1674	2.1	4.583	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	975	1190	0.253	302	0.4	5.004	A
2 - Ash Road North	122	673	900	0.136	122	0.2	6.030	A
3 - Abenbury Way	200	356	1141	0.176	201	0.2	3.907	A
4 - Industrial Estate Road	1394	29	2516	0.554	1397	1.3	3.405	A

2030 Base + Committed + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4	269.33	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	269.33	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	679	100.000
2 - Ash Road North		✓	825	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	692	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	14	654
	2 - Ash Road North	16	0	10	799
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	346	166	162	18

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.49	4.84	1.0	A
2 - Ash Road North	1.30	441.99	113.2	F
3 - Abenbury Way	1.32	667.12	89.9	F
4 - Industrial Estate Road	0.30	2.23	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	263	1595	0.321	509	0.5	3.461	A
2 - Ash Road North	621	636	929	0.669	613	2.0	11.391	B
3 - Abenbury Way	420	1110	666	0.631	414	1.6	13.957	B
4 - Industrial Estate Road	521	29	2516	0.207	520	0.3	1.956	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	314	1565	0.390	610	0.7	3.935	A
2 - Ash Road North	742	762	831	0.893	724	6.4	30.342	D
3 - Abenbury Way	502	1319	534	0.939	478	7.6	50.475	F
4 - Industrial Estate Road	622	34	2512	0.248	622	0.4	2.066	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	384	1526	0.490	746	1.0	4.820	A
2 - Ash Road North	908	932	698	1.302	693	60.2	186.935	F
3 - Abenbury Way	614	1423	468	1.312	465	45.0	222.705	F
4 - Industrial Estate Road	762	33	2513	0.303	761	0.5	2.230	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	384	1526	0.490	748	1.0	4.836	A
2 - Ash Road North	908	934	697	1.304	696	113.2	434.105	F
3 - Abenbury Way	614	1428	466	1.320	465	82.4	504.293	F
4 - Industrial Estate Road	762	33	2513	0.303	762	0.5	2.230	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	315	1565	0.390	612	0.7	3.953	A
2 - Ash Road North	742	764	829	0.894	822	93.1	441.990	F
3 - Abenbury Way	502	1417	472	1.063	471	89.9	667.125	F
4 - Industrial Estate Road	622	35	2511	0.248	623	0.4	2.070	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	264	1594	0.321	512	0.5	3.479	A
2 - Ash Road North	621	639	926	0.670	916	19.3	225.544	F
3 - Abenbury Way	420	1412	476	0.883	470	77.4	641.318	F
4 - Industrial Estate Road	521	37	2510	0.208	521	0.3	1.965	A

2030 Base + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4	5.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.91	A

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)
D9	2030 Base + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	301	100.000
2 - Ash Road North		✓	160	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1671	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	52	43	206
	2 - Ash Road North	4	1	11	144
	3 - Abenbury Way	11	22	0	233
	4 - Industrial Estate Road	411	716	529	15

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.35	7.16	0.7	A
2 - Ash Road North	0.24	8.25	0.4	A
3 - Abenbury Way	0.26	4.50	0.4	A
4 - Industrial Estate Road	0.73	5.69	2.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	963	1197	0.189	225	0.3	4.491	A
2 - Ash Road North	120	595	961	0.125	120	0.2	5.566	A
3 - Abenbury Way	200	277	1190	0.168	199	0.2	3.703	A
4 - Industrial Estate Road	1258	28	2516	0.500	1254	1.0	2.996	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	271	1152	1089	0.248	270	0.4	5.329	A
2 - Ash Road North	144	712	870	0.165	144	0.3	6.449	A
3 - Abenbury Way	239	332	1156	0.207	239	0.3	4.005	A
4 - Industrial Estate Road	1502	34	2512	0.598	1500	1.6	3.741	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	331	1409	943	0.351	330	0.6	7.115	A
2 - Ash Road North	176	871	746	0.236	176	0.4	8.209	A
3 - Abenbury Way	293	406	1109	0.264	292	0.4	4.496	A
4 - Industrial Estate Road	1840	42	2506	0.734	1835	2.8	5.603	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	331	1413	941	0.352	331	0.7	7.163	A
2 - Ash Road North	176	873	744	0.237	176	0.4	8.253	A
3 - Abenbury Way	293	407	1108	0.264	293	0.4	4.504	A
4 - Industrial Estate Road	1840	42	2506	0.734	1840	2.9	5.688	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	271	1157	1086	0.249	272	0.4	5.367	A
2 - Ash Road North	144	715	867	0.166	144	0.3	6.493	A
3 - Abenbury Way	239	334	1155	0.207	240	0.3	4.017	A
4 - Industrial Estate Road	1502	34	2512	0.598	1507	1.6	3.795	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	968	1194	0.190	227	0.3	4.517	A
2 - Ash Road North	120	598	958	0.126	121	0.2	5.596	A
3 - Abenbury Way	200	279	1189	0.168	201	0.2	3.719	A
4 - Industrial Estate Road	1258	29	2516	0.500	1260	1.1	3.028	A

2030 Base + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4	105.91	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	105.91	F

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)
D10	2030 Base + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	473	100.000
2 - Ash Road North		✓	810	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	569	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	14	448
	2 - Ash Road North	16	0	10	784
	3 - Abenbury Way	19	4	0	535
	4 - Industrial Estate Road	225	164	162	18

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.34	3.75	0.5	A
2 - Ash Road North	1.02	102.55	26.1	F
3 - Abenbury Way	1.21	303.24	55.5	F
4 - Industrial Estate Road	0.25	2.09	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	356	261	1596	0.223	355	0.3	3.037	A
2 - Ash Road North	610	482	1049	0.581	604	1.4	8.174	A
3 - Abenbury Way	420	946	769	0.546	415	1.2	10.080	B
4 - Industrial Estate Road	428	29	2515	0.170	427	0.2	1.883	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	425	313	1566	0.271	425	0.4	3.304	A
2 - Ash Road North	728	577	975	0.747	722	2.8	14.234	B
3 - Abenbury Way	502	1132	652	0.770	494	3.0	21.924	C
4 - Industrial Estate Road	512	35	2512	0.204	511	0.3	1.966	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	521	382	1527	0.341	520	0.5	3.745	A
2 - Ash Road North	892	706	874	1.020	834	17.3	57.776	F
3 - Abenbury Way	614	1336	523	1.174	512	28.7	130.537	F
4 - Industrial Estate Road	626	38	2509	0.250	626	0.4	2.088	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	521	382	1527	0.341	521	0.5	3.748	A
2 - Ash Road North	892	707	874	1.021	857	26.1	102.549	F
3 - Abenbury Way	614	1359	509	1.208	507	55.5	303.236	F
4 - Industrial Estate Road	626	38	2509	0.250	626	0.4	2.088	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	425	314	1566	0.272	426	0.4	3.312	A
2 - Ash Road North	728	578	974	0.747	819	3.3	34.973	D
3 - Abenbury Way	502	1229	591	0.849	581	35.8	278.565	F
4 - Industrial Estate Road	512	40	2508	0.204	512	0.3	1.972	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	356	263	1595	0.223	356	0.3	3.046	A
2 - Ash Road North	610	484	1048	0.582	617	1.5	8.689	A
3 - Abenbury Way	420	961	760	0.553	558	1.3	34.674	D
4 - Industrial Estate Road	428	35	2511	0.171	429	0.2	1.890	A

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1-2	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	206	100.000
2 - Ash Road North		✓	151	100.000
3 - Abenbury Way		✓	260	100.000
4 - Industrial Estate Road		✓	1422	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	49	41	116
	2 - Ash Road North	4	1	10	136
	3 - Abenbury Way	19	21	0	220
	4 - Industrial Estate Road	232	676	500	14

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	2	11	30
	2 - Ash Road North	0	0	25	32
	3 - Abenbury Way	11	24	30	0
	4 - Industrial Estate Road	6	4	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.23	5.61	0.4	A
2 - Ash Road North	0.20	6.86	0.3	A
3 - Abenbury Way	0.24	4.14	0.3	A
4 - Industrial Estate Road	0.63	4.05	1.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	155	910	1227	0.126	154	0.2	3.967	A
2 - Ash Road North	114	504	1032	0.110	113	0.2	5.093	A
3 - Abenbury Way	196	203	1237	0.158	195	0.2	3.534	A
4 - Industrial Estate Road	1071	34	2512	0.426	1067	0.8	2.619	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	185	1089	1125	0.165	185	0.2	4.526	A
2 - Ash Road North	136	603	955	0.142	136	0.2	5.715	A
3 - Abenbury Way	234	243	1212	0.193	234	0.2	3.766	A
4 - Industrial Estate Road	1278	40	2507	0.510	1277	1.1	3.079	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	1332	987	0.230	226	0.4	5.596	A
2 - Ash Road North	166	737	850	0.196	166	0.3	6.845	A
3 - Abenbury Way	286	298	1177	0.243	286	0.3	4.132	A
4 - Industrial Estate Road	1566	49	2501	0.626	1563	1.7	4.031	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	1334	985	0.230	227	0.4	5.612	A
2 - Ash Road North	166	739	849	0.196	166	0.3	6.863	A
3 - Abenbury Way	286	298	1177	0.243	286	0.3	4.135	A
4 - Industrial Estate Road	1566	50	2501	0.626	1566	1.8	4.053	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	185	1092	1123	0.165	186	0.2	4.543	A
2 - Ash Road North	136	605	953	0.142	136	0.2	5.736	A
3 - Abenbury Way	234	244	1211	0.193	234	0.2	3.771	A
4 - Industrial Estate Road	1278	41	2507	0.510	1281	1.1	3.097	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	155	914	1225	0.127	155	0.2	3.983	A
2 - Ash Road North	114	506	1030	0.110	114	0.2	5.112	A
3 - Abenbury Way	196	204	1236	0.158	196	0.2	3.544	A
4 - Industrial Estate Road	1071	34	2512	0.426	1072	0.8	2.636	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	22.09	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.09	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2-1	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	306	100.000
2 - Ash Road North		✓	765	100.000
3 - Abenbury Way		✓	527	100.000
4 - Industrial Estate Road		✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	10	13	283
	2 - Ash Road North	15	0	9	741
	3 - Abenbury Way	18	4	0	505
	4 - Industrial Estate Road	124	155	153	17

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
	1 - Bryn Lane	0	11	30	4
	2 - Ash Road North	7	0	13	2
	3 - Abenbury Way	6	0	4	0
	4 - Industrial Estate Road	5	14	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.22	3.15	0.3	A
2 - Ash Road North	0.82	19.83	4.5	C
3 - Abenbury Way	0.92	53.52	8.0	F
4 - Industrial Estate Road	0.20	1.97	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	230	247	1604	0.144	230	0.2	2.752	A
2 - Ash Road North	576	350	1152	0.500	572	1.0	6.300	A
3 - Abenbury Way	397	790	867	0.458	393	0.8	7.563	A
4 - Industrial Estate Road	338	28	2516	0.134	337	0.2	1.819	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	275	296	1576	0.175	275	0.2	2.907	A
2 - Ash Road North	688	419	1098	0.626	685	1.7	8.845	A
3 - Abenbury Way	474	947	769	0.616	471	1.6	11.995	B
4 - Industrial Estate Road	404	33	2513	0.161	403	0.2	1.879	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	337	362	1538	0.219	337	0.3	3.148	A
2 - Ash Road North	842	513	1025	0.822	832	4.2	18.158	C
3 - Abenbury Way	580	1152	639	0.908	560	6.6	38.665	E
4 - Industrial Estate Road	494	40	2508	0.197	494	0.3	1.968	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	337	362	1538	0.219	337	0.3	3.149	A
2 - Ash Road North	842	513	1025	0.822	841	4.5	19.826	C
3 - Abenbury Way	580	1162	633	0.917	574	8.0	53.523	F
4 - Industrial Estate Road	494	40	2507	0.197	494	0.3	1.969	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	275	296	1576	0.175	275	0.2	2.912	A
2 - Ash Road North	688	419	1098	0.626	698	1.8	9.446	A
3 - Abenbury Way	474	960	760	0.623	499	1.7	15.069	C
4 - Industrial Estate Road	404	35	2512	0.161	404	0.2	1.883	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	230	248	1603	0.144	231	0.2	2.758	A
2 - Ash Road North	576	351	1151	0.500	579	1.0	6.462	A
3 - Abenbury Way	397	798	862	0.460	400	0.9	7.863	A
4 - Industrial Estate Road	338	28	2516	0.134	338	0.2	1.819	A

Appendix TN4 –Improved Bryn lane / Industrial Estate Road ARCADY

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
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Filename: Proposed Site Access ARCADY (Impr) sens.j10

Path: D:\Cora IHT\Wrexham (2)\January 2026

Report generation date: 04/02/2026 17:44:34

-
- »2030 Base + Committed, AM
 - »2030 Base + Committed, PM
 - »2030 Base + Committed + Development (Phase 1), AM
 - »2030 Base + Committed + Development (Phase 1), PM
 - »2030 Base + Committed + Development (Phase 1 + 2), AM
 - »2030 Base + Committed + Development (Phase 1 + 2), PM
 - »2037 Base + Committed, AM
 - »2037 Base + Committed, PM
 - »2037 Base + Committed + Development (Phase 1), AM
 - »2037 Base + Committed + Development (Phase 1), PM
 - »2037 Base + Committed + Development (Phase 1 + 2), AM
 - »2037 Base + Committed + Development (Phase 1 + 2), PM
 - »2030 Base + Development (Phase 1) [Sens], AM
 - »2030 Base + Development (Phase 1) [Sens], PM
 - »2037 Base + Development (Phase 1 + 2) [Sens], AM
 - »2037 Base + Development (Phase 1 + 2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2030 Base + Committed									
1 - Bryn Lane	D1	0.7	6.93	0.36	A	D2	0.6	3.86	0.38	A
2 - Ash Road North		0.3	4.05	0.17	A		2.6	8.86	0.72	A
3 - Abenbury Way		0.2	3.03	0.16	A		1.1	6.72	0.52	A
4 - Industrial Estate Road		2.9	5.23	0.74	A		0.4	1.97	0.27	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Committed + Development (Phase 1)									
1 - Bryn Lane	D3	1.0	8.23	0.45	A	D4	1.0	4.64	0.48	A
2 - Ash Road North		0.3	4.22	0.18	A		3.2	11.11	0.76	B
3 - Abenbury Way		0.3	3.13	0.17	A		1.4	8.08	0.57	A
4 - Industrial Estate Road		4.2	6.99	0.80	A		0.5	2.06	0.31	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2030 Base + Committed + Development (Phase 1 + 2)									
1 - Bryn Lane	D5	1.4	10.77	0.54	B	D6	1.6	7.19	0.60	A
2 - Ash Road North		0.3	4.66	0.18	A		12.3	44.68	0.95	E
3 - Abenbury Way		0.3	3.32	0.18	A		3.5	21.70	0.79	C
4 - Industrial Estate Road		8.5	13.31	0.90	B		0.7	2.51	0.40	A
5 - Proposed Site Access		1.0	7.80	0.50	A		0.6	3.53	0.37	A
	2037 Base + Committed									
1 - Bryn Lane	D7	0.6	6.27	0.39	A	D8	0.7	3.99	0.39	A
2 - Ash Road North		0.2	3.19	0.18	A		3.2	10.57	0.76	B
3 - Abenbury Way		0.2	2.40	0.17	A		1.4	7.76	0.57	A
4 - Industrial Estate Road		3.3	5.76	0.77	A		0.4	2.00	0.28	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2037 Base + Committed + Development (Phase 1)									
1 - Bryn Lane	D9	1.1	9.17	0.49	A	D10	1.0	4.82	0.50	A
2 - Ash Road North		0.3	4.35	0.19	A		4.1	13.82	0.81	B
3 - Abenbury Way		0.3	3.19	0.18	A		1.7	9.60	0.62	A
4 - Industrial Estate Road		5.3	8.51	0.84	A		0.5	2.10	0.32	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2037 Base + Committed + Development (Phase 1 + 2)									
1 - Bryn Lane	D11	1.6	12.41	0.58	B	D12	1.7	7.64	0.62	A
2 - Ash Road North		0.3	4.80	0.21	A		24.6	79.53	1.01	F
3 - Abenbury Way		0.3	3.43	0.19	A		5.5	32.32	0.86	D
4 - Industrial Estate Road		13.6	20.80	0.94	C		0.7	2.56	0.41	A
5 - Proposed Site Access		1.1	8.78	0.53	A		0.6	3.59	0.37	A
	2030 Base + Development (Phase 1) [Sens]									
1 - Bryn Lane	D13	0.5	5.92	0.31	A	D14	0.5	3.48	0.33	A
2 - Ash Road North		0.2	3.80	0.12	A		1.5	6.04	0.60	A
3 - Abenbury Way		0.3	2.97	0.17	A		0.9	5.46	0.47	A
4 - Industrial Estate Road		2.1	4.19	0.67	A		0.3	1.86	0.23	A
5 - Proposed Site Access		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2037 Base + Development (Phase 1 + 2) [Sens]									
1 - Bryn Lane	D15	0.8	7.78	0.40	A	D16	0.8	4.93	0.43	A
2 - Ash Road North		0.2	4.21	0.15	A		3.4	13.45	0.78	B
3 - Abenbury Way		0.3	3.19	0.18	A		2.1	12.00	0.68	B
4 - Industrial Estate Road		4.1	7.08	0.80	A		0.5	2.24	0.32	A
5 - Proposed Site Access		0.8	5.94	0.43	A		0.5	3.21	0.35	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	Industrial Estate Road / Bryn Lane / Ash Road North / Abenbury Way
Location	Wrexham
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	LIDL
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D2	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D5	2030 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D6	2030 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D7	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D11	2037 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D12	2037 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D13	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D14	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D15	2037 Base + Development (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D16	2037 Base + Development (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.12	A

Arms

Arms

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

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	9.00	15.0	28.1	70.0	43.0		
2 - Ash Road North	3.60	9.00	23.0	17.4	70.0	52.0		
3 - Abenbury Way	3.60	8.56	28.0	57.7	70.0	32.0		
4 - Industrial Estate Road	7.00	10.80	14.9	25.0	70.0	31.0		
5 - Proposed Site Access	4.35	9.72	16.3	36.5	70.0	38.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.513	1794
2 - Ash Road North	0.510	1856
3 - Abenbury Way	0.575	2101
4 - Industrial Estate Road	0.676	2772
5 - Proposed Site Access	0.567	2098

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	317	100.000
2 - Ash Road North		✓	217	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	1837	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	222	0
	2 - Ash Road North	4	0	11	202	0
	3 - Abenbury Way	11	22	0	233	0
	4 - Industrial Estate Road	418	875	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.36	6.93	0.7	A
2 - Ash Road North	0.17	4.05	0.3	A
3 - Abenbury Way	0.16	3.03	0.2	A
4 - Industrial Estate Road	0.74	5.23	2.9	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1082	1239	0.193	238	0.3	4.364	A
2 - Ash Road North	163	607	1546	0.106	163	0.2	3.403	A
3 - Abenbury Way	200	332	1910	0.105	200	0.1	2.704	A
4 - Industrial Estate Road	1383	28	2754	0.502	1379	1.1	2.741	A
5 - Proposed Site Access	0	1407	1301	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1294	1130	0.252	285	0.4	5.172	A
2 - Ash Road North	195	726	1485	0.131	195	0.2	3.650	A
3 - Abenbury Way	239	398	1873	0.128	239	0.2	2.830	A
4 - Industrial Estate Road	1651	33	2750	0.601	1649	1.6	3.429	A
5 - Proposed Site Access	0	1683	1144	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1582	982	0.355	348	0.7	6.889	A
2 - Ash Road North	239	888	1403	0.170	239	0.3	4.046	A
3 - Abenbury Way	293	487	1822	0.161	293	0.2	3.025	A
4 - Industrial Estate Road	2023	41	2745	0.737	2017	2.9	5.158	A
5 - Proposed Site Access	0	2058	932	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	349	1586	980	0.356	349	0.7	6.933	A
2 - Ash Road North	239	891	1401	0.171	239	0.3	4.052	A
3 - Abenbury Way	293	488	1821	0.161	293	0.2	3.026	A
4 - Industrial Estate Road	2023	41	2745	0.737	2022	2.9	5.230	A
5 - Proposed Site Access	0	2063	929	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	285	1300	1127	0.253	286	0.4	5.206	A
2 - Ash Road North	195	730	1483	0.132	195	0.2	3.657	A
3 - Abenbury Way	239	399	1872	0.128	239	0.2	2.833	A
4 - Industrial Estate Road	1651	33	2750	0.601	1657	1.6	3.472	A
5 - Proposed Site Access	0	1690	1140	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	239	1087	1236	0.193	239	0.3	4.390	A
2 - Ash Road North	163	610	1544	0.106	164	0.2	3.413	A
3 - Abenbury Way	200	334	1909	0.105	200	0.2	2.708	A
4 - Industrial Estate Road	1383	28	2754	0.502	1385	1.1	2.767	A
5 - Proposed Site Access	0	1413	1297	0.000	0	0.0	0.000	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.74	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	530	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	670	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	14	505	0
	2 - Ash Road North	16	0	10	930	0
	3 - Abenbury Way	19	4	0	535	0
	4 - Industrial Estate Road	252	238	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.38	3.86	0.6	A
2 - Ash Road North	0.72	8.86	2.6	A
3 - Abenbury Way	0.52	6.72	1.1	A
4 - Industrial Estate Road	0.27	1.97	0.4	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	317	1631	0.245	398	0.3	3.036	A
2 - Ash Road North	720	525	1588	0.453	716	0.8	4.164	A
3 - Abenbury Way	420	1101	1468	0.286	418	0.4	3.556	A
4 - Industrial Estate Road	504	29	2753	0.183	503	0.2	1.753	A
5 - Proposed Site Access	0	533	1796	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	379	1599	0.298	476	0.4	3.337	A
2 - Ash Road North	859	628	1535	0.560	858	1.3	5.361	A
3 - Abenbury Way	502	1318	1344	0.373	501	0.6	4.440	A
4 - Industrial Estate Road	602	35	2749	0.219	602	0.3	1.836	A
5 - Proposed Site Access	0	637	1737	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	464	1556	0.375	583	0.6	3.851	A
2 - Ash Road North	1053	769	1464	0.719	1048	2.5	8.657	A
3 - Abenbury Way	614	1612	1175	0.523	612	1.1	6.631	A
4 - Industrial Estate Road	738	43	2743	0.269	737	0.4	1.966	A
5 - Proposed Site Access	0	780	1656	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	584	465	1555	0.375	584	0.6	3.856	A
2 - Ash Road North	1053	770	1463	0.719	1052	2.6	8.860	A
3 - Abenbury Way	614	1617	1172	0.524	614	1.1	6.716	A
4 - Industrial Estate Road	738	43	2743	0.269	738	0.4	1.966	A
5 - Proposed Site Access	0	781	1656	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	380	1599	0.298	477	0.4	3.344	A
2 - Ash Road North	859	629	1535	0.560	864	1.3	5.476	A
3 - Abenbury Way	502	1326	1339	0.375	504	0.6	4.494	A
4 - Industrial Estate Road	602	35	2749	0.219	603	0.3	1.840	A
5 - Proposed Site Access	0	638	1737	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	399	318	1631	0.245	399	0.3	3.044	A
2 - Ash Road North	720	527	1587	0.454	722	0.8	4.218	A
3 - Abenbury Way	420	1108	1464	0.287	421	0.4	3.590	A
4 - Industrial Estate Road	504	29	2752	0.183	505	0.2	1.757	A
5 - Proposed Site Access	0	534	1795	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.60	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	400	100.000
2 - Ash Road North		✓	218	100.000
3 - Abenbury Way		✓	266	100.000
4 - Industrial Estate Road		✓	2002	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	305	0
	2 - Ash Road North	4	1	11	202	0
	3 - Abenbury Way	11	22	0	233	0
	4 - Industrial Estate Road	583	875	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.45	8.23	1.0	A
2 - Ash Road North	0.18	4.22	0.3	A
3 - Abenbury Way	0.17	3.13	0.3	A
4 - Industrial Estate Road	0.80	6.99	4.2	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1082	1239	0.243	300	0.4	4.715	A
2 - Ash Road North	164	669	1515	0.108	163	0.2	3.479	A
3 - Abenbury Way	200	395	1874	0.107	200	0.2	2.762	A
4 - Industrial Estate Road	1507	29	2753	0.547	1502	1.3	3.011	A
5 - Proposed Site Access	0	1531	1231	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1294	1130	0.318	359	0.6	5.748	A
2 - Ash Road North	196	801	1447	0.135	196	0.2	3.758	A
3 - Abenbury Way	239	473	1829	0.131	239	0.2	2.907	A
4 - Industrial Estate Road	1800	34	2749	0.655	1797	2.0	3.959	A
5 - Proposed Site Access	0	1831	1060	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1582	983	0.448	439	1.0	8.131	A
2 - Ash Road North	240	978	1357	0.177	240	0.3	4.210	A
3 - Abenbury Way	293	579	1769	0.166	293	0.3	3.133	A
4 - Industrial Estate Road	2204	42	2744	0.803	2196	4.1	6.789	A
5 - Proposed Site Access	0	2237	830	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	440	1587	979	0.450	440	1.0	8.225	A
2 - Ash Road North	240	982	1355	0.177	240	0.3	4.219	A
3 - Abenbury Way	293	580	1768	0.166	293	0.3	3.135	A
4 - Industrial Estate Road	2204	42	2744	0.803	2204	4.2	6.991	A
5 - Proposed Site Access	0	2246	825	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	360	1303	1126	0.319	361	0.6	5.814	A
2 - Ash Road North	196	806	1445	0.136	196	0.2	3.768	A
3 - Abenbury Way	239	475	1828	0.131	239	0.2	2.911	A
4 - Industrial Estate Road	1800	34	2749	0.655	1809	2.0	4.058	A
5 - Proposed Site Access	0	1843	1054	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	301	1088	1236	0.244	302	0.4	4.754	A
2 - Ash Road North	164	673	1512	0.109	164	0.2	3.489	A
3 - Abenbury Way	200	398	1873	0.107	200	0.2	2.767	A
4 - Industrial Estate Road	1507	29	2753	0.547	1510	1.3	3.052	A
5 - Proposed Site Access	0	1539	1226	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	679	100.000
2 - Ash Road North		✓	956	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	764	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	14	654	0
	2 - Ash Road North	16	0	10	930	0
	3 - Abenbury Way	19	4	0	535	0
	4 - Industrial Estate Road	346	238	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.48	4.64	1.0	A
2 - Ash Road North	0.76	11.11	3.2	B
3 - Abenbury Way	0.57	8.08	1.4	A
4 - Industrial Estate Road	0.31	2.06	0.5	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	317	1631	0.313	509	0.5	3.334	A
2 - Ash Road North	720	636	1531	0.470	716	0.9	4.451	A
3 - Abenbury Way	420	1213	1404	0.299	418	0.4	3.792	A
4 - Industrial Estate Road	575	29	2753	0.209	574	0.3	1.801	A
5 - Proposed Site Access	0	603	1756	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	379	1599	0.382	610	0.6	3.785	A
2 - Ash Road North	859	762	1467	0.586	857	1.4	5.954	A
3 - Abenbury Way	502	1452	1267	0.396	501	0.7	4.881	A
4 - Industrial Estate Road	687	35	2749	0.250	687	0.4	1.902	A
5 - Proposed Site Access	0	722	1689	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	464	1556	0.481	746	1.0	4.622	A
2 - Ash Road North	1053	932	1380	0.763	1046	3.1	10.686	B
3 - Abenbury Way	614	1774	1082	0.568	612	1.3	7.917	A
4 - Industrial Estate Road	841	43	2744	0.307	841	0.5	2.062	A
5 - Proposed Site Access	0	883	1597	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	748	465	1555	0.481	748	1.0	4.638	A
2 - Ash Road North	1053	934	1379	0.763	1052	3.2	11.110	B
3 - Abenbury Way	614	1781	1078	0.570	614	1.4	8.077	A
4 - Industrial Estate Road	841	43	2743	0.307	841	0.5	2.062	A
5 - Proposed Site Access	0	884	1597	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	610	380	1599	0.382	612	0.6	3.801	A
2 - Ash Road North	859	764	1466	0.586	866	1.5	6.143	A
3 - Abenbury Way	502	1463	1261	0.398	504	0.7	4.969	A
4 - Industrial Estate Road	687	35	2749	0.250	687	0.4	1.906	A
5 - Proposed Site Access	0	723	1689	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	511	318	1631	0.313	512	0.5	3.353	A
2 - Ash Road North	720	639	1530	0.471	722	0.9	4.524	A
3 - Abenbury Way	420	1221	1400	0.300	421	0.4	3.830	A
4 - Industrial Estate Road	575	29	2752	0.209	575	0.3	1.801	A
5 - Proposed Site Access	0	605	1755	0.000	0	0.0	0.000	A

2030 Base + Committed + Development (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	11.09	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.09	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	420	100.000
2 - Ash Road North		✓	197	100.000
3 - Abenbury Way		✓	265	100.000
4 - Industrial Estate Road		✓	2189	100.000
5 - Proposed Site Access		✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	45	38	288	49
	2 - Ash Road North	4	1	9	183	0
	3 - Abenbury Way	9	19	0	202	35
	4 - Industrial Estate Road	551	780	459	15	384
	5 - Proposed Site Access	56	100	74	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.54	10.77	1.4	B
2 - Ash Road North	0.18	4.66	0.3	A
3 - Abenbury Way	0.18	3.32	0.3	A
4 - Industrial Estate Road	0.90	13.31	8.5	B
5 - Proposed Site Access	0.50	7.80	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	316	1235	1160	0.273	314	0.4	5.109	A
2 - Ash Road North	148	841	1427	0.104	148	0.2	3.673	A
3 - Abenbury Way	200	554	1783	0.112	199	0.2	2.813	A
4 - Industrial Estate Road	1648	88	2713	0.607	1642	1.6	3.477	A
5 - Proposed Site Access	323	1378	1317	0.245	322	0.3	3.756	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	378	1477	1036	0.364	377	0.7	6.558	A
2 - Ash Road North	177	1006	1342	0.132	177	0.2	4.034	A
3 - Abenbury Way	238	663	1720	0.138	238	0.2	3.008	A
4 - Industrial Estate Road	1968	105	2701	0.728	1963	2.7	5.048	A
5 - Proposed Site Access	386	1649	1164	0.331	385	0.5	4.803	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	462	1799	871	0.531	460	1.3	10.471	B
2 - Ash Road North	217	1227	1230	0.176	217	0.3	4.640	A
3 - Abenbury Way	292	810	1636	0.178	291	0.3	3.317	A
4 - Industrial Estate Road	2410	128	2686	0.897	2389	8.1	11.863	B
5 - Proposed Site Access	472	2006	961	0.491	470	1.0	7.601	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	462	1812	864	0.535	462	1.4	10.766	B
2 - Ash Road North	217	1235	1226	0.177	217	0.3	4.659	A
3 - Abenbury Way	292	813	1634	0.179	292	0.3	3.321	A
4 - Industrial Estate Road	2410	129	2685	0.898	2408	8.5	13.308	B
5 - Proposed Site Access	472	2022	952	0.496	472	1.0	7.801	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	378	1495	1027	0.368	380	0.7	6.723	A
2 - Ash Road North	177	1017	1337	0.132	177	0.2	4.056	A
3 - Abenbury Way	238	668	1718	0.139	239	0.2	3.017	A
4 - Industrial Estate Road	1968	106	2701	0.729	1991	2.9	5.439	A
5 - Proposed Site Access	386	1671	1151	0.335	388	0.5	4.917	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	316	1243	1156	0.274	317	0.5	5.168	A
2 - Ash Road North	148	847	1424	0.104	149	0.2	3.687	A
3 - Abenbury Way	200	558	1781	0.112	200	0.2	2.820	A
4 - Industrial Estate Road	1648	88	2713	0.608	1653	1.6	3.552	A
5 - Proposed Site Access	323	1388	1312	0.246	324	0.3	3.791	A

2030 Base + Committed + Development (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	17.38	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.38	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	714	100.000
2 - Ash Road North		✓	955	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	910	100.000
5 - Proposed Site Access		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	9	12	607	86
	2 - Ash Road North	13	0	8	809	125
	3 - Abenbury Way	16	4	0	452	86
	4 - Industrial Estate Road	326	213	137	18	216
	5 - Proposed Site Access	60	29	30	435	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.60	7.19	1.6	A
2 - Ash Road North	0.95	44.68	12.3	E
3 - Abenbury Way	0.79	21.70	3.5	C
4 - Industrial Estate Road	0.40	2.51	0.7	A
5 - Proposed Site Access	0.37	3.53	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	538	650	1460	0.368	535	0.6	4.020	A
2 - Ash Road North	719	994	1349	0.533	714	1.1	5.690	A
3 - Abenbury Way	420	1568	1200	0.350	418	0.6	4.743	A
4 - Industrial Estate Road	685	247	2605	0.263	684	0.4	1.994	A
5 - Proposed Site Access	417	546	1789	0.233	416	0.3	2.661	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	642	778	1395	0.460	641	0.9	4.938	A
2 - Ash Road North	859	1190	1249	0.687	854	2.2	9.128	A
3 - Abenbury Way	502	1876	1023	0.490	500	1.0	7.091	A
4 - Industrial Estate Road	818	296	2573	0.318	818	0.5	2.186	A
5 - Proposed Site Access	498	653	1728	0.288	498	0.4	2.972	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	786	952	1305	0.602	783	1.5	7.109	A
2 - Ash Road North	1051	1455	1113	0.945	1020	10.1	31.680	D
3 - Abenbury Way	614	2270	797	0.771	606	3.2	18.647	C
4 - Industrial Estate Road	1002	357	2531	0.396	1001	0.7	2.506	A
5 - Proposed Site Access	610	799	1645	0.371	609	0.6	3.528	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	786	953	1305	0.603	786	1.6	7.186	A
2 - Ash Road North	1051	1459	1112	0.946	1043	12.3	44.683	E
3 - Abenbury Way	614	2296	782	0.786	613	3.5	21.700	C
4 - Industrial Estate Road	1002	362	2528	0.396	1002	0.7	2.514	A
5 - Proposed Site Access	610	800	1645	0.371	610	0.6	3.533	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	642	780	1394	0.461	645	0.9	4.992	A
2 - Ash Road North	859	1195	1246	0.689	898	2.3	11.588	B
3 - Abenbury Way	502	1924	996	0.504	512	1.1	7.841	A
4 - Industrial Estate Road	818	305	2567	0.319	819	0.5	2.196	A
5 - Proposed Site Access	498	655	1727	0.288	499	0.4	2.978	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	538	653	1459	0.368	539	0.6	4.055	A
2 - Ash Road North	719	999	1346	0.534	724	1.2	5.886	A
3 - Abenbury Way	420	1582	1192	0.352	422	0.6	4.845	A
4 - Industrial Estate Road	685	250	2604	0.263	686	0.4	2.002	A
5 - Proposed Site Access	417	548	1788	0.233	417	0.3	2.668	A

2037 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.27	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	330	100.000
2 - Ash Road North		✓	227	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	1924	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	55	46	229	0
	2 - Ash Road North	4	1	11	211	0
	3 - Abenbury Way	11	24	0	246	0
	4 - Industrial Estate Road	432	916	560	16	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	0	0	0	0
	2 - Ash Road North	0	0	0	0	0
	3 - Abenbury Way	0	0	0	0	0
	4 - Industrial Estate Road	0	0	0	0	0
	5 - Proposed Site Access	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.39	6.27	0.6	A
2 - Ash Road North	0.18	3.19	0.2	A
3 - Abenbury Way	0.17	2.40	0.2	A
4 - Industrial Estate Road	0.77	5.76	3.3	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	248	1139	1210	0.205	247	0.3	3.738	A
2 - Ash Road North	171	638	1530	0.112	170	0.1	2.648	A
3 - Abenbury Way	212	346	1903	0.111	211	0.1	2.128	A
4 - Industrial Estate Road	1448	30	2752	0.526	1444	1.1	2.743	A
5 - Proposed Site Access	0	1474	1263	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	297	1362	1095	0.271	296	0.4	4.504	A
2 - Ash Road North	204	764	1466	0.139	204	0.2	2.852	A
3 - Abenbury Way	253	414	1863	0.136	252	0.2	2.234	A
4 - Industrial Estate Road	1730	36	2748	0.629	1727	1.7	3.520	A
5 - Proposed Site Access	0	1763	1099	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	363	1665	940	0.387	362	0.6	6.224	A
2 - Ash Road North	250	934	1379	0.181	250	0.2	3.187	A
3 - Abenbury Way	309	507	1810	0.171	309	0.2	2.398	A
4 - Industrial Estate Road	2118	44	2743	0.772	2112	3.3	5.648	A
5 - Proposed Site Access	0	2156	876	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	363	1670	937	0.388	363	0.6	6.273	A
2 - Ash Road North	250	937	1378	0.181	250	0.2	3.191	A
3 - Abenbury Way	309	508	1810	0.171	309	0.2	2.399	A
4 - Industrial Estate Road	2118	44	2743	0.772	2118	3.3	5.761	A
5 - Proposed Site Access	0	2162	873	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	297	1369	1092	0.272	298	0.4	4.541	A
2 - Ash Road North	204	768	1464	0.139	204	0.2	2.857	A
3 - Abenbury Way	253	415	1863	0.136	253	0.2	2.236	A
4 - Industrial Estate Road	1730	36	2748	0.629	1736	1.7	3.579	A
5 - Proposed Site Access	0	1772	1094	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	248	1144	1207	0.206	249	0.3	3.761	A
2 - Ash Road North	171	642	1528	0.112	171	0.1	2.654	A
3 - Abenbury Way	212	348	1902	0.111	212	0.1	2.131	A
4 - Industrial Estate Road	1448	30	2752	0.526	1451	1.1	2.773	A
5 - Proposed Site Access	0	1481	1259	0.000	0	0.0	0.000	A

2037 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	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 segment length (min)
D8	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	549	100.000
2 - Ash Road North		✓	1002	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	697	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	15	523	0
	2 - Ash Road North	17	0	10	975	0
	3 - Abenbury Way	20	4	0	565	0
	4 - Industrial Estate Road	260	247	171	19	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.39	3.99	0.7	A
2 - Ash Road North	0.76	10.57	3.2	B
3 - Abenbury Way	0.57	7.76	1.4	A
4 - Industrial Estate Road	0.28	2.00	0.4	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	413	331	1624	0.255	412	0.4	3.090	A
2 - Ash Road North	754	546	1577	0.478	751	0.9	4.390	A
3 - Abenbury Way	443	1150	1441	0.308	442	0.5	3.743	A
4 - Industrial Estate Road	525	31	2752	0.191	524	0.3	1.770	A
5 - Proposed Site Access	0	554	1784	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	494	396	1590	0.310	493	0.5	3.413	A
2 - Ash Road North	901	654	1522	0.592	899	1.4	5.823	A
3 - Abenbury Way	529	1377	1310	0.404	529	0.7	4.785	A
4 - Industrial Estate Road	627	37	2748	0.228	626	0.3	1.859	A
5 - Proposed Site Access	0	663	1722	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	604	485	1545	0.391	604	0.7	3.979	A
2 - Ash Road North	1103	801	1447	0.762	1097	3.1	10.199	B
3 - Abenbury Way	649	1682	1135	0.571	646	1.4	7.616	A
4 - Industrial Estate Road	767	45	2742	0.280	767	0.4	1.997	A
5 - Proposed Site Access	0	812	1638	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	604	486	1545	0.391	604	0.7	3.985	A
2 - Ash Road North	1103	802	1447	0.763	1103	3.2	10.569	B
3 - Abenbury Way	649	1689	1131	0.573	648	1.4	7.759	A
4 - Industrial Estate Road	767	45	2742	0.280	767	0.4	1.997	A
5 - Proposed Site Access	0	813	1638	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	494	397	1590	0.310	494	0.5	3.421	A
2 - Ash Road North	901	655	1521	0.592	907	1.5	5.996	A
3 - Abenbury Way	529	1386	1305	0.406	532	0.7	4.866	A
4 - Industrial Estate Road	627	37	2747	0.228	627	0.3	1.860	A
5 - Proposed Site Access	0	664	1722	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	413	332	1623	0.255	414	0.4	3.098	A
2 - Ash Road North	754	549	1576	0.479	757	0.9	4.460	A
3 - Abenbury Way	443	1158	1436	0.309	444	0.5	3.782	A
4 - Industrial Estate Road	525	31	2751	0.191	525	0.3	1.774	A
5 - Proposed Site Access	0	556	1783	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.79	A

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)
D9	2037 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	413	100.000
2 - Ash Road North		✓	227	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	2089	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	55	46	312	0
	2 - Ash Road North	4	1	11	211	0
	3 - Abenbury Way	11	24	0	246	0
	4 - Industrial Estate Road	597	916	560	16	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.49	9.17	1.1	A
2 - Ash Road North	0.19	4.35	0.3	A
3 - Abenbury Way	0.18	3.19	0.3	A
4 - Industrial Estate Road	0.84	8.51	5.3	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	311	1138	1210	0.257	309	0.4	4.907	A
2 - Ash Road North	171	700	1499	0.114	170	0.2	3.541	A
3 - Abenbury Way	212	408	1867	0.113	211	0.2	2.791	A
4 - Industrial Estate Road	1573	30	2752	0.571	1567	1.4	3.178	A
5 - Proposed Site Access	0	1597	1193	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	371	1361	1095	0.339	370	0.6	6.102	A
2 - Ash Road North	204	838	1428	0.143	204	0.2	3.844	A
3 - Abenbury Way	253	488	1821	0.139	252	0.2	2.949	A
4 - Industrial Estate Road	1878	36	2748	0.683	1875	2.2	4.314	A
5 - Proposed Site Access	0	1911	1015	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	455	1662	941	0.483	453	1.1	9.025	A
2 - Ash Road North	250	1023	1334	0.187	250	0.3	4.340	A
3 - Abenbury Way	309	597	1758	0.176	309	0.3	3.192	A
4 - Industrial Estate Road	2300	44	2743	0.839	2288	5.2	8.119	A
5 - Proposed Site Access	0	2332	776	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	455	1670	937	0.485	455	1.1	9.174	A
2 - Ash Road North	250	1028	1331	0.188	250	0.3	4.351	A
3 - Abenbury Way	309	599	1757	0.176	309	0.3	3.194	A
4 - Industrial Estate Road	2300	44	2743	0.839	2299	5.3	8.507	A
5 - Proposed Site Access	0	2344	770	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	371	1372	1090	0.341	373	0.6	6.199	A
2 - Ash Road North	204	845	1425	0.143	204	0.2	3.858	A
3 - Abenbury Way	253	491	1819	0.139	253	0.2	2.956	A
4 - Industrial Estate Road	1878	36	2748	0.683	1890	2.3	4.467	A
5 - Proposed Site Access	0	1926	1006	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	311	1145	1207	0.258	312	0.4	4.953	A
2 - Ash Road North	171	705	1496	0.114	171	0.2	3.554	A
3 - Abenbury Way	212	410	1865	0.113	212	0.2	2.797	A
4 - Industrial Estate Road	1573	30	2752	0.571	1576	1.4	3.225	A
5 - Proposed Site Access	0	1606	1188	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.96	A

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)
D10	2037 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	697	100.000
2 - Ash Road North		✓	1001	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	791	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	15	671	0
	2 - Ash Road North	17	0	10	974	0
	3 - Abenbury Way	20	4	0	565	0
	4 - Industrial Estate Road	354	247	171	19	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.50	4.82	1.0	A
2 - Ash Road North	0.81	13.82	4.1	B
3 - Abenbury Way	0.62	9.60	1.7	A
4 - Industrial Estate Road	0.32	2.10	0.5	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	525	331	1624	0.323	523	0.5	3.397	A
2 - Ash Road North	754	657	1520	0.496	750	1.0	4.704	A
3 - Abenbury Way	443	1260	1377	0.322	441	0.5	3.994	A
4 - Industrial Estate Road	596	31	2752	0.216	594	0.3	1.819	A
5 - Proposed Site Access	0	625	1744	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	627	396	1590	0.394	626	0.7	3.882	A
2 - Ash Road North	900	787	1454	0.619	897	1.6	6.510	A
3 - Abenbury Way	529	1508	1235	0.429	528	0.8	5.293	A
4 - Industrial Estate Road	711	37	2748	0.259	711	0.4	1.927	A
5 - Proposed Site Access	0	748	1674	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	767	485	1545	0.497	766	1.0	4.802	A
2 - Ash Road North	1102	963	1364	0.808	1093	4.0	12.981	B
3 - Abenbury Way	649	1840	1044	0.621	645	1.7	9.307	A
4 - Industrial Estate Road	871	45	2742	0.318	870	0.5	2.097	A
5 - Proposed Site Access	0	915	1579	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	767	486	1545	0.497	767	1.0	4.820	A
2 - Ash Road North	1102	964	1364	0.808	1102	4.1	13.818	B
3 - Abenbury Way	649	1850	1038	0.625	648	1.7	9.602	A
4 - Industrial Estate Road	871	45	2742	0.318	871	0.5	2.097	A
5 - Proposed Site Access	0	916	1579	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	627	397	1590	0.394	628	0.7	3.900	A
2 - Ash Road North	900	789	1453	0.619	910	1.7	6.815	A
3 - Abenbury Way	529	1522	1227	0.432	533	0.8	5.427	A
4 - Industrial Estate Road	711	37	2747	0.259	712	0.4	1.929	A
5 - Proposed Site Access	0	749	1674	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	525	332	1623	0.323	525	0.5	3.417	A
2 - Ash Road North	754	660	1519	0.496	756	1.0	4.793	A
3 - Abenbury Way	443	1269	1372	0.323	445	0.5	4.044	A
4 - Industrial Estate Road	596	31	2751	0.216	596	0.3	1.820	A
5 - Proposed Site Access	0	627	1743	0.000	0	0.0	0.000	A

2037 Base + Committed + Development (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	16.05	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.05	C

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)
D11	2037 Base + Committed + Development (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	432	100.000
2 - Ash Road North		✓	228	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	2275	100.000
5 - Proposed Site Access		✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	48	40	295	49
	2 - Ash Road North	4	1	10	192	21
	3 - Abenbury Way	10	21	0	215	35
	4 - Industrial Estate Road	565	821	489	16	384
	5 - Proposed Site Access	56	100	74	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.58	12.41	1.6	B
2 - Ash Road North	0.21	4.80	0.3	A
3 - Abenbury Way	0.19	3.43	0.3	A
4 - Industrial Estate Road	0.94	20.80	13.6	C
5 - Proposed Site Access	0.53	8.78	1.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	325	1290	1132	0.287	323	0.5	5.339	A
2 - Ash Road North	172	871	1412	0.122	171	0.2	3.685	A
3 - Abenbury Way	212	582	1767	0.120	211	0.2	2.869	A
4 - Industrial Estate Road	1713	106	2701	0.634	1706	1.8	3.740	A
5 - Proposed Site Access	323	1445	1279	0.252	322	0.3	3.903	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	388	1543	1002	0.387	387	0.8	7.024	A
2 - Ash Road North	205	1042	1324	0.155	205	0.2	4.084	A
3 - Abenbury Way	253	697	1701	0.149	252	0.2	3.083	A
4 - Industrial Estate Road	2045	127	2687	0.761	2039	3.2	5.741	A
5 - Proposed Site Access	386	1727	1119	0.345	385	0.5	5.094	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	1872	833	0.571	472	1.6	11.883	B
2 - Ash Road North	251	1267	1209	0.208	251	0.3	4.769	A
3 - Abenbury Way	309	851	1612	0.192	309	0.3	3.428	A
4 - Industrial Estate Road	2505	155	2668	0.939	2469	12.2	16.536	C
5 - Proposed Site Access	472	2092	912	0.518	470	1.1	8.422	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	476	1891	824	0.578	475	1.6	12.412	B
2 - Ash Road North	251	1278	1204	0.209	251	0.3	4.799	A
3 - Abenbury Way	309	855	1610	0.192	309	0.3	3.434	A
4 - Industrial Estate Road	2505	155	2667	0.939	2499	13.6	20.802	C
5 - Proposed Site Access	472	2117	898	0.526	472	1.1	8.779	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	388	1573	987	0.394	392	0.8	7.311	A
2 - Ash Road North	205	1058	1316	0.156	205	0.2	4.121	A
3 - Abenbury Way	253	703	1697	0.149	253	0.2	3.094	A
4 - Industrial Estate Road	2045	127	2686	0.761	2086	3.4	6.655	A
5 - Proposed Site Access	386	1766	1097	0.352	388	0.6	5.297	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	325	1300	1127	0.289	326	0.5	5.414	A
2 - Ash Road North	172	878	1408	0.122	172	0.2	3.703	A
3 - Abenbury Way	212	587	1764	0.120	212	0.2	2.877	A
4 - Industrial Estate Road	1713	106	2701	0.634	1719	1.8	3.845	A
5 - Proposed Site Access	323	1456	1273	0.254	324	0.4	3.949	A

2037 Base + Committed + Development (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	28.49	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	28.49	D

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)
D12	2037 Base + Committed + Development (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	732	100.000
2 - Ash Road North		✓	1001	100.000
3 - Abenbury Way		✓	589	100.000
4 - Industrial Estate Road		✓	936	100.000
5 - Proposed Site Access		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	10	12	624	86
	2 - Ash Road North	14	0	9	853	125
	3 - Abenbury Way	17	4	0	482	86
	4 - Industrial Estate Road	333	222	146	19	216
	5 - Proposed Site Access	60	29	30	435	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.62	7.64	1.7	A
2 - Ash Road North	1.01	79.53	24.6	F
3 - Abenbury Way	0.86	32.32	5.5	D
4 - Industrial Estate Road	0.41	2.56	0.7	A
5 - Proposed Site Access	0.37	3.59	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	551	664	1453	0.379	549	0.6	4.112	A
2 - Ash Road North	754	1014	1338	0.563	748	1.3	6.115	A
3 - Abenbury Way	443	1615	1173	0.378	441	0.6	5.065	A
4 - Industrial Estate Road	705	248	2604	0.271	703	0.4	2.018	A
5 - Proposed Site Access	417	567	1777	0.235	416	0.3	2.684	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	658	795	1386	0.475	657	0.9	5.106	A
2 - Ash Road North	900	1214	1236	0.728	895	2.6	10.480	B
3 - Abenbury Way	529	1932	991	0.534	527	1.2	7.987	A
4 - Industrial Estate Road	841	297	2572	0.327	841	0.5	2.219	A
5 - Proposed Site Access	498	678	1714	0.291	498	0.4	3.006	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	806	973	1294	0.623	803	1.7	7.539	A
2 - Ash Road North	1102	1485	1098	1.004	1045	17.0	45.890	E
3 - Abenbury Way	649	2313	772	0.840	635	4.6	25.024	D
4 - Industrial Estate Road	1031	355	2533	0.407	1030	0.7	2.554	A
5 - Proposed Site Access	610	829	1628	0.375	609	0.6	3.587	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	806	974	1294	0.623	806	1.7	7.637	A
2 - Ash Road North	1102	1488	1096	1.005	1072	24.6	79.526	F
3 - Abenbury Way	649	2343	755	0.859	645	5.5	32.320	D
4 - Industrial Estate Road	1031	361	2529	0.408	1031	0.7	2.563	A
5 - Proposed Site Access	610	831	1627	0.375	610	0.6	3.593	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	658	797	1385	0.475	661	0.9	5.172	A
2 - Ash Road North	900	1219	1234	0.729	987	2.9	19.828	C
3 - Abenbury Way	529	2028	936	0.566	546	1.4	9.923	A
4 - Industrial Estate Road	841	314	2560	0.329	842	0.5	2.236	A
5 - Proposed Site Access	498	681	1712	0.291	499	0.4	3.014	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	551	667	1452	0.380	552	0.6	4.153	A
2 - Ash Road North	754	1020	1336	0.564	760	1.3	6.384	A
3 - Abenbury Way	443	1631	1164	0.381	446	0.6	5.207	A
4 - Industrial Estate Road	705	251	2602	0.271	705	0.4	2.026	A
5 - Proposed Site Access	417	569	1776	0.235	418	0.3	2.694	A

2030 Base + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.24	A

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)
D13	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	301	100.000
2 - Ash Road North		✓	160	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	1671	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	52	43	206	0
	2 - Ash Road North	4	1	11	144	0
	3 - Abenbury Way	11	24	0	246	0
	4 - Industrial Estate Road	411	716	529	15	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.31	5.92	0.5	A
2 - Ash Road North	0.12	3.80	0.2	A
3 - Abenbury Way	0.17	2.97	0.3	A
4 - Industrial Estate Road	0.67	4.19	2.1	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	965	1299	0.174	226	0.3	4.059	A
2 - Ash Road North	120	595	1552	0.078	120	0.1	3.273	A
3 - Abenbury Way	212	277	1942	0.109	211	0.2	2.673	A
4 - Industrial Estate Road	1258	30	2752	0.457	1254	0.9	2.521	A
5 - Proposed Site Access	0	1285	1370	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	271	1154	1202	0.225	270	0.3	4.678	A
2 - Ash Road North	144	712	1492	0.096	144	0.1	3.474	A
3 - Abenbury Way	253	332	1910	0.132	252	0.2	2.790	A
4 - Industrial Estate Road	1502	36	2748	0.547	1501	1.3	3.028	A
5 - Proposed Site Access	0	1537	1227	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	331	1412	1069	0.310	331	0.5	5.896	A
2 - Ash Road North	176	871	1411	0.125	176	0.2	3.794	A
3 - Abenbury Way	309	407	1868	0.166	309	0.3	2.968	A
4 - Industrial Estate Road	1840	44	2743	0.671	1836	2.1	4.158	A
5 - Proposed Site Access	0	1880	1032	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	331	1415	1068	0.310	331	0.5	5.918	A
2 - Ash Road North	176	873	1410	0.125	176	0.2	3.796	A
3 - Abenbury Way	309	407	1867	0.166	309	0.3	2.969	A
4 - Industrial Estate Road	1840	44	2743	0.671	1840	2.1	4.189	A
5 - Proposed Site Access	0	1884	1030	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	271	1158	1200	0.226	271	0.4	4.699	A
2 - Ash Road North	144	715	1491	0.096	144	0.1	3.481	A
3 - Abenbury Way	253	333	1910	0.132	253	0.2	2.792	A
4 - Industrial Estate Road	1502	36	2748	0.547	1506	1.3	3.052	A
5 - Proposed Site Access	0	1542	1224	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	227	969	1297	0.175	227	0.3	4.077	A
2 - Ash Road North	120	598	1551	0.078	121	0.1	3.279	A
3 - Abenbury Way	212	279	1941	0.109	212	0.2	2.677	A
4 - Industrial Estate Road	1258	30	2752	0.457	1260	0.9	2.538	A
5 - Proposed Site Access	0	1290	1367	0.000	0	0.0	0.000	A

2030 Base + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.42	A

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)
D14	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	473	100.000
2 - Ash Road North		✓	810	100.000
3 - Abenbury Way		✓	558	100.000
4 - Industrial Estate Road		✓	569	100.000
5 - Proposed Site Access		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	14	448	0
	2 - Ash Road North	16	0	10	784	0
	3 - Abenbury Way	19	4	0	535	0
	4 - Industrial Estate Road	225	164	162	18	0
	5 - Proposed Site Access	0	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.33	3.48	0.5	A
2 - Ash Road North	0.60	6.04	1.5	A
3 - Abenbury Way	0.47	5.46	0.9	A
4 - Industrial Estate Road	0.23	1.86	0.3	A
5 - Proposed Site Access	0.00	0.00	0.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	356	261	1660	0.215	355	0.3	2.870	A
2 - Ash Road North	610	482	1610	0.379	607	0.6	3.626	A
3 - Abenbury Way	420	950	1556	0.270	419	0.4	3.289	A
4 - Industrial Estate Road	428	29	2753	0.156	428	0.2	1.691	A
5 - Proposed Site Access	0	457	1839	0.000	0	0.0	0.000	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	425	313	1633	0.260	425	0.4	3.102	A
2 - Ash Road North	728	577	1561	0.466	727	0.9	4.362	A
3 - Abenbury Way	502	1137	1448	0.346	501	0.5	3.952	A
4 - Industrial Estate Road	512	35	2749	0.186	511	0.2	1.757	A
5 - Proposed Site Access	0	546	1789	0.000	0	0.0	0.000	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	521	383	1597	0.326	520	0.5	3.478	A
2 - Ash Road North	892	706	1495	0.596	889	1.5	5.990	A
3 - Abenbury Way	614	1391	1302	0.472	613	0.9	5.423	A
4 - Industrial Estate Road	626	43	2743	0.228	626	0.3	1.857	A
5 - Proposed Site Access	0	669	1719	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	521	383	1597	0.326	521	0.5	3.481	A
2 - Ash Road North	892	707	1495	0.597	892	1.5	6.040	A
3 - Abenbury Way	614	1394	1300	0.472	614	0.9	5.459	A
4 - Industrial Estate Road	626	43	2743	0.228	626	0.3	1.857	A
5 - Proposed Site Access	0	669	1719	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	425	313	1633	0.260	426	0.4	3.105	A
2 - Ash Road North	728	578	1561	0.466	731	0.9	4.402	A
3 - Abenbury Way	502	1141	1446	0.347	503	0.6	3.981	A
4 - Industrial Estate Road	512	35	2749	0.186	512	0.3	1.760	A
5 - Proposed Site Access	0	547	1788	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	356	262	1659	0.215	356	0.3	2.877	A
2 - Ash Road North	610	484	1609	0.379	611	0.6	3.657	A
3 - Abenbury Way	420	955	1553	0.271	421	0.4	3.309	A
4 - Industrial Estate Road	428	29	2753	0.156	429	0.2	1.694	A
5 - Proposed Site Access	0	458	1839	0.000	0	0.0	0.000	A

2037 Base + Development (Phase 1 + 2) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	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 segment length (min)
D15	2037 Base + Development (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	334	100.000
2 - Ash Road North		✓	169	100.000
3 - Abenbury Way		✓	281	100.000
4 - Industrial Estate Road		✓	1943	100.000
5 - Proposed Site Access		✓	429	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	48	40	197	49
	2 - Ash Road North	4	1	10	133	21
	3 - Abenbury Way	10	21	0	215	35
	4 - Industrial Estate Road	392	662	489	16	384
	5 - Proposed Site Access	56	100	74	199	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	2	10	30	0
	2 - Ash Road North	0	0	25	32	0
	3 - Abenbury Way	11	23	0	30	0
	4 - Industrial Estate Road	6	4	6	0	0
	5 - Proposed Site Access	0	0	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.40	7.78	0.8	A
2 - Ash Road North	0.15	4.21	0.2	A
3 - Abenbury Way	0.18	3.19	0.3	A
4 - Industrial Estate Road	0.80	7.08	4.1	A
5 - Proposed Site Access	0.43	5.94	0.8	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	251	1172	1193	0.211	250	0.3	4.488	A
2 - Ash Road North	127	798	1449	0.088	127	0.1	3.415	A
3 - Abenbury Way	212	465	1834	0.115	211	0.2	2.750	A
4 - Industrial Estate Road	1463	106	2701	0.542	1458	1.2	3.002	A
5 - Proposed Site Access	323	1197	1420	0.227	322	0.3	3.406	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	300	1402	1075	0.279	300	0.5	5.461	A
2 - Ash Road North	152	955	1369	0.111	152	0.2	3.710	A
3 - Abenbury Way	253	557	1781	0.142	252	0.2	2.921	A
4 - Industrial Estate Road	1747	127	2687	0.650	1744	1.9	3.960	A
5 - Proposed Site Access	386	1432	1287	0.300	385	0.4	4.149	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	368	1713	915	0.402	366	0.8	7.703	A
2 - Ash Road North	186	1167	1260	0.148	186	0.2	4.201	A
3 - Abenbury Way	309	681	1710	0.181	309	0.3	3.188	A
4 - Industrial Estate Road	2139	155	2668	0.802	2131	4.1	6.865	A
5 - Proposed Site Access	472	1749	1107	0.427	471	0.8	5.877	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	368	1720	912	0.403	368	0.8	7.782	A
2 - Ash Road North	186	1171	1258	0.148	186	0.2	4.210	A
3 - Abenbury Way	309	683	1709	0.181	309	0.3	3.190	A
4 - Industrial Estate Road	2139	155	2667	0.802	2139	4.1	7.075	A
5 - Proposed Site Access	472	1756	1103	0.428	472	0.8	5.936	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	300	1411	1070	0.281	302	0.5	5.517	A
2 - Ash Road North	152	961	1366	0.111	152	0.2	3.723	A
3 - Abenbury Way	253	559	1780	0.142	253	0.2	2.925	A
4 - Industrial Estate Road	1747	127	2687	0.650	1755	2.0	4.060	A
5 - Proposed Site Access	386	1441	1281	0.301	387	0.5	4.192	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	251	1178	1189	0.211	252	0.3	4.521	A
2 - Ash Road North	127	803	1446	0.088	127	0.1	3.425	A
3 - Abenbury Way	212	468	1833	0.115	212	0.2	2.757	A
4 - Industrial Estate Road	1463	106	2701	0.542	1466	1.2	3.041	A
5 - Proposed Site Access	323	1203	1416	0.228	324	0.3	3.426	A

2037 Base + Development (Phase 1 + 2) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.53	A

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)
D16	2037 Base + Development (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	527	100.000
2 - Ash Road North		✓	856	100.000
3 - Abenbury Way		✓	590	100.000
4 - Industrial Estate Road		✓	741	100.000
5 - Proposed Site Access		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	10	12	419	86
	2 - Ash Road North	14	0	9	708	125
	3 - Abenbury Way	17	4	0	483	86
	4 - Industrial Estate Road	212	148	146	19	216
	5 - Proposed Site Access	60	29	30	435	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Proposed Site Access
From	1 - Bryn Lane	0	11	3	4	0
	2 - Ash Road North	7	0	12	1	0
	3 - Abenbury Way	6	0	0	4	0
	4 - Industrial Estate Road	5	14	12	0	0
	5 - Proposed Site Access	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.43	4.93	0.8	A
2 - Ash Road North	0.78	13.45	3.4	B
3 - Abenbury Way	0.68	12.00	2.1	B
4 - Industrial Estate Road	0.32	2.24	0.5	A
5 - Proposed Site Access	0.35	3.21	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	397	609	1481	0.268	395	0.4	3.424	A
2 - Ash Road North	644	861	1417	0.455	641	0.8	4.672	A
3 - Abenbury Way	444	1354	1323	0.336	442	0.5	4.217	A
4 - Industrial Estate Road	558	249	2604	0.214	557	0.3	1.869	A
5 - Proposed Site Access	417	421	1860	0.224	416	0.3	2.529	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	474	729	1420	0.334	473	0.5	3.930	A
2 - Ash Road North	770	1030	1330	0.579	767	1.4	6.439	A
3 - Abenbury Way	530	1621	1170	0.453	529	0.8	5.798	A
4 - Industrial Estate Road	666	298	2571	0.259	666	0.4	2.008	A
5 - Proposed Site Access	498	503	1813	0.275	498	0.4	2.779	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	580	892	1336	0.434	579	0.8	4.911	A
2 - Ash Road North	942	1261	1212	0.777	935	3.3	12.754	B
3 - Abenbury Way	650	1979	964	0.674	645	2.1	11.493	B
4 - Industrial Estate Road	816	363	2527	0.323	815	0.5	2.236	A
5 - Proposed Site Access	610	616	1749	0.349	609	0.5	3.206	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	580	893	1336	0.434	580	0.8	4.928	A
2 - Ash Road North	942	1263	1211	0.778	942	3.4	13.445	B
3 - Abenbury Way	650	1988	959	0.677	649	2.1	12.003	B
4 - Industrial Estate Road	816	365	2525	0.323	816	0.5	2.238	A
5 - Proposed Site Access	610	617	1749	0.349	610	0.5	3.210	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	474	730	1419	0.334	475	0.5	3.946	A
2 - Ash Road North	770	1033	1329	0.579	778	1.4	6.694	A
3 - Abenbury Way	530	1633	1163	0.456	535	0.9	5.979	A
4 - Industrial Estate Road	666	301	2569	0.259	667	0.4	2.013	A
5 - Proposed Site Access	498	504	1812	0.275	499	0.4	2.785	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Bryn Lane	397	611	1480	0.268	397	0.4	3.441	A
2 - Ash Road North	644	864	1415	0.456	647	0.9	4.751	A
3 - Abenbury Way	444	1363	1318	0.337	446	0.5	4.274	A
4 - Industrial Estate Road	558	251	2603	0.214	558	0.3	1.873	A
5 - Proposed Site Access	417	422	1859	0.224	417	0.3	2.538	A

**Appendix TN5 - A534 / Industrial Estate Road / Sandy Lane / Borrass
Hall Lane Roundabout ARCADY**

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.1.1519				
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Filename: A534, Borrás Hall Lane, Industrial Estate Road ARCADY - calib.j10

Path: D:\Cora IHT\Wrexham (2)\January 2026

Report generation date: 03/02/2026 15:56:31

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Developement (Phase 1), AM
 »2030 Base + Committed + Developement (Phase 1), PM
 »2037 Base + Committed + Developement (Phase 1), AM
 »2037 Base + Committed + Developement (Phase 1), PM
 »2030 Base + Committed + Developement (Phase 1 + 2), AM
 »2030 Base + Committed + Developement (Phase 1 + 2), PM
 »2037 Base + Committed + Developement (Phase 1 + 2), AM
 »2037 Base + Committed + Developement (Phase 1 + 2), PM
 »2030 Base + Developement (Phase 1) [Sens], AM
 »2030 Base + Developement (Phase 1) [Sens], PM
 »2037 Base + Developement (Phase 1 + 2) [Sens], AM
 »2037 Base + Developement (Phase 1 + 2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Borrás Hall Lane	D1	0.5	9.53	0.31	A	D2	0.0	4.08	0.04	A
2 - A534 Wrexham Road (East)		7.5	54.26	0.90	F		0.8	5.39	0.43	A
3 - Industrial Estate Road		0.5	3.12	0.26	A		6.0	13.15	0.86	B
4 - Sandy Lane		0.1	5.14	0.04	A		0.1	8.79	0.06	A
5 - A534 (West)		1.7	3.81	0.62	A		0.5	2.28	0.31	A
	2030 Base									
1 - Borrás Hall Lane	D3	0.6	11.29	0.37	B	D4	0.0	4.22	0.04	A
2 - A534 Wrexham Road (East)		23.2	141.72	1.04	F		0.9	5.76	0.46	A
3 - Industrial Estate Road		0.5	3.19	0.28	A		10.2	21.76	0.92	C
4 - Sandy Lane		0.1	5.25	0.04	A		0.1	10.11	0.07	B
5 - A534 (West)		2.0	4.21	0.65	A		0.5	2.36	0.33	A

2037 Base										
1 - Borrás Hall Lane	D5	0.8	13.99	0.43	B	D6	0.0	4.38	0.05	A
2 - A534 Wrexham Road (East)		59.3	326.95	1.22	F		1.0	6.24	0.49	A
3 - Industrial Estate Road		0.5	3.21	0.29	A		25.4	48.97	0.99	E
4 - Sandy Lane		0.1	5.29	0.04	A		0.1	11.89	0.09	B
5 - A534 (West)		2.4	4.76	0.69	A		0.6	2.44	0.35	A
2030 Base + Committed										
1 - Borrás Hall Lane	D7	1.5	28.29	0.60	D	D8	0.1	4.82	0.05	A
2 - A534 Wrexham Road (East)		134.8	886.42	1.79	F		1.2	7.62	0.54	A
3 - Industrial Estate Road		0.7	3.34	0.34	A		131.6	192.63	1.12	F
4 - Sandy Lane		0.1	5.33	0.04	A		0.1	12.62	0.08	B
5 - A534 (West)		4.1	7.15	0.80	A		0.8	2.71	0.42	A
2037 Base + Committed										
1 - Borrás Hall Lane	D9	2.7	51.80	0.75	F	D10	0.1	4.99	0.06	A
2 - A534 Wrexham Road (East)		189.2	1844.66	2.25	F		1.4	8.46	0.58	A
3 - Industrial Estate Road		0.7	3.36	0.35	A		195.9	327.77	1.19	F
4 - Sandy Lane		0.1	5.38	0.04	A		0.1	12.89	0.09	B
5 - A534 (West)		5.2	8.87	0.84	A		0.8	2.80	0.44	A
2030 Base + Committed + Development (Phase 1)										
1 - Borrás Hall Lane	D11	4.3	84.27	0.85	F	D12	0.1	5.13	0.06	A
2 - A534 Wrexham Road (East)		214.6	2469.90	2.65	F		1.4	8.82	0.58	A
3 - Industrial Estate Road		0.8	3.43	0.37	A		215.5	365.87	1.21	F
4 - Sandy Lane		0.1	5.40	0.04	A		0.1	12.64	0.08	B
5 - A534 (West)		6.3	10.40	0.86	B		0.9	2.89	0.45	A
2037 Base + Committed + Development (Phase 1)										
1 - Borrás Hall Lane	D13	16.6	256.61	1.14	F	D14	0.1	5.33	0.07	A
2 - A534 Wrexham Road (East)		290.2	2168.47	3.35	F		1.7	9.99	0.62	A
3 - Industrial Estate Road		0.8	3.47	0.39	A		290.8	522.08	1.28	F
4 - Sandy Lane		0.1	5.45	0.04	A		0.1	12.90	0.09	B
5 - A534 (West)		8.8	14.26	0.90	B		1.0	2.99	0.47	A
2030 Base + Committed + Development (Phase 1 + 2)										
1 - Borrás Hall Lane	D15	33.9	503.93	1.50	F	D16	0.1	5.59	0.07	A
2 - A534 Wrexham Road (East)		330.9	2549.36	4.12	F		1.7	10.91	0.64	B
3 - Industrial Estate Road		1.0	3.72	0.43	A		348.1	606.27	1.31	F
4 - Sandy Lane		0.1	5.65	0.04	A		0.1	12.65	0.08	B
5 - A534 (West)		13.0	20.59	0.93	C		1.1	3.14	0.50	A
2037 Base + Committed + Development (Phase 1 + 2)										
1 - Borrás Hall Lane	D17	41.5	604.59	1.67	F	D18	0.1	5.81	0.08	A
2 - A534 Wrexham Road (East)		356.2	2685.92	4.05	F		2.1	12.64	0.68	B
3 - Industrial Estate Road		1.0	3.75	0.44	A		365.6	639.01	1.32	F
4 - Sandy Lane		0.1	5.72	0.04	A		0.1	12.91	0.09	B
5 - A534 (West)		14.7	23.09	0.94	C		1.1	3.26	0.52	A
2030 Base + Development (Phase 1) [Sens]										
1 - Borrás Hall Lane	D19	0.8	15.95	0.46	C	D20	0.0	4.50	0.05	A
2 - A534 Wrexham Road (East)		73.8	429.61	1.32	F		1.0	6.44	0.49	A
3 - Industrial Estate Road		0.6	3.27	0.31	A		32.6	59.23	1.00	F
4 - Sandy Lane		0.1	5.31	0.04	A		0.1	11.94	0.08	B
5 - A534 (West)		2.7	5.21	0.72	A		0.6	2.52	0.37	A
2037 Base + Development (Phase 1 + 2) [Sens]										
1 - Borrás Hall Lane	D21	2.9	52.48	0.76	F	D22	0.1	5.14	0.06	A
2 - A534 Wrexham Road (East)		198.7	1963.10	2.32	F		1.4	8.80	0.59	A
3 - Industrial Estate Road		0.8	3.51	0.38	A		174.2	280.46	1.17	F
4 - Sandy Lane		0.1	5.53	0.04	A		0.1	12.81	0.09	B
5 - A534 (West)		5.0	8.51	0.83	A		0.9	2.88	0.45	A

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

File summary

File Description

Title	Borras Hall Lane / Wrexham Road / Industrial Estate Road
Location	Wrexham
Site number	
Date	31/01/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGBB\mchau
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D15	2030 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D16	2030 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D17	2037 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D18	2037 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D19	2030 Base + Developement (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D20	2030 Base + Developement (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D21	2037 Base + Developement (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D22	2037 Base + Developement (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	13.37	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.37	B

Arms

Arms

Arm	Name	Description	No give-way line
1	Borras Hall Lane		
2	A534 Wrexham Road (East)		
3	Industrial Estate Road		
4	Sandy Lane		
5	A534 (West)		

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 - Borras Hall Lane	3.60	5.80	11.0	17.3	70.0	31.3		
2 - A534 Wrexham Road (East)	3.50	7.30	13.0	26.2	70.0	31.8		
3 - Industrial Estate Road	7.00	8.70	15.7	38.8	70.0	31.8		
4 - Sandy Lane	3.70	5.30	18.1	16.0	70.0	30.9		
5 - A534 (West)	7.80	10.10	5.0	32.0	70.0	31.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - Borras Hall Lane	✓	0.500	1400	0.500	1400
2 - A534 Wrexham Road (East)	✓	0.615	1470	0.615	1470
3 - Industrial Estate Road	✓	0.780	2340	0.780	2340
4 - Sandy Lane				0.467	1476
5 - A534 (West)				0.663	2682

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	159	100.000
2 - A534 Wrexham Road (East)		✓	486	100.000
3 - Industrial Estate Road		✓	480	100.000
4 - Sandy Lane		✓	34	100.000
5 - A534 (West)		✓	1469	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	10	140	0	9
	2 - A534 Wrexham Road (East)	2	0	159	7	318
	3 - Industrial Estate Road	15	57	2	1	405
	4 - Sandy Lane	1	7	4	0	22
	5 - A534 (West)	6	325	1114	22	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrás Hall Lane	0.31	9.53	0.5	A
2 - A534 Wrexham Road (East)	0.90	54.26	7.5	F
3 - Industrial Estate Road	0.26	3.12	0.5	A
4 - Sandy Lane	0.04	5.14	0.1	A
5 - A534 (West)	0.62	3.81	1.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	120	1151	825	0.145	119	0.2	5.143	A
2 - A534 Wrexham Road (East)	366	970	873	0.419	363	0.8	7.543	A
3 - Industrial Estate Road	361	269	2130	0.170	360	0.3	2.648	A
4 - Sandy Lane	26	607	1193	0.021	25	0.0	4.507	A
5 - A534 (West)	1106	66	2638	0.419	1103	0.8	2.475	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1377	712	0.201	143	0.3	6.381	A
2 - A534 Wrexham Road (East)	437	1161	756	0.578	434	1.4	11.940	B
3 - Industrial Estate Road	432	322	2089	0.207	431	0.3	2.828	A
4 - Sandy Lane	31	726	1137	0.027	31	0.0	4.754	A
5 - A534 (West)	1321	79	2629	0.502	1319	1.1	2.904	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1685	557	0.314	174	0.5	9.460	A
2 - A534 Wrexham Road (East)	535	1421	596	0.898	515	6.4	40.759	E
3 - Industrial Estate Road	528	383	2041	0.259	528	0.5	3.099	A
4 - Sandy Lane	37	878	1066	0.035	37	0.1	5.114	A
5 - A534 (West)	1617	97	2618	0.618	1615	1.7	3.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1688	556	0.315	175	0.5	9.530	A
2 - A534 Wrexham Road (East)	535	1424	595	0.900	531	7.5	54.264	F
3 - Industrial Estate Road	528	393	2033	0.260	528	0.5	3.115	A
4 - Sandy Lane	37	889	1061	0.035	37	0.1	5.139	A
5 - A534 (West)	1617	97	2618	0.618	1617	1.7	3.806	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1381	710	0.201	144	0.3	6.425	A
2 - A534 Wrexham Road (East)	437	1165	753	0.580	461	1.5	14.245	B
3 - Industrial Estate Road	432	340	2075	0.208	432	0.3	2.856	A
4 - Sandy Lane	31	744	1129	0.027	31	0.0	4.794	A
5 - A534 (West)	1321	79	2629	0.502	1323	1.1	2.920	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	120	1155	822	0.146	120	0.2	5.173	A
2 - A534 Wrexham Road (East)	366	975	871	0.420	369	0.8	7.764	A
3 - Industrial Estate Road	361	273	2127	0.170	362	0.3	2.656	A
4 - Sandy Lane	26	612	1190	0.022	26	0.0	4.517	A
5 - A534 (West)	1106	66	2638	0.419	1107	0.8	2.491	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	8.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.96	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	33	100.000
2 - A534 Wrexham Road (East)		✓	466	100.000
3 - Industrial Estate Road		✓	1541	100.000
4 - Sandy Lane		✓	25	100.000
5 - A534 (West)		✓	694	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	20	1	7
	2 - A534 Wrexham Road (East)	6	0	59	1	400
	3 - Industrial Estate Road	113	187	1	3	1237
	4 - Sandy Lane	1	5	1	0	18
	5 - A534 (West)	13	303	368	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	4.08	0.0	A
2 - A534 Wrexham Road (East)	0.43	5.39	0.8	A
3 - Industrial Estate Road	0.86	13.15	6.0	B
4 - Sandy Lane	0.06	8.79	0.1	A
5 - A534 (West)	0.31	2.28	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	25	657	1071	0.023	25	0.0	3.438	A
2 - A534 Wrexham Road (East)	351	306	1282	0.274	349	0.4	3.930	A
3 - Industrial Estate Road	1160	319	2092	0.555	1155	1.3	3.939	A
4 - Sandy Lane	19	1464	793	0.024	19	0.0	5.059	A
5 - A534 (West)	522	235	2526	0.207	521	0.3	1.918	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	30	786	1007	0.029	30	0.0	3.682	A
2 - A534 Wrexham Road (East)	419	367	1245	0.337	418	0.5	4.439	A
3 - Industrial Estate Road	1385	382	2042	0.678	1382	2.1	5.585	A
4 - Sandy Lane	22	1752	658	0.034	22	0.0	6.157	A
5 - A534 (West)	624	282	2495	0.250	624	0.4	2.055	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	36	961	919	0.040	36	0.0	4.076	A
2 - A534 Wrexham Road (East)	513	449	1194	0.430	512	0.8	5.374	A
3 - Industrial Estate Road	1697	467	1976	0.859	1682	5.7	12.086	B
4 - Sandy Lane	28	2135	480	0.057	27	0.1	8.659	A
5 - A534 (West)	764	343	2454	0.311	764	0.5	2.274	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	36	963	918	0.040	36	0.0	4.081	A
2 - A534 Wrexham Road (East)	513	449	1194	0.430	513	0.8	5.390	A
3 - Industrial Estate Road	1697	468	1975	0.859	1696	6.0	13.149	B
4 - Sandy Lane	28	2149	473	0.058	28	0.1	8.791	A
5 - A534 (West)	764	346	2453	0.312	764	0.5	2.277	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	30	789	1006	0.030	30	0.0	3.691	A
2 - A534 Wrexham Road (East)	419	367	1244	0.337	420	0.5	4.458	A
3 - Industrial Estate Road	1385	383	2041	0.679	1400	2.2	5.917	A
4 - Sandy Lane	22	1772	649	0.035	23	0.0	6.250	A
5 - A534 (West)	624	285	2493	0.250	624	0.4	2.058	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	25	660	1070	0.023	25	0.0	3.442	A
2 - A534 Wrexham Road (East)	351	307	1281	0.274	351	0.4	3.951	A
3 - Industrial Estate Road	1160	320	2090	0.555	1164	1.3	4.020	A
4 - Sandy Lane	19	1474	788	0.024	19	0.0	5.092	A
5 - A534 (West)	522	237	2525	0.207	523	0.3	1.921	A

2030 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	29.89	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	29.89	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	169	100.000
2 - A534 Wrexham Road (East)		✓	514	100.000
3 - Industrial Estate Road		✓	508	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	148	0	10
	2 - A534 Wrexham Road (East)	2	0	168	7	337
	3 - Industrial Estate Road	16	60	2	1	429
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	344	1179	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.37	11.29	0.6	B
2 - A534 Wrexham Road (East)	1.04	141.72	23.2	F
3 - Industrial Estate Road	0.28	3.19	0.5	A
4 - Sandy Lane	0.04	5.25	0.1	A
5 - A534 (West)	0.65	4.21	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	127	1217	792	0.161	126	0.2	5.455	A
2 - A534 Wrexham Road (East)	387	1027	839	0.461	383	0.9	8.438	A
3 - Industrial Estate Road	382	284	2118	0.181	381	0.3	2.699	A
4 - Sandy Lane	26	642	1176	0.022	26	0.0	4.593	A
5 - A534 (West)	1170	69	2636	0.444	1167	0.8	2.586	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	152	1456	672	0.226	152	0.3	6.976	A
2 - A534 Wrexham Road (East)	462	1228	715	0.647	458	1.9	14.876	B
3 - Industrial Estate Road	457	340	2075	0.220	456	0.4	2.897	A
4 - Sandy Lane	31	768	1117	0.028	31	0.0	4.863	A
5 - A534 (West)	1397	83	2627	0.532	1396	1.2	3.090	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	186	1782	509	0.365	185	0.6	11.160	B
2 - A534 Wrexham Road (East)	566	1503	546	1.037	514	14.8	77.364	F
3 - Industrial Estate Road	559	385	2040	0.274	559	0.5	3.166	A
4 - Sandy Lane	39	910	1051	0.037	38	0.1	5.215	A
5 - A534 (West)	1711	101	2615	0.654	1708	2.0	4.185	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	186	1785	508	0.367	186	0.6	11.289	B
2 - A534 Wrexham Road (East)	566	1506	544	1.041	532	23.2	141.723	F
3 - Industrial Estate Road	559	397	2030	0.275	559	0.5	3.187	A
4 - Sandy Lane	39	923	1045	0.037	39	0.1	5.245	A
5 - A534 (West)	1711	101	2615	0.654	1711	2.0	4.213	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	152	1460	670	0.227	153	0.3	7.041	A
2 - A534 Wrexham Road (East)	462	1233	712	0.649	546	2.1	34.937	D
3 - Industrial Estate Road	457	399	2029	0.225	457	0.4	2.987	A
4 - Sandy Lane	31	827	1090	0.029	32	0.0	4.992	A
5 - A534 (West)	1397	83	2627	0.532	1400	1.2	3.112	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	127	1222	789	0.161	128	0.2	5.495	A
2 - A534 Wrexham Road (East)	387	1031	836	0.463	392	0.9	8.810	A
3 - Industrial Estate Road	382	290	2114	0.181	383	0.3	2.709	A
4 - Sandy Lane	26	649	1173	0.022	26	0.0	4.607	A
5 - A534 (West)	1170	69	2636	0.444	1171	0.8	2.602	A

2030 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	13.87	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.87	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	34	100.000
2 - A534 Wrexham Road (East)		✓	492	100.000
3 - Industrial Estate Road		✓	1632	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	734	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	21	1	7
	2 - A534 Wrexham Road (East)	6	0	62	1	423
	3 - Industrial Estate Road	120	198	1	3	1310
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	13	321	390	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrás Hall Lane	0.04	4.22	0.0	A
2 - A534 Wrexham Road (East)	0.46	5.76	0.9	A
3 - Industrial Estate Road	0.92	21.76	10.2	C
4 - Sandy Lane	0.07	10.11	0.1	B
5 - A534 (West)	0.33	2.36	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	26	695	1052	0.024	25	0.0	3.505	A
2 - A534 Wrexham Road (East)	370	324	1271	0.291	369	0.4	4.060	A
3 - Industrial Estate Road	1229	336	2078	0.591	1223	1.5	4.307	A
4 - Sandy Lane	20	1549	753	0.026	19	0.0	5.332	A
5 - A534 (West)	553	249	2517	0.220	551	0.3	1.956	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	31	832	984	0.031	31	0.0	3.773	A
2 - A534 Wrexham Road (East)	442	387	1232	0.359	442	0.6	4.641	A
3 - Industrial Estate Road	1467	402	2026	0.724	1462	2.6	6.522	A
4 - Sandy Lane	23	1853	611	0.038	23	0.0	6.654	A
5 - A534 (West)	660	298	2485	0.266	660	0.4	2.107	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	37	1016	892	0.042	37	0.0	4.211	A
2 - A534 Wrexham Road (East)	542	474	1178	0.460	541	0.9	5.742	A
3 - Industrial Estate Road	1797	492	1956	0.919	1770	9.3	17.866	C
4 - Sandy Lane	29	2248	427	0.067	28	0.1	9.820	A
5 - A534 (West)	808	360	2443	0.331	808	0.5	2.352	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1019	890	0.042	37	0.0	4.219	A
2 - A534 Wrexham Road (East)	542	475	1178	0.460	542	0.9	5.764	A
3 - Industrial Estate Road	1797	493	1955	0.919	1793	10.2	21.757	C
4 - Sandy Lane	29	2272	416	0.069	29	0.1	10.107	B
5 - A534 (West)	808	365	2440	0.331	808	0.5	2.356	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	837	982	0.031	31	0.0	3.787	A
2 - A534 Wrexham Road (East)	442	388	1231	0.359	443	0.6	4.664	A
3 - Industrial Estate Road	1467	404	2025	0.724	1497	2.8	7.398	A
4 - Sandy Lane	23	1889	594	0.039	24	0.0	6.856	A
5 - A534 (West)	660	304	2480	0.266	660	0.4	2.115	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	26	698	1051	0.024	26	0.0	3.513	A
2 - A534 Wrexham Road (East)	370	325	1270	0.292	371	0.4	4.084	A
3 - Industrial Estate Road	1229	338	2076	0.592	1234	1.5	4.427	A
4 - Sandy Lane	20	1562	747	0.026	20	0.0	5.379	A
5 - A534 (West)	553	251	2515	0.220	553	0.3	1.959	A

2037 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	64.62	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	64.62	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	178	100.000
2 - A534 Wrexham Road (East)		✓	544	100.000
3 - Industrial Estate Road		✓	537	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1645	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	157	0	10
	2 - A534 Wrexham Road (East)	2	0	178	8	356
	3 - Industrial Estate Road	17	64	2	1	453
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	364	1247	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.43	13.99	0.8	B
2 - A534 Wrexham Road (East)	1.22	326.95	59.3	F
3 - Industrial Estate Road	0.29	3.21	0.5	A
4 - Sandy Lane	0.04	5.29	0.1	A
5 - A534 (West)	0.69	4.76	2.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	134	1288	756	0.177	133	0.2	5.822	A
2 - A534 Wrexham Road (East)	410	1086	802	0.510	405	1.1	9.650	A
3 - Industrial Estate Road	404	300	2106	0.192	403	0.3	2.753	A
4 - Sandy Lane	29	678	1160	0.025	28	0.0	4.689	A
5 - A534 (West)	1238	74	2633	0.470	1235	0.9	2.717	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	160	1541	630	0.254	160	0.3	7.719	A
2 - A534 Wrexham Road (East)	489	1299	671	0.729	483	2.7	19.927	C
3 - Industrial Estate Road	483	358	2061	0.234	482	0.4	2.971	A
4 - Sandy Lane	34	810	1098	0.031	34	0.0	4.985	A
5 - A534 (West)	1479	88	2624	0.564	1477	1.4	3.318	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	196	1885	457	0.429	194	0.7	13.728	B
2 - A534 Wrexham Road (East)	599	1589	493	1.215	482	31.8	148.123	F
3 - Industrial Estate Road	591	365	2055	0.288	591	0.5	3.202	A
4 - Sandy Lane	42	920	1047	0.040	42	0.1	5.279	A
5 - A534 (West)	1811	107	2611	0.694	1807	2.4	4.717	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	196	1889	455	0.430	196	0.8	13.992	B
2 - A534 Wrexham Road (East)	599	1593	490	1.222	489	59.3	326.945	F
3 - Industrial Estate Road	591	370	2052	0.288	591	0.5	3.210	A
4 - Sandy Lane	42	925	1044	0.040	42	0.1	5.291	A
5 - A534 (West)	1811	107	2611	0.694	1811	2.4	4.764	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	160	1547	627	0.255	162	0.3	7.835	A
2 - A534 Wrexham Road (East)	489	1305	667	0.733	655	17.8	216.405	F
3 - Industrial Estate Road	483	474	1970	0.245	483	0.4	3.154	A
4 - Sandy Lane	34	924	1045	0.033	34	0.1	5.249	A
5 - A534 (West)	1479	89	2623	0.564	1483	1.4	3.351	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	134	1294	753	0.178	135	0.2	5.877	A
2 - A534 Wrexham Road (East)	410	1091	799	0.513	476	1.2	14.639	B
3 - Industrial Estate Road	404	348	2068	0.195	405	0.3	2.821	A
4 - Sandy Lane	29	726	1137	0.025	29	0.0	4.785	A
5 - A534 (West)	1238	74	2633	0.470	1240	0.9	2.740	A

2037 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	29.23	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	29.23	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	37	100.000
2 - A534 Wrexham Road (East)		✓	521	100.000
3 - Industrial Estate Road		✓	1732	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	777	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	22	1	8
	2 - A534 Wrexham Road (East)	7	0	66	1	447
	3 - Industrial Estate Road	126	209	1	3	1393
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	339	412	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.38	0.0	A
2 - A534 Wrexham Road (East)	0.49	6.24	1.0	A
3 - Industrial Estate Road	0.99	48.97	25.4	E
4 - Sandy Lane	0.09	11.89	0.1	B
5 - A534 (West)	0.35	2.44	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	28	735	1033	0.027	28	0.0	3.582	A
2 - A534 Wrexham Road (East)	392	342	1259	0.311	390	0.5	4.214	A
3 - Industrial Estate Road	1304	356	2062	0.632	1297	1.7	4.803	A
4 - Sandy Lane	21	1642	709	0.030	21	0.0	5.703	A
5 - A534 (West)	585	263	2508	0.233	584	0.3	1.998	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	879	961	0.035	33	0.0	3.882	A
2 - A534 Wrexham Road (East)	468	410	1218	0.385	468	0.6	4.886	A
3 - Industrial Estate Road	1557	426	2007	0.776	1550	3.4	7.995	A
4 - Sandy Lane	25	1964	559	0.045	25	0.1	7.350	A
5 - A534 (West)	699	314	2473	0.282	698	0.4	2.166	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1070	865	0.047	41	0.0	4.366	A
2 - A534 Wrexham Road (East)	574	502	1161	0.494	572	1.0	6.212	A
3 - Industrial Estate Road	1907	522	1933	0.987	1845	19.0	30.519	D
4 - Sandy Lane	31	2351	379	0.081	31	0.1	11.277	B
5 - A534 (West)	855	374	2434	0.352	855	0.6	2.434	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1075	863	0.047	41	0.0	4.379	A
2 - A534 Wrexham Road (East)	574	502	1161	0.494	574	1.0	6.244	A
3 - Industrial Estate Road	1907	523	1932	0.987	1881	25.4	48.974	E
4 - Sandy Lane	31	2389	361	0.085	31	0.1	11.889	B
5 - A534 (West)	855	381	2429	0.352	855	0.6	2.444	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	891	954	0.035	33	0.0	3.910	A
2 - A534 Wrexham Road (East)	468	410	1218	0.385	470	0.6	4.917	A
3 - Industrial Estate Road	1557	428	2006	0.776	1644	3.7	12.615	B
4 - Sandy Lane	25	2059	515	0.049	25	0.1	8.023	A
5 - A534 (West)	699	332	2461	0.284	699	0.4	2.182	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	28	738	1031	0.027	28	0.0	3.588	A
2 - A534 Wrexham Road (East)	392	344	1259	0.312	393	0.5	4.243	A
3 - Industrial Estate Road	1304	358	2061	0.633	1312	1.8	5.001	A
4 - Sandy Lane	21	1659	702	0.030	21	0.0	5.774	A
5 - A534 (West)	585	266	2506	0.233	585	0.3	2.003	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	149.99	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	149.99	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	176	100.000
2 - A534 Wrexham Road (East)		✓	534	100.000
3 - Industrial Estate Road		✓	665	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1885	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	155	0	10
	2 - A534 Wrexham Road (East)	2	0	181	7	344
	3 - Industrial Estate Road	19	68	2	1	575
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1491	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.60	28.29	1.5	D
2 - A534 Wrexham Road (East)	1.79	886.42	134.8	F
3 - Industrial Estate Road	0.34	3.34	0.7	A
4 - Sandy Lane	0.04	5.33	0.1	A
5 - A534 (West)	0.80	7.15	4.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	133	1470	665	0.199	132	0.2	6.798	A
2 - A534 Wrexham Road (East)	402	1265	692	0.581	396	1.4	12.857	B
3 - Industrial Estate Road	501	288	2115	0.237	499	0.4	2.906	A
4 - Sandy Lane	26	764	1119	0.024	26	0.0	4.832	A
5 - A534 (West)	1419	77	2631	0.539	1414	1.2	3.118	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	158	1759	520	0.304	157	0.4	9.987	A
2 - A534 Wrexham Road (East)	480	1514	539	0.891	462	6.0	42.879	E
3 - Industrial Estate Road	598	337	2077	0.288	597	0.5	3.177	A
4 - Sandy Lane	31	906	1053	0.030	31	0.0	5.170	A
5 - A534 (West)	1695	92	2621	0.647	1692	1.9	4.088	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	194	2150	325	0.596	190	1.4	26.217	D
2 - A534 Wrexham Road (East)	588	1847	334	1.760	333	69.8	433.726	F
3 - Industrial Estate Road	732	258	2139	0.342	732	0.7	3.339	A
4 - Sandy Lane	39	959	1028	0.037	38	0.1	5.335	A
5 - A534 (West)	2075	112	2607	0.796	2067	4.0	6.946	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	194	2158	321	0.603	193	1.5	28.290	D
2 - A534 Wrexham Road (East)	588	1857	328	1.792	328	134.8	875.115	F
3 - Industrial Estate Road	732	255	2141	0.342	732	0.7	3.336	A
4 - Sandy Lane	39	957	1029	0.037	39	0.1	5.330	A
5 - A534 (West)	2075	112	2607	0.796	2075	4.1	7.145	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	158	1770	515	0.307	162	0.5	10.417	B
2 - A534 Wrexham Road (East)	480	1527	531	0.904	527	123.2	886.423	F
3 - Industrial Estate Road	598	380	2044	0.293	598	0.5	3.256	A
4 - Sandy Lane	31	950	1033	0.030	32	0.0	5.277	A
5 - A534 (West)	1695	93	2620	0.647	1703	2.0	4.188	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	133	1478	661	0.201	133	0.3	6.894	A
2 - A534 Wrexham Road (East)	402	1273	687	0.585	681	53.4	469.888	F
3 - Industrial Estate Road	501	477	1968	0.254	501	0.4	3.204	A
4 - Sandy Lane	26	951	1032	0.026	26	0.0	5.252	A
5 - A534 (West)	1419	79	2630	0.540	1422	1.2	3.160	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	111.36	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	111.36	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	39	100.000
2 - A534 Wrexham Road (East)		✓	517	100.000
3 - Industrial Estate Road		✓	1982	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	26	1	7
	2 - A534 Wrexham Road (East)	6	0	70	1	440
	3 - Industrial Estate Road	129	212	1	3	1637
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	573	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.82	0.1	A
2 - A534 Wrexham Road (East)	0.54	7.62	1.2	A
3 - Industrial Estate Road	1.12	192.63	131.6	F
4 - Sandy Lane	0.08	12.62	0.1	B
5 - A534 (West)	0.42	2.71	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	29	849	975	0.030	29	0.0	3.804	A
2 - A534 Wrexham Road (East)	389	465	1184	0.329	387	0.5	4.597	A
3 - Industrial Estate Road	1492	348	2068	0.721	1482	2.6	6.216	A
4 - Sandy Lane	20	1820	626	0.031	19	0.0	6.443	A
5 - A534 (West)	698	265	2506	0.279	696	0.4	2.138	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1015	892	0.039	35	0.0	4.198	A
2 - A534 Wrexham Road (East)	465	556	1128	0.412	464	0.7	5.522	A
3 - Industrial Estate Road	1782	417	2015	0.884	1764	7.0	13.937	B
4 - Sandy Lane	23	2170	463	0.050	23	0.1	8.888	A
5 - A534 (West)	833	316	2472	0.337	833	0.5	2.362	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	43	1218	791	0.054	43	0.1	4.812	A
2 - A534 Wrexham Road (East)	569	681	1051	0.541	567	1.2	7.556	A
3 - Industrial Estate Road	2182	510	1942	1.124	1927	70.8	81.088	F
4 - Sandy Lane	29	2423	345	0.083	28	0.1	12.347	B
5 - A534 (West)	1021	347	2452	0.416	1020	0.8	2.703	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	43	1220	790	0.054	43	0.1	4.819	A
2 - A534 Wrexham Road (East)	569	681	1051	0.542	569	1.2	7.621	A
3 - Industrial Estate Road	2182	512	1941	1.124	1939	131.6	192.633	F
4 - Sandy Lane	29	2437	339	0.085	29	0.1	12.618	B
5 - A534 (West)	1021	349	2450	0.417	1021	0.8	2.707	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1042	879	0.040	35	0.0	4.266	A
2 - A534 Wrexham Road (East)	465	557	1127	0.412	467	0.7	5.572	A
3 - Industrial Estate Road	1782	420	2013	0.885	1997	77.8	189.699	F
4 - Sandy Lane	23	2405	354	0.066	23	0.1	11.849	B
5 - A534 (West)	833	356	2446	0.341	834	0.6	2.404	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	29	885	957	0.031	29	0.0	3.880	A
2 - A534 Wrexham Road (East)	389	467	1183	0.329	390	0.5	4.635	A
3 - Industrial Estate Road	1492	351	2066	0.722	1792	2.8	35.235	E
4 - Sandy Lane	20	2133	481	0.041	20	0.0	8.490	A
5 - A534 (West)	698	319	2470	0.283	698	0.4	2.185	A

2037 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	309.60	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	309.60	F

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)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	184	100.000
2 - A534 Wrexham Road (East)		✓	564	100.000
3 - Industrial Estate Road		✓	694	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1976	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	163	0	10
	2 - A534 Wrexham Road (East)	2	0	191	8	363
	3 - Industrial Estate Road	20	72	2	1	599
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1559	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.75	51.80	2.7	F
2 - A534 Wrexham Road (East)	2.25	1844.66	189.2	F
3 - Industrial Estate Road	0.35	3.36	0.7	A
4 - Sandy Lane	0.04	5.38	0.1	A
5 - A534 (West)	0.84	8.87	5.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	139	1541	629	0.220	137	0.3	7.367	A
2 - A534 Wrexham Road (East)	425	1323	656	0.647	417	1.9	15.747	C
3 - Industrial Estate Road	522	304	2103	0.248	521	0.4	2.968	A
4 - Sandy Lane	29	799	1103	0.026	28	0.0	4.936	A
5 - A534 (West)	1488	82	2628	0.566	1482	1.4	3.309	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	165	1844	478	0.346	164	0.5	11.547	B
2 - A534 Wrexham Road (East)	507	1583	496	1.021	463	12.8	80.619	F
3 - Industrial Estate Road	624	340	2075	0.301	623	0.6	3.238	A
4 - Sandy Lane	34	933	1041	0.033	34	0.0	5.270	A
5 - A534 (West)	1776	98	2617	0.679	1773	2.2	4.495	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	203	2251	275	0.738	195	2.4	42.450	E
2 - A534 Wrexham Road (East)	621	1927	285	2.179	285	96.9	711.025	F
3 - Industrial Estate Road	764	228	2162	0.353	764	0.7	3.359	A
4 - Sandy Lane	42	959	1028	0.041	42	0.1	5.377	A
5 - A534 (West)	2176	119	2603	0.836	2164	5.1	8.458	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	203	2262	269	0.753	201	2.7	51.805	F
2 - A534 Wrexham Road (East)	621	1942	276	2.251	276	183.2	1844.659	F
3 - Industrial Estate Road	764	223	2166	0.353	764	0.7	3.352	A
4 - Sandy Lane	42	955	1030	0.041	42	0.1	5.365	A
5 - A534 (West)	2176	119	2603	0.836	2175	5.2	8.868	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	165	1859	470	0.352	174	0.6	12.600	B
2 - A534 Wrexham Road (East)	507	1604	483	1.049	483	189.2	1269.514	F
3 - Industrial Estate Road	624	353	2064	0.302	624	0.6	3.267	A
4 - Sandy Lane	34	947	1034	0.033	34	0.1	5.308	A
5 - A534 (West)	1776	98	2617	0.679	1788	2.3	4.662	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	139	1551	625	0.222	140	0.3	7.502	A
2 - A534 Wrexham Road (East)	425	1333	650	0.653	647	133.6	899.681	F
3 - Industrial Estate Road	522	456	1985	0.263	523	0.5	3.218	A
4 - Sandy Lane	29	950	1033	0.028	29	0.0	5.284	A
5 - A534 (West)	1488	83	2627	0.566	1491	1.4	3.363	A

2037 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	188.03	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	188.03	F

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)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	42	100.000
2 - A534 Wrexham Road (East)		✓	545	100.000
3 - Industrial Estate Road		✓	2075	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	969	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	27	1	8
	2 - A534 Wrexham Road (East)	7	0	73	1	464
	3 - Industrial Estate Road	136	223	1	3	1712
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	595	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.99	0.1	A
2 - A534 Wrexham Road (East)	0.58	8.46	1.4	A
3 - Industrial Estate Road	1.19	327.77	195.9	F
4 - Sandy Lane	0.09	12.89	0.1	B
5 - A534 (West)	0.44	2.80	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	32	889	956	0.033	31	0.0	3.896	A
2 - A534 Wrexham Road (East)	410	484	1173	0.350	408	0.5	4.789	A
3 - Industrial Estate Road	1562	368	2053	0.761	1549	3.2	7.199	A
4 - Sandy Lane	21	1907	586	0.036	21	0.0	6.950	A
5 - A534 (West)	730	280	2496	0.292	728	0.4	2.187	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	38	1061	869	0.043	38	0.0	4.328	A
2 - A534 Wrexham Road (East)	490	579	1114	0.440	489	0.8	5.862	A
3 - Industrial Estate Road	1865	441	1996	0.935	1834	10.9	20.002	C
4 - Sandy Lane	25	2263	420	0.060	25	0.1	9.949	A
5 - A534 (West)	871	332	2462	0.354	871	0.6	2.433	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	46	1264	768	0.060	46	0.1	4.985	A
2 - A534 Wrexham Road (East)	600	708	1034	0.580	598	1.4	8.361	A
3 - Industrial Estate Road	2285	540	1919	1.190	1912	104.0	115.619	F
4 - Sandy Lane	31	2437	339	0.091	31	0.1	12.745	B
5 - A534 (West)	1067	348	2451	0.435	1066	0.8	2.794	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	46	1265	767	0.060	46	0.1	4.990	A
2 - A534 Wrexham Road (East)	600	709	1034	0.580	600	1.4	8.456	A
3 - Industrial Estate Road	2285	542	1918	1.191	1917	195.9	283.860	F
4 - Sandy Lane	31	2444	336	0.092	31	0.1	12.887	B
5 - A534 (West)	1067	349	2450	0.435	1067	0.8	2.798	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	38	1079	861	0.044	38	0.0	4.377	A
2 - A534 Wrexham Road (East)	490	580	1114	0.440	492	0.8	5.931	A
3 - Industrial Estate Road	1865	444	1993	0.936	1983	166.5	327.774	F
4 - Sandy Lane	25	2415	349	0.072	25	0.1	12.130	B
5 - A534 (West)	871	358	2445	0.356	872	0.6	2.464	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	32	944	928	0.034	32	0.0	4.017	A
2 - A534 Wrexham Road (East)	410	485	1171	0.350	411	0.6	4.838	A
3 - Industrial Estate Road	1562	371	2050	0.762	2038	47.6	191.233	F
4 - Sandy Lane	21	2398	357	0.059	21	0.1	11.696	B
5 - A534 (West)	730	365	2440	0.299	730	0.5	2.266	A

2030 Base + Committed + Developement (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	391.92	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	391.92	F

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)
D11	2030 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	182	100.000
2 - A534 Wrexham Road (East)		✓	546	100.000
3 - Industrial Estate Road		✓	746	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	2032	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	161	0	10
	2 - A534 Wrexham Road (East)	2	0	193	7	344
	3 - Industrial Estate Road	19	78	2	1	646
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1638	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.85	84.27	4.3	F
2 - A534 Wrexham Road (East)	2.65	2469.90	214.6	F
3 - Industrial Estate Road	0.37	3.43	0.8	A
4 - Sandy Lane	0.04	5.40	0.1	A
5 - A534 (West)	0.86	10.40	6.3	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	137	1588	606	0.226	136	0.3	7.703	A
2 - A534 Wrexham Road (East)	411	1379	622	0.661	403	2.0	17.145	C
3 - Industrial Estate Road	562	287	2116	0.265	560	0.5	3.019	A
4 - Sandy Lane	26	823	1092	0.024	26	0.0	4.957	A
5 - A534 (West)	1530	85	2626	0.583	1524	1.5	3.439	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	164	1899	450	0.363	163	0.6	12.571	B
2 - A534 Wrexham Road (East)	491	1650	455	1.078	433	16.5	107.128	F
3 - Industrial Estate Road	671	311	2097	0.320	670	0.6	3.295	A
4 - Sandy Lane	31	954	1031	0.031	31	0.0	5.285	A
5 - A534 (West)	1827	101	2615	0.699	1823	2.4	4.788	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	200	2316	242	0.828	189	3.4	59.589	F
2 - A534 Wrexham Road (East)	601	2003	238	2.525	238	107.3	920.179	F
3 - Industrial Estate Road	821	191	2191	0.375	821	0.8	3.433	A
4 - Sandy Lane	39	983	1017	0.038	38	0.1	5.396	A
5 - A534 (West)	2237	123	2600	0.860	2223	6.1	9.729	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	200	2330	235	0.853	197	4.3	84.271	F
2 - A534 Wrexham Road (East)	601	2022	227	2.654	227	201.0	2469.900	F
3 - Industrial Estate Road	821	185	2196	0.374	821	0.8	3.423	A
4 - Sandy Lane	39	977	1020	0.038	39	0.1	5.380	A
5 - A534 (West)	2237	123	2600	0.860	2236	6.3	10.402	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	164	1918	441	0.371	178	0.6	14.588	B
2 - A534 Wrexham Road (East)	491	1680	437	1.124	436	214.6	1485.266	F
3 - Industrial Estate Road	671	315	2095	0.320	671	0.6	3.307	A
4 - Sandy Lane	31	959	1029	0.031	32	0.0	5.299	A
5 - A534 (West)	1827	101	2615	0.699	1842	2.5	5.022	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	137	1598	601	0.228	138	0.3	7.868	A
2 - A534 Wrexham Road (East)	411	1390	615	0.668	612	164.3	1114.870	F
3 - Industrial Estate Road	562	422	2011	0.279	562	0.5	3.249	A
4 - Sandy Lane	26	958	1029	0.026	26	0.0	5.271	A
5 - A534 (West)	1530	86	2625	0.583	1534	1.5	3.505	A

2030 Base + Committed + Developement (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	210.94	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	210.94	F

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)
D12	2030 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	41	100.000
2 - A534 Wrexham Road (East)		✓	523	100.000
3 - Industrial Estate Road		✓	2129	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	1012	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	28	1	7
	2 - A534 Wrexham Road (East)	6	0	76	1	440
	3 - Industrial Estate Road	134	221	1	3	1770
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	658	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	0	0	0
2 - A534 Wrexham Road (East)		0	0	9	0	1
3 - Industrial Estate Road		0	5	0	0	3
4 - Sandy Lane		0	25	0	0	6
5 - A534 (West)		0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	5.13	0.1	A
2 - A534 Wrexham Road (East)	0.58	8.82	1.4	A
3 - Industrial Estate Road	1.21	365.87	215.5	F
4 - Sandy Lane	0.08	12.64	0.1	B
5 - A534 (West)	0.45	2.89	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	920	940	0.033	31	0.0	3.958	A
2 - A534 Wrexham Road (East)	394	530	1144	0.344	392	0.5	4.870	A
3 - Industrial Estate Road	1603	348	2068	0.775	1589	3.4	7.538	A
4 - Sandy Lane	20	1928	576	0.034	19	0.0	7.022	A
5 - A534 (West)	762	275	2499	0.305	760	0.5	2.231	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1098	851	0.043	37	0.0	4.420	A
2 - A534 Wrexham Road (East)	470	634	1080	0.435	469	0.8	6.006	A
3 - Industrial Estate Road	1914	417	2015	0.950	1876	12.8	22.412	C
4 - Sandy Lane	23	2282	411	0.057	23	0.1	10.087	B
5 - A534 (West)	910	325	2466	0.369	909	0.6	2.492	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	45	1306	747	0.060	45	0.1	5.129	A
2 - A534 Wrexham Road (East)	576	776	993	0.580	573	1.4	8.718	A
3 - Industrial Estate Road	2344	510	1942	1.207	1937	114.6	125.583	F
4 - Sandy Lane	29	2433	341	0.084	28	0.1	12.533	B
5 - A534 (West)	1114	338	2458	0.453	1113	0.9	2.883	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	45	1308	746	0.061	45	0.1	5.135	A
2 - A534 Wrexham Road (East)	576	777	992	0.580	576	1.4	8.822	A
3 - Industrial Estate Road	2344	512	1941	1.208	1940	215.5	308.098	F
4 - Sandy Lane	29	2438	338	0.085	29	0.1	12.644	B
5 - A534 (West)	1114	339	2457	0.453	1114	0.9	2.890	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1112	844	0.044	37	0.0	4.463	A
2 - A534 Wrexham Road (East)	470	635	1079	0.436	473	0.8	6.080	A
3 - Industrial Estate Road	1914	420	2012	0.951	2003	193.3	365.874	F
4 - Sandy Lane	23	2411	351	0.067	23	0.1	11.954	B
5 - A534 (West)	910	347	2452	0.371	911	0.6	2.520	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	971	915	0.034	31	0.0	4.075	A
2 - A534 Wrexham Road (East)	394	532	1143	0.345	395	0.5	4.921	A
3 - Industrial Estate Road	1603	351	2066	0.776	2055	80.2	241.069	F
4 - Sandy Lane	20	2396	358	0.055	20	0.1	11.567	B
5 - A534 (West)	762	353	2447	0.311	762	0.5	2.304	A

2037 Base + Committed + Developement (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	359.59	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	359.59	F

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)
D13	2037 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	191	100.000
2 - A534 Wrexham Road (East)		✓	576	100.000
3 - Industrial Estate Road		✓	774	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2123	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	170	0	10
	2 - A534 Wrexham Road (East)	2	0	203	8	363
	3 - Industrial Estate Road	20	80	2	1	671
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1706	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	1.14	256.61	16.6	F
2 - A534 Wrexham Road (East)	3.35	2168.47	290.2	F
3 - Industrial Estate Road	0.39	3.47	0.8	A
4 - Sandy Lane	0.04	5.45	0.1	A
5 - A534 (West)	0.90	14.26	8.8	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	144	1657	571	0.252	142	0.3	8.440	A
2 - A534 Wrexham Road (East)	434	1438	586	0.741	422	2.8	22.444	C
3 - Industrial Estate Road	583	301	2105	0.277	581	0.5	3.083	A
4 - Sandy Lane	29	857	1076	0.027	28	0.0	5.063	A
5 - A534 (West)	1598	88	2624	0.609	1592	1.6	3.670	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	172	1982	409	0.420	170	0.7	15.115	C
2 - A534 Wrexham Road (East)	518	1720	412	1.256	404	31.3	210.558	F
3 - Industrial Estate Road	696	295	2110	0.330	695	0.6	3.324	A
4 - Sandy Lane	34	961	1028	0.033	34	0.1	5.339	A
5 - A534 (West)	1909	105	2612	0.731	1904	2.8	5.338	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	210	2411	194	1.082	177	9.0	133.037	F
2 - A534 Wrexham Road (East)	634	2063	201	3.155	201	139.6	1375.086	F
3 - Industrial Estate Road	852	169	2208	0.386	851	0.8	3.467	A
4 - Sandy Lane	42	989	1014	0.041	42	0.1	5.454	A
5 - A534 (West)	2337	127	2598	0.900	2315	8.3	12.616	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	210	2431	184	1.140	180	16.6	256.610	F
2 - A534 Wrexham Road (East)	634	2083	189	3.355	189	250.9	2168.470	F
3 - Industrial Estate Road	852	162	2214	0.385	852	0.8	3.455	A
4 - Sandy Lane	42	983	1017	0.041	42	0.1	5.436	A
5 - A534 (West)	2337	127	2597	0.900	2335	8.8	14.258	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	172	2010	395	0.435	235	0.8	32.647	D
2 - A534 Wrexham Road (East)	518	1804	361	1.436	361	290.2	2031.996	F
3 - Industrial Estate Road	696	270	2129	0.327	697	0.6	3.286	A
4 - Sandy Lane	34	938	1038	0.033	34	0.1	5.283	A
5 - A534 (West)	1909	105	2612	0.731	1932	2.9	5.789	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	144	1669	566	0.254	146	0.3	8.687	A
2 - A534 Wrexham Road (East)	434	1451	578	0.750	576	254.7	1704.065	F
3 - Industrial Estate Road	583	401	2027	0.287	583	0.5	3.261	A
4 - Sandy Lane	29	956	1030	0.028	29	0.0	5.298	A
5 - A534 (West)	1598	89	2623	0.609	1603	1.7	3.756	A

2037 Base + Committed + Developement (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	299.89	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	299.89	F

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)
D14	2037 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	44	100.000
2 - A534 Wrexham Road (East)		✓	552	100.000
3 - Industrial Estate Road		✓	2223	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1054	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	29	1	8
	2 - A534 Wrexham Road (East)	7	0	79	1	465
	3 - Industrial Estate Road	141	233	1	3	1845
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	680	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.07	5.33	0.1	A
2 - A534 Wrexham Road (East)	0.62	9.99	1.7	A
3 - Industrial Estate Road	1.28	522.08	290.8	F
4 - Sandy Lane	0.09	12.90	0.1	B
5 - A534 (West)	0.47	2.99	1.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	960	920	0.036	33	0.0	4.058	A
2 - A534 Wrexham Road (East)	416	549	1132	0.367	413	0.6	5.092	A
3 - Industrial Estate Road	1674	369	2052	0.816	1656	4.3	9.013	A
4 - Sandy Lane	21	2015	536	0.039	21	0.0	7.627	A
5 - A534 (West)	794	291	2489	0.319	791	0.5	2.283	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1142	829	0.048	40	0.0	4.559	A
2 - A534 Wrexham Road (East)	496	657	1066	0.465	495	0.9	6.420	A
3 - Industrial Estate Road	1998	442	1995	1.002	1923	23.1	34.621	D
4 - Sandy Lane	25	2353	378	0.067	25	0.1	11.126	B
5 - A534 (West)	948	338	2458	0.386	947	0.7	2.567	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	48	1352	724	0.067	48	0.1	5.329	A
2 - A534 Wrexham Road (East)	608	804	976	0.623	605	1.6	9.823	A
3 - Industrial Estate Road	2448	540	1919	1.276	1917	155.9	174.356	F
4 - Sandy Lane	31	2442	336	0.092	31	0.1	12.844	B
5 - A534 (West)	1160	340	2457	0.472	1159	1.0	2.989	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	48	1353	723	0.067	48	0.1	5.333	A
2 - A534 Wrexham Road (East)	608	805	975	0.623	608	1.7	9.989	A
3 - Industrial Estate Road	2448	543	1917	1.277	1916	288.6	416.464	F
4 - Sandy Lane	31	2445	335	0.092	31	0.1	12.902	B
5 - A534 (West)	1160	340	2457	0.472	1160	1.0	2.994	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1151	825	0.048	40	0.1	4.586	A
2 - A534 Wrexham Road (East)	496	658	1065	0.466	499	0.9	6.526	A
3 - Industrial Estate Road	1998	446	1992	1.003	1990	290.8	522.081	F
4 - Sandy Lane	25	2423	345	0.073	25	0.1	12.280	B
5 - A534 (West)	948	349	2450	0.387	949	0.7	2.586	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	1003	898	0.037	33	0.0	4.162	A
2 - A534 Wrexham Road (East)	416	551	1131	0.367	417	0.6	5.153	A
3 - Industrial Estate Road	1674	372	2050	0.817	2042	198.6	431.863	F
4 - Sandy Lane	21	2404	354	0.060	21	0.1	11.791	B
5 - A534 (West)	794	356	2446	0.324	794	0.5	2.352	A

2030 Base + Committed + Developement (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	406.31	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	406.31	F

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)
D15	2030 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	190	100.000
2 - A534 Wrexham Road (East)		✓	559	100.000
3 - Industrial Estate Road		✓	881	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	2198	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	169	0	10
	2 - A534 Wrexham Road (East)	2	0	206	7	344
	3 - Industrial Estate Road	24	89	2	1	765
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1804	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	1.50	503.93	33.9	F
2 - A534 Wrexham Road (East)	4.12	2549.36	330.9	F
3 - Industrial Estate Road	0.43	3.72	1.0	A
4 - Sandy Lane	0.04	5.65	0.1	A
5 - A534 (West)	0.93	20.59	13.0	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	143	1720	540	0.265	142	0.4	9.080	A
2 - A534 Wrexham Road (East)	421	1509	542	0.776	408	3.3	26.729	D
3 - Industrial Estate Road	663	284	2119	0.313	661	0.6	3.222	A
4 - Sandy Lane	26	921	1046	0.025	26	0.0	5.180	A
5 - A534 (West)	1655	97	2618	0.632	1648	1.8	3.898	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	171	2056	372	0.459	169	0.8	17.743	C
2 - A534 Wrexham Road (East)	503	1804	361	1.394	356	40.0	324.895	F
3 - Industrial Estate Road	792	256	2140	0.370	791	0.8	3.486	A
4 - Sandy Lane	31	1021	999	0.031	31	0.0	5.456	A
5 - A534 (West)	1976	115	2605	0.758	1970	3.2	5.943	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	209	2492	154	1.357	147	16.4	253.517	F
2 - A534 Wrexham Road (East)	615	2131	160	3.854	160	153.9	2151.417	F
3 - Industrial Estate Road	970	136	2234	0.434	969	1.0	3.718	A
4 - Sandy Lane	39	1077	974	0.040	38	0.1	5.649	A
5 - A534 (West)	2420	140	2589	0.935	2386	11.7	16.576	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	209	2521	140	1.497	139	33.9	503.932	F
2 - A534 Wrexham Road (East)	615	2147	150	4.116	150	270.4	2549.359	F
3 - Industrial Estate Road	970	129	2239	0.433	970	1.0	3.706	A
4 - Sandy Lane	39	1071	976	0.039	39	0.1	5.633	A
5 - A534 (West)	2420	140	2589	0.935	2415	13.0	20.593	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	171	2101	350	0.489	302	1.1	158.716	F
2 - A534 Wrexham Road (East)	503	1966	261	1.927	261	330.9	2499.985	F
3 - Industrial Estate Road	792	204	2181	0.363	793	0.7	3.391	A
4 - Sandy Lane	31	971	1023	0.031	32	0.0	5.328	A
5 - A534 (West)	1976	115	2605	0.758	2014	3.4	6.848	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1733	533	0.268	146	0.4	9.445	A
2 - A534 Wrexham Road (East)	421	1524	533	0.790	531	303.4	2150.757	F
3 - Industrial Estate Road	663	362	2058	0.322	664	0.6	3.378	A
4 - Sandy Lane	26	1001	1009	0.026	26	0.0	5.375	A
5 - A534 (West)	1655	98	2617	0.632	1661	1.8	4.010	A

2030 Base + Committed + Developement (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	350.36	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	350.36	F

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)
D16	2030 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	46	100.000
2 - A534 Wrexham Road (East)		✓	532	100.000
3 - Industrial Estate Road		✓	2308	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	33	1	7
	2 - A534 Wrexham Road (East)	6	0	85	1	440
	3 - Industrial Estate Road	142	233	1	3	1929
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	756	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.07	5.59	0.1	A
2 - A534 Wrexham Road (East)	0.64	10.91	1.7	B
3 - Industrial Estate Road	1.31	606.27	348.1	F
4 - Sandy Lane	0.08	12.65	0.1	B
5 - A534 (West)	0.50	3.14	1.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1002	899	0.039	34	0.0	4.163	A
2 - A534 Wrexham Road (East)	401	607	1096	0.365	398	0.6	5.252	A
3 - Industrial Estate Road	1738	348	2069	0.840	1717	5.0	10.053	B
4 - Sandy Lane	20	2056	517	0.038	19	0.0	7.866	A
5 - A534 (West)	836	290	2490	0.336	833	0.5	2.347	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1189	805	0.051	41	0.1	4.711	A
2 - A534 Wrexham Road (East)	478	727	1023	0.467	477	0.9	6.721	A
3 - Industrial Estate Road	2075	417	2015	1.030	1966	32.2	43.443	E
4 - Sandy Lane	23	2372	369	0.063	23	0.1	11.307	B
5 - A534 (West)	998	332	2462	0.405	997	0.7	2.656	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	51	1409	696	0.073	51	0.1	5.581	A
2 - A534 Wrexham Road (East)	586	889	923	0.635	582	1.7	10.697	B
3 - Industrial Estate Road	2541	509	1943	1.308	1942	182.1	204.369	F
4 - Sandy Lane	29	2437	339	0.085	29	0.1	12.614	B
5 - A534 (West)	1222	331	2463	0.496	1221	1.1	3.132	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	51	1410	695	0.073	51	0.1	5.586	A
2 - A534 Wrexham Road (East)	586	890	922	0.635	586	1.7	10.914	B
3 - Industrial Estate Road	2541	512	1941	1.309	1941	332.2	474.914	F
4 - Sandy Lane	29	2439	338	0.085	29	0.1	12.654	B
5 - A534 (West)	1222	330	2463	0.496	1222	1.1	3.136	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	41	1196	802	0.052	41	0.1	4.734	A
2 - A534 Wrexham Road (East)	478	728	1022	0.468	482	0.9	6.848	A
3 - Industrial Estate Road	2075	421	2012	1.031	2011	348.1	606.271	F
4 - Sandy Lane	23	2420	346	0.067	23	0.1	12.119	B
5 - A534 (West)	998	339	2457	0.406	999	0.7	2.672	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1039	880	0.039	35	0.0	4.258	A
2 - A534 Wrexham Road (East)	401	610	1095	0.366	402	0.6	5.315	A
3 - Industrial Estate Road	1738	351	2066	0.841	2060	267.5	538.317	F
4 - Sandy Lane	20	2401	355	0.055	20	0.1	11.652	B
5 - A534 (West)	836	345	2453	0.341	836	0.6	2.408	A

2037 Base + Committed + Developement (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	444.41	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	444.41	F

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)
D17	2037 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	195	100.000
2 - A534 Wrexham Road (East)		✓	584	100.000
3 - Industrial Estate Road		✓	885	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2216	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	174	0	10
	2 - A534 Wrexham Road (East)	2	0	211	8	363
	3 - Industrial Estate Road	25	93	2	1	764
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1799	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	1.67	604.59	41.5	F
2 - A534 Wrexham Road (East)	4.05	2685.92	356.2	F
3 - Industrial Estate Road	0.44	3.75	1.0	A
4 - Sandy Lane	0.04	5.72	0.1	A
5 - A534 (West)	0.94	23.09	14.7	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	147	1736	532	0.276	145	0.4	9.356	A
2 - A534 Wrexham Road (East)	440	1510	541	0.812	424	3.9	30.005	D
3 - Industrial Estate Road	666	299	2107	0.316	664	0.6	3.253	A
4 - Sandy Lane	29	937	1039	0.028	28	0.0	5.251	A
5 - A534 (West)	1668	101	2615	0.638	1661	1.8	3.965	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	175	2076	362	0.484	173	0.9	19.020	C
2 - A534 Wrexham Road (East)	525	1805	360	1.459	356	46.1	371.370	F
3 - Industrial Estate Road	796	260	2137	0.372	795	0.8	3.502	A
4 - Sandy Lane	34	1027	997	0.034	34	0.1	5.511	A
5 - A534 (West)	1992	121	2602	0.766	1986	3.4	6.125	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	215	2512	144	1.489	139	19.8	317.120	F
2 - A534 Wrexham Road (East)	643	2117	168	3.820	168	164.8	2177.268	F
3 - Industrial Estate Road	974	144	2228	0.437	973	1.0	3.748	A
4 - Sandy Lane	42	1087	969	0.043	42	0.1	5.722	A
5 - A534 (West)	2440	147	2584	0.944	2401	13.0	17.945	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	215	2543	128	1.671	128	41.5	604.591	F
2 - A534 Wrexham Road (East)	643	2132	159	4.053	159	285.9	2661.013	F
3 - Industrial Estate Road	974	138	2233	0.436	974	1.0	3.736	A
4 - Sandy Lane	42	1081	971	0.043	42	0.1	5.706	A
5 - A534 (West)	2440	147	2584	0.944	2433	14.7	23.092	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	2127	337	0.521	329	3.1	256.236	F
2 - A534 Wrexham Road (East)	525	1994	244	2.153	244	356.2	2685.919	F
3 - Industrial Estate Road	796	197	2186	0.364	797	0.8	3.386	A
4 - Sandy Lane	34	967	1025	0.033	34	0.1	5.357	A
5 - A534 (West)	1992	121	2602	0.766	2037	3.6	7.247	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	147	1750	525	0.280	158	0.4	10.179	B
2 - A534 Wrexham Road (East)	440	1534	527	0.835	525	334.8	2368.289	F
3 - Industrial Estate Road	666	364	2056	0.324	667	0.6	3.385	A
4 - Sandy Lane	29	1004	1007	0.028	29	0.0	5.418	A
5 - A534 (West)	1668	102	2614	0.638	1675	1.9	4.084	A

2037 Base + Committed + Developement (Phase 1 + 2), 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	362.75	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	362.75	F

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)
D18	2037 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	47	100.000
2 - A534 Wrexham Road (East)		✓	560	100.000
3 - Industrial Estate Road		✓	2305	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1152	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	32	1	8
	2 - A534 Wrexham Road (East)	7	0	87	1	465
	3 - Industrial Estate Road	143	238	1	3	1920
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	778	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.08	5.81	0.1	A
2 - A534 Wrexham Road (East)	0.68	12.64	2.1	B
3 - Industrial Estate Road	1.32	639.01	365.6	F
4 - Sandy Lane	0.09	12.91	0.1	B
5 - A534 (West)	0.52	3.26	1.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1037	882	0.040	35	0.0	4.252	A
2 - A534 Wrexham Road (East)	422	625	1086	0.388	419	0.6	5.494	A
3 - Industrial Estate Road	1735	369	2052	0.846	1714	5.2	10.411	B
4 - Sandy Lane	21	2073	509	0.041	21	0.0	8.050	A
5 - A534 (West)	867	295	2486	0.349	865	0.6	2.397	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	42	1230	785	0.054	42	0.1	4.846	A
2 - A534 Wrexham Road (East)	503	747	1010	0.498	502	1.0	7.212	A
3 - Industrial Estate Road	2072	442	1995	1.039	1952	35.1	46.683	E
4 - Sandy Lane	25	2382	364	0.069	25	0.1	11.565	B
5 - A534 (West)	1036	337	2458	0.421	1035	0.8	2.732	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	52	1457	671	0.077	52	0.1	5.808	A
2 - A534 Wrexham Road (East)	617	915	907	0.679	612	2.1	12.278	B
3 - Industrial Estate Road	2538	539	1919	1.322	1918	190.0	216.908	F
4 - Sandy Lane	31	2443	336	0.092	31	0.1	12.867	B
5 - A534 (West)	1268	334	2460	0.516	1267	1.1	3.256	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	52	1458	671	0.077	52	0.1	5.814	A
2 - A534 Wrexham Road (East)	617	916	907	0.680	616	2.1	12.642	B
3 - Industrial Estate Road	2538	543	1917	1.324	1917	345.3	499.674	F
4 - Sandy Lane	31	2445	335	0.092	31	0.1	12.905	B
5 - A534 (West)	1268	334	2460	0.516	1268	1.1	3.263	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	42	1236	782	0.054	42	0.1	4.868	A
2 - A534 Wrexham Road (East)	503	749	1009	0.499	508	1.0	7.392	A
3 - Industrial Estate Road	2072	447	1991	1.041	1991	365.6	639.006	F
4 - Sandy Lane	25	2425	344	0.073	25	0.1	12.323	B
5 - A534 (West)	1036	344	2454	0.422	1037	0.8	2.750	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1074	863	0.041	35	0.0	4.351	A
2 - A534 Wrexham Road (East)	422	627	1084	0.389	423	0.7	5.573	A
3 - Industrial Estate Road	1735	372	2049	0.847	2044	288.5	576.435	F
4 - Sandy Lane	21	2405	353	0.060	21	0.1	11.820	B
5 - A534 (West)	867	350	2450	0.354	868	0.6	2.462	A

2030 Base + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	79.06	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	79.06	F

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)
D19	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	176	100.000
2 - A534 Wrexham Road (East)		✓	526	100.000
3 - Industrial Estate Road		✓	595	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1701	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	155	0	10
	2 - A534 Wrexham Road (East)	2	0	180	7	337
	3 - Industrial Estate Road	22	70	2	1	500
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	344	1326	23	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	1	0	0
2 - A534 Wrexham Road (East)		0	0	7	75	7
3 - Industrial Estate Road		0	24	0	0	33
4 - Sandy Lane		2	33	0	0	69
5 - A534 (West)		0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.46	15.95	0.8	C
2 - A534 Wrexham Road (East)	1.32	429.61	73.8	F
3 - Industrial Estate Road	0.31	3.27	0.6	A
4 - Sandy Lane	0.04	5.31	0.1	A
5 - A534 (West)	0.72	5.21	2.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	133	1334	733	0.181	132	0.2	6.032	A
2 - A534 Wrexham Road (East)	396	1142	768	0.516	392	1.1	10.173	B
3 - Industrial Estate Road	448	284	2119	0.211	447	0.3	2.798	A
4 - Sandy Lane	26	707	1146	0.023	26	0.0	4.717	A
5 - A534 (West)	1281	81	2628	0.487	1277	1.0	2.810	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	158	1596	602	0.263	158	0.4	8.168	A
2 - A534 Wrexham Road (East)	473	1366	630	0.751	466	2.9	22.634	C
3 - Industrial Estate Road	535	338	2077	0.258	534	0.4	3.036	A
4 - Sandy Lane	31	844	1082	0.029	31	0.0	5.028	A
5 - A534 (West)	1529	97	2618	0.584	1527	1.5	3.488	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	194	1953	424	0.457	192	0.8	15.550	C
2 - A534 Wrexham Road (East)	579	1670	443	1.308	436	38.8	192.091	F
3 - Industrial Estate Road	655	325	2086	0.314	655	0.6	3.268	A
4 - Sandy Lane	39	947	1034	0.037	38	0.1	5.306	A
5 - A534 (West)	1873	118	2603	0.719	1868	2.7	5.147	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	194	1958	421	0.460	194	0.8	15.948	C
2 - A534 Wrexham Road (East)	579	1676	440	1.318	439	73.8	429.606	F
3 - Industrial Estate Road	655	327	2085	0.314	655	0.6	3.274	A
4 - Sandy Lane	39	950	1033	0.037	39	0.1	5.313	A
5 - A534 (West)	1873	118	2603	0.719	1873	2.7	5.211	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	158	1603	598	0.264	160	0.4	8.322	A
2 - A534 Wrexham Road (East)	473	1374	625	0.756	616	38.0	323.624	F
3 - Industrial Estate Road	535	437	1999	0.268	535	0.5	3.199	A
4 - Sandy Lane	31	942	1036	0.030	32	0.0	5.257	A
5 - A534 (West)	1529	98	2617	0.584	1534	1.5	3.533	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	133	1341	730	0.182	133	0.2	6.091	A
2 - A534 Wrexham Road (East)	396	1148	764	0.518	543	1.2	34.183	D
3 - Industrial Estate Road	448	384	2041	0.220	448	0.4	2.941	A
4 - Sandy Lane	26	807	1099	0.024	26	0.0	4.924	A
5 - A534 (West)	1281	82	2628	0.487	1283	1.0	2.835	A

2030 Base + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	35.17	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	35.17	E

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)
D20	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	36	100.000
2 - A534 Wrexham Road (East)		✓	499	100.000
3 - Industrial Estate Road		✓	1780	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	820	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	23	1	7
	2 - A534 Wrexham Road (East)	6	0	69	1	423
	3 - Industrial Estate Road	125	208	1	3	1443
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	321	475	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrás Hall Lane	0.05	4.50	0.0	A
2 - A534 Wrexham Road (East)	0.49	6.44	1.0	A
3 - Industrial Estate Road	1.00	59.23	32.6	F
4 - Sandy Lane	0.08	11.94	0.1	B
5 - A534 (West)	0.37	2.52	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	27	766	1017	0.027	27	0.0	3.636	A
2 - A534 Wrexham Road (East)	376	389	1231	0.305	374	0.4	4.278	A
3 - Industrial Estate Road	1340	336	2078	0.645	1333	1.8	4.927	A
4 - Sandy Lane	20	1659	702	0.028	19	0.0	5.733	A
5 - A534 (West)	617	260	2510	0.246	616	0.3	2.038	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	32	917	942	0.034	32	0.0	3.958	A
2 - A534 Wrexham Road (East)	449	465	1184	0.379	448	0.6	4.987	A
3 - Industrial Estate Road	1600	402	2026	0.790	1593	3.7	8.408	A
4 - Sandy Lane	23	1983	550	0.042	23	0.0	7.421	A
5 - A534 (West)	737	311	2476	0.298	737	0.5	2.219	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	40	1114	843	0.047	40	0.0	4.482	A
2 - A534 Wrexham Road (East)	549	570	1120	0.491	548	1.0	6.410	A
3 - Industrial Estate Road	1960	492	1956	1.002	1883	22.8	34.366	D
4 - Sandy Lane	29	2361	374	0.077	28	0.1	11.318	B
5 - A534 (West)	903	368	2438	0.370	902	0.6	2.512	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	40	1120	840	0.047	40	0.0	4.496	A
2 - A534 Wrexham Road (East)	549	570	1119	0.491	549	1.0	6.444	A
3 - Industrial Estate Road	1960	493	1955	1.002	1921	32.6	59.226	F
4 - Sandy Lane	29	2400	356	0.080	29	0.1	11.945	B
5 - A534 (West)	903	375	2433	0.371	903	0.6	2.521	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	32	932	934	0.035	32	0.0	3.994	A
2 - A534 Wrexham Road (East)	449	466	1183	0.379	450	0.6	5.017	A
3 - Industrial Estate Road	1600	404	2025	0.790	1714	4.1	16.217	C
4 - Sandy Lane	23	2106	493	0.047	24	0.1	8.335	A
5 - A534 (West)	737	333	2461	0.300	738	0.5	2.243	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	27	770	1015	0.027	27	0.0	3.643	A
2 - A534 Wrexham Road (East)	376	390	1230	0.305	376	0.5	4.307	A
3 - Industrial Estate Road	1340	338	2076	0.645	1349	1.9	5.156	A
4 - Sandy Lane	20	1677	693	0.028	20	0.0	5.809	A
5 - A534 (West)	617	263	2508	0.246	618	0.4	2.043	A

2037 Base + Development (Phase 1 + 2) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	327.39	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	327.39	F

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)
D21	2037 Base + Development (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	192	100.000
2 - A534 Wrexham Road (East)		✓	569	100.000
3 - Industrial Estate Road		✓	755	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1948	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	171	0	10
	2 - A534 Wrexham Road (East)	2	0	203	8	356
	3 - Industrial Estate Road	23	86	2	1	643
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	354	1560	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.76	52.48	2.9	F
2 - A534 Wrexham Road (East)	2.32	1963.10	198.7	F
3 - Industrial Estate Road	0.38	3.51	0.8	A
4 - Sandy Lane	0.04	5.53	0.1	A
5 - A534 (West)	0.83	8.51	5.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	145	1531	635	0.228	143	0.3	7.377	A
2 - A534 Wrexham Road (East)	428	1330	652	0.657	421	2.0	16.232	C
3 - Industrial Estate Road	568	298	2107	0.270	566	0.5	3.043	A
4 - Sandy Lane	29	839	1084	0.026	28	0.0	5.024	A
5 - A534 (West)	1467	94	2619	0.560	1461	1.3	3.276	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	173	1832	484	0.356	172	0.5	11.579	B
2 - A534 Wrexham Road (East)	512	1591	491	1.041	462	14.2	88.148	F
3 - Industrial Estate Road	679	331	2082	0.326	678	0.6	3.342	A
4 - Sandy Lane	34	979	1019	0.034	34	0.1	5.385	A
5 - A534 (West)	1751	113	2607	0.672	1748	2.1	4.419	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	211	2236	282	0.750	203	2.5	42.822	E
2 - A534 Wrexham Road (East)	626	1937	279	2.247	278	101.2	757.591	F
3 - Industrial Estate Road	831	219	2169	0.383	831	0.8	3.506	A
4 - Sandy Lane	42	1017	1001	0.042	42	0.1	5.529	A
5 - A534 (West)	2145	137	2591	0.828	2134	4.8	8.153	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	211	2247	277	0.764	210	2.9	52.479	F
2 - A534 Wrexham Road (East)	626	1952	270	2.322	270	190.4	1963.098	F
3 - Industrial Estate Road	831	214	2173	0.383	831	0.8	3.499	A
4 - Sandy Lane	42	1013	1003	0.042	42	0.1	5.517	A
5 - A534 (West)	2145	137	2591	0.828	2144	5.0	8.511	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	173	1846	477	0.362	182	0.6	12.666	B
2 - A534 Wrexham Road (East)	512	1612	478	1.069	478	198.7	1325.553	F
3 - Industrial Estate Road	679	341	2074	0.327	679	0.6	3.371	A
4 - Sandy Lane	34	991	1014	0.034	34	0.1	5.415	A
5 - A534 (West)	1751	113	2607	0.672	1762	2.2	4.569	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	145	1540	630	0.229	146	0.3	7.515	A
2 - A534 Wrexham Road (East)	428	1339	646	0.663	643	145.1	964.079	F
3 - Industrial Estate Road	568	441	1996	0.285	569	0.5	3.291	A
4 - Sandy Lane	29	982	1018	0.028	29	0.0	5.362	A
5 - A534 (West)	1467	96	2618	0.560	1470	1.4	3.329	A

2037 Base + Developement (Phase 1 + 2) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4, 5	159.59	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	159.59	F

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)
D22	2037 Base + Developement (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	44	100.000
2 - A534 Wrexham Road (East)		✓	538	100.000
3 - Industrial Estate Road		✓	2050	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	994	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	29	1	8
	2 - A534 Wrexham Road (East)	7	0	82	1	448
	3 - Industrial Estate Road	139	230	1	3	1677
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	339	629	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	5.14	0.1	A
2 - A534 Wrexham Road (East)	0.59	8.80	1.4	A
3 - Industrial Estate Road	1.17	280.46	174.2	F
4 - Sandy Lane	0.09	12.81	0.1	B
5 - A534 (West)	0.45	2.88	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	913	943	0.035	33	0.0	3.954	A
2 - A534 Wrexham Road (East)	405	511	1156	0.350	403	0.5	4.868	A
3 - Industrial Estate Road	1543	356	2062	0.748	1531	3.0	6.844	A
4 - Sandy Lane	21	1877	600	0.035	21	0.0	6.782	A
5 - A534 (West)	748	288	2491	0.300	746	0.5	2.221	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1091	855	0.046	40	0.0	4.415	A
2 - A534 Wrexham Road (East)	484	611	1094	0.442	483	0.8	6.001	A
3 - Industrial Estate Road	1843	427	2007	0.918	1818	9.3	17.615	C
4 - Sandy Lane	25	2232	434	0.058	25	0.1	9.594	A
5 - A534 (West)	894	341	2455	0.364	893	0.6	2.480	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	48	1301	749	0.065	48	0.1	5.135	A
2 - A534 Wrexham Road (East)	592	748	1010	0.586	590	1.4	8.694	A
3 - Industrial Estate Road	2257	522	1933	1.168	1924	92.6	103.122	F
4 - Sandy Lane	31	2431	341	0.090	31	0.1	12.628	B
5 - A534 (West)	1094	364	2441	0.448	1093	0.9	2.877	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	48	1303	748	0.065	48	0.1	5.142	A
2 - A534 Wrexham Road (East)	592	749	1010	0.587	592	1.4	8.804	A
3 - Industrial Estate Road	2257	524	1931	1.169	1930	174.2	251.954	F
4 - Sandy Lane	31	2440	337	0.091	31	0.1	12.805	B
5 - A534 (West)	1094	365	2440	0.449	1094	0.9	2.881	A

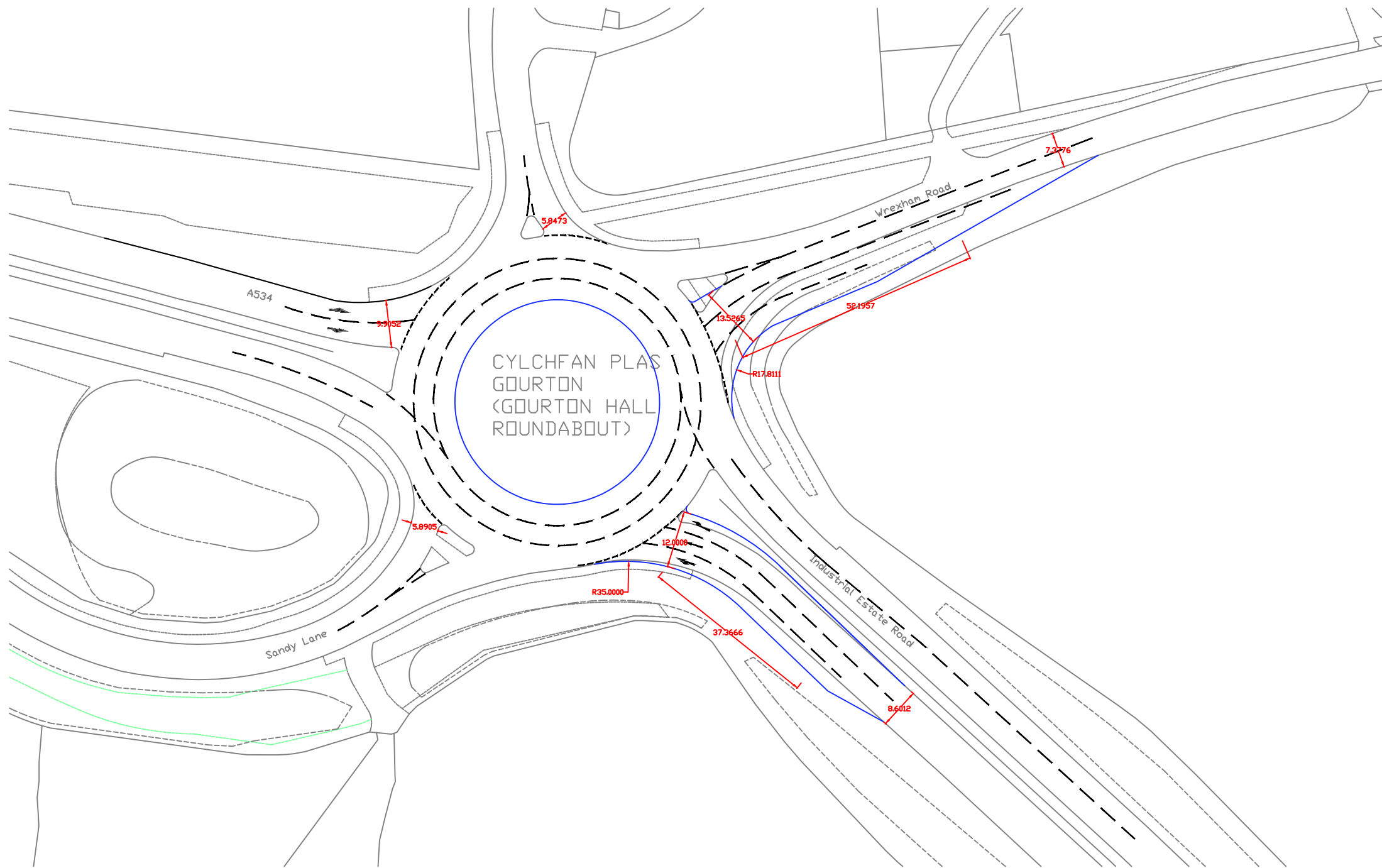
17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	40	1112	844	0.047	40	0.0	4.477	A
2 - A534 Wrexham Road (East)	484	612	1094	0.442	486	0.8	6.078	A
3 - Industrial Estate Road	1843	430	2005	0.919	1993	136.8	280.464	F
4 - Sandy Lane	25	2410	351	0.072	25	0.1	12.051	B
5 - A534 (West)	894	373	2434	0.367	895	0.6	2.519	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	33	973	913	0.036	33	0.0	4.089	A
2 - A534 Wrexham Road (East)	405	513	1155	0.351	406	0.6	4.919	A
3 - Industrial Estate Road	1543	359	2060	0.749	2044	11.5	134.070	F
4 - Sandy Lane	21	2392	360	0.059	21	0.1	11.608	B
5 - A534 (West)	748	380	2430	0.308	749	0.5	2.307	A

Appendix TN6 - A534 / Industrial Estate Road / Sandy Lane / Borrass Hall Lane Roundabout Improvements



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

C	05/02/26	Widening Improvements	TC	MC
B	04/02/26	Widening Improvements	TC	MC
A	30/10/25	A534 Signalisation	TC	MC
Rev	Date	Description	Ckd	By

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Client	Net World Sports Limited			
Project	North of Bryn Lane Wrexham			
Title	A534 / Wrexham Road Roundabout Improvements			
Drawing Status				
Job No.	16-2067			
Drawn MC	Checked TC	Scale at A3 1:1000	Date 29/10/25	Issue Date -
Drawing No. 107				C

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.1.1519				
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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com				
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: A534, Borrass Hall Lane, Industrial Estate Road ARCADY (Impr) - calib v2.j10

Path: D:\Cora IHT\Wrexham (2)\January 2026

Report generation date: 05/02/2026 13:53:49

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Developement (Phase 1), AM
 »2030 Base + Committed + Developement (Phase 1), PM
 »2037 Base + Committed + Developement (Phase 1), AM
 »2037 Base + Committed + Developement (Phase 1), PM
 »2030 Base + Committed + Developement (Phase 1 + 2), AM
 »2030 Base + Committed + Developement (Phase 1 + 2), PM
 »2037 Base + Committed + Developement (Phase 1 + 2), AM
 »2037 Base + Committed + Developement (Phase 1 + 2), PM
 »2030 Base + Developement (Phase 1) [Sens], AM
 »2030 Base + Developement (Phase 1) [Sens], PM
 »2037 Base + Developement (Phase 1 + 2) [Sens], AM
 »2037 Base + Developement (Phase 1 + 2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Borrass Hall Lane	D1	0.3	7.06	0.25	A	D2	0.0	3.63	0.04	A
2 - A534 Wrexham Road (East)		0.4	2.80	0.28	A		0.3	1.76	0.20	A
3 - Industrial Estate Road		0.3	1.95	0.18	A		1.5	3.14	0.59	A
4 - Sandy Lane		0.1	5.15	0.04	A		0.1	8.80	0.06	A
5 - A534 (West)		1.7	3.81	0.62	A		0.5	2.28	0.31	A
	2030 Base									
1 - Borrass Hall Lane	D3	0.4	7.93	0.29	A	D4	0.0	3.73	0.04	A
2 - A534 Wrexham Road (East)		0.5	2.98	0.30	A		0.3	1.80	0.21	A
3 - Industrial Estate Road		0.3	1.99	0.19	A		1.7	3.49	0.63	A
4 - Sandy Lane		0.1	5.30	0.04	A		0.1	10.15	0.07	B
5 - A534 (West)		2.0	4.21	0.65	A		0.5	2.36	0.33	A

2037 Base										
1 - Borrás Hall Lane	D5	0.5	9.10	0.33	A	D6	0.0	3.85	0.04	A
2 - A534 Wrexham Road (East)		0.5	3.22	0.33	A		0.3	1.85	0.22	A
3 - Industrial Estate Road		0.3	2.03	0.20	A		2.1	3.99	0.67	A
4 - Sandy Lane		0.1	5.48	0.04	A		0.1	12.33	0.09	B
5 - A534 (West)		2.4	4.77	0.69	A		0.6	2.45	0.35	A
2030 Base + Committed										
1 - Borrás Hall Lane	D7	0.7	13.17	0.41	B	D8	0.1	4.22	0.05	A
2 - A534 Wrexham Road (East)		0.6	3.75	0.36	A		0.3	1.97	0.23	A
3 - Industrial Estate Road		0.4	2.16	0.25	A		3.3	5.59	0.77	A
4 - Sandy Lane		0.1	5.79	0.04	A		0.2	19.88	0.13	C
5 - A534 (West)		4.1	7.15	0.80	A		0.8	2.76	0.42	A
2037 Base + Committed										
1 - Borrás Hall Lane	D9	0.9	16.63	0.48	C	D10	0.1	4.38	0.05	A
2 - A534 Wrexham Road (East)		0.7	4.12	0.40	A		0.3	2.02	0.25	A
3 - Industrial Estate Road		0.5	2.21	0.26	A		4.3	6.87	0.81	A
4 - Sandy Lane		0.1	6.00	0.05	A		0.2	29.39	0.19	D
5 - A534 (West)		5.2	8.88	0.84	A		0.9	2.89	0.44	A
2030 Base + Committed + Development (Phase 1)										
1 - Borrás Hall Lane	D11	1.0	19.22	0.52	C	D12	0.1	4.49	0.05	A
2 - A534 Wrexham Road (East)		0.7	4.29	0.40	A		0.3	2.05	0.24	A
3 - Industrial Estate Road		0.5	2.25	0.28	A		4.7	7.38	0.82	A
4 - Sandy Lane		0.1	6.07	0.04	A		0.2	32.20	0.19	D
5 - A534 (West)		6.3	10.43	0.86	B		0.9	2.99	0.46	A
2037 Base + Committed + Development (Phase 1)										
1 - Borrás Hall Lane	D13	1.5	27.40	0.62	D	D14	0.1	4.67	0.06	A
2 - A534 Wrexham Road (East)		0.8	4.78	0.44	A		0.4	2.11	0.26	A
3 - Industrial Estate Road		0.5	2.31	0.29	A		6.5	9.82	0.87	A
4 - Sandy Lane		0.1	6.29	0.05	A		0.5	67.80	0.35	F
5 - A534 (West)		8.9	14.31	0.90	B		1.0	3.14	0.48	A
2030 Base + Committed + Development (Phase 1 + 2)										
1 - Borrás Hall Lane	D15	2.1	38.81	0.70	E	D16	0.1	4.86	0.06	A
2 - A534 Wrexham Road (East)		0.9	5.10	0.45	A		0.4	2.16	0.26	A
3 - Industrial Estate Road		0.7	2.43	0.33	A		8.1	11.97	0.89	B
4 - Sandy Lane		0.1	6.59	0.05	A		0.9	122.96	0.49	F
5 - A534 (West)		13.1	20.70	0.94	C		1.1	3.31	0.51	A
2037 Base + Committed + Development (Phase 1 + 2)										
1 - Borrás Hall Lane	D17	2.6	46.04	0.74	E	D18	0.1	5.03	0.07	A
2 - A534 Wrexham Road (East)		0.9	5.30	0.47	A		0.4	2.22	0.27	A
3 - Industrial Estate Road		0.7	2.45	0.34	A		8.6	12.76	0.90	B
4 - Sandy Lane		0.1	6.75	0.05	A		1.5	201.39	0.67	F
5 - A534 (West)		14.8	23.22	0.94	C		1.2	3.46	0.53	A
2030 Base + Development (Phase 1) [Sens]										
1 - Borrás Hall Lane	D19	0.5	9.83	0.34	A	D20	0.0	3.94	0.04	A
2 - A534 Wrexham Road (East)		0.5	3.32	0.33	A		0.3	1.87	0.22	A
3 - Industrial Estate Road		0.4	2.07	0.22	A		2.2	4.12	0.69	A
4 - Sandy Lane		0.1	5.55	0.04	A		0.1	12.65	0.08	B
5 - A534 (West)		2.7	5.21	0.72	A		0.6	2.53	0.37	A
2037 Base + Development (Phase 1 + 2) [Sens]										
1 - Borrás Hall Lane	D21	1.0	16.76	0.49	C	D22	0.1	4.48	0.06	A
2 - A534 Wrexham Road (East)		0.7	4.18	0.40	A		0.3	2.05	0.25	A
3 - Industrial Estate Road		0.5	2.27	0.29	A		3.9	6.39	0.80	A
4 - Sandy Lane		0.1	6.19	0.05	A		0.2	25.40	0.17	D
5 - A534 (West)		5.0	8.53	0.83	A		0.9	2.97	0.46	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	Borras Hall Lane / Wrexham Road / Industrial Estate Road
Location	Wrexham
Site number	
Date	31/01/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D15	2030 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D16	2030 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D17	2037 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15
D18	2037 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15
D19	2030 Base + Developement (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D20	2030 Base + Developement (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D21	2037 Base + Developement (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D22	2037 Base + Developement (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.49	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Borras Hall Lane		
2	A534 Wrexham Road (East)		
3	Industrial Estate Road		
4	Sandy Lane		
5	A534 (West)		

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 - Borras Hall Lane	3.60	5.80	11.0	17.3	70.0	31.3		
2 - A534 Wrexham Road (East)	3.50	13.52	52.2	17.8	70.0	31.8		
3 - Industrial Estate Road	7.00	12.00	37.4	35.0	70.0	31.8		
4 - Sandy Lane	3.70	5.30	18.1	16.0	70.0	30.9		
5 - A534 (West)	7.80	10.10	5.0	32.0	70.0	31.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Borras Hall Lane	0.468	1479
2 - A534 Wrexham Road (East)	0.692	2905
3 - Industrial Estate Road	0.750	3229
4 - Sandy Lane	0.467	1476
5 - A534 (West)	0.663	2682

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	159	100.000
2 - A534 Wrexham Road (East)		✓	486	100.000
3 - Industrial Estate Road		✓	480	100.000
4 - Sandy Lane		✓	34	100.000
5 - A534 (West)		✓	1469	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	10	140	0	9
	2 - A534 Wrexham Road (East)	2	0	159	7	318
	3 - Industrial Estate Road	15	57	2	1	405
	4 - Sandy Lane	1	7	4	0	22
	5 - A534 (West)	6	325	1114	22	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrás Hall Lane	0.25	7.06	0.3	A
2 - A534 Wrexham Road (East)	0.28	2.80	0.4	A
3 - Industrial Estate Road	0.18	1.95	0.3	A
4 - Sandy Lane	0.04	5.15	0.1	A
5 - A534 (West)	0.62	3.81	1.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	120	1151	940	0.127	119	0.1	4.419	A
2 - A534 Wrexham Road (East)	366	971	2233	0.164	365	0.2	2.071	A
3 - Industrial Estate Road	361	270	3026	0.119	361	0.2	1.758	A
4 - Sandy Lane	26	609	1192	0.021	25	0.0	4.510	A
5 - A534 (West)	1106	66	2638	0.419	1103	0.8	2.475	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1377	835	0.171	143	0.2	5.246	A
2 - A534 Wrexham Road (East)	437	1161	2101	0.208	437	0.3	2.326	A
3 - Industrial Estate Road	432	323	2986	0.144	431	0.2	1.834	A
4 - Sandy Lane	31	728	1136	0.027	31	0.0	4.758	A
5 - A534 (West)	1321	79	2629	0.502	1319	1.1	2.904	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1685	690	0.254	175	0.3	7.031	A
2 - A534 Wrexham Road (East)	535	1421	1921	0.278	535	0.4	2.792	A
3 - Industrial Estate Road	528	396	2932	0.180	528	0.3	1.950	A
4 - Sandy Lane	37	891	1060	0.035	37	0.1	5.144	A
5 - A534 (West)	1617	97	2618	0.618	1615	1.7	3.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	1688	689	0.254	175	0.3	7.061	A
2 - A534 Wrexham Road (East)	535	1424	1920	0.279	535	0.4	2.796	A
3 - Industrial Estate Road	528	396	2932	0.180	528	0.3	1.951	A
4 - Sandy Lane	37	892	1060	0.035	37	0.1	5.146	A
5 - A534 (West)	1617	97	2618	0.618	1617	1.7	3.806	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1381	833	0.172	143	0.2	5.270	A
2 - A534 Wrexham Road (East)	437	1165	2099	0.208	437	0.3	2.332	A
3 - Industrial Estate Road	432	324	2986	0.145	432	0.2	1.835	A
4 - Sandy Lane	31	729	1136	0.027	31	0.0	4.760	A
5 - A534 (West)	1321	79	2629	0.502	1323	1.1	2.922	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	120	1155	938	0.128	120	0.1	4.438	A
2 - A534 Wrexham Road (East)	366	975	2231	0.164	366	0.2	2.077	A
3 - Industrial Estate Road	361	271	3026	0.119	362	0.2	1.759	A
4 - Sandy Lane	26	610	1191	0.021	26	0.0	4.514	A
5 - A534 (West)	1106	66	2638	0.419	1107	0.8	2.489	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.75	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	33	100.000
2 - A534 Wrexham Road (East)		✓	466	100.000
3 - Industrial Estate Road		✓	1541	100.000
4 - Sandy Lane		✓	25	100.000
5 - A534 (West)		✓	694	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	20	1	7
	2 - A534 Wrexham Road (East)	6	0	59	1	400
	3 - Industrial Estate Road	113	187	1	3	1237
	4 - Sandy Lane	1	5	1	0	18
	5 - A534 (West)	13	303	368	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.63	0.0	A
2 - A534 Wrexham Road (East)	0.20	1.76	0.3	A
3 - Industrial Estate Road	0.59	3.14	1.5	A
4 - Sandy Lane	0.06	8.80	0.1	A
5 - A534 (West)	0.31	2.28	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	25	657	1171	0.021	25	0.0	3.138	A
2 - A534 Wrexham Road (East)	351	306	2693	0.130	350	0.2	1.566	A
3 - Industrial Estate Road	1160	319	2989	0.388	1158	0.7	2.021	A
4 - Sandy Lane	19	1467	791	0.024	19	0.0	5.069	A
5 - A534 (West)	522	236	2525	0.207	521	0.3	1.918	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	30	786	1111	0.027	30	0.0	3.327	A
2 - A534 Wrexham Road (East)	419	367	2651	0.158	419	0.2	1.642	A
3 - Industrial Estate Road	1385	382	2943	0.471	1384	0.9	2.378	A
4 - Sandy Lane	22	1755	657	0.034	22	0.0	6.169	A
5 - A534 (West)	624	282	2495	0.250	624	0.4	2.055	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	36	963	1029	0.035	36	0.0	3.626	A
2 - A534 Wrexham Road (East)	513	449	2594	0.198	513	0.3	1.762	A
3 - Industrial Estate Road	1697	468	2878	0.589	1694	1.5	3.127	A
4 - Sandy Lane	28	2148	474	0.058	27	0.1	8.775	A
5 - A534 (West)	764	345	2453	0.312	764	0.5	2.277	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	36	963	1028	0.035	36	0.0	3.628	A
2 - A534 Wrexham Road (East)	513	449	2594	0.198	513	0.3	1.762	A
3 - Industrial Estate Road	1697	468	2878	0.590	1697	1.5	3.137	A
4 - Sandy Lane	28	2150	472	0.058	28	0.1	8.800	A
5 - A534 (West)	764	346	2453	0.312	764	0.5	2.277	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	30	787	1111	0.027	30	0.0	3.329	A
2 - A534 Wrexham Road (East)	419	367	2651	0.158	419	0.2	1.646	A
3 - Industrial Estate Road	1385	382	2942	0.471	1388	0.9	2.389	A
4 - Sandy Lane	22	1758	655	0.034	23	0.0	6.188	A
5 - A534 (West)	624	283	2494	0.250	624	0.4	2.057	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	25	659	1171	0.021	25	0.0	3.141	A
2 - A534 Wrexham Road (East)	351	307	2692	0.130	351	0.2	1.566	A
3 - Industrial Estate Road	1160	320	2989	0.388	1161	0.7	2.029	A
4 - Sandy Lane	19	1472	789	0.024	19	0.0	5.085	A
5 - A534 (West)	522	237	2525	0.207	523	0.3	1.921	A

2030 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.82	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	169	100.000
2 - A534 Wrexham Road (East)		✓	514	100.000
3 - Industrial Estate Road		✓	508	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1554	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	148	0	10
	2 - A534 Wrexham Road (East)	2	0	168	7	337
	3 - Industrial Estate Road	16	60	2	1	429
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	344	1179	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.29	7.93	0.4	A
2 - A534 Wrexham Road (East)	0.30	2.98	0.5	A
3 - Industrial Estate Road	0.19	1.99	0.3	A
4 - Sandy Lane	0.04	5.30	0.1	A
5 - A534 (West)	0.65	4.21	2.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	127	1217	910	0.140	127	0.2	4.633	A
2 - A534 Wrexham Road (East)	387	1027	2195	0.176	386	0.2	2.139	A
3 - Industrial Estate Road	382	286	3014	0.127	382	0.2	1.781	A
4 - Sandy Lane	26	645	1175	0.022	26	0.0	4.597	A
5 - A534 (West)	1170	69	2636	0.444	1167	0.8	2.587	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	152	1456	798	0.190	152	0.2	5.617	A
2 - A534 Wrexham Road (East)	462	1228	2055	0.225	462	0.3	2.430	A
3 - Industrial Estate Road	457	342	2972	0.154	456	0.2	1.863	A
4 - Sandy Lane	31	771	1116	0.028	31	0.0	4.869	A
5 - A534 (West)	1397	83	2627	0.532	1396	1.2	3.090	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	186	1782	645	0.288	185	0.4	7.882	A
2 - A534 Wrexham Road (East)	566	1503	1865	0.303	565	0.5	2.977	A
3 - Industrial Estate Road	559	419	2915	0.192	559	0.3	1.990	A
4 - Sandy Lane	39	944	1035	0.037	38	0.1	5.298	A
5 - A534 (West)	1711	101	2615	0.654	1708	2.0	4.185	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	186	1785	644	0.289	186	0.4	7.930	A
2 - A534 Wrexham Road (East)	566	1506	1863	0.304	566	0.5	2.984	A
3 - Industrial Estate Road	559	419	2914	0.192	559	0.3	1.991	A
4 - Sandy Lane	39	945	1035	0.037	39	0.1	5.299	A
5 - A534 (West)	1711	101	2615	0.654	1711	2.0	4.214	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	152	1460	796	0.191	153	0.2	5.654	A
2 - A534 Wrexham Road (East)	462	1233	2052	0.225	463	0.3	2.438	A
3 - Industrial Estate Road	457	343	2972	0.154	457	0.2	1.864	A
4 - Sandy Lane	31	772	1116	0.028	32	0.0	4.873	A
5 - A534 (West)	1397	83	2627	0.532	1400	1.2	3.111	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	127	1222	907	0.140	128	0.2	4.660	A
2 - A534 Wrexham Road (East)	387	1031	2191	0.177	387	0.2	2.147	A
3 - Industrial Estate Road	382	287	3014	0.127	383	0.2	1.784	A
4 - Sandy Lane	26	646	1174	0.022	26	0.0	4.601	A
5 - A534 (West)	1170	69	2636	0.444	1171	0.8	2.602	A

2030 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	2.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	34	100.000
2 - A534 Wrexham Road (East)		✓	492	100.000
3 - Industrial Estate Road		✓	1632	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	734	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	21	1	7
	2 - A534 Wrexham Road (East)	6	0	62	1	423
	3 - Industrial Estate Road	120	198	1	3	1310
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	13	321	390	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.73	0.0	A
2 - A534 Wrexham Road (East)	0.21	1.80	0.3	A
3 - Industrial Estate Road	0.63	3.49	1.7	A
4 - Sandy Lane	0.07	10.15	0.1	B
5 - A534 (West)	0.33	2.36	0.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	26	696	1154	0.022	26	0.0	3.190	A
2 - A534 Wrexham Road (East)	370	324	2681	0.138	370	0.2	1.587	A
3 - Industrial Estate Road	1229	337	2977	0.413	1226	0.7	2.114	A
4 - Sandy Lane	20	1553	751	0.026	19	0.0	5.345	A
5 - A534 (West)	553	249	2517	0.220	551	0.3	1.956	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	832	1090	0.028	31	0.0	3.397	A
2 - A534 Wrexham Road (East)	442	387	2637	0.168	442	0.2	1.671	A
3 - Industrial Estate Road	1467	403	2927	0.501	1466	1.0	2.535	A
4 - Sandy Lane	23	1857	609	0.038	23	0.0	6.674	A
5 - A534 (West)	660	298	2484	0.266	660	0.4	2.107	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1019	1002	0.037	37	0.0	3.729	A
2 - A534 Wrexham Road (East)	542	474	2577	0.210	541	0.3	1.802	A
3 - Industrial Estate Road	1797	493	2859	0.628	1794	1.7	3.472	A
4 - Sandy Lane	29	2273	415	0.069	28	0.1	10.111	B
5 - A534 (West)	808	365	2440	0.331	808	0.5	2.356	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	37	1020	1002	0.037	37	0.0	3.731	A
2 - A534 Wrexham Road (East)	542	475	2577	0.210	542	0.3	1.802	A
3 - Industrial Estate Road	1797	493	2859	0.628	1797	1.7	3.489	A
4 - Sandy Lane	29	2276	414	0.069	29	0.1	10.153	B
5 - A534 (West)	808	366	2439	0.331	808	0.5	2.357	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	31	833	1089	0.028	31	0.0	3.402	A
2 - A534 Wrexham Road (East)	442	388	2637	0.168	443	0.2	1.671	A
3 - Industrial Estate Road	1467	403	2927	0.501	1470	1.0	2.551	A
4 - Sandy Lane	23	1861	607	0.038	24	0.0	6.701	A
5 - A534 (West)	660	299	2484	0.266	660	0.4	2.109	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	26	698	1153	0.022	26	0.0	3.193	A
2 - A534 Wrexham Road (East)	370	325	2680	0.138	371	0.2	1.587	A
3 - Industrial Estate Road	1229	337	2976	0.413	1230	0.7	2.126	A
4 - Sandy Lane	20	1558	749	0.026	20	0.0	5.365	A
5 - A534 (West)	553	250	2516	0.220	553	0.3	1.959	A

2037 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.25	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	178	100.000
2 - A534 Wrexham Road (East)		✓	544	100.000
3 - Industrial Estate Road		✓	537	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1645	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	157	0	10
	2 - A534 Wrexham Road (East)	2	0	178	8	356
	3 - Industrial Estate Road	17	64	2	1	453
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	364	1247	25	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	1	0	0
2 - A534 Wrexham Road (East)		0	0	7	75	7
3 - Industrial Estate Road		0	24	0	0	33
4 - Sandy Lane		2	33	0	0	69
5 - A534 (West)		0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.33	9.10	0.5	A
2 - A534 Wrexham Road (East)	0.33	3.22	0.5	A
3 - Industrial Estate Road	0.20	2.03	0.3	A
4 - Sandy Lane	0.04	5.48	0.1	A
5 - A534 (West)	0.69	4.77	2.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	134	1288	876	0.153	133	0.2	4.884	A
2 - A534 Wrexham Road (East)	410	1086	2154	0.190	409	0.3	2.218	A
3 - Industrial Estate Road	404	303	3002	0.135	403	0.2	1.804	A
4 - Sandy Lane	29	681	1158	0.025	28	0.0	4.694	A
5 - A534 (West)	1238	74	2633	0.470	1235	0.9	2.717	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	160	1541	758	0.211	160	0.3	6.067	A
2 - A534 Wrexham Road (East)	489	1299	2006	0.244	489	0.3	2.552	A
3 - Industrial Estate Road	483	362	2958	0.163	483	0.3	1.894	A
4 - Sandy Lane	34	814	1096	0.031	34	0.0	4.994	A
5 - A534 (West)	1479	88	2623	0.564	1477	1.4	3.319	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	196	1885	597	0.328	195	0.5	9.019	A
2 - A534 Wrexham Road (East)	599	1589	1805	0.332	598	0.5	3.207	A
3 - Industrial Estate Road	591	443	2897	0.204	591	0.3	2.033	A
4 - Sandy Lane	42	997	1011	0.041	42	0.1	5.473	A
5 - A534 (West)	1811	108	2610	0.694	1807	2.4	4.719	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	196	1889	595	0.329	196	0.5	9.100	A
2 - A534 Wrexham Road (East)	599	1593	1802	0.332	599	0.5	3.217	A
3 - Industrial Estate Road	591	444	2896	0.204	591	0.3	2.034	A
4 - Sandy Lane	42	998	1010	0.041	42	0.1	5.475	A
5 - A534 (West)	1811	108	2610	0.694	1811	2.4	4.765	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	160	1547	755	0.212	161	0.3	6.117	A
2 - A534 Wrexham Road (East)	489	1305	2002	0.244	490	0.3	2.563	A
3 - Industrial Estate Road	483	363	2957	0.163	483	0.3	1.898	A
4 - Sandy Lane	34	815	1095	0.031	34	0.0	4.998	A
5 - A534 (West)	1479	88	2623	0.564	1483	1.4	3.350	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	134	1294	874	0.153	134	0.2	4.915	A
2 - A534 Wrexham Road (East)	410	1091	2150	0.190	410	0.3	2.226	A
3 - Industrial Estate Road	404	304	3001	0.135	404	0.2	1.808	A
4 - Sandy Lane	29	683	1157	0.025	29	0.0	4.699	A
5 - A534 (West)	1238	74	2633	0.470	1240	0.9	2.737	A

2037 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.31	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.31	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	37	100.000
2 - A534 Wrexham Road (East)		✓	521	100.000
3 - Industrial Estate Road		✓	1732	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	777	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	22	1	8
	2 - A534 Wrexham Road (East)	7	0	66	1	447
	3 - Industrial Estate Road	126	209	1	3	1393
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	339	412	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.85	0.0	A
2 - A534 Wrexham Road (East)	0.22	1.85	0.3	A
3 - Industrial Estate Road	0.67	3.99	2.1	A
4 - Sandy Lane	0.09	12.33	0.1	B
5 - A534 (West)	0.35	2.45	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	28	735	1135	0.025	28	0.0	3.250	A
2 - A534 Wrexham Road (East)	392	343	2668	0.147	392	0.2	1.611	A
3 - Industrial Estate Road	1304	357	2961	0.440	1301	0.8	2.229	A
4 - Sandy Lane	21	1647	707	0.030	21	0.0	5.722	A
5 - A534 (West)	585	264	2507	0.233	584	0.3	1.999	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	880	1068	0.031	33	0.0	3.479	A
2 - A534 Wrexham Road (East)	468	410	2622	0.179	468	0.2	1.703	A
3 - Industrial Estate Road	1557	427	2909	0.535	1556	1.2	2.738	A
4 - Sandy Lane	25	1970	557	0.045	25	0.1	7.387	A
5 - A534 (West)	699	315	2473	0.282	698	0.4	2.167	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1077	975	0.042	41	0.0	3.852	A
2 - A534 Wrexham Road (East)	574	502	2558	0.224	573	0.3	1.848	A
3 - Industrial Estate Road	1907	523	2837	0.672	1903	2.1	3.956	A
4 - Sandy Lane	31	2411	351	0.088	31	0.1	12.251	B
5 - A534 (West)	855	386	2426	0.353	855	0.6	2.446	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1078	975	0.042	41	0.0	3.854	A
2 - A534 Wrexham Road (East)	574	502	2558	0.224	574	0.3	1.848	A
3 - Industrial Estate Road	1907	523	2837	0.672	1907	2.1	3.987	A
4 - Sandy Lane	31	2414	349	0.088	31	0.1	12.334	B
5 - A534 (West)	855	386	2426	0.353	855	0.6	2.449	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	881	1067	0.031	33	0.0	3.485	A
2 - A534 Wrexham Road (East)	468	410	2621	0.179	469	0.2	1.706	A
3 - Industrial Estate Road	1557	427	2909	0.535	1561	1.2	2.757	A
4 - Sandy Lane	25	1975	554	0.045	25	0.1	7.429	A
5 - A534 (West)	699	316	2472	0.283	699	0.4	2.169	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	28	738	1134	0.025	28	0.0	3.254	A
2 - A534 Wrexham Road (East)	392	344	2667	0.147	392	0.2	1.612	A
3 - Industrial Estate Road	1304	358	2961	0.440	1305	0.8	2.243	A
4 - Sandy Lane	21	1653	705	0.030	21	0.0	5.745	A
5 - A534 (West)	585	265	2506	0.233	585	0.3	2.003	A

2030 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	176	100.000
2 - A534 Wrexham Road (East)		✓	534	100.000
3 - Industrial Estate Road		✓	665	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1885	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	155	0	10
	2 - A534 Wrexham Road (East)	2	0	181	7	344
	3 - Industrial Estate Road	19	68	2	1	575
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1491	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.41	13.17	0.7	B
2 - A534 Wrexham Road (East)	0.36	3.75	0.6	A
3 - Industrial Estate Road	0.25	2.16	0.4	A
4 - Sandy Lane	0.04	5.79	0.1	A
5 - A534 (West)	0.80	7.15	4.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	133	1471	791	0.168	132	0.2	5.501	A
2 - A534 Wrexham Road (East)	402	1265	2029	0.198	401	0.3	2.376	A
3 - Industrial Estate Road	501	291	3011	0.166	500	0.3	1.872	A
4 - Sandy Lane	26	768	1118	0.024	26	0.0	4.839	A
5 - A534 (West)	1419	77	2631	0.539	1414	1.2	3.118	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	158	1759	656	0.241	158	0.3	7.285	A
2 - A534 Wrexham Road (East)	480	1514	1857	0.258	480	0.4	2.809	A
3 - Industrial Estate Road	598	348	2968	0.201	598	0.3	1.983	A
4 - Sandy Lane	31	918	1047	0.030	31	0.0	5.198	A
5 - A534 (West)	1695	93	2621	0.647	1692	1.9	4.089	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	194	2150	473	0.410	192	0.7	12.865	B
2 - A534 Wrexham Road (East)	588	1849	1625	0.362	587	0.6	3.725	A
3 - Industrial Estate Road	732	426	2909	0.252	732	0.4	2.159	A
4 - Sandy Lane	39	1124	951	0.041	38	0.1	5.786	A
5 - A534 (West)	2075	113	2607	0.796	2067	4.0	6.952	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	194	2158	469	0.413	194	0.7	13.167	B
2 - A534 Wrexham Road (East)	588	1857	1620	0.363	588	0.6	3.750	A
3 - Industrial Estate Road	732	427	2909	0.252	732	0.4	2.159	A
4 - Sandy Lane	39	1125	951	0.041	39	0.1	5.789	A
5 - A534 (West)	2075	113	2607	0.796	2075	4.1	7.154	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	158	1770	651	0.243	160	0.3	7.421	A
2 - A534 Wrexham Road (East)	480	1525	1850	0.260	481	0.4	2.831	A
3 - Industrial Estate Road	598	350	2967	0.202	598	0.3	1.985	A
4 - Sandy Lane	31	920	1047	0.030	32	0.0	5.203	A
5 - A534 (West)	1695	93	2620	0.647	1703	2.0	4.189	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	133	1478	787	0.168	133	0.2	5.556	A
2 - A534 Wrexham Road (East)	402	1273	2024	0.199	402	0.3	2.388	A
3 - Industrial Estate Road	501	292	3010	0.166	501	0.3	1.876	A
4 - Sandy Lane	26	770	1117	0.024	26	0.0	4.846	A
5 - A534 (West)	1419	78	2630	0.540	1422	1.2	3.158	A

2030 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	39	100.000
2 - A534 Wrexham Road (East)		✓	517	100.000
3 - Industrial Estate Road		✓	1982	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	26	1	7
	2 - A534 Wrexham Road (East)	6	0	70	1	440
	3 - Industrial Estate Road	129	212	1	3	1637
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	573	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.22	0.1	A
2 - A534 Wrexham Road (East)	0.23	1.97	0.3	A
3 - Industrial Estate Road	0.77	5.59	3.3	A
4 - Sandy Lane	0.13	19.88	0.2	C
5 - A534 (West)	0.42	2.76	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	29	850	1081	0.027	29	0.0	3.421	A
2 - A534 Wrexham Road (East)	389	465	2583	0.151	389	0.2	1.672	A
3 - Industrial Estate Road	1492	349	2967	0.503	1488	1.0	2.500	A
4 - Sandy Lane	20	1828	623	0.031	19	0.0	6.479	A
5 - A534 (West)	698	267	2505	0.279	696	0.4	2.139	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1017	1003	0.035	35	0.0	3.717	A
2 - A534 Wrexham Road (East)	465	556	2520	0.184	465	0.2	1.785	A
3 - Industrial Estate Road	1782	418	2916	0.611	1780	1.6	3.256	A
4 - Sandy Lane	23	2186	456	0.051	23	0.1	9.039	A
5 - A534 (West)	833	319	2470	0.337	833	0.5	2.365	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	43	1245	897	0.048	43	0.1	4.216	A
2 - A534 Wrexham Road (East)	569	681	2434	0.234	569	0.3	1.969	A
3 - Industrial Estate Road	2182	512	2845	0.767	2175	3.3	5.479	A
4 - Sandy Lane	29	2673	229	0.125	28	0.2	19.491	C
5 - A534 (West)	1021	390	2423	0.421	1020	0.8	2.757	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	43	1246	896	0.048	43	0.1	4.220	A
2 - A534 Wrexham Road (East)	569	682	2433	0.234	569	0.3	1.969	A
3 - Industrial Estate Road	2182	512	2845	0.767	2182	3.3	5.588	A
4 - Sandy Lane	29	2680	225	0.127	29	0.2	19.877	C
5 - A534 (West)	1021	391	2423	0.421	1021	0.8	2.761	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1019	1002	0.035	35	0.0	3.725	A
2 - A534 Wrexham Road (East)	465	557	2520	0.184	465	0.2	1.786	A
3 - Industrial Estate Road	1782	418	2915	0.611	1789	1.6	3.312	A
4 - Sandy Lane	23	2195	451	0.052	24	0.1	9.153	A
5 - A534 (West)	833	320	2469	0.337	834	0.6	2.371	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	29	853	1080	0.027	29	0.0	3.426	A
2 - A534 Wrexham Road (East)	389	466	2582	0.151	389	0.2	1.673	A
3 - Industrial Estate Road	1492	350	2966	0.503	1494	1.0	2.522	A
4 - Sandy Lane	20	1835	620	0.032	20	0.0	6.523	A
5 - A534 (West)	698	268	2504	0.279	698	0.4	2.144	A

2037 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.15	A

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)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	184	100.000
2 - A534 Wrexham Road (East)		✓	564	100.000
3 - Industrial Estate Road		✓	694	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1976	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	163	0	10
	2 - A534 Wrexham Road (East)	2	0	191	8	363
	3 - Industrial Estate Road	20	72	2	1	599
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1559	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.48	16.63	0.9	C
2 - A534 Wrexham Road (East)	0.40	4.12	0.7	A
3 - Industrial Estate Road	0.26	2.21	0.5	A
4 - Sandy Lane	0.05	6.00	0.1	A
5 - A534 (West)	0.84	8.88	5.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	139	1541	758	0.183	138	0.2	5.848	A
2 - A534 Wrexham Road (East)	425	1324	1989	0.213	423	0.3	2.472	A
3 - Industrial Estate Road	522	308	2998	0.174	521	0.3	1.897	A
4 - Sandy Lane	29	804	1101	0.026	28	0.0	4.946	A
5 - A534 (West)	1488	82	2628	0.566	1482	1.4	3.309	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	165	1844	616	0.268	165	0.4	8.037	A
2 - A534 Wrexham Road (East)	507	1583	1809	0.280	507	0.4	2.973	A
3 - Industrial Estate Road	624	368	2953	0.211	624	0.3	2.018	A
4 - Sandy Lane	34	961	1027	0.033	34	0.1	5.340	A
5 - A534 (West)	1776	98	2617	0.679	1773	2.2	4.495	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	203	2251	426	0.476	201	0.9	15.978	C
2 - A534 Wrexham Road (East)	621	1932	1568	0.396	620	0.7	4.079	A
3 - Industrial Estate Road	764	450	2891	0.264	764	0.5	2.209	A
4 - Sandy Lane	42	1177	927	0.045	42	0.1	5.993	A
5 - A534 (West)	2176	120	2602	0.836	2164	5.1	8.472	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	203	2262	421	0.482	202	0.9	16.630	C
2 - A534 Wrexham Road (East)	621	1943	1560	0.398	621	0.7	4.121	A
3 - Industrial Estate Road	764	451	2891	0.264	764	0.5	2.210	A
4 - Sandy Lane	42	1178	926	0.045	42	0.1	5.997	A
5 - A534 (West)	2176	120	2602	0.836	2175	5.2	8.885	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	165	1859	609	0.272	168	0.4	8.265	A
2 - A534 Wrexham Road (East)	507	1598	1799	0.282	508	0.4	3.002	A
3 - Industrial Estate Road	624	370	2952	0.211	624	0.4	2.021	A
4 - Sandy Lane	34	963	1026	0.033	34	0.1	5.348	A
5 - A534 (West)	1776	98	2617	0.679	1788	2.3	4.660	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	139	1551	753	0.184	139	0.2	5.916	A
2 - A534 Wrexham Road (East)	425	1332	1983	0.214	425	0.3	2.487	A
3 - Industrial Estate Road	522	309	2997	0.174	523	0.3	1.899	A
4 - Sandy Lane	29	806	1100	0.026	29	0.0	4.954	A
5 - A534 (West)	1488	82	2627	0.566	1491	1.4	3.364	A

2037 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.24	A

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)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	42	100.000
2 - A534 Wrexham Road (East)		✓	545	100.000
3 - Industrial Estate Road		✓	2075	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	969	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	27	1	8
	2 - A534 Wrexham Road (East)	7	0	73	1	464
	3 - Industrial Estate Road	136	223	1	3	1712
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	595	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.38	0.1	A
2 - A534 Wrexham Road (East)	0.25	2.02	0.3	A
3 - Industrial Estate Road	0.81	6.87	4.3	A
4 - Sandy Lane	0.19	29.39	0.2	D
5 - A534 (West)	0.44	2.89	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	32	890	1063	0.030	31	0.0	3.490	A
2 - A534 Wrexham Road (East)	410	484	2570	0.160	410	0.2	1.698	A
3 - Industrial Estate Road	1562	370	2952	0.529	1558	1.2	2.651	A
4 - Sandy Lane	21	1917	581	0.036	21	0.0	7.004	A
5 - A534 (West)	730	281	2495	0.292	728	0.4	2.189	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	38	1064	981	0.038	38	0.0	3.815	A
2 - A534 Wrexham Road (East)	490	579	2505	0.196	490	0.2	1.821	A
3 - Industrial Estate Road	1865	442	2898	0.644	1863	1.8	3.574	A
4 - Sandy Lane	25	2292	406	0.062	25	0.1	10.297	B
5 - A534 (West)	871	337	2459	0.354	871	0.6	2.438	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	46	1302	870	0.053	46	0.1	4.372	A
2 - A534 Wrexham Road (East)	600	708	2415	0.248	600	0.3	2.022	A
3 - Industrial Estate Road	2285	541	2823	0.809	2275	4.2	6.653	A
4 - Sandy Lane	31	2801	169	0.183	30	0.2	28.213	D
5 - A534 (West)	1067	411	2409	0.443	1066	0.8	2.878	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	46	1305	869	0.053	46	0.1	4.377	A
2 - A534 Wrexham Road (East)	600	709	2414	0.249	600	0.3	2.023	A
3 - Industrial Estate Road	2285	542	2823	0.809	2284	4.3	6.874	A
4 - Sandy Lane	31	2811	164	0.188	31	0.2	29.391	D
5 - A534 (West)	1067	413	2408	0.443	1067	0.9	2.886	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	38	1068	980	0.039	38	0.0	3.825	A
2 - A534 Wrexham Road (East)	490	580	2504	0.196	490	0.2	1.825	A
3 - Industrial Estate Road	1865	443	2897	0.644	1875	1.9	3.663	A
4 - Sandy Lane	25	2305	400	0.063	26	0.1	10.506	B
5 - A534 (West)	871	339	2457	0.355	872	0.6	2.446	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	32	893	1061	0.030	32	0.0	3.498	A
2 - A534 Wrexham Road (East)	410	485	2569	0.160	411	0.2	1.702	A
3 - Industrial Estate Road	1562	371	2951	0.529	1565	1.2	2.680	A
4 - Sandy Lane	21	1925	578	0.037	21	0.0	7.061	A
5 - A534 (West)	730	283	2494	0.292	730	0.4	2.196	A

2030 Base + Committed + Developement (Phase 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	8.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.17	A

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)
D11	2030 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrass Hall Lane		✓	182	100.000
2 - A534 Wrexham Road (East)		✓	546	100.000
3 - Industrial Estate Road		✓	746	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	2032	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	11	161	0	10
	2 - A534 Wrexham Road (East)	2	0	193	7	344
	3 - Industrial Estate Road	19	78	2	1	646
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1638	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrás Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrás Hall Lane	0.52	19.22	1.0	C
2 - A534 Wrexham Road (East)	0.40	4.29	0.7	A
3 - Industrial Estate Road	0.28	2.25	0.5	A
4 - Sandy Lane	0.04	6.07	0.1	A
5 - A534 (West)	0.86	10.43	6.3	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	137	1588	736	0.186	136	0.2	6.045	A
2 - A534 Wrexham Road (East)	411	1380	1950	0.211	410	0.3	2.512	A
3 - Industrial Estate Road	562	291	3011	0.187	560	0.3	1.920	A
4 - Sandy Lane	26	828	1089	0.024	26	0.0	4.968	A
5 - A534 (West)	1530	85	2626	0.583	1524	1.5	3.440	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	164	1899	590	0.277	163	0.4	8.487	A
2 - A534 Wrexham Road (East)	491	1650	1763	0.278	490	0.4	3.039	A
3 - Industrial Estate Road	671	348	2968	0.226	670	0.4	2.048	A
4 - Sandy Lane	31	991	1014	0.031	31	0.0	5.378	A
5 - A534 (West)	1827	102	2615	0.699	1823	2.4	4.789	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	200	2316	395	0.507	198	1.0	18.186	C
2 - A534 Wrexham Road (East)	601	2012	1513	0.397	600	0.7	4.235	A
3 - Industrial Estate Road	821	426	2909	0.282	821	0.5	2.253	A
4 - Sandy Lane	39	1213	910	0.042	38	0.1	6.061	A
5 - A534 (West)	2237	124	2599	0.861	2223	6.1	9.749	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	200	2330	389	0.515	200	1.0	19.220	C
2 - A534 Wrexham Road (East)	601	2025	1504	0.400	601	0.7	4.288	A
3 - Industrial Estate Road	821	427	2909	0.282	821	0.5	2.254	A
4 - Sandy Lane	39	1214	909	0.042	39	0.1	6.065	A
5 - A534 (West)	2237	124	2599	0.861	2236	6.3	10.427	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	164	1918	581	0.281	166	0.4	8.798	A
2 - A534 Wrexham Road (East)	491	1669	1750	0.280	492	0.4	3.078	A
3 - Industrial Estate Road	671	350	2967	0.226	671	0.4	2.050	A
4 - Sandy Lane	31	993	1013	0.031	32	0.0	5.384	A
5 - A534 (West)	1827	102	2614	0.699	1842	2.5	5.025	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	137	1598	731	0.187	138	0.2	6.123	A
2 - A534 Wrexham Road (East)	411	1389	1944	0.211	412	0.3	2.526	A
3 - Industrial Estate Road	562	293	3010	0.187	562	0.3	1.924	A
4 - Sandy Lane	26	831	1088	0.024	26	0.0	4.976	A
5 - A534 (West)	1530	85	2625	0.583	1534	1.5	3.501	A

2030 Base + Committed + Developement (Phase 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.58	A

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)
D12	2030 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	41	100.000
2 - A534 Wrexham Road (East)		✓	523	100.000
3 - Industrial Estate Road		✓	2129	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	1012	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	28	1	7
	2 - A534 Wrexham Road (East)	6	0	76	1	440
	3 - Industrial Estate Road	134	221	1	3	1770
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	658	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.05	4.49	0.1	A
2 - A534 Wrexham Road (East)	0.24	2.05	0.3	A
3 - Industrial Estate Road	0.82	7.38	4.7	A
4 - Sandy Lane	0.19	32.20	0.2	D
5 - A534 (West)	0.46	2.99	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	31	921	1048	0.029	31	0.0	3.537	A
2 - A534 Wrexham Road (East)	394	530	2538	0.155	393	0.2	1.712	A
3 - Industrial Estate Road	1603	349	2967	0.540	1598	1.2	2.700	A
4 - Sandy Lane	20	1938	572	0.034	19	0.0	7.082	A
5 - A534 (West)	762	277	2498	0.305	760	0.5	2.232	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	37	1101	964	0.038	37	0.0	3.883	A
2 - A534 Wrexham Road (East)	470	634	2466	0.191	470	0.2	1.840	A
3 - Industrial Estate Road	1914	418	2916	0.656	1911	1.9	3.680	A
4 - Sandy Lane	23	2317	395	0.059	23	0.1	10.531	B
5 - A534 (West)	910	331	2462	0.369	909	0.6	2.498	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	45	1347	849	0.053	45	0.1	4.480	A
2 - A534 Wrexham Road (East)	576	776	2368	0.243	575	0.3	2.050	A
3 - Industrial Estate Road	2344	512	2845	0.824	2333	4.6	7.098	A
4 - Sandy Lane	29	2831	155	0.185	28	0.2	30.664	D
5 - A534 (West)	1114	404	2414	0.462	1113	0.9	2.982	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	45	1350	847	0.053	45	0.1	4.486	A
2 - A534 Wrexham Road (East)	576	777	2367	0.243	576	0.3	2.051	A
3 - Industrial Estate Road	2344	512	2845	0.824	2344	4.7	7.379	A
4 - Sandy Lane	29	2841	150	0.191	29	0.2	32.203	D
5 - A534 (West)	1114	406	2412	0.462	1114	0.9	2.990	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	37	1105	962	0.038	37	0.0	3.892	A
2 - A534 Wrexham Road (East)	470	636	2465	0.191	471	0.2	1.841	A
3 - Industrial Estate Road	1914	418	2915	0.657	1925	2.0	3.785	A
4 - Sandy Lane	23	2331	388	0.060	24	0.1	10.774	B
5 - A534 (West)	910	334	2461	0.370	911	0.6	2.506	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	31	924	1047	0.029	31	0.0	3.545	A
2 - A534 Wrexham Road (East)	394	532	2537	0.155	394	0.2	1.716	A
3 - Industrial Estate Road	1603	350	2966	0.540	1606	1.2	2.733	A
4 - Sandy Lane	20	1946	568	0.034	20	0.0	7.140	A
5 - A534 (West)	762	278	2497	0.305	763	0.5	2.238	A

2037 Base + Committed + Developement (Phase 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	10.91	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.91	B

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)
D13	2037 Base + Committed + Developement (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	191	100.000
2 - A534 Wrexham Road (East)		✓	576	100.000
3 - Industrial Estate Road		✓	774	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2123	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	170	0	10
	2 - A534 Wrexham Road (East)	2	0	203	8	363
	3 - Industrial Estate Road	20	80	2	1	671
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1706	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.62	27.40	1.5	D
2 - A534 Wrexham Road (East)	0.44	4.78	0.8	A
3 - Industrial Estate Road	0.29	2.31	0.5	A
4 - Sandy Lane	0.05	6.29	0.1	A
5 - A534 (West)	0.90	14.31	8.9	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	144	1657	704	0.204	143	0.3	6.463	A
2 - A534 Wrexham Road (East)	434	1438	1910	0.227	432	0.3	2.618	A
3 - Industrial Estate Road	583	308	2998	0.194	581	0.3	1.946	A
4 - Sandy Lane	29	864	1073	0.027	28	0.0	5.079	A
5 - A534 (West)	1598	88	2624	0.609	1592	1.6	3.671	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	172	1982	552	0.311	171	0.4	9.522	A
2 - A534 Wrexham Road (East)	518	1721	1714	0.302	517	0.5	3.232	A
3 - Industrial Estate Road	696	368	2953	0.236	695	0.4	2.084	A
4 - Sandy Lane	34	1033	994	0.034	34	0.1	5.526	A
5 - A534 (West)	1909	105	2612	0.731	1904	2.8	5.341	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	210	2411	351	0.599	206	1.4	24.535	C
2 - A534 Wrexham Road (East)	634	2091	1458	0.435	633	0.8	4.686	A
3 - Industrial Estate Road	852	450	2892	0.295	852	0.5	2.307	A
4 - Sandy Lane	42	1264	886	0.047	42	0.1	6.284	A
5 - A534 (West)	2337	129	2597	0.900	2315	8.4	12.651	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	210	2431	341	0.616	210	1.5	27.401	D
2 - A534 Wrexham Road (East)	634	2111	1444	0.439	634	0.8	4.779	A
3 - Industrial Estate Road	852	451	2891	0.295	852	0.5	2.308	A
4 - Sandy Lane	42	1266	885	0.047	42	0.1	6.289	A
5 - A534 (West)	2337	129	2596	0.900	2335	8.9	14.312	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	172	2011	538	0.319	176	0.5	10.137	B
2 - A534 Wrexham Road (East)	518	1749	1695	0.306	519	0.5	3.296	A
3 - Industrial Estate Road	696	370	2952	0.236	696	0.4	2.088	A
4 - Sandy Lane	34	1036	993	0.034	34	0.1	5.536	A
5 - A534 (West)	1909	105	2612	0.731	1932	2.9	5.791	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	144	1669	698	0.206	145	0.3	6.571	A
2 - A534 Wrexham Road (East)	434	1450	1902	0.228	434	0.3	2.641	A
3 - Industrial Estate Road	583	309	2997	0.194	583	0.3	1.949	A
4 - Sandy Lane	29	867	1072	0.027	29	0.0	5.088	A
5 - A534 (West)	1598	88	2623	0.609	1603	1.7	3.752	A

2037 Base + Committed + Developement (Phase 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	7.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.28	A

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)
D14	2037 Base + Committed + Developement (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	44	100.000
2 - A534 Wrexham Road (East)		✓	552	100.000
3 - Industrial Estate Road		✓	2223	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1054	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	29	1	8
	2 - A534 Wrexham Road (East)	7	0	79	1	465
	3 - Industrial Estate Road	141	233	1	3	1845
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	680	9	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	0	0	0
2 - A534 Wrexham Road (East)		0	0	9	0	1
3 - Industrial Estate Road		0	5	0	0	3
4 - Sandy Lane		0	25	0	0	6
5 - A534 (West)		0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.67	0.1	A
2 - A534 Wrexham Road (East)	0.26	2.11	0.4	A
3 - Industrial Estate Road	0.87	9.82	6.5	A
4 - Sandy Lane	0.35	67.80	0.5	F
5 - A534 (West)	0.48	3.14	1.0	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	961	1029	0.032	33	0.0	3.612	A
2 - A534 Wrexham Road (East)	416	549	2525	0.165	415	0.2	1.740	A
3 - Industrial Estate Road	1674	370	2951	0.567	1668	1.3	2.878	A
4 - Sandy Lane	21	2028	529	0.040	21	0.0	7.719	A
5 - A534 (West)	794	293	2488	0.319	791	0.5	2.285	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1150	941	0.042	40	0.0	3.992	A
2 - A534 Wrexham Road (East)	496	657	2451	0.202	496	0.3	1.878	A
3 - Industrial Estate Road	1998	443	2897	0.690	1995	2.3	4.094	A
4 - Sandy Lane	25	2425	344	0.073	25	0.1	12.296	B
5 - A534 (West)	948	350	2450	0.387	947	0.7	2.581	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	48	1406	821	0.059	48	0.1	4.658	A
2 - A534 Wrexham Road (East)	608	804	2349	0.259	607	0.4	2.110	A
3 - Industrial Estate Road	2448	542	2822	0.867	2432	6.3	9.138	A
4 - Sandy Lane	31	2959	95	0.324	29	0.5	58.331	F
5 - A534 (West)	1160	426	2399	0.484	1159	1.0	3.127	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	48	1409	820	0.059	48	0.1	4.667	A
2 - A534 Wrexham Road (East)	608	805	2348	0.259	608	0.4	2.110	A
3 - Industrial Estate Road	2448	543	2822	0.867	2447	6.5	9.816	A
4 - Sandy Lane	31	2974	88	0.350	31	0.5	67.796	F
5 - A534 (West)	1160	429	2397	0.484	1160	1.0	3.137	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	40	1154	939	0.042	40	0.0	4.002	A
2 - A534 Wrexham Road (East)	496	658	2450	0.203	497	0.3	1.880	A
3 - Industrial Estate Road	1998	444	2896	0.690	2015	2.3	4.285	A
4 - Sandy Lane	25	2446	334	0.075	27	0.1	12.842	B
5 - A534 (West)	948	354	2447	0.387	949	0.7	2.592	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	33	965	1028	0.032	33	0.0	3.622	A
2 - A534 Wrexham Road (East)	416	551	2524	0.165	416	0.2	1.744	A
3 - Industrial Estate Road	1674	371	2951	0.567	1677	1.4	2.923	A
4 - Sandy Lane	21	2038	525	0.040	21	0.0	7.802	A
5 - A534 (West)	794	294	2487	0.319	794	0.5	2.295	A

2030 Base + Committed + Developement (Phase 1 + 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	15.04	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.04	C

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)
D15	2030 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	190	100.000
2 - A534 Wrexham Road (East)		✓	559	100.000
3 - Industrial Estate Road		✓	881	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	2198	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	169	0	10
	2 - A534 Wrexham Road (East)	2	0	206	7	344
	3 - Industrial Estate Road	24	89	2	1	765
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	363	1804	23	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	1	0	0
2 - A534 Wrexham Road (East)		0	0	7	75	7
3 - Industrial Estate Road		0	24	0	0	33
4 - Sandy Lane		2	33	0	0	69
5 - A534 (West)		0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.70	38.81	2.1	E
2 - A534 Wrexham Road (East)	0.45	5.10	0.9	A
3 - Industrial Estate Road	0.33	2.43	0.7	A
4 - Sandy Lane	0.05	6.59	0.1	A
5 - A534 (West)	0.94	20.70	13.1	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	143	1720	674	0.212	142	0.3	6.808	A
2 - A534 Wrexham Road (East)	421	1509	1861	0.226	420	0.3	2.683	A
3 - Industrial Estate Road	663	291	3011	0.220	662	0.4	2.002	A
4 - Sandy Lane	26	930	1042	0.025	26	0.0	5.199	A
5 - A534 (West)	1655	97	2618	0.632	1648	1.8	3.899	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	171	2056	517	0.331	170	0.5	10.443	B
2 - A534 Wrexham Road (East)	503	1805	1656	0.303	502	0.5	3.351	A
3 - Industrial Estate Road	792	348	2968	0.267	792	0.5	2.162	A
4 - Sandy Lane	31	1112	957	0.033	31	0.0	5.706	A
5 - A534 (West)	1976	116	2605	0.759	1970	3.2	5.946	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	209	2492	313	0.668	204	1.8	31.826	D
2 - A534 Wrexham Road (East)	615	2184	1393	0.442	614	0.8	4.956	A
3 - Industrial Estate Road	970	426	2910	0.333	969	0.7	2.425	A
4 - Sandy Lane	39	1361	841	0.046	38	0.1	6.583	A
5 - A534 (West)	2420	142	2588	0.935	2386	11.8	16.635	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	209	2520	300	0.698	208	2.1	38.811	E
2 - A534 Wrexham Road (East)	615	2212	1374	0.448	615	0.9	5.100	A
3 - Industrial Estate Road	970	427	2909	0.333	970	0.7	2.426	A
4 - Sandy Lane	39	1363	840	0.046	39	0.1	6.590	A
5 - A534 (West)	2420	142	2588	0.935	2415	13.1	20.698	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	171	2101	496	0.344	177	0.5	11.609	B
2 - A534 Wrexham Road (East)	503	1849	1626	0.309	504	0.5	3.454	A
3 - Industrial Estate Road	792	351	2966	0.267	793	0.5	2.165	A
4 - Sandy Lane	31	1115	956	0.033	32	0.1	5.718	A
5 - A534 (West)	1976	116	2605	0.759	2015	3.4	6.858	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	143	1733	668	0.214	144	0.3	6.948	A
2 - A534 Wrexham Road (East)	421	1522	1851	0.227	422	0.3	2.707	A
3 - Industrial Estate Road	663	293	3010	0.220	664	0.4	2.007	A
4 - Sandy Lane	26	933	1041	0.025	26	0.0	5.210	A
5 - A534 (West)	1655	97	2617	0.632	1661	1.8	4.010	A

2030 Base + Committed + Developement (Phase 1 + 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	8.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.92	A

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)
D16	2030 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	46	100.000
2 - A534 Wrexham Road (East)		✓	532	100.000
3 - Industrial Estate Road		✓	2308	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	33	1	7
	2 - A534 Wrexham Road (East)	6	0	85	1	440
	3 - Industrial Estate Road	142	233	1	3	1929
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	330	756	8	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	0	0	0
2 - A534 Wrexham Road (East)		0	0	9	0	1
3 - Industrial Estate Road		0	5	0	0	3
4 - Sandy Lane		0	25	0	0	6
5 - A534 (West)		0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.86	0.1	A
2 - A534 Wrexham Road (East)	0.26	2.16	0.4	A
3 - Industrial Estate Road	0.89	11.97	8.1	B
4 - Sandy Lane	0.49	122.96	0.9	F
5 - A534 (West)	0.51	3.31	1.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1003	1010	0.034	34	0.0	3.691	A
2 - A534 Wrexham Road (East)	401	607	2485	0.161	400	0.2	1.764	A
3 - Industrial Estate Road	1738	349	2967	0.586	1732	1.4	2.989	A
4 - Sandy Lane	20	2071	509	0.038	19	0.0	7.984	A
5 - A534 (West)	836	292	2488	0.336	833	0.5	2.349	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	41	1200	918	0.045	41	0.0	4.107	A
2 - A534 Wrexham Road (East)	478	727	2402	0.199	478	0.3	1.911	A
3 - Industrial Estate Road	2075	418	2916	0.712	2071	2.5	4.366	A
4 - Sandy Lane	23	2477	320	0.073	23	0.1	13.170	B
5 - A534 (West)	998	349	2450	0.407	997	0.7	2.677	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	51	1467	793	0.064	51	0.1	4.850	A
2 - A534 Wrexham Road (East)	586	890	2289	0.256	585	0.4	2.158	A
3 - Industrial Estate Road	2541	512	2845	0.893	2520	7.7	10.774	B
4 - Sandy Lane	29	3018	68	0.423	26	0.7	90.322	F
5 - A534 (West)	1222	424	2401	0.509	1221	1.1	3.294	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	51	1471	791	0.064	51	0.1	4.862	A
2 - A534 Wrexham Road (East)	586	891	2289	0.256	586	0.4	2.159	A
3 - Industrial Estate Road	2541	512	2845	0.893	2540	8.1	11.975	B
4 - Sandy Lane	29	3037	59	0.489	28	0.9	122.959	F
5 - A534 (West)	1222	428	2398	0.510	1222	1.1	3.309	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	41	1205	915	0.045	41	0.0	4.122	A
2 - A534 Wrexham Road (East)	478	729	2401	0.199	479	0.3	1.913	A
3 - Industrial Estate Road	2075	418	2915	0.712	2097	2.6	4.651	A
4 - Sandy Lane	23	2504	308	0.076	27	0.1	14.067	B
5 - A534 (West)	998	354	2447	0.408	999	0.7	2.693	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	35	1007	1008	0.034	35	0.0	3.701	A
2 - A534 Wrexham Road (East)	401	610	2483	0.161	401	0.2	1.768	A
3 - Industrial Estate Road	1738	350	2966	0.586	1742	1.5	3.039	A
4 - Sandy Lane	20	2083	504	0.039	20	0.0	8.080	A
5 - A534 (West)	836	294	2487	0.336	836	0.5	2.358	A

2037 Base + Committed + Developement (Phase 1 + 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	16.83	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.83	C

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)
D17	2037 Base + Committed + Developement (Phase 1 + 2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	195	100.000
2 - A534 Wrexham Road (East)		✓	584	100.000
3 - Industrial Estate Road		✓	885	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	2216	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	174	0	10
	2 - A534 Wrexham Road (East)	2	0	211	8	363
	3 - Industrial Estate Road	25	93	2	1	764
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	383	1799	25	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
1 - Borrass Hall Lane		0	0	1	0	0
2 - A534 Wrexham Road (East)		0	0	7	75	7
3 - Industrial Estate Road		0	24	0	0	33
4 - Sandy Lane		2	33	0	0	69
5 - A534 (West)		0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.74	46.04	2.6	E
2 - A534 Wrexham Road (East)	0.47	5.30	0.9	A
3 - Industrial Estate Road	0.34	2.45	0.7	A
4 - Sandy Lane	0.05	6.75	0.1	A
5 - A534 (West)	0.94	23.22	14.8	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	147	1736	667	0.220	146	0.3	6.957	A
2 - A534 Wrexham Road (East)	440	1511	1860	0.236	438	0.3	2.721	A
3 - Industrial Estate Road	666	308	2998	0.222	665	0.4	2.014	A
4 - Sandy Lane	29	947	1034	0.028	28	0.0	5.275	A
5 - A534 (West)	1668	101	2615	0.638	1661	1.8	3.965	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	175	2076	508	0.345	174	0.5	10.865	B
2 - A534 Wrexham Road (East)	525	1806	1655	0.317	524	0.5	3.423	A
3 - Industrial Estate Road	796	368	2953	0.269	795	0.5	2.179	A
4 - Sandy Lane	34	1133	947	0.036	34	0.1	5.808	A
5 - A534 (West)	1992	121	2601	0.766	1986	3.4	6.129	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	215	2511	304	0.706	208	2.1	35.887	E
2 - A534 Wrexham Road (East)	643	2182	1395	0.461	641	0.9	5.125	A
3 - Industrial Estate Road	974	450	2892	0.337	974	0.7	2.452	A
4 - Sandy Lane	42	1386	829	0.050	42	0.1	6.737	A
5 - A534 (West)	2440	149	2583	0.944	2401	13.0	18.009	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	215	2543	289	0.743	213	2.6	46.042	E
2 - A534 Wrexham Road (East)	643	2212	1374	0.468	643	0.9	5.296	A
3 - Industrial Estate Road	974	451	2891	0.337	974	0.7	2.453	A
4 - Sandy Lane	42	1388	828	0.051	42	0.1	6.745	A
5 - A534 (West)	2440	149	2583	0.944	2433	14.8	23.218	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	175	2127	484	0.362	183	0.6	12.386	B
2 - A534 Wrexham Road (East)	525	1857	1620	0.324	527	0.5	3.548	A
3 - Industrial Estate Road	796	371	2951	0.270	796	0.5	2.182	A
4 - Sandy Lane	34	1136	946	0.036	34	0.1	5.820	A
5 - A534 (West)	1992	121	2601	0.766	2037	3.6	7.263	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	147	1750	660	0.222	148	0.3	7.108	A
2 - A534 Wrexham Road (East)	440	1524	1850	0.238	440	0.3	2.747	A
3 - Industrial Estate Road	666	309	2997	0.222	667	0.4	2.019	A
4 - Sandy Lane	29	950	1032	0.028	29	0.0	5.286	A
5 - A534 (West)	1668	102	2614	0.638	1675	1.9	4.085	A

2037 Base + Committed + Developement (Phase 1 + 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.90	A

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)
D18	2037 Base + Committed + Developement (Phase 1 + 2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	47	100.000
2 - A534 Wrexham Road (East)		✓	560	100.000
3 - Industrial Estate Road		✓	2305	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	1152	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	32	1	8
	2 - A534 Wrexham Road (East)	7	0	87	1	465
	3 - Industrial Estate Road	143	238	1	3	1920
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	348	778	9	2

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.07	5.03	0.1	A
2 - A534 Wrexham Road (East)	0.27	2.22	0.4	A
3 - Industrial Estate Road	0.90	12.76	8.6	B
4 - Sandy Lane	0.67	201.39	1.5	F
5 - A534 (West)	0.53	3.46	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1038	993	0.036	35	0.0	3.757	A
2 - A534 Wrexham Road (East)	422	625	2473	0.171	421	0.2	1.791	A
3 - Industrial Estate Road	1735	370	2951	0.588	1729	1.5	3.020	A
4 - Sandy Lane	21	2089	501	0.042	21	0.0	8.175	A
5 - A534 (West)	867	298	2484	0.349	865	0.6	2.400	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	42	1242	898	0.047	42	0.0	4.206	A
2 - A534 Wrexham Road (East)	503	747	2388	0.211	503	0.3	1.951	A
3 - Industrial Estate Road	2072	443	2897	0.715	2068	2.5	4.450	A
4 - Sandy Lane	25	2498	310	0.081	25	0.1	13.765	B
5 - A534 (West)	1036	356	2446	0.423	1035	0.8	2.756	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	52	1518	769	0.067	52	0.1	5.019	A
2 - A534 Wrexham Road (East)	617	915	2272	0.271	616	0.4	2.221	A
3 - Industrial Estate Road	2538	542	2822	0.899	2515	8.2	11.340	B
4 - Sandy Lane	31	3042	56	0.549	27	1.0	125.074	F
5 - A534 (West)	1268	432	2395	0.530	1267	1.2	3.444	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	52	1522	767	0.067	52	0.1	5.033	A
2 - A534 Wrexham Road (East)	617	916	2271	0.271	617	0.4	2.222	A
3 - Industrial Estate Road	2538	543	2822	0.899	2536	8.6	12.756	B
4 - Sandy Lane	31	3063	46	0.665	29	1.5	201.385	F
5 - A534 (West)	1268	436	2393	0.530	1268	1.2	3.460	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	42	1249	895	0.047	42	0.0	4.225	A
2 - A534 Wrexham Road (East)	503	749	2386	0.211	504	0.3	1.953	A
3 - Industrial Estate Road	2072	444	2896	0.715	2096	2.6	4.767	A
4 - Sandy Lane	25	2527	297	0.085	31	0.1	15.059	C
5 - A534 (West)	1036	362	2441	0.424	1037	0.8	2.773	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	35	1043	991	0.036	35	0.0	3.765	A
2 - A534 Wrexham Road (East)	422	627	2471	0.171	422	0.2	1.796	A
3 - Industrial Estate Road	1735	371	2951	0.588	1740	1.5	3.076	A
4 - Sandy Lane	21	2101	496	0.043	21	0.0	8.283	A
5 - A534 (West)	867	300	2483	0.349	868	0.6	2.412	A

2030 Base + Developement (Phase 1) [Sens], AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.54	A

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)
D19	2030 Base + Developement (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	176	100.000
2 - A534 Wrexham Road (East)		✓	526	100.000
3 - Industrial Estate Road		✓	595	100.000
4 - Sandy Lane		✓	35	100.000
5 - A534 (West)		✓	1701	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	155	0	10
	2 - A534 Wrexham Road (East)	2	0	180	7	337
	3 - Industrial Estate Road	22	70	2	1	500
	4 - Sandy Lane	1	7	4	0	23
	5 - A534 (West)	6	344	1326	23	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.34	9.83	0.5	A
2 - A534 Wrexham Road (East)	0.33	3.32	0.5	A
3 - Industrial Estate Road	0.22	2.07	0.4	A
4 - Sandy Lane	0.04	5.55	0.1	A
5 - A534 (West)	0.72	5.21	2.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	133	1334	855	0.155	132	0.2	5.018	A
2 - A534 Wrexham Road (East)	396	1142	2115	0.187	395	0.2	2.250	A
3 - Industrial Estate Road	448	286	3014	0.149	447	0.2	1.823	A
4 - Sandy Lane	26	710	1145	0.023	26	0.0	4.722	A
5 - A534 (West)	1281	81	2628	0.487	1277	1.0	2.810	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	158	1596	732	0.216	158	0.3	6.320	A
2 - A534 Wrexham Road (East)	473	1366	1959	0.241	472	0.3	2.603	A
3 - Industrial Estate Road	535	342	2972	0.180	535	0.3	1.921	A
4 - Sandy Lane	31	849	1080	0.029	31	0.0	5.038	A
5 - A534 (West)	1529	97	2618	0.584	1527	1.5	3.488	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	194	1953	565	0.343	193	0.5	9.725	A
2 - A534 Wrexham Road (East)	579	1671	1749	0.331	578	0.5	3.306	A
3 - Industrial Estate Road	655	419	2915	0.225	655	0.4	2.072	A
4 - Sandy Lane	39	1040	991	0.039	38	0.1	5.546	A
5 - A534 (West)	1873	119	2603	0.719	1868	2.7	5.150	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	194	1958	563	0.344	194	0.5	9.831	A
2 - A534 Wrexham Road (East)	579	1676	1745	0.332	579	0.5	3.318	A
3 - Industrial Estate Road	655	419	2914	0.225	655	0.4	2.072	A
4 - Sandy Lane	39	1040	990	0.039	39	0.1	5.548	A
5 - A534 (West)	1873	119	2603	0.719	1873	2.7	5.214	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	158	1603	729	0.217	159	0.3	6.387	A
2 - A534 Wrexham Road (East)	473	1373	1955	0.242	474	0.3	2.616	A
3 - Industrial Estate Road	535	343	2972	0.180	535	0.3	1.922	A
4 - Sandy Lane	31	850	1079	0.029	32	0.0	5.044	A
5 - A534 (West)	1529	97	2617	0.584	1534	1.5	3.529	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	133	1341	852	0.156	133	0.2	5.055	A
2 - A534 Wrexham Road (East)	396	1148	2111	0.188	396	0.2	2.259	A
3 - Industrial Estate Road	448	287	3014	0.149	448	0.2	1.824	A
4 - Sandy Lane	26	712	1144	0.023	26	0.0	4.729	A
5 - A534 (West)	1281	81	2628	0.487	1283	1.0	2.834	A

2030 Base + Developement (Phase 1) [Sens], PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.42	A

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)
D20	2030 Base + Developement (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	36	100.000
2 - A534 Wrexham Road (East)		✓	499	100.000
3 - Industrial Estate Road		✓	1780	100.000
4 - Sandy Lane		✓	26	100.000
5 - A534 (West)		✓	820	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	5	23	1	7
	2 - A534 Wrexham Road (East)	6	0	69	1	423
	3 - Industrial Estate Road	125	208	1	3	1443
	4 - Sandy Lane	1	5	1	0	19
	5 - A534 (West)	14	321	475	8	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.04	3.94	0.0	A
2 - A534 Wrexham Road (East)	0.22	1.87	0.3	A
3 - Industrial Estate Road	0.69	4.12	2.2	A
4 - Sandy Lane	0.08	12.65	0.1	B
5 - A534 (West)	0.37	2.53	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	27	767	1120	0.024	27	0.0	3.292	A
2 - A534 Wrexham Road (East)	376	389	2636	0.143	375	0.2	1.624	A
3 - Industrial Estate Road	1340	337	2977	0.450	1337	0.8	2.256	A
4 - Sandy Lane	20	1664	700	0.028	19	0.0	5.752	A
5 - A534 (West)	617	261	2509	0.246	616	0.3	2.038	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	32	917	1050	0.031	32	0.0	3.537	A
2 - A534 Wrexham Road (East)	449	465	2583	0.174	448	0.2	1.719	A
3 - Industrial Estate Road	1600	403	2927	0.547	1599	1.2	2.787	A
4 - Sandy Lane	23	1990	548	0.043	23	0.0	7.463	A
5 - A534 (West)	737	312	2475	0.298	737	0.5	2.220	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1123	954	0.042	40	0.0	3.938	A
2 - A534 Wrexham Road (East)	549	570	2511	0.219	549	0.3	1.871	A
3 - Industrial Estate Road	1960	493	2859	0.685	1956	2.2	4.086	A
4 - Sandy Lane	29	2435	340	0.084	28	0.1	12.557	B
5 - A534 (West)	903	381	2429	0.372	902	0.6	2.527	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1124	953	0.042	40	0.0	3.940	A
2 - A534 Wrexham Road (East)	549	570	2510	0.219	549	0.3	1.871	A
3 - Industrial Estate Road	1960	493	2859	0.685	1960	2.2	4.122	A
4 - Sandy Lane	29	2439	338	0.085	29	0.1	12.650	B
5 - A534 (West)	903	382	2428	0.372	903	0.6	2.530	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	32	919	1049	0.031	32	0.0	3.540	A
2 - A534 Wrexham Road (East)	449	466	2582	0.174	449	0.2	1.720	A
3 - Industrial Estate Road	1600	403	2927	0.547	1604	1.3	2.811	A
4 - Sandy Lane	23	1995	545	0.043	24	0.0	7.508	A
5 - A534 (West)	737	313	2474	0.298	738	0.5	2.223	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	27	769	1119	0.024	27	0.0	3.296	A
2 - A534 Wrexham Road (East)	376	390	2635	0.143	376	0.2	1.627	A
3 - Industrial Estate Road	1340	337	2976	0.450	1342	0.8	2.272	A
4 - Sandy Lane	20	1669	697	0.028	20	0.0	5.776	A
5 - A534 (West)	617	262	2508	0.246	618	0.4	2.042	A

2037 Base + Developement (Phase 1 + 2) [Sens], AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	6.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.90	A

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)
D21	2037 Base + Developement (Phase 1 + 2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	192	100.000
2 - A534 Wrexham Road (East)		✓	569	100.000
3 - Industrial Estate Road		✓	755	100.000
4 - Sandy Lane		✓	38	100.000
5 - A534 (West)		✓	1948	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	11	171	0	10
	2 - A534 Wrexham Road (East)	2	0	203	8	356
	3 - Industrial Estate Road	23	86	2	1	643
	4 - Sandy Lane	1	8	4	0	25
	5 - A534 (West)	7	354	1560	25	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	1	0	0
	2 - A534 Wrexham Road (East)	0	0	7	75	7
	3 - Industrial Estate Road	0	24	0	0	33
	4 - Sandy Lane	2	33	0	0	69
	5 - A534 (West)	0	3	6	57	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.49	16.76	1.0	C
2 - A534 Wrexham Road (East)	0.40	4.18	0.7	A
3 - Industrial Estate Road	0.29	2.27	0.5	A
4 - Sandy Lane	0.05	6.19	0.1	A
5 - A534 (West)	0.83	8.53	5.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	145	1531	763	0.190	144	0.2	5.859	A
2 - A534 Wrexham Road (East)	428	1330	1984	0.216	427	0.3	2.486	A
3 - Industrial Estate Road	568	303	3002	0.189	567	0.3	1.927	A
4 - Sandy Lane	29	844	1082	0.026	28	0.0	5.035	A
5 - A534 (West)	1467	95	2619	0.560	1461	1.3	3.277	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	173	1832	622	0.277	172	0.4	8.060	A
2 - A534 Wrexham Road (East)	512	1592	1803	0.284	511	0.4	2.994	A
3 - Industrial Estate Road	679	362	2958	0.229	678	0.4	2.060	A
4 - Sandy Lane	34	1010	1005	0.034	34	0.1	5.464	A
5 - A534 (West)	1751	113	2607	0.672	1748	2.1	4.420	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	211	2236	433	0.489	209	0.9	16.100	C
2 - A534 Wrexham Road (East)	626	1942	1561	0.401	625	0.7	4.134	A
3 - Industrial Estate Road	831	443	2897	0.287	831	0.5	2.272	A
4 - Sandy Lane	42	1236	899	0.047	42	0.1	6.187	A
5 - A534 (West)	2145	139	2590	0.828	2134	4.8	8.166	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	211	2247	428	0.494	211	1.0	16.756	C
2 - A534 Wrexham Road (East)	626	1953	1554	0.403	626	0.7	4.176	A
3 - Industrial Estate Road	831	444	2896	0.287	831	0.5	2.273	A
4 - Sandy Lane	42	1238	898	0.047	42	0.1	6.191	A
5 - A534 (West)	2145	139	2590	0.828	2144	5.0	8.527	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	173	1846	615	0.281	175	0.4	8.287	A
2 - A534 Wrexham Road (East)	512	1606	1794	0.285	513	0.4	3.025	A
3 - Industrial Estate Road	679	363	2957	0.230	679	0.4	2.062	A
4 - Sandy Lane	34	1012	1004	0.034	34	0.1	5.471	A
5 - A534 (West)	1751	113	2607	0.672	1762	2.2	4.570	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	145	1540	758	0.191	145	0.2	5.927	A
2 - A534 Wrexham Road (East)	428	1339	1978	0.217	429	0.3	2.499	A
3 - Industrial Estate Road	568	304	3001	0.189	569	0.3	1.932	A
4 - Sandy Lane	29	847	1081	0.026	29	0.0	5.041	A
5 - A534 (West)	1467	95	2619	0.560	1470	1.4	3.325	A

2037 Base + Developement (Phase 1 + 2) [Sens], PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 Wrexham Road (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Industrial Estate Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.94	A

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)
D22	2037 Base + Developement (Phase 1 + 2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrás Hall Lane		✓	44	100.000
2 - A534 Wrexham Road (East)		✓	538	100.000
3 - Industrial Estate Road		✓	2050	100.000
4 - Sandy Lane		✓	28	100.000
5 - A534 (West)		✓	994	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borrás Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrás Hall Lane	0	6	29	1	8
	2 - A534 Wrexham Road (East)	7	0	82	1	448
	3 - Industrial Estate Road	139	230	1	3	1677
	4 - Sandy Lane	1	6	1	0	20
	5 - A534 (West)	15	339	629	9	2

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1 - Borrass Hall Lane	2 - A534 Wrexham Road (East)	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534 (West)
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - A534 Wrexham Road (East)	0	0	9	0	1
	3 - Industrial Estate Road	0	5	0	0	3
	4 - Sandy Lane	0	25	0	0	6
	5 - A534 (West)	0	2	11	33	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Borrass Hall Lane	0.06	4.48	0.1	A
2 - A534 Wrexham Road (East)	0.25	2.05	0.3	A
3 - Industrial Estate Road	0.80	6.39	3.9	A
4 - Sandy Lane	0.17	25.40	0.2	D
5 - A534 (West)	0.46	2.97	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	33	914	1051	0.032	33	0.0	3.534	A
2 - A534 Wrexham Road (East)	405	511	2552	0.159	404	0.2	1.711	A
3 - Industrial Estate Road	1543	358	2961	0.521	1539	1.1	2.601	A
4 - Sandy Lane	21	1886	596	0.035	21	0.0	6.829	A
5 - A534 (West)	748	289	2490	0.301	746	0.5	2.222	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	40	1093	968	0.041	40	0.0	3.879	A
2 - A534 Wrexham Road (East)	484	611	2482	0.195	483	0.2	1.838	A
3 - Industrial Estate Road	1843	428	2908	0.634	1840	1.8	3.463	A
4 - Sandy Lane	25	2255	423	0.059	25	0.1	9.857	A
5 - A534 (West)	894	346	2453	0.364	893	0.6	2.484	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrass Hall Lane	48	1338	853	0.057	48	0.1	4.473	A
2 - A534 Wrexham Road (East)	592	748	2387	0.248	592	0.3	2.047	A
3 - Industrial Estate Road	2257	524	2836	0.796	2249	3.9	6.221	A
4 - Sandy Lane	31	2757	189	0.163	30	0.2	24.606	C
5 - A534 (West)	1094	422	2402	0.456	1093	0.9	2.960	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	48	1340	852	0.057	48	0.1	4.479	A
2 - A534 Wrexham Road (East)	592	749	2387	0.248	592	0.3	2.048	A
3 - Industrial Estate Road	2257	524	2836	0.796	2257	3.9	6.393	A
4 - Sandy Lane	31	2766	185	0.166	31	0.2	25.395	D
5 - A534 (West)	1094	424	2401	0.456	1094	0.9	2.967	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	40	1096	966	0.041	40	0.0	3.885	A
2 - A534 Wrexham Road (East)	484	612	2481	0.195	484	0.2	1.840	A
3 - Industrial Estate Road	1843	428	2908	0.634	1851	1.8	3.540	A
4 - Sandy Lane	25	2267	418	0.060	26	0.1	10.026	B
5 - A534 (West)	894	348	2451	0.365	895	0.6	2.494	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Borrás Hall Lane	33	917	1050	0.032	33	0.0	3.540	A
2 - A534 Wrexham Road (East)	405	512	2550	0.159	405	0.2	1.715	A
3 - Industrial Estate Road	1543	359	2960	0.521	1546	1.1	2.628	A
4 - Sandy Lane	21	1894	592	0.036	21	0.0	6.879	A
5 - A534 (West)	748	290	2489	0.301	749	0.5	2.230	A

Appendix TN7 - A534 / A5156 / Stryt Holt Roundabout Junction

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
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Filename: A534, A5156 ARCADY (Existing) - calib.j10

Path: D:\Cora IHT\Wrexham (2)\January 2026

Report generation date: 03/02/2026 15:49:40

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Development (Phase 1), AM
 »2030 Base + Committed + Development (Phase 1), PM
 »2037 Base + Committed + Development (Phase 1&2), AM
 »2037 Base + Committed + Development (Phase 1&2), PM
 »2030 Base + Development (Phase 1) [Sens], AM
 »2030 Base + Development (Phase 1) [Sens], PM
 »2037 Base + Development (Phase 1&2) [Sens], AM
 »2037 Base + Development (Phase 1&2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Golf Site Access	D1	0.6	12.35	0.34	B	D2	0.2	5.44	0.16	A
2 - A534 (East)		0.8	3.26	0.39	A		5.6	11.35	0.85	B
3 - Stryt Holt		1.5	7.80	0.60	A		4.1	30.07	0.82	D
4 - A5156		2.5	5.99	0.71	A		0.6	2.62	0.37	A
	2030 Base									
1 - Golf Site Access	D3	0.7	14.96	0.40	B	D4	0.2	5.72	0.18	A
2 - A534 (East)		0.9	3.43	0.41	A		9.2	17.96	0.91	C
3 - Stryt Holt		1.8	9.00	0.64	A		9.5	65.77	0.94	F
4 - A5156		3.3	7.29	0.76	A		0.7	2.74	0.39	A
	2037 Base									
1 - Golf Site Access	D5	1.0	19.16	0.47	C	D6	0.3	5.95	0.19	A
2 - A534 (East)		1.0	3.63	0.44	A		19.2	35.60	0.97	E
3 - Stryt Holt		2.3	10.64	0.69	B		29.3	166.19	1.09	F
4 - A5156		4.4	9.37	0.81	A		0.7	2.83	0.41	A
	2030 Base + Committed									
1 - Golf Site Access	D7	0.9	17.90	0.44	C	D8	0.2	6.02	0.19	A
2 - A534 (East)		1.0	3.64	0.44	A		18.8	34.69	0.97	D
3 - Stryt Holt		2.1	10.09	0.67	B		22.5	137.24	1.05	F
4 - A5156		4.2	8.96	0.81	A		0.8	2.89	0.43	A
	2037 Base + Committed									
1 - Golf Site Access	D9	1.2	24.20	0.53	C	D10	0.3	6.26	0.20	A
2 - A534 (East)		1.1	3.86	0.47	A		50.4	77.85	1.03	F
3 - Stryt Holt		2.7	12.23	0.73	B		46.0	259.63	1.17	F
4 - A5156		6.0	12.28	0.86	B		0.9	2.99	0.45	A
	2030 Base + Committed + Development (Phase 1)									
1 - Golf Site Access	D11	1.2	26.28	0.54	D	D12	0.3	6.36	0.19	A
2 - A534 (East)		1.1	3.91	0.48	A		56.1	84.24	1.03	F
3 - Stryt Holt		2.6	12.11	0.72	B		39.4	233.17	1.15	F
4 - A5156		7.1	14.17	0.88	B		0.9	3.08	0.46	A
	2037 Base + Committed + Development (Phase 1&2)									
1 - Golf Site Access	D13	4.2	88.47	0.84	F	D14	0.3	7.49	0.23	A
2 - A534 (East)		1.5	4.64	0.56	A		202.0	306.68	1.18	F
3 - Stryt Holt		5.2	23.45	0.85	C		73.7	560.92	1.24	F
4 - A5156		41.8	67.73	1.02	F		1.2	3.63	0.54	A
	2030 Base + Development (Phase 1) [Sens]									
1 - Golf Site Access	D15	1.0	20.45	0.47	C	D16	0.2	6.04	0.19	A
2 - A534 (East)		1.0	3.67	0.45	A		22.3	40.05	0.98	E
3 - Stryt Holt		2.2	10.52	0.69	B		25.2	151.35	1.07	F
4 - A5156		5.0	10.46	0.83	B		0.8	2.91	0.43	A
	2037 Base + Development (Phase 1&2) [Sens]									
1 - Golf Site Access	D17	1.4	29.01	0.57	D	D18	0.3	6.99	0.22	A
2 - A534 (East)		1.1	3.89	0.48	A		138.9	186.39	1.12	F
3 - Stryt Holt		2.8	12.88	0.74	B		64.7	457.84	1.22	F
4 - A5156		7.5	15.18	0.89	C		1.1	3.37	0.51	A

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

File summary

File Description

Title	A534 / A5156 / Golf Access
Location	Wrexham
Site number	
Date	01/02/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15
D15	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D16	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D17	2037 Base + Development (Phase 1&2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D18	2037 Base + Development (Phase 1&2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.00	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Golf Site Access		
2	A534 (East)		
3	Stryt Holt		
4	A5156		

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 - Golf Site Access	3.40	5.60	6.9	20.0	89.3	25.3		
2 - A534 (East)	7.10	9.30	17.2	41.6	89.3	25.2		
3 - Stryt Holt	3.60	7.10	16.7	24.2	89.3	27.7		
4 - A5156	8.00	10.00	9.1	32.0	89.3	26.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - Golf Site Access	✓	0.450	1300	0.450	1300
2 - A534 (East)	✓	0.785	2475	0.785	2475
3 - Stryt Holt	✓	0.560	1550	0.560	1550
4 - A5156	✓	0.785	2530	0.785	2530

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	151	100.000
2 - A534 (East)		✓	769	100.000
3 - Stryt Holt		✓	642	100.000
4 - A5156		✓	1404	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	83	33	35
	2 - A534 (East)	51	1	208	509
	3 - Stryt Holt	43	320	0	279
	4 - A5156	95	1045	264	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.34	12.35	0.6	B
2 - A534 (East)	0.39	3.26	0.8	A
3 - Stryt Holt	0.60	7.80	1.5	A
4 - A5156	0.71	5.99	2.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1223	750	0.152	113	0.2	6.321	A
2 - A534 (East)	579	249	2280	0.254	577	0.4	2.568	A
3 - Stryt Holt	483	447	1300	0.372	481	0.6	4.524	A
4 - A5156	1057	311	2286	0.462	1053	0.9	3.033	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1463	642	0.212	135	0.3	7.950	A
2 - A534 (East)	691	298	2241	0.308	691	0.5	2.823	A
3 - Stryt Holt	577	535	1250	0.462	576	0.9	5.498	A
4 - A5156	1262	372	2238	0.564	1260	1.3	3.829	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1789	495	0.336	165	0.6	12.149	B
2 - A534 (East)	847	364	2189	0.387	846	0.8	3.256	A
3 - Stryt Holt	707	655	1183	0.598	704	1.5	7.717	A
4 - A5156	1546	455	2172	0.712	1541	2.5	5.891	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1795	492	0.338	166	0.6	12.354	B
2 - A534 (East)	847	366	2188	0.387	847	0.8	3.261	A
3 - Stryt Holt	707	656	1183	0.598	707	1.5	7.802	A
4 - A5156	1546	457	2171	0.712	1546	2.5	5.990	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1471	638	0.213	137	0.3	8.057	A
2 - A534 (East)	691	300	2240	0.309	692	0.5	2.831	A
3 - Stryt Holt	577	537	1249	0.462	580	0.9	5.563	A
4 - A5156	1262	375	2236	0.564	1267	1.4	3.886	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1229	747	0.152	114	0.2	6.377	A
2 - A534 (East)	579	250	2278	0.254	579	0.4	2.576	A
3 - Stryt Holt	483	449	1298	0.372	484	0.6	4.569	A
4 - A5156	1057	313	2284	0.463	1059	0.9	3.063	A

2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.82	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.82	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	124	100.000
2 - A534 (East)		✓	1664	100.000
3 - Stryt Holt		✓	473	100.000
4 - A5156		✓	769	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	44	27	53
	2 - A534 (East)	37	2	237	1388
	3 - Stryt Holt	23	207	1	242
	4 - A5156	46	433	290	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.16	5.44	0.2	A
2 - A534 (East)	0.85	11.35	5.6	B
3 - Stryt Holt	0.82	30.07	4.1	D
4 - A5156	0.37	2.62	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	700	985	0.095	93	0.1	4.279	A
2 - A534 (East)	1253	279	2256	0.555	1248	1.3	3.643	A
3 - Stryt Holt	356	1110	929	0.383	354	0.6	6.295	A
4 - A5156	579	202	2371	0.244	578	0.3	2.121	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	838	923	0.121	111	0.1	4.704	A
2 - A534 (East)	1496	333	2213	0.676	1493	2.1	5.099	A
3 - Stryt Holt	425	1328	807	0.527	423	1.1	9.434	A
4 - A5156	691	242	2340	0.295	691	0.4	2.308	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1022	840	0.163	136	0.2	5.425	A
2 - A534 (East)	1832	408	2155	0.850	1819	5.4	10.599	B
3 - Stryt Holt	521	1618	644	0.809	510	3.7	25.475	D
4 - A5156	847	292	2301	0.368	846	0.6	2.615	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1027	838	0.163	137	0.2	5.443	A
2 - A534 (East)	1832	408	2154	0.850	1831	5.6	11.353	B
3 - Stryt Holt	521	1629	638	0.816	519	4.1	30.072	D
4 - A5156	847	297	2297	0.369	847	0.6	2.623	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	845	920	0.121	112	0.1	4.725	A
2 - A534 (East)	1496	334	2213	0.676	1510	2.2	5.350	A
3 - Stryt Holt	425	1342	798	0.533	437	1.2	10.364	B
4 - A5156	691	249	2335	0.296	692	0.4	2.317	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	704	983	0.095	93	0.1	4.293	A
2 - A534 (East)	1253	280	2256	0.555	1256	1.3	3.706	A
3 - Stryt Holt	356	1117	924	0.385	358	0.6	6.443	A
4 - A5156	579	204	2370	0.244	579	0.3	2.126	A

2030 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	814	100.000
3 - Stryt Holt		✓	680	100.000
4 - A5156		✓	1486	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	220	539
	3 - Stryt Holt	46	339	0	295
	4 - A5156	101	1106	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.40	14.96	0.7	B
2 - A534 (East)	0.41	3.43	0.9	A
3 - Stryt Holt	0.64	9.00	1.8	A
4 - A5156	0.76	7.29	3.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1294	718	0.168	120	0.2	6.727	A
2 - A534 (East)	613	263	2268	0.270	611	0.4	2.638	A
3 - Stryt Holt	512	474	1285	0.398	509	0.7	4.771	A
4 - A5156	1119	330	2271	0.493	1115	1.0	3.231	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1548	603	0.238	143	0.3	8.753	A
2 - A534 (East)	732	315	2228	0.328	731	0.6	2.924	A
3 - Stryt Holt	611	567	1233	0.496	610	1.0	5.951	A
4 - A5156	1336	395	2220	0.602	1334	1.6	4.219	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1891	449	0.392	175	0.7	14.628	B
2 - A534 (East)	896	385	2173	0.412	895	0.8	3.421	A
3 - Stryt Holt	749	694	1162	0.645	745	1.8	8.852	A
4 - A5156	1636	483	2151	0.761	1630	3.2	7.097	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1899	445	0.395	176	0.7	14.963	B
2 - A534 (East)	896	386	2172	0.413	896	0.9	3.430	A
3 - Stryt Holt	749	695	1161	0.645	749	1.8	8.998	A
4 - A5156	1636	484	2150	0.761	1636	3.3	7.286	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1559	599	0.240	145	0.4	8.918	A
2 - A534 (East)	732	317	2226	0.329	733	0.6	2.934	A
3 - Stryt Holt	611	568	1232	0.496	615	1.0	6.046	A
4 - A5156	1336	397	2218	0.602	1343	1.6	4.313	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1301	714	0.169	121	0.2	6.798	A
2 - A534 (East)	613	265	2267	0.270	613	0.5	2.647	A
3 - Stryt Holt	512	476	1284	0.399	513	0.7	4.829	A
4 - A5156	1119	332	2269	0.493	1121	1.0	3.273	A

2030 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	21.05	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.05	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1761	100.000
3 - Stryt Holt		✓	500	100.000
4 - A5156		✓	814	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	251	1469
	3 - Stryt Holt	24	219	1	256
	4 - A5156	49	458	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.18	5.72	0.2	A
2 - A534 (East)	0.91	17.96	9.2	C
3 - Stryt Holt	0.94	65.77	9.5	F
4 - A5156	0.39	2.74	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	740	967	0.103	99	0.1	4.399	A
2 - A534 (East)	1326	295	2243	0.591	1320	1.5	3.974	A
3 - Stryt Holt	376	1174	893	0.422	374	0.7	6.961	A
4 - A5156	613	213	2363	0.259	611	0.4	2.171	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	886	901	0.132	119	0.2	4.876	A
2 - A534 (East)	1583	353	2198	0.720	1579	2.6	5.920	A
3 - Stryt Holt	449	1404	764	0.588	447	1.4	11.367	B
4 - A5156	732	255	2330	0.314	731	0.5	2.381	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1076	816	0.178	145	0.2	5.690	A
2 - A534 (East)	1939	432	2136	0.908	1915	8.5	15.335	C
3 - Stryt Holt	551	1704	596	0.924	527	7.2	43.458	E
4 - A5156	896	302	2293	0.391	895	0.7	2.722	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1083	813	0.179	145	0.2	5.721	A
2 - A534 (East)	1939	433	2135	0.908	1936	9.2	17.965	C
3 - Stryt Holt	551	1722	586	0.940	541	9.5	65.771	F
4 - A5156	896	309	2287	0.392	896	0.7	2.736	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	902	894	0.133	119	0.2	4.930	A
2 - A534 (East)	1583	354	2197	0.720	1609	2.7	6.542	A
3 - Stryt Holt	449	1430	749	0.600	481	1.6	15.080	C
4 - A5156	732	272	2316	0.316	733	0.5	2.404	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	745	965	0.103	100	0.1	4.416	A
2 - A534 (East)	1326	296	2243	0.591	1331	1.5	4.071	A
3 - Stryt Holt	376	1183	887	0.424	380	0.8	7.201	A
4 - A5156	613	216	2360	0.260	613	0.4	2.179	A

2037 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	861	100.000
3 - Stryt Holt		✓	718	100.000
4 - A5156		✓	1572	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	233	570
	3 - Stryt Holt	48	358	0	312
	4 - A5156	106	1170	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.47	19.16	1.0	C
2 - A534 (East)	0.44	3.63	1.0	A
3 - Stryt Holt	0.69	10.64	2.3	B
4 - A5156	0.81	9.37	4.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1368	684	0.186	126	0.3	7.208	A
2 - A534 (East)	648	279	2256	0.287	646	0.5	2.714	A
3 - Stryt Holt	541	500	1270	0.426	538	0.8	5.051	A
4 - A5156	1183	347	2257	0.524	1179	1.1	3.463	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1637	563	0.270	151	0.4	9.770	A
2 - A534 (East)	774	334	2213	0.350	773	0.7	3.037	A
3 - Stryt Holt	645	599	1215	0.531	644	1.2	6.488	A
4 - A5156	1413	416	2203	0.641	1410	1.8	4.710	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	1998	401	0.464	184	0.9	18.405	C
2 - A534 (East)	948	407	2156	0.440	947	0.9	3.617	A
3 - Stryt Holt	791	733	1140	0.694	786	2.3	10.377	B
4 - A5156	1731	508	2131	0.812	1721	4.3	8.937	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2009	396	0.470	186	1.0	19.159	C
2 - A534 (East)	948	409	2154	0.440	948	1.0	3.628	A
3 - Stryt Holt	791	734	1139	0.694	790	2.3	10.643	B
4 - A5156	1731	511	2129	0.813	1730	4.4	9.372	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1652	557	0.273	154	0.4	10.069	B
2 - A534 (East)	774	337	2210	0.350	775	0.7	3.053	A
3 - Stryt Holt	645	601	1213	0.532	650	1.2	6.641	A
4 - A5156	1413	420	2201	0.642	1423	1.9	4.884	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1378	680	0.187	128	0.3	7.309	A
2 - A534 (East)	648	281	2254	0.288	649	0.5	2.728	A
3 - Stryt Holt	541	503	1268	0.426	542	0.8	5.124	A
4 - A5156	1183	350	2255	0.525	1186	1.2	3.516	A

2037 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	46.52	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	46.52	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1860	100.000
3 - Stryt Holt		✓	530	100.000
4 - A5156		✓	859	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	265	1552
	3 - Stryt Holt	26	232	1	271
	4 - A5156	51	484	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	5.95	0.3	A
2 - A534 (East)	0.97	35.60	19.2	E
3 - Stryt Holt	1.09	166.19	29.3	F
4 - A5156	0.41	2.83	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	782	948	0.110	103	0.1	4.518	A
2 - A534 (East)	1400	311	2231	0.628	1393	1.7	4.374	A
3 - Stryt Holt	399	1239	856	0.466	396	0.9	7.834	A
4 - A5156	647	226	2353	0.275	645	0.4	2.227	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	935	879	0.141	124	0.2	5.055	A
2 - A534 (East)	1672	372	2183	0.766	1666	3.2	7.055	A
3 - Stryt Holt	476	1482	720	0.661	472	1.9	14.423	B
4 - A5156	772	269	2319	0.333	772	0.5	2.461	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1123	795	0.191	152	0.2	5.934	A
2 - A534 (East)	2048	455	2118	0.967	1998	15.6	24.483	C
3 - Stryt Holt	584	1779	554	1.053	527	16.1	79.987	F
4 - A5156	946	304	2292	0.413	945	0.7	2.825	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1125	794	0.191	152	0.3	5.950	A
2 - A534 (East)	2048	456	2117	0.967	2034	19.2	35.603	E
3 - Stryt Holt	584	1809	537	1.087	531	29.3	166.188	F
4 - A5156	946	306	2290	0.413	946	0.7	2.832	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	986	857	0.145	124	0.2	5.217	A
2 - A534 (East)	1672	373	2182	0.766	1735	3.5	9.376	A
3 - Stryt Holt	476	1541	687	0.693	584	2.5	60.397	F
4 - A5156	772	325	2275	0.339	773	0.5	2.535	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	789	945	0.110	104	0.1	4.541	A
2 - A534 (East)	1400	312	2230	0.628	1407	1.8	4.525	A
3 - Stryt Holt	399	1251	849	0.470	406	0.9	8.305	A
4 - A5156	647	231	2349	0.275	647	0.4	2.239	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4	8.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.22	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	877	100.000
3 - Stryt Holt		✓	689	100.000
4 - A5156		✓	1567	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	226	596
	3 - Stryt Holt	46	348	0	295
	4 - A5156	101	1187	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.44	17.90	0.9	C
2 - A534 (East)	0.44	3.64	1.0	A
3 - Stryt Holt	0.67	10.09	2.1	B
4 - A5156	0.81	8.96	4.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1361	688	0.175	120	0.2	7.083	A
2 - A534 (East)	660	263	2269	0.291	658	0.5	2.721	A
3 - Stryt Holt	519	516	1261	0.411	516	0.7	4.964	A
4 - A5156	1180	336	2266	0.521	1175	1.1	3.422	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1628	567	0.254	143	0.4	9.495	A
2 - A534 (East)	788	315	2228	0.354	788	0.7	3.045	A
3 - Stryt Holt	619	618	1204	0.514	618	1.1	6.320	A
4 - A5156	1409	403	2214	0.636	1406	1.8	4.624	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1988	406	0.434	174	0.8	17.302	C
2 - A534 (East)	966	384	2174	0.444	964	1.0	3.626	A
3 - Stryt Holt	759	756	1127	0.673	755	2.1	9.878	A
4 - A5156	1725	492	2144	0.805	1716	4.1	8.585	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1998	401	0.439	176	0.9	17.904	C
2 - A534 (East)	966	386	2172	0.445	966	1.0	3.637	A
3 - Stryt Holt	759	757	1126	0.674	758	2.1	10.095	B
4 - A5156	1725	494	2142	0.805	1725	4.2	8.962	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1642	561	0.256	146	0.4	9.750	A
2 - A534 (East)	788	318	2225	0.354	790	0.7	3.058	A
3 - Stryt Holt	619	620	1203	0.515	623	1.1	6.447	A
4 - A5156	1409	406	2211	0.637	1418	1.9	4.779	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1370	684	0.176	121	0.2	7.172	A
2 - A534 (East)	660	265	2267	0.291	661	0.5	2.735	A
3 - Stryt Holt	519	519	1260	0.412	520	0.7	5.031	A
4 - A5156	1180	339	2264	0.521	1183	1.1	3.474	A

2030 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4	40.56	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	40.56	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1873	100.000
3 - Stryt Holt		✓	506	100.000
4 - A5156		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	263	1569
	3 - Stryt Holt	24	225	1	256
	4 - A5156	49	530	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	6.02	0.2	A
2 - A534 (East)	0.97	34.69	18.8	D
3 - Stryt Holt	1.05	137.24	22.5	F
4 - A5156	0.43	2.89	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	799	941	0.106	99	0.1	4.534	A
2 - A534 (East)	1410	295	2243	0.629	1403	1.7	4.361	A
3 - Stryt Holt	381	1248	851	0.448	378	0.8	7.627	A
4 - A5156	667	217	2359	0.283	665	0.4	2.250	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	955	870	0.136	118	0.2	5.080	A
2 - A534 (East)	1684	353	2198	0.766	1678	3.3	7.012	A
3 - Stryt Holt	455	1492	714	0.637	451	1.7	13.636	B
4 - A5156	796	260	2326	0.342	796	0.5	2.494	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1152	782	0.186	145	0.2	5.995	A
2 - A534 (East)	2062	432	2136	0.966	2014	15.4	24.053	C
3 - Stryt Holt	557	1792	546	1.020	512	13.0	69.891	F
4 - A5156	976	297	2297	0.425	975	0.8	2.885	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1155	780	0.186	145	0.2	6.016	A
2 - A534 (East)	2062	433	2135	0.966	2049	18.8	34.691	D
3 - Stryt Holt	557	1823	529	1.052	519	22.5	137.241	F
4 - A5156	976	301	2294	0.425	975	0.8	2.894	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	995	852	0.139	119	0.2	5.208	A
2 - A534 (East)	1684	354	2197	0.766	1745	3.5	9.238	A
3 - Stryt Holt	455	1551	682	0.667	536	2.2	37.898	E
4 - A5156	796	303	2292	0.348	797	0.6	2.554	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	805	938	0.106	100	0.1	4.558	A
2 - A534 (East)	1410	296	2242	0.629	1417	1.8	4.511	A
3 - Stryt Holt	381	1260	844	0.451	386	0.8	8.026	A
4 - A5156	667	222	2356	0.283	668	0.4	2.262	A

2037 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4	10.61	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.61	B

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)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	924	100.000
3 - Stryt Holt		✓	728	100.000
4 - A5156		✓	1652	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	627
	3 - Stryt Holt	48	368	0	312
	4 - A5156	106	1250	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.53	24.20	1.2	C
2 - A534 (East)	0.47	3.86	1.1	A
3 - Stryt Holt	0.73	12.23	2.7	B
4 - A5156	0.86	12.28	6.0	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1435	654	0.195	126	0.3	7.619	A
2 - A534 (East)	696	279	2256	0.308	693	0.5	2.804	A
3 - Stryt Holt	548	543	1246	0.440	545	0.8	5.272	A
4 - A5156	1244	355	2251	0.552	1239	1.3	3.684	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1717	527	0.288	151	0.4	10.700	B
2 - A534 (East)	831	333	2213	0.375	830	0.7	3.170	A
3 - Stryt Holt	654	650	1186	0.552	653	1.2	6.938	A
4 - A5156	1485	425	2196	0.676	1482	2.1	5.220	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2092	358	0.519	183	1.1	22.652	C
2 - A534 (East)	1017	406	2156	0.472	1016	1.1	3.842	A
3 - Stryt Holt	802	795	1105	0.726	796	2.6	11.830	B
4 - A5156	1819	519	2123	0.857	1805	5.7	11.296	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2107	352	0.529	186	1.2	24.203	C
2 - A534 (East)	1017	409	2154	0.472	1017	1.1	3.860	A
3 - Stryt Holt	802	797	1104	0.726	801	2.7	12.231	B
4 - A5156	1819	522	2120	0.858	1818	6.0	12.282	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1738	518	0.293	155	0.5	11.197	B
2 - A534 (East)	831	338	2209	0.376	832	0.7	3.190	A
3 - Stryt Holt	654	653	1185	0.552	660	1.3	7.150	A
4 - A5156	1485	429	2193	0.677	1500	2.2	5.524	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1446	649	0.196	128	0.3	7.744	A
2 - A534 (East)	696	281	2254	0.309	696	0.5	2.819	A
3 - Stryt Holt	548	546	1244	0.440	550	0.8	5.360	A
4 - A5156	1244	358	2249	0.553	1247	1.3	3.755	A

2037 Base + Committed, 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	untitled	Standard Roundabout		1, 2, 3, 4	82.82	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	82.82	F

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)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1974	100.000
3 - Stryt Holt		✓	536	100.000
4 - A5156		✓	932	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	277	1654
	3 - Stryt Holt	26	238	1	271
	4 - A5156	51	556	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.20	6.26	0.3	A
2 - A534 (East)	1.03	77.85	50.4	F
3 - Stryt Holt	1.17	259.63	46.0	F
4 - A5156	0.45	2.99	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	841	921	0.113	103	0.1	4.665	A
2 - A534 (East)	1486	311	2231	0.666	1478	2.0	4.857	A
3 - Stryt Holt	404	1315	814	0.496	400	1.0	8.699	A
4 - A5156	702	230	2350	0.299	700	0.4	2.311	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1006	848	0.146	124	0.2	5.276	A
2 - A534 (East)	1775	373	2182	0.813	1766	4.2	8.676	A
3 - Stryt Holt	482	1571	670	0.719	476	2.4	18.197	C
4 - A5156	838	274	2315	0.362	837	0.6	2.580	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1196	762	0.199	152	0.3	6.257	A
2 - A534 (East)	2173	456	2117	1.027	2063	31.8	40.412	E
3 - Stryt Holt	590	1839	520	1.134	505	23.7	112.522	F
4 - A5156	1026	295	2299	0.446	1025	0.8	2.992	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1195	762	0.199	152	0.3	6.259	A
2 - A534 (East)	2173	457	2116	1.027	2099	50.4	77.853	F
3 - Stryt Holt	590	1869	503	1.173	501	46.0	259.631	F
4 - A5156	1026	293	2300	0.446	1026	0.9	2.995	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1047	829	0.150	124	0.2	5.423	A
2 - A534 (East)	1775	374	2182	0.813	1957	4.9	28.053	D
3 - Stryt Holt	482	1735	578	0.833	566	25.0	225.324	F
4 - A5156	838	322	2277	0.368	839	0.6	2.656	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	888	900	0.115	104	0.1	4.798	A
2 - A534 (East)	1486	313	2229	0.667	1497	2.1	5.116	A
3 - Stryt Holt	404	1332	804	0.502	500	1.0	16.398	C
4 - A5156	702	280	2311	0.304	702	0.5	2.372	A

2030 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4	11.53	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.53	B

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)
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	950	100.000
3 - Stryt Holt		✓	707	100.000
4 - A5156		✓	1696	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	231	664
	3 - Stryt Holt	46	366	0	295
	4 - A5156	101	1316	279	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.54	26.28	1.2	D
2 - A534 (East)	0.48	3.91	1.1	A
3 - Stryt Holt	0.72	12.11	2.6	B
4 - A5156	0.88	14.17	7.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1470	638	0.189	119	0.3	7.753	A
2 - A534 (East)	715	263	2269	0.315	713	0.6	2.826	A
3 - Stryt Holt	532	567	1232	0.432	529	0.8	5.255	A
4 - A5156	1277	350	2256	0.566	1271	1.3	3.789	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1759	508	0.283	143	0.4	11.020	B
2 - A534 (East)	854	315	2228	0.383	853	0.8	3.200	A
3 - Stryt Holt	636	679	1170	0.543	634	1.2	6.902	A
4 - A5156	1525	419	2201	0.693	1521	2.3	5.478	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2141	337	0.524	173	1.2	24.273	C
2 - A534 (East)	1046	382	2175	0.481	1044	1.1	3.889	A
3 - Stryt Holt	778	831	1085	0.718	773	2.5	11.715	B
4 - A5156	1867	511	2129	0.877	1850	6.7	12.712	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2159	329	0.536	176	1.2	26.281	D
2 - A534 (East)	1046	386	2172	0.482	1046	1.1	3.909	A
3 - Stryt Holt	778	832	1084	0.718	778	2.6	12.114	B
4 - A5156	1867	514	2126	0.878	1866	7.1	14.174	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1784	497	0.289	147	0.5	11.608	B
2 - A534 (East)	854	320	2224	0.384	855	0.8	3.222	A
3 - Stryt Holt	636	681	1168	0.544	641	1.3	7.102	A
4 - A5156	1525	423	2198	0.694	1543	2.4	5.883	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1482	633	0.190	121	0.3	7.887	A
2 - A534 (East)	715	265	2267	0.316	716	0.6	2.841	A
3 - Stryt Holt	532	570	1231	0.432	534	0.8	5.340	A
4 - A5156	1277	353	2253	0.567	1281	1.4	3.872	A

2030 Base + Committed + Development (Phase 1), 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	untitled	Standard Roundabout		1, 2, 3, 4	80.82	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	80.82	F

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)
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	2005	100.000
3 - Stryt Holt		✓	512	100.000
4 - A5156		✓	965	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	277	1687
	3 - Stryt Holt	24	231	1	256
	4 - A5156	49	609	307	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	6.36	0.3	A
2 - A534 (East)	1.03	84.24	56.1	F
3 - Stryt Holt	1.15	233.17	39.4	F
4 - A5156	0.46	3.08	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	862	912	0.109	99	0.1	4.694	A
2 - A534 (East)	1509	295	2243	0.673	1501	2.1	4.922	A
3 - Stryt Holt	385	1336	802	0.481	382	0.9	8.576	A
4 - A5156	727	222	2356	0.308	725	0.5	2.342	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1031	836	0.142	118	0.2	5.320	A
2 - A534 (East)	1802	353	2198	0.820	1793	4.4	8.915	A
3 - Stryt Holt	460	1596	656	0.701	455	2.2	17.601	C
4 - A5156	868	264	2323	0.374	867	0.6	2.625	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1232	746	0.195	145	0.3	6.355	A
2 - A534 (East)	2208	432	2136	1.034	2087	34.6	42.578	E
3 - Stryt Holt	564	1860	508	1.109	490	20.6	103.600	F
4 - A5156	1062	288	2304	0.461	1061	0.9	3.074	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1232	746	0.195	145	0.3	6.362	A
2 - A534 (East)	2208	433	2135	1.034	2121	56.1	84.244	F
3 - Stryt Holt	564	1890	492	1.146	489	39.4	233.166	F
4 - A5156	1062	288	2304	0.461	1062	0.9	3.079	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1071	818	0.145	119	0.2	5.466	A
2 - A534 (East)	1802	354	2197	0.820	2006	5.2	34.664	D
3 - Stryt Holt	460	1780	553	0.832	540	19.6	198.097	F
4 - A5156	868	311	2286	0.379	869	0.7	2.701	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	900	895	0.111	100	0.1	4.802	A
2 - A534 (East)	1509	296	2242	0.673	1522	2.1	5.206	A
3 - Stryt Holt	385	1354	792	0.487	460	1.0	13.662	B
4 - A5156	727	261	2325	0.312	727	0.5	2.394	A

2037 Base + Committed + Development (Phase 1&2), 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	untitled	Standard Roundabout		1, 2, 3, 4	42.56	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	42.56	E

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)
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	1098	100.000
3 - Stryt Holt		✓	766	100.000
4 - A5156		✓	1927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	801
	3 - Stryt Holt	48	406	0	312
	4 - A5156	106	1525	296	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.84	88.47	4.2	F
2 - A534 (East)	0.56	4.64	1.5	A
3 - Stryt Holt	0.85	23.45	5.2	C
4 - A5156	1.02	67.73	41.8	F

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1668	549	0.232	126	0.3	9.489	A
2 - A534 (East)	827	278	2257	0.366	824	0.7	3.082	A
3 - Stryt Holt	577	674	1173	0.492	573	1.0	6.145	A
4 - A5156	1451	383	2229	0.651	1443	1.9	4.722	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1994	403	0.377	151	0.7	15.900	C
2 - A534 (East)	987	333	2214	0.446	986	1.0	3.601	A
3 - Stryt Holt	689	806	1099	0.627	686	1.7	8.928	A
4 - A5156	1732	459	2170	0.798	1724	3.9	8.257	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2358	239	0.779	177	3.0	58.163	F
2 - A534 (East)	1209	391	2168	0.558	1207	1.5	4.594	A
3 - Stryt Holt	843	985	999	0.845	831	4.9	20.695	C
4 - A5156	2122	556	2094	1.013	2029	27.2	36.625	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2397	221	0.841	181	4.2	88.474	F
2 - A534 (East)	1209	398	2162	0.559	1209	1.5	4.642	A
3 - Stryt Holt	843	988	997	0.846	842	5.2	23.449	C
4 - A5156	2122	563	2088	1.016	2063	41.8	67.731	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	2151	332	0.458	165	1.0	25.780	D
2 - A534 (East)	987	363	2190	0.451	989	1.0	3.694	A
3 - Stryt Holt	689	812	1095	0.629	702	1.8	9.756	A
4 - A5156	1732	469	2162	0.801	1882	4.5	20.308	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1688	540	0.236	130	0.3	9.881	A
2 - A534 (East)	827	283	2253	0.367	828	0.7	3.107	A
3 - Stryt Holt	577	678	1171	0.493	580	1.0	6.315	A
4 - A5156	1451	387	2226	0.652	1461	2.0	4.961	A

2037 Base + Committed + Development (Phase 1&2), 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	untitled	Standard Roundabout		1, 2, 3, 4	247.34	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	247.34	F

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)
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	2266	100.000
3 - Stryt Holt		✓	555	100.000
4 - A5156		✓	1130	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	312	1911
	3 - Stryt Holt	26	257	1	271
	4 - A5156	51	754	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.23	7.49	0.3	A
2 - A534 (East)	1.18	306.68	202.0	F
3 - Stryt Holt	1.24	560.92	73.7	F
4 - A5156	0.54	3.63	1.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1003	849	0.122	103	0.1	5.116	A
2 - A534 (East)	1706	311	2231	0.765	1693	3.2	6.718	A
3 - Stryt Holt	418	1504	708	0.590	412	1.4	12.084	B
4 - A5156	851	243	2339	0.364	848	0.6	2.567	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1194	763	0.163	124	0.2	5.976	A
2 - A534 (East)	2037	373	2182	0.933	2006	10.9	18.407	C
3 - Stryt Holt	499	1783	551	0.905	480	6.2	42.569	E
4 - A5156	1016	283	2307	0.440	1015	0.8	2.965	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1416	663	0.229	152	0.3	7.461	A
2 - A534 (East)	2495	456	2117	1.178	2110	107.2	107.884	F
3 - Stryt Holt	611	1884	495	1.234	489	36.7	177.171	F
4 - A5156	1244	290	2302	0.540	1243	1.2	3.614	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1418	662	0.230	152	0.3	7.488	A
2 - A534 (East)	2495	457	2116	1.179	2116	202.0	265.819	F
3 - Stryt Holt	611	1890	492	1.242	491	66.7	398.188	F
4 - A5156	1244	291	2301	0.541	1244	1.2	3.625	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1192	763	0.163	124	0.2	5.982	A
2 - A534 (East)	2037	374	2182	0.934	2171	168.6	306.685	F
3 - Stryt Holt	499	1925	472	1.057	471	73.7	554.867	F
4 - A5156	1016	282	2309	0.440	1017	0.8	2.972	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1024	839	0.124	104	0.2	5.197	A
2 - A534 (East)	1706	313	2229	0.765	2216	41.1	172.604	F
3 - Stryt Holt	418	1955	455	0.918	449	66.0	560.920	F
4 - A5156	851	272	2317	0.367	852	0.6	2.617	A

2030 Base + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4	9.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.16	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D15	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	885	100.000
3 - Stryt Holt		✓	697	100.000
4 - A5156		✓	1616	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	224	606
	3 - Stryt Holt	46	356	0	295
	4 - A5156	101	1236	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.47	20.45	1.0	C
2 - A534 (East)	0.45	3.67	1.0	A
3 - Stryt Holt	0.69	10.52	2.2	B
4 - A5156	0.83	10.46	5.0	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1403	668	0.180	119	0.2	7.330	A
2 - A534 (East)	666	263	2269	0.294	664	0.5	2.734	A
3 - Stryt Holt	525	524	1257	0.418	522	0.7	5.031	A
4 - A5156	1217	342	2261	0.538	1212	1.2	3.556	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1679	544	0.264	143	0.4	10.034	B
2 - A534 (East)	796	315	2228	0.357	795	0.7	3.063	A
3 - Stryt Holt	627	627	1199	0.523	625	1.1	6.451	A
4 - A5156	1453	410	2208	0.658	1450	2.0	4.922	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2048	378	0.466	174	0.9	19.522	C
2 - A534 (East)	974	383	2174	0.448	973	1.0	3.655	A
3 - Stryt Holt	767	767	1120	0.685	763	2.2	10.270	B
4 - A5156	1779	501	2137	0.833	1768	4.9	9.853	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2060	373	0.473	176	1.0	20.448	C
2 - A534 (East)	974	386	2172	0.449	974	1.0	3.667	A
3 - Stryt Holt	767	768	1120	0.685	767	2.2	10.520	B
4 - A5156	1779	503	2135	0.833	1779	5.0	10.463	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1696	537	0.268	146	0.4	10.378	B
2 - A534 (East)	796	319	2225	0.358	797	0.7	3.077	A
3 - Stryt Holt	627	629	1198	0.523	631	1.1	6.596	A
4 - A5156	1453	413	2206	0.659	1465	2.0	5.140	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1413	664	0.181	121	0.3	7.432	A
2 - A534 (East)	666	265	2267	0.294	667	0.5	2.746	A
3 - Stryt Holt	525	526	1255	0.418	526	0.7	5.104	A
4 - A5156	1217	345	2259	0.539	1220	1.2	3.619	A

2030 Base + Development (Phase 1) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4	45.49	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	45.49	E

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)
D16	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1894	100.000
3 - Stryt Holt		✓	506	100.000
4 - A5156		✓	894	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	266	1587
	3 - Stryt Holt	24	225	1	256
	4 - A5156	49	538	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	6.04	0.2	A
2 - A534 (East)	0.98	40.05	22.3	E
3 - Stryt Holt	1.07	151.35	25.2	F
4 - A5156	0.43	2.91	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	805	938	0.106	99	0.1	4.549	A
2 - A534 (East)	1426	295	2243	0.636	1419	1.8	4.441	A
3 - Stryt Holt	381	1262	844	0.452	378	0.8	7.748	A
4 - A5156	673	217	2359	0.285	671	0.4	2.259	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	962	867	0.137	118	0.2	5.101	A
2 - A534 (East)	1703	353	2198	0.775	1696	3.4	7.262	A
3 - Stryt Holt	455	1508	705	0.645	451	1.8	14.080	B
4 - A5156	804	260	2326	0.345	803	0.6	2.506	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1159	779	0.187	145	0.2	6.025	A
2 - A534 (East)	2085	432	2136	0.976	2029	17.5	26.355	D
3 - Stryt Holt	557	1806	539	1.034	508	14.0	74.656	F
4 - A5156	984	295	2299	0.428	983	0.8	2.901	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1161	777	0.187	145	0.2	6.042	A
2 - A534 (East)	2085	433	2135	0.977	2066	22.3	40.048	E
3 - Stryt Holt	557	1838	521	1.070	513	25.2	151.352	F
4 - A5156	984	298	2296	0.429	984	0.8	2.909	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1006	847	0.140	119	0.2	5.248	A
2 - A534 (East)	1703	354	2197	0.775	1777	3.7	10.299	B
3 - Stryt Holt	455	1578	666	0.683	546	2.4	48.890	E
4 - A5156	804	308	2288	0.351	805	0.6	2.576	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	811	935	0.106	100	0.1	4.574	A
2 - A534 (East)	1426	296	2242	0.636	1433	1.8	4.605	A
3 - Stryt Holt	381	1274	836	0.455	387	0.9	8.191	A
4 - A5156	673	222	2356	0.286	674	0.4	2.271	A

2037 Base + Development (Phase 1&2) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4	12.39	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.39	B

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)
D17	2037 Base + Development (Phase 1&2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	932	100.000
3 - Stryt Holt		✓	736	100.000
4 - A5156		✓	1701	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	237	637
	3 - Stryt Holt	48	376	0	312
	4 - A5156	106	1299	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.57	29.01	1.4	D
2 - A534 (East)	0.48	3.89	1.1	A
3 - Stryt Holt	0.74	12.88	2.8	B
4 - A5156	0.89	15.18	7.5	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1478	635	0.200	126	0.3	7.902	A
2 - A534 (East)	702	279	2256	0.311	699	0.5	2.817	A
3 - Stryt Holt	554	551	1242	0.446	551	0.8	5.340	A
4 - A5156	1281	361	2247	0.570	1275	1.4	3.837	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1768	504	0.301	151	0.5	11.386	B
2 - A534 (East)	838	333	2213	0.379	837	0.7	3.189	A
3 - Stryt Holt	662	659	1181	0.560	660	1.3	7.097	A
4 - A5156	1529	432	2191	0.698	1525	2.4	5.598	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2150	332	0.560	183	1.3	26.356	D
2 - A534 (East)	1026	405	2157	0.476	1025	1.1	3.873	A
3 - Stryt Holt	810	806	1098	0.738	804	2.8	12.384	B
4 - A5156	1873	527	2116	0.885	1854	7.1	13.425	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2169	324	0.575	186	1.4	29.011	D
2 - A534 (East)	1026	409	2154	0.476	1026	1.1	3.893	A
3 - Stryt Holt	810	808	1098	0.738	810	2.8	12.878	B
4 - A5156	1873	531	2114	0.886	1871	7.5	15.178	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1795	492	0.309	156	0.5	12.098	B
2 - A534 (East)	838	340	2208	0.379	839	0.7	3.210	A
3 - Stryt Holt	662	662	1179	0.561	668	1.3	7.334	A
4 - A5156	1529	437	2187	0.699	1549	2.5	6.060	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1490	630	0.202	128	0.3	8.050	A
2 - A534 (East)	702	281	2254	0.311	702	0.6	2.832	A
3 - Stryt Holt	554	553	1240	0.447	556	0.8	5.442	A
4 - A5156	1281	364	2244	0.571	1285	1.4	3.924	A

2037 Base + Development (Phase 1&2) [Sens], 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	untitled	Standard Roundabout		1, 2, 3, 4	168.56	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	168.56	F

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)
D18	2037 Base + Development (Phase 1&2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	2154	100.000
3 - Stryt Holt		✓	549	100.000
4 - A5156		✓	1059	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	300	1811
	3 - Stryt Holt	26	251	1	271
	4 - A5156	51	683	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.22	6.99	0.3	A
2 - A534 (East)	1.12	186.39	138.9	F
3 - Stryt Holt	1.22	457.84	64.7	F
4 - A5156	0.51	3.37	1.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	946	874	0.119	103	0.1	4.950	A
2 - A534 (East)	1622	311	2231	0.727	1611	2.7	5.864	A
3 - Stryt Holt	413	1431	749	0.552	408	1.2	10.537	B
4 - A5156	797	239	2342	0.340	795	0.5	2.471	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1128	792	0.157	124	0.2	5.713	A
2 - A534 (East)	1936	373	2182	0.887	1918	7.1	13.171	B
3 - Stryt Holt	494	1704	596	0.829	482	4.1	29.467	D
4 - A5156	952	282	2308	0.412	951	0.7	2.819	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1336	699	0.218	152	0.3	6.977	A
2 - A534 (East)	2372	456	2117	1.120	2101	74.7	78.077	F
3 - Stryt Holt	604	1873	501	1.207	492	32.1	151.668	F
4 - A5156	1166	291	2301	0.507	1165	1.1	3.362	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1338	698	0.218	152	0.3	6.995	A
2 - A534 (East)	2372	457	2116	1.121	2115	138.9	186.389	F
3 - Stryt Holt	604	1885	494	1.223	493	59.9	354.472	F
4 - A5156	1166	292	2301	0.507	1166	1.1	3.372	A

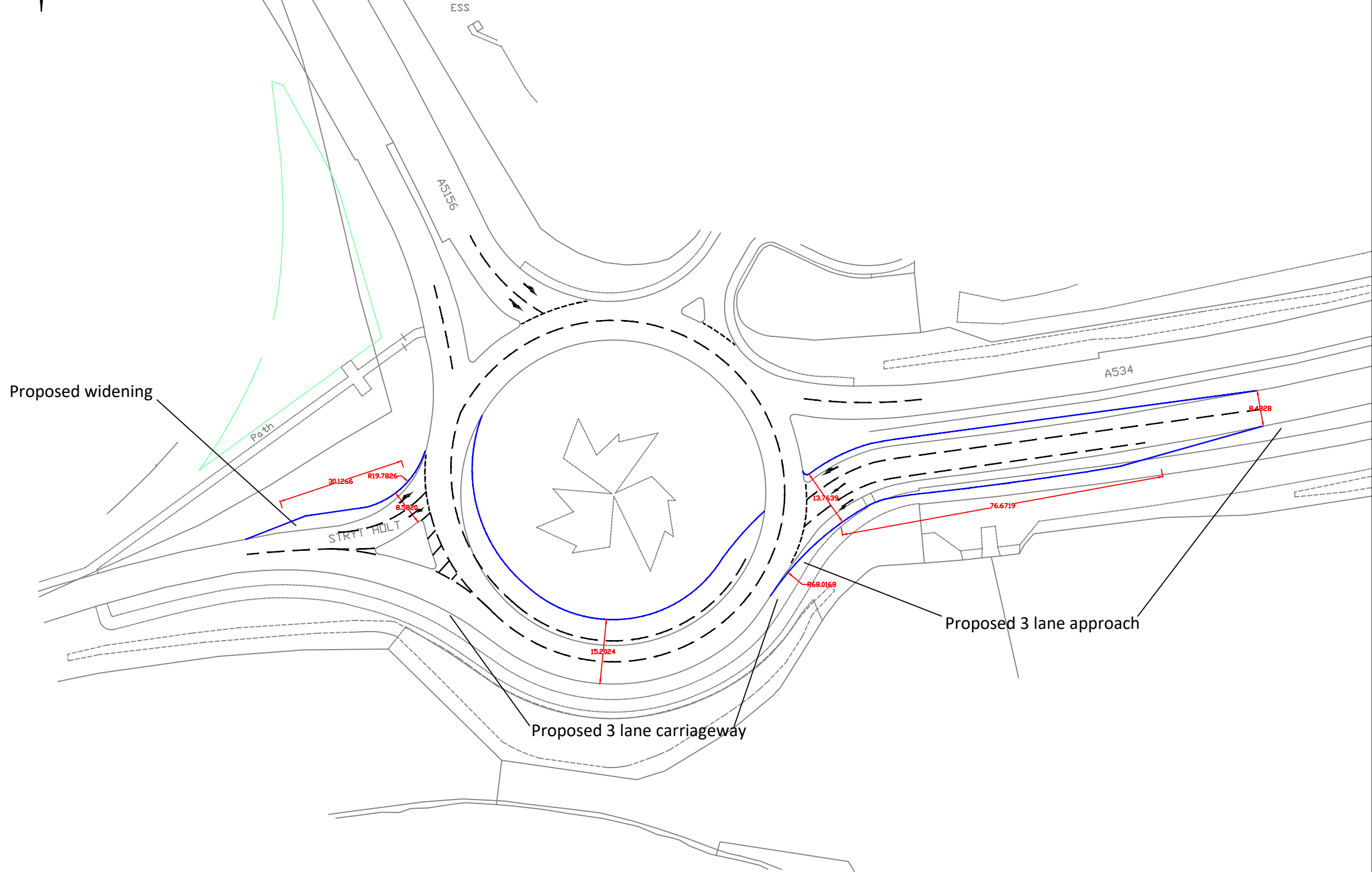
17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1127	793	0.157	124	0.2	5.719	A
2 - A534 (East)	1936	374	2182	0.888	2166	81.6	184.203	F
3 - Stryt Holt	494	1917	476	1.036	474	64.7	457.839	F
4 - A5156	952	284	2307	0.413	953	0.8	2.829	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1029	837	0.124	104	0.2	5.213	A
2 - A534 (East)	1622	313	2229	0.727	1937	2.9	33.214	D
3 - Stryt Holt	413	1711	592	0.699	583	22.4	274.285	F
4 - A5156	797	334	2268	0.352	798	0.6	2.606	A

Appendix TN8 - A534 / A5156 / Stryt Holt roundabout junction Improvement



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

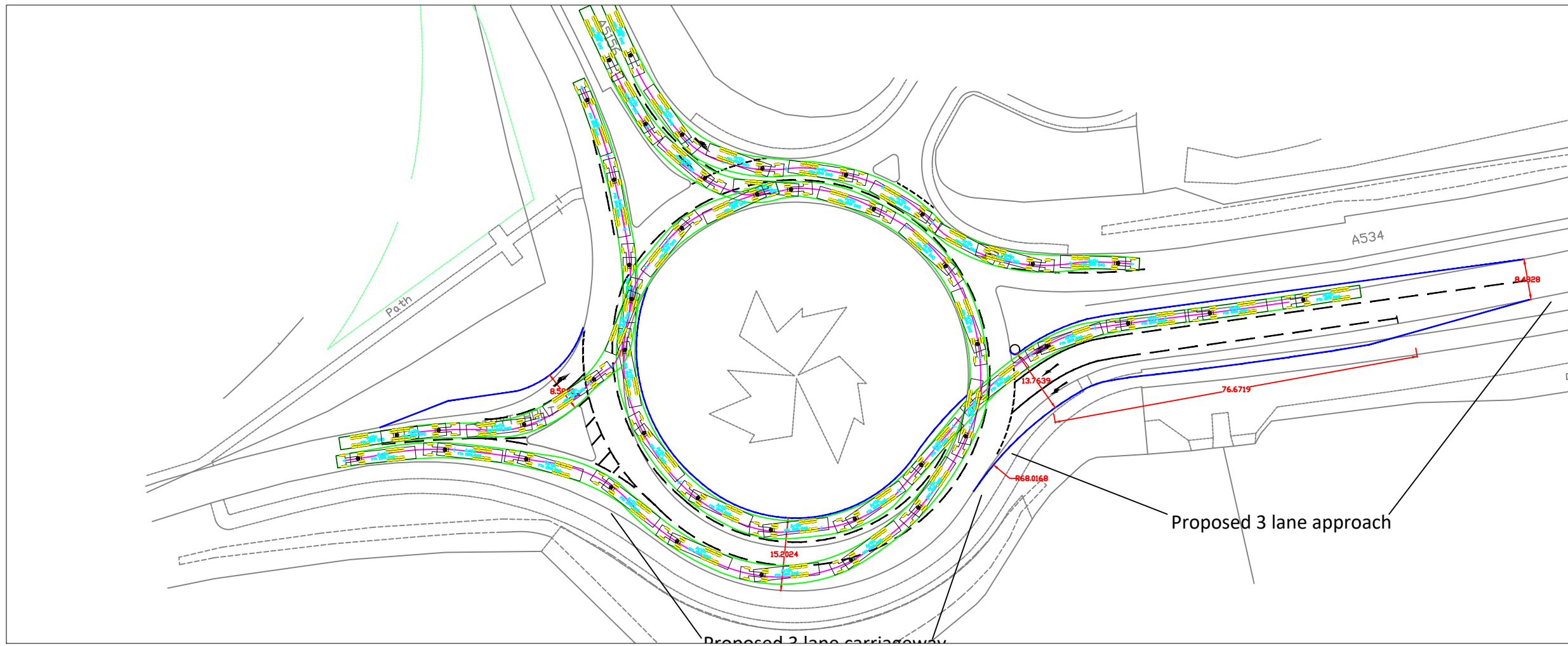
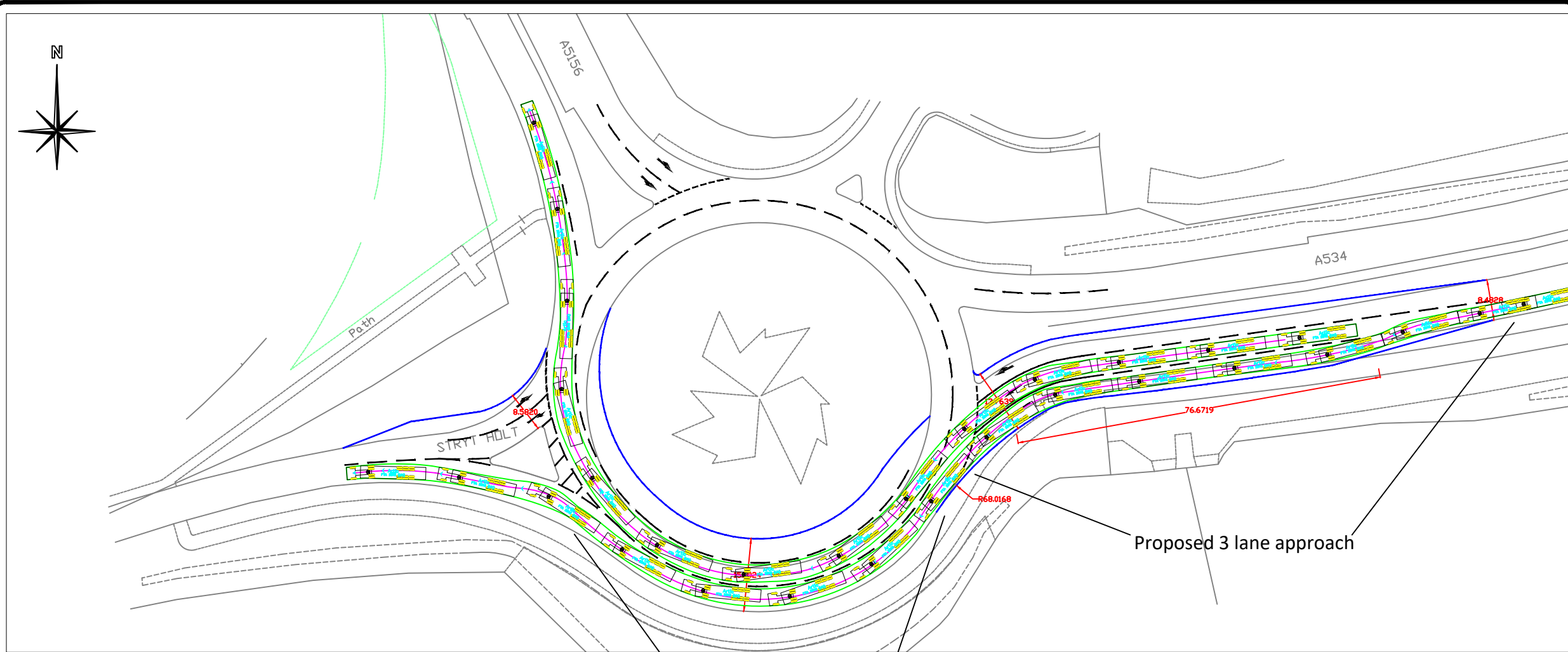
B	05/02/26	Widening Improvements	TC	MC
A	04/02/26	Widening Improvements	TC	MC
Rev	Date	Description	Ckd	By

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Client	Net World Sports Limited			
Project	North of Bryn Lane Wrexham			
Title	Stryt Holt Roundabout Improvements			
Drawing Status				
Job No.	16-2067			
Drawn MC	Checked TC	Scale at A3 1:1000	Date 29/10/25	Issue Date -
Drawing No. 108				B



- Notes:**
1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
 2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications. This drawing is copyright.

B	05/02/26	Widening Improvements	TC	MC
A	04/02/26	Widening Improvements	TC	MC
Rev	Date	Description	Ckd	By

Cora^{iHt}

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Client	Net World Sports Limited			
Project	North of Bryn Lane Wrexham			
Title	Stryt Holt Roundabout Improvements Tracking			
Drawing Status				
Job No.	16-2067			
Drawn	Checked	Scale at A3	Date	Issue Date
MC	TC	1:1000	26/01/26	-
Drawing No.	109			B

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.1.1519	
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Filename: A534, A5156 ARCADY (Impr) - calib v2.j10

Path: D:\Cora IHT\Wrexham (2)\January 2026

Report generation date: 05/02/2026 15:04:41

»2023 Base, AM
 »2023 Base, PM
 »2030 Base, AM
 »2030 Base, PM
 »2037 Base, AM
 »2037 Base, PM
 »2030 Base + Committed, AM
 »2030 Base + Committed, PM
 »2037 Base + Committed, AM
 »2037 Base + Committed, PM
 »2030 Base + Committed + Development (Phase 1), AM
 »2030 Base + Committed + Development (Phase 1), PM
 »2037 Base + Committed + Development (Phase 1&2), AM
 »2037 Base + Committed + Development (Phase 1&2), PM
 »2030 Base + Development (Phase 1) [Sens], AM
 »2030 Base + Development (Phase 1) [Sens], PM
 »2037 Base + Development (Phase 1&2) [Sens], AM
 »2037 Base + Development (Phase 1&2) [Sens], PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base									
1 - Golf Site Access	D1	0.6	12.35	0.34	B	D2	0.2	5.45	0.16	A
2 - A534 (East)		0.4	1.56	0.23	A		1.1	2.08	0.51	A
3 - Stryt Holt		0.9	4.40	0.46	A		0.9	6.50	0.48	A
4 - A5156		2.5	5.99	0.71	A		0.6	2.62	0.37	A
	2030 Base									
1 - Golf Site Access	D3	0.7	14.96	0.40	B	D4	0.2	5.74	0.18	A
2 - A534 (East)		0.4	1.60	0.25	A		1.2	2.24	0.54	A
3 - Stryt Holt		1.0	4.74	0.49	A		1.1	7.52	0.53	A
4 - A5156		3.3	7.29	0.76	A		0.7	2.74	0.39	A
	2037 Base									
1 - Golf Site Access	D5	1.0	19.17	0.47	C	D6	0.3	6.05	0.19	A
2 - A534 (East)		0.4	1.64	0.26	A		1.4	2.42	0.57	A
3 - Stryt Holt		1.1	5.14	0.52	A		1.4	9.01	0.59	A
4 - A5156		4.4	9.38	0.81	A		0.8	2.88	0.42	A
	2030 Base + Committed									
1 - Golf Site Access	D7	0.9	17.91	0.44	C	D8	0.2	6.09	0.19	A
2 - A534 (East)		0.4	1.65	0.27	A		1.4	2.42	0.57	A
3 - Stryt Holt		1.0	4.99	0.51	A		1.3	8.58	0.57	A
4 - A5156		4.2	8.96	0.81	A		0.8	2.93	0.43	A
	2037 Base + Committed									
1 - Golf Site Access	D9	1.2	24.24	0.53	C	D10	0.3	6.45	0.20	A
2 - A534 (East)		0.5	1.69	0.28	A		1.6	2.64	0.61	A
3 - Stryt Holt		1.2	5.45	0.54	A		1.7	10.61	0.63	B
4 - A5156		6.0	12.29	0.86	B		0.9	3.08	0.45	A
	2030 Base + Committed + Development (Phase 1)									
1 - Golf Site Access	D11	1.2	26.30	0.54	D	D12	0.3	6.53	0.20	A
2 - A534 (East)		0.5	1.70	0.29	A		1.6	2.67	0.61	A
3 - Stryt Holt		1.2	5.40	0.53	A		1.6	10.26	0.61	B
4 - A5156		7.1	14.19	0.88	B		0.9	3.16	0.47	A
	2037 Base + Committed + Development (Phase 1&2)									
1 - Golf Site Access	D13	4.2	89.26	0.84	F	D14	0.3	7.88	0.24	A
2 - A534 (East)		0.6	1.84	0.33	A		2.4	3.43	0.70	A
3 - Stryt Holt		1.6	6.78	0.61	A		3.2	19.52	0.77	C
4 - A5156		42.5	68.88	1.02	F		1.3	3.82	0.55	A
	2030 Base + Development (Phase 1) [Sens]									
1 - Golf Site Access	D15	1.0	20.46	0.47	C	D16	0.2	6.13	0.19	A
2 - A534 (East)		0.4	1.66	0.27	A		1.4	2.45	0.58	A
3 - Stryt Holt		1.1	5.09	0.51	A		1.3	8.78	0.57	A
4 - A5156		5.0	10.47	0.83	B		0.8	2.95	0.43	A
	2037 Base + Development (Phase 1&2) [Sens]									
1 - Golf Site Access	D17	1.4	29.04	0.57	D	D18	0.3	7.30	0.23	A
2 - A534 (East)		0.5	1.70	0.28	A		2.0	3.08	0.66	A
3 - Stryt Holt		1.2	5.56	0.55	A		2.4	14.82	0.71	B
4 - A5156		7.6	15.20	0.89	C		1.1	3.52	0.52	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	A534 / A5156 / Golf Access
Location	Wrexham
Site number	
Date	01/02/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	LAPTOP-DTQ9HGGB\mchau
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15
D15	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15
D16	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15
D17	2037 Base + Development (Phase 1&2) [Sens]	AM	ONE HOUR	07:45	09:15	15
D18	2037 Base + Development (Phase 1&2) [Sens]	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.82	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Golf Site Access		
2	A534 (East)		
3	Stryt Holt		
4	A5156		

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 - Golf Site Access	3.40	5.60	6.9	20.0	89.3	25.3		
2 - A534 (East)	7.10	13.80	76.7	68.0	89.3	25.2		
3 - Stryt Holt	3.60	8.00	18.0	24.2	89.3	27.7		
4 - A5156	8.00	10.00	9.1	32.0	89.3	26.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - Golf Site Access	✓	0.450	1300	0.450	1300
2 - A534 (East)				0.785	3929
3 - Stryt Holt				0.485	1869
4 - A5156	✓	0.785	2530	0.785	2530

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	151	100.000
2 - A534 (East)		✓	769	100.000
3 - Stryt Holt		✓	642	100.000
4 - A5156		✓	1404	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	83	33	35
	2 - A534 (East)	51	1	208	509
	3 - Stryt Holt	43	320	0	279
	4 - A5156	95	1045	264	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.34	12.35	0.6	B
2 - A534 (East)	0.23	1.56	0.4	A
3 - Stryt Holt	0.46	4.40	0.9	A
4 - A5156	0.71	5.99	2.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1223	750	0.152	113	0.2	6.322	A
2 - A534 (East)	579	249	3734	0.155	578	0.2	1.386	A
3 - Stryt Holt	483	448	1652	0.293	482	0.4	3.168	A
4 - A5156	1057	311	2286	0.462	1053	0.9	3.034	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1463	641	0.212	135	0.3	7.952	A
2 - A534 (East)	691	298	3695	0.187	691	0.3	1.456	A
3 - Stryt Holt	577	536	1610	0.359	577	0.6	3.592	A
4 - A5156	1262	373	2237	0.564	1260	1.3	3.830	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1790	495	0.336	165	0.6	12.198	B
2 - A534 (East)	847	364	3643	0.232	846	0.4	1.564	A
3 - Stryt Holt	707	656	1551	0.456	706	0.9	4.385	A
4 - A5156	1546	456	2172	0.712	1541	2.5	5.898	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	166	1795	492	0.338	166	0.6	12.354	B
2 - A534 (East)	847	366	3642	0.232	847	0.4	1.564	A
3 - Stryt Holt	707	656	1551	0.456	707	0.9	4.397	A
4 - A5156	1546	457	2171	0.712	1546	2.5	5.990	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	136	1470	638	0.213	137	0.3	8.052	A
2 - A534 (East)	691	300	3694	0.187	692	0.3	1.457	A
3 - Stryt Holt	577	536	1609	0.359	578	0.6	3.607	A
4 - A5156	1262	374	2237	0.564	1267	1.4	3.884	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	114	1229	747	0.152	114	0.2	6.376	A
2 - A534 (East)	579	250	3733	0.155	579	0.2	1.389	A
3 - Stryt Holt	483	449	1652	0.293	484	0.4	3.183	A
4 - A5156	1057	313	2284	0.463	1059	0.9	3.062	A

2023 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.04	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	124	100.000
2 - A534 (East)		✓	1664	100.000
3 - Stryt Holt		✓	473	100.000
4 - A5156		✓	769	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	44	27	53
	2 - A534 (East)	37	2	237	1388
	3 - Stryt Holt	23	207	1	242
	4 - A5156	46	433	290	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.16	5.45	0.2	A
2 - A534 (East)	0.51	2.08	1.1	A
3 - Stryt Holt	0.48	6.50	0.9	A
4 - A5156	0.37	2.62	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	700	985	0.095	93	0.1	4.280	A
2 - A534 (East)	1253	279	3711	0.338	1251	0.5	1.499	A
3 - Stryt Holt	356	1112	1330	0.268	355	0.4	3.720	A
4 - A5156	579	203	2371	0.244	578	0.3	2.122	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	838	923	0.121	111	0.1	4.706	A
2 - A534 (East)	1496	333	3668	0.408	1495	0.7	1.699	A
3 - Stryt Holt	425	1330	1225	0.347	425	0.5	4.537	A
4 - A5156	691	242	2340	0.295	691	0.4	2.308	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1026	838	0.163	136	0.2	5.438	A
2 - A534 (East)	1832	408	3609	0.508	1831	1.1	2.073	A
3 - Stryt Holt	521	1628	1080	0.482	519	0.9	6.459	A
4 - A5156	847	296	2297	0.369	846	0.6	2.621	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	137	1027	838	0.163	137	0.2	5.445	A
2 - A534 (East)	1832	408	3609	0.508	1832	1.1	2.077	A
3 - Stryt Holt	521	1630	1080	0.482	521	0.9	6.502	A
4 - A5156	847	297	2297	0.369	847	0.6	2.624	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	111	840	922	0.121	112	0.1	4.716	A
2 - A534 (East)	1496	334	3667	0.408	1497	0.7	1.704	A
3 - Stryt Holt	425	1332	1224	0.347	427	0.5	4.569	A
4 - A5156	691	244	2339	0.296	692	0.4	2.313	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	93	703	984	0.095	93	0.1	4.292	A
2 - A534 (East)	1253	280	3710	0.338	1253	0.5	1.505	A
3 - Stryt Holt	356	1115	1329	0.268	357	0.4	3.739	A
4 - A5156	579	204	2370	0.244	579	0.3	2.125	A

2030 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.65	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2030 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	814	100.000
3 - Stryt Holt		✓	680	100.000
4 - A5156		✓	1486	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	220	539
	3 - Stryt Holt	46	339	0	295
	4 - A5156	101	1106	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.40	14.96	0.7	B
2 - A534 (East)	0.25	1.60	0.4	A
3 - Stryt Holt	0.49	4.74	1.0	A
4 - A5156	0.76	7.29	3.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1294	718	0.168	120	0.2	6.729	A
2 - A534 (East)	613	263	3723	0.165	612	0.2	1.406	A
3 - Stryt Holt	512	474	1639	0.312	510	0.5	3.282	A
4 - A5156	1119	330	2271	0.493	1115	1.0	3.232	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1548	603	0.238	143	0.3	8.756	A
2 - A534 (East)	732	315	3682	0.199	732	0.3	1.482	A
3 - Stryt Holt	611	567	1594	0.383	611	0.6	3.772	A
4 - A5156	1336	395	2220	0.602	1334	1.6	4.220	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1892	448	0.393	175	0.7	14.651	B
2 - A534 (East)	896	385	3627	0.247	896	0.4	1.601	A
3 - Stryt Holt	749	694	1533	0.488	747	1.0	4.720	A
4 - A5156	1636	484	2150	0.761	1630	3.2	7.107	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1899	445	0.395	176	0.7	14.960	B
2 - A534 (East)	896	386	3626	0.247	896	0.4	1.602	A
3 - Stryt Holt	749	695	1533	0.489	749	1.0	4.736	A
4 - A5156	1636	484	2150	0.761	1636	3.3	7.286	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1558	599	0.240	145	0.4	8.911	A
2 - A534 (East)	732	317	3680	0.199	732	0.3	1.484	A
3 - Stryt Holt	611	568	1594	0.384	613	0.6	3.787	A
4 - A5156	1336	396	2219	0.602	1343	1.6	4.311	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1301	714	0.169	121	0.2	6.799	A
2 - A534 (East)	613	265	3721	0.165	613	0.2	1.409	A
3 - Stryt Holt	512	475	1639	0.312	513	0.5	3.298	A
4 - A5156	1119	332	2270	0.493	1121	1.0	3.272	A

2030 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.33	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1761	100.000
3 - Stryt Holt		✓	500	100.000
4 - A5156		✓	814	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	251	1469
	3 - Stryt Holt	24	219	1	256
	4 - A5156	49	458	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.18	5.74	0.2	A
2 - A534 (East)	0.54	2.24	1.2	A
3 - Stryt Holt	0.53	7.52	1.1	A
4 - A5156	0.39	2.74	0.7	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	741	967	0.103	99	0.1	4.400	A
2 - A534 (East)	1326	295	3698	0.359	1323	0.6	1.553	A
3 - Stryt Holt	376	1177	1299	0.290	375	0.4	3.925	A
4 - A5156	613	214	2362	0.259	611	0.4	2.172	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	887	901	0.132	119	0.2	4.879	A
2 - A534 (East)	1583	353	3652	0.433	1582	0.8	1.783	A
3 - Stryt Holt	449	1407	1187	0.379	449	0.6	4.914	A
4 - A5156	732	256	2329	0.314	731	0.5	2.382	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1085	812	0.179	145	0.2	5.726	A
2 - A534 (East)	1939	432	3590	0.540	1937	1.2	2.232	A
3 - Stryt Holt	551	1723	1034	0.532	548	1.1	7.446	A
4 - A5156	896	313	2284	0.392	895	0.7	2.739	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1087	811	0.179	145	0.2	5.737	A
2 - A534 (East)	1939	433	3590	0.540	1939	1.2	2.236	A
3 - Stryt Holt	551	1724	1034	0.533	550	1.1	7.519	A
4 - A5156	896	314	2284	0.392	896	0.7	2.743	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	889	900	0.132	119	0.2	4.891	A
2 - A534 (East)	1583	354	3652	0.434	1585	0.8	1.786	A
3 - Stryt Holt	449	1409	1186	0.379	452	0.6	4.959	A
4 - A5156	732	257	2328	0.314	733	0.5	2.386	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	744	965	0.103	100	0.1	4.413	A
2 - A534 (East)	1326	296	3697	0.359	1327	0.6	1.560	A
3 - Stryt Holt	376	1180	1298	0.290	377	0.4	3.952	A
4 - A5156	613	215	2361	0.260	613	0.4	2.178	A

2037 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.95	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2037 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	861	100.000
3 - Stryt Holt		✓	718	100.000
4 - A5156		✓	1572	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	233	570
	3 - Stryt Holt	48	358	0	312
	4 - A5156	106	1170	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.47	19.17	1.0	C
2 - A534 (East)	0.26	1.64	0.4	A
3 - Stryt Holt	0.52	5.14	1.1	A
4 - A5156	0.81	9.38	4.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1369	684	0.186	126	0.3	7.211	A
2 - A534 (East)	648	279	3710	0.175	647	0.3	1.428	A
3 - Stryt Holt	541	501	1626	0.332	539	0.5	3.408	A
4 - A5156	1183	348	2257	0.524	1179	1.1	3.464	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1638	563	0.270	151	0.4	9.774	A
2 - A534 (East)	774	334	3667	0.211	774	0.3	1.511	A
3 - Stryt Holt	645	599	1579	0.409	645	0.7	3.971	A
4 - A5156	1413	417	2203	0.642	1410	1.8	4.713	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	1999	400	0.465	184	0.9	18.455	C
2 - A534 (East)	948	407	3610	0.263	948	0.4	1.643	A
3 - Stryt Holt	791	734	1514	0.522	789	1.1	5.111	A
4 - A5156	1731	510	2130	0.813	1721	4.3	8.962	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2009	396	0.470	186	1.0	19.168	C
2 - A534 (East)	948	409	3608	0.263	948	0.4	1.644	A
3 - Stryt Holt	791	734	1513	0.522	791	1.1	5.136	A
4 - A5156	1731	511	2129	0.813	1730	4.4	9.375	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1651	557	0.273	154	0.4	10.054	B
2 - A534 (East)	774	337	3664	0.211	774	0.3	1.516	A
3 - Stryt Holt	645	600	1578	0.409	647	0.7	3.995	A
4 - A5156	1413	418	2202	0.642	1423	1.9	4.875	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1377	680	0.187	128	0.3	7.304	A
2 - A534 (East)	648	281	3709	0.175	648	0.3	1.431	A
3 - Stryt Holt	541	503	1626	0.333	541	0.5	3.426	A
4 - A5156	1183	350	2255	0.525	1186	1.2	3.518	A

2037 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2037 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1860	100.000
3 - Stryt Holt		✓	530	100.000
4 - A5156		✓	859	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	265	1552
	3 - Stryt Holt	26	232	1	271
	4 - A5156	51	484	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	6.05	0.3	A
2 - A534 (East)	0.57	2.42	1.4	A
3 - Stryt Holt	0.59	9.01	1.4	A
4 - A5156	0.42	2.88	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	783	948	0.110	103	0.1	4.520	A
2 - A534 (East)	1400	311	3685	0.380	1398	0.6	1.612	A
3 - Stryt Holt	399	1243	1267	0.315	397	0.5	4.170	A
4 - A5156	647	226	2352	0.275	645	0.4	2.227	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	937	878	0.141	124	0.2	5.059	A
2 - A534 (East)	1672	372	3637	0.460	1671	0.9	1.877	A
3 - Stryt Holt	476	1486	1149	0.415	475	0.7	5.387	A
4 - A5156	772	271	2317	0.333	772	0.5	2.463	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1146	784	0.194	152	0.3	6.035	A
2 - A534 (East)	2048	455	3572	0.573	2046	1.4	2.416	A
3 - Stryt Holt	584	1819	988	0.591	581	1.4	8.867	A
4 - A5156	946	331	2270	0.417	945	0.8	2.871	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1148	783	0.194	152	0.3	6.048	A
2 - A534 (East)	2048	456	3571	0.573	2048	1.4	2.422	A
3 - Stryt Holt	584	1821	987	0.591	583	1.4	9.006	A
4 - A5156	946	332	2269	0.417	946	0.8	2.876	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	940	877	0.141	124	0.2	5.075	A
2 - A534 (East)	1672	373	3637	0.460	1674	0.9	1.882	A
3 - Stryt Holt	476	1489	1148	0.415	479	0.7	5.458	A
4 - A5156	772	273	2316	0.333	773	0.5	2.468	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	786	946	0.110	104	0.1	4.535	A
2 - A534 (East)	1400	312	3684	0.380	1401	0.6	1.617	A
3 - Stryt Holt	399	1246	1265	0.315	400	0.5	4.206	A
4 - A5156	647	228	2351	0.275	647	0.4	2.236	A

2030 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	877	100.000
3 - Stryt Holt		✓	689	100.000
4 - A5156		✓	1567	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	226	596
	3 - Stryt Holt	46	348	0	295
	4 - A5156	101	1187	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.44	17.91	0.9	C
2 - A534 (East)	0.27	1.65	0.4	A
3 - Stryt Holt	0.51	4.99	1.0	A
4 - A5156	0.81	8.96	4.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1361	687	0.175	120	0.2	7.086	A
2 - A534 (East)	660	263	3723	0.177	659	0.3	1.432	A
3 - Stryt Holt	519	517	1619	0.320	517	0.5	3.363	A
4 - A5156	1180	337	2266	0.521	1175	1.1	3.424	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1629	567	0.254	143	0.4	9.499	A
2 - A534 (East)	788	315	3682	0.214	788	0.3	1.515	A
3 - Stryt Holt	619	618	1570	0.395	619	0.7	3.898	A
4 - A5156	1409	403	2213	0.636	1406	1.8	4.626	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1989	405	0.435	174	0.8	17.341	C
2 - A534 (East)	966	384	3628	0.266	965	0.4	1.647	A
3 - Stryt Holt	759	757	1502	0.505	757	1.0	4.970	A
4 - A5156	1725	493	2143	0.805	1716	4.1	8.606	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	1998	401	0.439	176	0.9	17.909	C
2 - A534 (East)	966	386	3626	0.266	966	0.4	1.648	A
3 - Stryt Holt	759	757	1502	0.505	759	1.0	4.992	A
4 - A5156	1725	494	2142	0.805	1725	4.2	8.965	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1641	561	0.256	146	0.4	9.737	A
2 - A534 (East)	788	318	3680	0.214	789	0.3	1.517	A
3 - Stryt Holt	619	619	1569	0.395	621	0.7	3.922	A
4 - A5156	1409	405	2212	0.637	1418	1.9	4.773	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1369	684	0.176	121	0.2	7.172	A
2 - A534 (East)	660	265	3721	0.177	661	0.3	1.433	A
3 - Stryt Holt	519	518	1618	0.321	519	0.5	3.380	A
4 - A5156	1180	338	2264	0.521	1183	1.1	3.476	A

2030 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1873	100.000
3 - Stryt Holt		✓	506	100.000
4 - A5156		✓	886	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	263	1569
	3 - Stryt Holt	24	225	1	256
	4 - A5156	49	530	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	6.09	0.2	A
2 - A534 (East)	0.57	2.42	1.4	A
3 - Stryt Holt	0.57	8.58	1.3	A
4 - A5156	0.43	2.93	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	799	940	0.106	99	0.1	4.536	A
2 - A534 (East)	1410	295	3698	0.381	1408	0.6	1.610	A
3 - Stryt Holt	381	1252	1263	0.302	379	0.4	4.108	A
4 - A5156	667	218	2359	0.283	665	0.4	2.251	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	957	870	0.136	118	0.2	5.083	A
2 - A534 (East)	1684	353	3652	0.461	1683	0.9	1.874	A
3 - Stryt Holt	455	1497	1144	0.398	454	0.7	5.261	A
4 - A5156	796	261	2325	0.343	796	0.6	2.496	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1171	773	0.188	145	0.2	6.077	A
2 - A534 (East)	2062	432	3590	0.574	2060	1.4	2.410	A
3 - Stryt Holt	557	1832	981	0.568	555	1.3	8.467	A
4 - A5156	976	319	2280	0.428	975	0.8	2.923	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1173	772	0.188	145	0.2	6.090	A
2 - A534 (East)	2062	433	3590	0.574	2062	1.4	2.416	A
3 - Stryt Holt	557	1834	980	0.568	557	1.3	8.582	A
4 - A5156	976	320	2279	0.428	975	0.8	2.927	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	959	868	0.137	119	0.2	5.098	A
2 - A534 (East)	1684	354	3652	0.461	1686	0.9	1.882	A
3 - Stryt Holt	455	1500	1143	0.398	457	0.7	5.323	A
4 - A5156	796	263	2324	0.343	797	0.6	2.501	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	803	939	0.106	100	0.1	4.551	A
2 - A534 (East)	1410	296	3697	0.381	1411	0.6	1.615	A
3 - Stryt Holt	381	1255	1261	0.302	382	0.4	4.138	A
4 - A5156	667	220	2358	0.283	668	0.4	2.258	A

2037 Base + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.62	A

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)
D9	2037 Base + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	924	100.000
3 - Stryt Holt		✓	728	100.000
4 - A5156		✓	1652	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	627
	3 - Stryt Holt	48	368	0	312
	4 - A5156	106	1250	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.53	24.24	1.2	C
2 - A534 (East)	0.28	1.69	0.5	A
3 - Stryt Holt	0.54	5.45	1.2	A
4 - A5156	0.86	12.29	6.0	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1436	654	0.195	126	0.3	7.622	A
2 - A534 (East)	696	279	3710	0.187	695	0.3	1.454	A
3 - Stryt Holt	548	544	1606	0.341	546	0.5	3.496	A
4 - A5156	1244	356	2251	0.553	1239	1.3	3.686	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1718	527	0.288	151	0.4	10.706	B
2 - A534 (East)	831	333	3667	0.226	830	0.4	1.545	A
3 - Stryt Holt	654	650	1554	0.421	654	0.7	4.120	A
4 - A5156	1485	426	2196	0.676	1482	2.1	5.223	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2094	358	0.520	183	1.2	22.746	C
2 - A534 (East)	1017	406	3611	0.282	1017	0.5	1.690	A
3 - Stryt Holt	802	796	1483	0.540	800	1.2	5.416	A
4 - A5156	1819	521	2121	0.858	1804	5.8	11.349	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2108	352	0.529	186	1.2	24.237	C
2 - A534 (East)	1017	409	3608	0.282	1017	0.5	1.692	A
3 - Stryt Holt	802	797	1483	0.541	802	1.2	5.447	A
4 - A5156	1819	522	2120	0.858	1818	6.0	12.291	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1737	519	0.293	155	0.5	11.173	B
2 - A534 (East)	831	338	3664	0.227	831	0.4	1.548	A
3 - Stryt Holt	654	652	1553	0.421	656	0.8	4.146	A
4 - A5156	1485	427	2195	0.677	1500	2.2	5.511	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1446	649	0.196	128	0.3	7.742	A
2 - A534 (East)	696	281	3709	0.188	696	0.3	1.458	A
3 - Stryt Holt	548	545	1605	0.342	549	0.5	3.518	A
4 - A5156	1244	357	2249	0.553	1247	1.3	3.756	A

2037 Base + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.10	A

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)
D10	2037 Base + Committed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	1974	100.000
3 - Stryt Holt		✓	536	100.000
4 - A5156		✓	932	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	277	1654
	3 - Stryt Holt	26	238	1	271
	4 - A5156	51	556	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.20	6.45	0.3	A
2 - A534 (East)	0.61	2.64	1.6	A
3 - Stryt Holt	0.63	10.61	1.7	B
4 - A5156	0.45	3.08	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	842	921	0.113	103	0.1	4.667	A
2 - A534 (East)	1486	311	3685	0.403	1483	0.7	1.675	A
3 - Stryt Holt	404	1319	1230	0.328	402	0.5	4.381	A
4 - A5156	702	231	2349	0.299	700	0.4	2.312	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1008	847	0.147	124	0.2	5.283	A
2 - A534 (East)	1775	373	3637	0.488	1773	1.0	1.981	A
3 - Stryt Holt	482	1578	1105	0.436	481	0.8	5.812	A
4 - A5156	838	276	2313	0.362	837	0.6	2.583	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1233	745	0.204	152	0.3	6.428	A
2 - A534 (East)	2173	456	3571	0.609	2171	1.6	2.633	A
3 - Stryt Holt	590	1931	933	0.632	587	1.7	10.368	B
4 - A5156	1026	337	2265	0.453	1025	0.9	3.073	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1235	744	0.204	152	0.3	6.448	A
2 - A534 (East)	2173	457	3571	0.609	2173	1.6	2.642	A
3 - Stryt Holt	590	1933	932	0.633	590	1.7	10.605	B
4 - A5156	1026	339	2264	0.453	1026	0.9	3.081	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1011	845	0.147	124	0.2	5.302	A
2 - A534 (East)	1775	374	3636	0.488	1777	1.0	1.990	A
3 - Stryt Holt	482	1581	1103	0.437	486	0.8	5.919	A
4 - A5156	838	279	2311	0.363	839	0.6	2.594	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	846	919	0.113	104	0.1	4.686	A
2 - A534 (East)	1486	313	3684	0.403	1487	0.7	1.683	A
3 - Stryt Holt	404	1323	1228	0.329	405	0.5	4.419	A
4 - A5156	702	232	2347	0.299	702	0.5	2.321	A

2030 Base + Committed + Development (Phase 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.59	A

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)
D11	2030 Base + Committed + Development (Phase 1)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	950	100.000
3 - Stryt Holt		✓	707	100.000
4 - A5156		✓	1696	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	231	664
	3 - Stryt Holt	46	366	0	295
	4 - A5156	101	1316	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.54	26.30	1.2	D
2 - A534 (East)	0.29	1.70	0.5	A
3 - Stryt Holt	0.53	5.40	1.2	A
4 - A5156	0.88	14.19	7.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1471	638	0.189	119	0.3	7.756	A
2 - A534 (East)	715	263	3723	0.192	714	0.3	1.462	A
3 - Stryt Holt	532	568	1594	0.334	530	0.5	3.484	A
4 - A5156	1277	350	2255	0.566	1271	1.3	3.791	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1760	508	0.283	143	0.4	11.027	B
2 - A534 (East)	854	315	3682	0.232	854	0.4	1.555	A
3 - Stryt Holt	636	679	1540	0.413	635	0.7	4.096	A
4 - A5156	1525	419	2201	0.693	1521	2.3	5.482	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2143	336	0.525	173	1.2	24.377	C
2 - A534 (East)	1046	382	3629	0.288	1045	0.5	1.703	A
3 - Stryt Holt	778	831	1466	0.531	777	1.2	5.369	A
4 - A5156	1867	513	2127	0.878	1850	6.7	12.772	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2159	329	0.536	176	1.2	26.301	D
2 - A534 (East)	1046	386	3626	0.288	1046	0.5	1.705	A
3 - Stryt Holt	778	832	1466	0.531	778	1.2	5.398	A
4 - A5156	1867	514	2126	0.878	1866	7.1	14.188	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1782	498	0.289	147	0.5	11.582	B
2 - A534 (East)	854	320	3678	0.232	855	0.4	1.560	A
3 - Stryt Holt	636	681	1539	0.413	637	0.7	4.122	A
4 - A5156	1525	421	2200	0.693	1543	2.4	5.866	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1481	633	0.190	121	0.3	7.883	A
2 - A534 (East)	715	265	3721	0.192	716	0.3	1.466	A
3 - Stryt Holt	532	570	1593	0.334	533	0.5	3.505	A
4 - A5156	1277	352	2254	0.567	1281	1.4	3.869	A

2030 Base + Committed + Development (Phase 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.02	A

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)
D12	2030 Base + Committed + Development (Phase 1)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	2005	100.000
3 - Stryt Holt		✓	512	100.000
4 - A5156		✓	965	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	277	1687
	3 - Stryt Holt	24	231	1	256
	4 - A5156	49	609	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.20	6.53	0.3	A
2 - A534 (East)	0.61	2.67	1.6	A
3 - Stryt Holt	0.61	10.26	1.6	B
4 - A5156	0.47	3.16	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	863	912	0.109	99	0.1	4.696	A
2 - A534 (East)	1509	295	3698	0.408	1507	0.7	1.684	A
3 - Stryt Holt	385	1340	1220	0.316	384	0.5	4.337	A
4 - A5156	727	223	2355	0.308	725	0.5	2.344	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1033	835	0.142	118	0.2	5.327	A
2 - A534 (East)	1802	353	3652	0.494	1801	1.0	1.994	A
3 - Stryt Holt	460	1603	1093	0.421	459	0.7	5.728	A
4 - A5156	868	266	2321	0.374	867	0.6	2.629	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1264	731	0.199	145	0.3	6.508	A
2 - A534 (East)	2208	432	3590	0.615	2205	1.6	2.662	A
3 - Stryt Holt	564	1962	919	0.614	560	1.6	10.055	B
4 - A5156	1062	325	2275	0.467	1061	0.9	3.149	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1266	730	0.199	145	0.3	6.528	A
2 - A534 (East)	2208	433	3590	0.615	2208	1.6	2.671	A
3 - Stryt Holt	564	1964	917	0.614	564	1.6	10.263	B
4 - A5156	1062	327	2273	0.467	1062	0.9	3.157	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	1036	834	0.142	119	0.2	5.346	A
2 - A534 (East)	1802	354	3651	0.494	1805	1.0	2.002	A
3 - Stryt Holt	460	1606	1091	0.422	464	0.7	5.825	A
4 - A5156	868	269	2319	0.374	869	0.6	2.638	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	867	910	0.109	100	0.1	4.715	A
2 - A534 (East)	1509	296	3697	0.408	1511	0.7	1.689	A
3 - Stryt Holt	385	1344	1218	0.317	387	0.5	4.377	A
4 - A5156	727	224	2354	0.309	727	0.5	2.351	A

2037 Base + Committed + Development (Phase 1&2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	39.15	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	39.15	E

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)
D13	2037 Base + Committed + Development (Phase 1&2)	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	1098	100.000
3 - Stryt Holt		✓	766	100.000
4 - A5156		✓	1927	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	239	801
	3 - Stryt Holt	48	406	0	312
	4 - A5156	106	1525	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.84	89.26	4.2	F
2 - A534 (East)	0.33	1.84	0.6	A
3 - Stryt Holt	0.61	6.78	1.6	A
4 - A5156	1.02	68.88	42.5	F

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1669	549	0.232	126	0.3	9.497	A
2 - A534 (East)	827	278	3711	0.223	825	0.4	1.533	A
3 - Stryt Holt	577	675	1542	0.374	574	0.6	3.824	A
4 - A5156	1451	384	2229	0.651	1443	1.9	4.727	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1995	402	0.378	151	0.7	15.926	C
2 - A534 (East)	987	333	3668	0.269	987	0.5	1.650	A
3 - Stryt Holt	689	807	1478	0.466	688	0.9	4.685	A
4 - A5156	1732	460	2169	0.799	1724	4.0	8.271	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2361	238	0.783	176	3.1	58.983	F
2 - A534 (East)	1209	391	3623	0.334	1208	0.6	1.832	A
3 - Stryt Holt	843	986	1391	0.606	841	1.6	6.706	A
4 - A5156	2122	562	2089	1.016	2026	27.9	37.329	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2398	221	0.842	181	4.2	89.260	F
2 - A534 (East)	1209	399	3616	0.334	1209	0.6	1.837	A
3 - Stryt Holt	843	988	1391	0.606	843	1.6	6.777	A
4 - A5156	2122	564	2088	1.016	2063	42.5	68.878	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	2148	333	0.456	165	1.0	25.610	D
2 - A534 (East)	987	364	3644	0.271	988	0.5	1.668	A
3 - Stryt Holt	689	811	1476	0.466	691	0.9	4.742	A
4 - A5156	1732	462	2167	0.799	1885	4.4	20.310	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1687	541	0.235	130	0.3	9.866	A
2 - A534 (East)	827	283	3707	0.223	827	0.4	1.538	A
3 - Stryt Holt	577	677	1541	0.374	578	0.6	3.857	A
4 - A5156	1451	386	2227	0.651	1461	2.0	4.952	A

2037 Base + Committed + Development (Phase 1&2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	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 segment length (min)
D14	2037 Base + Committed + Development (Phase 1&2)	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	2266	100.000
3 - Stryt Holt		✓	555	100.000
4 - A5156		✓	1130	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	312	1911
	3 - Stryt Holt	26	257	1	271
	4 - A5156	51	754	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.24	7.88	0.3	A
2 - A534 (East)	0.70	3.43	2.4	A
3 - Stryt Holt	0.77	19.52	3.2	C
4 - A5156	0.55	3.82	1.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1005	848	0.123	103	0.1	5.121	A
2 - A534 (East)	1706	311	3685	0.463	1702	0.9	1.859	A
3 - Stryt Holt	418	1512	1136	0.368	416	0.6	5.025	A
4 - A5156	851	245	2338	0.364	848	0.6	2.569	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1202	759	0.163	124	0.2	6.011	A
2 - A534 (East)	2037	373	3637	0.560	2035	1.3	2.304	A
3 - Stryt Holt	499	1808	993	0.502	497	1.0	7.304	A
4 - A5156	1016	293	2300	0.442	1015	0.8	2.982	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1469	639	0.238	151	0.3	7.823	A
2 - A534 (East)	2495	456	3571	0.699	2491	2.3	3.405	A
3 - Stryt Holt	611	2213	797	0.767	603	3.1	18.004	C
4 - A5156	1244	356	2251	0.553	1242	1.3	3.795	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1474	637	0.239	152	0.3	7.877	A
2 - A534 (East)	2495	457	3571	0.699	2495	2.4	3.431	A
3 - Stryt Holt	611	2216	795	0.768	610	3.2	19.516	C
4 - A5156	1244	360	2248	0.554	1244	1.3	3.819	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1210	756	0.164	125	0.2	6.056	A
2 - A534 (East)	2037	374	3636	0.560	2041	1.3	2.323	A
3 - Stryt Holt	499	1813	990	0.504	508	1.0	7.654	A
4 - A5156	1016	298	2296	0.443	1018	0.9	3.003	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	1010	846	0.123	104	0.1	5.151	A
2 - A534 (East)	1706	313	3684	0.463	1708	0.9	1.872	A
3 - Stryt Holt	418	1517	1134	0.368	420	0.6	5.100	A
4 - A5156	851	247	2336	0.364	852	0.6	2.586	A

2030 Base + Development (Phase 1) [Sens], AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	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 segment length (min)
D15	2030 Base + Development (Phase 1) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	160	100.000
2 - A534 (East)		✓	885	100.000
3 - Stryt Holt		✓	697	100.000
4 - A5156		✓	1616	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	88	35	37
	2 - A534 (East)	54	1	224	606
	3 - Stryt Holt	46	356	0	295
	4 - A5156	101	1236	279	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.47	20.46	1.0	C
2 - A534 (East)	0.27	1.66	0.4	A
3 - Stryt Holt	0.51	5.09	1.1	A
4 - A5156	0.83	10.47	5.0	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1404	668	0.180	119	0.2	7.333	A
2 - A534 (East)	666	263	3723	0.179	665	0.3	1.436	A
3 - Stryt Holt	525	524	1615	0.325	523	0.5	3.393	A
4 - A5156	1217	343	2261	0.538	1212	1.2	3.557	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1680	544	0.264	143	0.4	10.038	B
2 - A534 (East)	796	315	3682	0.216	795	0.3	1.521	A
3 - Stryt Holt	627	627	1565	0.400	626	0.7	3.947	A
4 - A5156	1453	410	2208	0.658	1450	2.0	4.924	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2049	378	0.466	174	0.9	19.574	C
2 - A534 (East)	974	383	3628	0.269	974	0.4	1.654	A
3 - Stryt Holt	767	768	1497	0.513	766	1.1	5.066	A
4 - A5156	1779	502	2136	0.833	1768	4.9	9.883	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	176	2061	373	0.473	176	1.0	20.462	C
2 - A534 (East)	974	386	3626	0.269	974	0.4	1.655	A
3 - Stryt Holt	767	768	1497	0.513	767	1.1	5.088	A
4 - A5156	1779	503	2135	0.833	1779	5.0	10.469	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	144	1695	537	0.268	146	0.4	10.360	B
2 - A534 (East)	796	319	3679	0.216	796	0.3	1.525	A
3 - Stryt Holt	627	628	1565	0.400	628	0.7	3.969	A
4 - A5156	1453	412	2207	0.658	1465	2.0	5.132	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	120	1413	664	0.181	121	0.3	7.432	A
2 - A534 (East)	666	265	3721	0.179	667	0.3	1.437	A
3 - Stryt Holt	525	526	1614	0.325	526	0.5	3.413	A
4 - A5156	1217	345	2260	0.538	1220	1.2	3.618	A

2030 Base + Development (Phase 1) [Sens], PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.66	A

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)
D16	2030 Base + Development (Phase 1) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	132	100.000
2 - A534 (East)		✓	1894	100.000
3 - Stryt Holt		✓	506	100.000
4 - A5156		✓	894	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	47	29	56
	2 - A534 (East)	39	2	266	1587
	3 - Stryt Holt	24	225	1	256
	4 - A5156	49	538	307	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.19	6.13	0.2	A
2 - A534 (East)	0.58	2.45	1.4	A
3 - Stryt Holt	0.57	8.78	1.3	A
4 - A5156	0.43	2.95	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	805	938	0.106	99	0.1	4.550	A
2 - A534 (East)	1426	295	3698	0.386	1423	0.6	1.621	A
3 - Stryt Holt	381	1265	1256	0.303	379	0.4	4.136	A
4 - A5156	673	218	2359	0.285	671	0.4	2.260	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	964	866	0.137	118	0.2	5.105	A
2 - A534 (East)	1703	353	3652	0.466	1702	0.9	1.893	A
3 - Stryt Holt	455	1513	1136	0.400	454	0.7	5.321	A
4 - A5156	804	261	2325	0.346	803	0.6	2.508	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1179	769	0.189	145	0.2	6.115	A
2 - A534 (East)	2085	432	3590	0.581	2083	1.4	2.447	A
3 - Stryt Holt	557	1852	972	0.573	554	1.3	8.655	A
4 - A5156	984	319	2280	0.432	983	0.8	2.943	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	145	1181	768	0.189	145	0.2	6.129	A
2 - A534 (East)	2085	433	3590	0.581	2085	1.4	2.454	A
3 - Stryt Holt	557	1854	971	0.574	557	1.3	8.779	A
4 - A5156	984	320	2279	0.432	984	0.8	2.948	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	119	967	865	0.137	119	0.2	5.123	A
2 - A534 (East)	1703	354	3651	0.466	1705	0.9	1.897	A
3 - Stryt Holt	455	1516	1135	0.401	458	0.7	5.388	A
4 - A5156	804	263	2324	0.346	805	0.6	2.516	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	99	809	936	0.106	100	0.1	4.568	A
2 - A534 (East)	1426	296	3697	0.386	1427	0.6	1.629	A
3 - Stryt Holt	381	1269	1254	0.304	382	0.4	4.169	A
4 - A5156	673	220	2358	0.285	674	0.4	2.268	A

2037 Base + Development (Phase 1&2) [Sens], AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.30	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.30	B

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)
D17	2037 Base + Development (Phase 1&2) [Sens]	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	169	100.000
2 - A534 (East)		✓	932	100.000
3 - Stryt Holt		✓	736	100.000
4 - A5156		✓	1701	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	93	37	39
	2 - A534 (East)	57	1	237	637
	3 - Stryt Holt	48	376	0	312
	4 - A5156	106	1299	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	8	10	25
	2 - A534 (East)	31	0	5	29
	3 - Stryt Holt	0	2	0	5
	4 - A5156	6	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.57	29.04	1.4	D
2 - A534 (East)	0.28	1.70	0.5	A
3 - Stryt Holt	0.55	5.56	1.2	A
4 - A5156	0.89	15.20	7.6	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1478	635	0.200	126	0.3	7.906	A
2 - A534 (East)	702	279	3711	0.189	701	0.3	1.458	A
3 - Stryt Holt	554	551	1602	0.346	552	0.5	3.527	A
4 - A5156	1281	362	2246	0.570	1275	1.4	3.839	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1769	504	0.301	151	0.5	11.394	B
2 - A534 (East)	838	333	3668	0.228	838	0.4	1.551	A
3 - Stryt Holt	662	659	1550	0.427	661	0.8	4.171	A
4 - A5156	1529	433	2190	0.698	1525	2.4	5.602	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2152	331	0.561	183	1.3	26.493	D
2 - A534 (East)	1026	405	3612	0.284	1026	0.5	1.697	A
3 - Stryt Holt	810	807	1478	0.548	808	1.2	5.527	A
4 - A5156	1873	530	2114	0.886	1854	7.1	13.500	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	186	2170	324	0.575	186	1.4	29.038	D
2 - A534 (East)	1026	409	3608	0.284	1026	0.5	1.699	A
3 - Stryt Holt	810	808	1478	0.548	810	1.2	5.562	A
4 - A5156	1873	531	2113	0.886	1871	7.6	15.201	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1793	493	0.308	156	0.5	12.067	B
2 - A534 (East)	838	340	3663	0.229	838	0.4	1.554	A
3 - Stryt Holt	662	661	1549	0.427	664	0.8	4.203	A
4 - A5156	1529	434	2189	0.699	1550	2.5	6.041	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	127	1489	630	0.202	128	0.3	8.047	A
2 - A534 (East)	702	281	3708	0.189	702	0.3	1.462	A
3 - Stryt Holt	554	553	1601	0.346	555	0.5	3.550	A
4 - A5156	1281	363	2245	0.571	1285	1.4	3.922	A

2037 Base + Development (Phase 1&2) [Sens], PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A534 (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.00	A

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)
D18	2037 Base + Development (Phase 1&2) [Sens]	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Golf Site Access		✓	138	100.000
2 - A534 (East)		✓	2154	100.000
3 - Stryt Holt		✓	549	100.000
4 - A5156		✓	1059	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
From	1 - Golf Site Access	0	49	30	59
	2 - A534 (East)	41	2	300	1811
	3 - Stryt Holt	26	251	1	271
	4 - A5156	51	683	325	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Golf Site Access	2 - A534 (East)	3 - Stryt Holt	4 - A5156
	1 - Golf Site Access	0	16	0	2
	2 - A534 (East)	3	0	0	3
	3 - Stryt Holt	0	1	0	1
	4 - A5156	15	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Golf Site Access	0.23	7.30	0.3	A
2 - A534 (East)	0.66	3.08	2.0	A
3 - Stryt Holt	0.71	14.82	2.4	B
4 - A5156	0.52	3.52	1.1	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	947	874	0.119	103	0.1	4.953	A
2 - A534 (East)	1622	311	3685	0.440	1618	0.8	1.786	A
3 - Stryt Holt	413	1437	1173	0.352	411	0.5	4.758	A
4 - A5156	797	240	2341	0.341	795	0.5	2.473	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1133	790	0.157	124	0.2	5.731	A
2 - A534 (East)	1936	373	3637	0.532	1935	1.2	2.167	A
3 - Stryt Holt	494	1718	1037	0.476	492	0.9	6.658	A
4 - A5156	952	288	2304	0.413	951	0.7	2.828	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1385	677	0.225	152	0.3	7.266	A
2 - A534 (East)	2372	456	3571	0.664	2368	2.0	3.060	A
3 - Stryt Holt	604	2103	850	0.711	599	2.4	14.140	B
4 - A5156	1166	350	2255	0.517	1164	1.1	3.506	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	152	1389	675	0.225	152	0.3	7.303	A
2 - A534 (East)	2372	457	3571	0.664	2372	2.0	3.078	A
3 - Stryt Holt	604	2106	849	0.712	604	2.4	14.821	B
4 - A5156	1166	353	2253	0.518	1166	1.1	3.521	A

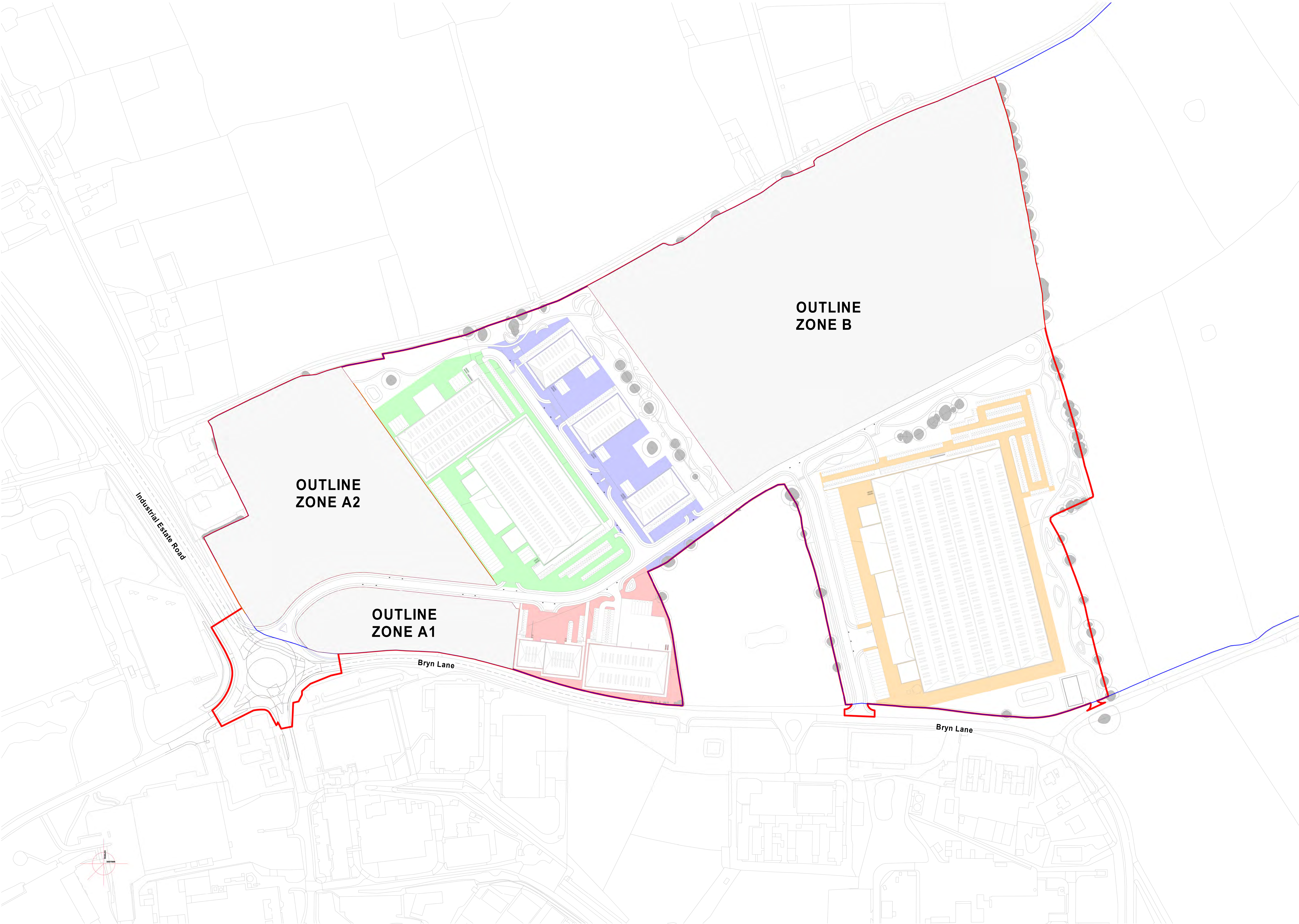
17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	124	1139	788	0.158	124	0.2	5.764	A
2 - A534 (East)	1936	374	3636	0.533	1940	1.2	2.182	A
3 - Stryt Holt	494	1723	1034	0.477	500	0.9	6.870	A
4 - A5156	952	292	2301	0.414	954	0.8	2.845	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Golf Site Access	104	952	872	0.119	104	0.1	4.977	A
2 - A534 (East)	1622	313	3684	0.440	1623	0.8	1.792	A
3 - Stryt Holt	413	1442	1171	0.353	415	0.6	4.817	A
4 - A5156	797	242	2340	0.341	798	0.6	2.483	A

Appendix TN9 – Phasing Plan



Phasing Plan
1 : 1250

SCALE 1:1250
25m 125m

- LEGEND**
- Application Boundary
37.21Ha || 91.94Ac
 - Ownership Boundary
89.30Ha || 220.66Ac
 - Phase 1
 - Phase 2
 - Phase 3
 - Phase 4



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Drawing Name:
Phasing Plan

Drawing Stage: **PLANNING**

Status: **S2**

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22-136 09/06/2023 JMS WMS 1:1250 @ A0
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