

Project number: 19198
Prepared by: RB/ABR
Subject: Additional junction capacity analysis

Date: March 2022

File name: 19198 tn02

1 Introduction

1.1.1 This Technical Note has been prepared by Lime Transport in response to the comments made by Redstart (on behalf of Merthyr Tydfil County Borough Council) on the supporting Transport Assessment for a development in Twynroddyn, Merthyr Tydfil.

1.1.2 It should be noted that the original Transport Assessment was produced in support of planning application for 131 dwellings, however, the revised development now proposes 121 dwellings.

1.2 Background

1.2.1 The main comments raised have been addressed in a separate Technical Note. However, this Technical Note (No.2) addresses the comments made regarding junction capacity analysis at Junction 4 (Penheolferthyr/A4102 Goat Mill Road priority junction) and Junction 6 (Lower High Street/High Street/A4102/A4054 Avenue De Clichy).

1.2.2 The comments raised were as follows:

- Junction 4 – *‘In the analysis submitted in the draft transport assessment, the junction is shown to be at capacity in 2019 and over capacity in 2022, with development traffic increasing queues and delays. Further analysis and potentially mitigation measures are required as significant queues and delays are currently being reported.’*
- Junction 6 – *‘The traffic survey was undertaken on 24th March 2016. No growth rates from 2016 have been provided. As this junction was surveyed over five years ago, a repeat survey is required. This junction is shown to be significantly overcapacity in the PM peak with all scenarios. The impact of the development is stated to be relatively minor, however, both queues and delays increase at this overcapacity junction due to the development and therefore, analysis is required as this is a sensitive junction.’*

1.2.3 It should be noted that predicting demand and providing road capacity to meet the demand is contrary to Welsh Government policies and perhaps the CIL contributions could be used to fund better bus services rather than providing additional road capacity.

1.3 Structure of the report

1.3.1 The report is structured as follows:

- Section 2 – outlines further modelling results, including any mitigation; and,
- Section 3 – provides summary and conclusions.

2 Modelling results

2.1 2022 base surveys

2.1.1 Traffic count and queue length surveys were undertaken on Tuesday 18th January 2022, and based on the results of the surveys, the peak periods are as follows:

- AM peak period is 8am-9am; and
- PM peak period is 4.30-5.30pm.

2.1.2 The results of the surveys are outlined in **Appendix A** (Junction 4) and **Appendix B** (Junction 6).

2.2 Future traffic growth

2.2.1 As with the original Transport Assessment, the impact of the proposed development has been assessed for 2024, 2029, and 2034 future year scenarios to coincide with the anticipated completion date, and year of 'completion + 10 years'.

2.2.2 In order to obtain the base traffic flows (i.e. with no development traffic) in 2024, 2029 and 2034, the surveyed traffic flows (2022) have been factored using locally adjusted NTM growth factors. The factors to be applied to the base (surveyed) flows are identified in **Table 2.1** below.

Table 2.1 NTM growth factors

Period	NTM growth factors
2022 to 2024	
Weekday AM	1.0196
Weekday PM	1.0195
2022 to 2029	
Weekday AM	1.0651
Weekday PM	1.0649
2022 to 2034	
Weekday AM	1.1151
Weekday PM	1.1149

2.2.3 It should be noted that the above growth factors take account of committed developments within the local area, as the factors are based on the most recent planning data contained in the Local Plan. The proposed development is an allocated site. and it is, therefore, considered that background traffic growth already includes the proposed development. The base 2022, 2024, 2029 and 2034 flows with and without the proposed development are set out in **Appendix C**. It should be noted that the data included in the appendices also includes calculations for a DIRECT traffic profile, which has been used to model these junctions.

2.3 Percentage impact analysis

- 2.3.1 Given that new surveys have been undertaken, the percentage impact analysis has also been updated. **Table 2.1** below outlines the percentage increase in traffic flows at Junction 4 and 6 within the study area based on the updated 2022 surveys.

Table 2.1 Percentage impact analysis

		Junction 4 - Penheolferthyr/ A4102 Goat Mill Road priority junction				Junction 6 - Lower High Street/High Street/A4102/A4054 Avenue De Clichy			
		Base	Dev	Base + Dev	%inc.	Base	Dev	Base + Dev	%inc.
2022	AM	1597		1597		2341		2341	
	PM	1667		1667		2866		2866	
2024	AM	1628	46	1674	2.72	2387	28	2415	1.2
	PM	1700	43	1742	2.46	2922	12	2934	0.4
2029	AM	1701	46	1747	2.61	2493	28	2521	1.1
	PM	1775	43	1818	2.35	3052	12	3064	0.4
2034	AM	1781	46	1826	2.50	2610	28	2638	1.1
	PM	1859	43	1901	2.25	3195	12	3207	0.4

- 2.3.2 It can be seen from the table above that the impact of development generated traffic at junction 4 is less than 5%, with a maximum impact of 2.72% in the 2024 AM peak period. The impact of development generated traffic at Junction 6 is 1.2%, which is also considered negligible.

2.4 Junction 6 - Lower High Street, High Street, A4102 and A4054 Avenue De Clichy roundabout

- 2.4.1 In order to provide an accurate model of junctions, and as requested by the local highway authority, queue length surveys were also undertaken at the same time as the updated traffic surveys. The observed maximum queues for each arm of the junction are outlined in **Table 2.2** below.

Table 2.2 Queue length survey at Lower High Street, High Street, A4102 and A4054 Avenue De Clichy roundabout

	High Street (E)	A4102 (S)	Ave. De Clichy/ A4054	Lower High Street (N)
AM	10	15	7	6
PM	10	18	17	7

- 2.4.2 Given that the queues were different in the AM peak compared to PM peak, Junctions 9 does not allow calibration for each scenario separately within one model. Therefore, separate models were created for AM and PM peak times to better reflect the existing traffic conditions. The queue per lane outlined in the Table above should be treated as worst case scenario, as it provides a queue of vehicles during the busiest five-minute period during each peak hour. Outside of this five-minute period the queues were observed to be generally lower.
- 2.4.3 The operation of the existing junction has been assessed for both the AM and PM peak periods using the TRL program Junctions 9 ARCADY and calibrated to match the observed queues. As outlined above, a DIRECT profile has been used to set up the model as '*DIRECT profiles can be the most accurate method of entering flows*'. It should be noted that given the queues in the AM peak and PM peak are different, separate models for the AM peak and PM peak have been created to reflect the observed queues in each peak hour. The updated junction capacity results are summarised in **Table 2.3** and included in full in **Appendix D**.

Table 2.3 Junction capacity results - Lower High Street, High Street, A4102 and A4054 Avenue De Clichy roundabout

Arm	Base				Base + development			
	8am-9am		5pm-6pm		8am-9am		5pm-6pm	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
2022								
A4054 High St	1.01	10	1.00	10				
A4102	1.20	15	1.15	18				
A4054	0.96	7	1.13	17				
Lower High St	0.88	6	0.97	7				
2024								
A4054 High St	1.04	11	1.03	12	1.05	12	1.03	12
A4102	1.22	16	1.16	20	1.23	17	1.17	21
A4054	0.96	7	1.16	20	0.99	8	1.15	19
Lower High St	0.90	6	0.99	8	0.92	7	1.01	9
2029								
A4054 High St	1.10	15	1.08	18	1.11	16	1.08	18
A4102	1.28	20	1.24	29	1.28	20	1.23	29
A4054	1.03	9	1.21	28	1.03	10	1.20	26
Lower High St	0.94	8	1.04	11	0.97	10	1.05	13
2034								
A4054 High St	1.17	20	1.14	26	1.18	21	1.14	26
A4102	1.34	27	1.29	38	1.35	27	1.29	38
A4054	1.09	12	1.26	37	1.10	12	1.26	37
Lower High St	0.99	11	1.09	17	1.01	14	1.10	19

2.4.4 It can be seen from the table above, that based on the observed queues, it can be seen that the junction is already operating over its practical reserve capacity in base 2022 scenario, with a maximum RFC of 1.20 and a queue of 18 vehicles on the A4102 approach to the junction in the AM peak period.

2.4.5 It can also be seen that with the addition of background growth the operation of junction continues to deteriorate, and the queues and delays increase. However, it can be seen that development traffic has minimal impact at this junction, as queues increase by a maximum of 1 vehicle per arm and the RFC increases by 0.03 on the A4054 approach to the junction, which is considered negligible.

2.4.6 It should also be noted that there is minimal development generated traffic on the High Street and A4102 south approaches to the junction and these arms currently experience the highest level of queues and delays. The impact of development generated traffic on Lower High Street increases the RFC by 0.02 and the queue by one vehicle in both the AM and PM peak periods.

2.5 Junction 4 - Penheolferthyr and Goat Mill Road A4102 priority junction

2.5.1 As outline above, a queue length survey was undertaken at the same time as the updated traffic surveys, and the observed queue per lane is outlined in **Table 2.4** below.

Table 2.4 Queue length survey at Penheolferthyr and Goat Mill Road A4102 priority junction

	Penheolferthyr arm		
	Lane 1	Lane 2	Average
AM	2	12	7
PM	1	17	9

- 2.5.2 The queue per lane outlined in the Table above should be treated as worst case scenario, as it provides a queue of vehicles during the busiest five-minute period during each peak hour. Outside of this five-minute period the queues are generally lower.
- 2.5.3 It should be noted that given that the queues in the AM peak and PM peak are different, separate models for the AM peak and PM peak have been created to reflect the observed queues in each peak hour. It should be noted that that the junction has been calibrated until the queueing on the Penheolferthyr arm of the junction was an average of seven vehicles in a queue in the AM peak period and nine vehicles in a queue in the PM peak period.
- 2.5.4 The operation of the existing junction has been assessed for both the AM and PM peak periods using the TRL program Junctions 9 PICADY and calibrated to match the observed queues. The results of the updated junction capacity analysis are summarised in **Table 2.5** below and included in full in **Appendix E**.

Table 2.5 Junction capacity results - Penheolferthyr and Goat Mill Road A4102 priority junction

Arm	Base				Base + development			
	8am-9am		5pm-6pm		8am-9am		5pm-6pm	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
2022								
Penheolferthyr (left)	0.91	7	0.93	9				
Penheolferthyr (right)	0.90	7	0.93	9				
Goat Mill Road	0.47	2	0.39	2				
2024								
Penheolferthyr (left)	0.95	10	0.97	11	1.05	33	1.01	20
Penheolferthyr (right)	0.94	11	0.96	13	1.05	35	1.01	23
Goat Mill Road	0.48	2	0.40	1	0.50	2	0.43	1
2029								
Penheolferthyr (left)	1.01	22	1.03	24	1.13	57	1.09	39
Penheolferthyr (right)	1.02	24	1.03	28	1.13	61	1.09	45
Goat Mill Road	0.52	2	0.43	1	0.54	2	0.47	2
2034								
Penheolferthyr (left)	1.05	45	1.12	47	1.22	87	1.18	66
Penheolferthyr (right)	1.05	48	1.12	55	1.22	92	1.18	77
Goat Mill Road	0.56	2	0.46	2	0.59	2	0.50	2

- 2.5.5 It can be from the table that based on the observed queues, the junction is already operating over its practical reserve capacity in the 'base 2022' scenario, with a maximum RFC of 0.93 and a maximum queue of 18 vehicles (nine per stream) on the Penheolferthyr approach to the junction in the PM peak period. It can also be seen that with additional traffic (as a result of background traffic growth), the operation of the junction deteriorates, and is predicted to operate above theoretical capacity in both the AM and PM peak periods by 2029.

- 2.5.6 With the addition of development generated traffic, the operation of the junction deteriorates further, and any development generated traffic will join the end of the queue. It should be noted, however, that once the RFC reaches 1.00, the model results should be interpreted with caution, as junction delays and queuing may be underestimated.

Potential mitigation

- 2.5.7 Looking at the operation of the junction in more detail, it can be seen that there is a significant volume of traffic in both directions along the A4102, and that there are limited gaps for traffic from Penheolferthyr to enter the junction. However, the existing priority junction is too close to the A4060/Bogey Road/A4102 roundabout junction to consider introducing traffic signal control to the existing junction, as queueing traffic would quickly extend onto the circulatory carriageway of the roundabout. Also, a traffic signal controlled junction includes a significant amount of 'lost time' and will result in queueing on the A4102 (both approaches).
- 2.5.8 It is, therefore, considered that **if** mitigation is to be introduced at this Junction, then a mini roundabout is probably the only solution (see **Figure 2.1** over the page). The junction layout and swept-path analysis of large vehicles manoeuvring at the mini-roundabout is included in **Appendix F**.
- 2.5.9 The operation of the amended Junction has been assessed for both the AM and PM peak periods using the TRL program Junctions 9 ARCADY for each of the future year scenarios and the results of the assessment are summarised in **Table 2.6** below and presented in full in **Appendix G**.

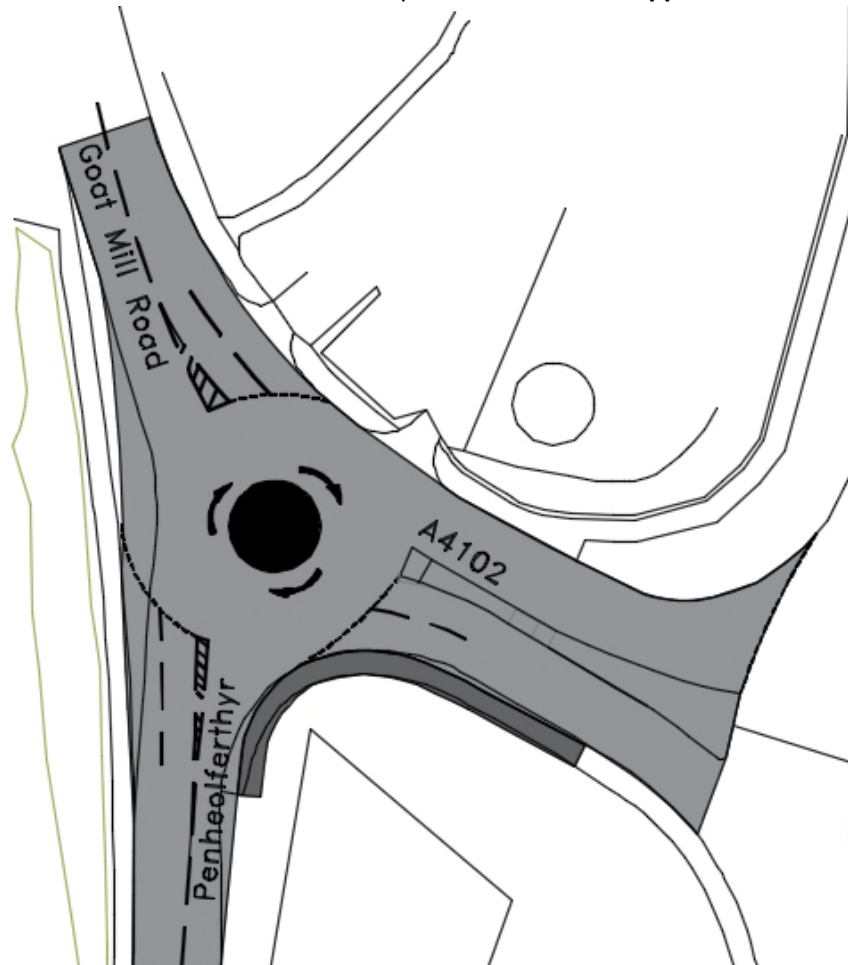


Figure 2.1 Potential Penheolferthyr and Goat Mill Road A4102 mini-roundabout

Table 2.6 Junction capacity results - Penheolferthyr and Goat Mill Road A4102 mini-roundabout

Arm	Base				Base + development			
	8am-9am		5pm-6pm		8am-9am		5pm-6pm	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
2022								
A4102 (east)	0.73	3	0.80	4				
Penheolferthyr	0.26	<1	0.25	<1				
Goat Mill Road (west)	0.42	1	0.43	1				
2024								
A4102 (east)	0.75	3	0.81	4	0.76	3	0.84	5
Penheolferthyr	0.27	<1	0.26	<1	0.30	<1	0.27	<1
Goat Mill Road (west)	0.43	1	0.44	1	0.44	1	0.44	1
2029								
A4102 (east)	0.79	4	0.85	6	0.80	4	0.88	7
Penheolferthyr	0.29	<1	0.28	<1	0.32	1	0.29	<1
Goat Mill Road (west)	0.45	1	0.46	1	0.46	1	0.47	1
2034								
A4102 (east)	0.83	5	0.90	8	0.84	5	0.92	11
Penheolferthyr	0.31	1	0.30	<1	0.34	1	0.31	1
Goat Mill Road (west)	0.48	1	0.48	1	0.49	1	0.49	1

2.5.10 It can be seen from the table above, that with the provision of a mini roundabout, the junction is predicted to operate significantly better than the existing priority junction, with a maximum queue of four vehicles and an RFC of 0.80 on the A4102 eastern arm in 2022 PM peak. The queuing on the Penheolferthyr arm of the junction is predicted to be less than one vehicle in the base scenarios and up to one vehicle in scenarios with development generated traffic.

2.5.11 With the addition of development generated traffic and background traffic growth (which already includes the proposed development), the queue is likely to increase:

- to five vehicles (in two lanes), with a maximum RFC of 0.84 in 2024 PM peak;
- to seven vehicles (in two lanes), with a maximum RFC of 0.88 RFC in 2029 PM peak; and,
- to 11 vehicles (in two lanes), with a maximum RFC of 0.92 in 2034 PM peak.

2.5.12 There is capacity for up to 12 vehicles to queue in two lanes on the A4102 eastern approach to the mini roundabout, before 85% of the queueing capacity is reached. It is, therefore, considered that the proposed mini roundabout would be able to accommodate traffic associated with the proposed development in all the future year scenarios.

2.5.13 It should also be noted that the increase in traffic flows at Penheolferthyr Junction (as a result of the development) equates to a maximum of just 2.72% of the overall traffic through this junction and, therefore, any contributions to mitigation measures need to be commensurable with the impact of the proposed development/increase in traffic flows.

3 Summary and conclusions

3.1.1 This Technical Note has been prepared by Lime Transport in response to the comments made by Capital (on behalf of Merthyr Tydfil County Borough Council) on the supporting Transport Assessment for a development in Twynyrodyn, Merthyr Tydfil.

- 3.1.2 The purpose of this Technical Note is to address the comments made regarding junction capacity analysis of Junction 4 (Penheolferthyr/A4102 Goat Mill Road priority junction) and Junction 6 (Lower High Street/High Street/A4102/A4054 Avenue De Clichy).
- 3.1.3 Updated traffic and queue length surveys were undertaken on Tuesday 18th January 2022 and the models have been updated based on the new survey data.
- 3.1.4 It should be noted that DIRECT traffic profile has been used to model Junction 4 and 6 as it is considered to be the most accurate traffic profile.

3.2 Percentage impact analysis

- 3.2.1 Based on the percentage impact analysis, the impact of development generated traffic at junction 4 is less than 5%, with a maximum impact of 2.72% in the 2024 AM peak period. The impact of development generated traffic at Junction 6 is 1.2%, which is also considered negligible.
- 3.2.2 However, predicting demand and providing road capacity to meet the demand is contrary to Welsh Government policies and perhaps the CIL contributions could be used to fund better bus services rather than providing additional road capacity.

3.3 Lower High Street/High Street/A4102/A4054 Avenue De Clichy roundabout

- 3.3.1 Further modelling of Junction 6 (Lower High Street/High Street/A4102/A4054 Avenue De Clichy roundabout) indicates that based on the observed queues, it can be seen that the junction is already operating over its practical reserve capacity in base 2022 scenario, with a maximum RFC of 1.20 and a queue of 18 vehicles on the A4102 approach to the junction in the AM peak period.
- 3.3.2 It can also be seen that with the addition of background growth the operation of junction continues to decrease, and the queues and delays increase. However, it can be seen that development traffic has minimal impact at this junction, as queues increase by a maximum of 1 vehicle per arm and the RFC increases by 0.03 on the A4054 approach to the junction, which is considered negligible.
- 3.3.3 Given that the junction is operating significantly above the practical capacity in the base year scenarios and as demonstrated in the table above, the proposed development will have a minimal impact on the operation of this junction. It is, therefore, considered that no mitigation is required at this junction.

3.4 Penheolferthyr/A4102 Goat Mill Road priority junction

- 3.4.1 The modelling of Junction 4 (Penheolferthyr/A4102 Goat Mill Road priority junction) indicates that the junction is already operating over its practical reserve capacity in base 2022 scenario, with a maximum RFC of 0.93 and a maximum queue of 18 vehicles (nine per stream) on the Penheolferthyr approach to the junction in the PM peak period. It can also be seen that with additional traffic (as a result of background traffic growth), the operation of the junction deteriorates and is predicted to operate above theoretical capacity in both the AM and PM peak periods by 2029. With the addition of development generated traffic, the operation of the junction deteriorates further.

- 3.4.2 It is considered that due to a high volume of traffic in both directions along the A4102, there are limited gaps for traffic from Penheolferthyr to enter the junction. However, the existing priority junction is too close to the A4060/Bogey Road/A4102 roundabout junction to consider introducing traffic signal control to the existing junction, as queueing traffic would quickly extend onto the circulatory carriageway of the roundabout. Also, a traffic signal-controlled junction includes a significant amount of 'lost time' and will result in queueing on the A4102 (both approaches).
- 3.4.3 Further analysis indicates that the proposed mini roundabout has sufficient capacity to accommodate traffic associated with the proposed development in all future year scenarios.
- 3.4.4 It should also be noted that the increase in traffic flows at Penheolferthyr Junction (as a result of the development) equates to a maximum of just 2.72% of the overall traffic through this junction and, therefore, any contributions to any mitigation measures need to be commensurable with the impact of the proposed development increase in traffic flows.
- 3.4.5 It should be noted that predicting demand and providing road capacity to meet the demand is contrary to Welsh Government policies and perhaps the CIL contributions could be used to fund better bus services rather than providing additional road capacity.

Appendices



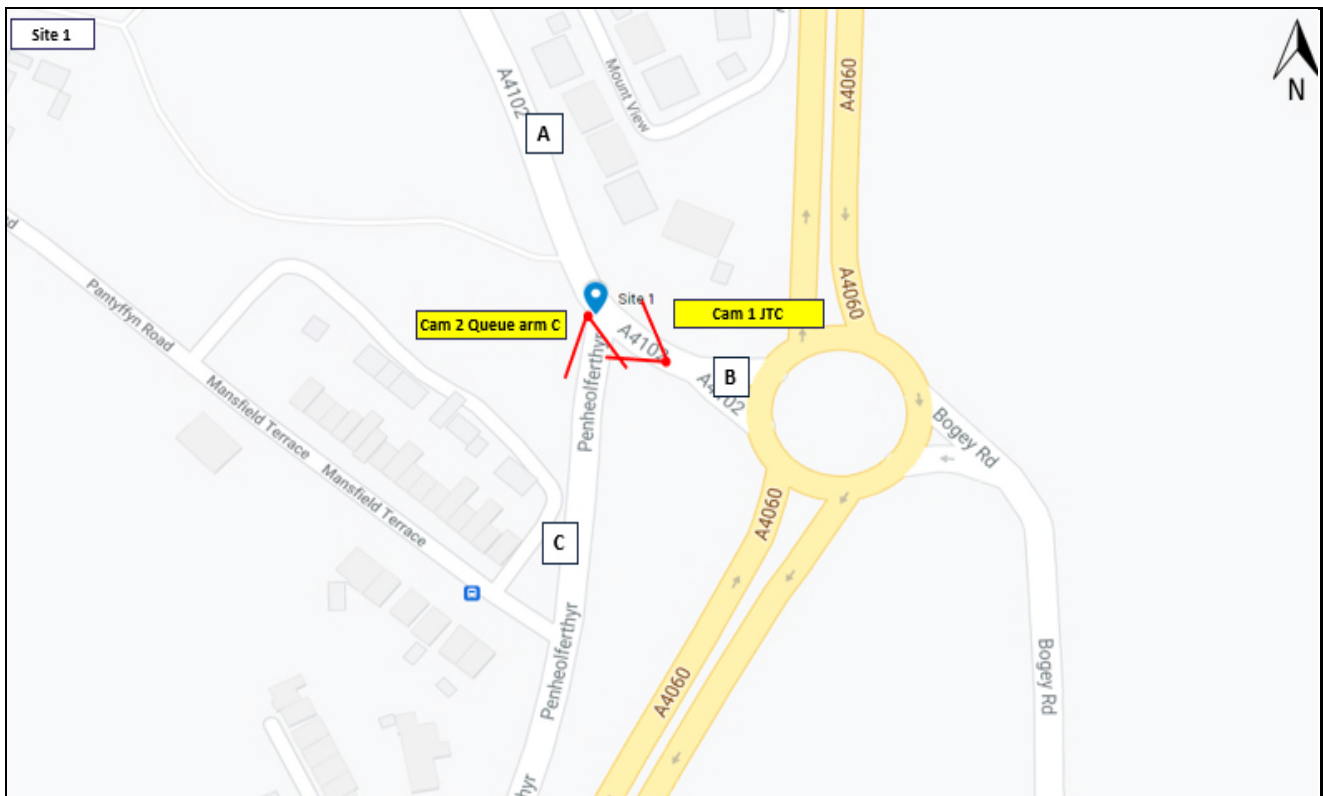
Appendix A





Survey Overview

Job Number/Job Name	SS612 Twynyrodyn
Date	Tuesday 18th Jan
Time	0700-1000 & 1600-1900 Q 0700-1900 JTC
Survey Type	Classified Junction Turning Counts & Queue Lengths
Weather Conditions	Clear



Comments

SS612 Twynyrodyn Results Template Site 1 (Junction 4)



SS612 Twynyrodyn

Tuesday 18th Jan

0700-1000 & 1600-1900 Q 0700-1900 JTC

Site 1

	Arm A - Arm A								Arm B - Arm B								Arm A - Arm C								
	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Arm Total
0700-0715	0	0	0	0	0	0	0	0	58	15	0	0	0	0	0	73	6	2	0	0	0	0	0	8	81
0715-0730	0	0	0	0	0	0	0	0	71	22	0	0	3	0	0	96	8	1	2	0	0	0	0	11	107
0730-0745	0	0	0	0	0	0	0	0	73	15	1	0	0	0	1	90	16	3	0	0	0	0	0	19	109
0745-0800	0	0	0	0	0	0	0	0	74	17	1	0	0	0	0	92	24	1	0	0	0	0	0	25	117
Hourly Total	0	0	0	0	0	0	0	0	276	69	2	0	3	1	0	351	54	7	2	0	0	0	0	63	414
0800-0815	0	0	0	0	0	0	0	0	74	17	2	2	1	0	0	96	23	4	0	0	0	0	0	27	123
0815-0830	0	0	0	0	0	0	0	0	93	26	1	0	0	0	0	120	47	2	0	0	0	0	0	49	169
0830-0845	0	0	0	0	0	0	0	0	68	15	2	3	1	0	0	89	34	2	0	0	0	0	0	36	125
0845-0900	0	0	0	0	0	0	0	0	72	15	3	0	2	0	0	92	51	4	0	0	0	0	0	55	147
Hourly Total	0	0	0	0	0	0	0	0	307	73	8	5	4	0	0	397	155	12	0	0	0	0	0	167	564
0900-0915	0	0	0	0	0	0	0	0	58	18	7	0	0	0	0	83	26	6	0	0	1	0	0	33	116
0915-0930	0	0	0	0	0	0	0	0	50	13	1	0	0	0	0	64	18	5	0	0	0	0	0	23	87
0930-0945	0	0	0	0	0	0	0	0	53	16	3	0	0	0	0	72	18	3	0	0	0	0	0	21	93
0945-1000	0	0	0	0	0	0	0	0	45	9	4	1	0	1	0	60	19	1	0	0	0	0	0	20	80
Hourly Total	0	0	0	0	0	0	0	0	206	56	15	1	0	1	0	279	81	15	0	0	1	0	0	97	376
1000-1015	0	0	0	0	0	0	0	0	45	11	5	0	0	0	0	61	20	4	1	0	0	0	0	25	86
1015-1030	0	0	0	0	0	0	0	0	43	10	2	0	0	0	0	55	14	2	0	0	0	0	0	16	71
1030-1045	0	0	0	0	0	0	0	0	47	12	1	2	0	0	0	62	19	4	0	0	0	0	0	23	85
1045-1100	0	0	0	0	0	0	0	0	44	13	1	0	0	0	0	58	21	4	0	0	0	0	0	25	83
Hourly Total	0	0	0	0	0	0	0	0	179	46	9	2	0	0	0	236	74	14	1	0	0	0	0	89	325
1100-1115	0	0	0	0	0	0	0	0	55	9	2	1	0	0	1	68	24	3	0	0	0	0	0	27	95
1115-1130	0	0	0	0	0	0	0	0	67	13	3	0	0	0	0	83	25	3	1	0	0	0	0	29	112
1130-1145	0	0	0	0	0	0	0	0	54	12	1	1	1	0	0	69	18	2	1	0	0	0	0	21	90
1145-1200	0	0	0	0	0	0	0	0	51	8	4	3	0	0	0	66	21	2	0	0	0	0	0	23	89
Hourly Total	0	0	0	0	0	0	0	0	227	42	10	5	1	1	0	286	88	10	2	0	0	0	0	100	386
1200-1215	0	0	0	0	0	0	0	0	42	14	2	2	0	0	0	60	26	4	0	0	0	0	0	30	90
1215-1230	0	0	0	0	0	0	0	0	57	14	3	0	1	0	0	75	24	6	2	0	0	0	1	33	108
1230-1245	0	0	0	0	0	0	0	0	64	10	1	1	0	0	0	76	29	4	0	0	0	0	0	33	109
1245-1300	0	0	0	0	0	0	0	0	57	15	2	2	0	0	0	76	20	1	0	0	0	0	0	21	97
Hourly Total	0	0	0	0	0	0	0	0	220	53	8	5	1	0	0	287	99	15	2	0	0	0	1	117	404
1300-1315	0	0	0	0	0	0	0	0	55	9	2	1	0	0	0	67	23	3	0	0	0	0	0	26	93
1315-1330	0	0	0	0	0	0	0	0	58	12	5	1	0	0	0	76	22	2	0	0	0	0	0	24	100
1330-1345	0	0	0	0	0	0	0	0	58	10	2	1	0	3	0	74	20	3	1	0	0	1	0	25	99
1345-1400	0	0	0	0	0	0	0	0	57	14	5	0	1	0	0	77	23	5	0	0	0	0	0	28	105
Hourly Total	0	0	0	0	0	0	0	0	228	45	14	3	1	3	0	294	88	13	1	0	0	1	0	103	397
1400-1415	0	0	0	0	0	0	0	0	55	8	5	2	1	0	0	71	15	2	0	0	0	0	0	17	88
1415-1430	0	0	0	0	0	0	0	0	55	14	7	2	0	0	0	78	15	4	0	0	0	0	0	19	97
1430-1445	0	0	0	0	0	0	0	0	81	15	2	0	1	0	0	99	43	2	1	0	0	0	0	46	145
1445-1500	0	0	0	0	0	0	0	0	70	26	3	1	1	1	0	102	46	0	0	0	0	1	0	47	149
Hourly Total	0	0	0	0	0	0	0	0	261	63	17	5	3	1	0	350	119	8	1	0	0	1	0	129	479
1500-1515	0	0	0	0	0	0	0	0	83	16	2	2	2	0	0	105	41	9	0	0	1	0	0	51	156
1515-1530	0	0	0	0	0	0	0	0	66	9	1	1	0	0	0	77	34	2	0	0	0	0	0	36	113
1530-1545	0	0	0	0	0	0	0	0	84	12	1	2	1	0	0	100	31	3	0	0	0	0	0	34	134
1545-1600	0	0	0	0	0	0	0	0	82	18	1	0	0	0	0	101	31	2	0	0	0	0	0	33	134
Hourly Total	0	0	0	0	0	0	0	0	315	55	5	5	3	0	0	383	137	16	0	0	1	0	0	154	537
1600-1615	0	0	0	0	0	0	0	0	110	11	3	1	0	0	0	125	34	4	0	0	0	0	0	38	163
1615-1630	0	0	0	0	0	0	0	0	87	25	1	1	0	0	0	114	27	0	0	0	0	0	0	27	141
1630-1645	0	0	0	0	0	0	0	0	87	21	2	0	0	0	1	111	30	5	0	0	0	0	0	35	146
1645-1700	0	0	0	0	0	0	0	0	72	12	3	1	0	0	0	88	29	5	0	0	0	0	0	34	122
Hourly Total	0	0	0	0	0	0	0	0	356	69	9	3	0	1	0	438	120	14	0	0	0	0	0	134	572
1700-1715	0	0	0	0	0	0	0	0	114	26	1	0	0	0	0	141	31	2	0	0	0	0	0	33	174
1715-1730	0	0	0	0	0	0	0	0	91	12	0	2	0	0	0	105	18	6	0	0	0	0	0	24	129
1730-1745	0	0	0	0	0	0	0	0	86	10	0	0	0	0	0	96	38	1	0	0	0	0	0	39	135
1745-1800	0	0	0	0	0	0	0	0	67	6	0	1	0	0	0	74	30	2	0	0	0	0	0	32	106
Hourly Total	0	0	0	0	0	0	0	0	358	54	1	3	0	0	0	416	117	11	0	0	0	0	0	128	544
1800-1815	0	0	0	0	0	0	0	0	70	6	0	0	0	0	0	76	33	1	0	0	0	0	0	34	110
1815-1830	0	0	0	0	0	0	0	0	52	4	1	0	0	0	0	57	16	2	0	0	0	0	0	18	75
1830-1845	0	0	0	0	0	0	0	0	40	3	0	0	0	0	0	43	18	1	0	0	0	0	0	19	62
1845-1900	0	0	0	0	0	0	0	0	56	3	1	0	0	0	0	60	20	2	0	0	0	0	0	22	82
Hourly Total	0	0	0	0	0	0	0	0	218	16	2	0	0	0	0	236	87	6	0	0	0	0	0	93	329
Total	0	0	0	0	0	0	0	0	3151	641	100	37	16	8	0	3953	1219	141	9	0	2	2	1	1374	5327

SS612 Twynyrodyn Results Template Site 1 (Junction 4)

	Arm B - Arm A								Arm B - Arm B								Arm B - Arm C								Arm Total
	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	
0700-0715	30	7	8	1	0	0	0	46	0	0	0	0	0	0	0	0	7	4	0	0	0	0	0	11	
0715-0730	42	14	10	1	1	0	0	68	0	0	0	0	0	0	0	0	11	2	1	0	0	0	0	14	
0730-0745	64	12	0	0	1	0	0	77	0	0	0	0	0	0	0	0	15	4	0	0	1	1	0	20	
0745-0800	89	30	3	1	0	0	0	123	0	0	0	0	0	0	0	0	32	7	0	0	0	0	0	39	
Hourly Total	225	63	21	3	2	0	0	314	0	0	0	0	0	0	0	0	65	17	1	0	1	0	0	84	
0800-0815	101	30	1	0	0	0	0	132	0	0	0	0	0	0	0	0	55	4	0	0	0	1	0	60	
0815-0830	112	24	0	2	1	0	0	139	0	0	0	0	0	0	0	0	52	4	0	1	0	0	0	57	
0830-0845	95	20	5	5	0	0	0	129	0	5	0	0	0	0	0	0	52	10	0	0	1	1	0	63	
0845-0900	76	21	1	2	2	0	0	102	0	0	0	0	0	0	0	0	50	6	2	0	0	0	0	59	
Hourly Total	384	104	7	4	3	0	0	502	0	0	0	0	0	0	0	0	209	24	2	1	1	1	1	239	
0900-0915	64	18	3	1	1	0	0	87	0	0	0	0	0	0	0	0	46	2	0	0	0	0	0	48	
0915-0930	59	15	0	0	1	1	0	75	0	0	0	0	0	0	0	0	32	5	0	0	0	0	0	37	
0930-0945	40	8	1	0	0	0	0	49	0	0	0	0	0	0	0	0	30	3	2	0	0	0	0	35	
0945-1000	51	15	3	1	0	0	0	70	0	0	0	0	0	0	0	0	28	5	0	0	0	0	0	33	
Hourly Total	214	56	7	2	2	0	0	281	0	0	0	0	0	0	0	0	136	15	3	0	0	0	0	154	
1000-1015	38	19	4	0	0	0	0	61	0	0	0	0	0	0	0	0	31	4	0	0	0	0	0	35	
1015-1030	41	10	2	2	1	0	0	54	0	0	0	0	0	0	0	0	23	2	1	0	0	0	0	26	
1030-1045	43	13	3	2	0	0	0	61	0	0	0	0	0	0	0	0	27	2	2	0	0	0	0	41	
1045-1100	45	11	5	0	0	1	0	62	0	0	0	0	0	0	0	0	37	1	0	0	0	0	0	28	
Hourly Total	167	53	14	3	0	1	0	238	0	0	0	0	0	0	0	0	118	14	2	1	0	0	0	135	
1100-1115	42	9	4	0	0	0	0	55	0	0	0	0	0	0	0	0	28	2	1	0	0	0	0	31	
1115-1130	47	13	2	0	0	0	0	62	0	0	0	0	0	0	0	0	30	1	1	0	0	0	0	32	
1130-1145	61	17	4	2	0	0	0	84	0	0	0	0	0	0	0	0	32	6	1	0	0	0	0	39	
1145-1200	55	15	1	3	2	0	0	76	0	0	0	0	0	0	0	0	46	4	0	0	0	0	0	50	
Hourly Total	205	54	11	5	2	0	0	277	0	0	0	0	0	0	0	0	136	13	3	0	0	0	0	152	
1200-1215	47	18	2	1	0	0	0	68	0	0	0	0	0	0	0	0	40	3	0	0	0	0	0	43	
1215-1230	54	13	3	1	1	0	0	72	0	0	0	0	0	0	0	0	39	5	1	0	0	0	0	45	
1230-1245	51	10	2	1	0	0	0	64	0	0	0	0	0	0	0	0	27	7	0	0	0	0	0	34	
1245-1300	50	11	1	1	0	0	0	63	0	0	0	0	0	0	0	0	26	3	2	0	0	0	1	32	
Hourly Total	202	52	8	4	1	0	0	267	0	0	0	0	0	0	0	0	132	18	3	0	0	0	1	154	
1300-1315	43	18	0	0	0	0	0	51	0	0	0	0	0	0	0	0	39	3	0	0	0	0	0	42	
1315-1330	46	14	6	0	0	0	0	66	0	0	0	0	0	0	0	0	47	3	0	0	0	0	0	50	
1330-1345	61	9	1	0	1	0	0	72	0	0	0	0	0	0	0	0	39	5	0	0	0	0	0	44	
1345-1400	69	14	3	4	0	0	0	90	0	0	0	0	0	0	0	0	47	4	0	0	0	0	0	51	
Hourly Total	219	55	10	4	0	0	0	289	0	0	0	0	0	0	0	0	172	15	0	0	0	0	0	187	
1400-1415	63	11	5	0	0	0	0	79	0	0	0	0	0	0	0	0	41	8	0	0	0	0	0	49	
1415-1430	62	27	2	0	2	0	0	93	0	0	0	0	0	0	0	0	32	4	0	0	0	0	0	36	
1430-1445	73	15	2	0	1	0	0	91	0	0	0	0	0	0	0	0	57	7	0	0	0	0	0	64	
1445-1500	80	16	3	2	0	0	0	101	0	0	0	0	0	0	0	0	46	6	1	0	0	0	0	53	
Hourly Total	278	69	12	2	3	0	0	364	0	0	0	0	0	0	0	0	176	25	1	0	0	0	0	202	
1500-1515	90	16	5	0	0	0	0	111	0	0	0	0	0	0	0	0	58	5	0	0	1	0	1	65	
1515-1530	88	23	2	0	0	0	0	113	0	0	0	0	0	0	0	0	49	3	1	0	2	0	0	55	
1530-1545	91	15	1	0	0	0	0	107	0	0	0	0	0	0	0	0	62	6	0	0	0	0	0	68	
1545-1600	98	23	2	1	3	0	0	127	0	0	0	0	0	0	0	0	55	10	0	0	1	2	0	68	
Hourly Total	367	77	10	1	3	0	0	458	0	0	0	0	0	0	0	0	224	24	1	0	4	2	1	256	
1600-1615	109	21	6	0	0	0	0	136	0	0	0	0	0	0	0	0	50	6	0	0	0	0	0	56	
1615-1630	92	24	2	1	0	0	0	119	0	0	0	0	0	0	0	0	80	11	0	0	0	0	0	91	
1630-1645	106	32	4	0	2	0	0	144	0	0	0	0	0	0	0	0	59	10	2	0	0	0	0	71	
1645-1700	111	21	0	0	1	0	0	133	0	0	0	0	0	0	0	0	56	9	1	0	0	0	0	66	
Hourly Total	418	98	12	1	3	0	0	532	0	0	0	0	0	0	0	0	245	36	3	0	0	0	0	284	
1700-1715	117	18	1	0	0	1	0	137	0	0	0	0	0	0	0	0	55	10	0	0	0	0	0	65	
1715-1730	122	16	1	0	0	0	0	139	0	0	0	0	0	0	0	0	64	12	0	0	0	0	0	76	
1730-1745	121	17	0	0	0	1	0	139	0	0	0	0	0	0	0	0	50	8	0	0	0	0	0	58	
1745-1800	90	19	1	0	0	0	0	110	0	0	0	0	0	0	0	0	36	2	1	0	0	0	0	39	
Hourly Total	450	70	3	0	0	2	0	525	0	0	0	0	0	0	0	0	205	32	1	0	0	0	0	238	
1800-1815	70	9	0	0	0	1	0	80	0	0	0	0	0	0	0	0	45	4	0	0	0	0	0	49	
1815-1830	79	6	1	1	0	0	0	87	0	0	0	0	0	0	0	0	44	1	0	0	0	0	0	45	
1830-1845	62	7	0	0	0	0	0	69	0	0	0	0	0	0	0	0	34	3	0	0	0	0	0	37	
1845-1900	54	9	0	0	0	0	0	63	0	0	0	0	0	0	0	0	41	5	0	0	0	0	0	46	
Hourly Total	265	31	1	1	0	1	0	299	0	0	0	0	0	0	0	0	164	13	0	0	0	0	0	177	
Total	3394	782	116	30	20	4	0	4346	0	0	0	0	0	0	0	0	1982	246	20	2	6	3	3	2262	
																								6608	

SS612 Twynyrodyn Results Template Site 1 (Junction 4)

	Arm C - Arm A							Arm C - Arm B							Arm C - Arm C							Arm Total			
	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Car	LGV	OGV1	OGV2	PSV	MC	PC	Total	Car	LGV	OGV1	OGV2	PSV		MC	PC	Total
0700-0715	16	5	0	0	0	0	0	21	21	7	0	1	0	0	0	29	0	0	0	0	0	0	0	0	50
0715-0730	19	7	0	0	0	0	0	26	19	7	0	0	0	0	0	26	0	0	0	0	0	0	0	0	52
0730-0745	18	6	0	0	0	0	0	24	27	9	0	0	0	0	0	36	1	0	0	0	0	0	0	1	61
0745-0800	27	2	0	0	0	0	0	29	36	11	0	0	1	0	0	48	0	0	0	0	0	0	0	0	77
Hourly Total	80	20	0	0	0	0	0	100	103	34	0	1	1	0	0	139	1	0	0	0	0	0	0	1	240
0800-0815	24	5	0	0	0	0	0	29	35	4	0	0	0	0	0	39	0	0	0	0	0	0	0	0	68
0815-0830	36	6	1	0	0	0	0	43	37	3	0	0	0	0	0	40	0	0	0	0	0	0	0	0	77
0830-0845	20	6	0	0	0	0	0	26	34	3	1	0	0	0	0	38	0	0	0	0	0	0	0	0	64
0845-0900	41	3	0	0	0	0	0	44	25	7	0	0	1	0	0	33	0	0	0	0	0	0	0	0	77
Hourly Total	121	20	1	0	0	0	0	142	131	17	1	0	1	0	0	150	0	0	0	0	0	0	0	0	292
0900-0915	31	3	0	0	0	0	0	34	25	3	1	0	0	0	0	29	0	0	0	0	0	0	0	0	63
0915-0930	16	3	1	0	0	0	0	20	22	2	1	0	0	0	0	25	0	0	0	0	0	0	0	0	45
0930-0945	14	2	0	0	0	0	0	16	16	2	0	0	0	0	0	18	0	0	0	0	0	0	0	0	35
0945-1000	12	1	1	0	0	0	0	14	22	5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	41
Hourly Total	73	9	2	0	0	0	0	84	85	12	3	0	0	0	0	100	0	0	0	0	0	0	0	0	184
1000-1015	22	5	0	0	0	0	0	27	18	6	0	0	0	0	0	24	0	0	0	0	0	0	0	0	51
1015-1030	22	4	0	0	0	0	0	26	37	2	0	0	0	0	0	39	0	0	0	0	0	0	0	0	65
1030-1045	21	3	1	1	0	0	0	25	24	8	1	1	0	0	0	33	0	0	0	0	0	0	0	0	58
1045-1100	14	3	0	0	0	0	0	17	21	4	1	0	0	0	0	26	0	0	0	0	0	0	0	0	43
Hourly Total	79	15	1	0	0	0	0	95	100	20	2	0	0	0	0	122	0	0	0	0	0	0	0	0	217
1100-1115	23	3	0	0	0	0	0	26	16	2	0	0	0	0	0	18	0	0	0	0	0	0	0	0	44
1115-1130	25	4	0	0	0	0	0	29	26	1	1	0	0	0	0	29	0	0	0	0	0	0	0	0	58
1130-1145	19	4	1	1	0	0	0	25	22	1	0	0	0	0	0	23	0	0	0	0	0	0	0	0	48
1145-1200	19	1	0	0	0	0	0	20	21	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	41
Hourly Total	86	12	1	1	0	0	0	100	85	4	2	0	0	0	0	91	0	0	0	0	0	0	0	0	191
1200-1215	16	6	0	0	0	0	0	22	33	4	4	0	0	0	0	41	0	0	0	0	0	0	0	0	63
1215-1230	21	1	0	0	0	0	0	22	30	5	1	0	0	0	0	36	0	0	0	0	0	0	0	0	58
1230-1245	13	4	0	0	0	0	0	17	31	1	0	0	0	0	0	32	0	0	0	0	0	0	0	0	49
1245-1300	27	4	0	0	0	0	0	31	36	1	2	0	0	0	0	39	1	0	0	0	0	0	0	1	71
Hourly Total	77	15	0	0	0	0	0	92	130	11	7	0	0	0	0	148	1	0	0	0	0	0	0	1	241
1300-1315	16	1	0	0	0	0	0	17	30	2	0	0	0	0	0	32	0	0	0	0	0	0	0	0	49
1315-1330	22	1	1	0	0	0	0	24	43	5	0	0	0	0	0	48	0	0	0	0	0	0	0	0	72
1330-1345	13	0	0	0	0	0	1	14	33	4	0	0	0	0	0	37	0	0	0	0	0	0	0	0	51
1345-1400	21	5	2	0	0	0	0	28	35	2	1	0	0	0	0	38	0	0	0	0	0	0	0	0	66
Hourly Total	72	7	3	0	0	0	1	83	141	13	1	0	0	0	0	155	0	0	0	0	0	0	0	0	238
1400-1415	16	3	0	0	0	0	0	19	34	1	0	0	0	0	0	35	0	0	0	0	0	0	0	0	54
1415-1430	19	4	0	0	0	0	0	23	29	8	1	1	0	0	0	39	0	0	0	0	0	0	0	0	62
1430-1445	25	5	0	0	0	0	0	30	28	4	0	0	0	0	0	32	0	0	0	0	0	0	0	0	62
1445-1500	19	1	0	0	0	0	0	20	31	3	1	0	0	1	0	36	0	0	0	0	0	0	0	0	56
Hourly Total	79	13	0	0	0	0	0	92	122	16	2	1	1	0	0	142	0	0	0	0	0	0	0	0	234
1500-1515	47	3	0	0	0	0	0	50	47	2	1	0	0	0	1	51	0	0	0	0	0	0	0	0	101
1515-1530	40	2	0	0	0	1	0	43	44	6	1	0	1	0	0	52	0	0	0	0	0	0	0	0	95
1530-1545	39	5	0	0	0	0	0	44	39	6	0	0	1	0	0	46	0	0	0	0	0	0	0	0	90
1545-1600	26	4	0	0	0	0	0	30	33	6	0	0	0	0	0	39	0	0	0	0	0	0	0	0	69
Hourly Total	152	14	0	0	1	0	0	167	163	20	2	0	2	1	0	188	0	0	0	0	0	0	0	0	355
1600-1615	30	3	0	0	0	0	0	33	36	3	0	0	0	0	0	39	0	0	0	0	0	0	0	0	72
1615-1630	24	3	0	0	0	0	0	27	25	2	0	0	0	0	0	27	0	0	0	0	0	0	0	0	54
1630-1645	23	1	0	0	0	0	0	24	34	1	0	0	0	0	0	35	0	0	0	0	0	0	0	0	59
1645-1700	33	6	0	0	0	0	0	39	33	6	1	0	0	0	0	40	0	0	0	0	0	0	0	0	79
Hourly Total	110	13	0	0	0	0	0	123	128	12	1	0	0	0	0	141	0	0	0	0	0	0	0	0	264
1700-1715	17	3	0	0	0	0	0	20	24	2	0	0	0	0	0	26	0	0	0	0	0	0	0	0	46
1715-1730	35	4	0	0	0	0	0	39	37	5	0	0	0	0	0	42	0	0	0	0	0	0	0	0	81
1730-1745	23	4	0	0	0	0	0	27	24	1	0	0	0	0	0	25	0	0	0	0	0	0	0	0	52
1745-1800	27	2	0	0	0	0	0	29	30	1	0	0	0	0	0	31	1	0	0	0	0	0	0	1	61
Hourly Total	102	13	0	0	0	0	0	115	115	9	0	0	0	0	0	124	1	0	0	0	0	0	0	1	240
1800-1815	28	2	0	0	0	0	0	30	45	2	0	0	0	0	2	49	0	0	0	0	0	0	0	0	79
1815-1830	19	1	0	0	0	0	0	20	27	1	0	0	0	1	0	29	0	0	0	0	0	0	0	0	49
1830-1845	23	0	0	0	0	0	0	23	25	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	48
1845-1900	20	1	0	0	0	0	0	21	19	2	0	0	0	0	0	21	0	0	0	0	0	0	0	0	42
Hourly Total	90	4	0	0	0	0	0	94	116	5	0	0	0	1	2	124	0	0	0	0	0	0	0	0	218
Total	1121	155	8	1	1	1	0	1287	1419	173	21	2	5	2	2	1624	3	0	0	0	0	0	0	3	2914

SS612 Twynyrodyn Results Template Site 1 (Junction 4)

	Origin - Arm A								Origin - Arm B								Origin - Arm C							Arm Total		
	Car	LGV	OGV1	OGV2	PSV	MC	PC		Total	Car	LGV	OGV1	OGV2	PSV	MC		PC	Total	Car	LGV	OGV1	OGV2	PSV		MC	PC
0700-0715	64	17	0	0	0	0	0	81	37	11	8	1	0	0	0	57	37	12	0	1	0	0	0	50	188	
0715-0730	79	23	2	0	3	0	0	107	53	16	11	1	1	0	0	82	38	14	0	0	0	0	0	52	241	
0730-0745	89	18	1	0	0	1	0	109	79	16	0	0	2	0	0	97	46	15	0	0	0	0	0	61	267	
0745-0800	98	18	1	0	0	0	0	117	121	37	3	1	0	0	0	162	63	13	0	0	1	0	0	77	356	
Hourly Total	330	76	4	0	3	1	0	414	290	80	22	3	3	0	0	398	184	54	0	1	1	0	0	240	1052	
0800-0815	97	21	2	2	1	0	0	123	156	34	1	0	0	1	0	192	59	9	0	0	0	0	0	68	383	
0815-0830	140	28	1	0	0	0	0	169	164	28	0	3	1	0	0	196	73	9	1	0	0	0	0	83	448	
0830-0845	102	17	2	3	1	0	0	125	147	39	5	1	1	0	0	192	54	9	1	0	0	0	0	64	381	
0845-0900	123	19	3	0	2	0	0	147	126	27	3	2	2	0	1	161	66	10	0	0	1	0	0	77	385	
Hourly Total	462	85	8	5	4	0	0	564	593	128	9	5	4	1	1	741	252	37	2	0	1	0	0	292	1597	
0900-0915	84	24	7	0	1	0	0	116	110	20	3	1	1	0	0	135	56	6	1	0	0	0	0	63	314	
0915-0930	68	18	1	0	0	0	0	87	91	20	1	0	1	0	0	113	38	6	1	0	0	0	0	45	245	
0930-0945	71	19	3	0	0	0	0	93	70	11	3	0	0	0	0	84	30	4	1	0	0	0	0	35	212	
0945-1000	64	10	4	1	0	1	0	80	79	20	3	1	0	0	0	103	34	6	1	0	0	0	0	41	224	
Hourly Total	287	71	15	1	1	1	0	376	350	71	10	2	2	0	0	435	158	21	5	0	0	0	0	184	995	
1000-1015	65	15	6	0	0	0	0	86	69	23	4	0	0	0	0	96	40	11	0	0	0	0	0	51	233	
1015-1030	57	12	2	0	0	0	0	71	64	17	2	2	0	0	0	85	59	6	0	0	0	0	0	65	221	
1030-1045	66	16	1	2	0	0	0	85	80	15	5	2	0	0	0	102	45	11	2	0	0	0	0	58	245	
1045-1100	65	17	1	0	0	0	0	83	72	12	5	0	0	1	0	90	35	7	1	0	0	0	0	43	216	
Hourly Total	253	60	10	2	0	0	0	325	285	67	16	4	0	1	0	373	179	35	3	0	0	0	0	217	915	
1100-1115	79	12	2	1	0	1	0	95	70	11	5	0	0	0	0	86	39	5	0	0	0	0	0	44	225	
1115-1130	92	16	4	0	0	0	0	112	77	14	3	0	0	0	0	94	51	5	2	0	0	0	0	58	264	
1130-1145	72	14	2	1	1	0	0	90	93	23	5	2	0	0	0	123	41	5	1	1	0	0	0	48	261	
1145-1200	72	10	4	3	0	0	0	89	101	19	1	3	2	0	0	126	40	1	0	0	0	0	0	41	256	
Hourly Total	315	52	12	5	1	1	0	386	341	67	14	5	2	0	0	429	171	16	3	1	0	0	0	191	1006	
1200-1215	68	18	2	2	0	0	0	90	87	21	2	1	0	0	0	111	49	10	4	0	0	0	0	63	264	
1215-1230	81	20	5	0	1	0	1	108	93	18	4	1	1	0	0	117	51	6	1	0	0	0	0	58	283	
1230-1245	93	14	1	1	0	0	0	109	78	17	2	1	0	0	0	98	44	5	0	0	0	0	0	49	256	
1245-1300	77	16	2	2	0	0	0	97	76	14	3	1	0	0	1	95	64	5	2	0	0	0	0	71	263	
Hourly Total	319	68	10	5	1	0	1	404	334	70	11	4	1	0	1	421	208	26	7	0	0	0	0	0	241	1066
1300-1315	78	12	2	1	0	0	0	93	82	21	0	0	0	0	0	103	46	3	0	0	0	0	0	49	245	
1315-1330	80	14	5	1	0	0	0	100	93	17	6	0	0	0	0	116	65	6	1	0	0	0	0	72	288	
1330-1345	78	13	3	1	0	4	0	99	100	14	1	0	1	0	0	116	46	4	0	0	0	1	0	51	266	
1345-1400	80	19	5	0	1	0	0	105	116	18	3	4	0	0	0	141	56	7	3	0	0	0	0	66	312	
Hourly Total	316	58	15	3	1	4	0	397	391	70	10	4	1	0	0	476	213	20	4	0	0	1	0	0	238	1111
1400-1415	70	10	5	2	1	0	0	88	104	19	5	0	0	0	0	128	50	4	0	0	0	0	0	54	270	
1415-1430	70	18	7	2	0	0	0	97	94	31	2	0	2	0	0	129	48	12	1	1	0	0	0	62	288	
1430-1445	124	17	3	0	1	0	0	145	130	22	2	0	1	0	0	155	53	9	0	0	0	0	0	62	362	
1445-1500	116	26	3	1	1	2	0	149	126	22	4	2	0	0	0	154	50	4	1	0	1	0	0	56	359	
Hourly Total	380	71	18	5	3	2	0	479	454	94	13	2	3	0	0	566	201	29	2	1	1	0	0	234	1279	
1500-1515	124	25	2	2	3	0	0	156	148	21	5	0	1	0	1	176	94	5	1	0	0	1	0	101	433	
1515-1530	100	11	1	1	0	0	0	113	137	26	3	0	2	0	0	168	84	8	1	0	2	0	0	95	376	
1530-1545	115	15	1	2	1	0	0	134	153	21	1	0	0	0	0	175	78	11	0	0	1	0	0	90	399	
1545-1600	113	20	1	0	0	0	0	134	153	33	2	1	4	2	0	195	59	10	0	0	0	0	0	69	398	
Hourly Total	452	71	5	5	4	0	0	537	591	101	11	1	7	2	1	714	315	34	2	0	3	1	0	355	1606	
1600-1615	144	15	3	1	0	0	0	163	159	27	6	0	0	0	0	192	66	6	0	0	0	0	0	72	427	
1615-1630	114	25	1	1	0	0	0	141	172	35	2	1	0	0	0	210	49	5	0	0	0	0	0	54	405	
1630-1645	117	26	2	0	0	1	0	146	165	42	6	0	2	0	0	215	57	2	0	0	0	0	0	59	420	
1645-1700	101	17	3	1	0	0	0	122	167	30	1	0	1	0	0	199	66	12	1	0	0	0	0	79	400	
Hourly Total	476	83	9	3	0	1	0	572	663	134	15	1	3	0	0	816	238	25	1	0	0	0	0	264	1652	
1700-1715	145	28	1	0	0	0	0	174	172	28	1	0	0	0	1	202	41	5	0	0	0	0	0	46	422	
1715-1730	109	18	0	2	0	0	0	129	186	28	1	0	0	0	0	215	72	9	0	0	0	0	0	81	425	
1730-1745	124	11	0	0	0	0	0	135	171	25	0	0	0	1	0	197	47	5	0	0	0	0	0	52	384	
1745-1800	97	8	0	1	0	0	0	106	126	21	2	0	0	0	0	149	58	3	0	0	0	0	0	61	316	
Hourly Total	475	65	1	3	0	0	0	544	655	102	4	0	0	2	0	763	218	22	0	0	0	0	0	0	240	1547
1800-1815	103	7	0	0	0	0	0	110	115	13	0	0	0	1	0	129	73	4	0	0	0	0	2	79	318	
1815-1830	68	6	1	0	0	0	0	75	123	7	1	0	0	0	0	132	46	2	0	0	0	1	0	49	256	
1830-1845	58	4	0	0	0	0	0	62	96	10	0	0	0	0	0	106	48	0	0	0	0	0	0	48	216	
1845-1900	76	5	1	0	0	0	0	82	95	14	0	0	0	0	0	109	39	3	0	0	0	0	0	42	233	
Hourly Total	305	22	2	0	0	0	0	329	429	44	1	1	0	1	0	476	206	9	0	0	0	1	2	218	1023	
Total	4370	782	109	37	18	10	1	5327	5376	1028	136	32	26	7	3	6608	2543	328	29	3	6	3	2	2914	14849	

SS612 Twynyrodyn Results Template Site 1 (Junction 4)

	Destination - Arm A								Destination - Arm B								Destination - Arm C							Arm Total		
	Car	LGV	OGV1	OGV2	PSV	MC	PC		Total	Car	LGV	OGV1	OGV2	PSV	MC		PC	Total	Car	LGV	OGV1	OGV2	PSV		MC	PC
0700-0715	46	12	8	1	0	0	0	67	79	22	0	1	0	0	0	102	13	6	0	0	0	0	0	19	188	
0715-0730	61	21	10	1	1	0	0	94	90	29	0	0	3	0	0	122	19	3	3	0	0	0	0	25	241	
0730-0745	82	18	0	0	1	0	0	101	100	24	1	0	0	0	1	125	32	7	0	0	1	1	0	40	267	
0745-0800	116	32	3	1	0	0	0	152	110	28	1	0	1	0	0	140	56	8	0	0	0	0	0	64	356	
Hourly Total	305	83	21	3	2	0	0	414	379	103	2	1	4	1	0	490	120	24	3	0	1	0	0	148	1052	
0800-0815	125	35	1	0	0	0	0	161	109	21	2	2	1	0	0	135	78	8	0	0	0	1	0	87	383	
0815-0830	148	30	1	2	1	0	0	182	130	29	1	0	0	0	0	160	99	6	0	1	0	0	0	106	448	
0830-0845	115	35	5	0	0	0	0	155	102	18	3	1	0	0	0	127	86	12	0	0	1	3	0	99	381	
0845-0900	117	24	1	2	2	0	0	146	97	22	3	0	3	0	0	125	101	10	2	0	0	0	1	114	385	
Hourly Total	505	124	8	4	3	0	0	644	438	90	9	5	5	0	0	547	364	36	2	1	1	1	1	1	406	1597
0900-0915	95	21	3	1	1	0	0	121	83	21	8	0	0	0	0	112	72	8	0	0	1	0	0	81	314	
0915-0930	75	18	1	0	1	0	0	95	72	15	2	0	0	0	0	89	50	10	1	0	0	0	0	61	245	
0930-0945	54	10	1	0	0	0	0	65	69	18	4	0	0	0	0	91	48	6	2	0	0	0	0	56	212	
0945-1000	63	16	4	1	0	0	0	84	67	14	4	1	0	1	0	87	47	6	0	0	0	0	0	53	224	
Hourly Total	287	65	9	2	2	0	0	365	291	68	18	1	0	1	0	379	217	30	3	0	1	0	0	0	251	995
1000-1015	60	24	4	0	0	0	0	88	63	17	5	0	0	0	0	85	51	8	1	0	0	0	0	60	233	
1015-1030	63	14	2	2	1	0	0	80	80	12	2	0	0	0	0	94	37	9	0	1	0	0	0	47	221	
1030-1045	64	16	4	2	0	0	0	86	71	20	2	2	0	0	0	95	56	6	2	0	0	0	0	64	245	
1045-1100	59	14	5	0	0	1	0	79	65	17	2	0	0	0	0	84	48	5	0	0	0	0	0	53	216	
Hourly Total	246	68	15	3	0	1	0	333	279	66	11	2	0	0	0	358	192	28	3	1	0	0	0	0	224	915
1100-1115	65	12	4	0	0	0	0	81	71	11	2	1	0	1	0	86	52	5	1	0	0	0	0	58	225	
1115-1130	72	17	2	0	0	0	0	91	93	14	5	0	0	0	0	112	55	4	2	0	0	0	0	61	264	
1130-1145	80	21	5	3	0	0	0	109	76	13	1	1	1	0	0	92	50	8	2	0	0	0	0	60	261	
1145-1200	74	16	1	3	2	0	0	96	72	8	4	3	0	0	0	87	67	6	0	0	0	0	0	73	256	
Hourly Total	291	66	12	6	2	0	0	377	312	46	12	5	1	1	0	377	224	23	5	0	0	0	0	0	252	1006
1200-1215	63	24	2	1	0	0	0	90	75	18	6	2	0	0	0	101	66	7	0	0	0	0	0	73	264	
1215-1230	75	14	3	1	1	0	0	94	87	19	4	0	1	0	0	111	63	11	3	0	0	0	1	78	283	
1230-1245	64	14	2	1	0	0	0	81	95	11	1	1	0	0	0	108	56	11	0	0	0	0	0	67	256	
1245-1300	77	15	1	1	0	0	0	94	93	16	4	2	0	0	0	115	47	4	2	0	0	0	1	54	263	
Hourly Total	279	67	8	4	1	0	0	359	350	64	15	5	1	0	0	435	232	33	5	0	0	0	0	2	272	1066
1300-1315	59	19	0	0	0	0	0	78	85	11	2	1	0	0	0	99	62	6	0	0	0	0	0	68	245	
1315-1330	68	15	7	0	0	0	0	90	101	17	5	1	0	0	0	124	69	5	0	0	0	0	0	74	288	
1330-1345	74	9	1	0	1	1	0	86	91	14	2	1	0	3	0	111	59	8	1	0	0	1	0	69	266	
1345-1400	90	19	5	4	0	0	0	118	92	16	6	0	1	0	0	115	70	9	0	0	0	0	0	79	312	
Hourly Total	291	62	13	4	1	1	0	372	369	58	15	3	1	3	0	449	260	28	1	0	0	1	0	0	290	1111
1400-1415	79	14	5	0	0	0	0	98	89	9	5	2	1	0	0	106	56	10	0	0	0	0	0	66	270	
1415-1430	81	31	2	0	2	0	0	116	84	22	8	3	0	0	0	117	47	8	0	0	0	0	0	55	288	
1430-1445	98	20	2	0	1	0	0	121	109	19	2	0	1	0	0	131	100	9	1	0	0	0	0	110	362	
1445-1500	99	17	3	2	0	0	0	121	101	29	4	1	2	1	0	138	92	6	1	0	0	1	0	100	359	
Hourly Total	357	82	12	2	3	0	0	456	383	79	19	6	4	1	0	492	295	33	2	0	0	1	0	0	331	1279
1500-1515	137	19	5	0	0	0	0	161	130	18	3	2	2	1	0	156	99	14	0	0	2	0	1	116	433	
1515-1530	128	25	2	0	1	0	0	156	110	15	2	1	1	0	0	129	83	5	1	0	2	0	0	91	376	
1530-1545	130	20	1	0	0	0	0	151	123	18	1	2	2	0	0	146	93	9	0	0	0	0	0	102	399	
1545-1600	124	27	2	1	3	0	0	157	115	24	1	0	0	0	0	140	86	12	0	0	1	2	0	101	398	
Hourly Total	519	91	10	1	4	0	0	625	478	75	7	5	5	1	0	571	361	40	1	0	5	2	1	410	1606	
1600-1615	139	24	6	0	0	0	0	169	146	14	3	1	0	0	0	164	84	10	0	0	0	0	0	94	427	
1615-1630	116	27	2	1	0	0	0	146	112	27	1	1	0	0	0	141	107	11	0	0	0	0	0	118	405	
1630-1645	129	33	4	0	2	0	0	168	121	22	2	0	0	1	0	146	89	15	2	0	0	0	0	106	420	
1645-1700	144	27	0	0	1	0	0	172	105	18	4	1	0	0	0	128	85	14	1	0	0	0	0	100	400	
Hourly Total	528	111	12	1	3	0	0	655	484	81	10	3	0	1	0	579	365	50	3	0	0	0	0	0	418	1652
1700-1715	134	21	1	0	0	1	0	157	138	28	1	0	0	0	0	167	86	12	0	0	0	0	0	98	422	
1715-1730	157	20	1	0	0	0	0	178	128	17	0	2	0	0	0	147	82	18	0	0	0	0	0	100	425	
1730-1745	144	21	0	0	0	1	0	166	110	11	0	0	0	0	0	121	88	9	0	0	0	0	0	97	384	
1745-1800	117	21	1	0	0	0	0	139	97	7	0	1	0	0	0	105	67	4	1	0	0	0	0	72	316	
Hourly Total	552	83	3	0	0	2	0	640	473	63	1	3	0	0	0	540	323	43	1	0	0	0	0	0	367	1547
1800-1815	98	11	0	0	0	0	1	110	115	8	0	0	0	0	2	125	78	5	0	0	0	0	0	83	318	
1815-1830	98	7	1	1	0	0	0	107	79	5	1	0	0	1	0	86	60	3	0	0	0	0	0	63	256	
1830-1845	85	7	0	0	0	0	0	92	65	3	0	0	0	0	0	68	52	4	0	0	0	0	0	56	216	
1845-1900	74	10	0	0	0	0	0	84	75	5	1	0	0	0	0	81	61	7	0	0	0	0	0	68	233	
Hourly Total	355	35	1	1	0	1	0	393	334	21	2	0	0	1	2	360	251	19	0	0	0	0	0	0	270	1023
Total	4515	937	124	31	21	5	0	5633	4570	814	121	39	21	10	2	5577	3204	387	29	2	8	5	4	3639	14849	

 Severnside Transportation Data Collection	SS612 Twynyrodyn Tuesday 18th Jan 0700-1000 & 1600-1900 Q 0700-1900 JTC
	Site 1

	Arm C Lane 1		Arm C Lane 2		Arm C Lane 1		Arm C Lane 2
	Total		Total		Total		Total
0700-0705	0		1	1600-1605	3		7
0705-0710	0		1	1605-1610	1		5
0710-0715	0		1	1610-1615	3		6
0715-0720	0		2	1615-1620	1		1
0720-0725	0		2	1620-1625	1		3
0725-0730	0		2	1625-1630	1		2
0730-0735	1		3	1630-1635	2		2
0735-0740	0		2	1635-1640	1		8
0740-0745	0		2	1640-1645	1		6
0745-0750	1		3	1645-1650	1		7
0750-0755	1		5	1650-1655	3		6
0755-0800	2		5	1655-1700	2		2
0800-0805	1		5	1700-1705	1		2
0805-0810	1		2	1705-1710	1		4
0810-0815	1		2	1710-1715	0		17
0815-0820	2		7	1715-1720	1		17
0820-0825	2		6	1720-1725	2		14
0825-0830	2		12	1725-1730	1		2
0830-0835	1		7	1730-1735	1		4
0835-0840	1		5	1735-1740	1		2
0840-0845	0		7	1740-1745	1		4
0845-0850	1		3	1745-1750	1		2
0850-0855	2		4	1750-1755	1		3
0855-0900	3		2	1755-1800	0		4
0900-0905	1		2	1800-1805	0		2
0905-0910	1		5	1805-1810	1		7
0910-0915	1		3	1810-1815	0		3
0915-0920	2		1	1815-1820	0		2
0920-0925	0		2	1820-1825	0		1
0925-0930	0		1	1825-1830	1		4
0930-0935	0		1	1830-1835	0		1
0935-0940	1		1	1835-1840	1		2
0940-0945	0		1	1840-1845	1		2
0945-0950	0		2	1845-1850	0		3
0950-0955	1		1	1850-1855	0		1
0955-1000	0		2	1855-1900	0		1

Appendix B



Severnside
Transportation Data Collection

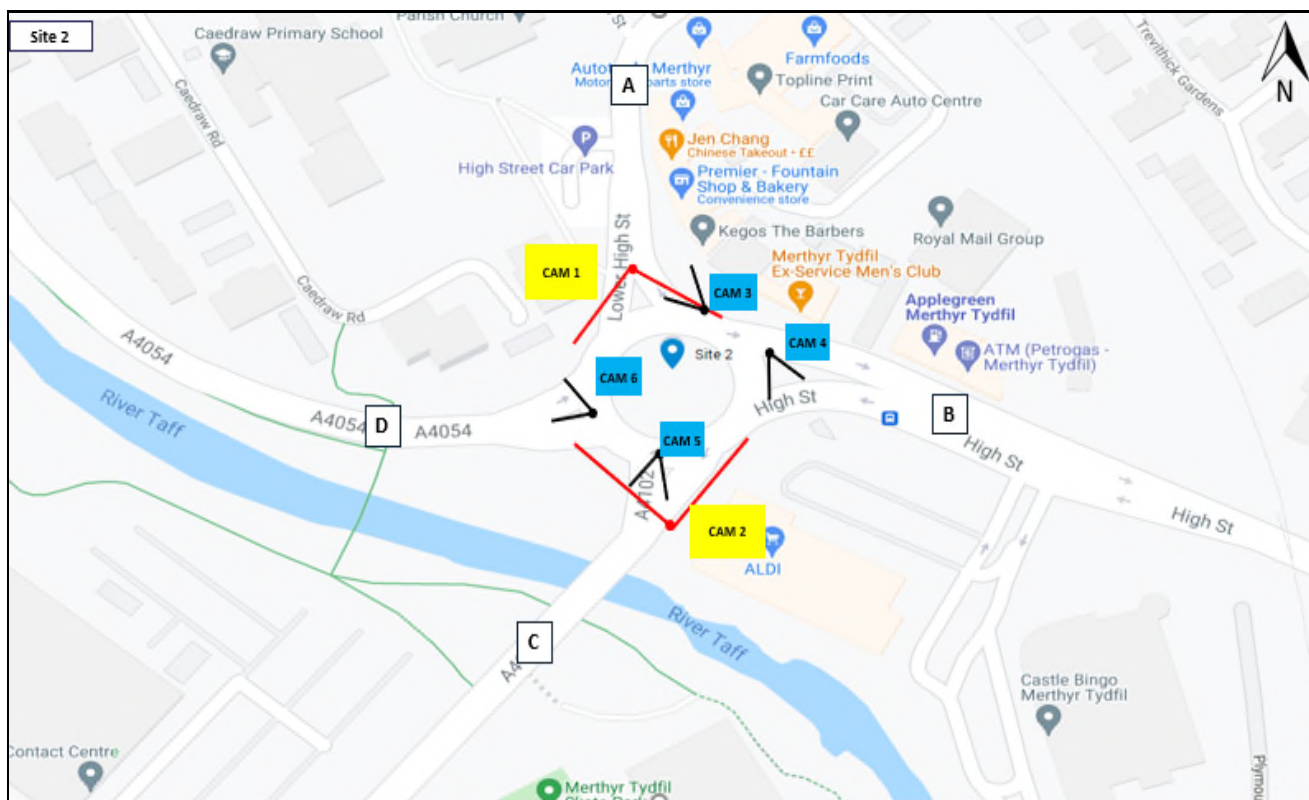
Job Number/Job Name SS612 Twynyrodyn

Date Tuesday 18 January

Time 0700-1000 & 1600-1900 Q 0700-1900 JTC

Survey Type Classified Junction Turning Counts & Queue Lengths

Weather Conditions Clear



Comments

[illegible]

	Arm B - Arm A										Total
	Csv	LDV	ODV1	ODV2	PSV	MC	PC	Total			
0700-0712	11	1	1	0	0	0	0	13			
0715-0730	10	4	2	0	0	0	0	16			
0730-0745	16	1	3	1	0	0	0	21			
0745-0800	18	2	1	0	0	0	0	21			
Hourly Total	55	10	7	1	0	0	0	73			
0800-0815	34	4	1	0	0	0	0	39			
0815-0830	39	6	1	0	0	0	0	46			
0830-0845	38	6	0	0	0	0	0	45			
0845-0900	40	6	0	0	0	0	0	46			
Hourly Total	151	22	2	1	0	0	0	176			
0900-0915	32	0	1	0	0	0	0	33			
0915-0930	35	4	0	0	0	0	0	39			
0930-0945	31	1	0	0	0	0	0	32			
0945-1000	36	2	1	0	0	0	0	39			
Hourly Total	135	10	3	0	0	0	0	148			
1000-1015	25	6	0	0	0	0	0	31			
1015-1030	22	12	0	0	0	0	0	34			
1030-1045	43	1	1	0	0	0	0	45			
1045-1100	42	3	0	0	0	0	0	45			
Hourly Total	165	25	3	1	0	0	0	194			
1100-1115	42	4	3	0	0	0	0	49			
1115-1130	50	3	0	0	0	0	0	53			
1130-1145	49	3	0	0	0	1	0	53			
1145-1200	46	7	0	0	0	0	0	53			
Hourly Total	187	17	3	0	0	1	0	208			
1200-1215	41	1	0	0	0	0	0	42			
1215-1230	49	6	0	0	0	0	0	55			
1230-1245	48	4	0	0	0	0	0	52			
1245-1300	40	1	2	0	0	0	0	43			
Hourly Total	178	12	2	0	0	0	0	192			
1300-1315	42	8	0	0	0	0	0	50			
1315-1330	49	5	0	0	0	0	0	54			
1330-1345	41	4	0	0	0	0	0	45			
1345-1400	43	3	0	0	0	0	0	46			
Hourly Total	175	20	0	0	0	0	0	195			
1400-1415	52	9	0	0	0	1	0	62			
1415-1430	52	12	0	0	0	0	0	64			
1430-1445	54	4	0	0	0	0	0	58			
1445-1500	47	1	0	0	0	0	0	48			
Hourly Total	210	26	0	0	0	1	0	237			
1500-1515	59	5	0	0	1	2	0	67			
1515-1530	45	1	0	0	0	0	0	46			
1530-1545	49	6	0	0	0	0	0	55			
1545-1600	42	3	0	0	0	0	0	45			
Hourly Total	195	15	0	0	1	2	0	213			
1600-1615	39	5	0	0	0	0	0	44			
1615-1630	46	3	0	0	0	0	1	50			
1630-1645	46	2	0	0	0	0	0	48			
1645-1700	54	3	0	0	0	0	0	57			
Hourly Total	184	18	1	0	0	0	1	204			
1700-1715	39	2	0	0	0	0	0	41			
1715-1730	39	2	0	0	0	0	0	41			
1730-1745	38	2	0	0	0	0	0	39			
1745-1800	46	2	0	0	0	0	0	48			
Hourly Total	172	9	1	0	0	0	0	182			
1800-1815	33	3	0	0	0	0	0	36			
1815-1830	44	4	0	0	0	1	0	49			
1830-1845	26	3	0	0	0	0	0	29			
1845-1900	39	2	0	0	0	0	0	41			
Hourly Total	142	12	0	0	0	1	0	155			
Total	1949	196	22	3	1	8	1	2180			

	Arm B - Arm B										Total
	Csv	LDV	ODV1	ODV2	PSV	MC	PC	Total			
0700-0712	1	3	1	0	0	0	0	5			
0715-0730	1	0	1	0	0	0	0	2			
0730-0745	1	0	1	0	0	0	0	2			
0745-0800	4	1	0	0	0	0	0	5			
Hourly Total	7	2	3	0	0	0	0	12			
0800-0815	4	0	0	0	0	0	0	4			
0815-0830	3	1	0	0	0	0	0	4			
0830-0845	6	1	0	0	0	0	0	7			
0845-0900	7	0	0	0	0	0	0	7			
Hourly Total	20	2	0	0	0	0	0	22			
0900-0915	6	0	0	0	0	0	0	6			
0915-0930	5	0	0	0	0	0	0	5			
0930-0945	13	1	1	0	0	0	0	15			
0945-1000	1	1	0	0	0	0	0	2			
Hourly Total	21	6	0	0	0	0	0	27			
1000-1015	6	2	0	1	0	0	0	9			
1015-1030	10	0	0	0	0	0	0	10			
1030-1045	10	0	0	0	0	0	0	10			
1045-1100	10	3	1	1	0	0	0	15			
Hourly Total	36	4	2	2	0	0	0	46			
1100-1115	11	0	0	0	0	0	0	11			
1115-1130	13	1	1	0	0	0	0	15			
1130-1145	8	0	0	0	0	0	0	8			
1145-1200	10	0	0	0	0	0	0	10			
Hourly Total	42	1	1	0	0	0	0	44			
1200-1215	12	2	0	0	0	0	0	14			
1215-1230	13	1	0	0	0	0	0	14			
1230-1245	9	0	0	0	0	0	0	9			
1245-1300	7	1	0	0	0	0	0	8			
Hourly Total	41	4	0	0	0	0	0	45			
1300-1315	8	2	1	0	0	0	0	11			
1315-1330	11	2	0	0	0	0	0	13			
1330-1345	13	1	0	0	0	0	0	14			
1345-1400	13	1	0	0	0	0	0	14			
Hourly Total	45	8	1	0	0	0	0	54			
1400-1415	11	3	0	0	0	0	0	14			
1415-1430	13	4	0	0	0	0	0	17			
1430-1445	17	0	0	0	0	0	0	17			
1445-1500	16	1	0	0	0	0	0	17			
Hourly Total	57	8	0	0	0	0	0	65			
1500-1515	14	1	0	0	0	0	0	15			
1515-1530	18	1	0	0	0	0	0	19			
1530-1545	8	1	0	0	0	0	0	9			
1545-1600	9	0	1	0	0	0	0	10			
Hourly Total	54	4	2	0	0	0	0	60			
1600-1615	7	0	0	0	0	0	0	7			
1615-1630	14	0	0	0	0	0	0	14			
1630-1645	8	2	0	0	0	0	0	10			
1645-1700	8	2	0	0	0	0	0	10			
Hourly Total	36	4	0	0	0	0	0	42			
1700-1715	11	3	1	0	0	0	0	15			
1715-1730	11	0	0	0	0	0	0	11			
1730-1745	11	0	0	0	0	0	0	11			
1745-1800	6	2	0	0	0	0	0	8			
Hourly Total	39	5	1	0	0	0	0	45			
1800-1815	11	0	0	0	0	0	0	11			
1815-1830	13	1	0	0	0	0	0	14			
1830-1845	8	0	0	0	0	0	0	8			
1845-1900	10	1	0	0	0	0	0	11			
Hourly Total	42	2	0	0	0	0	0	44			
Total	464	50	10	2	0	0	0	506			

	Arm B - Arm C										Total
	Csv	LDV	ODV1	ODV2	PSV	MC	PC	Total			
0700-0712	15	3	1	0	1	0	0	20			
0715-0730	12	5	3	0	0	0	0	20			
0730-0745	10	4	3	0	0	0	0	17			
0745-0800	23	0	1	0	1	1	0	25			
Hourly Total	74	19	8	0	2	1	0	104			
0800-0815	20	1	0	0	0	0	0	21			
0815-0830	24	0	1	0	1	0	0	26			
0830-0845	39	6	2	1	0	0	0	48			
0845-0900	25	6	0	0	1	0	0	32			
Hourly Total	114	23	3	1	2	0	0	143			
0900-0915	29	6	1	0	0	0	0	36			
0915-0930	31	5	2	0	2	0	0	40			
0930-0945	31	4	1	0	0	0	0	36			
0945-1000	28	1	2	0	1	0	0	32			
Hourly Total	112	21	7	0	3	0	0	143			
1000-1015	32	4	1	0	0	0	0	37			
1015-1030	21	3	1	0	0	0	0	25			
1030-1045	25	4	1	0	0	0	0	30			
1045-1100	20	3	1	0	0	0	0	24			
Hourly Total	109	16	4	0	2	0	0	131			
1100-1115	30	4	0	0	0	0	0	34			
1115-1130	29	2	1	0	1	0	0	32			
1130-1145	27	3	1	1	0	0	0	32			
1145-1200	21	1	0	0	0	0	0	22			
Hourly Total	109	12	2	1	1	0	0	124			
1200-1215	23	6	0	0	0	0	0	29			
1215-1230	42	0	1	0	1	0	0	44			
1230-1245	46	4	0	0	0	0	0	50			
1245-1300	31										

	Arm C - Arm A									Arm C - Arm B									Arm C - Arm C									Arm C - Arm D								Arm Total	
	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total		Car	LDV	OSV1	OSV2	PSV	MC	PC	Total		Car	LDV	OSV1	OSV2	PSV	MC	PC	Total		Car	LDV	OSV1	OSV2	PSV	MC	PC	Total		
0700-0715	15	1	0	0	0	0	0	18		8	1	0	0	1	0	0	12		1	0	0	0	0	0	0	1		5	1	0	0	0	0	8	89		
0715-0730	12	3	0	0	0	0	0	15		11	1	0	0	0	0	0	12		0	0	0	0	0	0	0	0		11	2	0	1	1	0	0	17	84	
0730-0745	30	1	2	0	0	0	0	33		15	1	2	0	2	1	0	25		0	0	0	0	0	0	0	0		11	2	2	0	0	0	0	15	79	
Hourly Total	92	13	2	0	0	0	0	107		53	15	2	0	3	1	0	74		1	1	0	0	0	0	0	2		48	11	3	1	2	0	0	65	248	
0800-0815	50	6	1	0	0	0	0	57		26	7	0	0	1	0	0	34		0	0	0	0	0	0	0	0		34	1	0	0	0	0	0	35	126	
0815-0830	47	3	0	0	0	0	0	50		20	5	1	0	0	0	0	26		0	0	0	0	0	0	0	0		40	4	2	0	1	0	0	52	128	
0830-0845	52	3	0	0	0	0	0	55		26	4	1	0	0	0	0	32		0	0	0	0	0	0	0	0		66	5	0	0	0	0	0	73	180	
0845-0900	60	1	1	0	0	0	0	62		25	1	0	0	0	0	0	26		0	0	0	0	0	0	0	0		56	2	1	0	1	0	0	60	139	
Hourly Total	189	13	2	0	0	0	0	204		97	19	2	0	2	0	0	120		0	0	0	0	0	0	0	0		203	12	3	0	2	0	0	220	544	
0900-0915	44	4	0	0	0	0	0	48		21	7	0	0	2	0	0	28		0	0	0	0	0	0	0	0		31	4	0	1	1	0	0	38	119	
0915-0930	46	3	0	0	0	0	0	51		25	2	1	0	0	0	0	28		0	0	0	0	0	0	0	0		33	4	1	0	1	0	0	39	118	
0930-0945	39	0	0	0	0	0	0	45		23	1	2	0	1	0	0	28		2	0	0	0	0	0	0	0	2		23	4	0	0	0	0	27	103	
0945-1000	39	2	0	0	0	0	0	41		17	1	2	0	0	0	0	20		0	0	0	0	0	0	0	0		30	5	0	0	1	0	0	36	97	
Hourly Total	168	15	1	1	0	0	0	185		88	13	5	0	3	0	0	109		2	0	0	0	0	0	0	0	2		117	19	1	1	3	0	0	141	437
1000-1015	39	3	1	0	0	0	0	43		21	2	1	0	1	0	0	25		0	0	0	0	0	0	0	0		22	2	2	0	0	0	0	26	84	
1015-1030	45	3	0	0	0	0	0	48		18	1	0	0	0	0	0	21		0	0	0	0	0	0	0	0		22	0	1	0	1	0	0	24	81	
1030-1045	39	4	1	1	0	0	0	45		21	0	0	0	1	0	0	22		0	0	0	0	0	0	0	0		16	1	1	0	0	0	0	20	67	
1045-1100	37	2	1	0	0	0	0	40		20	3	0	0	0	0	0	23		0	0	0	0	0	0	0	0		16	4	1	0	1	0	0	22	81	
Hourly Total	160	12	3	1	0	0	0	176		86	8	1	0	2	0	0	97		0	0	0	0	0	0	0	0		76	9	5	0	2	0	0	92	365	
1100-1115	30	1	1	0	0	0	0	32		24	2	1	1	0	0	0	28		0	0	0	0	0	0	0	0		21	1	0	0	0	0	0	26	80	
1115-1130	58	4	0	0	0	0	0	62		30	2	0	0	0	0	0	32		0	0	1	0	0	0	0	0		15	3	1	0	1	0	0	20	115	
1130-1145	43	3	0	0	0	0	0	46		27	3	1	0	0	0	0	33		1	0	0	0	0	0	0	0	1		20	2	2	0	0	0	0	25	109
1145-1200	41	3	0	0	0	0	0	44		25	2	0	0	0	0	0	27		0	0	0	0	0	0	0	0		20	1	0	0	0	1	0	23	99	
Hourly Total	180	11	1	0	0	0	0	192		106	11	2	2	1	0	0	122		1	0	1	0	0	0	0	0	2		82	16	3	0	1	1	0	103	419
1200-1215	51	1	0	0	0	0	0	52		23	0	1	1	1	0	0	26		0	1	1	0	0	0	0	0	2		15	4	0	0	0	0	23	103	
1215-1230	48	7	0	0	0	0	0	55		23	4	1	0	0	0	0	28		0	1	0	0	0	0	0	0	1		18	6	0	0	0	0	25	109	
1230-1245	19	4	0	0	0	0	0	23		12	1	0	0	1	0	0	16		0	0	0	0	0	0	0	0		11	3	0	0	0	0	0	15	118	
1245-1300	36	5	0	0	0	0	0	41		23	4	0	0	0	0	0	27		0	0	0	0	0	0	0	0		23	5	0	0	2	0	0	30	98	
Hourly Total	194	17	0	0	0	0	0	211		101	11	2	1	2	0	0	117		0	2	1	0	0	0	0	0	3		77	18	0	0	3	0	0	98	429
1300-1315	47	4	0	0	0	0	0	51		26	4	2	0	0	0	0	32		0	0	0	0	0	0	0	0		27	1	0	0	0	0	0	30	113	
1315-1330	47	5	1	0	0	0	0	53		24	4	0	0	0	0	0	28		0	0	0	0	0	0	0	0		22	5	3	0	1	0	0	31	112	
1330-1345	41	0	1	0	0	0	0	42		21	1	3	0	1	0	0	26		1	0	0	0	0	0	0	0	1		19	1	0	0	0	0	0	27	106
1345-1400	54	7	0	0	0	1	0	62		27	4	0	0	0	0	0	31		0	0	0	0	0	0	0	0		22	2	0	0	1	0	0	25	118	
Hourly Total	180	22	2	0	0	1	0	214		96	17	5	0	1	0	0	121		1	0	0	0	0	0	0	0	1		94	13	4	0	2	0	0	113	449
1400-1415	47	6	1	0	0	0	0	54		17	1	2	0	1	0	0	21		0	0	0	0	0	0	0	0		16	1	2	0	0	0	0	21	118	
1415-1430	48	1	1	0	0	0	0	50		30	3	0	0	0	0	0	33		0	0	0	0	0	0	0	0		19	1	0	0	1	0	0	21	104	
1430-1445	49	0	1	0	0	0	0	50		18	5	0	1	1	0	0	25		0	0	0	0	0	0	0	0		32	0	0	0	0	0	0	32	113	
1445-1500	48	7	1	0	0	0	0	56		41	7	1	1	0	0	0	50		1	0	0	0	0	0	0	0	1		30	1	0	0	1	0	0	33	144
Hourly Total	192	20	4	0	0	0	0	216		132	15	5	2	2	0	0	156		1	0	0	0	0	0	0	0	1		99	3	2	0	2	0	0	106	479
1500-1515	46	4	0	0	0	0	0	50		38	1	0	0	1	2	0	44		0	0	0	0	0	0	0	0		24	0	0	0	0	0	0	24	118	
1515-1530	39	5	0	0	0	1	0	45		30	1	1	0	1	0	0	33		0	0	0	0	0	0	0	0		24	0	0	0	1	0	0	26	104	
1530-1545	46	3	1	0	0	0	0	50		36	5	0	0	1	0	0	40		0	0	0	0	0	0	0	0		27	1	0	0	0	0	0	30	128	
1545-1600	54	0	0	0	0	0	0	54		38	1	1	0	0	0	0	40		1	0	0	0	0	0	0	0		39	1	0	0	1	0	0	40	139	
Hourly Total	185	18	1	0	1	0	0	205		142	14	2	0	3	2	0	163		1	0	0	0	0	0	0	0	1		114	3	1	0	2	0	0	120	489
1600-1615	50	11	0	0	0	0	0	62		31	6	0	0	1	0	0	42		0	0	0	0	0	0	0	0		35	1	1	0	1	0	0	44	148	
1615-1630	50	3	0	0	0	0	0	53		34	4	0	0	0	0	0	39		1	0	0	0	0	0	0	0	1		35	3	0	0	1	0	0	39	140
1630-1645	80	9	0	0	0	0	0	89		31	2	0	0	1	0	0	41		0	0	0	0	0	0	0	0		33	2	0	0	1	0	0	41	171	
1645-1700	57	7	0	0	0	0	0	65		42	4																										

	Arm D - Arm A								Arm D - Arm B								Arm D - Arm C								Arm D - Arm D								Arm Total	
	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total		
1700-0715	16	2	0	0	0	0	0	18	21	5	1	0	2	0	0	29	14	5	0	0	1	0	0	20	0	0	0	0	0	0	0	0	67	
1715-0730	12	6	1	0	0	0	0	19	21	8	0	0	2	1	0	32	12	4	0	0	0	0	0	16	2	0	0	0	0	0	0	2	68	
1730-0745	10	6	1	0	0	0	0	26	18	9	0	0	1	0	0	28	20	3	0	0	0	0	0	25	0	0	0	0	0	0	0	0	79	
1745-0800	16	6	0	0	0	0	0	28	85	11	0	0	0	0	0	96	20	6	0	0	0	0	0	26	0	0	0	0	0	0	0	0	109	
Hourly Total	71	17	3	0	0	0	0	91	85	33	2	0	6	1	0	127	81	14	0	0	3	0	0	98	2	0	0	0	0	0	0	0	2	318
1800-0815	42	3	1	0	0	0	1	47	46	1	2	0	2	0	0	53	24	4	1	1	1	0	0	31	0	0	0	0	0	0	0	0	131	
1815-0830	47	4	0	0	0	0	0	51	52	5	3	0	1	0	0	61	28	2	0	0	0	0	0	30	0	0	0	0	0	0	0	0	142	
1830-0845	36	3	0	0	0	0	0	40	34	4	3	0	2	0	0	39	16	1	0	0	0	0	0	20	0	0	0	0	0	0	0	0	138	
1845-0900	72	6	0	0	0	0	0	80	49	5	1	0	0	0	0	59	24	5	0	0	1	0	0	30	0	0	0	0	0	0	0	0	169	
Hourly Total	217	18	1	0	1	1	0	238	197	21	9	0	5	0	0	232	94	12	1	1	3	0	0	111	0	0	0	0	0	0	0	0	0	581
1900-0915	81	6	1	0	0	0	0	88	75	6	1	0	0	1	0	83	35	1	1	0	0	2	1	0	40	0	0	1	0	0	0	0	1	209
1915-0930	51	4	0	1	0	0	0	56	50	5	0	0	4	0	0	59	16	4	0	1	0	0	0	22	0	0	0	0	0	0	0	0	137	
1930-0945	58	4	0	0	0	0	0	62	34	7	0	0	0	0	0	41	17	2	0	0	1	0	0	20	0	0	1	0	0	0	0	0	134	
1945-1000	60	8	2	0	0	0	0	70	38	9	1	0	2	0	0	50	22	2	1	0	0	0	0	25	0	0	0	0	0	0	0	0	145	
Hourly Total	250	22	3	0	1	0	0	276	197	29	2	0	6	1	0	235	83	11	3	1	3	1	0	100	0	0	2	0	0	0	0	0	2	615
2000-1015	51	7	1	0	0	0	0	59	53	7	2	0	2	0	2	66	22	2	2	0	1	0	0	27	0	0	0	0	0	0	0	0	0	152
2015-1030	65	6	1	0	0	0	0	72	35	5	1	0	1	0	0	40	25	3	0	0	0	0	0	26	0	0	0	0	0	0	0	0	138	
2030-1045	62	1	0	0	0	0	0	65	46	6	1	0	0	0	0	53	20	1	0	0	1	0	0	22	1	0	0	0	0	0	0	1	141	
2045-1100	51	5	1	1	0	0	0	58	38	6	0	0	1	0	0	45	21	3	2	0	0	0	0	26	0	0	0	0	0	0	0	0	159	
Hourly Total	229	21	3	1	0	0	0	254	170	24	4	0	4	0	2	204	86	9	4	0	2	0	0	101	1	0	0	0	0	0	0	0	1	590
2100-1115	46	1	0	0	0	0	0	50	45	2	2	0	0	0	0	50	26	2	1	1	0	0	0	27	0	0	0	0	0	0	0	0	150	
2115-1130	58	3	1	0	0	0	1	63	47	4	0	0	4	0	0	55	18	7	0	1	0	0	0	20	0	1	0	0	0	0	0	1	139	
2130-1145	71	4	1	0	0	0	0	76	54	7	0	0	2	0	0	63	16	2	1	0	0	0	0	20	0	0	1	0	0	0	0	1	160	
2145-1200	73	3	1	0	0	0	0	77	58	5	1	0	0	0	0	64	38	4	0	0	0	0	0	40	1	0	0	0	0	0	0	1	152	
Hourly Total	267	17	4	0	0	1	0	289	204	19	3	0	6	0	0	232	88	15	2	1	1	0	0	107	1	1	1	0	0	0	0	0	3	631
2200-1215	80	5	0	0	0	0	1	86	80	3	1	1	4	0	0	89	35	4	1	0	1	0	0	45	1	0	0	0	0	0	0	1	201	
2215-1230	51	7	1	0	0	0	0	59	50	6	2	0	1	0	0	59	21	2	0	0	0	0	0	23	0	0	0	0	0	0	0	0	141	
2230-1245	68	7	0	0	0	0	1	77	48	5	1	0	1	0	0	55	21	5	1	0	1	0	0	28	0	0	0	1	0	0	0	1	161	
2245-1300	75	5	0	0	0	0	0	80	52	6	1	0	2	1	0	62	31	3	0	0	0	0	0	1	35	0	0	0	0	0	0	0	177	
Hourly Total	275	24	1	0	0	2	0	302	210	20	5	1	8	1	0	245	112	14	2	0	2	0	1	131	1	0	0	0	0	0	0	2	680	
2300-1315	66	8	0	0	0	0	0	74	62	6	0	0	3	0	0	71	31	3	0	0	0	0	0	34	1	0	0	0	0	0	0	1	180	
2315-1330	48	2	0	0	0	0	0	50	37	1	1	0	0	0	0	40	23	4	0	0	0	0	0	27	0	0	1	0	0	0	0	1	121	
2330-1345	80	6	1	0	0	0	0	87	68	14	2	0	2	0	0	87	21	5	0	0	1	0	0	27	1	0	1	0	0	0	0	2	205	
2345-1400	63	3	1	0	1	1	0	71	54	9	1	0	2	0	0	66	23	3	0	0	0	0	0	28	0	0	0	0	0	0	0	0	165	
Hourly Total	257	21	2	0	1	1	0	282	222	34	4	0	7	0	0	267	100	15	0	0	1	0	0	116	2	0	2	0	0	0	0	0	4	669
2400-1415	63	4	2	0	0	0	0	69	48	12	1	0	1	0	0	62	28	4	0	0	1	0	0	33	1	0	1	0	0	0	0	2	166	
2415-1430	87	5	0	0	0	1	0	93	51	10	3	0	2	0	0	67	26	2	0	0	0	0	0	28	0	0	0	0	0	0	0	0	168	
2430-1445	61	2	0	0	0	0	0	63	58	7	2	0	1	0	0	68	25	6	1	0	1	0	0	33	0	0	0	0	0	0	0	0	164	
2445-1500	72	1	0	0	0	0	0	77	59	4	0	0	3	0	0	66	24	2	0	0	0	0	0	28	0	0	1	0	0	0	0	1	172	
Hourly Total	263	16	2	0	0	1	0	282	217	33	6	0	7	0	0	263	103	16	1	0	2	0	0	122	1	0	2	0	0	0	0	0	3	670
2500-1515	72	5	1	0	0	0	0	78	55	3	1	0	1	0	0	60	44	1	0	0	1	0	0	46	0	0	0	0	0	0	0	0	184	
2515-1530	61	3	0	0	0	0	0	64	58	5	3	0	2	0	0	68	35	3	0	0	1	0	0	39	1	0	0	0	0	0	0	1	172	
2530-1545	81	1	0	0	0	0	0	84	71	6	0	0	2	0	2	81	25	2	0	0	1	0	0	26	1	0	0	0	0	0	0	1	192	
2545-1600	85	2	0	0	0	0	0	87	75	12	0	0	1	1	0	87	41	2	1	0	0	0	0	44	0	0	0	0	0	0	0	0	218	
Hourly Total	301	11	1	0	0	0	0	313	257	26	4	0	6	1	2	286	148	8	1	0	3	0	0	155	2	0	0	0	0	0	0	2	766	
2600-1615	77	6	0	0	0	0	0	83	54	13	0	0	4	0	0	71	51	3	1	0	2	0	0	57	1	0	0	0	0	0	0	1	214	
2615-1630	64	2	0	0	0	0	0	71	62	17	0	0	1	0	0	79	39	4	0	0	0	0	0	43	2	0	0	0	0	0	0	2	185	
2630-1645	63	6	0	0	0	0	0	69	69	12	0	0	0	0	0	81	28	3	0	0	1	0	0	32	1	0	0	0	0	0	0	1	183	
2645-1700	65	3	0	0	0	0	0	71	65	3	0	0	3	1	0	74	39	4	2	0	0	0	0	45	1	0	0	1	0	0	0	1	181	
Hourly Total	267	24	0	0	0	0	0	292	251	35	0	0	8	1	0	295	157	14	3	0</														

Origin - Arm A													Origin - Arm B													Origin - Arm C													Origin - Arm D													Arm Total
	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Arm Total											
0700-0715	32	15	2	1	1	0	0	51	39	10	3	0	1	0	0	53	29	0	0	0	1	0	0	0	30	51	12	1	0	3	0	0	67	51	12	1	0	3	0	0	67	210										
0715-0730	44	11	2	0	0	0	0	57	45	16	7	0	1	0	0	69	36	6	0	0	1	1	0	0	44	47	18	1	0	2	1	0	69	47	18	1	0	2	1	0	69	239										
0730-0745	49	18	2	1	1	0	0	71	49	10	10	1	1	1	0	73	56	8	6	0	2	1	0	73	57	18	1	0	3	0	0	79	57	18	1	0	3	0	0	79	294											
0745-0800	61	11	1	0	0	0	0	73	70	14	0	0	0	0	0	84	71	17	1	0	1	0	0	89	81	20	1	0	1	0	0	102	81	20	1	0	1	0	0	102	393											
Hourly Total	190	57	7	2	2	0	0	258	209	60	25	1	5	1	0	301	194	40	7	1	5	1	0	248	239	64	5	0	9	1	0	318	239	64	5	0	9	1	0	318	1125											
0800-0815	81	15	0	0	1	2	0	99	110	14	1	0	0	0	0	125	110	14	1	0	1	0	0	126	112	20	4	1	3	1	0	131	112	20	4	1	3	1	0	131	481											
0815-0830	157	12	1	1	0	0	0	171	114	17	5	0	2	0	0	138	112	12	3	0	1	0	0	128	127	11	3	0	1	0	0	142	127	11	3	0	1	0	0	142	579											
0830-0845	156	10	0	0	0	0	0	166	148	20	0	0	1	1	0	176	146	12	1	0	1	0	0	160	124	8	3	0	4	0	0	139	124	8	3	0	4	0	0	139	684											
0845-0900	158	8	0	0	1	0	0	167	152	17	0	0	2	0	0	171	151	6	2	0	1	0	0	159	165	20	1	0	1	0	0	186	165	20	1	0	1	0	0	186	837											
Hourly Total	552	45	4	1	2	2	0	606	524	68	9	3	5	1	0	610	489	44	7	0	4	0	0	544	508	51	11	1	9	1	0	581	508	51	11	1	9	1	0	581	2341											
0900-0915	148	11	4	1	1	0	0	169	128	11	2	0	2	0	0	143	98	17	0	1	3	0	0	119	104	17	4	0	2	2	0	129	104	17	4	0	2	2	0	129	640											
0915-0930	123	13	0	0	0	0	0	136	116	18	3	0	3	0	0	140	104	9	3	1	1	0	0	118	117	13	1	0	1	0	0	137	117	13	1	0	1	0	0	137	531											
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0945-1000	113	10	3	0	0	0	0	126	100	21	3	0	1	0	0	127	86	6	2	0	0	1	0	0	97	120	19	4	0	2	0	0	145	120	19	4	0	2	0	0	145	495										
Hourly Total	476	52	12	3	1	0	0	544	451	63	11	0	7	0	0	532	375	47	7	2	6	0	0	437	530	62	10	1	10	2	0	615	530	62	10	1	10	2	0	615	2128											
1000-1015	113	12	1	0	0	0	0	126	113	22	3	1	1	0	0	140	82	7	4	0	1	0	0	94	126	16	5	0	3	0	0	152	126	16	5	0	3	0	0	152	512											
1015-1030	100	10	1	0	0	0	0	120	136	20	4	0	5	0	0	175	85	1	0	1	1	0	0	93	121	14	2	0	1	0	0	138	121	14	2	0	1	0	0	138	526											
1030-1045	120	11	2	0	0	0	0	134	114	16	7	1	0	0	0	138	76	7	2	1	1	0	0	87	129	10	1	0	1	0	0	141	129	10	1	0	1	0	0	141	540											
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Hourly Total	450	42	4	0	0	0	0	497	507	77	18	3	8	0	0	613	522	29	9	1	4	0	0	365	486	54	11	1	6	0	2	360	486	54	11	1	6	0	2	360	2055											
1100-1115	100	1	4	0	0	0	0	105	121	12	3	1	3	0	0	140	81	10	2	1	0	0	0	94	124	17	1	0	0	0	0	141	124	17	1	0	0	0	0	141	527											
1115-1130	138	8	1	0	0	1	0	149	140	15	2	0	2	0	0	159	103	9	2	0	1	0	0	115	123	10	1	0	4	1	0	139	123	10	1	0	4	1	0	139	562											
1130-1145	115	15	1	0	0	0	0	131	129	11	1	1	2	1	0	145	91	13	3	1	1	0	0	109	141	13	3	0	3	0	0	160	141	13	3	0	3	0	0	160	545											
1145-1200	133	8	1	0	0	0	0	140	125	14	1	0	2	0	0	142	92	6	0	0	0	0	1	0	99	168	17	2	0	0	0	0	182	168	17	2	0	0	0	0	182	553										
Hourly Total	492	41	7	0	1	0	0	541	515	52	7	2	9	1	0	586	369	38	7	2	2	1	0	419	560	52	10	1	7	1	0	631	560	52	10	1	7	1	0	631	2177											
1200-1215	146	5	1	0	0	0	0	153	131	15	2	0	2	2	0	162	93	6	2	1	1	0	0	103	180	12	2	1	5	1	0	201	180	12	2	1	5	1	0	201	599											
1215-1230	152	18	2	1	0	0	0	173	154	12	2	0	2	0	0	179	89	18	1	0	1	0	0	109	122	15	3	0	1	0	0	141	122	15	3	0	1	0	0	141	593											
1230-1245	161	11	0	0	0	0	0	172	145	15	0	0	1	0	0	161	108	10	0	0	1	0	0	119	128	17	3	0	2	1	0	161	128	17	3	0	2	1	0	161	613											
1245-1300	150	12	1	0	0	0	0	163	139	7	6	0	3	0	0	155	82	14	0	0	2	0	0	98	158	14	1	0	2	1	1	177	158	14	1	0	2	1	1	177	593											
Hourly Total	600	47	4	1	0	0	0	661	569	49	10	0	8	2	0	638	372	48	3	1	5	0	0	429	598	58	9	1	10	3	1	680	598	58	9	1	10	3	1	680	2408											
1300-1315	141	8	0	0	0	0	0	149	127	14	2	1	0	0	0	144	100	11	2	0	0	0	0	113	160	17	0	0	3	0	0	180	160	17	0	0	3	0	0	180	589											
1315-1330	140	13	2	0	0	0	0	165	140	21	1	0	2	3	0	167	93	14	4	0	1	0	0	112	109	11	2	0	0	0	0	121	109	11	2	0	0	0	0	121	581											
1330-1345	147	8	0	0	0	0	0	156	138	21	1	0	1	0	0	161	86	14	5	0	1	0	0	106	171	20	4	0	3	0	0	209	171	20	4	0	3	0	0	209	626											
1345-1400	120	11	1	0	0	0	0	143	134	9	1	0	4	0	0	148	100	11	0	0	1	1	0	118	147	17	2	0	3	1	0	165	147	17	2	0	3	1	0	165	574											
Hourly Total	566	43	3	0	0	0	0	612	539	65	5	1	7	3	0	620	382	52	11	0	3	1	0	449	581	70	8	0	9	1	0	669	581	70	8	0	9	1	0	669	2350											
1400-1415	120	14	0	0	0	0	0	143	147	25	1	1	2	1	0	177	100	10	5	0	1	0	0	118	140	20	4	0	2	0	0	166	140	20	4	0	2	0	0	166	604											
1415-1430	154	21	1	0	0	0	0	176	144	26	1	0	1	0	0	171	97	9	1	0	1	0	0	104	149	17	3	0	2	1	0	168	149	17	3	0	2	1	0	168	619											
1430-1445	148	11	3	0	0	0	0	162	152	13	1	0	2	0	0	168	99	11	1	1	1	0	0	113	144	15	3	0	2	0	0	164	144	15	3	0	2	0	0	164	607											
1445-1500	161	13	2	0	0	2	0	189	164	8	2	0	1	0	0	177	120	12	4	1	1	0	0	144	151	13	1	0	3	0	0	172	151	13	1	0	3	0	0	172	612											
Hourly Total	573																																																			

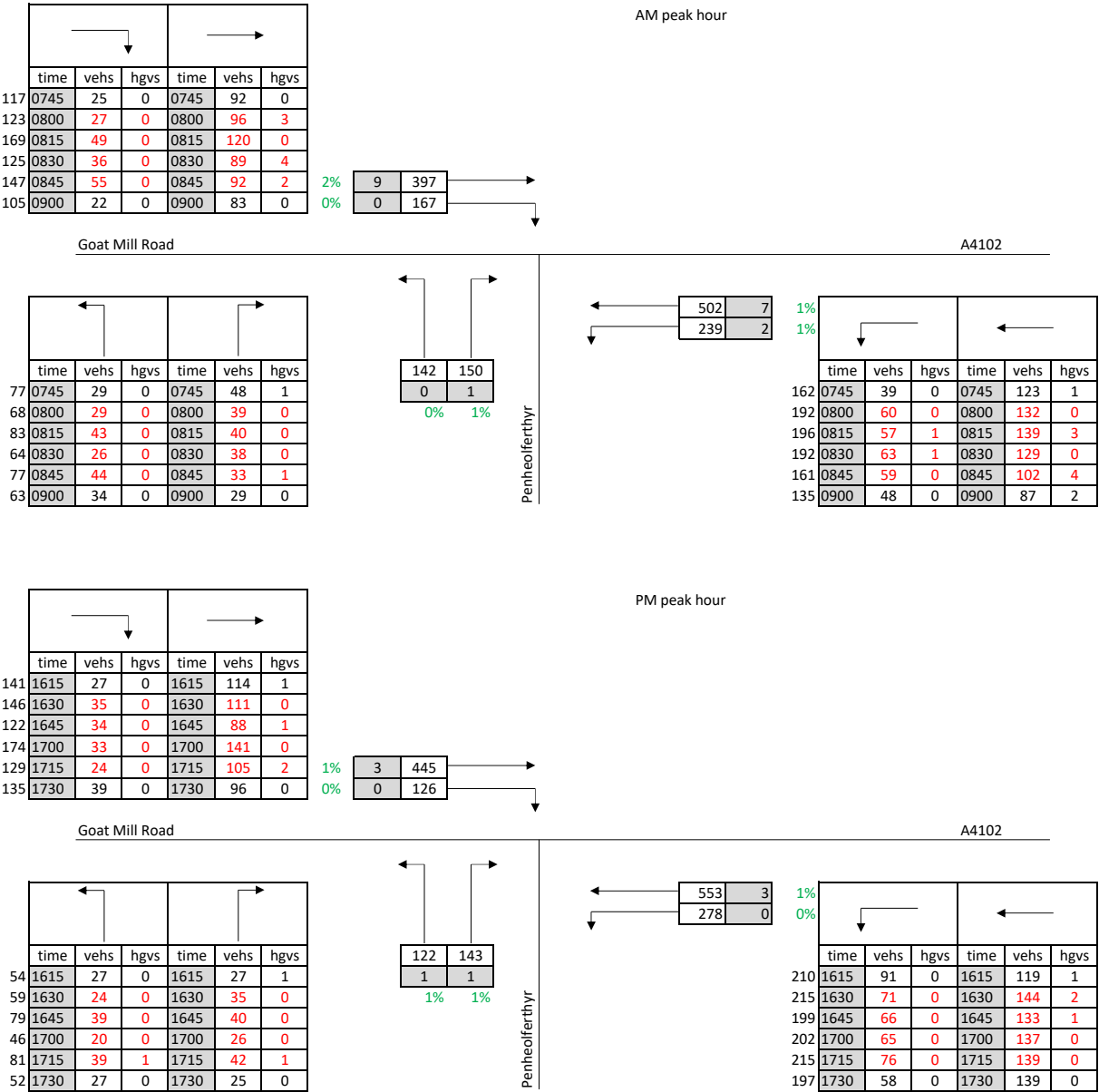
Destination - Arm A													Destination - Arm B													Destination - Arm C													Destination - Arm D													Arm Total
Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total	Car	LDV	OSV1	OSV2	PSV	MC	PC	Total					
0700-0715	43	4	1	0	0	0	50	39	11	2	0	3	0	0	57	44	17	3	1	3	0	0	68	25	10	0	0	0	0	0	35	25	10	0	0	0	0	0	35	25	10	0	0	0	0	35	210					
0715-0730	34	11	3	0	0	0	50	44	14	3	0	2	1	0	64	54	13	3	0	0	0	0	70	40	11	1	1	2	0	0	65	40	11	1	1	2	0	0	65	40	11	1	1	2	0	0	65	219				
0730-0745	65	8	6	1	0	0	81	53	22	5	0	3	1	0	84	60	13	3	1	1	3	0	80	33	10	5	0	1	0	0	49	33	10	5	0	1	0	0	49	33	10	5	0	1	0	0	49	294				
0745-0800	76	11	1	0	0	0	88	61	22	1	0	0	0	0	84	61	16	2	0	1	0	0	80	40	19	4	0	1	0	0	64	40	19	4	0	1	0	0	64	40	19	4	0	1	0	0	64	301				
Hourly Total	221	41	12	1	0	0	275	205	71	11	0	9	2	0	208	240	59	11	2	7	1	0	130	166	50	10	1	5	0	0	232	166	50	10	1	5	0	0	232	166	50	10	1	5	0	0	232	1125				
0800-0815	130	14	3	0	0	2	149	101	13	2	0	3	1	0	120	76	15	1	1	2	0	0	95	106	11	0	0	0	0	0	117	106	11	0	0	0	0	0	117	106	11	0	0	0	0	117	481					
0815-0830	140	15	1	0	0	0	156	117	13	5	0	1	0	0	136	92	14	1	1	1	0	0	109	161	10	5	0	2	0	0	178	161	10	5	0	2	0	0	178	161	10	5	0	2	0	0	178	579				
0830-0845	155	13	1	0	0	0	171	121	8	5	0	3	0	0	138	95	12	3	1	1	0	0	108	207	16	1	1	1	1	0	227	207	16	1	1	1	1	0	227	207	16	1	1	1	1	0	227	684				
0845-0900	164	15	1	0	0	0	180	131	13	1	0	1	0	0	146	85	14	0	0	2	0	0	99	214	11	1	0	2	0	0	238	214	11	1	0	2	0	0	238	214	11	1	0	2	0	0	238	837				
Hourly Total	589	57	6	1	1	2	656	452	48	13	0	8	1	0	522	344	55	5	3	6	0	0	413	688	48	7	1	5	1	0	750	688	48	7	1	5	1	0	750	688	48	7	1	5	1	0	750	2341				
0900-0915	168	11	2	0	0	0	181	150	19	5	0	3	1	0	178	97	12	2	1	2	1	0	115	143	18	1	1	3	0	0	166	143	18	1	1	3	0	0	166	143	18	1	1	3	0	0	166	640				
0915-0930	139	12	0	1	0	0	154	115	12	1	0	4	0	0	132	88	13	3	1	2	0	0	107	118	16	2	0	2	0	0	138	118	16	2	0	2	0	0	138	118	16	2	0	2	0	0	138	531				
0930-0945	136	15	1	0	0	0	152	98	18	3	1	1	0	0	112	75	11	5	1	1	0	0	93	86	9	2	0	1	0	0	98	86	9	2	0	1	0	0	98	86	9	2	0	1	0	0	98	452				
0945-1000	157	12	3	0	0	0	152	98	19	6	0	2	0	0	115	75	10	3	0	0	1	0	83	107	17	0	0	1	0	0	125	107	17	0	0	1	0	0	125	107	17	0	0	1	0	0	125	495				
Hourly Total	580	50	7	1	1	0	639	459	68	15	1	10	1	0	554	339	46	13	3	6	1	0	408	454	60	5	1	7	0	0	527	454	60	5	1	7	0	0	527	454	60	5	1	7	0	0	527	2128				
1000-1015	124	19	2	0	0	0	145	121	16	3	1	3	0	2	146	87	7	4	0	1	0	0	99	102	15	4	0	0	5	0	0	122	102	15	4	0	0	5	0	0	122	102	15	4	0	0	5	0	122	512		
1015-1030	168	23	2	0	0	0	193	161	17	2	0	1	0	0	181	77	11	1	0	1	0	0	90	108	14	3	0	1	0	0	130	108	14	3	0	1	0	0	130	108	14	3	0	1	0	0	130	526				
1030-1045	151	12	4	2	0	0	169	114	9	2	0	1	0	1	127	75	9	2	0	1	0	0	91	95	14	4	0	0	0	0	113	95	14	4	0	0	0	0	113	95	14	4	0	0	0	113	500					
Hourly Total	157	8	2	1	0	0	168	111	14	1	1	1	1	0	139	82	7	3	0	1	0	0	93	111	13	3	0	2	0	0	126	111	13	3	0	2	0	0	126	111	13	3	0	2	0	0	126	497				
1045-1100	580	62	10	3	0	0	655	444	51	8	2	6	0	3	554	325	34	10	0	4	0	0	373	416	56	14	0	8	0	0	499	416	56	14	0	8	0	0	499	416	56	14	0	8	0	0	499	2055				
1100-1115	140	12	0	0	0	0	166	122	13	4	1	0	0	0	140	77	12	1	0	0	0	0	89	90	11	0	1	3	0	0	107	90	11	0	1	3	0	0	107	90	11	0	1	3	0	0	107	527				
1115-1130	170	11	1	0	0	1	183	151	11	1	0	4	1	0	168	82	4	3	0	1	0	0	90	101	17	1	0	2	0	0	121	101	17	1	0	2	0	0	121	101	17	1	0	2	0	0	121	562				
1130-1145	168	10	1	0	0	1	180	126	17	1	3	3	0	0	148	75	8	3	1	1	0	0	88	107	17	3	0	2	0	0	129	107	17	3	0	2	0	0	129	107	17	3	0	2	0	0	129	545				
1145-1200	165	13	1	0	0	0	179	146	11	1	0	0	0	0	158	87	6	1	0	0	0	0	95	116	8	1	0	2	1	0	130	116	8	1	0	2	1	0	130	116	8	1	0	2	1	0	130	553				
Hourly Total	652	46	8	0	0	2	708	545	52	7	2	7	1	0	614	321	32	11	2	2	0	0	368	418	53	5	1	9	1	0	487	418	53	5	1	9	1	0	487	418	53	5	1	9	1	0	487	2177				
1200-1215	176	7	0	0	0	1	184	147	7	2	2	5	0	0	163	106	13	2	0	1	0	0	121	122	12	3	0	2	2	0	141	122	12	3	0	2	2	0	141	122	12	3	0	2	2	0	141	609				
1215-1230	158	22	1	0	0	0	181	135	17	4	0	1	0	0	157	104	10	2	1	1	0	0	118	120	14	1	0	2	0	0	137	120	14	1	0	2	0	0	137	120	14	1	0	2	0	0	137	593				
1230-1245	182	15	0	0	0	1	198	154	11	1	0	2	0	0	168	89	12	1	0	1	0	0	103	127	15	1	0	1	0	0	144	127	15	1	0	1	0	0	144	127	15	1	0	1	0	0	144	613				
1245-1300	158	11	2	0	0	0	171	148	18	2	0	2	1	0	171	100	8	2	0	1	0	1	117	118	10	2	0	4	0	0	134	118	10	2	0	4	0	0	134	118	10	2	0	4	0	0	134	593				
Hourly Total	674	55	3	0	0	2	734	584	53	9	2	10	1	0	659	403	43	7	1	4	0	1	459	487	51	7	0	9	2	0	556	487	51	7	0	9	2	0	556	487	51	7	0	9	2	0	556	2408				
1300-1315	157	20	0	0	0	0	177	150	15	3	0	3	0	0	171	108	6	1	1	0	0	0	118	116	7	0	0	0	0	0	123	116	7	0	0	0	0	123	116	7	0	0	0	0	123	589						
1315-1330	148	12	1	0	0	3	164	133	18	2	0	0	0	0	153	104	15	2	0	1	0	0	122	102	14	4	0	2	0	0	122	102	14	4	0	2	0	0	122	102	14	4	0	2	0	0	122	581				
1330-1345	171	16	2	0	0	0	191	155	25	5	0	3	0	0	188	97	10	1	0	1	0	0	109	117	18	2	0	1	0	0	138	117	18	2	0	1	0	0	138	117	18	2	0	1	0	0	138	636				
1345-1400	171	17	1	0	1	2	192	128	18	1	0	2	0	0	149	98	8	0	0	1	0	0	107	111	9	2	0	4	0	0	126	111	9	2	0																	

Site 2										
	Arm A	Arm A	Arm A		Arm B	Arm B		Arm C	Arm C	
	Lane 1	Lane 2	Lane 3		Lane 1	Lane 2		Lane 1	Lane 2	
	Total	Total	Total		Total	Total		Total	Total	
0700-0705	0	0	0		0	1		0	0	
0705-0710	0	0	0		0	0		0	0	
0710-0715	0	0	0		0	0		0	0	
0715-0720	0	1	0		1	0		1	0	
0720-0725	0	0	0		2	0		0	0	
0725-0730	0	0	0		0	0		0	0	
0730-0735	0	0	0		0	1		0	1	
0735-0740	1	4	0		1	0		0	0	
0740-0745	2	1	0		0	1		2	1	
0745-0750	0	0	0		2	0		1	0	
0750-0755	0	2	1		2	0		1	0	
0755-0800	1	0	1		1	4		3	1	
0800-0805	0	2	1		1	1		1	2	
0805-0810	1	3	1		2	1		1	1	
0810-0815	1	0	0		2	3		3	1	
0815-0820	0	1	1		2	1		2	2	
0820-0825	0	0	4		3	1		7	0	
0825-0830	0	1	5		7	3		6	1	
0830-0835	0	1	4		3	0		14	1	
0835-0840	0	2	2		4	1		9	1	
0840-0845	0	1	2		2	1		6	3	
0845-0850	1	1	3		3	6		4	1	
0850-0855	0	1	1		4	0		6	1	
0855-0900	0	1	2		2	1		9	4	
0900-0905	1	1	8		1	2		1	1	
0905-0910	2	2	4		1	1		1	1	
0910-0915	1	3	2		1	2		2	1	
0915-0920	1	1	1		1	1		5	1	
0920-0925	0	0	0		0	1		2	1	
0925-0930	1	1	2		3	2		3	1	
0930-0935	1	2	0		0	1		2	1	
0935-0940	1	0	1		0	0		1	0	
0940-0945	0	2	3		5	1		4	1	
0945-0950	0	1	1		0	0		1	1	
0950-0955	0	0	1		1	3		2	1	
0955-1000	1	1	1		1	0		1	2	
1600-1605	2	2	2		3	2		4	2	
1605-1610	2	3	2		2	3		2	3	
1610-1615	3	2	1		2	1		2	2	
1615-1620	3	2	2		3	4		8	3	
1620-1625	1	2	3		3	1		5	0	
1625-1630	0	1	2		3	2		4	2	
1630-1635	1	2	2		1	1		6	1	
1635-1640	0	1	1		3	1		5	0	
1640-1645	1	1	1		3	1		8	1	
1645-1650	2	1	1		4	3		9	2	
1650-1655	1	2	2		3	3		4	2	
1655-1700	1	3	3		4	1		3	1	
1700-1705	2	2	2		4	2		6	1	
1705-1710	1	2	3		7	3		12	6	
1710-1715	0	3	2		3	4		5	2	
1715-1720	2	2	2		1	2		3	2	
1720-1725	1	1	2		5	1		5	3	
1725-1730	1	2	1		5	2		2	1	
1730-1735	1	2	2		4	1		2	1	
1735-1740	1	2	3		4	2		3	2	
1740-1745	0	1	1		1	1		1	2	
1745-1750	1	1	2		2	1		3	1	
1750-1755	1	4	2		2	2		1	2	
1755-1800	1	2	0		2	1		6	0	
1800-1805	2	2	4		1	2		1	3	
1805-1810	1	1	3		1	1		2	2	
1810-1815	2	2	1		2	1		0	1	
1815-1820	3	2	3		2	2		5	1	
1820-1825	1	1	2		1	1		1	2	
1825-1830	0	1	3		3	3		3	1	
1830-1835	0	1	2		1	1		3	1	
1835-1840	1	2	1		1	1		1	0	
1840-1845	0	2	1		1	1		1	1	
1845-1850	0	1	1		1	1		0	1	
1850-1855	0	1	1		2	1		2	1	
1855-1900	0	0	1		1	1		2	2	

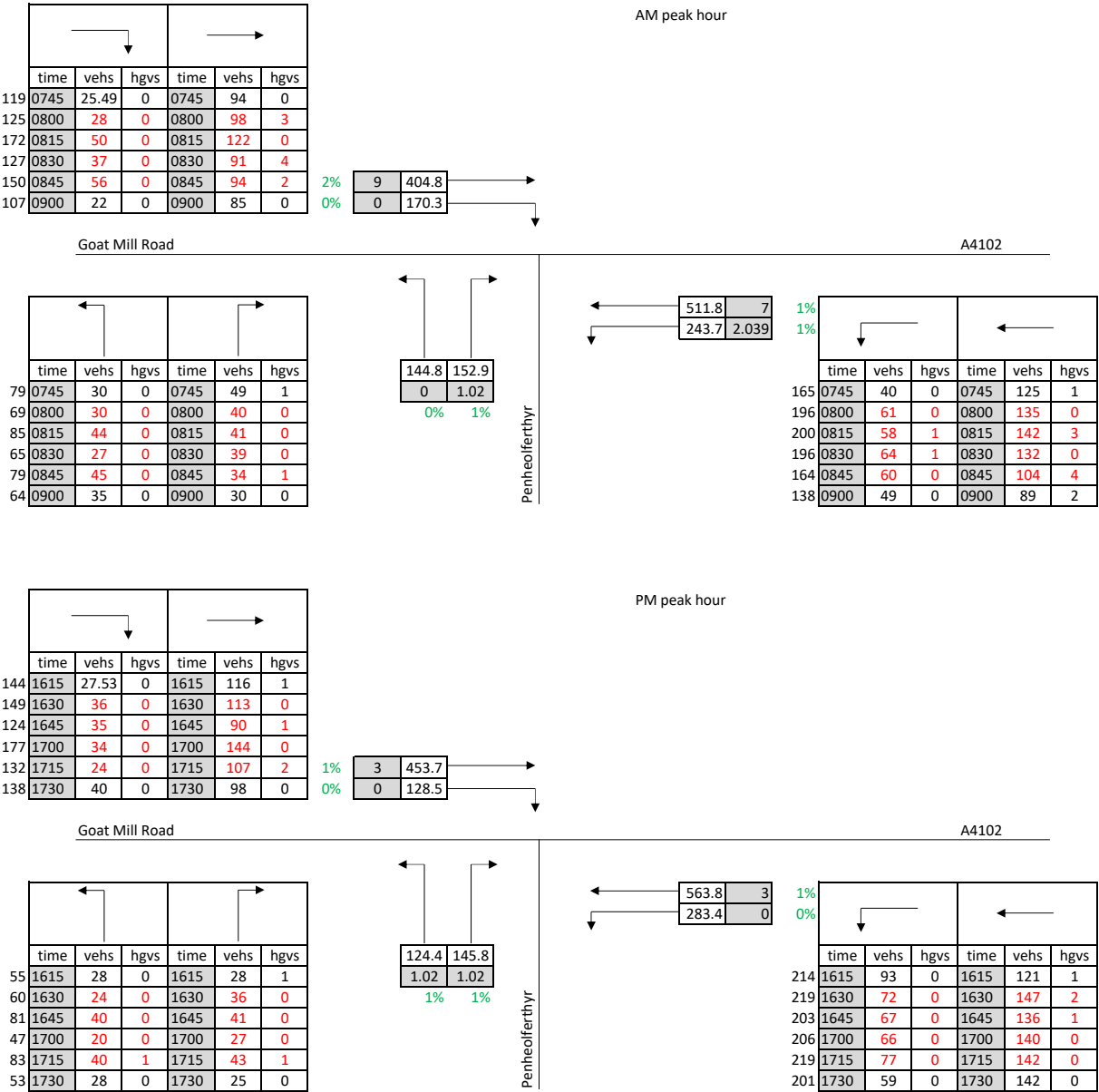
Appendix C



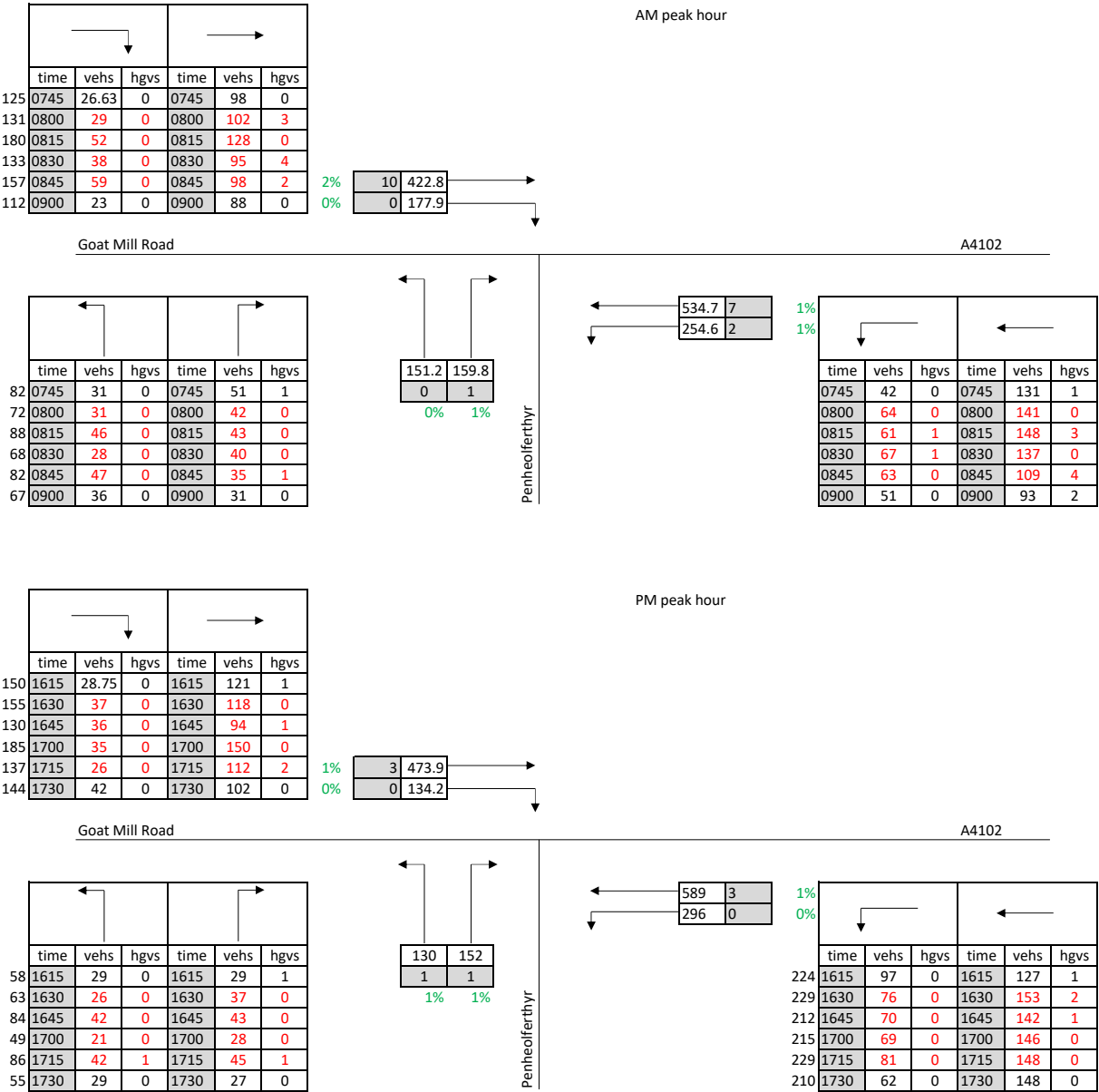
Junction 4 - 2022 base



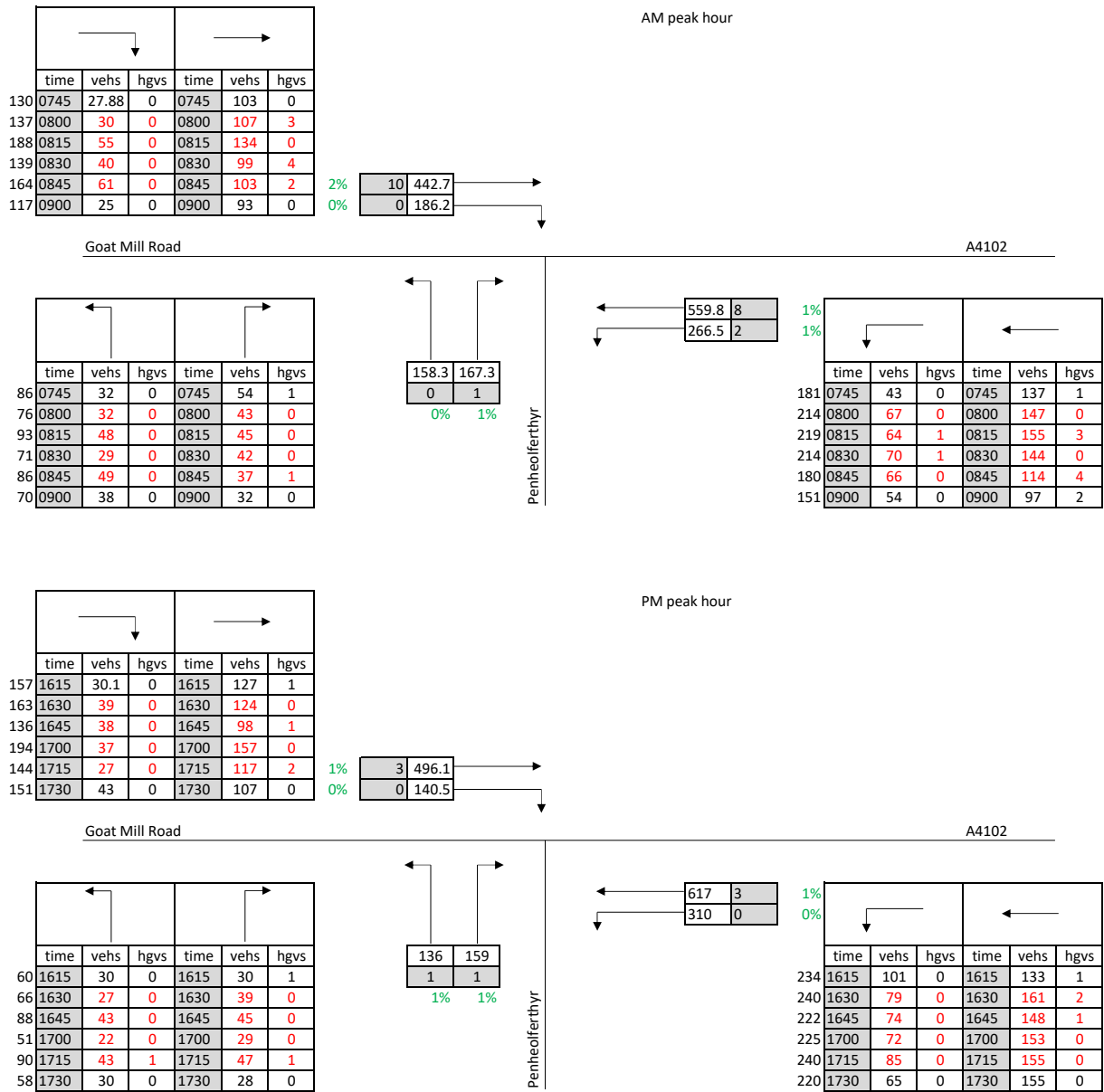
Junction 4 - 2024 base



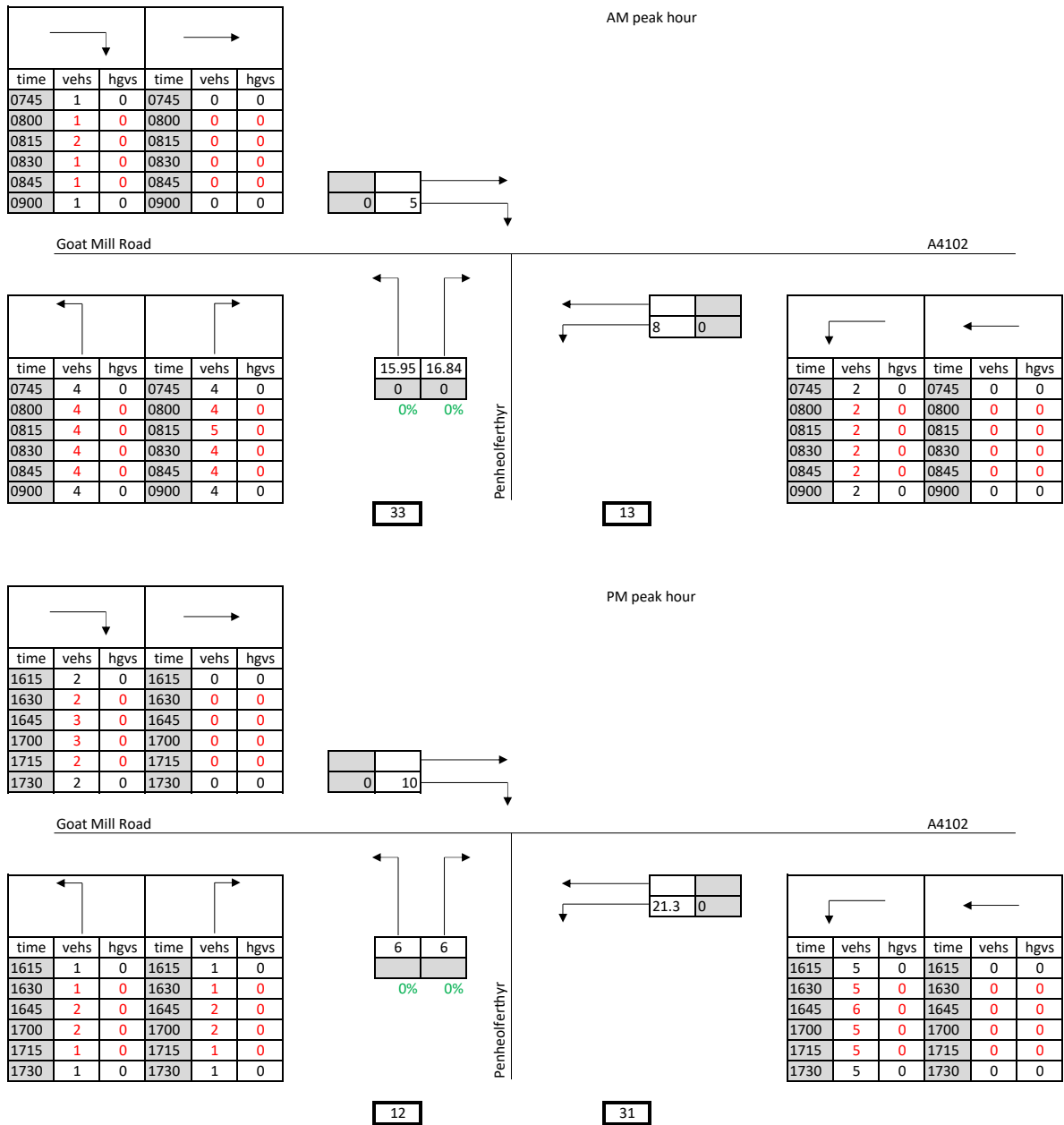
Junction 4 - 2029 base



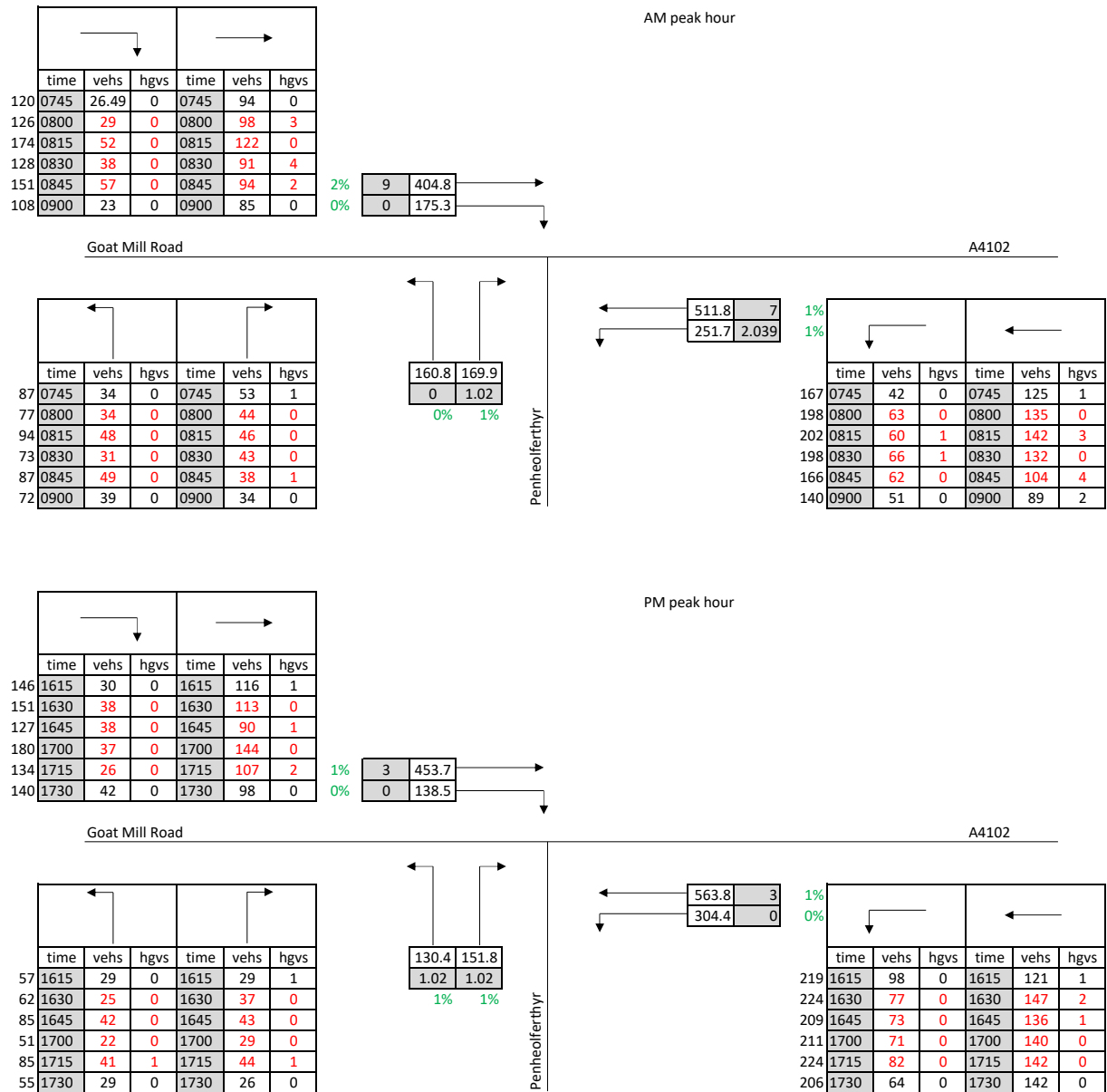
Junction 4 - 2034 base



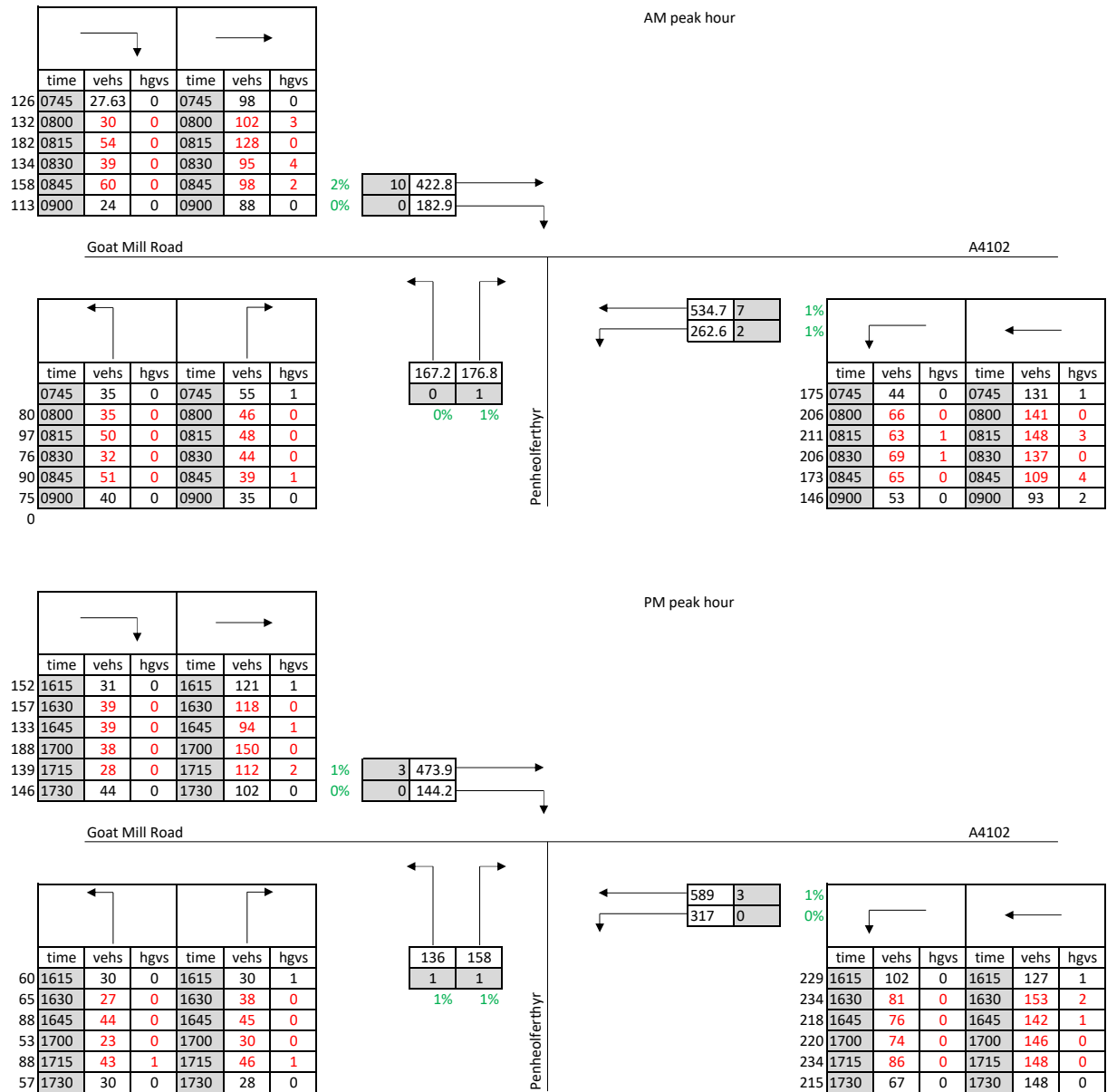
Junction 4 - dev trips



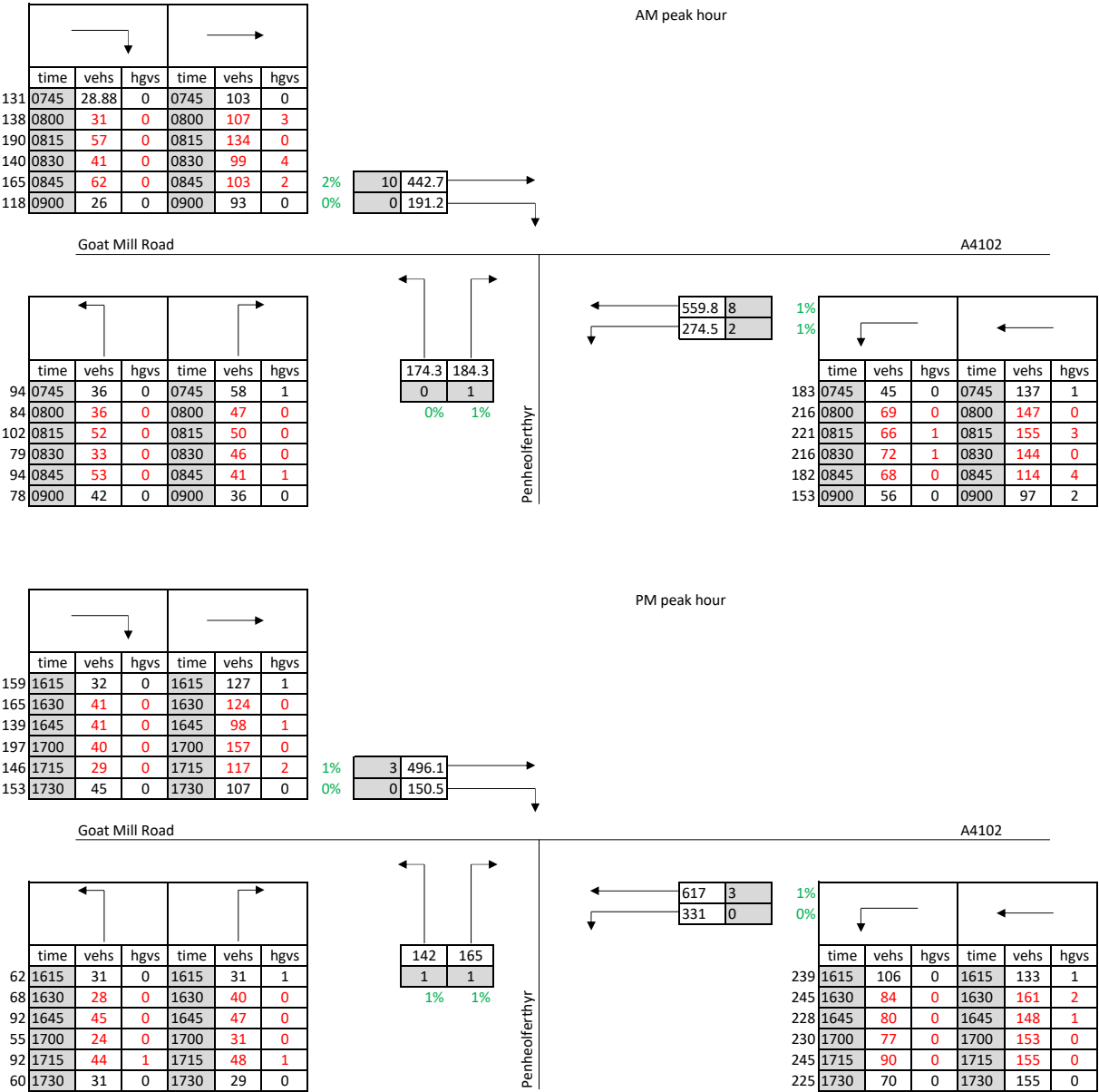
Jcn 4 - 2024 base + dev



Jcn 4 - 2029 base + dev



Jcn 4 - 2034 base + dev



Junction 6 - 2022 base

AM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	28	1	0745	38	2	0745	37	0	1615	0	0
0800	47	1	0800	53	4	0800	31	3	1630	0	0
0815	51	0	0815	61	4	0815	30	0	1645	0	0
0830	60	1	0830	59	5	0830	20	1	1700	0	0
0845	80	0	0845	59	1	0845	30	1	1715	0	0
0900	88	1	0900	85	1	0900	35	3	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	25	2	0745	41	0	0745	25	0	0745	1	0
0800	35	0	0800	57	1	0800	34	1	0800	0	0
0815	52	3	0815	50	0	0815	26	1	0815	0	0
0830	73	0	0830	55	0	0830	32	2	0830	0	0
0845	60	2	0845	42	1	0845	28	0	0845	0	0
0900	39	2	0900	48	0	0900	32	2	0900	0	0

PM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	71	0	1615	75	1	1615	43	0	1615	2	0
1630	69	0	1630	81	0	1630	32	1	1630	1	0
1645	67	0	1645	68	3	1645	45	2	1645	1	0
1700	70	0	1700	83	2	1700	59	2	1700	0	0
1715	63	0	1715	75	3	1715	39	0	1715	1	0
1730	65	1	1730	68	0	1730	41	1	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	39	1	1615	61	0	1615	39	1	1615	1	0
1630	41	1	1630	89	0	1630	41	1	1630	0	0
1645	51	2	1645	65	1	1645	46	0	1645	0	0
1700	49	0	1700	87	0	1700	58	4	1700	2	0
1715	33	1	1715	87	0	1715	56	1	1715	0	0
1730	33	0	1730	71	0	1730	59	2	1730	1	0

Lower High Street

Penhoelterhy

Lower High Street

Penhoelterhy

1	0	3	3
38	261	159	148
0	0	0	0

22	0
176	3
269	8
143	6

220	204	120	0
5	2	4	0

0	1	0	1
12	209	257	218
0	0	0	0

45	1
214	2
183	6
269	3

PM peak hour

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	2	0	0745	20	2	0745	32	1	0745	25	0
0800	6	0	0800	31	0	0800	33	1	0800	29	0
0815	9	0	0815	70	0	0815	47	1	0815	45	1
0830	11	1	0830	78	0	0830	40	1	0830	40	1
0845	12	0	0845	82	0	0845	39	0	0845	34	1
0900	11	0	0900	58	0	0900	44	1	0900	55	5

High Street

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	5	0	0745	23	1	0745	48	4	0745	32	2
0800	4	0	0800	39	1	0800	51	0	0800	31	0
0815	4	0	0815	46	1	0815	56	4	0815	32	2
0830	7	0	0830	45	1	0830	76	3	0830	48	3
0845	7	0	0845	46	0	0845	86	1	0845	32	1
0900	6	0	0900	33	1	0900	68	2	0900	36	1

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	2	0	1615	55	0	1615	77	0	1615	63	1
1630	2	0	1630	48	0	1630	66	0	1630	46	1
1645	4	0	1645	65	1	1645	55	0	1645	44	0
1700	4	0	1700	49	0	1700	65	0	1700	64	0
1715	2	0	1715	47	0	1715	71	0	1715	64	0
1730	3	0	1730	44	0	1730	75	1	1730	59	0

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	14	0	1615	50	0	1615	44	1	1615	88	4
1630	11	0	1630	55	1	1630	38	1	1630	75	1
1645	10	0	1645	55	0	1645	46	1	1645	78	0
1700	15	1	1700	41	0	1700	57	1	1700	72	2
1715	9	0	1715	63	1	1715	42	3	1715	44	0
1730	13	0	1730	30	0	1730	43	0	1730	63	2

79
99
171
169
167
168

108
125
138
176
171
143

197
162
168
182
184
181

196
179
189
385
158
149

Junction 6 - 2024 base

AM peak hour

A			B			C			D		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	28.55	1.02	0745	38.74	2	0745	37.73	0	1615	0	0
0800	47.92	1.02	0800	54.04	4	0800	31.61	3	1630	0	0
0815	52	0	0815	62.2	4	0815	30.59	0	1645	0	0
0830	61.18	1.02	0830	60.16	5	0830	20.39	1.02	1700	0	0
0845	81.57	0	0845	60.16	1	0845	30.59	1.02	1715	0	0
0900	89.72	1.02	0900	86.67	1	0900	35.69	3	1730	1.02	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	25	2	0745	42	0	0745	25	0	0745	1	0
0800	36	0	0800	58	1	0800	35	1	0800	0	0
0815	53	3	0815	51	0	0815	27	1	0815	0	0
0830	74	0	0830	56	0	0830	33	2	0830	0	0
0845	61	2	0845	43	1	0845	29	0	0845	0	0
0900	40	2	0900	49	0	0900	33	2	0900	0	0

PM peak hour

A			B			C			D		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	72.38	0	1615	76.46	1	1615	43.84	0	1615	2.039	0
1630	70.35	0	1630	82.58	0	1630	32.62	1.02	1630	1.02	0
1645	68.31	0	1645	69.33	3	1645	45.88	2.039	1645	1.02	0
1700	71.37	0	1700	84.62	2	1700	60.15	2.039	1700	0	0
1715	64.23	0	1715	76.46	3	1715	39.76	0	1715	1.02	0
1730	66.27	1.02	1730	69.33	0	1730	41.8	1.02	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	39.76	1.02	1615	62.19	0	1615	39.76	1.02	1615	1.02	0
1630	41.8	1.02	1630	90.74	0	1630	41.8	1.02	1630	0	0
1645	51.99	2.039	1645	66.27	1.02	1645	46.9	0	1645	0	0
1700	49.96	0	1700	88.7	0	1700	59.13	4	1700	2.039	0
1715	33.64	1.02	1715	88.7	0	1715	57.08	1.02	1715	0	0
1730	33.64	0	1730	72.38	0	1730	60.15	2.039	1730	1.02	0

Lower High Street

1	0	3	3
39	266	162	151
14	237		
5	113		
0	0		

Penhoelterhyr

22	0
179	3
274	8
145.8	6.118

PM peak hour

0	1	0	1
12	213	262	222
0	0	0	0
0	0	0	0

Penhoelterhyr

46	1
218	2
187	6
274.2	3.059

A			D			C			B		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	2	0	0745	20	2	0745	33	1	0745	25	0
0800	6	0	0800	32	0	0800	34	1	0800	30	0
0815	9	0	0815	71	0	0815	48	1	0815	46	1
0830	11	1	0830	80	0	0830	41	1	0830	41	1
0845	12	0	0845	84	0	0845	40	0	0845	35	1
0900	11	0	0900	59	0	0900	45	1	0900	56	5

High Street

B			A			D			C		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	5	0	0745	23	1	0745	49	4	0745	33	2
0800	4	0	0800	40	1	0800	52	0	0800	32	0
0815	4	0	0815	47	1	0815	57	4	0815	33	2
0830	7	0	0830	46	1	0830	77	3	0830	49	3
0845	7	0	0845	47	0	0845	88	1	0845	33	1
0900	6	0	0900	34	1	0900	69	2	0900	37	1

PM peak hour

46	1
218	2
187	6
274.2	3.059

A			D			C			B		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	2	0	1615	56.07	0	1615	78.5	0	1615	64.23	1.02
1630	2	0	1630	48.94	0	1630	67.25	0	1630	46.9	1.02
1645	4	0	1645	66.27	1.02	1645	56.07	0	1645	44.86	0
1700	4	0	1700	49.96	0	1700	66.27	0	1700	65.25	0
1715	2	0	1715	47.92	0	1715	72.38	0	1715	65.25	0
1730	3	0	1730	44.86	0	1730	76.46	1.02	1730	60.15	0

High Street

B			A			D			C		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	14	0	1615	50.98	0	1615	44.86	1.02	1615	89.72	4.078
1630	11	0	1630	56.07	1.02	1630	38.74	1.02	1630	76.46	1.02
1645	10	0	1645	56.07	0	1645	46.9	1.02	1645	75.52	0
1700	15	1.02	1700	41.8	0	1700	59.13	1.02	1700	73.4	2.039
1715	9	0	1715	64.23	1.02	1715	42.82	3	1715	44.86	0
1730	13	0	1730	30.59	0	1730	43.84	0	1730	64.23	2.039

Junction 6 - 2029 base

AM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	29.82	1	0745	40.47	2	0745	39.41	0	1615	2	0
0800	50.06	1	0800	56.45	4	0800	33.02	3	1630	0	0
0815	54.32	0	0815	64.97	4	0815	31.95	0	1645	0	0
0830	63.91	1	0830	62.84	5	0830	21.3	1	1700	0	0
0845	85.21	0	0845	62.84	1	0845	31.95	1	1715	0	0
0900	93.73	1	0900	90.53	1	0900	37.28	3	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	27	2	0745	44	0	0745	27	0	0745	1	0
0800	37	0	0800	61	1	0800	36	1	0800	0	0
0815	55	3	0815	53	0	0815	28	1	0815	0	0
0830	78	0	0830	59	0	0830	34	2	0830	0	0
0845	64	2	0845	45	1	0845	30	0	0845	0	0
0900	42	2	0900	51	0	0900	34	2	0900	0	0

PM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	75.61	0	1615	79.87	1	1615	45.79	0	1615	2	0
1630	73.48	0	1630	86.26	0	1630	34.08	1	1630	1	0
1645	71.35	0	1645	72.41	3	1645	47.92	2	1645	1	0
1700	74.54	0	1700	88.39	2	1700	62.83	2	1700	0	0
1715	67.09	0	1715	79.87	3	1715	41.53	0	1715	1	0
1730	69.22	1.065	1730	72.41	0	1730	43.66	1	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	41.53	1	1615	64.96	0	1615	41.53	1	1615	1	0
1630	43.66	1	1630	94.78	0	1630	43.66	1	1630	0	0
1645	54.31	2	1645	69.22	1	1645	48.99	0	1645	0	0
1700	52.18	0	1700	92.65	0	1700	61.76	4	1700	2	0
1715	35.14	1	1715	92.65	0	1715	59.63	1	1715	0	0
1730	35.14	0	1730	75.61	0	1730	62.83	2	1730	1	0

Lower High Street

1	0	3	3
40	278	169	158
23	0	0	0

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	2	0	0745	21	2	0745	34	1	0745	27	0
0800	6	0	0800	33	0	0800	35	1	0800	31	0
0815	10	0	0815	75	0	0815	50	1	0815	48	1
0830	12	1	0830	83	0	0830	43	1	0830	43	1
0845	13	0	0845	87	0	0845	42	0	0845	36	1
0900	12	0	0900	62	0	0900	47	1	0900	59	5

High Street

23	0
187	3
287	9
152.3	6.391

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	5	0	0745	24	1	0745	51	4	0745	34	2
0800	4	0	0800	42	1	0800	54	0	0800	33	0
0815	4	0	0815	49	1	0815	60	4	0815	34	2
0830	7	0	0830	48	1	0830	61	3	0830	51	3
0845	7	0	0845	49	0	0845	92	1	0845	34	1
0900	6	0	0900	35	1	0900	72	2	0900	38	1

PM peak hour

Lower High Street

0	1	0	1
13	223	274	232
0	0	0	0

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	2	0	1615	58.57	0	1615	82	0	1615	67.09	1.065
1630	2	0	1630	51.12	0	1630	70.26	0	1630	48.99	1.065
1645	4	0	1645	69.22	1	1645	58.57	0	1645	46.86	0
1700	4	0	1700	52.18	0	1700	69.22	0	1700	68.15	0
1715	2	0	1715	50.05	0	1715	75.61	0	1715	68.15	0
1730	3	0	1730	46.86	0	1730	79.87	1.065	1730	62.83	0

High Street

48	1
228	2
195	6
286.5	3.195

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	15	0	1615	53	0	1615	47	1	1615	94	4
1630	12	0	1630	59	1	1630	40	1	1630	80	1
1645	11	0	1645	59	0	1645	49	1	1645	83	0
1700	16	1	1700	44	0	1700	61	1	1700	77	2
1715	10	0	1715	67	1	1715	45	3	1715	47	0
1730	14	0	1730	32	0	1730	46	0	1730	67	2

PM peak hour

Penhoelterhyr

Junction 6 - 2034 base

AM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	31.22	1	0745	42.37	2	0745	41.26	0	1615	0	0
0800	52.41	1	0800	59.1	4	0800	34.57	3	1630	0	0
0815	56.87	0	0815	58.02	4	0815	33.45	0	1645	0	0
0830	66.91	1	0830	65.79	6	0830	22.3	1	1700	0	0
0845	89.21	0	0845	65.79	1	0845	33.45	1	1715	0	0
0900	98.13	1	0900	94.78	1	0900	39.03	3	1730	1.115	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	28	2	0745	46	0	0745	28	0	0745	1	0
0800	39	0	0800	64	1	0800	38	1	0800	0	0
0815	58	3	0815	56	0	0815	29	1	0815	0	0
0830	81	0	0830	61	0	0830	36	2	0830	0	0
0845	67	2	0845	47	1	0845	31	0	0845	0	0
0900	43	2	0900	54	0	0900	36	2	0900	0	0

PM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	79.16	0	1615	83.62	1	1615	47.94	0	1615	2	0
1630	76.93	0	1630	90.31	0	1630	35.66	1	1630	1	0
1645	74.7	0	1645	75.81	3	1645	50.17	2	1645	1	0
1700	78.04	0	1700	92.54	2	1700	65.78	2	1700	0	0
1715	70.24	0	1715	83.62	3	1715	43.48	0	1715	1	0
1730	72.47	1.115	1730	75.81	1	1730	45.71	1	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43.48	1	1615	68.01	0	1615	43.48	1	1615	1	0
1630	45.71	1	1630	99.23	0	1630	45.71	1	1630	0	0
1645	56.86	2	1645	72.47	1	1645	51.29	0	1645	0	0
1700	54.63	0	1700	97	0	1700	64.66	4	1700	2	0
1715	36.79	1	1715	97	0	1715	62.43	1	1715	0	0
1730	36.79	0	1730	79.16	0	1730	65.78	2	1730	1	0

Lower High Street

time	vehs	hgv
1	0	3
42	291	177
165		

Penhoelterhyr

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

time	vehs	hgv
25	0	
196	3	
300	9	
159.5	6.691	

	25	0
	196	3
	300	9
	159.5	6.691

Junction 6 - Dev flows

AM peak hour

A 			B 			C 			D 		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	2	0	0745	0	0	0745	0	0	1615	0	0
0800	2	0	0800	0	0	0800	0	3	1630	0	0
0815	2	0	0815	0	0	0815	0	3	1645	0	0
0830	2	0	0830	0	0	0830	0	0	1700	0	0
0845	2	0	0845	0	0	0845	0	0	1715	0	0
0900	2	0	0900	0	0	0900	0	0	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	0	0	0745	0	0	0745	0	0	0745	0	0
0800	0	0	0800	0	0	0800	0	0	0800	0	0
0815	0	0	0815	0	0	0815	0	0	0815	0	0
0830	0	0	0830	0	0	0830	0	0	0830	0	0
0845	0	0	0845	0	0	0845	0	0	0845	0	0
0900	0	0	0900	0	0	0900	0	0	0900	0	0

PM peak hour

A 			B 			C 			D 		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	0	0	1615	0	0	1615	0	0	1615	0	0
1630	0	0	1630	0	0	1630	0	0	1630	0	0
1645	0	0	1645	0	0	1645	0	0	1645	0	0
1700	0	0	1700	0	0	1700	0	0	1700	0	0
1715	0	0	1715	0	0	1715	0	0	1715	0	0
1730	0	0	1730	0	0	1730	0	0	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	0	0	1615	1	0	1615	0	0	1615	0	0
1630	0	0	1630	1	0	1630	0	0	1630	0	0
1645	0	0	1645	1	0	1645	0	0	1645	0	0
1700	0	0	1700	1	0	1700	0	0	1700	0	0
1715	0	0	1715	1	0	1715	0	0	1715	0	0
1730	0	0	1730	1	0	1730	0	0	1730	0	0

Lower High Street

2		0	7	
2	0%	0	0	
2	#####	3	0	
2	-100%	0	0	
2	#####	0	0	

Penheolferthyr

Lower High Street

A diagram showing a 4x2 grid of cells. The left column has four cells, each with a green '#####' input on its left side. The right column has four cells, each with a green '#####' input on its right side. The grid is divided into two columns of two cells each. The top-left cell contains a '0' and the top-right cell contains a '0'. The bottom-left cell contains a '0' and the bottom-right cell contains a '0'. Arrows indicate data flow: a horizontal arrow points from the top-right cell to the right, and a horizontal arrow points from the bottom-right cell to the left.

Penheolferthyr

0	2	0	0
0	0	0	0

0%

1

1

1

1

1

##	0%	0%	####
0	0	0	
17	3	0	

Diagram showing three arrows pointing downwards from the bottom row of the table to the corresponding columns of the matrix above.

PM peak hour

A diagram showing a 4x2 grid of cells. The cells are arranged in two columns. The left column has four cells, and the right column has four cells. Arrows point to the cells from the left: the top cell has an upward arrow, the second cell has a downward arrow, the third cell has an upward arrow, and the bottom cell has a downward arrow. The cells contain the following values:

0	0
0	0
0	0
0	0

#####	0%	0%	50%
0	0	0	1
0	4	6	3

Diagram illustrating the mapping of values to percentages (0%, 0%, 50%) and their corresponding outputs (0, 4, 6, 3).

PM peak hour

0	0
0	0
0	0
0	0

A			D			C			B		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	0	0	0745	4	0	0745	1	0	0745	0	0
0800	0	0	0800	4	0	0800	1	0	0800	0	0
0815	0	0	0815	4	0	0815	1	0	0815	0	0
0830	0	0	0830	4	0	0830	1	0	0830	0	0
0845	0	0	0845	4	0	0845	1	0	0845	0	0
0900	0	0	0900	4	0	0900	1	0	0900	0	0

High Street

											
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
0745	0	0	0745	0	0	0745	0	0	0745	0	0
0800	0	0	0800	0	0	0800	0	0	0800	0	0
0815	0	0	0815	0	0	0815	0	0	0815	0	0
0830	0	0	0830	0	0	0830	0	0	0830	0	0
0845	0	0	0845	0	0	0845	0	0	0845	0	0
0900	0	0	0900	0	0	0900	0	0	0900	0	0

A			D			C			B		
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	0	0	1615	1	0	1615	2	0	1615	1	0
1630	0	0	1630	1	0	1630	2	0	1630	1	1
1645	0	0	1645	1	0	1645	2	0	1645	1	0
1700	0	0	1700	1	0	1700	2	0	1700	1	1
1715	0	0	1715	1	0	1715	2	0	1715	1	1
1730	0	0	1730	1	0	1730	2	0	1730	1	0

High Street

											
time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs	time	vehs	hgvs
1615	0	0	1615	0	0	1615	0	0	1615	0	0
1630	0	0	1630	0	0	1630	0	0	1630	0	0
1645	0	0	1645	0	0	1645	0	0	1645	0	0
1700	0	0	1700	0	0	1700	0	0	1700	0	0
1715	0	0	1715	0	0	1715	0	0	1715	0	0
1730	0	0	1730	0	0	1730	0	0	1730	0	0

Junction 6 - 2024 + dev

AM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	30	1	0745	39	2	0745	38	0	1615	2	0
0800	50	1	0800	54	4	0800	32	6	1630	0	0
0815	54	0	0815	62	4	0815	31	0	1645	0	0
0830	63	1	0830	60	5	0830	20	1	1700	0	0
0845	83	0	0845	60	1	0845	31	1	1715	0	0
0900	91	1	0900	87	1	0900	36	3	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	25	2	0745	42	0	0745	25	0	0745	1	0
0800	36	0	0800	58	1	0800	35	1	0800	0	0
0815	53	3	0815	51	0	0815	27	1	0815	0	0
0830	74	0	0830	56	0	0830	33	2	0830	0	0
0845	61	2	0845	43	1	0845	29	0	0845	0	0
0900	40	2	0900	49	0	0900	33	2	0900	0	0

PM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	72.38	0	1615	76	1	1615	44	0	1615	2	0
1630	70.35	0	1630	83	0	1630	33	1	1630	1	0
1645	68.31	0	1645	69	3	1645	46	2	1645	1	0
1700	71.37	0	1700	85	2	1700	60	2	1700	0	0
1715	64.23	0	1715	76	3	1715	40	0	1715	1	0
1730	66.27	1	1730	69	0	1730	42	1	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	40	1	1615	63	0	1615	40	1	1615	1	0
1630	42	1	1630	91	0	1630	42	1	1630	0	0
1645	52	2	1645	67	1	1645	47	0	1645	0	0
1700	50	0	1700	89	0	1700	59	4	1700	2	0
1715	34	1	1715	89	0	1715	57	1	1715	0	0
1730	34	0	1730	73	0	1730	60	2	1730	1	0

Lower High Street

1	0	3	3
39	283	165	151
14	237		
8	113		
0	0		

Penhoelterhyr

22	0
179	3
274	8
145.8	6.118

PM peak hour

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	2	0	0745	25	2	0745	33	1	0745	25	0
0800	6	0	0800	36	0	0800	34	1	0800	30	0
0815	9	0	0815	76	0	0815	49	1	0815	46	1
0830	11	1	0830	84	0	0830	42	1	0830	41	1
0845	12	0	0845	88	0	0845	41	0	0845	35	1
0900	11	0	0900	63	0	0900	46	1	0900	56	5

High Street

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	5	0	0745	23	1	0745	49	4	0745	33	2
0800	4	0	0800	40	1	0800	52	0	0800	32	0
0815	4	0	0815	47	1	0815	57	4	0815	33	2
0830	7	0	0830	46	1	0830	77	3	0830	49	3
0845	7	0	0845	47	0	0845	88	1	0845	33	1
0900	6	0	0900	34	1	0900	69	2	0900	37	1

0	1	0	2
12	217	268	225
0	1	0	2
0	3		

46	1
218	2
187	6
274.2	3.059

PM peak hour

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	2	0	1615	57	0	1615	80	0	1615	65	1
1630	2	0	1630	50	0	1630	69	0	1630	48	2
1645	4	0	1645	67	1	1645	58	0	1645	46	0
1700	4	0	1700	51	0	1700	68	0	1700	66	0
1715	2	0	1715	49	0	1715	74	0	1715	66	0
1730	3	0	1730	46	0	1730	78	1	1730	61	0

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	14	0	1615	51	0	1615	45	1	1615	90	4
1630	11	0	1630	56	1	1630	39	1	1630	76	1
1645	10	0	1645	56	0	1645	47	1	1645	80	0
1700	15	1	1700	42	0	1700	58	1	1700	73	2
1715	9	0	1715	64	1	1715	43	3	1715	45	0
1730	13	0	1730	31	0	1730	44	0	1730	64	2

Junction 6 - 2029 + dev

AM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	32	1	0745	40	2	0745	39	0	1615	2	0
0800	52	1	0800	56	4	0800	33	6	1630	0	0
0815	56	0	0815	65	4	0815	32	0	1645	0	0
0830	66	1	0830	63	5	0830	21	1	1700	0	0
0845	87	0	0845	63	1	0845	32	1	1715	0	0
0900	95	1	0900	91	1	0900	37	3	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	27	2	0745	44	0	0745	27	0	0745	1	0
0800	37	0	0800	61	1	0800	36	1	0800	0	0
0815	55	3	0815	54	0	0815	28	1	0815	0	0
0830	78	0	0830	59	0	0830	34	2	0830	0	0
0845	64	2	0845	45	1	0845	30	0	0845	0	0
0900	42	2	0900	51	0	0900	34	2	0900	0	0

PM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	75.61	0	1615	80	1	1615	46	0	1615	2	0
1630	73.48	0	1630	86	0	1630	34	1	1630	1	0
1645	71.35	0	1645	72	3	1645	48	2	1645	1	0
1700	74.54	0	1700	88	2	1700	63	2	1700	0	0
1715	67.09	0	1715	80	3	1715	42	0	1715	1	0
1730	69.22	1	1730	72	0	1730	44	1	1730	0	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	42	1	1615	65	0	1615	42	1	1615	1	0
1630	44	1	1630	95	0	1630	44	1	1630	0	0
1645	54	2	1645	70	1	1645	49	0	1645	0	0
1700	52	0	1700	93	0	1700	62	4	1700	2	0
1715	35	1	1715	93	0	1715	60	1	1715	0	0
1730	35	0	1730	76	0	1730	63	2	1730	1	0

Lower High Street

Penhoelterhy

Lower High Street

Penhoelterhy

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	2	0	0745	26	2	0745	35	1	0745	27	0
0800	6	0	0800	37	0	0800	36	1	0800	31	0
0815	10	0	0815	79	0	0815	51	1	0815	48	1
0830	12	1	0830	87	0	0830	43	1	0830	43	1
0845	13	0	0845	92	0	0845	42	0	0845	36	1
0900	12	0	0900	66	0	0900	48	1	0900	59	5

High Street

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	5	0	0745	24	1	0745	51	4	0745	34	2
0800	4	0	0800	42	1	0800	54	0	0800	33	0
0815	4	0	0815	49	1	0815	60	4	0815	34	2
0830	7	0	0830	48	1	0830	61	3	0830	51	3
0845	7	0	0845	49	0	0845	92	1	0845	34	1
0900	6	0	0900	35	1	0900	72	2	0900	38	1

PM peak hour

A			D			C			B		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	2	0	1615	60	0	1615	83	0	1615	68	1
1630	2	0	1630	52	0	1630	72	0	1630	50	2
1645	4	0	1645	70	1	1645	60	0	1645	48	0
1700	4	0	1700	53	0	1700	71	0	1700	69	0
1715	2	0	1715	51	0	1715	77	0	1715	69	0
1730	3	0	1730	48	0	1730	81	1	1730	64	0

High Street

B			A			D			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	15	0	1615	53	0	1615	47	1	1615	94	4
1630	12	0	1630	59	1	1630	40	1	1630	80	1
1645	11	0	1645	59	0	1645	49	1	1645	83	0
1700	16	1	1700	44	0	1700	61	1	1700	77	2
1715	10	0	1715	67	1	1715	45	3	1715	47	0
1730	14	0	1730	32	0	1730	46	0	1730	67	2

PM peak hour

Junction 6 - 2034 + dev

AM peak hour

A			B			C			D		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	33	1	0745	42	2	0745	41	0	1615	2	0
0800	54	1	0800	59	4	0800	35	6	1630	0	0
0815	59	0	0815	68	4	0815	33	0	1645	0	0
0830	69	1	0830	66	6	0830	22	1	1700	0	0
0845	91	0	0845	66	1	0845	33	1	1715	0	0
0900	100	1	0900	95	1	0900	39	3	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
0745	28	2	0745	46	0	0745	28	0	0745	1	0
0800	39	0	0800	64	1	0800	38	1	0800	0	0
0815	58	3	0815	56	0	0815	29	1	0815	0	0
0830	81	0	0830	62	0	0830	36	2	0830	0	0
0845	67	2	0845	47	1	0845	31	0	0845	0	0
0900	43	2	0900	54	0	0900	36	2	0900	0	0

Avenue De Clichy

											
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	2	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	1	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Avenue De Clichy

D			A			B			C		
time	vehs	hgv	time	vehs	hgv	time	vehs	hgv	time	vehs	hgv
1615	43	1	1615	69	0	1615	43	1	1615	1	0
1630	46	1	1630	100	0	1630	46	1	1630	0	0
1645	57	2	1645	73	1	1645	51	0	1645	0	0
1700	55	0	1700	97	0	1700	65	4	1700	2	0
1715	37	1	1715	97	0	1715	62	2	1715	0	0
1730	37	0	1730	80	0	1730	66	2	1730	1	0

Appendix D



Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Lower High Street-High Street-A4102-A4054 - direct AM.j9

Path: Z:\Lime\Projects\2019\19198 Twynrodyn, Merthyr Tydfil\Analysis\Junction 9 - Nov 2020\2022

Report generation date: 09/03/2022 13:13:28

»2022 BASE, AM
 »2024 BASE, AM
 »2029 BASE, AM
 »2034 BASE, AM
 »2022 BASE+DEV, AM
 »2024 BASE+DEV, AM
 »2029 BASE+DEV, AM
 »2034 BASE+DEV, AM

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2022 BASE				
1 - A4054 High Street	9.7	218.74	1.01	F
2 - A4102	14.6	425.04	1.20	F
3 - A4054	6.6	115.78	0.96	F
4 - Lower High Street	5.5	126.83	0.88	F
2024 BASE				
1 - A4054 High Street	11.0	242.25	1.04	F
2 - A4102	16.1	461.88	1.22	F
3 - A4054	6.6	113.51	0.96	F
4 - Lower High Street	6.1	138.31	0.90	F
2029 BASE				
1 - A4054 High Street	14.9	337.81	1.10	F
2 - A4102	20.3	577.52	1.28	F
3 - A4054	9.2	147.44	1.03	F
4 - Lower High Street	8.1	176.40	0.94	F
2034 BASE				
1 - A4054 High Street	20.3	471.44	1.17	F
2 - A4102	26.6	749.48	1.34	F
3 - A4054	11.9	179.22	1.09	F
4 - Lower High Street	11.2	230.71	0.99	F
2022 BASE+DEV				
1 - A4054 High Street	10.2	230.12	1.03	F
2 - A4102	14.7	427.23	1.20	F
3 - A4054	6.9	119.21	0.97	F
4 - Lower High Street	6.5	145.78	0.91	F
2024 BASE+DEV				
1 - A4054 High Street	11.5	255.50	1.05	F
2 - A4102	16.5	471.68	1.23	F
3 - A4054	7.6	128.00	0.99	F
4 - Lower High Street	7.2	159.64	0.92	F
2029 BASE+DEV				
1 - A4054 High Street	15.5	358.81	1.11	F
2 - A4102	20.4	580.59	1.28	F
3 - A4054	9.5	150.95	1.03	F
4 - Lower High Street	9.9	207.89	0.97	F
2034 BASE+DEV				
1 - A4054 High Street	21.1	492.14	1.18	F
2 - A4102	27.0	759.03	1.35	F
3 - A4054	12.4	185.13	1.10	F
4 - Lower High Street	13.7	273.38	1.01	F

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	
Location	
Site number	
Date	30/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-U7G8RPA\Rusne
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 BASE	AM	DIRECT	08:00	09:30	90	15	✓
D3	2024 BASE	AM	DIRECT	08:00	09:30	90	15	✓
D5	2029 BASE	AM	DIRECT	08:00	09:30	90	15	✓
D7	2034 BASE	AM	DIRECT	08:00	09:30	90	15	✓
D9	2022 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓
D11	2024 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓
D13	2029 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓
D15	2034 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓

Analysis Set Details

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

2022 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	214.40	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A4054 High Street	
2	A4102	
3	A4054	
4	Lower High Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A4054 High Street	3.08	7.08	15.9	37.8	58.0	23.6	
2 - A4102	6.55	8.90	19.0	13.7	57.1	43.4	
3 - A4054	4.02	6.72	28.5	23.3	58.0	29.6	
4 - Lower High Street	3.92	9.77	18.4	47.6	57.1	29.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
1 - A4054 High Street	Percentage		20.00
2 - A4102	None		
3 - A4054	Percentage		16.00
4 - Lower High Street	Percentage		100.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A4054 High Street	0.576	335
2 - A4102	0.666	2323
3 - A4054	0.599	298
4 - Lower High Street	0.658	2128

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
1 - A4054 High Street	Percentage		70.00
2 - A4102	Percentage		6.08
4 - Lower High Street	Percentage		9.45

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 BASE	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	22	143	269	176
	2 - A4102	120	0	220	204
	3 - A4054	232	111	0	238
	4 - Lower High Street	148	159	261	38

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	5	0	1
	4 - Lower High Street	2	2	0	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.01	218.74	9.7	F	144	215
2 - A4102	1.20	425.04	14.6	F	126	189
3 - A4054	0.96	115.78	6.6	F	149	223
4 - Lower High Street	0.88	126.83	5.5	F	142	213

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	108	27	77	204	0.530	104	81	0.0	1.1	35.693	E
2 - A4102	92	23	117	136	0.674	85	63	0.0	1.7	65.310	F
3 - A4054	103	26	89	244	0.421	100	113	0.0	0.7	25.582	D
4 - Lower High Street	79	20	82	196	0.403	76	108	0.0	0.6	29.877	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	125	31	98	195	0.641	123	105	1.1	1.6	49.501	E
2 - A4102	126	32	142	135	0.930	115	79	1.7	4.5	132.658	F
3 - A4054	131	33	114	229	0.571	129	143	0.7	1.3	36.315	E
4 - Lower High Street	99	25	106	195	0.509	98	137	0.6	1.0	37.073	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	138	35	147	176	0.786	133	126	1.6	2.8	78.612	F
2 - A4102	128	32	180	134	0.956	121	100	4.5	6.3	192.768	F
3 - A4054	142	36	125	223	0.637	140	176	1.3	1.6	44.291	E
4 - Lower High Street	171	43	114	194	0.882	159	151	1.0	4.1	84.100	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	176	44	152	173	1.014	158	130	2.8	7.3	150.450	F
2 - A4102	160	40	203	133	1.203	129	107	6.3	14.0	326.665	F
3 - A4054	139	35	139	215	0.647	139	193	1.6	1.8	48.278	E
4 - Lower High Street	169	42	116	194	0.872	166	161	4.1	4.8	112.261	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	171	43	157	172	0.996	162	140	7.3	9.7	218.736	F
2 - A4102	130	33	206	133	0.978	128	113	14.0	14.6	425.040	F
3 - A4054	169	42	139	215	0.787	164	194	1.8	3.0	67.390	F
4 - Lower High Street	167	42	131	193	0.866	166	172	4.8	5.1	119.443	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	143	36	163	169	0.846	151	152	9.7	7.8	206.252	F
2 - A4102	119	30	197	133	0.893	126	116	14.6	12.9	404.317	F
3 - A4054	209	52	134	217	0.961	195	189	3.0	6.6	115.777	F
4 - Lower High Street	168	42	148	192	0.876	167	181	5.1	5.5	126.829	F

2024 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	231.02	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 BASE	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	22	179	274	146
	2 - A4102	122	0	224	208
	3 - A4054	237	113	0	243
	4 - Lower High Street	151	162	266	39

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	5	0	1
	4 - Lower High Street	2	2	0	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.04	242.25	11.0	F	146	219
2 - A4102	1.22	461.88	16.1	F	128	193
3 - A4054	0.96	113.51	6.6	F	152	228
4 - Lower High Street	0.90	138.31	6.1	F	145	217

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	110	28	79	203	0.542	106	83	0.0	1.1	36.568	E
2 - A4102	94	24	114	137	0.688	87	70	0.0	1.8	66.923	F
3 - A4054	105	26	85	247	0.426	102	115	0.0	0.7	25.337	D
4 - Lower High Street	81	20	83	196	0.413	78	104	0.0	0.7	30.349	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	127	32	100	194	0.654	125	107	1.1	1.7	51.269	F
2 - A4102	128	32	138	136	0.944	116	87	1.8	4.8	137.562	F
3 - A4054	134	34	109	232	0.576	132	145	0.7	1.3	36.241	E
4 - Lower High Street	101	25	108	194	0.520	100	133	0.7	1.0	37.849	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	141	35	149	175	0.807	136	128	1.7	3.1	83.513	F
2 - A4102	131	33	176	134	0.977	123	109	4.8	6.9	204.940	F
3 - A4054	145	36	120	226	0.641	143	179	1.3	1.7	44.156	E
4 - Lower High Street	174	44	116	194	0.898	161	147	1.0	4.4	87.855	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	179	45	154	173	1.037	159	132	3.1	8.1	162.200	F
2 - A4102	163	41	196	133	1.223	130	117	6.9	15.1	348.725	F
3 - A4054	142	36	131	219	0.647	142	195	1.7	1.8	47.430	E
4 - Lower High Street	172	43	118	194	0.888	168	155	4.4	5.2	119.986	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	174	44	159	171	1.020	163	142	8.1	11.0	242.249	F
2 - A4102	133	33	199	133	0.999	129	123	15.1	16.1	461.882	F
3 - A4054	172	43	131	219	0.785	167	196	1.8	3.0	65.868	F
4 - Lower High Street	170	43	133	193	0.882	168	166	5.2	5.7	129.358	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	146	37	166	168	0.869	152	154	11.0	9.5	239.459	F
2 - A4102	121	30	191	133	0.907	126	126	16.1	14.9	447.980	F
3 - A4054	213	53	127	222	0.960	198	191	3.0	6.6	113.511	F
4 - Lower High Street	171	43	150	192	0.892	169	175	5.7	6.1	138.312	F

2029 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	300.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2029 BASE	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	23	152	287	187
	2 - A4102	128	0	234	217
	3 - A4054	247	118	0	253
	4 - Lower High Street	158	169	278	40

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	5	0	1
	4 - Lower High Street	2	2	0	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.10	337.81	14.9	F	153	229
2 - A4102	1.28	577.52	20.3	F	134	201
3 - A4054	1.03	147.44	9.2	F	159	238
4 - Lower High Street	0.94	176.40	8.1	F	151	227

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	115	29	82	202	0.570	110	86	0.0	1.2	38.586	E
2 - A4102	98	25	124	136	0.720	90	67	0.0	2.0	71.109	F
3 - A4054	110	28	94	241	0.456	107	120	0.0	0.8	27.135	D
4 - Lower High Street	84	21	87	196	0.429	81	114	0.0	0.7	31.105	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	133	33	104	193	0.689	130	111	1.2	2.0	56.122	F
2 - A4102	134	34	150	135	0.992	119	84	2.0	5.7	155.237	F
3 - A4054	140	35	119	226	0.619	137	150	0.8	1.5	40.655	E
4 - Lower High Street	104	26	112	194	0.536	103	145	0.7	1.1	39.103	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	147	37	153	173	0.850	140	133	2.0	3.7	95.466	F
2 - A4102	136	34	189	134	1.018	125	105	5.7	8.4	240.791	F
3 - A4054	151	38	130	220	0.687	149	184	1.5	2.0	50.913	F
4 - Lower High Street	182	46	121	194	0.940	165	159	1.1	5.2	98.194	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	187	47	160	170	1.098	161	136	3.7	10.2	194.285	F
2 - A4102	170	43	209	133	1.281	131	111	8.4	18.3	412.737	F
3 - A4054	148	37	141	214	0.693	147	199	2.0	2.1	55.275	F
4 - Lower High Street	180	45	122	194	0.930	174	166	5.2	6.6	143.589	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	182	46	165	168	1.082	164	147	10.2	14.9	311.296	F
2 - A4102	138	35	211	133	1.040	130	117	18.3	20.3	563.951	F
3 - A4054	180	45	141	213	0.844	173	200	2.1	3.8	80.970	F
4 - Lower High Street	178	45	137	193	0.924	175	178	6.6	7.4	161.224	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	152	38	171	166	0.917	153	157	14.9	14.6	337.813	F
2 - A4102	127	32	204	133	0.955	127	120	20.3	20.3	577.521	F
3 - A4054	223	56	136	216	1.031	201	195	3.8	9.2	147.439	F
4 - Lower High Street	179	45	152	192	0.934	176	185	7.4	8.1	176.400	F

2034 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	395.42	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2034 BASE	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	25	159	300	196
	2 - A4102	134	0	245	227
	3 - A4054	259	124	0	265
	4 - Lower High Street	165	177	291	42

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	5	0	1
	4 - Lower High Street	2	2	0	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.17	471.44	20.3	F	160	240
2 - A4102	1.34	749.48	26.6	F	141	211
3 - A4054	1.09	179.22	11.9	F	166	249
4 - Lower High Street	0.99	230.71	11.2	F	158	238

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	120	30	85	200	0.599	115	90	0.0	1.4	40.979	E
2 - A4102	103	26	130	136	0.758	94	70	0.0	2.3	76.485	F
3 - A4054	115	29	98	239	0.481	111	125	0.0	0.9	28.561	D
4 - Lower High Street	88	22	91	195	0.450	85	119	0.0	0.8	32.151	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	139	35	109	191	0.728	135	115	1.4	2.3	62.546	F
2 - A4102	141	35	157	135	1.046	122	87	2.3	7.0	177.629	F
3 - A4054	145	36	124	224	0.648	142	156	0.9	1.7	43.885	E
4 - Lower High Street	110	28	116	194	0.567	108	150	0.8	1.2	41.630	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	154	39	158	171	0.901	145	137	2.3	4.6	112.023	F
2 - A4102	143	36	195	133	1.073	128	108	7.0	10.8	290.799	F
3 - A4054	158	40	134	218	0.726	155	189	1.7	2.3	57.010	F
4 - Lower High Street	191	48	125	193	0.988	170	164	1.2	6.4	111.900	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	196	49	165	168	1.166	162	141	4.6	13.1	236.740	F
2 - A4102	178	45	213	133	1.342	131	114	10.8	22.5	499.830	F
3 - A4054	155	39	142	213	0.728	154	202	2.3	2.5	62.027	F
4 - Lower High Street	188	47	126	193	0.973	180	170	6.4	8.5	174.336	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	191	48	171	166	1.151	163	151	13.1	20.0	401.652	F
2 - A4102	145	36	214	133	1.094	131	120	22.5	26.0	698.599	F
3 - A4054	188	47	142	212	0.885	180	203	2.5	4.6	93.085	F
4 - Lower High Street	186	47	141	192	0.967	181	181	8.5	9.8	204.594	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	159	40	176	164	0.971	158	160	20.0	20.3	471.436	F
2 - A4102	133	33	211	133	1.002	130	124	26.0	26.6	749.482	F
3 - A4054	233	58	140	214	1.090	204	201	4.6	11.9	179.224	F
4 - Lower High Street	187	47	155	191	0.977	181	189	9.8	11.2	230.714	F

2022 BASE+DEV, 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	222.47	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2022 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	22	143	269	176
	2 - A4102	120	0	220	204
	3 - A4054	232	111	0	245
	4 - Lower High Street	148	162	278	38

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	5	0	1
	4 - Lower High Street	2	2	0	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.03	230.12	10.2	F	144	215
2 - A4102	1.20	427.23	14.7	F	126	189
3 - A4054	0.97	119.21	6.9	F	151	226
4 - Lower High Street	0.91	145.78	6.5	F	147	221

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	108	27	81	202	0.535	104	82	0.0	1.1	36.279	E
2 - A4102	92	23	120	136	0.675	85	65	0.0	1.7	65.438	F
3 - A4054	105	26	89	244	0.430	102	116	0.0	0.7	25.739	D
4 - Lower High Street	84	21	82	196	0.429	81	109	0.0	0.7	31.021	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	125	31	103	193	0.647	123	106	1.1	1.7	50.644	F
2 - A4102	126	32	146	135	0.931	115	80	1.7	4.5	133.077	F
3 - A4054	133	33	114	229	0.580	131	146	0.7	1.3	36.979	E
4 - Lower High Street	104	26	106	194	0.535	103	139	0.7	1.1	38.944	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	138	35	151	174	0.793	133	126	1.7	2.9	80.844	F
2 - A4102	128	32	184	134	0.957	121	100	4.5	6.3	193.576	F
3 - A4054	144	36	125	223	0.646	142	180	1.3	1.7	45.217	E
4 - Lower High Street	176	44	115	194	0.907	162	153	1.1	4.6	90.455	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	176	44	156	172	1.025	157	130	2.9	7.6	156.089	F
2 - A4102	160	40	206	133	1.204	129	107	6.3	14.0	328.024	F
3 - A4054	141	35	138	215	0.656	141	197	1.7	1.8	49.321	E
4 - Lower High Street	174	44	116	194	0.898	170	163	4.6	5.5	125.015	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	171	43	161	170	1.007	161	140	7.6	10.2	230.122	F
2 - A4102	130	33	209	133	0.979	127	113	14.0	14.7	427.226	F
3 - A4054	171	43	138	215	0.796	166	198	1.8	3.1	69.106	F
4 - Lower High Street	172	43	131	193	0.891	170	174	5.5	6.0	135.809	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	143	36	168	167	0.855	150	151	10.2	8.4	221.411	F
2 - A4102	119	30	201	133	0.894	126	116	14.7	13.0	406.969	F
3 - A4054	211	53	134	218	0.970	196	193	3.1	6.9	119.214	F
4 - Lower High Street	173	43	147	192	0.901	171	182	6.0	6.5	145.777	F

2024 BASE+DEV, 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	244.85	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2024 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	22	146	274	179
	2 - A4102	122	0	224	209
	3 - A4054	237	113	0	250
	4 - Lower High Street	151	165	283	39

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	8	0	1
	4 - Lower High Street	2	2	0	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.05	255.50	11.5	F	146	219
2 - A4102	1.23	471.68	16.5	F	129	193
3 - A4054	0.99	128.00	7.6	F	154	230
4 - Lower High Street	0.92	159.64	7.2	F	150	225

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	110	28	83	201	0.546	105	84	0.0	1.1	37.127	E
2 - A4102	94	24	123	136	0.690	87	66	0.0	1.8	67.290	F
3 - A4054	107	27	91	243	0.440	104	118	0.0	0.8	26.376	D
4 - Lower High Street	86	22	83	196	0.439	83	111	0.0	0.7	31.523	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	127	32	105	193	0.660	125	107	1.1	1.7	52.384	F
2 - A4102	129	32	148	135	0.954	116	81	1.8	4.9	140.871	F
3 - A4054	135	34	116	228	0.591	133	148	0.8	1.4	38.244	E
4 - Lower High Street	106	27	107	194	0.545	105	141	0.7	1.1	39.781	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	141	35	152	173	0.814	135	128	1.7	3.2	85.794	F
2 - A4102	131	33	186	134	0.980	123	102	4.9	7.0	210.220	F
3 - A4054	147	37	127	222	0.663	145	182	1.4	1.8	47.565	E
4 - Lower High Street	179	45	116	194	0.923	164	156	1.1	4.9	94.525	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	179	45	158	171	1.048	158	131	3.2	8.4	167.866	F
2 - A4102	163	41	208	133	1.227	130	109	7.0	15.4	355.627	F
3 - A4054	143	36	139	215	0.667	143	199	1.8	1.9	51.341	F
4 - Lower High Street	177	44	117	194	0.913	172	164	4.9	6.0	133.735	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	174	44	163	169	1.031	162	141	8.4	11.5	253.940	F
2 - A4102	133	33	211	133	1.002	129	114	15.4	16.5	471.680	F
3 - A4054	174	44	140	214	0.812	168	200	1.9	3.3	73.191	F
4 - Lower High Street	175	44	132	193	0.907	173	176	6.0	6.6	147.474	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	146	37	170	166	0.878	151	152	11.5	10.3	255.501	F
2 - A4102	121	30	203	133	0.910	125	118	16.5	15.3	459.379	F
3 - A4054	215	54	134	217	0.989	198	194	3.3	7.6	127.995	F
4 - Lower High Street	176	44	148	192	0.917	174	184	6.6	7.2	159.642	F

2029 BASE+DEV, 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	313.69	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	2029 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	23	152	287	187
	2 - A4102	128	0	234	218
	3 - A4054	243	118	0	260
	4 - Lower High Street	158	172	295	40

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	8	0	1
	4 - Lower High Street	2	2	3	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.11	358.81	15.5	F	153	229
2 - A4102	1.28	580.59	20.4	F	134	201
3 - A4054	1.03	150.95	9.5	F	160	240
4 - Lower High Street	0.97	207.89	9.9	F	156	235

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	115	29	86	200	0.575	110	86	0.0	1.3	39.227	E
2 - A4102	98	25	127	136	0.720	90	68	0.0	2.0	71.252	F
3 - A4054	111	28	94	241	0.460	108	123	0.0	0.8	27.457	D
4 - Lower High Street	89	22	86	196	0.455	86	116	0.0	0.8	32.692	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	133	33	109	191	0.697	130	111	1.3	2.0	57.734	F
2 - A4102	134	34	154	135	0.993	119	85	2.0	5.7	155.778	F
3 - A4054	141	35	120	226	0.623	138	154	0.8	1.6	41.283	E
4 - Lower High Street	110	28	111	194	0.567	108	147	0.8	1.2	42.023	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	147	37	157	171	0.857	140	132	2.0	3.8	98.368	F
2 - A4102	136	34	192	133	1.019	125	105	5.7	8.5	241.799	F
3 - A4054	153	38	130	220	0.696	151	187	1.6	2.1	52.263	F
4 - Lower High Street	187	47	120	194	0.966	168	161	1.2	5.9	106.704	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	187	47	164	169	1.109	160	135	3.8	10.6	201.177	F
2 - A4102	170	43	212	133	1.282	130	112	8.5	18.4	414.332	F
3 - A4054	150	38	140	214	0.701	149	202	2.1	2.2	56.900	F
4 - Lower High Street	185	46	121	194	0.956	178	168	5.9	7.7	161.511	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	182	46	169	166	1.093	162	145	10.6	15.5	325.635	F
2 - A4102	138	35	214	133	1.041	130	117	18.4	20.3	566.349	F
3 - A4054	182	46	141	213	0.853	175	203	2.2	4.0	83.525	F
4 - Lower High Street	183	46	136	193	0.950	179	180	7.7	8.8	186.544	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	152	38	175	164	0.926	152	155	15.5	15.4	358.805	F
2 - A4102	127	32	207	133	0.956	127	121	20.3	20.4	580.590	F
3 - A4054	224	56	136	216	1.035	202	198	4.0	9.5	150.950	F
4 - Lower High Street	184	46	151	192	0.960	180	187	8.8	9.9	207.886	F

2034 BASE+DEV, 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	413.44	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D15	2034 BASE+DEV	AM	DIRECT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	25	159	300	196
	2 - A4102	134	0	245	228
	3 - A4054	259	124	0	272
	4 - Lower High Street	165	180	308	42

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	0	4	3	2
	2 - A4102	3	0	2	1
	3 - A4054	6	7	0	1
	4 - Lower High Street	2	2	3	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.18	492.14	21.1	F	160	240
2 - A4102	1.35	759.03	27.0	F	141	211
3 - A4054	1.10	185.13	12.4	F	168	252
4 - Lower High Street	1.01	273.38	13.7	F	163	245

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	120	30	90	199	0.604	114	91	0.0	1.4	41.699	E
2 - A4102	103	26	133	136	0.758	94	71	0.0	2.3	76.650	F
3 - A4054	117	29	99	239	0.490	113	128	0.0	0.9	29.059	D
4 - Lower High Street	93	23	91	195	0.476	90	121	0.0	0.9	33.840	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	139	35	114	189	0.736	135	116	1.4	2.3	64.306	F
2 - A4102	141	35	161	135	1.047	122	88	2.3	7.0	178.192	F
3 - A4054	148	37	124	224	0.661	145	159	0.9	1.8	45.406	E
4 - Lower High Street	115	29	117	194	0.593	113	152	0.9	1.3	44.470	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	154	39	162	170	0.908	145	137	2.3	4.7	115.158	F
2 - A4102	143	36	198	133	1.073	128	108	7.0	10.8	291.882	F
3 - A4054	160	40	133	218	0.734	157	192	1.8	2.4	58.796	F
4 - Lower High Street	196	49	126	193	1.014	173	165	1.3	7.2	121.295	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	196	49	169	167	1.175	161	140	4.7	13.5	243.810	F
2 - A4102	179	45	215	133	1.351	131	114	10.8	22.8	504.778	F
3 - A4054	157	39	141	213	0.737	156	205	2.4	2.6	63.945	F
4 - Lower High Street	193	48	126	193	0.999	182	172	7.2	9.9	195.769	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	191	48	174	165	1.161	162	150	13.5	20.7	415.861	F
2 - A4102	145	36	217	132	1.095	131	120	22.8	26.3	707.536	F
3 - A4054	190	48	142	213	0.893	181	206	2.6	4.8	96.078	F
4 - Lower High Street	191	48	141	192	0.993	183	182	9.9	11.8	237.001	F

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	159	40	179	163	0.978	158	159	20.7	21.1	492.139	F
2 - A4102	133	33	213	133	1.003	130	123	26.3	27.0	759.032	F
3 - A4054	235	59	140	214	1.098	204	204	4.8	12.4	185.127	F
4 - Lower High Street	192	48	154	192	1.003	184	190	11.8	13.7	273.383	F

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
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Filename: Lower High Street-High Street-A4102-A4054 - direct PM.j9

Path: Z:\Lime\Projects\2019\19198 Twynrodyn, Merthyr Tydfil\Analysis\Junction 9 - Nov 2020\2022

Report generation date: 09/03/2022 13:13:17

-
- »2022 BASE, PM
 - »2024 BASE, PM
 - »2029 BASE, PM
 - »2034 BASE, PM
 - »2022 BASE+DEV, PM
 - »2024 BASE+DEV, PM
 - »2029 BASE+DEV, PM
 - »2034 BASE+DEV, PM

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
2022 BASE				
1 - A4054 High Street	10.0	209.56	1.00	F
2 - A4102	18.0	401.25	1.15	F
3 - A4054	16.6	338.42	1.13	F
4 - Lower High Street	6.9	146.33	0.97	F
2024 BASE				
1 - A4054 High Street	11.8	240.41	1.03	F
2 - A4102	19.5	432.79	1.16	F
3 - A4054	20.1	411.17	1.16	F
4 - Lower High Street	8.1	167.96	0.99	F
2029 BASE				
1 - A4054 High Street	17.6	339.72	1.08	F
2 - A4102	29.4	635.22	1.24	F
3 - A4054	27.5	551.14	1.21	F
4 - Lower High Street	11.3	223.83	1.04	F
2034 BASE				
1 - A4054 High Street	25.8	509.55	1.14	F
2 - A4102	38.1	799.60	1.29	F
3 - A4054	36.9	715.16	1.26	F
4 - Lower High Street	16.6	311.77	1.09	F
2022 BASE+DEV				
1 - A4054 High Street	10.2	213.77	1.00	F
2 - A4102	18.7	417.53	1.16	F
3 - A4054	16.6	338.79	1.13	F
4 - Lower High Street	7.8	161.84	0.99	F
2024 BASE+DEV				
1 - A4054 High Street	12.2	248.07	1.03	F
2 - A4102	21.1	468.87	1.17	F
3 - A4054	19.0	386.96	1.15	F
4 - Lower High Street	9.1	185.45	1.01	F
2029 BASE+DEV				
1 - A4054 High Street	18.1	349.94	1.08	F
2 - A4102	28.9	623.58	1.23	F
3 - A4054	26.4	528.04	1.20	F
4 - Lower High Street	12.9	250.71	1.05	F
2034 BASE+DEV				
1 - A4054 High Street	26.4	522.82	1.14	F
2 - A4102	38.4	806.28	1.29	F
3 - A4054	36.9	715.05	1.26	F
4 - Lower High Street	18.8	347.97	1.10	F

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	
Location	
Site number	
Date	30/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-U7G8RPA\Rusne
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 BASE	PM	DIRECT	17:00	18:30	90	15	✓
D4	2024 BASE	PM	DIRECT	17:00	18:30	90	15	✓
D6	2029 BASE	PM	DIRECT	17:00	18:30	90	15	✓
D8	2034 BASE	PM	DIRECT	17:00	18:30	90	15	✓
D10	2022 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓
D12	2024 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓
D14	2029 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓
D16	2034 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

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

2022 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	272.90	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A4054 High Street	
2	A4102	
3	A4054	
4	Lower High Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A4054 High Street	3.08	7.08	15.9	37.8	58.0	23.6	
2 - A4102	6.55	8.90	19.0	13.7	57.1	43.4	
3 - A4054	4.02	6.72	28.5	23.3	58.0	29.6	
4 - Lower High Street	3.92	9.77	18.4	47.6	57.1	29.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
1 - A4054 High Street	Percentage		19.85
2 - A4102	Percentage		78.25
3 - A4054	Percentage		80.00
4 - Lower High Street	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A4054 High Street	0.576	333
2 - A4102	0.666	1817
3 - A4054	0.599	1489
4 - Lower High Street	0.658	2128

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
1 - A4054 High Street	Percentage		81.00
2 - A4102	Percentage		10.00
3 - A4054	Percentage		13.70
4 - Lower High Street	Percentage		10.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 BASE	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	45	269	183	214
	2 - A4102	201	2	174	328
	3 - A4054	307	175	3	269
	4 - Lower High Street	218	257	209	12

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	1	3	6	2
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.00	209.56	10.0	F	176	264
2 - A4102	1.15	401.25	18.0	F	168	252
3 - A4054	1.13	338.42	16.6	F	187	280
4 - Lower High Street	0.97	146.33	6.9	F	179	269

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	196	49	158	196	1.001	169	169	0.0	6.6	102.753	F
2 - A4102	140	35	161	171	0.819	128	167	0.0	3.0	72.352	F
3 - A4054	191	48	161	191	1.001	165	128	0.0	6.5	103.494	F
4 - Lower High Street	197	49	154	203	0.972	173	172	0.0	5.9	92.022	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	179	45	156	197	0.908	177	179	6.6	7.1	154.273	F
2 - A4102	171	43	163	171	1.001	155	169	3.0	7.0	149.430	F
3 - A4054	183	46	184	189	0.969	175	134	6.5	8.4	178.451	F
4 - Lower High Street	162	41	169	202	0.803	166	191	5.9	5.0	108.706	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	189	47	157	196	0.964	182	181	7.1	8.8	181.094	F
2 - A4102	162	41	167	171	0.950	157	172	7.0	8.1	195.150	F
3 - A4054	181	45	188	189	0.960	176	137	8.4	9.6	204.890	F
4 - Lower High Street	168	42	170	202	0.833	168	194	5.0	5.0	107.365	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	185	46	166	192	0.964	180	189	8.8	10.0	209.561	F
2 - A4102	196	49	169	170	1.150	166	177	8.1	15.5	292.849	F
3 - A4054	212	53	194	188	1.127	184	142	9.6	16.6	290.269	F
4 - Lower High Street	182	46	178	201	0.905	178	200	5.0	5.9	127.925	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	158	40	167	192	0.824	172	188	10.0	6.5	177.493	F
2 - A4102	176	44	165	171	1.031	167	174	15.5	17.9	387.472	F
3 - A4054	178	45	191	188	0.945	178	140	16.6	16.6	338.424	F
4 - Lower High Street	184	46	173	201	0.914	181	196	5.9	6.7	141.861	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	149	37	166	192	0.775	157	185	6.5	4.4	115.568	F
2 - A4102	164	41	156	171	0.957	164	167	17.9	18.0	401.251	F
3 - A4054	174	44	184	189	0.921	176	136	16.6	16.1	327.502	F
4 - Lower High Street	181	45	170	202	0.898	180	190	6.7	6.9	146.332	F

2024 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	312.54	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 BASE	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	46	274	17	218
	2 - A4102	205	2	177	334
	3 - A4054	313	178	3	274
	4 - Lower High Street	222	262	213	12

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.03	240.41	11.8	F	180	269
2 - A4102	1.16	432.79	19.5	F	171	257
3 - A4054	1.16	411.17	20.1	F	190	285
4 - Lower High Street	0.99	167.96	8.1	F	183	274

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	200	50	160	195	1.025	171	174	0.0	7.2	107.846	F
2 - A4102	143	36	143	172	0.830	130	188	0.0	3.2	73.852	F
3 - A4054	195	49	183	189	1.032	166	91	0.0	7.3	111.888	F
4 - Lower High Street	201	50	158	202	0.993	175	190	0.0	6.5	97.197	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	182	46	158	196	0.928	179	184	7.2	7.9	168.586	F
2 - A4102	174	44	145	172	1.011	157	192	3.2	7.3	154.095	F
3 - A4054	187	47	207	187	1.000	177	96	7.3	9.9	203.257	F
4 - Lower High Street	165	41	174	201	0.819	168	209	6.5	5.6	119.359	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	193	48	160	195	0.989	184	187	7.9	10.1	202.183	F
2 - A4102	165	41	148	172	0.960	160	196	7.3	8.6	203.798	F
3 - A4054	185	46	211	187	0.991	178	97	9.9	11.7	242.880	F
4 - Lower High Street	171	43	176	201	0.850	171	213	5.6	5.6	118.779	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	189	47	168	191	0.989	182	195	10.1	11.8	240.407	F
2 - A4102	200	50	151	172	1.165	168	200	8.6	16.7	307.584	F
3 - A4054	216	54	216	186	1.160	183	102	11.7	19.9	343.028	F
4 - Lower High Street	186	47	181	201	0.926	181	218	5.6	6.8	142.237	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	161	40	169	191	0.845	177	194	11.8	7.8	212.821	F
2 - A4102	179	45	149	172	1.042	168	198	16.7	19.3	411.696	F
3 - A4054	181	45	214	186	0.971	180	103	19.9	20.1	411.173	F
4 - Lower High Street	188	47	179	201	0.935	184	215	6.8	7.7	160.224	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	152	38	168	191	0.795	163	191	7.8	5.0	136.909	F
2 - A4102	167	42	142	172	0.969	166	190	19.3	19.5	432.794	F
3 - A4054	177	44	206	187	0.946	177	102	20.1	20.1	404.263	F
4 - Lower High Street	185	46	175	201	0.919	184	208	7.7	8.1	167.964	F

2029 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	436.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2029 BASE	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	48	228	195	286
	2 - A4102	214	2	185	349
	3 - A4054	327	186	3	286
	4 - Lower High Street	232	274	223	13

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.08	339.72	17.6	F	188	281
2 - A4102	1.24	635.22	29.4	F	179	269
3 - A4054	1.21	551.14	27.5	F	199	298
4 - Lower High Street	1.04	223.83	11.3	F	191	286

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	209	52	163	193	1.081	174	174	0.0	8.9	123.818	F
2 - A4102	149	37	179	170	0.877	134	158	0.0	3.8	82.881	F
3 - A4054	203	51	181	189	1.073	169	132	0.0	8.5	123.266	F
4 - Lower High Street	210	53	158	202	1.038	179	191	0.0	7.7	108.570	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	191	48	163	194	0.986	184	185	8.9	10.7	216.798	F
2 - A4102	182	46	184	169	1.074	159	162	3.8	9.5	186.862	F
3 - A4054	195	49	204	187	1.041	180	140	8.5	12.3	238.750	F
4 - Lower High Street	173	43	173	201	0.859	174	211	7.7	7.4	147.035	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	201	50	166	192	1.046	186	188	10.7	14.4	273.314	F
2 - A4102	173	43	188	169	1.022	162	165	9.5	12.1	269.171	F
3 - A4054	193	48	208	187	1.032	181	142	12.3	15.2	300.188	F
4 - Lower High Street	179	45	175	201	0.889	179	214	7.4	7.4	152.558	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	197	49	173	189	1.043	184	193	14.4	17.6	339.719	F
2 - A4102	209	52	189	169	1.236	167	168	12.1	22.6	409.416	F
3 - A4054	226	57	211	187	1.210	185	146	15.2	25.4	427.794	F
4 - Lower High Street	194	49	179	201	0.965	188	217	7.4	9.0	179.500	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	168	42	174	188	0.892	186	194	17.6	13.2	333.079	F
2 - A4102	187	47	191	169	1.106	167	169	22.6	27.5	566.933	F
3 - A4054	190	48	211	187	1.018	184	147	25.4	27.0	534.782	F
4 - Lower High Street	196	49	178	201	0.975	190	217	9.0	10.5	206.595	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	159	40	174	188	0.844	178	193	13.2	8.4	237.756	F
2 - A4102	175	44	186	169	1.033	167	167	27.5	29.4	635.219	F
3 - A4054	185	46	208	187	0.990	183	145	27.0	27.5	551.141	F
4 - Lower High Street	193	48	177	201	0.960	190	214	10.5	11.3	223.832	F

2034 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	582.42	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2034 BASE	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	50	300	204	239
	2 - A4102	224	2	194	366
	3 - A4054	342	195	3	300
	4 - Lower High Street	243	287	233	13

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.14	509.55	25.8	F	196	295
2 - A4102	1.29	799.60	38.1	F	188	282
3 - A4054	1.26	715.16	36.9	F	208	312
4 - Lower High Street	1.09	311.77	16.6	F	200	300

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	219	55	166	192	1.141	176	178	0.0	10.9	142.652	F
2 - A4102	156	39	168	171	0.914	139	174	0.0	4.4	89.919	F
3 - A4054	213	53	171	190	1.121	173	135	0.0	10.1	137.436	F
4 - Lower High Street	220	55	162	202	1.088	183	182	0.0	9.3	122.891	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	200	50	168	191	1.046	185	189	10.9	14.5	275.821	F
2 - A4102	191	48	173	170	1.122	162	180	4.4	11.5	214.014	F
3 - A4054	204	51	193	188	1.084	183	143	10.1	15.3	281.974	F
4 - Lower High Street	181	45	176	201	0.900	181	200	9.3	9.3	183.804	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	211	53	172	190	1.113	187	192	14.5	20.6	370.398	F
2 - A4102	181	45	176	170	1.064	166	183	11.5	15.4	323.809	F
3 - A4054	202	51	196	188	1.075	185	145	15.3	19.7	370.474	F
4 - Lower High Street	187	47	178	201	0.930	186	202	9.3	9.6	194.965	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	206	52	177	187	1.101	185	196	20.6	25.8	479.831	F
2 - A4102	219	55	177	170	1.288	169	185	15.4	27.9	495.877	F
3 - A4054	236	59	198	188	1.257	187	148	19.7	32.0	528.943	F
4 - Lower High Street	203	51	180	201	1.010	193	204	9.6	12.2	230.113	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	176	44	178	187	0.943	179	196	25.8	25.0	509.552	F
2 - A4102	196	49	174	170	1.152	169	183	27.9	34.6	694.399	F
3 - A4054	198	50	196	188	1.054	186	147	32.0	34.9	669.923	F
4 - Lower High Street	205	51	180	201	1.020	195	203	12.2	14.8	275.399	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	166	42	178	186	0.890	179	196	25.0	21.7	471.659	F
2 - A4102	183	46	174	170	1.075	169	184	34.6	38.1	799.603	F
3 - A4054	194	49	196	188	1.032	186	147	34.9	36.9	715.165	F
4 - Lower High Street	202	51	180	201	1.005	195	203	14.8	16.6	311.772	F

2022 BASE+DEV, 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	281.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2022 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	45	269	183	214
	2 - A4102	201	2	174	330
	3 - A4054	307	175	3	269
	4 - Lower High Street	221	263	213	12

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.00	213.77	10.2	F	176	264
2 - A4102	1.16	417.53	18.7	F	169	254
3 - A4054	1.13	338.79	16.6	F	187	280
4 - Lower High Street	0.99	161.84	7.8	F	182	273

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	196	49	160	195	1.004	169	169	0.0	6.7	102.724	F
2 - A4102	141	35	161	171	0.825	129	168	0.0	3.1	73.312	F
3 - A4054	191	48	162	191	1.001	165	128	0.0	6.5	103.573	F
4 - Lower High Street	200	50	154	203	0.987	175	173	0.0	6.3	95.722	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	179	45	157	196	0.913	177	179	6.7	7.2	155.604	F
2 - A4102	172	43	164	171	1.007	156	170	3.1	7.2	152.426	F
3 - A4054	183	46	185	189	0.969	175	135	6.5	8.4	178.625	F
4 - Lower High Street	165	41	169	202	0.818	168	191	6.3	5.6	117.168	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	189	47	160	195	0.969	182	182	7.2	8.9	183.810	F
2 - A4102	163	41	168	171	0.956	158	174	7.2	8.4	200.680	F
3 - A4054	181	45	188	189	0.960	176	138	8.4	9.6	205.124	F
4 - Lower High Street	171	43	170	202	0.848	171	194	5.6	5.6	117.464	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	185	46	168	191	0.968	180	190	8.9	10.2	213.766	F
2 - A4102	197	49	170	170	1.156	166	178	8.4	16.0	300.893	F
3 - A4054	212	53	194	188	1.127	184	142	9.6	16.6	290.519	F
4 - Lower High Street	185	46	177	201	0.920	181	200	5.6	6.6	139.311	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	158	40	169	191	0.828	172	188	10.2	6.7	182.170	F
2 - A4102	177	44	166	171	1.037	167	175	16.0	18.6	399.926	F
3 - A4054	178	45	192	188	0.945	178	141	16.6	16.6	338.794	F
4 - Lower High Street	187	47	173	201	0.929	183	196	6.6	7.5	155.426	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	149	37	168	191	0.779	158	185	6.7	4.5	117.841	F
2 - A4102	165	41	157	171	0.963	164	169	18.6	18.7	417.526	F
3 - A4054	174	44	184	189	0.921	176	137	16.6	16.1	327.984	F
4 - Lower High Street	184	46	171	202	0.913	183	190	7.5	7.8	161.839	F

2024 BASE+DEV, 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	320.58	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2024 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	46	274	187	218
	2 - A4102	205	2	177	336
	3 - A4054	313	178	0	274
	4 - Lower High Street	225	268	217	12

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.03	248.07	12.2	F	180	269
2 - A4102	1.17	468.87	21.1	F	172	258
3 - A4054	1.15	386.96	19.0	F	190	285
4 - Lower High Street	1.01	185.45	9.1	F	186	279

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	200	50	161	195	1.028	171	171	0.0	7.3	108.838	F
2 - A4102	143	36	162	171	0.837	130	169	0.0	3.2	75.302	F
3 - A4054	195	49	163	191	1.023	167	129	0.0	7.1	109.157	F
4 - Lower High Street	204	51	155	203	1.007	177	175	0.0	6.8	100.716	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	182	46	159	195	0.932	179	182	7.3	8.0	171.533	F
2 - A4102	175	44	165	171	1.025	157	173	3.2	7.7	160.567	F
3 - A4054	187	47	186	189	0.991	177	136	7.1	9.5	195.390	F
4 - Lower High Street	168	42	170	202	0.833	171	193	6.8	6.2	128.015	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	193	48	162	194	0.996	184	185	8.0	10.4	207.773	F
2 - A4102	166	42	170	170	0.974	160	176	7.7	9.3	217.303	F
3 - A4054	185	46	190	188	0.982	179	139	9.5	11.1	230.739	F
4 - Lower High Street	175	44	172	201	0.869	175	197	6.2	6.2	131.097	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	189	47	170	190	0.993	182	192	10.4	12.2	248.071	F
2 - A4102	200	50	171	170	1.174	167	180	9.3	17.5	325.752	F
3 - A4054	216	54	195	188	1.149	185	143	11.1	18.9	325.629	F
4 - Lower High Street	189	47	178	201	0.940	184	202	6.2	7.5	154.575	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	161	40	171	190	0.848	177	191	12.2	8.1	221.289	F
2 - A4102	180	45	169	170	1.056	167	179	17.5	20.7	438.649	F
3 - A4054	181	45	194	188	0.962	180	143	18.9	19.0	386.963	F
4 - Lower High Street	191	48	175	201	0.949	186	199	7.5	8.6	175.136	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	152	38	170	190	0.798	164	188	8.1	5.2	142.741	F
2 - A4102	168	42	161	171	0.982	166	173	20.7	21.1	468.873	F
3 - A4054	177	44	188	189	0.939	178	139	19.0	18.9	378.517	F
4 - Lower High Street	188	47	172	201	0.933	186	193	8.6	9.1	185.447	F

2029 BASE+DEV, 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	435.91	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	2029 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	48	286	195	228
	2 - A4102	214	2	185	351
	3 - A4054	327	186	3	286
	4 - Lower High Street	235	280	227	13

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.08	349.94	18.1	F	188	281
2 - A4102	1.23	623.58	28.9	F	180	270
3 - A4054	1.20	528.04	26.4	F	199	298
4 - Lower High Street	1.05	250.71	12.9	F	194	291

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	209	52	164	193	1.084	173	175	0.0	8.9	124.879	F
2 - A4102	150	38	166	171	0.879	135	172	0.0	3.8	82.838	F
3 - A4054	203	51	168	190	1.067	170	133	0.0	8.4	121.272	F
4 - Lower High Street	213	53	159	202	1.053	180	179	0.0	8.2	112.831	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	191	48	165	193	0.991	183	186	8.9	10.9	220.755	F
2 - A4102	183	46	171	170	1.074	160	177	3.8	9.5	186.700	F
3 - A4054	195	49	190	188	1.035	181	140	8.4	12.0	232.765	F
4 - Lower High Street	176	44	174	201	0.874	177	197	8.2	8.0	158.553	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	201	50	168	191	1.052	185	189	10.9	14.8	280.433	F
2 - A4102	173	43	174	170	1.017	163	180	9.5	12.0	266.588	F
3 - A4054	193	48	194	188	1.026	182	143	12.0	14.7	290.401	F
4 - Lower High Street	182	46	176	201	0.904	182	200	8.0	8.1	167.049	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	197	49	175	188	1.047	184	194	14.8	18.1	349.936	F
2 - A4102	209	52	175	170	1.229	168	183	12.0	22.2	402.473	F
3 - A4054	226	57	197	188	1.203	186	146	14.7	24.7	413.582	F
4 - Lower High Street	197	49	180	201	0.980	189	203	8.1	10.0	195.985	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	168	42	176	188	0.896	186	195	18.1	13.7	345.599	F
2 - A4102	188	47	177	170	1.106	168	184	22.2	27.2	557.327	F
3 - A4054	190	48	198	188	1.012	185	148	24.7	26.1	515.248	F
4 - Lower High Street	199	50	179	201	0.990	192	204	10.0	11.8	228.225	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	159	40	176	188	0.848	179	194	13.7	8.8	249.400	F
2 - A4102	175	44	173	170	1.028	168	182	27.2	28.9	623.581	F
3 - A4054	185	46	195	188	0.984	183	146	26.1	26.4	528.042	F
4 - Lower High Street	196	49	178	201	0.975	192	201	11.8	12.9	250.709	F

2034 BASE+DEV, 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	595.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D16	2034 BASE+DEV	PM	DIRECT	17:00	18:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A4054 High Street		DIRECT		100.000
2 - A4102		DIRECT		100.000
3 - A4054		DIRECT		100.000
4 - Lower High Street		DIRECT		100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	50	300	204	239
	2 - A4102	224	2	194	368
	3 - A4054	342	195	3	300
	4 - Lower High Street	246	293	237	13

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A4054 High Street	2 - A4102	3 - A4054	4 - Lower High Street
From	1 - A4054 High Street	2	1	3	1
	2 - A4102	3	0	2	0
	3 - A4054	3	3	0	0
	4 - Lower High Street	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A4054 High Street	1.14	522.82	26.4	F	196	295
2 - A4102	1.29	806.28	38.4	F	188	282
3 - A4054	1.26	715.05	36.9	F	208	312
4 - Lower High Street	1.10	347.97	18.8	F	203	304

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	219	55	167	192	1.143	175	178	0.0	10.9	143.597	F
2 - A4102	157	39	168	171	0.920	139	175	0.0	4.5	91.152	F
3 - A4054	213	53	172	190	1.122	173	135	0.0	10.1	137.500	F
4 - Lower High Street	223	56	162	202	1.103	183	182	0.0	9.9	127.484	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	200	50	170	190	1.051	185	190	10.9	14.8	280.534	F
2 - A4102	191	48	174	170	1.122	163	181	4.5	11.6	215.881	F
3 - A4054	204	51	193	188	1.084	183	143	10.1	15.3	282.032	F
4 - Lower High Street	184	46	176	201	0.914	184	200	9.9	9.9	197.136	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	211	53	174	189	1.119	186	193	14.8	21.1	378.886	F
2 - A4102	181	45	176	170	1.064	166	184	11.6	15.4	325.403	F
3 - A4054	202	51	196	188	1.075	185	146	15.3	19.7	370.464	F
4 - Lower High Street	191	48	178	201	0.950	188	202	9.9	10.5	210.948	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	206	52	178	187	1.104	185	196	21.1	26.4	491.045	F
2 - A4102	219	55	177	170	1.288	169	186	15.4	28.0	497.419	F
3 - A4054	236	59	198	188	1.257	187	148	19.7	32.0	528.890	F
4 - Lower High Street	206	52	180	201	1.025	194	204	10.5	13.6	250.420	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	176	44	179	186	0.946	179	196	26.4	25.7	522.823	F
2 - A4102	197	49	174	170	1.158	169	184	28.0	34.9	698.531	F
3 - A4054	198	50	196	188	1.054	186	147	32.0	34.9	669.820	F
4 - Lower High Street	208	52	180	201	1.035	196	203	13.6	16.6	303.375	F

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4054 High Street	166	42	179	186	0.893	179	196	25.7	22.5	487.890	F
2 - A4102	183	46	174	170	1.075	169	184	34.9	38.4	806.275	F
3 - A4054	194	49	196	188	1.032	186	147	34.9	36.9	715.052	F
4 - Lower High Street	205	51	180	201	1.020	196	203	16.6	18.8	347.969	F

Appendix E



Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
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Filename: Penheolferthyr - Goat Mill Road - direct - O-D new AM.j9

Path: Z:\Lime\Projects\2019\19198 Twynrodyn, Merthyr Tydfil\Analysis\Junction 9 - Nov 2020\2022

Report generation date: 09/03/2022 13:17:00

»2022, AM
 »2024, AM
 »2029, AM
 »2034, AM
 »2024 + dev, AM
 »2029 + dev, AM
 »2034 + dev, AM

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2022				
Stream B-C	6.7	104.27	0.91	F
Stream B-A	7.3	105.98	0.90	F
Stream C-AB	1.4	9.16	0.47	A
2024				
Stream B-C	10.3	154.06	0.95	F
Stream B-A	10.7	151.64	0.94	F
Stream C-AB	1.5	9.39	0.48	A
2029				
Stream B-C	22.3	314.06	1.01	F
Stream B-A	23.5	312.06	1.02	F
Stream C-AB	1.8	10.05	0.52	B
2034				
Stream B-C	45.0	613.30	1.10	F
Stream B-A	47.5	612.03	1.10	F
Stream C-AB	2.2	10.91	0.56	B
2024 + dev				
Stream B-C	33.3	438.59	1.05	F
Stream B-A	35.1	437.14	1.05	F
Stream C-AB	1.6	9.71	0.50	A
2029 + dev				
Stream B-C	57.3	751.79	1.13	F
Stream B-A	60.7	750.61	1.13	F
Stream C-AB	1.9	10.44	0.54	B
2034 + dev				
Stream B-C	86.8	1158.55	1.22	F
Stream B-A	91.7	1157.59	1.22	F
Stream C-AB	2.4	11.58	0.59	B

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	
Location	
Site number	
Date	03/03/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-U7G8RPA\Rusne
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022	AM	DIRECT	08:00	09:30	90	15	✓
D3	2024	AM	DIRECT	08:00	09:30	90	15	✓
D5	2029	AM	DIRECT	08:00	09:30	90	15	✓
D7	2034	AM	DIRECT	08:00	09:30	90	15	✓
D9	2024 + dev	AM	DIRECT	08:00	09:30	90	15	✓
D11	2029 + dev	AM	DIRECT	08:00	09:30	90	15	✓
D13	2034 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Analysis Set Details

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

2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		31.59	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A4102		Major
B	Penheolferthyr		Minor
C	Goat Mill Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.29			60.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	7.86	5.53	4.16	3.54		3.00	80	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564	0.088	0.223	0.140	0.318
1	B-C	692	0.091	0.230	-	-
1	C-B	609	0.202	0.202	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

08:15 - 08:30

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

08:30 - 08:45

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

08:45 - 09:00

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

09:00 - 09:15

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	239	502
	B	150	0	142
	C	397	167	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.91	104.27	6.7	F	251	376
B-A	0.90	105.98	7.3	F	265	398
C-AB	0.47	9.16	1.4	A	355	533
C-A					209	313
A-B					239	359
A-C					502	753

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	251	63	347	0.723	242	0.0	2.3	31.878	D
B-A	265	66	307	0.864	248	0.0	4.3	52.359	F
C-AB	352	88	755	0.467	347	0.0	1.4	8.888	A
C-A	212	53			212				
A-B	239	60			239				
A-C	502	126			502				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	251	63	306	0.820	246	2.3	3.6	54.579	F
B-A	265	66	301	0.880	261	4.3	5.3	78.260	F
C-AB	356	89	757	0.470	356	1.4	1.4	9.152	A
C-A	208	52			208				
A-B	239	60			239				
A-C	502	126			502				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	251	63	295	0.851	248	3.6	4.4	68.805	F
B-A	265	66	299	0.888	262	5.3	6.0	87.933	F
C-AB	356	89	757	0.470	356	1.4	1.4	9.160	A
C-A	208	52			208				
A-B	239	60			239				
A-C	502	126			502				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	251	63	288	0.873	248	4.4	5.2	80.593	F
B-A	265	66	297	0.893	263	6.0	6.5	94.749	F
C-AB	356	89	757	0.470	356	1.4	1.4	9.162	A
C-A	208	52			208				
A-B	239	60			239				
A-C	502	126			502				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	251	63	282	0.891	248	5.2	5.9	92.082	F
B-A	265	66	295	0.898	263	6.5	6.9	100.516	F
C-AB	356	89	757	0.470	356	1.4	1.4	9.163	A
C-A	208	52			208				
A-B	239	60			239				
A-C	502	126			502				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	251	63	277	0.907	248	5.9	6.7	104.274	F
B-A	265	66	294	0.903	264	6.9	7.3	105.983	F
C-AB	356	89	757	0.470	356	1.4	1.4	9.162	A
C-A	208	52			208				
A-B	239	60			239				
A-C	502	126			502				

2024, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		45.19	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
		A	B	C
	A	0	244	512
	B	153	0	145
From	C	405	170	0

Demand (PCU/hr)

08:15 - 08:30

	To			
		A	B	C
	A	0	244	512
	B	153	0	145
From	C	405	170	0

Demand (PCU/hr)

08:30 - 08:45

	To			
		A	B	C
	A	0	244	512
	B	153	0	145
From	C	405	170	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	244	512
	B	153	0	145
	C	405	170	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	244	512
	B	153	0	145
	C	405	170	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	244	512
	B	153	0	145
	C	405	170	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.95	154.06	10.3	F	256	384
B-A	0.94	151.64	10.7	F	270	406
C-AB	0.48	9.39	1.5	A	368	552
C-A					207	311
A-B					244	366
A-C					512	768

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	64	325	0.789	244	0.0	3.0	40.143	E
B-A	270	68	299	0.903	250	0.0	5.1	59.854	F
C-AB	365	91	758	0.481	359	0.0	1.5	9.079	A
C-A	210	53			210				
A-B	244	61			244				
A-C	512	128			512				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	64	269	0.953	241	3.0	6.7	95.426	F
B-A	270	68	291	0.929	263	5.1	7.0	99.962	F
C-AB	368	92	761	0.484	368	1.5	1.5	9.374	A
C-A	207	52			207				
A-B	244	61			244				
A-C	512	128			512				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	64	273	0.938	251	6.7	8.1	122.407	F
B-A	270	68	288	0.939	265	7.0	8.4	120.121	F
C-AB	369	92	761	0.484	368	1.5	1.5	9.380	A
C-A	206	52			206				
A-B	244	61			244				
A-C	512	128			512				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	64	273	0.939	253	8.1	9.0	136.046	F
B-A	270	68	287	0.941	266	8.4	9.4	133.636	F
C-AB	369	92	761	0.484	369	1.5	1.5	9.382	A
C-A	206	52			206				
A-B	244	61			244				
A-C	512	128			512				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	64	273	0.940	253	9.0	9.8	146.092	F
B-A	270	68	287	0.942	267	9.4	10.1	143.668	F
C-AB	369	92	761	0.484	369	1.5	1.5	9.385	A
C-A	206	52			206				
A-B	244	61			244				
A-C	512	128			512				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	64	272	0.941	254	9.8	10.3	154.059	F
B-A	270	68	287	0.943	268	10.1	10.7	151.639	F
C-AB	369	92	761	0.484	369	1.5	1.5	9.386	A
C-A	206	52			206				
A-B	244	61			244				
A-C	512	128			512				

2029, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		90.74	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2029	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

08:15 - 08:30

	To			
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

08:30 - 08:45

	To			
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	255	535
	B	160	0	151
	C	423	178	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.01	314.06	22.3	F	267	400
B-A	1.02	312.06	23.5	F	283	424
C-AB	0.52	10.05	1.8	B	401	601
C-A					200	300
A-B					255	383
A-C					535	803

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	266	1.005	236	0.0	7.8	86.457	F
B-A	283	71	281	1.005	250	0.0	8.1	84.281	F
C-AB	397	99	767	0.518	390	0.0	1.7	9.637	A
C-A	204	51			204				
A-B	255	64			255				
A-C	535	134			535				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	263	1.014	251	7.8	11.8	164.465	F
B-A	283	71	278	1.016	266	8.1	12.3	161.732	F
C-AB	402	100	769	0.522	401	1.7	1.8	10.028	B
C-A	199	50			199				
A-B	255	64			255				
A-C	535	134			535				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	263	1.014	254	11.8	14.9	210.112	F
B-A	283	71	278	1.016	270	12.3	15.6	207.634	F
C-AB	402	100	770	0.522	402	1.8	1.8	10.038	B
C-A	199	50			199				
A-B	255	64			255				
A-C	535	134			535				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	263	1.014	256	14.9	17.6	248.352	F
B-A	283	71	278	1.016	271	15.6	18.5	246.065	F
C-AB	402	100	770	0.522	402	1.8	1.8	10.041	B
C-A	199	50			199				
A-B	255	64			255				
A-C	535	134			535				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	263	1.014	257	17.6	20.0	282.549	F
B-A	283	71	278	1.016	272	18.5	21.1	280.417	F
C-AB	402	100	770	0.522	402	1.8	1.8	10.043	B
C-A	199	50			199				
A-B	255	64			255				
A-C	535	134			535				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	263	1.015	258	20.0	22.3	314.060	F
B-A	283	71	278	1.016	273	21.1	23.5	312.064	F
C-AB	402	100	770	0.522	402	1.8	1.8	10.046	B
C-A	199	50			199				
A-B	255	64			255				
A-C	535	134			535				

2034, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		175.68	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2034	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

08:15 - 08:30

	To			
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

08:30 - 08:45

	To			
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	267	560
	B	167	0	158
	C	443	186	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.10	613.30	45.0	F	279	419
B-A	1.10	612.03	47.5	F	295	443
C-AB	0.56	10.91	2.2	B	438	657
C-A					191	286
A-B					267	401
A-C					560	840

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	70	256	1.092	235	0.0	11.1	112.034	F
B-A	295	74	270	1.092	249	0.0	11.6	109.974	F
C-AB	434	108	776	0.559	425	0.0	2.1	10.339	B
C-A	195	49			195				
A-B	267	67			267				
A-C	560	140			560				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	70	255	1.096	250	11.1	18.5	240.910	F
B-A	295	74	269	1.098	264	11.6	19.5	238.486	F
C-AB	439	110	779	0.563	439	2.1	2.1	10.879	B
C-A	190	47			190				
A-B	267	67			267				
A-C	560	140			560				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	70	255	1.096	252	18.5	25.4	338.261	F
B-A	295	74	269	1.098	266	19.5	26.8	336.315	F
C-AB	439	110	780	0.563	439	2.1	2.2	10.898	B
C-A	190	47			190				
A-B	267	67			267				
A-C	560	140			560				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	70	255	1.097	253	25.4	32.0	431.497	F
B-A	295	74	269	1.097	267	26.8	33.8	429.858	F
C-AB	439	110	780	0.563	439	2.2	2.2	10.906	B
C-A	190	47			190				
A-B	267	67			267				
A-C	560	140			560				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	70	255	1.097	253	32.0	38.6	522.918	F
B-A	295	74	269	1.097	268	33.8	40.7	521.483	F
C-AB	439	110	780	0.563	439	2.2	2.2	10.907	B
C-A	190	47			190				
A-B	267	67			267				
A-C	560	140			560				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	70	255	1.097	254	38.6	45.0	613.304	F
B-A	295	74	269	1.097	268	40.7	47.5	612.028	F
C-AB	439	110	780	0.563	439	2.2	2.2	10.909	B
C-A	190	47			190				
A-B	267	67			267				
A-C	560	140			560				

2024 + dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		134.70	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2024 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
		A	B	C
	A	0	252	512
	B	170	0	161
From	C	405	175	0

Demand (PCU/hr)

08:15 - 08:30

	To			
		A	B	C
	A	0	252	512
	B	170	0	161
From	C	405	175	0

Demand (PCU/hr)

08:30 - 08:45

	To			
		A	B	C
	A	0	252	512
	B	170	0	161
From	C	405	175	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	252	512
	B	170	0	161
	C	405	175	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.05	438.59	33.3	F	285	427
B-A	1.05	437.14	35.1	F	300	451
C-AB	0.50	9.71	1.6	A	380	569
C-A					200	301
A-B					252	378
A-C					512	768

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	285	71	272	1.046	246	0.0	9.6	96.170	F
B-A	300	75	287	1.046	261	0.0	9.9	94.179	F
C-AB	376	94	757	0.497	370	0.0	1.6	9.365	A
C-A	204	51			204				
A-B	252	63			252				
A-C	512	128			512				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	285	71	270	1.053	262	9.6	15.2	195.432	F
B-A	300	75	285	1.055	277	9.9	15.9	193.017	F
C-AB	380	95	760	0.500	380	1.6	1.6	9.697	A
C-A	200	50			200				
A-B	252	63			252				
A-C	512	128			512				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	285	71	270	1.053	265	15.2	20.1	262.696	F
B-A	300	75	285	1.055	280	15.9	21.1	260.647	F
C-AB	380	95	760	0.501	380	1.6	1.6	9.706	A
C-A	200	50			200				
A-B	252	63			252				
A-C	512	128			512				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	285	71	270	1.054	266	20.1	24.7	323.981	F
B-A	300	75	285	1.055	281	21.1	26.0	322.189	F
C-AB	380	95	760	0.501	380	1.6	1.6	9.711	A
C-A	200	50			200				
A-B	252	63			252				
A-C	512	128			512				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	285	71	270	1.054	267	24.7	29.0	382.236	F
B-A	300	75	285	1.055	282	26.0	30.6	380.630	F
C-AB	380	95	760	0.501	380	1.6	1.6	9.710	A
C-A	200	50			200				
A-B	252	63			252				
A-C	512	128			512				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	285	71	270	1.054	268	29.0	33.3	438.594	F
B-A	300	75	285	1.055	283	30.6	35.1	437.142	F
C-AB	380	95	760	0.501	380	1.6	1.6	9.713	A
C-A	200	50			200				
A-B	252	63			252				
A-C	512	128			512				

2029 + dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		229.15	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2029 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
		A	B	C
	A	0	263	535
	B	177	0	167
From	C	423	183	0

Demand (PCU/hr)

08:15 - 08:30

	To			
		A	B	C
	A	0	263	535
	B	177	0	167
From	C	423	183	0

Demand (PCU/hr)

08:30 - 08:45

	To			
		A	B	C
	A	0	263	535
	B	177	0	167
From	C	423	183	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	263	535
	B	177	0	167
	C	423	183	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	263	535
	B	177	0	167
	C	423	183	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	263	535
	B	177	0	167
	C	423	183	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.13	751.79	57.3	F	295	443
B-A	1.13	750.61	60.7	F	313	469
C-AB	0.54	10.44	1.9	B	413	620
C-A					193	289
A-B					263	395
A-C					535	803

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	295	74	262	1.126	243	0.0	12.9	121.256	F
B-A	313	78	278	1.126	259	0.0	13.5	119.122	F
C-AB	409	102	765	0.535	402	0.0	1.8	9.970	A
C-A	197	49			197				
A-B	263	66			263				
A-C	535	134			535				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	295	74	262	1.129	258	12.9	22.3	272.519	F
B-A	313	78	277	1.131	273	13.5	23.5	270.103	F
C-AB	414	103	768	0.539	414	1.8	1.9	10.415	B
C-A	192	48			192				
A-B	263	66			263				
A-C	535	134			535				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	295	74	261	1.129	259	22.3	31.2	394.824	F
B-A	313	78	277	1.131	275	23.5	33.0	392.965	F
C-AB	414	104	768	0.539	414	1.9	1.9	10.431	B
C-A	192	48			192				
A-B	263	66			263				
A-C	535	134			535				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	295	74	261	1.130	260	31.2	40.0	514.602	F
B-A	313	78	277	1.130	276	33.0	42.4	513.070	F
C-AB	414	104	769	0.539	414	1.9	1.9	10.433	B
C-A	192	48			192				
A-B	263	66			263				
A-C	535	134			535				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	295	74	261	1.130	260	40.0	48.7	633.442	F
B-A	313	78	277	1.130	276	42.4	51.6	632.111	F
C-AB	414	104	769	0.539	414	1.9	1.9	10.438	B
C-A	192	48			192				
A-B	263	66			263				
A-C	535	134			535				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	295	74	261	1.130	261	48.7	57.3	751.790	F
B-A	313	78	277	1.130	276	51.6	60.7	750.612	F
C-AB	414	104	769	0.539	414	1.9	1.9	10.439	B
C-A	192	48			192				
A-B	263	66			263				
A-C	535	134			535				

2034 + dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		350.83	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	2034 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	176.750
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
		A	B	C
	A	0	275	560
	B	184	0	174
From	C	443	193	0

Demand (PCU/hr)

08:15 - 08:30

	To			
		A	B	C
	A	0	275	560
	B	184	0	174
From	C	443	193	0

Demand (PCU/hr)

08:30 - 08:45

	To			
		A	B	C
	A	0	275	560
	B	184	0	174
From	C	443	193	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	275	560
	B	184	0	174
	C	443	193	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	275	560
	B	184	0	174
	C	443	193	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	275	560
	B	184	0	174
	C	443	193	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.22	1158.55	86.8	F	308	461
B-A	1.22	1157.59	91.7	F	325	488
C-AB	0.59	11.58	2.4	B	456	684
C-A					180	270
A-B					275	413
A-C					560	840

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	308	77	254	1.212	240	0.0	17.0	151.979	F
B-A	325	81	268	1.212	254	0.0	17.8	150.023	F
C-AB	451	113	775	0.582	442	0.0	2.2	10.883	B
C-A	185	46			185				
A-B	275	69			275				
A-C	560	140			560				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	308	77	253	1.217	251	17.0	31.2	371.675	F
B-A	325	81	267	1.219	265	17.8	32.9	369.589	F
C-AB	457	114	779	0.587	457	2.2	2.3	11.535	B
C-A	179	45			179				
A-B	275	69			275				
A-C	560	140			560				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	308	77	252	1.218	252	31.2	45.1	568.350	F
B-A	325	81	267	1.219	266	32.9	47.7	566.818	F
C-AB	457	114	779	0.587	457	2.3	2.4	11.563	B
C-A	179	45			179				
A-B	275	69			275				
A-C	560	140			560				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	308	77	252	1.219	252	45.1	59.0	764.954	F
B-A	325	81	267	1.219	266	47.7	62.4	763.706	F
C-AB	457	114	779	0.587	457	2.4	2.4	11.569	B
C-A	179	45			179				
A-B	275	69			275				
A-C	560	140			560				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	308	77	252	1.219	252	59.0	72.9	961.711	F
B-A	325	81	267	1.219	267	62.4	77.1	960.621	F
C-AB	457	114	779	0.587	457	2.4	2.4	11.575	B
C-A	179	45			179				
A-B	275	69			275				
A-C	560	140			560				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	308	77	252	1.219	252	72.9	86.8	1158.547	F
B-A	325	81	267	1.219	267	77.1	91.7	1157.585	F
C-AB	457	114	779	0.587	457	2.4	2.4	11.575	B
C-A	179	45			179				
AB	275	69			275				
AC	560	140			560				

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
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Filename: Penheolferthyr - Goat Mill Road - direct - O-D new PM.j9

Path: Z:\Lime\Projects\2019\19198 Twynrodyn, Merthyr Tydfil\Analysis\Junction 9 - Nov 2020\2022

Report generation date: 09/03/2022 13:16:29

-
- »2022, PM
 - »2024, PM
 - »2029, PM
 - »2034, PM
 - »2024 + dev, PM
 - »2029 + dev, PM
 - »2034 + dev, PM

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	2022			
Stream B-C	8.5	142.01	0.93	F
Stream B-A	9.3	132.91	0.93	F
Stream C-AB	1.2	7.59	0.39	A
	2024			
Stream B-C	11.2	184.13	0.97	F
Stream B-A	12.6	175.08	0.96	F
Stream C-AB	1.2	7.73	0.40	A
	2029			
Stream B-C	23.9	368.46	1.03	F
Stream B-A	27.6	362.20	1.03	F
Stream C-AB	1.4	8.09	0.43	A
	2034			
Stream B-C	47.2	714.73	1.12	F
Stream B-A	55.1	710.41	1.12	F
Stream C-AB	1.6	8.54	0.46	A
	2024 + dev			
Stream B-C	19.9	308.26	1.01	F
Stream B-A	22.9	301.39	1.01	F
Stream C-AB	1.4	8.25	0.43	A
	2029 + dev			
Stream B-C	39.2	584.43	1.09	F
Stream B-A	45.4	579.90	1.09	F
Stream C-AB	1.6	8.69	0.47	A
	2034 + dev			
Stream B-C	66.0	994.23	1.18	F
Stream B-A	76.7	990.63	1.18	F
Stream C-AB	1.9	9.27	0.50	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	
Location	
Site number	
Date	03/03/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-U7G8RPA\Rusne
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

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022	PM	DIRECT	16:30	18:00	90	15	✓
D4	2024	PM	DIRECT	16:30	18:00	90	15	✓
D6	2029	PM	DIRECT	16:30	18:00	90	15	✓
D8	2034	PM	DIRECT	16:30	18:00	90	15	✓
D10	2024 + dev	PM	DIRECT	16:30	18:00	90	15	✓
D12	2029 + dev	PM	DIRECT	16:30	18:00	90	15	✓
D14	2034 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Analysis Set Details

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

2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		36.76	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A4102		Major
B	Penheolferthyr		Minor
C	Goat Mill Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.29			60.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	7.86	5.53	4.16	3.54		3.00	80	23

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	570	0.089	0.225	0.141	0.321
1	B-C	685	0.090	0.227	-	-
1	C-B	609	0.202	0.202	-	-

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

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

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

Traffic Demand

Demand Set Details

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

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

		To		
From		A	B	C
	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

16:45 - 17:00

		To		
From		A	B	C
	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:00 - 17:15

		To		
From		A	B	C
	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:15 - 17:30

		To		
From		A	B	C
	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:30 - 17:45

		To		
From		A	B	C
	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.93	142.01	8.5	F	229	343
B-A	0.93	132.91	9.3	F	268	403
C-AB	0.39	7.59	1.2	A	303	455
C-A					278	417
A-B					281	421
A-C					559	838

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	310	0.740	219	0.0	2.5	37.104	E
B-A	268	67	301	0.893	249	0.0	4.9	57.886	F
C-AB	301	75	783	0.384	296	0.0	1.1	7.432	A
C-A	280	70			280				
A-B	281	70			281				
A-C	559	140			559				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	258	0.888	220	2.5	4.8	78.712	F
B-A	268	67	295	0.910	263	4.9	6.3	91.545	F
C-AB	304	76	785	0.387	304	1.1	1.1	7.582	A
C-A	277	69			277				
A-B	281	70			281				
A-C	559	140			559				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	246	0.930	222	4.8	6.7	112.538	F
B-A	268	67	291	0.921	264	6.3	7.4	107.468	F
C-AB	304	76	785	0.387	304	1.1	1.1	7.585	A
C-A	277	69			277				
A-B	281	70			281				
A-C	559	140			559				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	249	0.921	226	6.7	7.5	127.291	F
B-A	268	67	290	0.926	265	7.4	8.2	118.832	F
C-AB	304	76	785	0.387	304	1.1	1.2	7.586	A
C-A	277	69			277				
A-B	281	70			281				
A-C	559	140			559				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	249	0.921	227	7.5	8.1	135.822	F
B-A	268	67	289	0.927	266	8.2	8.9	126.866	F
C-AB	304	76	785	0.387	304	1.2	1.2	7.584	A
C-A	277	69			277				
A-B	281	70			281				
A-C	559	140			559				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	229	57	249	0.921	227	8.1	8.5	142.005	F
B-A	268	67	289	0.928	266	8.9	9.3	132.915	F
C-AB	304	76	785	0.387	304	1.2	1.2	7.584	A
C-A	277	69			277				
A-B	281	70			281				
A-C	559	140			559				

2024, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		47.95	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
	A	0	283	564
	B	146	0	124
From	C	454	128	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
	A	0	283	564
	B	146	0	124
From	C	454	128	0

Demand (PCU/hr)

17:00 - 17:15

	To			
		A	B	C
	A	0	283	564
	B	146	0	124
From	C	454	128	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	283	564
	B	146	0	124
	C	454	128	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.97	184.13	11.2	F	233	349
B-A	0.96	175.08	12.6	F	274	411
C-AB	0.40	7.73	1.2	A	309	463
C-A					273	410
A-B					286	429
A-C					570	854

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	233	58	287	0.811	220	0.0	3.3	47.604	E
B-A	274	69	295	0.928	251	0.0	5.7	65.184	F
C-AB	306	77	780	0.393	302	0.0	1.2	7.563	A
C-A	276	69			276				
A-B	286	71			286				
A-C	570	142			570				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	233	58	240	0.970	217	3.3	7.2	111.978	F
B-A	274	69	290	0.946	265	5.7	7.9	110.796	F
C-AB	309	77	782	0.396	309	1.2	1.2	7.725	A
C-A	273	68			273				
A-B	286	71			286				
A-C	570	142			570				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	233	58	245	0.950	227	7.2	8.6	143.875	F
B-A	274	69	286	0.957	267	7.9	9.6	134.723	F
C-AB	309	77	782	0.396	309	1.2	1.2	7.729	A
C-A	273	68			273				
A-B	286	71			286				
A-C	570	142			570				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	233	58	245	0.951	228	8.6	9.7	161.140	F
B-A	274	69	286	0.958	269	9.6	10.8	151.894	F
C-AB	309	77	782	0.396	309	1.2	1.2	7.730	A
C-A	273	68			273				
A-B	286	71			286				
A-C	570	142			570				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	233	58	245	0.951	229	9.7	10.6	173.954	F
B-A	274	69	286	0.958	270	10.8	11.8	164.795	F
C-AB	309	77	782	0.396	309	1.2	1.2	7.729	A
C-A	273	68			273				
A-B	286	71			286				
A-C	570	142			570				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	233	58	245	0.951	230	10.6	11.2	184.130	F
B-A	274	69	286	0.958	271	11.8	12.6	175.080	F
C-AB	309	77	782	0.396	309	1.2	1.2	7.731	A
C-A	273	68			273				
AB	286	71			286				
AC	570	142			570				

2029, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		96.49	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2029	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
	A	0	296	589
	B	152	0	130
From	C	474	134	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
	A	0	296	589
	B	152	0	130
From	C	474	134	0

Demand (PCU/hr)

17:00 - 17:15

	To			
		A	B	C
	A	0	296	589
	B	152	0	130
From	C	474	134	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.03	368.46	23.9	F	244	366
B-A	1.03	362.20	27.6	F	285	428
C-AB	0.43	8.09	1.4	A	339	508
C-A					269	404
A-B					299	448
A-C					595	892

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	238	1.024	212	0.0	8.1	96.864	F
B-A	285	71	279	1.024	250	0.0	8.8	89.490	F
C-AB	335	84	789	0.425	330	0.0	1.3	7.878	A
C-A	273	68			273				
A-B	299	75			299				
A-C	595	149			595				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	238	1.025	228	8.1	12.1	185.321	F
B-A	285	71	276	1.032	266	8.8	13.6	176.228	F
C-AB	339	85	792	0.428	339	1.3	1.4	8.080	A
C-A	269	67			269				
A-B	299	75			299				
A-C	595	149			595				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	238	1.026	231	12.1	15.4	238.780	F
B-A	285	71	276	1.032	269	13.6	17.6	230.686	F
C-AB	339	85	792	0.428	339	1.4	1.4	8.085	A
C-A	269	67			269				
A-B	299	75			299				
A-C	595	149			595				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	238	1.027	232	15.4	18.4	285.314	F
B-A	285	71	277	1.032	271	17.6	21.2	277.959	F
C-AB	339	85	792	0.428	339	1.4	1.4	8.088	A
C-A	269	67			269				
A-B	299	75			299				
A-C	595	149			595				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	238	1.027	233	18.4	21.2	328.117	F
B-A	285	71	277	1.032	272	21.2	24.5	321.352	F
C-AB	339	85	792	0.428	339	1.4	1.4	8.089	A
C-A	269	67			269				
A-B	299	75			299				
A-C	595	149			595				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	237	1.028	233	21.2	23.9	368.464	F
B-A	285	71	277	1.031	273	24.5	27.6	362.204	F
C-AB	339	85	792	0.428	339	1.4	1.4	8.089	A
C-A	269	67			269				
AB	299	75			299				
AC	595	149			595				

2034, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D8 - 2034, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		187.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2034	PM	DIRECT	16:30	18:00	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.12	714.73	47.2	F	255	383
B-A	1.12	710.41	55.1	F	298	448
C-AB	0.46	8.54	1.6	A	372	559
C-A					264	395
A-B					313	470
A-C					623	935

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	229	1.115	210	0.0	11.3	124.973	F
B-A	298	75	268	1.115	248	0.0	12.7	117.606	F
C-AB	368	92	800	0.461	362	0.0	1.6	8.269	A
C-A	268	67			268				
A-B	313	78			313				
A-C	623	156			623				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	229	1.114	225	11.3	18.9	271.243	F
B-A	298	75	266	1.121	262	12.7	21.8	262.810	F
C-AB	373	93	803	0.465	373	1.6	1.6	8.535	A
C-A	263	66			263				
A-B	313	78			313				
A-C	623	156			623				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	229	1.116	226	18.9	26.2	385.025	F
B-A	298	75	266	1.121	264	21.8	30.3	378.360	F
C-AB	373	93	803	0.465	373	1.6	1.6	8.540	A
C-A	263	66			263				
A-B	313	78			313				
A-C	623	156			623				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	228	1.117	227	26.2	33.3	495.884	F
B-A	298	75	266	1.120	265	30.3	38.7	490.312	F
C-AB	373	93	803	0.465	373	1.6	1.6	8.542	A
C-A	263	66			263				
A-B	313	78			313				
A-C	623	156			623				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	228	1.118	227	33.3	40.3	605.632	F
B-A	298	75	266	1.120	265	38.7	46.9	600.758	F
C-AB	373	93	803	0.465	373	1.6	1.6	8.543	A
C-A	263	66			263				
A-B	313	78			313				
A-C	623	156			623				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	228	1.119	227	40.3	47.2	714.729	F
B-A	298	75	266	1.120	266	46.9	55.1	710.413	F
C-AB	373	93	803	0.465	373	1.6	1.6	8.544	A
C-A	263	66			263				
A-B	313	78			313				
A-C	623	156			623				

2024 + dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		82.07	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2024 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

16:45 - 17:00

	To			
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:00 - 17:15

	To			
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	304	564
	B	152	0	130
	C	454	138	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.01	308.26	19.9	F	244	366
B-A	1.01	301.39	22.9	F	285	428
C-AB	0.43	8.25	1.4	A	335	503
C-A					257	385
A-B					307	461
A-C					570	854

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	243	1.003	214	0.0	7.5	90.633	F
B-A	285	71	284	1.003	253	0.0	8.1	83.354	F
C-AB	332	83	777	0.428	327	0.0	1.3	8.039	A
C-A	260	65			260				
A-B	307	77			307				
A-C	570	142			570				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	243	1.005	230	7.5	10.9	168.111	F
B-A	285	71	282	1.013	269	8.1	12.2	158.983	F
C-AB	336	84	779	0.431	336	1.3	1.3	8.248	A
C-A	256	64			256				
A-B	307	77			307				
A-C	570	142			570				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	242	1.006	233	10.9	13.6	211.356	F
B-A	285	71	282	1.013	272	12.2	15.4	203.003	F
C-AB	336	84	779	0.431	336	1.3	1.4	8.253	A
C-A	256	64			256				
A-B	307	77			307				
A-C	570	142			570				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	242	1.007	235	13.6	15.9	247.261	F
B-A	285	71	282	1.013	274	15.4	18.2	239.486	F
C-AB	336	84	779	0.431	336	1.4	1.4	8.254	A
C-A	256	64			256				
A-B	307	77			307				
A-C	570	142			570				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	242	1.007	236	15.9	18.0	279.114	F
B-A	285	71	282	1.013	275	18.2	20.6	271.819	F
C-AB	336	84	779	0.431	336	1.4	1.4	8.253	A
C-A	256	64			256				
A-B	307	77			307				
A-C	570	142			570				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	61	242	1.008	236	18.0	19.9	308.262	F
B-A	285	71	282	1.012	276	20.6	22.9	301.387	F
C-AB	336	84	779	0.431	336	1.4	1.4	8.254	A
C-A	256	64			256				
A-B	307	77			307				
A-C	570	142			570				

2029 + dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		155.57	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2029 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
	A	0	317	589
	B	158	0	136
From	C	474	144	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
	A	0	317	589
	B	158	0	136
From	C	474	144	0

Demand (PCU/hr)

17:00 - 17:15

	To			
		A	B	C
	A	0	317	589
	B	158	0	136
From	C	474	144	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	317	589
	B	158	0	136
	C	474	144	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	317	589
	B	158	0	136
	C	474	144	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	317	589
	B	158	0	136
	C	474	144	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.09	584.43	39.2	F	255	383
B-A	1.09	579.90	45.4	F	297	445
C-AB	0.47	8.69	1.6	A	366	549
C-A					252	378
A-B					320	480
A-C					595	892

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	235	1.085	214	0.0	10.3	114.458	F
B-A	297	74	273	1.085	251	0.0	11.4	107.402	F
C-AB	363	91	786	0.461	357	0.0	1.5	8.418	A
C-A	255	64			255				
A-B	320	80			320				
A-C	595	149			595				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	236	1.084	230	10.3	16.7	239.176	F
B-A	297	74	272	1.091	266	11.4	18.9	230.904	F
C-AB	367	92	789	0.465	367	1.5	1.6	8.684	A
C-A	251	63			251				
A-B	320	80			320				
A-C	595	149			595				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	235	1.086	232	16.7	22.5	329.989	F
B-A	297	74	272	1.090	269	18.9	25.9	323.229	F
C-AB	367	92	789	0.465	367	1.6	1.6	8.690	A
C-A	251	63			251				
A-B	320	80			320				
A-C	595	149			595				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	235	1.087	233	22.5	28.2	416.478	F
B-A	297	74	272	1.090	270	25.9	32.5	410.719	F
C-AB	367	92	789	0.465	367	1.6	1.6	8.694	A
C-A	251	63			251				
A-B	320	80			320				
A-C	595	149			595				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	235	1.087	233	28.2	33.7	501.034	F
B-A	297	74	272	1.090	271	32.5	39.0	495.957	F
C-AB	367	92	789	0.465	367	1.6	1.6	8.694	A
C-A	251	63			251				
A-B	320	80			320				
A-C	595	149			595				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	255	64	235	1.088	233	33.7	39.2	584.432	F
B-A	297	74	272	1.089	271	39.0	45.4	579.903	F
C-AB	367	92	789	0.465	367	1.6	1.6	8.694	A
C-A	251	63			251				
A-B	320	80			320				
A-C	595	149			595				

2034 + dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		264.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	2034 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	101.000
B		DIRECT	✓	187.700
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
	A	0	331	617
	B	165	0	142
From	C	496	150	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
	A	0	331	617
	B	165	0	142
From	C	496	150	0

Demand (PCU/hr)

17:00 - 17:15

	To			
		A	B	C
	A	0	331	617
	B	165	0	142
From	C	496	150	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	331	617
	B	165	0	142
	C	496	150	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.18	994.23	66.0	F	267	400
B-A	1.18	990.63	76.7	F	310	465
C-AB	0.50	9.27	1.9	A	402	603
C-A					244	366
A-B					334	501
A-C					623	935

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	226	1.177	211	0.0	13.9	145.373	F
B-A	310	77	263	1.177	247	0.0	15.6	138.486	F
C-AB	397	99	797	0.499	390	0.0	1.8	8.897	A
C-A	249	62			249				
A-B	334	84			334				
A-C	623	156			623				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	226	1.178	224	13.9	24.5	337.938	F
B-A	310	77	262	1.184	259	15.6	28.2	330.394	F
C-AB	403	101	800	0.503	402	1.8	1.9	9.252	A
C-A	243	61			243				
A-B	334	84			334				
A-C	623	156			623				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	226	1.180	225	24.5	35.0	502.519	F
B-A	310	77	262	1.183	261	28.2	40.5	496.834	F
C-AB	403	101	800	0.503	403	1.9	1.9	9.260	A
C-A	243	61			243				
A-B	334	84			334				
A-C	623	156			623				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	226	1.181	225	35.0	45.4	666.455	F
B-A	310	77	262	1.183	261	40.5	52.6	661.790	F
C-AB	403	101	800	0.503	403	1.9	1.9	9.266	A
C-A	243	61			243				
A-B	334	84			334				
A-C	623	156			623				

17:30 - 17:45

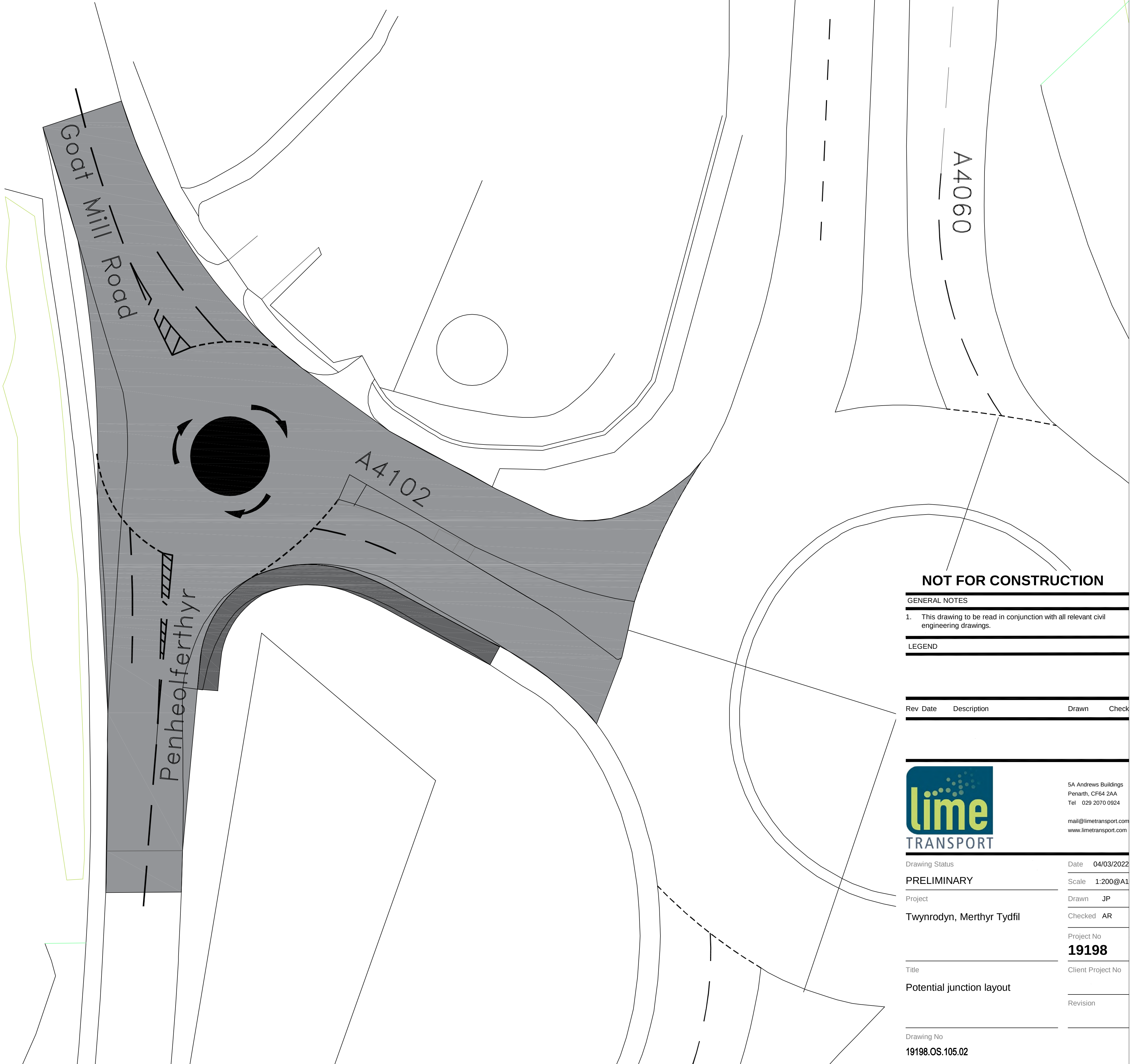
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	226	1.181	225	45.4	55.7	830.368	F
B-A	310	77	262	1.182	261	52.6	64.6	826.298	F
C-AB	403	101	800	0.503	403	1.9	1.9	9.265	A
C-A	243	61			243				
A-B	334	84			334				
A-C	623	156			623				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	267	67	226	1.182	225	55.7	66.0	994.228	F
B-A	310	77	262	1.182	262	64.6	76.7	990.632	F
C-AB	403	101	800	0.503	403	1.9	1.9	9.268	A
C-A	243	61			243				
A-B	334	84			334				
A-C	623	156			623				

Appendix F





NOT FOR CONSTRUCTION

GENERAL NOTES

1. This drawing to be read in conjunction with all relevant civil engineering drawings.

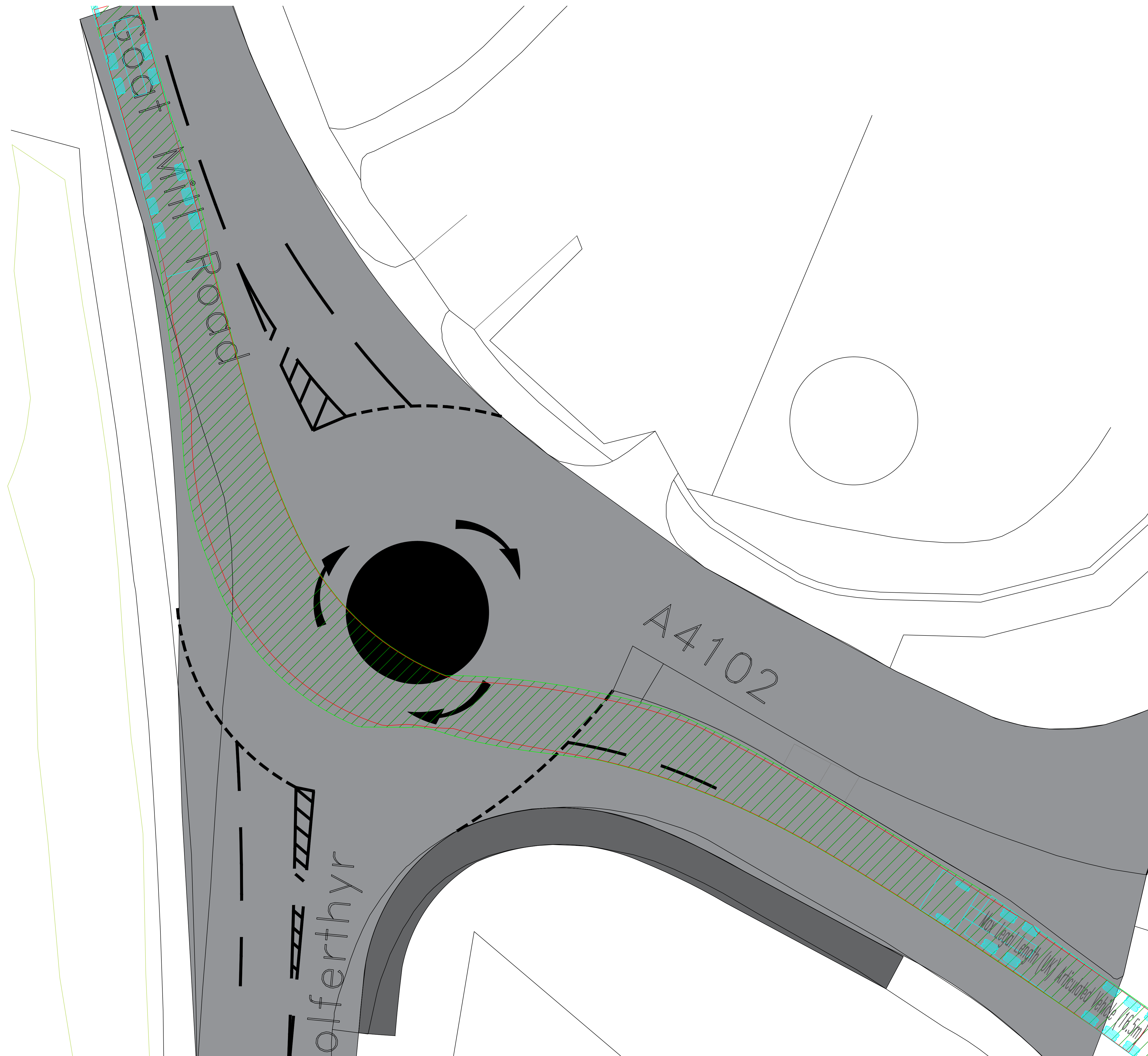
LEGEND

Rev	Date	Description	Drawn	Check
-----	------	-------------	-------	-------



5A Andrews Buildings
Penarth, CF64 2AA
Tel 029 2070 0924
mail@limetransport.com
www.limetransport.com

Drawing Status	Date	04/03/2022
PRELIMINARY	Scale	1:200@A1
Project	Drawn	JP
Twynrodyn, Merthyr Tydfil	Checked	AR
	Project No	19198
Title	Client Project No	
Potential junction layout	Revision	
Drawing No		
19198.OS.105.02		



1. This drawing to be read in conjunction with all relevant civil engineering drawings.

Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	6.530m

Rev	Date	Description	Drawn	Check
-----	------	-------------	-------	-------



5A Andrews Buildings
Penarth, CF64 2AA
Tel 029 2070 0924
mail@limetransport.com
www.limetransport.com

Date 23/09/2021

Scale 1:100@A1

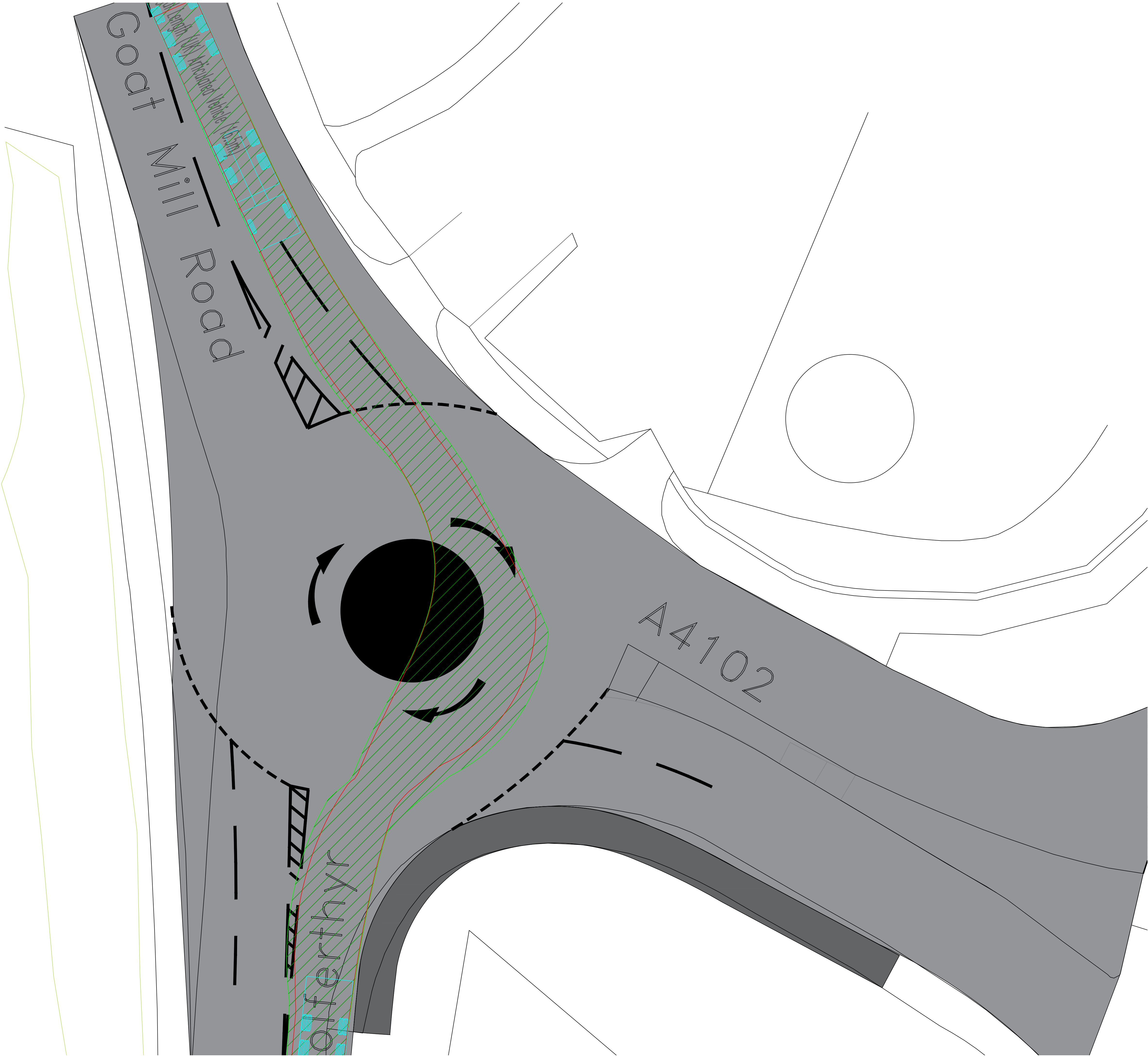
Drawn JP

Checked HLJ

Project No
19198

Client Project No

Revision



GENERAL NOTES

1. This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND

Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length16.500m

Overall Width2.550m

Overall Body Height3.681m

Min Body Ground Clearance0.411m

Max Track Width2.500m

Lock to Lock Time6.00s

Kerb to Kerb Turning Radius6.530m

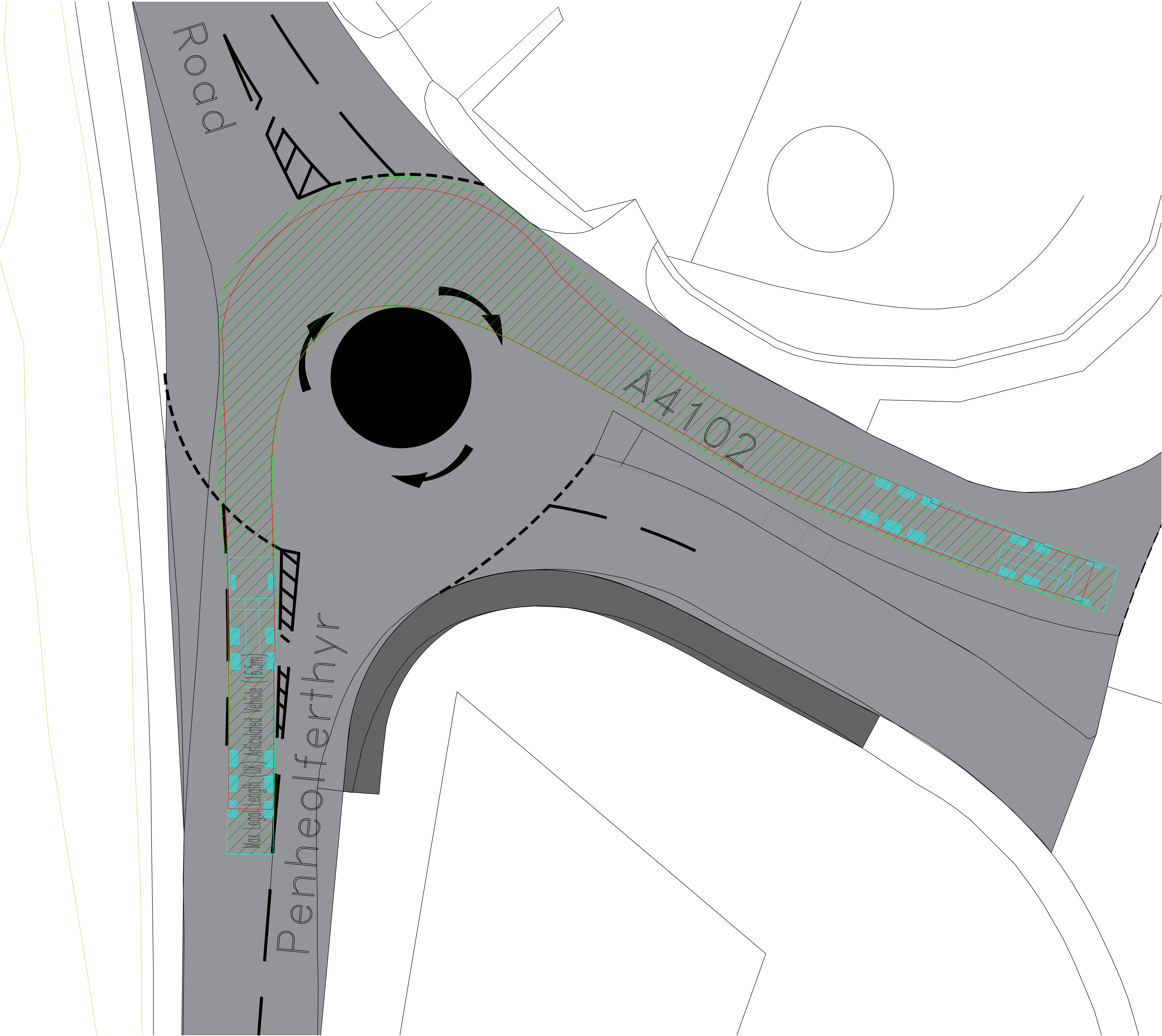
NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check
-----	------	-------------	-------	-------

5A Andrews Buildings
Penarth, CF64 2AA
Tel 029 2070 0924

mail@limetransport.com
www.limetransport.com

Drawing Status	Date 23/09/2021
PRELIMINARY	Scale 1:100@A1
Project	Drawn JP
Twynrodyn, Merthyr Tydfil	Checked HLJ
	Project No 19198
Title	Client Project No
Swept path analysis; Max legal length (UK) articulated vehicle (2/3)	Revision
Drawing No 19198.OS.105.04	



GENERAL NOTES

1. This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND

Max Legal Length (UK) Articulated Vehicle (16.5m) 16.500m
Overall Length 2.550m
Overall Width 3.681m
Overall Body Height 0.411m
Min Body Ground Clearance 2.500m
Max Track Width 6.00s
Lock to Lock Time 6.530m
Kerb to Kerb Turning Radius

NOT FOR CONSTRUCTION

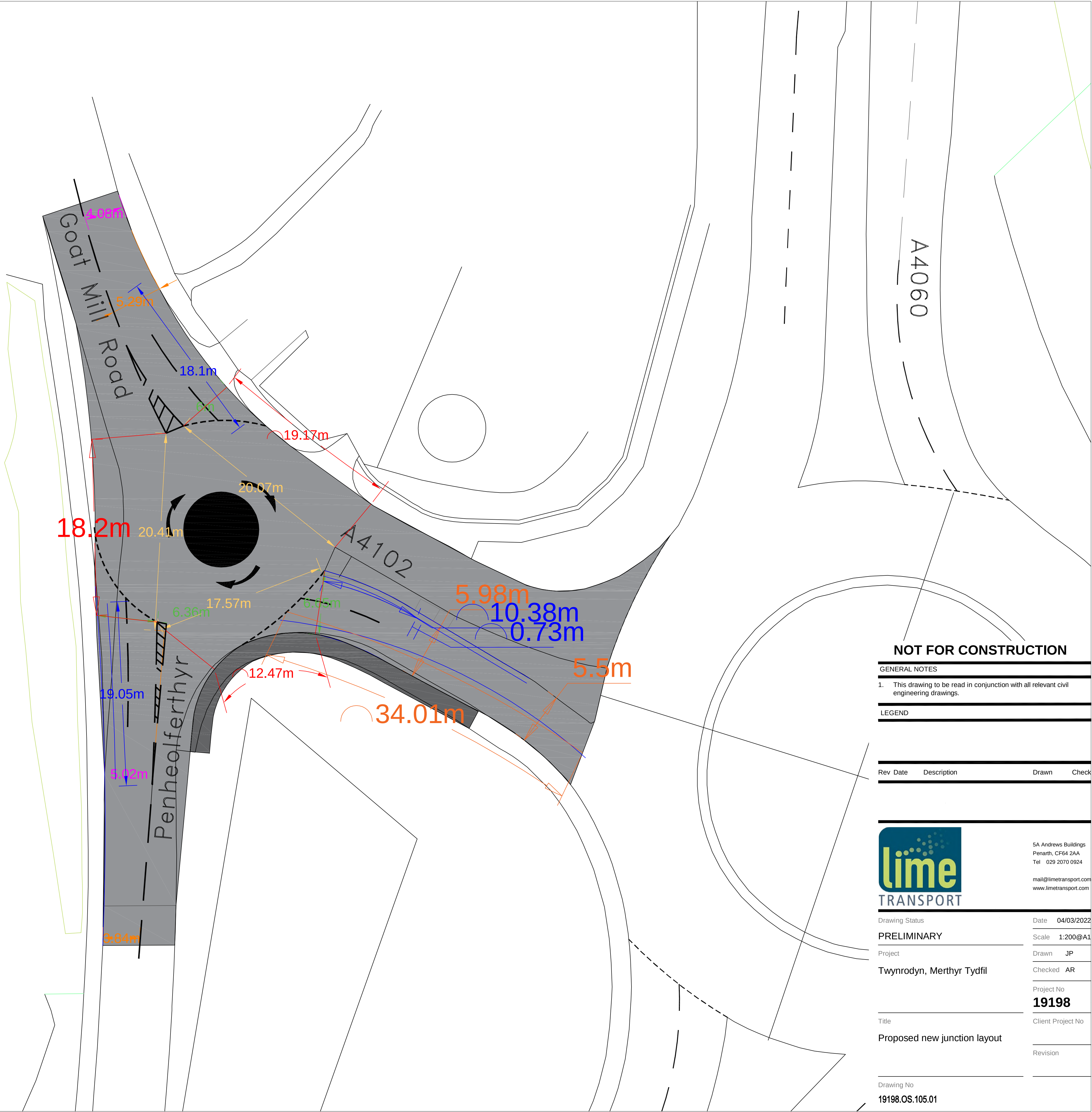
Rev	Date	Description	Drawn	Check
-----	------	-------------	-------	-------

5A Andrews Buildings
Penarth, CF64 2AA
Tel 029 2070 0924
mail@limetransport.com
www.limetransport.com

Drawing Status	Date 23/09/2021
PRELIMINARY	Scale 1:100@A1
Project	Drawn JP
Twynrodyn, Merthyr Tydfil	Checked HLJ
	Project No 19198
	Client Project No
Swept path analysis; Max legal length (UK) articulated vehicle (3/3)	Revision
Drawing No 19198.OS.105.05	

Appendix G





NOT FOR CONSTRUCTION

GENERAL NOTES

1. This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND

Rev	Date	Description	Drawn	Check
-----	------	-------------	-------	-------



5A Andrews Buildings
Penarth, CF64 2AA
Tel 029 2070 0924
mail@limetransport.com
www.limetransport.com

Drawing Status

PRELIMINARY

Project

Twynrodyn, Merthyr Tydfil

Project No

19198

Title

Proposed new junction layout

Revision

Drawing No

19198.OS.105.01

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Penheolferthyr - Goat Mill Road - direct - O-D new - mini.j9

Path: Z:\Lime\Projects\2019\19198 Twynrodyn, Merthyr Tydfil\Analysis\Junction 9 - Nov 2020\2022

Report generation date: 09/03/2022 13:23:17

»2022, AM
 »2022, PM
 »2024, AM
 »2024, PM
 »2029, AM
 »2029, PM
 »2034, AM
 »2034, PM
 »2024 + dev, AM
 »2024 + dev, PM
 »2029 + dev, AM
 »2029 + dev, PM
 »2034 + dev, AM
 »2034 + dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022								
Arm A	2.7	13.37	0.73	B	3.9	17.12	0.80	C
Arm B	0.4	4.45	0.26	A	0.3	4.60	0.25	A
Arm C	0.7	4.75	0.42	A	0.8	4.79	0.43	A
2024								
Arm A	3.0	14.27	0.75	B	4.3	18.65	0.81	C
Arm B	0.4	4.54	0.27	A	0.4	4.69	0.26	A
Arm C	0.8	4.83	0.43	A	0.8	4.81	0.44	A
2029								
Arm A	3.7	16.91	0.79	C	5.7	23.74	0.85	C
Arm B	0.4	4.75	0.29	A	0.4	4.93	0.28	A
Arm C	0.8	5.05	0.45	A	0.8	5.02	0.46	A
2034								
Arm A	4.8	21.08	0.83	C	8.4	33.59	0.90	D
Arm B	0.5	5.00	0.31	A	0.4	5.21	0.30	A
Arm C	0.9	5.30	0.48	A	0.9	5.27	0.48	A
2024 + dev								
Arm A	3.1	14.96	0.76	B	5.2	21.78	0.84	C
Arm B	0.4	4.73	0.30	A	0.4	4.77	0.27	A
Arm C	0.8	4.97	0.44	A	0.8	4.91	0.44	A
2029 + dev								
Arm A	3.9	17.88	0.80	C	7.1	28.97	0.88	D
Arm B	0.5	4.96	0.32	A	0.4	5.01	0.29	A
Arm C	0.9	5.19	0.46	A	0.9	5.13	0.47	A
2034 + dev								
Arm A	5.2	22.80	0.84	C	11.2	44.36	0.92	E
Arm B	0.5	5.24	0.34	A	0.5	5.30	0.31	A
Arm C	1.0	5.47	0.49	A	1.0	5.39	0.49	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	
Location	
Site number	
Date	03/03/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-U7G8RPA\Irusne
Description	

Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75		✓		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022	AM	DIRECT	08:00	09:30	90	15	✓
D2	2022	PM	DIRECT	16:30	18:00	90	15	✓
D3	2024	AM	DIRECT	08:00	09:30	90	15	✓
D4	2024	PM	DIRECT	16:30	18:00	90	15	✓
D5	2029	AM	DIRECT	08:00	09:30	90	15	✓
D6	2029	PM	DIRECT	16:30	18:00	90	15	✓
D7	2034	AM	DIRECT	08:00	09:30	90	15	✓
D8	2034	PM	DIRECT	16:30	18:00	90	15	✓
D9	2024 + dev	AM	DIRECT	08:00	09:30	90	15	✓
D10	2024 + dev	PM	DIRECT	16:30	18:00	90	15	✓
D11	2029 + dev	AM	DIRECT	08:00	09:30	90	15	✓
D12	2029 + dev	PM	DIRECT	16:30	18:00	90	15	✓
D13	2034 + dev	AM	DIRECT	08:00	09:30	90	15	✓
D14	2034 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Analysis Set Details

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

2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	8.70	A

Junction Network Options

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

Arms

Arms

Arm	Name	Description
A	A4102	
B	Penheolferthyr	
C	Goat Mill Road	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	6.00	5.50	6.65	11.1	17.57	12.47	-1.0	
B	3.84	3.84	6.36	19.0	20.00	20.00	1.0	
C	4.08	4.08	6.20	18.1	20.00	19.17	1.0	

Queue Markers

Arm	Queue marker	Queue marker type	Distance from start of flare (m)	Queue marker position (PCU)	Flare storage (PCU)	Lanes on approach
A	✓	Queue variations turned off	Queue variations turned off		6.00	2
B	✓	Queue variations turned off		Queue variations turned off	2.00	2
C	✓	Queue variations turned off		Queue variations turned off	2.00	2

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.737	1136
B	0.981	1598
C	0.878	1464

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

08:15 - 08:30

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

08:30 - 08:45

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

08:45 - 09:00

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

09:00 - 09:15

		To		
From		A	B	C
	A	0	239	502
	B	150	0	142
	C	397	167	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
	A	0	239	502
	B	150	0	142
From	C	397	167	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	1
	B	1	0	0
From	C	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.73	13.37	2.7	B	741	1112	237.88	12.84	2.64	238.10	12.85
B	0.26	4.45	0.4	A	292	438	32.16	4.41	0.36	32.17	4.41
C	0.42	4.75	0.7	A	564	846	66.31	4.70	0.74	66.33	4.70

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	741	185	166	1013	0.731	731	544	0.0	2.6	12.442	B
B	292	73	495	1112	0.263	291	402	0.0	0.4	4.396	A
C	564	141	149	1333	0.423	561	636	0.0	0.7	4.710	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	741	185	167	1013	0.732	741	547	2.6	2.7	13.334	B
B	292	73	502	1106	0.264	292	406	0.4	0.4	4.447	A
C	564	141	150	1333	0.423	564	644	0.7	0.7	4.749	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	741	185	167	1013	0.732	741	547	2.7	2.7	13.357	B
B	292	73	502	1105	0.264	292	406	0.4	0.4	4.447	A
C	564	141	150	1333	0.423	564	644	0.7	0.7	4.749	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	741	185	167	1013	0.732	741	547	2.7	2.7	13.368	B
B	292	73	502	1105	0.264	292	406	0.4	0.4	4.448	A
C	564	141	150	1333	0.423	564	644	0.7	0.7	4.749	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	741	185	167	1013	0.732	741	547	2.7	2.7	13.370	B
B	292	73	502	1105	0.264	292	406	0.4	0.4	4.448	A
C	564	141	150	1333	0.423	564	644	0.7	0.7	4.749	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	741	185	167	1013	0.732	741	547	2.7	2.7	13.373	B
B	292	73	502	1105	0.264	292	406	0.4	0.4	4.448	A
C	564	141	150	1333	0.423	564	644	0.7	0.7	4.749	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	35.26	2.35	12.442	B
B	5.19	0.35	4.396	A
C	10.69	0.71	4.710	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	39.79	2.65	13.334	B
B	5.37	0.36	4.447	A
C	11.09	0.74	4.749	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	40.42	2.69	13.357	B
B	5.39	0.36	4.447	A
C	11.12	0.74	4.749	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	40.68	2.71	13.368	B
B	5.40	0.36	4.448	A
C	11.13	0.74	4.749	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	40.82	2.72	13.370	B
B	5.40	0.36	4.448	A
C	11.14	0.74	4.749	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	40.91	2.73	13.373	B
B	5.40	0.36	4.448	A
C	11.14	0.74	4.749	A

2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	10.87	B

Junction Network Options

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

Traffic Demand

Demand Set Details

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

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:00 - 17:15

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	278	553
	B	143	0	122
	C	455	126	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.80	17.12	3.9	C	831	1247	335.24	16.14	3.72	335.67	16.16
B	0.25	4.60	0.3	A	265	398	30.16	4.55	0.34	30.16	4.55
C	0.43	4.79	0.8	A	581	872	68.85	4.74	0.77	68.87	4.74

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	831	208	125	1043	0.796	816	595	0.0	3.6	15.184	C
B	265	66	543	1065	0.249	264	398	0.0	0.3	4.531	A
C	581	145	142	1339	0.434	578	665	0.0	0.8	4.746	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	831	208	126	1043	0.797	830	598	3.6	3.8	16.985	C
B	265	66	553	1056	0.251	265	404	0.3	0.3	4.597	A
C	581	145	143	1339	0.434	581	675	0.8	0.8	4.787	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	831	208	126	1043	0.797	831	598	3.8	3.8	17.067	C
B	265	66	553	1055	0.251	265	404	0.3	0.3	4.599	A
C	581	145	143	1339	0.434	581	675	0.8	0.8	4.787	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	831	208	126	1043	0.797	831	598	3.8	3.9	17.097	C
B	265	66	553	1055	0.251	265	404	0.3	0.3	4.599	A
C	581	145	143	1339	0.434	581	675	0.8	0.8	4.787	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	831	208	126	1043	0.797	831	598	3.9	3.9	17.113	C
B	265	66	553	1055	0.251	265	404	0.3	0.3	4.599	A
C	581	145	143	1339	0.434	581	675	0.8	0.8	4.787	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	831	208	126	1043	0.797	831	598	3.9	3.9	17.123	C
B	265	66	553	1055	0.251	265	404	0.3	0.3	4.600	A
C	581	145	143	1339	0.434	581	675	0.8	0.8	4.787	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	47.51	3.17	15.184	C
B	4.85	0.32	4.531	A
C	11.10	0.74	4.746	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	55.91	3.73	16.985	C
B	5.03	0.34	4.597	A
C	11.51	0.77	4.787	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	57.28	3.82	17.067	C
B	5.06	0.34	4.599	A
C	11.55	0.77	4.787	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	57.88	3.86	17.097	C
B	5.07	0.34	4.599	A
C	11.56	0.77	4.787	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	58.22	3.88	17.113	C
B	5.07	0.34	4.599	A
C	11.57	0.77	4.787	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	58.43	3.90	17.123	C
B	5.07	0.34	4.600	A
C	11.57	0.77	4.787	A

2024, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	9.16	A

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
From		A	B	C
	A	0	244	512
	B	153	0	145
	C	405	170	0

Demand (PCU/hr)

08:15 - 08:30

		To		
From		A	B	C
	A	0	244	512
	B	153	0	145
	C	405	170	0

Demand (PCU/hr)

08:30 - 08:45

		To			
From		A	B	C	
	A	0	244	512	
	B	153	0	145	
	C	405	170	0	

Demand (PCU/hr)

08:45 - 09:00

		To			
From		A	B	C	
	A	0	244	512	
	B	153	0	145	
	C	405	170	0	

Demand (PCU/hr)

09:00 - 09:15

		To			
From		A	B	C	
	A	0	244	512	
	B	153	0	145	
	C	405	170	0	

Demand (PCU/hr)

09:15 - 09:30

		To			
From		A	B	C	
	A	0	244	512	
	B	153	0	145	
	C	405	170	0	

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		A	B	C	
	A	0	1	1	
	B	1	0	0	
	C	2	0	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.75	14.27	3.0	B	756	1134	257.99	13.65	2.87	258.26	13.66
B	0.27	4.54	0.4	A	298	447	33.46	4.49	0.37	33.46	4.49
C	0.43	4.83	0.8	A	575	863	68.81	4.79	0.76	68.82	4.79

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	189	169	1011	0.748	745	555	0.0	2.8	13.146	B
B	298	75	504	1103	0.270	297	409	0.0	0.4	4.478	A
C	575	144	152	1331	0.432	572	649	0.0	0.8	4.793	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	189	170	1010	0.748	756	558	2.8	2.9	14.219	B
B	298	75	512	1096	0.272	298	414	0.4	0.4	4.535	A
C	575	144	153	1330	0.432	575	657	0.8	0.8	4.835	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	189	170	1010	0.748	756	558	2.9	2.9	14.252	B
B	298	75	512	1096	0.272	298	414	0.4	0.4	4.536	A
C	575	144	153	1330	0.432	575	657	0.8	0.8	4.835	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	189	170	1010	0.748	756	558	2.9	3.0	14.266	B
B	298	75	512	1096	0.272	298	414	0.4	0.4	4.536	A
C	575	144	153	1330	0.432	575	657	0.8	0.8	4.835	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	189	170	1010	0.748	756	558	3.0	3.0	14.272	B
B	298	75	512	1096	0.272	298	414	0.4	0.4	4.536	A
C	575	144	153	1330	0.432	575	657	0.8	0.8	4.835	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	756	189	170	1010	0.748	756	558	3.0	3.0	14.275	B
B	298	75	512	1096	0.272	298	414	0.4	0.4	4.536	A
C	575	144	153	1330	0.432	575	657	0.8	0.8	4.835	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	37.86	2.52	13.146	B
B	5.40	0.36	4.478	A
C	11.09	0.74	4.793	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	43.14	2.88	14.219	B
B	5.59	0.37	4.535	A
C	11.51	0.77	4.835	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	43.89	2.93	14.252	B
B	5.61	0.37	4.536	A
C	11.54	0.77	4.835	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	44.21	2.95	14.266	B
B	5.62	0.37	4.536	A
C	11.55	0.77	4.835	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	44.39	2.96	14.272	B
B	5.62	0.37	4.536	A
C	11.56	0.77	4.835	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	44.50	2.97	14.275	B
B	5.63	0.38	4.536	A
C	11.57	0.77	4.835	A

2024, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	11.69	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
From	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
From	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

17:00 - 17:15

		To		
From		A	B	C
	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

17:15 - 17:30

		To		
From		A	B	C
	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

17:30 - 17:45

		To		
From		A	B	C
	A	0	283	564
	B	146	0	124
	C	454	128	0

Demand (PCU/hr)

17:45 - 18:00

		To		
From		A	B	C
	A	0	283	564
	B	146	0	124
	C	454	128	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.81	18.65	4.3	C	847	1271	369.30	17.44	4.10	369.84	17.47
B	0.26	4.69	0.4	A	270	405	31.33	4.64	0.35	31.34	4.64
C	0.44	4.81	0.8	A	582	873	69.30	4.76	0.77	69.31	4.76

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	847	212	127	1042	0.813	831	597	0.0	4.0	16.207	C
B	270	68	553	1055	0.256	269	405	0.0	0.3	4.617	A
C	582	146	145	1337	0.435	579	677	0.0	0.8	4.769	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	847	212	128	1041	0.813	846	600	4.0	4.2	18.444	C
B	270	68	563	1045	0.258	270	411	0.3	0.4	4.690	A
C	582	146	146	1336	0.436	582	687	0.8	0.8	4.810	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	847	212	128	1041	0.813	847	600	4.2	4.2	18.563	C
B	270	68	564	1045	0.258	270	411	0.4	0.4	4.692	A
C	582	146	146	1336	0.436	582	688	0.8	0.8	4.810	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	847	212	128	1041	0.813	847	600	4.2	4.3	18.609	C
B	270	68	564	1045	0.258	270	411	0.4	0.4	4.693	A
C	582	146	146	1336	0.436	582	688	0.8	0.8	4.810	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	847	212	128	1041	0.813	847	600	4.3	4.3	18.631	C
B	270	68	564	1045	0.258	270	411	0.4	0.4	4.693	A
C	582	146	146	1336	0.436	582	688	0.8	0.8	4.810	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	847	212	128	1041	0.813	847	600	4.3	4.3	18.645	C
B	270	68	564	1045	0.258	270	411	0.4	0.4	4.693	A
C	582	146	146	1336	0.436	582	688	0.8	0.8	4.810	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	51.45	3.43	16.207	C
B	5.04	0.34	4.617	A
C	11.17	0.74	4.769	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	61.47	4.10	18.444	C
B	5.23	0.35	4.690	A
C	11.59	0.77	4.810	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	63.23	4.22	18.563	C
B	5.26	0.35	4.692	A
C	11.62	0.77	4.810	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	64.00	4.27	18.609	C
B	5.27	0.35	4.693	A
C	11.64	0.78	4.810	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	64.43	4.30	18.631	C
B	5.27	0.35	4.693	A
C	11.64	0.78	4.810	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	64.71	4.31	18.645	C
B	5.27	0.35	4.693	A
C	11.65	0.78	4.810	A

2029, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	10.50	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2029	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

08:15 - 08:30

	To			
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

08:30 - 08:45

		To		
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

08:45 - 09:00

		To		
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

09:00 - 09:15

		To		
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Demand (PCU/hr)

09:15 - 09:30

		To		
From		A	B	C
	A	0	255	535
	B	160	0	151
	C	423	178	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.79	16.91	3.7	C	790	1185	315.51	15.97	3.51	315.91	16.00
B	0.29	4.75	0.4	A	311	467	36.51	4.70	0.41	36.51	4.70
C	0.45	5.05	0.8	A	601	902	75.07	5.00	0.83	75.08	5.00

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	790	198	177	1005	0.786	776	580	0.0	3.4	15.093	C
B	311	78	526	1082	0.287	309	428	0.0	0.4	4.673	A
C	601	150	159	1324	0.454	598	676	0.0	0.8	4.999	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	790	198	178	1005	0.786	789	583	3.4	3.6	16.791	C
B	311	78	535	1073	0.290	311	433	0.4	0.4	4.745	A
C	601	150	160	1324	0.454	601	686	0.8	0.8	5.050	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	790	198	178	1005	0.786	790	583	3.6	3.6	16.864	C
B	311	78	535	1073	0.290	311	433	0.4	0.4	4.747	A
C	601	150	160	1324	0.454	601	686	0.8	0.8	5.050	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	790	198	178	1005	0.786	790	583	3.6	3.6	16.890	C
B	311	78	535	1073	0.290	311	433	0.4	0.4	4.747	A
C	601	150	160	1324	0.454	601	686	0.8	0.8	5.050	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	790	198	178	1005	0.786	790	583	3.6	3.7	16.905	C
B	311	78	535	1073	0.290	311	433	0.4	0.4	4.748	A
C	601	150	160	1324	0.454	601	686	0.8	0.8	5.050	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	790	198	178	1005	0.786	790	583	3.7	3.7	16.914	C
B	311	78	535	1073	0.290	311	433	0.4	0.4	4.748	A
C	601	150	160	1324	0.454	601	686	0.8	0.8	5.050	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	44.95	3.00	15.093	C
B	5.87	0.39	4.673	A
C	12.07	0.80	4.999	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	52.63	3.51	16.791	C
B	6.09	0.41	4.745	A
C	12.55	0.84	5.050	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	53.88	3.59	16.864	C
B	6.13	0.41	4.747	A
C	12.59	0.84	5.050	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	54.42	3.63	16.890	C
B	6.14	0.41	4.747	A
C	12.61	0.84	5.050	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	54.72	3.65	16.905	C
B	6.14	0.41	4.748	A
C	12.62	0.84	5.050	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	54.91	3.66	16.914	C
B	6.14	0.41	4.748	A
C	12.62	0.84	5.050	A

2029, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	14.34	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2029	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

16:45 - 17:00

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

17:00 - 17:15

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

17:15 - 17:30

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

17:30 - 17:45

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Demand (PCU/hr)

17:45 - 18:00

	To			
		A	B	C
From	A	0	296	589
	B	152	0	130
	C	474	134	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.85	23.74	5.7	C	885	1328	478.97	21.65	5.32	479.91	21.69
B	0.28	4.93	0.4	A	282	423	34.29	4.86	0.38	34.29	4.86
C	0.46	5.02	0.8	A	608	912	75.47	4.97	0.84	75.49	4.97

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	885	221	133	1038	0.853	865	623	0.0	5.1	19.255	C
B	282	71	576	1033	0.273	280	422	0.0	0.4	4.820	A
C	608	152	151	1331	0.457	605	705	0.0	0.8	4.969	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	885	221	134	1037	0.853	884	626	5.1	5.4	23.181	C
B	282	71	588	1021	0.276	282	430	0.4	0.4	4.920	A
C	608	152	152	1331	0.457	608	718	0.8	0.8	5.018	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	885	221	134	1037	0.853	884	626	5.4	5.6	23.504	C
B	282	71	589	1020	0.276	282	430	0.4	0.4	4.923	A
C	608	152	152	1331	0.457	608	719	0.8	0.8	5.019	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	885	221	134	1037	0.853	885	626	5.6	5.6	23.630	C
B	282	71	589	1020	0.276	282	430	0.4	0.4	4.925	A
C	608	152	152	1331	0.457	608	719	0.8	0.8	5.019	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	885	221	134	1037	0.853	885	626	5.6	5.7	23.698	C
B	282	71	589	1020	0.276	282	430	0.4	0.4	4.925	A
C	608	152	152	1331	0.457	608	719	0.8	0.8	5.019	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	885	221	134	1037	0.853	885	626	5.7	5.7	23.740	C
B	282	71	589	1020	0.276	282	430	0.4	0.4	4.925	A
C	608	152	152	1331	0.457	608	719	0.8	0.8	5.019	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	63.08	4.21	19.255	C
B	5.49	0.37	4.820	A
C	12.13	0.81	4.969	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	79.08	5.27	23.181	C
B	5.72	0.38	4.920	A
C	12.62	0.84	5.018	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	82.46	5.50	23.504	C
B	5.76	0.38	4.923	A
C	12.66	0.84	5.019	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	84.00	5.60	23.630	C
B	5.77	0.38	4.925	A
C	12.68	0.85	5.019	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	84.89	5.66	23.698	C
B	5.78	0.39	4.925	A
C	12.69	0.85	5.019	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	85.47	5.70	23.740	C
B	5.78	0.39	4.925	A
C	12.69	0.85	5.019	A

2034, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	12.57	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2034	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

08:15 - 08:30

		To		
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

08:30 - 08:45

		To		
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

08:45 - 09:00

		To		
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

09:00 - 09:15

		To		
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Demand (PCU/hr)

09:15 - 09:30

		To		
From		A	B	C
	A	0	267	560
	B	167	0	158
	C	443	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.83	21.08	4.8	C	827	1241	403.48	19.52	4.48	404.16	19.55
B	0.31	5.00	0.5	A	325	488	40.12	4.94	0.45	40.13	4.94
C	0.48	5.30	0.9	A	629	944	82.39	5.24	0.92	82.41	5.24

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	207	185	999	0.827	810	607	0.0	4.3	17.826	C
B	325	81	548	1060	0.307	323	446	0.0	0.4	4.900	A
C	629	157	166	1318	0.477	625	705	0.0	0.9	5.240	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	207	186	999	0.828	826	610	4.3	4.6	20.759	C
B	325	81	559	1049	0.310	325	453	0.4	0.4	4.996	A
C	629	157	167	1318	0.477	629	717	0.9	0.9	5.300	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	207	186	999	0.828	827	610	4.6	4.7	20.950	C
B	325	81	560	1049	0.310	325	453	0.4	0.4	4.999	A
C	629	157	167	1318	0.477	629	718	0.9	0.9	5.300	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	207	186	999	0.828	827	610	4.7	4.7	21.022	C
B	325	81	560	1049	0.310	325	453	0.4	0.5	5.000	A
C	629	157	167	1318	0.477	629	718	0.9	0.9	5.300	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	207	186	999	0.828	827	610	4.7	4.7	21.059	C
B	325	81	560	1049	0.310	325	453	0.5	0.5	5.000	A
C	629	157	167	1318	0.477	629	718	0.9	0.9	5.300	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	207	186	999	0.828	827	610	4.7	4.8	21.084	C
B	325	81	560	1049	0.310	325	453	0.5	0.5	5.000	A
C	629	157	167	1318	0.477	629	718	0.9	0.9	5.300	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	54.90	3.66	17.826	C
B	6.42	0.43	4.900	A
C	13.21	0.88	5.240	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	66.95	4.46	20.759	C
B	6.69	0.45	4.996	A
C	13.78	0.92	5.300	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	69.26	4.62	20.950	C
B	6.74	0.45	4.999	A
C	13.83	0.92	5.300	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	70.28	4.69	21.022	C
B	6.75	0.45	5.000	A
C	13.85	0.92	5.300	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	70.86	4.72	21.059	C
B	6.76	0.45	5.000	A
C	13.86	0.92	5.300	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	71.24	4.75	21.084	C
B	6.76	0.45	5.000	A
C	13.86	0.92	5.300	A

2034, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	19.39	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2034	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

		To		
From		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Demand (PCU/hr)

16:45 - 17:00

		To		
From		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Demand (PCU/hr)

17:00 - 17:15

		To		
From		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Demand (PCU/hr)

17:15 - 17:30

		To		
From		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Demand (PCU/hr)

17:30 - 17:45

		To		
From		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Demand (PCU/hr)

17:45 - 18:00

		To		
From		A	B	C
	A	0	310	617
	B	159	0	136
	C	496	140	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.90	33.59	8.4	D	927	1391	676.33	29.18	7.51	678.37	29.27
B	0.30	5.21	0.4	A	295	443	37.84	5.13	0.42	37.85	5.13
C	0.48	5.27	0.9	A	636	954	82.79	5.21	0.92	82.81	5.21

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	927	232	139	1033	0.897	900	651	0.0	6.8	23.807	C
B	295	74	599	1010	0.292	293	440	0.0	0.4	5.060	A
C	636	159	158	1325	0.480	632	734	0.0	0.9	5.208	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	927	232	140	1033	0.898	924	655	6.8	7.6	31.531	D
B	295	74	615	995	0.297	295	449	0.4	0.4	5.196	A
C	636	159	159	1325	0.480	636	751	0.9	0.9	5.267	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	927	232	140	1033	0.898	926	655	7.6	8.0	32.631	D
B	295	74	616	993	0.297	295	450	0.4	0.4	5.205	A
C	636	159	159	1325	0.480	636	752	0.9	0.9	5.267	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	927	232	140	1033	0.898	926	655	8.0	8.2	33.123	D
B	295	74	616	993	0.297	295	450	0.4	0.4	5.208	A
C	636	159	159	1325	0.480	636	752	0.9	0.9	5.267	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	927	232	140	1033	0.898	926	655	8.2	8.3	33.405	D
B	295	74	617	993	0.297	295	450	0.4	0.4	5.209	A
C	636	159	159	1325	0.480	636	753	0.9	0.9	5.267	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	927	232	140	1033	0.898	927	655	8.3	8.4	33.587	D
B	295	74	617	993	0.297	295	450	0.4	0.4	5.210	A
C	636	159	159	1325	0.480	636	753	0.9	0.9	5.267	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	80.62	5.37	23.807	C
B	6.01	0.40	5.060	A
C	13.28	0.89	5.208	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	109.21	7.28	31.531	D
B	6.31	0.42	5.196	A
C	13.85	0.92	5.267	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	117.11	7.81	32.631	D
B	6.36	0.42	5.205	A
C	13.90	0.93	5.267	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	121.03	8.07	33.123	D
B	6.38	0.43	5.208	A
C	13.91	0.93	5.267	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	123.39	8.23	33.405	D
B	6.39	0.43	5.209	A
C	13.93	0.93	5.267	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	124.97	8.33	33.587	D
B	6.39	0.43	5.210	A
C	13.93	0.93	5.267	A

2024 + dev, 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	Mini-roundabout		A, B, C	9.48	A

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2024 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
From		A	B	C
	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

08:15 - 08:30

	To			
From		A	B	C
	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

08:30 - 08:45

	To			
From		A	B	C
	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	252	512
	B	170	0	161
	C	405	175	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	252	512
	B	170	0	161
	C	405	175	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.76	14.96	3.1	B	764	1146	272.37	14.26	3.03	272.67	14.28
B	0.30	4.73	0.4	A	331	497	38.74	4.68	0.43	38.74	4.68
C	0.44	4.97	0.8	A	580	870	71.25	4.91	0.79	71.27	4.92

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	764	191	174	1007	0.758	752	572	0.0	3.0	13.670	B
B	331	83	504	1103	0.300	329	422	0.0	0.4	4.664	A
C	580	145	169	1316	0.441	577	664	0.0	0.8	4.919	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	764	191	175	1007	0.759	764	575	3.0	3.1	14.889	B
B	331	83	512	1096	0.302	331	427	0.4	0.4	4.730	A
C	580	145	170	1315	0.441	580	673	0.8	0.8	4.965	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	764	191	175	1007	0.759	764	575	3.1	3.1	14.933	B
B	331	83	512	1096	0.302	331	427	0.4	0.4	4.731	A
C	580	145	170	1315	0.441	580	673	0.8	0.8	4.965	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	764	191	175	1007	0.759	764	575	3.1	3.1	14.947	B
B	331	83	512	1096	0.302	331	427	0.4	0.4	4.732	A
C	580	145	170	1315	0.441	580	673	0.8	0.8	4.965	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	764	191	175	1007	0.759	764	575	3.1	3.1	14.956	B
B	331	83	512	1096	0.302	331	427	0.4	0.4	4.732	A
C	580	145	170	1315	0.441	580	673	0.8	0.8	4.965	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	764	191	175	1007	0.759	764	575	3.1	3.1	14.959	B
B	331	83	512	1096	0.302	331	427	0.4	0.4	4.732	A
C	580	145	170	1315	0.441	580	673	0.8	0.8	4.965	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	39.67	2.64	13.670	B
B	6.23	0.42	4.664	A
C	11.47	0.76	4.919	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	45.52	3.03	14.889	B
B	6.47	0.43	4.730	A
C	11.91	0.79	4.965	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	46.39	3.09	14.933	B
B	6.50	0.43	4.731	A
C	11.95	0.80	4.965	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	46.75	3.12	14.947	B
B	6.51	0.43	4.732	A
C	11.97	0.80	4.965	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	46.96	3.13	14.956	B
B	6.51	0.43	4.732	A
C	11.97	0.80	4.965	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	47.09	3.14	14.959	B
B	6.52	0.43	4.732	A
C	11.98	0.80	4.965	A

2024 + dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	13.29	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2024 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45	To			
		A	B	C
	From	A	0	304
		B	152	0
		C	454	138

Demand (PCU/hr)

16:45 - 17:00	To			
		A	B	C
	From	A	0	304
		B	152	0
		C	454	138

Demand (PCU/hr)

17:00 - 17:15

		To		
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:15 - 17:30

		To		
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:30 - 17:45

		To		
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Demand (PCU/hr)

17:45 - 18:00

		To		
From		A	B	C
	A	0	304	564
	B	152	0	130
	C	454	138	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.84	21.78	5.2	C	868	1302	435.27	20.06	4.84	436.04	20.09
B	0.27	4.77	0.4	A	282	423	33.22	4.71	0.37	33.22	4.71
C	0.44	4.91	0.8	A	592	888	71.91	4.86	0.80	71.93	4.86

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	868	217	137	1035	0.839	849	603	0.0	4.6	18.159	C
B	282	71	552	1056	0.267	281	435	0.0	0.4	4.678	A
C	592	148	151	1331	0.445	589	681	0.0	0.8	4.864	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	868	217	138	1034	0.839	867	606	4.6	4.9	21.386	C
B	282	71	563	1045	0.270	282	442	0.4	0.4	4.763	A
C	592	148	152	1331	0.445	592	693	0.8	0.8	4.909	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	868	217	138	1034	0.839	868	606	4.9	5.0	21.615	C
B	282	71	564	1045	0.270	282	442	0.4	0.4	4.766	A
C	592	148	152	1331	0.445	592	694	0.8	0.8	4.909	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	868	217	138	1034	0.839	868	606	5.0	5.1	21.703	C
B	282	71	564	1045	0.270	282	442	0.4	0.4	4.766	A
C	592	148	152	1331	0.445	592	694	0.8	0.8	4.909	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	868	217	138	1034	0.839	868	606	5.1	5.1	21.750	C
B	282	71	564	1045	0.270	282	442	0.4	0.4	4.767	A
C	592	148	152	1331	0.445	592	694	0.8	0.8	4.909	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	868	217	138	1034	0.839	868	606	5.1	5.2	21.778	C
B	282	71	564	1045	0.270	282	442	0.4	0.4	4.767	A
C	592	148	152	1331	0.445	592	694	0.8	0.8	4.909	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	58.59	3.91	18.159	C
B	5.33	0.36	4.678	A
C	11.58	0.77	4.864	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	72.12	4.81	21.386	C
B	5.54	0.37	4.763	A
C	12.02	0.80	4.909	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	74.79	4.99	21.615	C
B	5.58	0.37	4.766	A
C	12.06	0.80	4.909	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	75.99	5.07	21.703	C
B	5.59	0.37	4.766	A
C	12.08	0.81	4.909	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	76.67	5.11	21.750	C
B	5.59	0.37	4.767	A
C	12.08	0.81	4.909	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	77.12	5.14	21.778	C
B	5.59	0.37	4.767	A
C	12.09	0.81	4.909	A

2029 + dev, 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	Mini-roundabout		A, B, C	10.94	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2029 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
		A	B	C
	A	0	263	535
	B	177	0	167
From	C	423	183	0

Demand (PCU/hr)

08:15 - 08:30

	To			
		A	B	C
	A	0	263	535
	B	177	0	167
From	C	423	183	0

Demand (PCU/hr)

08:30 - 08:45

	To			
		A	B	C
	A	0	263	535
	B	177	0	167
From	C	423	183	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	263	535
	B	177	0	167
	C	423	183	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	263	535
	B	177	0	167
	C	423	183	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	263	535
	B	177	0	167
	C	423	183	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.80	17.88	3.9	C	798	1197	335.36	16.81	3.73	335.82	16.83
B	0.32	4.96	0.5	A	344	516	42.17	4.90	0.47	42.18	4.90
C	0.46	5.19	0.9	A	606	909	77.79	5.13	0.86	77.81	5.14

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	798	200	182	1002	0.797	783	597	0.0	3.6	15.764	C
B	344	86	525	1083	0.318	342	440	0.0	0.5	4.876	A
C	606	152	176	1310	0.463	603	691	0.0	0.9	5.137	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	798	200	183	1001	0.797	797	600	3.6	3.8	17.721	C
B	344	86	535	1073	0.320	344	446	0.5	0.5	4.960	A
C	606	152	177	1309	0.463	606	702	0.9	0.9	5.192	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	798	200	183	1001	0.797	798	600	3.8	3.8	17.816	C
B	344	86	535	1073	0.321	344	446	0.5	0.5	4.962	A
C	606	152	177	1309	0.463	606	702	0.9	0.9	5.192	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	798	200	183	1001	0.797	798	600	3.8	3.9	17.851	C
B	344	86	535	1073	0.321	344	446	0.5	0.5	4.962	A
C	606	152	177	1309	0.463	606	702	0.9	0.9	5.192	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	798	200	183	1001	0.797	798	600	3.9	3.9	17.868	C
B	344	86	535	1073	0.321	344	446	0.5	0.5	4.962	A
C	606	152	177	1309	0.463	606	702	0.9	0.9	5.192	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	798	200	183	1001	0.797	798	600	3.9	3.9	17.879	C
B	344	86	535	1073	0.321	344	446	0.5	0.5	4.962	A
C	606	152	177	1309	0.463	606	702	0.9	0.9	5.192	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	47.28	3.15	15.764	C
B	6.76	0.45	4.876	A
C	12.49	0.83	5.137	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	55.89	3.73	17.721	C
B	7.04	0.47	4.960	A
C	13.01	0.87	5.192	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	57.34	3.82	17.816	C
B	7.08	0.47	4.962	A
C	13.05	0.87	5.192	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	57.97	3.86	17.851	C
B	7.09	0.47	4.962	A
C	13.07	0.87	5.192	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	58.33	3.89	17.868	C
B	7.10	0.47	4.962	A
C	13.08	0.87	5.192	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	58.55	3.90	17.879	C
B	7.10	0.47	4.962	A
C	13.09	0.87	5.192	A

2029 + dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	16.99	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2029 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45	From	To			
			A	B	C
		A	0	317	589
		B	158	0	136
		C	474	144	0

Demand (PCU/hr)

16:45 - 17:00	From	To			
			A	B	C
		A	0	317	589
		B	158	0	136
		C	474	144	0

Demand (PCU/hr)

17:00 - 17:15

		To		
From		A	B	C
	A	0	317	589
	B	158	0	136
	C	474	144	0

Demand (PCU/hr)

17:15 - 17:30

		To		
From		A	B	C
	A	0	317	589
	B	158	0	136
	C	474	144	0

Demand (PCU/hr)

17:30 - 17:45

		To		
From		A	B	C
	A	0	317	589
	B	158	0	136
	C	474	144	0

Demand (PCU/hr)

17:45 - 18:00

		To		
From		A	B	C
	A	0	317	589
	B	158	0	136
	C	474	144	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.88	28.97	7.1	D	906	1359	583.11	25.74	6.48	584.57	25.81
B	0.29	5.01	0.4	A	294	441	36.30	4.94	0.40	36.30	4.94
C	0.47	5.13	0.9	A	618	927	78.33	5.07	0.87	78.35	5.07

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	906	227	143	1030	0.879	882	628	0.0	6.0	21.878	C
B	294	74	573	1035	0.284	292	452	0.0	0.4	4.885	A
C	618	155	157	1326	0.466	615	709	0.0	0.9	5.073	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	906	227	144	1030	0.880	904	632	6.0	6.6	27.764	D
B	294	74	588	1021	0.288	294	460	0.4	0.4	4.997	A
C	618	155	158	1326	0.466	618	723	0.9	0.9	5.126	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	906	227	144	1030	0.880	905	632	6.6	6.8	28.431	D
B	294	74	588	1021	0.288	294	461	0.4	0.4	5.003	A
C	618	155	158	1326	0.466	618	724	0.9	0.9	5.126	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	906	227	144	1030	0.880	905	632	6.8	7.0	28.712	D
B	294	74	589	1020	0.288	294	461	0.4	0.4	5.005	A
C	618	155	158	1326	0.466	618	725	0.9	0.9	5.126	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	906	227	144	1030	0.880	906	632	7.0	7.0	28.870	D
B	294	74	589	1020	0.288	294	461	0.4	0.4	5.006	A
C	618	155	158	1326	0.466	618	725	0.9	0.9	5.126	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	906	227	144	1030	0.880	906	632	7.0	7.1	28.968	D
B	294	74	589	1020	0.288	294	461	0.4	0.4	5.006	A
C	618	155	158	1326	0.466	618	725	0.9	0.9	5.126	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	72.77	4.85	21.878	C
B	5.79	0.39	4.885	A
C	12.58	0.84	5.073	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	95.24	6.35	27.764	D
B	6.05	0.40	4.997	A
C	13.10	0.87	5.126	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	100.77	6.72	28.431	D
B	6.10	0.41	5.003	A
C	13.14	0.88	5.126	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	103.40	6.89	28.712	D
B	6.11	0.41	5.005	A
C	13.16	0.88	5.126	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	104.96	7.00	28.870	D
B	6.12	0.41	5.006	A
C	13.17	0.88	5.126	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	105.98	7.07	28.968	D
B	6.12	0.41	5.006	A
C	13.18	0.88	5.126	A

2034 + dev, 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	Mini-roundabout		A, B, C	13.34	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	2034 + dev	AM	DIRECT	08:00	09:30	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

08:00 - 08:15

	To			
		A	B	C
	A	0	275	560
	B	184	0	174
From	C	443	193	0

Demand (PCU/hr)

08:15 - 08:30

	To			
		A	B	C
	A	0	275	560
	B	184	0	174
From	C	443	193	0

Demand (PCU/hr)

08:30 - 08:45

	To			
		A	B	C
	A	0	275	560
	B	184	0	174
From	C	443	193	0

Demand (PCU/hr)

08:45 - 09:00

	To			
		A	B	C
From	A	0	275	560
	B	184	0	174
	C	443	193	0

Demand (PCU/hr)

09:00 - 09:15

	To			
		A	B	C
From	A	0	275	560
	B	184	0	174
	C	443	193	0

Demand (PCU/hr)

09:15 - 09:30

	To			
		A	B	C
From	A	0	275	560
	B	184	0	174
	C	443	193	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.84	22.80	5.2	C	835	1253	436.90	20.93	4.85	437.71	20.97
B	0.34	5.24	0.5	A	358	537	46.25	5.17	0.51	46.26	5.17
C	0.49	5.47	1.0	A	636	954	85.98	5.41	0.96	86.00	5.41

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	835	209	192	994	0.840	816	623	0.0	4.6	18.848	C
B	358	90	548	1061	0.338	356	461	0.0	0.5	5.120	A
C	636	159	183	1304	0.488	632	721	0.0	1.0	5.406	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	835	209	193	993	0.840	834	627	4.6	4.9	22.350	C
B	358	90	559	1049	0.341	358	468	0.5	0.5	5.233	A
C	636	159	184	1303	0.488	636	733	1.0	1.0	5.474	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	835	209	193	993	0.840	835	627	4.9	5.1	22.613	C
B	358	90	560	1049	0.341	358	468	0.5	0.5	5.237	A
C	636	159	184	1303	0.488	636	734	1.0	1.0	5.474	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	835	209	193	993	0.840	835	627	5.1	5.1	22.714	C
B	358	90	560	1049	0.341	358	468	0.5	0.5	5.238	A
C	636	159	184	1303	0.488	636	734	1.0	1.0	5.474	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	835	209	193	993	0.840	835	627	5.1	5.2	22.767	C
B	358	90	560	1049	0.341	358	468	0.5	0.5	5.239	A
C	636	159	184	1303	0.488	636	734	1.0	1.0	5.474	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	835	209	193	993	0.840	835	627	5.2	5.2	22.799	C
B	358	90	560	1049	0.341	358	468	0.5	0.5	5.239	A
C	636	159	184	1303	0.488	636	734	1.0	1.0	5.474	A

Queueing Delay Results for each time segment

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	58.37	3.89	18.848	C
B	7.38	0.49	5.120	A
C	13.76	0.92	5.406	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	72.29	4.82	22.350	C
B	7.72	0.51	5.233	A
C	14.38	0.96	5.474	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	75.12	5.01	22.613	C
B	7.77	0.52	5.237	A
C	14.44	0.96	5.474	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	76.40	5.09	22.714	C
B	7.79	0.52	5.238	A
C	14.46	0.96	5.474	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	77.12	5.14	22.767	C
B	7.80	0.52	5.239	A
C	14.47	0.96	5.474	A

09:15 - 09:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	77.59	5.17	22.799	C
B	7.80	0.52	5.239	A
C	14.48	0.97	5.474	A

2034 + dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		A, B, C	24.81	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	2034 + dev	PM	DIRECT	16:30	18:00	90	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

16:30 - 16:45

	To			
From		A	B	C
	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

16:45 - 17:00

	To			
From		A	B	C
	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

17:00 - 17:15

		To		
From		A	B	C
	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

17:15 - 17:30

		To		
From		A	B	C
	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

17:30 - 17:45

		To		
From		A	B	C
	A	0	331	617
	B	165	0	142
	C	496	150	0

Demand (PCU/hr)

17:45 - 18:00

		To		
From		A	B	C
	A	0	331	617
	B	165	0	142
	C	496	150	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	1	1
	B	1	0	1
	C	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.92	44.36	11.2	E	948	1422	870.92	36.75	9.68	874.61	36.90
B	0.31	5.30	0.5	A	307	461	39.98	5.21	0.44	39.98	5.21
C	0.49	5.39	1.0	A	646	969	85.95	5.32	0.96	85.97	5.32

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	948	237	149	1026	0.924	915	657	0.0	8.3	27.468	D
B	307	77	595	1014	0.303	305	468	0.0	0.4	5.119	A
C	646	162	164	1320	0.489	642	737	0.0	1.0	5.321	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	948	237	150	1025	0.925	942	661	8.3	9.7	39.388	E
B	307	77	613	996	0.308	307	479	0.4	0.4	5.276	A
C	646	162	165	1319	0.490	646	755	1.0	1.0	5.386	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	948	237	150	1025	0.925	945	661	9.7	10.4	41.847	E
B	307	77	615	994	0.309	307	480	0.4	0.4	5.290	A
C	646	162	165	1319	0.490	646	757	1.0	1.0	5.386	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	948	237	150	1025	0.925	946	661	10.4	10.8	43.088	E
B	307	77	616	994	0.309	307	480	0.4	0.5	5.295	A
C	646	162	165	1319	0.490	646	758	1.0	1.0	5.386	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	948	237	150	1025	0.925	947	661	10.8	11.0	43.847	E
B	307	77	616	993	0.309	307	481	0.5	0.5	5.298	A
C	646	162	165	1319	0.490	646	758	1.0	1.0	5.386	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	948	237	150	1025	0.925	947	661	11.0	11.2	44.363	E
B	307	77	617	993	0.309	307	481	0.5	0.5	5.299	A
C	646	162	165	1319	0.490	646	758	1.0	1.0	5.386	A

Queueing Delay Results for each time segment

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	94.46	6.30	27.468	D
B	6.33	0.42	5.119	A
C	13.77	0.92	5.321	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	136.58	9.11	39.388	E
B	6.66	0.44	5.276	A
C	14.38	0.96	5.386	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	150.88	10.06	41.847	E
B	6.73	0.45	5.290	A
C	14.43	0.96	5.386	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	158.60	10.57	43.088	E
B	6.75	0.45	5.295	A
C	14.45	0.96	5.386	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	163.50	10.90	43.847	E
B	6.76	0.45	5.298	A
C	14.46	0.96	5.386	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
A	166.90	11.13	44.363	E
B	6.76	0.45	5.299	A
C	14.47	0.96	5.386	A