Appendix V: Highways Modelling Technical Note

To	blocwork (Eastleigh) LLP and Southampton International Airport Limited (SIAL)	**Technical Note**	
From	Steer		
Date	12 December 2025		
Project	Navigator Quarter	Project No.	24733101

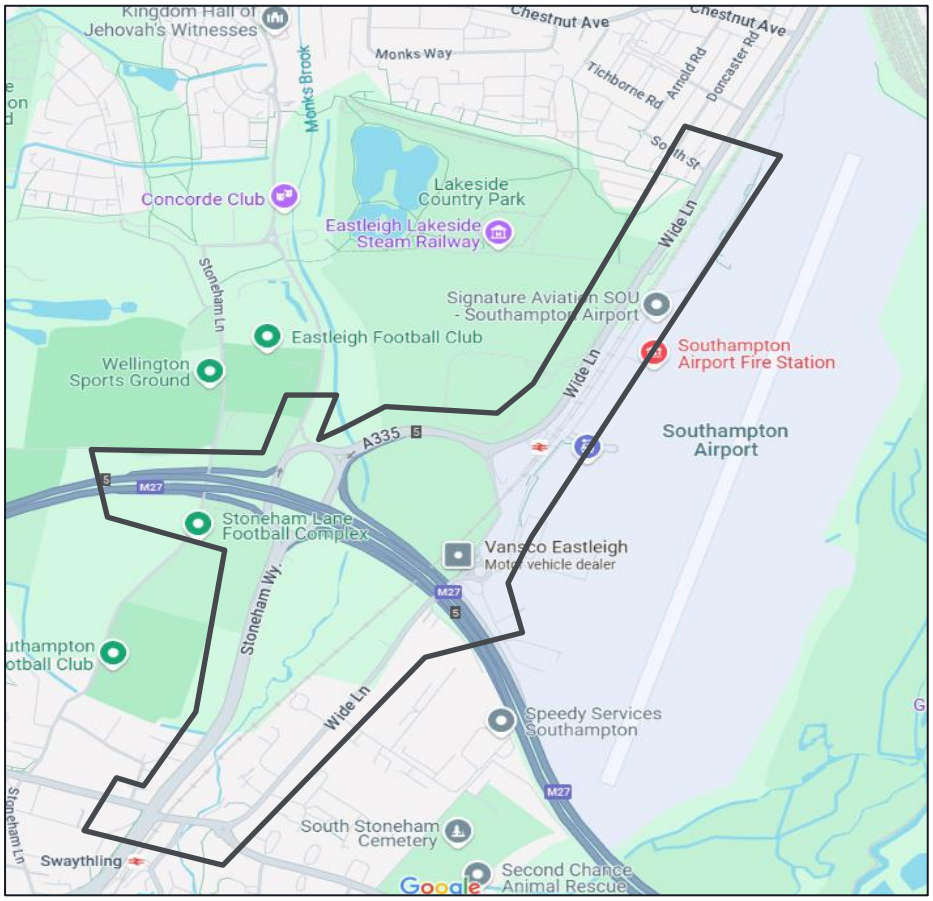
Modelling Technical Note

1 Introduction

1.1 This technical note presents the transport modelling analysis for the Navigator Quarter study area, utilising Junctions 9 (J9) and LinSig v3 models, associated with the Navigator Quarter planning submission (Ref: O/25/99506).

1.2 The Base J9 and LinSig models have been developed to provide a robust representation of the base year (2023 and 2025) traffic conditions in the Study Area (shown in **Figure 1-1**). This note describes the base models, and the validation process to ascertain the appropriateness of the models for assessment of the highway impacts of the Navigation Quarter development proposals. It also presents the methodology and findings of the junction capacity modelling results for the future year scenarios with and without the Proposed Development.

Figure 1-1: Study Area



1.3 The forecast trip generation and distribution assumptions are detailed in the originally submitted Navigator Quarter Southampton - Transport Assessment (TA) (June 2025).

1.4 The structure of this note is detailed as follows:

- Section 2: Presents the base modelling approach;
- Section 3: Describes the data sources and collection methods;
- Section 4: Summarises the results of the model validation for each junction;
- Section 5: Presents the Proposed Development forecast scenarios and summarises the model outputs; and
- Section 6: Summarise key findings and provides recommendations for next steps.

1.5 This technical note is an updated version of original note included in Appendix Y of the original June 2025 TA submission. It should also be read in conjunction with the response tracker response to statutory consultation comments (dated 12 December 2025).

1.6 The key updates that have been included in this updated note are as follows:

1. Spitfire and Wide Lane roundabouts - additional scenarios run in the model validation exercise (with previous scenarios retained for comparison) to reflect the request from HCC in their response received (8 August 2025) for assessments to be run using lane simulation mode. In the full modelling assessment and future year scenarios the previous assessments have been substituted with the updated assessment results.
2. M27 J5 - updated assessments to reflect comments from the National Highways email response from Patrick Blake dated 12 September 2025. The comments that have been addressed as part of the model re-runs are shown in **Table 1-1**.
3. SCC - The original technical note concluded that for the Wide Lane/ Mount Park junction practical capacity would be exceeded on the northern Wide Lane arm in the 2028 Proposed Development scenario and subsequent scenarios. SCC in their response (dated 29 August 2025) advised that mitigation could be considered and this has been explored as an extension to the PM peak cycle time.
4. Updated mitigation options have been explored and assessed for the Spitfire and Wide Lane Roundabouts, with the latest proposals included in this note.

Table 1-1: Summary of National Highways Modelling comments

National Highways Comment	Steer Proposed Action
Lane 1/1 which uses RR67 to estimate saturation flow has no radius specified for the ahead movement even though vehicles proceeding ahead would be passing through the same bend as those turning left. Please check and correct as appropriate.	Updated in model re-run
All internal lanes with signal-controlled upstream feeds should be set to 'Ignore Random Delay'.	Reviewed all internal lanes and updated in model re-run
The give-way parameters for lane 4/2 include a Maximum Flow of 1439 PCUs/hr which seems high for single lane entry to a roundabout (and also happens to be the same as the default setting for give-way behaviour as opposed right turn situations). Please check if this is correct. Also, it would be helpful if the rationale for the setting of give-way parameters were explained in the modelling technical note.	Reviewed all give way parameters in model and updated accordingly

2 Base Modelling Approach

Modelling Software

2.1 Each junction has been modelled separately using J9 and LinSig v3 – these are industry standard local junction modelling software packages.

2.2 J9 incorporates both PICADY and ARCADY software packages, which are used to assess the performance of non-signalised priority junctions and non-signalised roundabouts, respectively.

Model Extents

2.3 Due to availability of traffic survey data, junctions within the study area have been developed to represent either a 2023 or 2025 base year, as detailed in **Table 2-1**. This technical note covers the five junction models with a 2023 base year, as summarised in **Table 2-1**.

Table 2-1: Junction Model Summary

Steer ID	Location	Software	Base Year
J01	Wide Lane / South Street	LinSig	2023
J02	Wide Lane / Southampton Airport Parkway	LinSig	2023
J03	A335 / Wide Lane	J9	2023
J04	Spitfire Roundabout	J9	2023
J05	Wide Lane / Mountpark	LinSig	2023
J06	*M27 J5*	*LinSig*	*2025*
J07	*Stoneham Way / Wide Ln / Wessex Ln and Wide Lane / Mansbridge Rd*	*LinSig*	*2025*

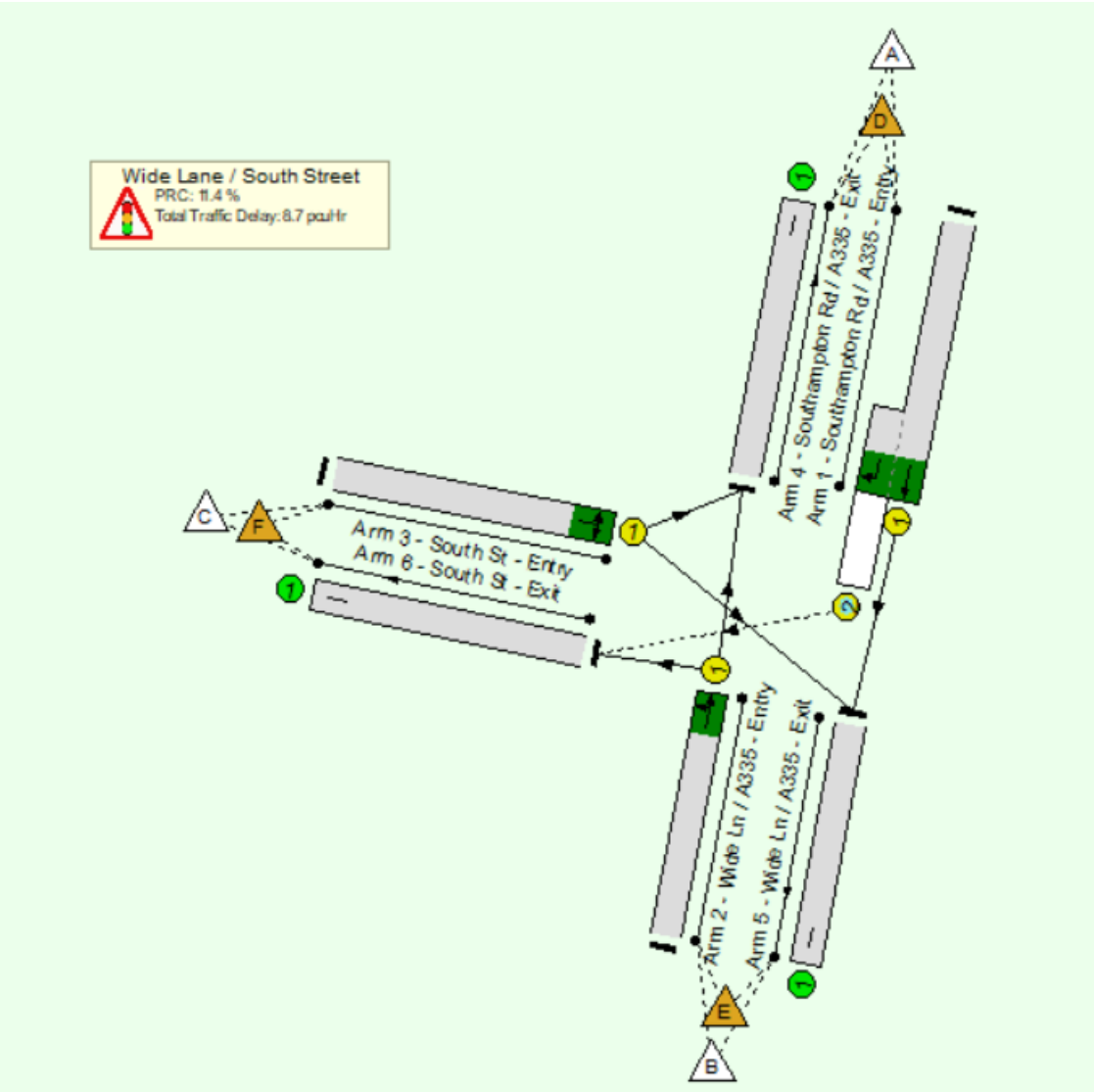
J01 – Wide Lane / South Street

2.4 The J01 model includes the following approaches:

- Southampton Road / A335
- Wide Lane / A335
- South Street

2.5 The network layout of the J01 model is shown in **Figure 2-1**.

Figure 2-1: J01 model – network layout



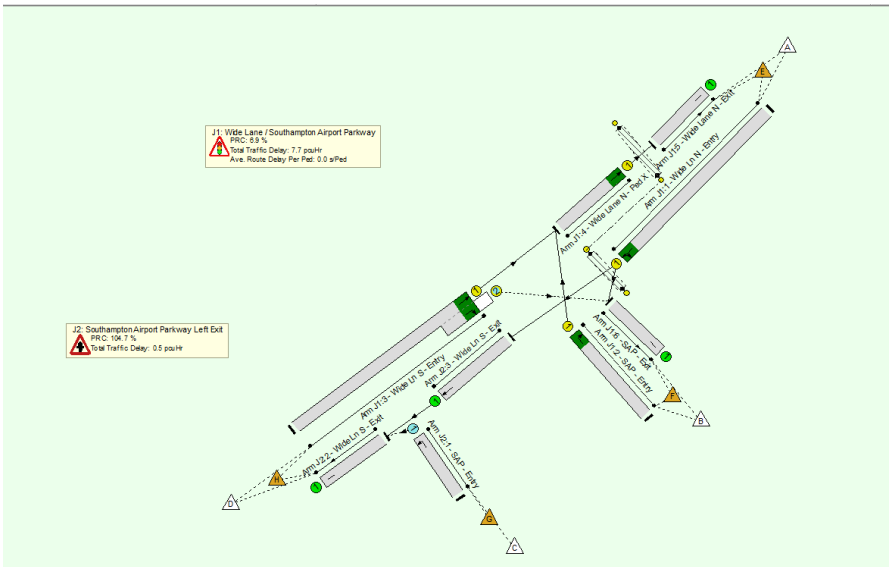
J02 – Wide Lane / Southampton Airport Parkway

2.6 The J02 model includes the following approaches:

- Wide Lane (N)
- Southampton Airport Parkway – Right Turn Only (Signalised)
- Southampton Airport Parkway – Left Turn Only (Priority)
- Wide Lane (S)

2.7 The network layout of the J02 model is shown in **Figure 2-2**.

Figure 2-2: J02 model – network layout



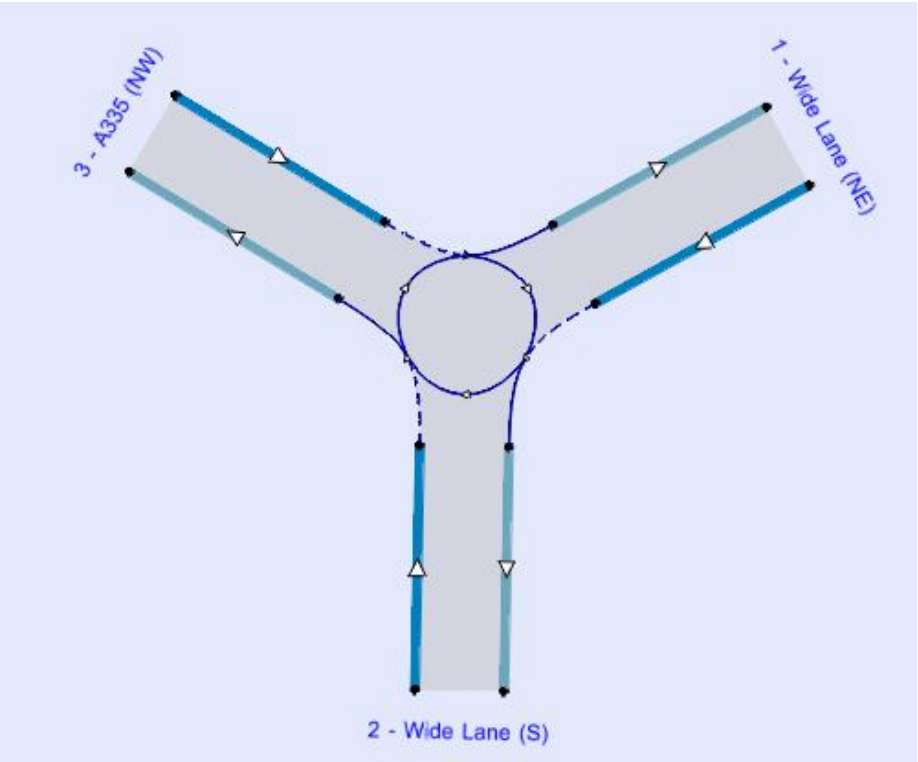
J03 – A335 / Wide Lane

2.8 The J03 model includes the following approaches:

- Wide Lane (E)
- Wide Lane (S)
- A335

2.9 The network layout of the J03 model is shown in **Figure 2-3**.

Figure 2-3: J03 model – network layout



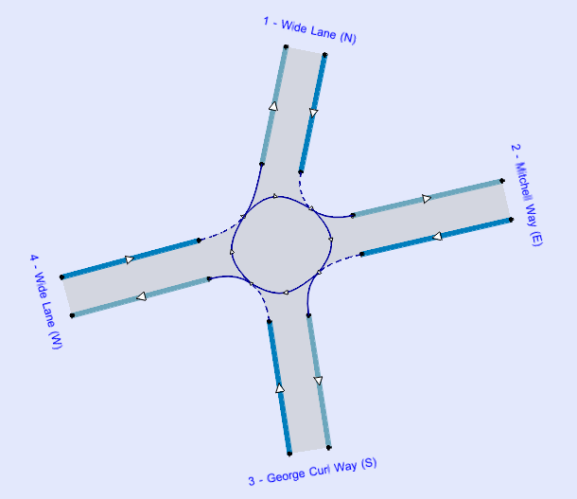
J04 – Spitfire Roundabout

2.10 The J04 model includes the following approaches:

- Wide Lane (N)
- Mitchell Way
- George Curl Way
- Wide Lane (W)

2.11 The network layout of the J04 model is shown in **Figure 2-4.**

Figure 2-4: J04 model – network layout



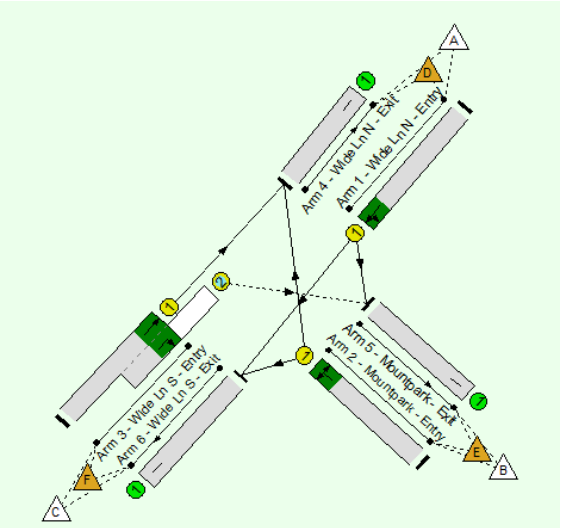
J05 – Wide Lane / Mountpark

2.12 The J05 model includes the following approaches:

- Wide Lane (N)
- Mountpark
- Wide Lane (S)

2.13 The network layout of the J05 model is shown in **Figure 2-5**.

Figure 2-5: J05 model – network layout



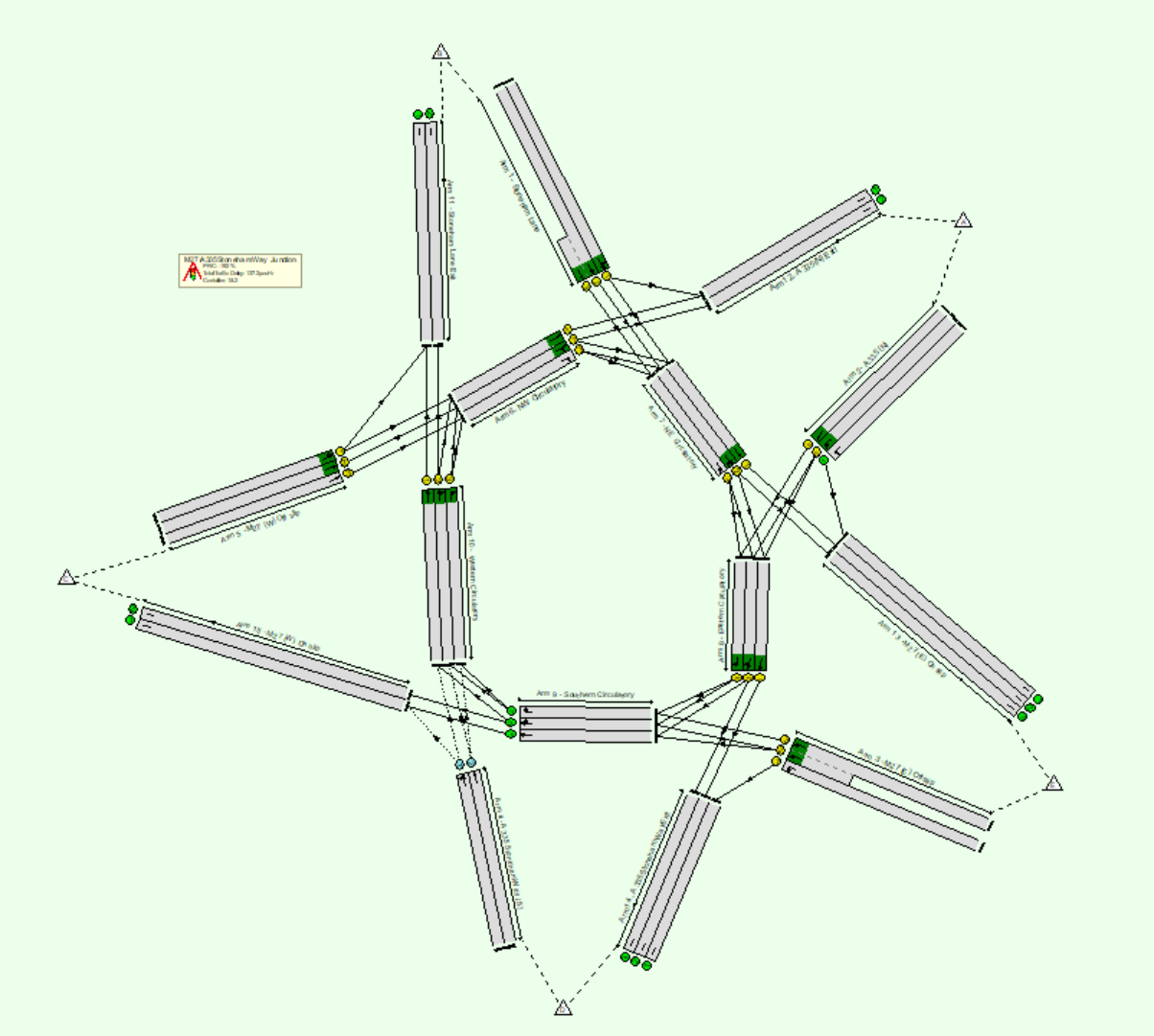
J06 – M27 J5

2.14 The J06 model includes the following approaches:

- Stoneham Lane
- A335 (N)
- M27 (E) Off-slip
- A335 Stoneham Way (S)
- M27 (W) Off-slip

2.15 The network layout of the J06 model is shown in **Figure 2-5**.

Figure 2-6: J06 model – network layout



J07 – Stoneham Way / Wide Ln / Wessex Ln and Wide Lane / Mansbridge Rd

2.16 The J07 model is a multi-junction network including the Stoneham Way / Wide Lane / Wessex Lane signalised junction (J1) and the Wide Lane / Mansbridge Road roundabout (J2). J1 has the following approaches:

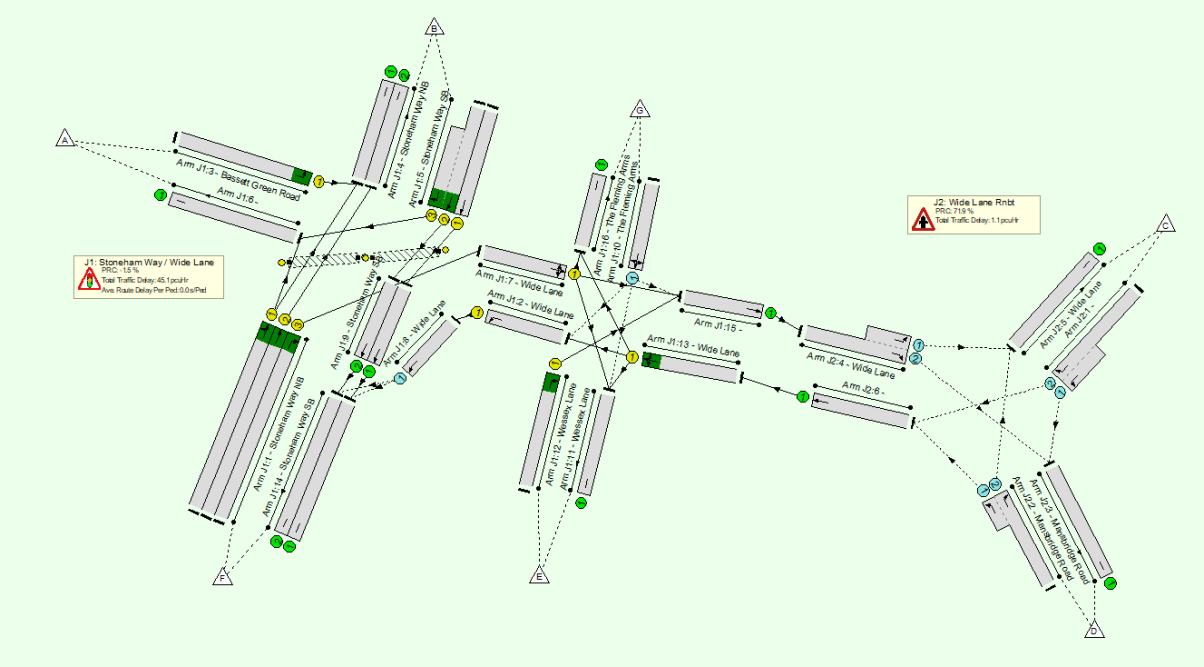
- Bassett Green Road
- Stoneham Way (N)
- Stoneham Way (S)
- Wessex Lane
- The Fleming Arms access
- Wide Lane (External)
- Wide Lane EB (Internal)
- Wide Lane WB (Internal)

J2 has the following approaches:

- Wide Lane N
- Mansbridge Road
- Wide Lane W

2.17 The network layout of the J07 model is shown in **Figure 2-5**.

Figure 2-7: J06 model – network layout



Time Periods Modelled

2.18 Given the close proximity of junctions within the study area, it was deemed appropriate to identify consistent network peak time periods across all junctions. The time periods modelled were based on the peak hours for the entire network determined by the ATC hourly data. However, at the request of Hampshire CC, junction turning counts were also analysed.

2.19 A comparison of flows at each junction between the network peaks and the individual junction peaks was undertaken using the GEH statistic. The GEH statistic is a standard measure used in transport modelling to compare traffic flows. It accounts for both absolute and relative differences, making it more robust than simple percentage comparisons. A GEH value below 5 is generally considered a good match.

2.20 The formula for the GEH Statistic is:

2.21
$$GEH = \sqrt{\frac{2(M-C)^2}{M+C}}$$

Where M is the hourly traffic volume from the junction peak hour and C is the traffic volume from the network-wide peak hour

2.22 As shown in **Table 2-2,** the GEH statistic has been used to compare traffic flows at each junction and time period.

Table 2-2: GEH Summary

Junction	GEH AM	GEH PM
A335/ South Street	2	0
A335 Wide Lane/ Airport Parkway	1	0
A335/Wide Lane	1	0
Spitfire Roundabout	2	0
Wide Lane/ Mount Park	6	2

2.23 The analysis shows that GEH values are mostly below 5, indicating that the differences in flows between the network peak and the individual junction peak are statistically insignificant.

2.24 This confirms that 08:00-09:00 remains a suitable and representative AM peak hour for network-wide analysis. However, for Wide Lane/ Mount Park, the AM peak hour flows will be taken for 07:30-08:30 as this is the only junction where the GEH exceeds 5.

Therefore, the time periods were modelled are as follows:

- Network peak:
  - AM Peak – 08:00-09:00
  - PM Peak – 17:00-18:00
- J05 – Wide Lane / Mountpark peak:
  - AM Peak – 07:30-08:30
  - PM Peak – 17:00-18:00

2.25 As part of the 2025 model update, a similar peak hour analysis was undertaken. This determined the peak hours for the J06 and J07 models to be as follows:

- Network peak:
  - AM Peak – 07:30-08:30
  - PM Peak – 16:00-17:00

3 Data Collection

Traffic Surveys

3.1 For the 2023 models, traffic flow inputs were sourced from the traffic surveys conducted in June 2023. Manual Classified Counts (MCC) were carried out on 29th June 2023 coinciding with queue length surveys and Automatic Traffic Counts (ATC). ATC surveys were conducted from 28/06/23 to 04/07/23.

3.2 MCC and queue length data were collected over a 6-hour period (07:00-10:00 and 16:00-19:00) at the following junctions (also shown in **Figure 3.1**):

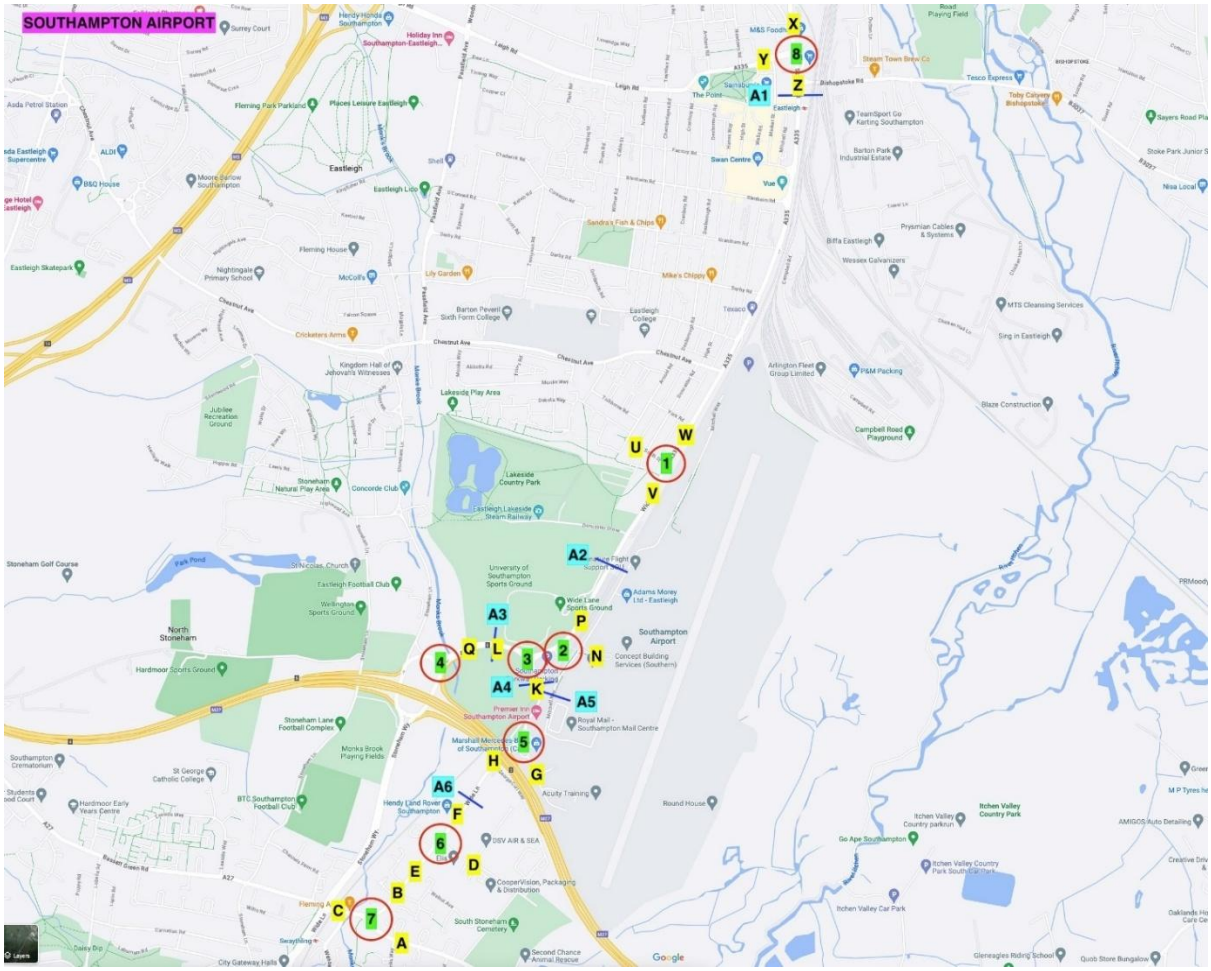
- Site 1 – Wide Lane / South Street
- Site 2 – Wide Lane / Southampton Airport Parkway
- Site 3 – A335 / Wide Lane
- Site 4 – M27 Roundabout / Wide Lane
- Site 5 – Spitfire Roundabout
- Site 6 – Wide Lane / Mountpark
- Site 7 – Wide Lane/ Mansbridge Road Roundabout
- Site 8 – Wide Lane / Romsey Road / Bishopstoke Road

3.3 Sites 4, 6 and 8 were not analysed as part of the modelling exercise. This is because Site 4 and 6 will be resurveyed in 2025 due to incomplete datasets in 2023 and Site 8 was agreed unnecessary to be modelled given its distance from the development area.

3.4 ATC data was collected over a 24-hour period at the following locations (also shown in **Figure 3.1**).

- A1 – A335 Station Hill
- A2 – A335 Wide Lane (South of Doncaster Drove)
- A3 – A335 east of M27 Junction 5.
- A4 – Wide Lane south of Wide Lane roundabout.
- A5 – Mitchell Way (north of the Royal Mail car park).
- A6 – Wide Lane (north of Mountpark).

Figure 3-1: 2023 MCC and ATC Location Plan



3.5 For the 2025 models, traffic flow inputs were sourced from the traffic surveys conducted in February 2025. MCC's were carried out on 13th February 2025 coinciding with queue length surveys and Automatic Traffic Counts (ATC). ATC surveys were conducted from 08/02/25 to 14/02/25.

3.6 MCC and queue length data were collected over a 6-hour period (07:00-10:00 and 16:00-19:00) at the following junctions:

- Site 1&2 – Stoneham Way/Wide Lane/Wessex Lane/Bassett Green Rd (new survey location)
- Site 3 – Wide Lane/Mansbridge Road Roundabout (update of 2023 survey)
- Site 4 – M27 J5 (Stoneham Interchange) (new survey of full junction).

3.7 ATC and Radar data was collected over a 24-hour period at the following locations:

- ATC1 – A335 Station Hill
- ATC2 – A335 Wide Lane (South of Doncaster Drove)
- ATC4 – Wide Lane south of Wide Lane Roundabout.
- ATC5 – Mitchell Way
- ATC6 – Wide Lane (north of Mount Park)
- ATC7 – Wide Lane (south of Walnut Avenue).
- ATC8 – Mansbridge Road (east of Mansbridge Roundabout)
- RAD3 – A335 (east of M27 J5)
- RAD9 – A335 Stoneham Way (south of A27/ Wide Lane junction)
- RAD10 – A335 Stoneham Way (north of A27/ Wide Lane junction)

Signal Data

3.8 Timing sheets, stage timings and signal layout drawing files were provided by Hampshire CC and Southampton CC for the five signalised junctions within the study area:

- J01 – Wide Lane / South Street
- J02 – Wide Lane / Southampton Airport Parkway (SAP)
- J05 – Wide Lane / Mountpark
- J06 – M27 J5
- J07 – Stoneham Way / Wide Lane / Wessex Lane

4 Base Model Validation

Validation Criteria

4.1 The local junction models were developed to evaluate the queue lengths, delays and Degree of Saturation/ Ratio of Flow to Capacity (DoS/RFC) at all junctions. DoS/RFC is a quantitative analysis of the level of congestion on the network and is used as the primary indicator of the operational performance of a junction. Generally, when a junction reaches 90 percent DoS/RFC it is considered to be at practical capacity and when it reaches 100 percent, at theoretical capacity.

4.2 The relationship between queues and DoS/RFC is such that queues begin to increase significantly at high DoS (>85%) and so become sensitive to increases in traffic flow or reductions in the traffic capacity provided. It is important to note that when junctions exceed their theoretical capacity (100 percent DoS/ RFC) queues and delays increase at an exponential (non-linear) rate.

4.3 The queues are presented in terms of the average maximum queue in PCUs (passenger car units) from the surveys and the Mean Max Queue (MMQ) in PCUs in LinSig.

4.4 For validation purposes, comparisons of the modelling results were undertaken against observed queue data and DoS, where observed.

4.5 The following criteria was used to indicate model validation:

- Average modelled queue (in PCU) for the peak period within 2 PCU of the average observed queue, where the average observed queue is 10 PCU or less;
- Average modelled queue (in PCU) for the peak period within 20% of the average observed queue, where the average observed queue is greater than 10 PCU; and
- DoS for the peak period within 10% of the average observed DoS

2023 Base Model Validation Results

4.6 The results of the queue comparison and the other model results are presented in the tables below for each model.

J01 – Wide Lane / South Street

4.7 The tables below summarise the validation results for this junction. See **Appendix A** for full results.

Table 4-1: Summary of Queue Validation Results – J01 AM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	Difference (%)	Validates?
A335 Southampton Road	10	7	-3	-30%	NO
A335 Wide Lane	26	21	-5	-18%	YES
South Street	7	6	-1	-15%	YES

Table 4-2: Summary of Queue Validation Results – J01 PM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
A335 Southampton Road	9	10	1	12%	YES
A335 Wide Lane	13	13	0	2%	YES
South Street	8	3	-5	-68%	NO

Table 4-3: Summary of DoS Validation Results – J01 AM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
A335 Southampton Road	-	47	-	-
A335 Wide Lane	79	83	4	YES
South Street	-	89	-	-

Table 4-4: Summary of DoS Validation Results – J01 PM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
A335 Southampton Road	-	65	-	-
A335 Wide Lane	71	75	4	YES
South Street	-	63	-	-

4.8 The queue results presented in the previous tables show a good level of validation between the observed and modelled queues in both time periods. The modelled queues on A335 Southampton Road in the AM and on South Street in the PM are the only instances where the queue does not validate against the observed. However, this is a minor difference in both cases. Only the A335 Wide Lane approach had observed DoS values, and these validated well against the modelled values.

J02 – Wide Lane / Southampton Airport Parkway

4.9 The tables below summarise the validation results for this junction. See **Appendix B** for full results.

Table 4-5: Summary of Queue Validation Results – J02 AM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Wide Lane N	-	10	-	-	-
SAP Right	2	1	-1	-71%	YES
SAP Left	2	0	-2	-96%	YES
Wide Lane S	-	16	-	-	-

Table 4-6: Summary of Queue Validation Results – J02 PM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
Wide Lane N	-	14	-	-	-
SAP Right	2*	1	-1	-50%	YES
SAP Left	4	0	-4	-93%	NO
Wide Lane S	-	6	-	-	-

*based on spot checks following video data review

Table 4-7: Summary of DoS Validation Results – J02 AM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
Wide Lane N	-	60	-	-
SAP Right	19	9	-10	YES
SAP Left	-	14	-	-
Wide Lane S	80	81	2	YES

Table 4-8: Summary of DoS Validation Results – J02 PM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
Wide Lane N	-	71	-	-
SAP Right	24	14	-10	YES
SAP Left	-	38	-	-
Wide Lane S	64	59	-5	YES

4.10 The queue results presented in the tables above show a good level of validation between the observed and modelled queues in the AM. However, the PM shows that the modelled and observed queue lengths differ on the Southampton Airport (SAP) left arm.

4.11 Only the SAP Right and Wide Lane South approach had observed DoS values, and these validated well against the modelled values.

J03 – A335 / Wide Lane Roundabout

4.12 The tables as follows summarise the validation results for this junction, originally run without lane simulation. See **Appendix C** for full results.

Table 4-9: Summary of Queue Validation Results – J03 AM Model (without Lane Simulation)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
A335 Wide Lane 1	1	0.5	-1	-60%	YES
A335 Wide Lane 2	3	3.7	1	23%	YES
Wide Lane - Lane 1	1	1.2	1	140%	YES
Wide Lane - Lane 2	1	1.3	1	95%	YES
A335 Lane 1	17*	14.1	-3	-17%	YES
A335 Lane 2	2	2.5	1	30%	YES

*based on spot checks following video data review

Table 4-10: Summary of Queue Validation Results – J03 PM Model (without Lane Simulation)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
A335 Wide Lane 1	1	0.7	0	5%	YES
A335 Wide Lane 2	10*	11.5	1.5	15%	YES
Wide Lane - Lane 1	2	3.3	1	52%	YES
Wide Lane - Lane 2	2	0.5	-1	-70%	YES
A335 Lane 1	1	2.5	2	400%	NO
A335 Lane 2	1	1.5	1	200%	YES

*based on spot checks following video data review

4.13 The queue results presented in the tables above show a good level of validation between the observed and modelled queues in both time periods. The modelled queue on A335 Lane 1 in the AM and Wide Lane 2 in the PM are the only instances where the queue differs greatly against the observed.

4.14 As requested by HCC, the base models were re-run using lane simulation mode within Junctions 9 software. The validation results of these runs are shown below. See **Appendix D** for full results.

Table 4-11: Summary of Queue Validation Results – J03 AM Model (Lane-Simulation mode)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
A335 Wide Lane 1	1	0.5	-1	-60%	YES
A335 Wide Lane 2	3	5.0	2	67%	NO
Wide Lane - Lane 1	1	1.3	1	160%	YES
Wide Lane - Lane 2	1	2.5	2	275%	YES
A335 Lane 1	17*	20.1	3	18%	YES
A335 Lane 2	2	3.2	1	67%	YES

*based on spot checks following video data review

Table 4-12: Summary of Queue Validation Results – J03 PM Model (Lane Simulation Mode)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
A335 Wide Lane 1	1	0.7	0	5%	YES
A335 Wide Lane 2	10*	15.0	5	50%	NO
Wide Lane - Lane 1	2	2.7	1	25%	YES
Wide Lane - Lane 2	2	0.8	-1	-52%	YES
A335 Lane 1	1	3.2	3	540%	NO
A335 Lane 2	1	2.0	2	300%	YES

*based on spot checks following video data review

4.15 The queue results presented in the tables above show a good level of validation between the observed and modelled queues in both time periods. The modelled queue on A335 Wide Lane 2 in the AM and PM are the only instances where the queue differs greatly against the observed.

J04 – Spitfire Roundabout

4.16 The following tables summarise the validation results for this junction without lane simulation mode. See **Appendix E** for full results.

Table 4-13: Summary of Queue Validation Results – J05 AM Model (Without Lane Simulation)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	Difference (%)	Validates?
Wide Lane (N) Lane 1	0	1.0	-1	N/A	YES
Wide Lane (N) Lane 2	0	1.0	-1	N/A	YES
Mitchell Way (E) Lane 1	0	0.1	0	N/A	YES
Mitchell Way (E) Lane 2	0	0.1	0	N/A	YES
George Curl Way (S) Lane 1	0	0.1	0	20%	YES
George Curl Way (S) Lane 2	0	0.1	0	20%	YES
Wide Lane (W) Lane 1	1	0.9	0	2%	YES
Wide Lane (W) Lane 2	0	0.9	-1	0%	YES

Table 4-14: Summary of Queue Validation Results – J05 PM Model (without Lane Simulation)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Wide Lane (N) Lane 1	0	1.1	-1	0%	YES
Wide Lane (N) Lane 2	1	1.1	0	20%	YES
Mitchell Way (E) Lane 1	0	0.2	0	20%	YES
Mitchell Way (E) Lane 2	0	0.2	0	20%	YES
George Curl Way (S) Lane 1	0	0.2	0	-4%	YES
George Curl Way (S) Lane 2	0	0.2	0	-4%	YES
Wide Lane (W) Lane 1	0	0.5	-1	0%	YES
Wide Lane (W) Lane 2	0	0.5	0	100%	YES

4.17 The queue results presented in the tables above show a good level of validation between the observed and modelled queues for both time periods.

4.18 As requested by HCC, the base models were re-run using lane simulation mode within Junctions 9 software. The validation results of these runs are shown overleaf. The full results are in **Appendix E**.

Table 4-15: Summary of Queue Validation Results (Max Hourly Results) – J05 AM Model (Lane Simulation Mode)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	Difference (%)	Validates?
Wide Lane (N) Lane 1	0	1.2	-1	0%	YES
Wide Lane (N) Lane 2	0	1.5	-1	0%	YES
Mitchell Way (E) Lane 1	0	0.1	0	0%	YES
Mitchell Way (E) Lane 2	0	0.3	0	0%	YES
George Curl Way (S) Lane 1	0	0.1	0	0%	YES
George Curl Way (S) Lane 2	0	0.0	0	000%	YES
Wide Lane (W) Lane 1	1	4.0	-3	300%	YES
Wide Lane (W) Lane 2	0	0.3	0	0%	YES

Table 4-16: Summary of Queue Validation Results (Max Hourly Results) – J05 PM Model (Lane Simulation Mode)

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Wide Lane (N) Lane 1	0	0.4	0	0%	YES
Wide Lane (N) Lane 2	1	8.5	-7.5	750%	NO
Mitchell Way (E) Lane 1	0	0.1	0	0%	YES
Mitchell Way (E) Lane 2	0	0.4	0	0%	YES
George Curl Way (S) Lane 1	0	0.3	0	0%	YES
George Curl Way (S) Lane 2	0	0.1	0	0%	YES
Wide Lane (W) Lane 1	0	1.3	-1.3	0%	YES
Wide Lane (W) Lane 2	0	0.2	0	0%	YES

4.19 The queue results presented in the tables above show a good level of validation between the observed and modelled queues for both time periods.

J05 – Wide Lane / Mountpark

The following tables summarise the validation results for this junction. See **Appendix F** for full results.

Table 4-17: Summary of Queue Validation Results – J06 AM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
Wide Lane N	9	5	-4	-48%	NO
Mountpark	2	1	-1	-32%	YES
Wide Lane S	11	9	-2	-15%	YES

Table 4-18: Summary of Queue Validation Results – J06 PM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
Wide Lane	11	11	0	-1%	YES
Mountpark	2	2	0	21%	YES
Wide Lane S	2	4	2	96%	YES

4.20 The queue results presented in the tables above show a good level of validation between the observed and modelled queues at both junctions. The modelled queue on Wide Lane N in the AM is the only instance where the queue does not validate against the observed. However, this is a minor difference in one time period and does validate well in the PM.

2025 Base Model Validation Results

J06 - M27 J5

4.21 Following National Highways' review of the original modelling note submission in June 2025, Steer have amended the modelling parameters as outlined in **Table 1-1**. The tables below summarise the validation results for this junction with these modifications applied. See **Appendix G** for results.

Table 4-19: Summary of Queue Validation Results – J06 AM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
A335 (N) Ahead	12	9.2	-3	-23%	NO
A335 (N) Ahead	8	8.5	1	9%	YES
Stoneham Lane Ahead Left	12	10.2	-2	-15%	YES
Stoneham Lane Ahead	10	6.6	-3	-33%	NO
Stoneham Lane Ahead	3	6.6	3	107%	NO
M27 (W) Off slip Ahead	8	7.2	0	-5%	YES
M27 (W) Off slip Ahead	5	2.8	-2	-42%	YES
M27 (W) Off slip Ahead	9	9.3	0	2%	YES
M27 (E) Off slip Ahead	10	7.6	-2	-23%	NO
M27 (E) Off slip Ahead	8	7.6	0	-4%	YES
NE Circulatory Ahead	9	6.8	-2	-24%	NO
NE Circulatory Ahead Ahead2	8	5.5	-2	-28%	NO
NE Circulatory Ahead	3	6.8	3	101%	NO
NW Circulatory Ahead	12	11.8	0	2%	YES
NW Circulatory Right Ahead	7	11.4	4	54%	NO

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
NW Circulatory Right	3	6.7	4	120%	NO
Western Circulatory Ahead	12	9.1	-3	-25%	NO
Western Circulatory Right Ahead	8	9.6	1	14%	YES
Western Circulatory Right	7	8	1	18%	YES
Eastern Circulatory Ahead	11	4.8	-6	-55%	NO
Eastern Circulatory Right Ahead	9	4.4	-5	-52%	NO
Eastern Circulatory Right	4	2.8	-2	-37%	YES
A335 Stoneham Way (S) Ahead Left	31	17.8	-13	-43%	NO
A335 Stoneham Way (S) Ahead	27	14.2	-13	-48%	NO

Table 4-20: Summary of Queue Validation Results – J06 PM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
A335 (N) Ahead	8	8.5	0	6%	YES
A335 (N) Ahead	10	7.3	-3	-26%	NO
Stoneham Lane Ahead Left	13	10.1	-3	-24%	NO
Stoneham Lane Ahead	10	5.6	-5	-45%	NO
Stoneham Lane Ahead	4	5.6	2	52%	YES
M27 (W) Off slip Ahead	6	5.5	0	-7%	YES
M27 (W) Off slip Ahead	3	4.8	2	60%	YES
M27 (W) Off slip Ahead	7	12	5	64%	NO
M27 (E) Off slip Ahead	8	4.3	-3	-43%	NO
M27 (E) Off slip Ahead	5	4.3	-1	-21%	YES
NE Circulatory Ahead	9	10.5	2	23%	YES
NE Circulatory Ahead Ahead2	5	1.7	-3	-62%	NO
NE Circulatory Ahead	2	5.1	3	163%	NO
NW Circulatory Ahead	11	7.5	-3	-29%	NO
NW Circulatory Right Ahead	11	10	-1	-11%	YES

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates ?
NW Circulatory Right	6	2.7	-3	-53%	NO
Western Circulatory Ahead	4	5.2	1	20%	YES
Western Circulatory Right Ahead	6	5.4	0	-4%	YES
Western Circulatory Right	6	5.8	0	-6%	YES
Eastern Circulatory Ahead	7	4.1	-3	-40%	NO
Eastern Circulatory Right Ahead	7	7.5	1	14%	YES
Eastern Circulatory Right	6	6.1	0	-2%	YES
A335 Stoneham Way (S) Ahead Left	17	17.2	0	0%	YES
A335 Stoneham Way (S) Ahead	22	26.9	5	21%	NO

4.22 The queue results presented in the tables above show a good level of validation between the observed and modelled queues at both junctions. In some cases, the queues do not validate on certain arms but the queues generally remain within a maximum of 5 PCUs except for A335 Stoneham Way (S) in the AM.

4.23 For A335 Stoneham Way, the queues validate well in the PM. However, with the same parameters in the AM, the modelled queues are lower than the observed albeit the lane usage pattern is very similar. This implies that vehicle behaviour may be more aggressive in the AM.

4.24 Saturation flows used in the model have been applied from the saturation flows survey information where available. Where this data is not available, saturation flows have been calculated using RR67 within LinSig.

4.25 The give-way parameters on Stoneham Way have been calibrated based on the queue length data received and achieving a DoS of less than 100% after using the default values set out in the LinSig user guide.

4.26 Bonus greens have been applied to some signalised lanes in the model to account for Underutilised Green Time (UGT). UGT has been calculated as part of the signal times survey.

Table 4-21: Summary of DoS Validation Results – J06 AM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
A335 (N) Ahead	86%	84%	-2%	YES
A335 (N) Ahead	74%	81%	6%	YES
Stoneham Lane Ahead Left	80%	79%	-1%	YES
Stoneham Lane Ahead	66%	70%	4%	YES
Stoneham Lane Ahead	27%	70%	43%	NO
M27 (W) Off slip Ahead	78%	70%	-8%	YES
M27 (W) Off slip Ahead	No Data	32%	0%	YES
M27 (W) Off slip Ahead	88%	83%	-5%	YES
M27 (E) Off slip Ahead	78%	79%	2%	YES
M27 (E) Off slip Ahead	70%	79%	10%	YES
NE Circulatory Ahead	48%	50%	1%	YES
NE Circulatory Ahead Ahead2	40%	46%	6%	YES
NE Circulatory Ahead	No Data	25%	0%	YES
NW Circulatory Ahead	73%	70%	-3%	YES
NW Circulatory Right Ahead	49%	57%	8%	YES
NW Circulatory Right	47%	37%	-10%	YES
Western Circulatory Ahead	58%	53%	-5%	YES
Western Circulatory Right Ahead	52%	57%	5%	YES
Western Circulatory Right	44%	50%	5%	YES
Eastern Circulatory Ahead	79%	82%	3%	YES
Eastern Circulatory Right Ahead	76%	73%	-4%	YES
Eastern Circulatory Right	86%	50%	0%	YES

Table 4-22: Summary of DoS Validation Results – J06 PM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
A335 (N) Ahead	73%	83%	10%	NO
A335 (N) Ahead	85%	76%	-9%	YES
Stoneham Lane Ahead Left	85%	76%	-10%	YES
Stoneham Lane Ahead	69%	59%	-9%	YES
Stoneham Lane Ahead	42%	59%	17%	NO
M27 (W) Off slip Ahead	74%	73%	-1%	YES
M27 (W) Off slip Ahead	No Data	68%	0%	YES
M27 (W) Off slip Ahead	91%	96%	5%	YES
M27 (E) Off slip Ahead	70%	57%	-13%	NO
M27 (E) Off slip Ahead	57%	57%	1%	YES
NE Circulatory Ahead	65%	63%	-2%	YES
NE Circulatory Ahead Ahead2	40%	47%	7%	YES
NE Circulatory Ahead	No Data	21%	0%	YES

Lane	Observed (%)	Modelled (%)	Difference	Validates?
NW Circulatory Ahead	68%	63%	-5%	YES
NW Circulatory Right Ahead	59%	65%	6%	YES
NW Circulatory Right	51%	44%	-7%	YES
Western Circulatory Ahead	44%	36%	-8%	YES
Western Circulatory Right Ahead	49%	44%	-5%	YES
Western Circulatory Right	48%	53%	5%	YES
Eastern Circulatory Ahead	72%	61%	-11%	NO
Eastern Circulatory Right Ahead	66%	59%	-7%	YES
Eastern Circulatory Right	No Data	38%	0%	YES

4.27 The DoS results presented in the tables above show a very good level of validation between the observed and modelled DoS in both time periods, with only arm (Stoneham Way Ahead) exceeding 15% difference – this is attributed to the fact that this lane is a right turn flare. However, generally where the DoS difference exceeds 10%, the modelled queue data validates well. Therefore, this model can be considered fit for purpose in testing future scenarios.

J07 – Stoneham Way / Wide Lane / Wessex Lane and Wide Lane / Mansbridge Road

4.28 The tables below summarise the validation results for this junction. See **Appendix H** for full results

Table 4-23: Summary of Queue Validation Results – J07 AM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Stoneham Way / Wessex Lane					
Stoneham Way SB Ahead	23.1	25.1	2	9%	YES
Stoneham Way SB Right Ahead	6.3	8.1	2	30%	YES
Stoneham Way SB Right Ahead	9.6	8.1	-1	-15%	YES
Bassett Green Road Left	6.1	5.9	0	-3%	YES
Stoneham Way NB Ahead Left	12.7	12.2	0	-4%	YES
Stoneham Way NB Ahead	11.4	12.2	1	7%	YES
Stoneham Way NB Right	11.1	11.8	1	7%	YES
Wessex Lane Right	5.9	3.9	-2	-33%	YES
Wide Lane Ahead Left Right	13.5	13.6	0	1%	YES

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Wide Lane Right Ahead Left	0.8	1.4	1	75%	YES
Wide Lane Left	0.1	0.5	0	317%	YES
Mansbridge Roundabout					
Wide Lane N Right Left	0.2	0.1	0	-40%	YES
Mansbridge Road Right Left	1.5	0.3	-1	-81%	YES
Wide Lane W Right Left	1.9	0.1	-2	-95%	YES

Table 4-24: Summary of Queue Validation Results – J07 PM Model

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Stoneham Way / Wessex Lane					
Stoneham Way SB Ahead	14.4	19.5	5	36%	NO
Stoneham Way SB Right Ahead	5.9	6.8	1	16%	YES
Stoneham Way SB Right Ahead	9.7	6.8	-3	-30%	NO
Bassett Green Road Left	14.6	12.5	-2	-14%	YES
Stoneham Way NB Ahead Left	9.8	10.5	1	7%	YES
Stoneham Way NB Ahead	12.0	10.5	-2	-13%	YES
Stoneham Way NB Right	11.8	11.2	-1	-5%	YES
Wessex Lane Right	3.8	3.0	-1	-21%	YES
Wide Lane Ahead Left Right	13.6	13.9	0	2%	YES
Wide Lane Right Ahead Left	0.0	1.6	2	0%	YES
Wide Lane Left	0.0	0.3	0	0%	YES
Mansbridge Roundabout					
Wide Lane N Right Left	0.5	0.2	0	-60%	YES

Lane	Observed (PCUs)	Modelled (PCUs)	Difference	%age Difference	Validates?
Mansbridge Road Right Left	0.6	0.2	0	-68%	YES
Wide Lane W Right Left	0.1	0.1	0	20%	YES

Table 4-25: Summary of DoS Validation Results – J07 AM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
Stoneham Way SB Ahead	82	80	-2	YES
Stoneham Way SB Right Ahead	70	71	1	YES
Stoneham Way SB Right Ahead	70	71	1	YES
Bassett Green Road Left	63	47	-16	NO
Stoneham Way NB Ahead Left	50	50	1	YES
Stoneham Way NB Ahead	40	48	8	YES
Stoneham Way NB Right	84	70	-15	NO
Wessex Lane Right	64	66	2	YES
Wide Lane Ahead Left Right	77	69	-8	YES
Wide Lane Right Ahead Left	38	25	-13	NO
Wide Lane Left	-	47	-	-

Table 4-26: Summary of DoS Validation Results – J07 PM Model

Lane	Observed (%)	Modelled (%)	Difference	Validates?
Stoneham Way SB Ahead	68	75	7	YES
Stoneham Way SB Right Ahead	68	59	-8	YES
Stoneham Way SB Right Ahead	68	59	-8	YES
Bassett Green Road Left	85	78	-7	YES
Stoneham Way NB Ahead Left	56	48	-7	YES
Stoneham Way NB Ahead	50	49	-1	YES
Stoneham Way NB Right	83	74	-9	YES
Wessex Lane Right	70	62	-7	YES
Wide Lane Ahead Left Right	74	83	9	YES
Wide Lane Right Ahead Left	40	29	-11	NO
Wide Lane Left	-	36	-	-

4.29 The queue results presented in the tables above show a good level of validation between the observed and modelled queues in the AM. However, the PM shows that the modelled and observed queue lengths differ on the Stoneham Way SB arm.

4.30 The DoS results presented in the tables above show a good level of validation between the observed and modelled DoS in both time periods, with no arm exceeding 15% difference. However, where the DoS difference exceeds 10%, the modelled queue data validates well. Therefore, this model can be considered fit for purpose in testing future scenarios.

Results Summary

4.31 The tables overleaf show the queue, and DoS results for each approach for all of the junctions, across both time periods. Full results can be found in **Appendices A-H**.

Table 4-27: Summary of base model results – J01 Model – Wide Lane/ South Street

Lane	AM Queue (PCUs)	AM DoS (%)	PM Queue (PCUs)	PM DoS (%)
A335 Southampton Road	7	47	10	65
A335 Wide Lane	21	83	13	75
South Street	6	89	3	63

Table 4-28: Summary of base model results – J02 Model – Wide Lane/ Southampton Airport Parkway

Lane	AM Queue (PCUs)	AM DoS (%)	PM Queue (PCUs)	PM DoS (%)
Wide Lane N	10	60	14	71
SAP Right	1	9	1	14
SAP Left	0	14	0	38
Wide Lane S	16	81	6	59

Table 4-29: Summary of base model results – J03 Model – A335/ Wide Lane (without Lane Simulation Mode)

Lane	AM Queue (PCUs)	AM RFC (%)	PM Queue (PCUs)	PM RFC (%)
A335 Wide Lane 1	0.5	32	0.7	41
A335 Wide Lane 2	3.7	77	11.5	95
Wide Lane - Lane 1	1.2	54	3.3	77
Wide Lane - Lane 2	1.3	57	0.5	36
A335 Lane 1	14.1	96	2.5	71
A335 Lane 2	2.5	71	1.5	59

4.32 The results summary for the same junction when using Lane Simulation mode is shown below.

Table 4-30: Summary of base model results – J03 Model – A335/ Wide Lane (Lane Simulation Mode)

Lane	AM Queue (PCUs)	AM RFC (%)	PM Queue (PCUs)	PM RFC (%)
A335 Wide Lane 1	0.5	33	0.7	42
A335 Wide Lane 2	5	78	15	96
Wide Lane - Lane 1	1.3	54	2.7	75
Wide Lane - Lane 2	2.5	69	0.8	42
A335 Lane 1	20.1	100	3.2	74
A335 Lane 2	3.2	73	2	64

Table 4-31: Summary of base model results – J04 Model – Spitfire Roundabout (without Lane Simulation Mode)

Lane	AM Queue (PCUs)	AM RFC (%)	PM Queue (PCUs)	PM RFC (%)
Wide Lane (N) Lane 1	1.0	54	1.1	57
Wide Lane (N) Lane 2	1.0	54	1.1	57
Mitchell Way (E) Lane 1	0.1	11	0.2	14
Mitchell Way (E) Lane 2	0.1	11	0.2	14
George Curl Way (S) Lane 1	0.1	6	0.2	16
George Curl Way (S) Lane 2	0.1	6	0.2	16
Wide Lane (W) Lane 1	0.9	50	0.5	35
Wide Lane (W) Lane 2	0.9	50	0.5	35

4.33 The results summary for the same junction when using Lane Simulation mode is shown below.

Table 4-32: Summary of base model results (Max Hourly Results) – J04 Model – Spitfire Roundabout (Lane Simulation Mode)

Lane	AM Queue (PCUs)	AM RFC (%)	PM Queue (PCUs)	PM RFC (%)
Wide Lane (N) Lane 1	1.2	51	0.4	26
Wide Lane (N) Lane 2	1.5	59	8.5	90
Mitchell Way (E) Lane 1	0.1	7	0.1	8
Mitchell Way (E) Lane 2	0.3	16	0.4	22
George Curl Way (S) Lane 1	0.1	10	0.3	26
George Curl Way (S) Lane 2	0.0	3	0.1	6
Wide Lane (W) Lane 1	4.0	79	1.3	55
Wide Lane (W) Lane 2	0.3	22	0.2	16

Table 4-33: Summary of base model results – J05 Model – Wide Lane/ Mount Park

Lane	AM Queue (PCUs)	AM DoS (%)	PM Queue (PCUs)	PM DoS (%)
Wide Lane N	5	38	11	72
Mountpark	1	44	2	64
Wide Lane S	9	66	4	41

Table 4-34: Summary of base model results – J06 Model – M27 J5

Lane	AM Queue (PCUs)	AM DoS (%)	PM Queue (PCUs)	PM DoS (%)
Stoneham Lane Ahead Left	10.2	79	10.1	76%
Stoneham Lane Ahead	6.6	70	5.6	59%
A335 (N) Left	0.1	20	0.2	31%
A335 (N) Ahead	9.2	84	8.5	83%
A335 (N) Ahead	8.5	81	7.3	76%
M27 (E) Off slip Left	0.3	41	0.2	31%

Lane	AM Queue (PCUs)	AM DoS (%)	PM Queue (PCUs)	PM DoS (%)
M27 (E) Off slip Ahead	7.6	79	4.3	57%
A335 Stoneham Way (S) Ahead Left	17.8	98	17.2	94
A335 Stoneham Way (S) Ahead	14.2	97	26.9	98
M27 (W) Off slip Ahead Left	7.2	70	5.5	73
M27 (W) Off slip Ahead	2.8	32	4.8	68
M27 (W) Off slip Ahead	9.3	83	12	96
NW Circulatory Ahead	11.8	70	7.5	63
NW Circulatory Right Ahead	11.4	57	10	65
NW Circulatory Right	6.7	37	2.7	44
NE Circulatory Ahead	6.8	50	10.5	63
NE Circulatory Ahead Ahead2	5.5	46	1.7	47
NE Circulatory Ahead	6.8	25	5.1	21
Eastern Circulatory Ahead	4.8	82	4.1	61
Eastern Circulatory Right Ahead	4.4	73	7.5	59
Eastern Circulatory Right	2.8	50	6.1	38
Southern Circulatory Ahead	0	7	0	7
Southern Circulatory Right Ahead	0.4	43	0.2	32
Southern Circulatory Right	0.2	26	0.1	18
Western Circulatory Ahead	9.1	53	5.2	36
Western Circulatory Right Ahead	9.6	57	5.4	44
Western Circulatory Right	8	50	5.8	53
Stoneham Lane Ahead Left	10.2	79	10.1	76
Stoneham Lane Ahead	6.6	70	5.6	59

Table 4-35: Summary of base model results – J07 Model – Stoneham Way / Wide Lane / Wessex Lane and Wide Lane / Mansbridge Road

Lane	AM Queue (PCUs)	AM DoS (%)	PM Queue (PCUs)	PM DoS (%)
Stoneham Way NB Ahead Left	12.4	50.8	10.5	48.1
Stoneham Way NB Ahead	12	48.3	11.2	48.8
Stoneham Way NB Right	9.5	77.3	9.8	74.3
Wide Lane Left	0.5	45.8	0.3	36.2
Bassett Green Road Left	6	47.2	12.5	77.6
Stoneham Way SB Ahead	25.2	79.9	19.5	74.7
Stoneham Way SB Right Ahead	8.3	72.4	6.8	59.3
Wide Lane Right Ahead Left	2.4	29.7	1.6	29.3
Wide Lane Ahead	10.3	32.5	0.1	19
The Fleming Arms Right Ahead Left	0	0	0	0.7
Wessex Lane Right	3.2	61.3	3	62.3
Wide Lane Ahead Left Right	13.5	65.9	13.9	83.4
Wide Lane Right Left	0.1	21.5	0.2	26.2
Mansbridge Road Right Left	0.4	42	0.2	23.9
Mansbridge Road	0.1	16.3	0.1	21.5

4.34 The DoS results show that most junctions are currently operating below their practical capacity except for J03 A335 / Wide Lane roundabout. In particular, the A335 Lane 1 (western arm) is operating at its theoretical capacity in the AM (100% RFC). It was noted through site observations that queuing can extend back towards the M27 roundabout and is mostly caused by the blocking back from J02 – Wide Lane/ Southampton Airport Parkway. The A335 Wide Lane 2 (western arm) is over practical capacity in the PM (96% RFC), and this has a knock-on effect on the traffic turning left out of Southampton Airport Parkway heading towards the M27.

The 2025 models also show that most arms operate below their practical capacity. However, there are a few arms from M27 J5 model that operate close to theoretical capacity such as the A335 Stoneham Way (S) Ahead left and ahead, in both the AM and PM peaks, and the and the M27 (W) offslip ahead in the PM peak.

5 Forecast Modelling

Scenarios

5.1 Using the validated base local junction models as the basis for the future year forecast modelling, five future demand scenarios were tested. The modelled scenarios are summarised in **Table 5-1**.

Table 5-1: Forecast modelled scenarios

Scenario	Demand	Network
2025 Baseline**	Uplifted base flows to current year	Same as base (except for J05 model*)
2028 Baseline	Uplifted base flows to future 2028 flows	Same as base (except for J05 model*)
2028 Baseline + Proposed Development	Uplifted base flows to future 2028 flows + development trips	Same as base (except for J05 model*)
2036 Baseline	Uplifted base flows to future 2036 flows	Same as base (except for J05 model*)
2036 Baseline + Proposed Development	Uplifted base flows to future 2036 flows + development trips	Same as base (except for J05 model*)

* As requested by Hampshire CC, J05 future models include the priority junction for access to the coffee drive through
** Only applies to 2023 models

2023 Model Forecast Results

J01 – Wide Lane / South Street

5.2 The junction capacity assessment results for this junction are shown in the tables below. See **Appendix A** for the full output results.

Table 5-2: Forecast Results – J01 AM Model – Wide Lane/ South Street

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	A335 Southampton Road	49	1.5	7.6
	A335 Wide Lane	87	6.0	24.2
	South Street	80	3.2	4.8
2028 Baseline	A335 Southampton Road	51	1.6	8.1
	A335 Wide Lane	90	7.3	27.2
	South Street	81	3.3	5.0

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline + Proposed Development	A335 Southampton Road	54	1.7	8.8
	A335 Wide Lane	91	8.0	28.8
	South Street	82	3.5	5.2
2036 Baseline	A335 Southampton Road	55	1.8	8.9
	A335 Wide Lane	97	14.4	40.1
	South Street	86	4.0	5.8
2036 Baseline + Proposed Development	A335 Southampton Road	58	2.0	9.9
	A335 Wide Lane	98	17.3	44.0
	South Street	87	4.1	5.9

Table 5-3: Forecast Results – J01 PM Model -Wide Lane/ South Street

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	A335 Southampton Road	66	2.5	10.5
	A335 Wide Lane	77	3.7	14.4
	South Street	65	1.7	2.7
2028 Baseline	A335 Southampton Road	69	2.7	11.4
	A335 Wide Lane	81	4.2	15.8
	South Street	66	1.8	2.8
2028 Baseline + Proposed Development	A335 Southampton Road	69	2.8	11.5
	A335 Wide Lane	84	4.8	17.6
	South Street	66	1.8	2.8
2036 Baseline	A335 Southampton Road	74	3.2	13.0
	A335 Wide Lane	88	6.2	20.8
	South Street	70	2.0	3.1
2036 Baseline + Proposed Development	A335 Southampton Road	74	3.3	13.4
	A335 Wide Lane	91	7.4	22.9
	South Street	70	2.0	3.1

5.3 The results show that even by 2028 Baseline, the junction will be at practical capacity in the AM period on the A335 Wide Lane south arm, regardless of the Proposed Development trips. The junction will also be approaching practical capacity in the 2036 Baseline and the additional Proposed Development trips, will not significantly exacerbate the capacity issues.

J02 – Wide Lane / Southampton Airport Parkway

5.4 The junction capacity assessment results for this junction are shown in the tables below. See **Appendix B** for full output files.

Table 5-4: Forecast Results – J02 AM Model – Wide Lane/ Southampton Airport Parkway

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	Wide Lane N	58	1.8	9.0
	SAP Right	13	0.3	0.6
	SAP Left	15	0.1	0.1
	Wide Lane S	80	3.0	13.1
2028 Baseline	Wide Lane N	59	1.9	9.6
	SAP Right	13	0.3	0.6
	SAP Left	15	0.1	0.1
	Wide Lane S	83	3.6	15.4
2028 Baseline + Proposed Development	Wide Lane N	62	2.2	10.6
	SAP Right	13	0.3	0.6
	SAP Left	16	0.1	0.1
	Wide Lane S	84	3.9	16.2
2036 Baseline	Wide Lane N	64	2.3	11.1
	SAP Right	13	0.3	0.7
	SAP Left	17	0.1	0.1
	Wide Lane S	90	5.6	22.1
2036 Baseline + Proposed Development	Wide Lane N	67	2.5	12
	SAP Right	13	0.3	0.7
	SAP Left	17	0.1	0.1
	Wide Lane S	91	6.3	23.6

Table 5-5: Forecast Results – J02 PM Model - Wide Lane/ Southampton Airport Parkway

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	Wide Lane N	69	2.5	12.4
	SAP Right	19	0.5	0.9
	SAP Left	38	0.3	0.3
	Wide Lane S	58	1.2	4.8
	Wide Lane N	71	2.8	13.2

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline	SAP Right	19	0.5	1.0
	SAP Left	40	0.3	0.3
	Wide Lane S	61	1.4	5.3
2028 Baseline + Proposed Development	Wide Lane N	72	2.9	13.6
	SAP Right	19	0.5	1.0
	SAP Left	41	0.3	0.3
	Wide Lane S	63	1.5	5.6
2036 Baseline	Wide Lane N	76	3.4	15.6
	SAP Right	20	0.5	1
	SAP Left	44	0.4	0.4
	Wide Lane S	66	1.8	6.9
2036 Baseline + Proposed Development	Wide Lane N	77	3.5	15.8
	SAP Right	20	0.5	1.0
	SAP Left	44	0.4	0.4
	Wide Lane S	69	2.0	7.3

5.5 The results show that by the 2036 Baseline, the junction will be at practical capacity in the AM period regardless of the Proposed Development trips. This is due to the traffic on Wide Lane south. This is significant because the resultant queues, will block back onto the A335 / Wide Lane roundabout, having a knock-on impact on congestion at that junction.

J03 – A335 / Wide Lane Roundabout

5.6 The junction capacity assessment results for this junction are shown in the tables below. These results are based on the re-assessment using Lane Simulation mode as requested by HCC. The full output files are included in **Appendix D**.

Table 5-6: Forecast Results – J03 AM Model – A335/ Wide Lane Roundabout – without Mitigation

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2025 Baseline	1/1 - Wide Lane (NE)	0.33	7.08	0.5
	1/2 - Wide Lane (NE)	0.78	28.37	5
	2/1 - Wide Lane (S)	0.54	11.11	1.3
	2/2 - Wide Lane (S)	0.69	15.00	2.5
	3/1 - A335 (NW)	1.00	85.35	20.1
	3/2 - A335 (NW)	0.73	16.96	3.2
2028 Baseline	1/1 - Wide Lane (NE)	0.38	8.09	0.6
	1/2 - Wide Lane (NE)	0.86	41.88	8.5
	2/1 - Wide Lane (S)	0.64	15.69	2.3

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
	2/2 - Wide Lane (S)	0.76	18.46	3
	3/1 - A335 (NW)	1.06	139.97	34.9
	3/2 - A335 (NW)	0.86	38.49	8.6
2028 Baseline + Proposed Development	1/1 - Wide Lane (NE)	0.47	9.86	0.9
	1/2 - Wide Lane (NE)	0.93	62.19	11.9
	2/1 - Wide Lane (S)	0.84	30.56	5.6
	2/2 - Wide Lane (S)	0.79	20.46	3.4
	3/1 - A335 (NW)	1.06	125.41	34.1
	3/2 - A335 (NW)	1.18	308.82	80.1
2036 Baseline	1/1 - Wide Lane (NE)	0.44	9.20	0.8
	1/2 - Wide Lane (NE)	0.93	62.71	11.3
	2/1 - Wide Lane (S)	0.76	21.90	3.6
	2/2 - Wide Lane (S)	0.86	33.05	6.6
	3/1 - A335 (NW)	1.15	251.44	65.7
	3/2 - A335 (NW)	1.04	113.24	28.3
2036 Baseline + Proposed Development	1/1 - Wide Lane (NE)	0.51	10.73	1.3
	1/2 - Wide Lane (NE)	0.95	79.50	15.5
	2/1 - Wide Lane (S)	0.96	65.71	14.2
	2/2 - Wide Lane (S)	0.88	36.05	7
	3/1 - A335 (NW)	1.14	251.97	64.1
	3/2 - A335 (NW)	1.35	704.24	165.8

Table 5-7: Forecast Results – J03 PM Model – A335/ Wide Lane Roundabout – without Mitigation

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2025 Baseline	1/1 - Wide Lane (NE)	0.42	7.88	0.7
	1/2 - Wide Lane (NE)	0.96	69.27	15
	2/1 - Wide Lane (S)	0.75	17.71	2.7
	2/2 - Wide Lane (S)	0.42	8.34	0.8
	3/1 - A335 (NW)	0.74	18.03	3.2
	3/2 - A335 (NW)	0.64	11.69	2

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2028 Baseline	1/1 - Wide Lane (NE)	0.48	9.10	0.9
	1/2 - Wide Lane (NE)	1.05	119.22	28.6
	2/1 - Wide Lane (S)	0.86	35.62	6.9
	2/2 - Wide Lane (S)	0.49	10.26	1.1
	3/1 - A335 (NW)	0.79	20.46	4.2
	3/2 - A335 (NW)	0.73	16.30	2.9
2028 Baseline + Proposed Development	1/1 - Wide Lane (NE)	0.53	10.76	1.1
	1/2 - Wide Lane (NE)	1.10	196.79	48.3
	2/1 - Wide Lane (S)	1.16	305.34	67.5
	2/2 - Wide Lane (S)	0.53	10.53	1.2
	3/1 - A335 (NW)	0.81	23.29	4.8
	3/2 - A335 (NW)	0.92	48.53	11.5
2036 Baseline	1/1 - Wide Lane (NE)	0.51	10.37	1.1
	1/2 - Wide Lane (NE)	1.13	221.80	56.5
	2/1 - Wide Lane (S)	1.02	110.80	24.6
	2/2 - Wide Lane (S)	0.57	11.70	1.5
	3/1 - A335 (NW)	0.86	31.28	6.9
	3/2 - A335 (NW)	0.84	25.00	5.1
2036 Baseline + Proposed Development	1/1 - Wide Lane (NE)	0.57	12.58	1.2
	1/2 - Wide Lane (NE)	1.21	375.27	77
	2/1 - Wide Lane (S)	1.31	656.76	140.6
	2/2 - Wide Lane (S)	0.62	13.44	1.8
	3/1 - A335 (NW)	0.90	35.47	8.2
	3/2 - A335 (NW)	1.04	122.17	32.9

5.7 The results show that even in the 2025 Baseline, the junction will be approaching/ at theoretical capacity in both peak periods – 1.0 RFC on A335 NW arm in AM peak and 0.96 RFC on Wide Lane NE arm in PM peak. In both the 2028 and 2036 Baseline scenarios the junction will also exceed theoretical capacity (>1.00 RFC's). In the 2036 Baseline AM peak the queue on the northwestern arm is c 378m (66 PCU) which extends back almost as far to the M27 J5 central junction circulation lanes (380m). The addition of the Proposed Development trips in the 2028 and 2036 Baseline + Proposed Development scenarios exacerbates this and means queues extend into the M27 J5 central circulation, with a queue of 953m (166 PCU) in the 2036 Baseline + Proposed Development AM peak scenario.

5.8 In the 2036 Baseline (without Proposed Development) PM peak scenario, the queue on the Wide Lane NE arm is c 325m (57 PCU) and on the Wide Lane S arm it is 142m (25 PCU). This is exacerbated by the Proposed Development and in the 2036 Baseline + Proposed Development PM peak the queue on the Wide Lane NE arm is 443m (77 PCU) and 809m (141 PCU) Wide Lane southern arm which would queue back to the Spitfire Roundabout and beyond.

5.9 It is important to mention that as the junction is over theoretical capacity, associated queues on the impacted arms are therefore increasing exponentially, which then rise further as a result of the Proposed Development in the 2028 and 2036 Baseline + Proposed Development scenarios.

5.10 Although the junction is clearly over theoretical capacity and failing in the Future Baseline, even without the additional Proposed Development trips, it is considered that mitigation will need to be explored for this junction, given that a high proportion of the Proposed Development trips will be passing through this junction to access either M27 J5 or to use Wide Lane or Stoneham Lane to access Eastleigh.

J03 A335/ Wide Lane Junction Mitigation Options

5.11 The following outlines the mitigation options that have been explored for the junction. The evolution of these options are detailed below.

J03 - A335/ Wide Lane Roundabout Mitigation Option

5.12 Due to the capacity issues recorded at all arms in the 2036 Baseline + Proposed Development scenarios, a fundamental re-design of the roundabout was initially considered in the June 2025 TA to mitigate these issues. These changes included:

- Addition of left-turn bypass on A335 (NW) arm.
  - This bypass would run parallel to the existing Wide Lane road until the next stop-line at the adjacent SAP junction, also resulting in increased capacity at this approach.
- Allowance of right-turners from the nearside lane on A335 (NW) arm.
- Replacement of nearside lane on Wide Lane (S) with left-turn bypass.
- Allowance of ahead movement on nearside lane on Wide Lane (NE) arm.

5.13 The full modelling results were included as Appendix Y (Highways Modelling Technical Note) in the original June 2025 TA.

5.14 However, this design was deemed unsuitable by HCC in their post application comments submitted on 8 August 2025.

J03 - A335/ Wide Lane - Signalised Mitigation Option 1

5.15 Following the HCC comments on the potential roundabout mitigation option Steer then tested an alternative mitigation option which replaced the priority roundabout with a signalised junction linked to the Southampton Airport Parkway signalised junction. This signalised junction includes the following network changes:

- Signalised stop-lines at all approaches.
- Left turn lane on A335 northwestern arm feeding into additional lane on the approach to the SAP junction (northeastern arm) (physical separation to stop traffic changing lanes to access SAP).
- Additional left turn lane flare on the northeastern arm approach – traffic destined for Wide Lane south.
- Two lane exits on the Wide Lane southern arm and the A335 northwestern arm.

5.16 The Proposed 2036 Baseline + Proposed Development modelling results based on this mitigation option are presented in **Table 5-8** and **Table 5-9** below. See **Appendix I** for full results and **Appendix I** for the proposed layout drawing.

Table 5-8: A335/ Wide Lane Junction Signal Mitigation Option 1 –2036 Baseline + Proposed Development - AM results

Scenario	Lane	DoS	Delay (pcuHr)	Queue (PCU)
2036 Baseline + Proposed Development	A335 Ahead Right	97	17.6	20.6
	Wide Lane NE - Entry Ahead Left	97	11.8	15.6
	Wide Lane NE - Entry Ahead	91	6.2	10.1
	Wide Lane S - Entry Left Right	99	19.6	26.6

Table 5-9: A335/ Wide Lane Junction Signal Mitigation Option 1 – 2036 Baseline = Proposed Development - PM results

Scenario	Lane	DoS	Delay (pcuHr)	Queue (PCU)
2036 Baseline + Proposed Development	A335 Ahead Right	83	8.3	10.5
	Wide Lane NE - Entry Ahead Left	88	6.9	12.3
	Wide Lane NE - Entry Ahead	77	3.8	9.1
	Wide Lane S - Entry Left Right	89	10.4	19.2

5.17 These results show that whilst the DoS exceeds practical capacity in the AM, it does not exceed theoretical capacity. The queue lengths are considerably lower and more manageable than the no mitigation scenario, with queues along the A335 reducing by approximately 140 PCUs in the AM peak. The PM peak shows the junction operating well within capacity with the mitigation in place.

5.18 The use of signals provides the flexibility to manage the control of the junction in real time.

5.19 This option was submitted to HCC for comment on 14 November 2025, with comments received on 25 November 2025. These comments are included in **Appendix J** and raised a number of issues with the proposed junction layout.

J03 - A335/ Wide Lane - Signalised Mitigation Option 2

5.20 Steer reviewed the comments received from HCC on 25 November 2025 Steer and have now proposed a revised signalised mitigation option for the junction. As with the previous signalised mitigation option the signals at the junction would be linked to the Southampton Airport Parkway signalised junction. This signalised junction includes the following network changes:

- Signalised stop-lines at all approaches.
- Dualling on the northwestern arm between the junction and M27 J5.
- Left turn lane on A335 northwestern arm feeding into additional lane on the approach to the SAP junction (northeastern arm) (physical separation to stop traffic changing lanes to access SAP).
- Additional left turn lane flare on the northeastern arm approach – traffic destined for Wide Lane south.

- Two lane exit on the Wide Lane southern arm, with these merging into one lane 75m south of the junction. This is a significant increase in the merge distance compared to Signalised Mitigation Option 1 which had a 40m merge distance, and the merge also occurs beyond the access junction to the station car park, which was identified as key issue in the HCC response to Option 1.

5.21 The full layout drawing is included in **Appendix K**. **Appendix K** also includes a version of the HCC comments from the **Appendix J** response, with Steer responses provided in red to outline how those points have been considered in the updated design. A Stage 1 Road Safety Audit will subsequently be undertaken for this design.

5.22 The Proposed 2036 Baseline + Proposed Development modelling results based on this mitigation option are presented in Table 5-10 and **Table 5-11** below. See **Appendix K** for full modelling results.

Table 5-10: A335/ Wide Lane Junction Signal Mitigation Option 2 –2036 Baseline + Proposed Development - AM results

Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Mean Max Queue (m)
A335 NW Ahead Ahead2 Right	105%	41	127	50	287
A335 NW Right	104%	24	142	30	175
Wide Lane NE - Entry Ahead Left	99%	13	72	17	97
Wide Lane NE - Entry Ahead	95%	8	82	12	66
Wide Lane S - Entry Left Right	103%	35	99	45	259

Table 5-11: A335/ Wide Lane Junction Signal Mitigation Option 2 – 2036 Baseline + Proposed Development - PM results

Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	Mean Max Queue (m)
A335 NW Ahead Ahead2 Right	89%	6	22	11	64
A335 NW Right	78%	5	35	11	61
Wide Lane NE - Entry Ahead Left	90%	7	30	13	72
Wide Lane NE - Entry Ahead	82%	5	38	10	60
Wide Lane S - Entry Left Right	92%	11	31	22	129

5.23 Although the proposed signalised junction is at theoretical capacity in the 2036 Baseline + Proposed Development, it is considered to provide an acceptable mitigation solution for the junction (compared to the existing roundabout layout) for the following reasons:

- Queues on the A335 NW arm in the AM Peak are lower than in the 2036 Baseline without mitigation (287m queue vs 378m queue in the 2036 Baseline without mitigation) and are also lower than in the 2036 Baseline + Development minus mitigation AM peak (953m queue) – see **Table 5-6**. The 287m queue, therefore, does not extend back to M27 J5 which is a c380m distance from the Wide Lane junction).
- Queues on Wide Lane NE arm in the AM peak (97m) are slightly higher than 2036 Baseline + Development without mitigation (89m) (see **Table 5-6**) but are not queuing back to the SAP signals (c. 117m from the junction).

- Queues on Wide Lane S arm in the AM peak are 259m, which are longer than the 2036 Baseline + Development without mitigation (82m) but do not extend back to the Spitfire roundabout (a c. 290m distance).
- The whole junction in the PM peak is performing better, than the existing roundabout would operate in the 2036 Baseline and 2036 Baseline + Development without mitigation scenarios.

J04 – Spitfire Roundabout

5.24 The junction capacity assessment results for this junction are shown in the tables below and overleaf. These results are based on the re-assessment using Lane Simulation mode as requested by HCC. The full model output files are included in **Appendix E**.

Table 5-12: Forecast Results – J05 AM Model – Spitfire Roundabout – without Mitigation

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2025 Baseline	1/1 - Wide Lane (N)	0.56	11.27	1.6
	1/2 – Wide Lane (N)	0.60	12.25	1.5
	2/1 - Mitchell Way (E)	0.09	5.48	0.2
	2/2 – Mitchell Way (E)	0.19	5.74	0.3
	3/1 - George Curl Way (S)	0.12	5.95	0.1
	3/2 – George Curl Way (S)	0.03	5.98	0.1
	4/1 - Wide Lane (W)	0.83	21.08	4.8
	4/2 – Wide Lane (W)	0.23	5.37	0.4
2028 Baseline	1/1 - Wide Lane (N)	0.63	14.64	2.1
	1/2 – Wide Lane (N)	0.66	14.04	1.8
	2/1 - Mitchell Way (E)	0.12	5.46	0.2
	2/2 – Mitchell Way (E)	0.25	6.48	0.4
	3/1 - George Curl Way (S)	0.11	6.19	0.2
	3/2 – George Curl Way (S)	0.03	6.65	0
	4/1 - Wide Lane (W)	0.85	25.14	5.7
	4/2 – Wide Lane (W)	0.29	5.70	0.5
2028 Baseline + Proposed Development	1/1 - Wide Lane (N)	1.06	169.48	39.9
	1/2 – Wide Lane (N)	0.68	18.01	2.1
	2/1 - Mitchell Way (E)	0.15	5.46	0.2
	2/2 – Mitchell Way (E)	0.47	10.67	1.3
	3/1 - George Curl Way (S)	0.13	6.93	0.2

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
	3/2 – George Curl Way (S)	0.04	7.02	0.1
	4/1 - Wide Lane (W)	0.92	41.19	9
	4/2 – Wide Lane (W)	0.42	7.66	0.8
2036 Baseline	1/1 - Wide Lane (N)	0.80	28.47	4.4
	1/2 – Wide Lane (N)	0.69	15.98	2.6
	2/1 - Mitchell Way (E)	0.18	5.87	0.3
	2/2 – Mitchell Way (E)	0.39	7.83	0.6
	3/1 - George Curl Way (S)	0.14	6.93	0.2
	3/2 – George Curl Way (S)	0.04	6.92	0.1
	4/1 - Wide Lane (W)	0.94	49.04	12
	4/2 – Wide Lane (W)	0.37	6.66	0.7
2036 Baseline + Proposed Development	1/1 - Wide Lane (N)	1.22	443.34	90.2
	1/2 – Wide Lane (N)	0.73	19.24	3.6
	2/1 - Mitchell Way (E)	0.22	5.92	0.3
	2/2 – Mitchell Way (E)	0.57	12.81	1.5
	3/1 - George Curl Way (S)	0.15	8.29	0.2
	3/2 – George Curl Way (S)	0.04	7.89	0.1
	4/1 - Wide Lane (W)	1.43	857.66	213.7
	4/2 – Wide Lane (W)	0.13	5.18	0.1

Table 5-13: Forecast Results – J05 PM Model – Spitfire Roundabout Without Mitigation

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2025 Baseline	1/1 - Wide Lane (N)	0.28	7.37	0.5
	1/2 – Wide Lane (N)	0.93	48.58	9.1
	2/1 - Mitchell Way (E)	0.09	5.32	0.2
	2/2 – Mitchell Way (E)	0.26	6.16	0.4
	3/1 - George Curl Way (S)	0.27	9.17	0.5
	3/2 – George Curl Way (S)	0.06	6.45	0.1
	4/1 - Wide Lane (W)	0.59	9.87	1.6
	4/2 – Wide Lane (W)	0.19	5.41	0.3

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2028 Baseline	1/1 - Wide Lane (N)	0.34	7.62	0.5
	1/2 – Wide Lane (N)	0.98	75.18	17.1
	2/1 - Mitchell Way (E)	0.13	5.37	0.2
	2/2 – Mitchell Way (E)	0.35	7.17	0.6
	3/1 - George Curl Way (S)	0.30	9.66	0.5
	3/2 – George Curl Way (S)	0.06	6.91	0.1
	4/1 - Wide Lane (W)	0.61	11.22	1.5
	4/2 – Wide Lane (W)	0.24	5.89	0.4
2028 Baseline + Proposed Development	1/1 - Wide Lane (N)	0.56	14.52	1.6
	1/2 – Wide Lane (N)	1.00	83.20	19.2
	2/1 - Mitchell Way (E)	0.22	5.77	0.3
	2/2 – Mitchell Way (E)	0.69	14.66	2.1
	3/1 - George Curl Way (S)	0.38	13.09	0.7
	3/2 – George Curl Way (S)	0.08	8.97	0.1
	4/1 - Wide Lane (W)	0.68	14.23	2.1
	4/2 – Wide Lane (W)	0.30	7.07	0.5
2036 Baseline	1/1 - Wide Lane (N)	0.44	9.05	0.8
	1/2 – Wide Lane (N)	1.06	154.44	36.6
	2/1 - Mitchell Way (E)	0.19	5.69	0.3
	2/2 – Mitchell Way (E)	0.50	9.17	1
	3/1 - George Curl Way (S)	0.36	11.59	0.6
	3/2 – George Curl Way (S)	0.07	7.71	0.1
	4/1 - Wide Lane (W)	0.68	13.95	2.1
	4/2 – Wide Lane (W)	0.35	7.07	0.6
2036 Baseline + Proposed Development	1/1 - Wide Lane (N)	0.67	17.51	3.0
	1/2 – Wide Lane (N)	1.07	155.11	36.7
	2/1 - Mitchell Way (E)	0.28	6.38	0.4
	2/2 – Mitchell Way (E)	0.82	26.60	5.0
	3/1 - George Curl Way (S)	0.44	17.05	1.0
	3/2 – George Curl Way (S)	0.09	10.33	0.1

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
	4/1 - Wide Lane (W)	1.12	205.66	49.3
	4/2 – Wide Lane (W)	0.06	5.81	0.1

5.25 The results show that the Spitfire Roundabout will be over practical capacity (0.94 RFC) on the Wide Lane western arm during the 2036 Baseline AM period (without development).

5.26 The addition of Navigator Quarter development trips (2036 Proposed Development scenario) exacerbates this if there is no mitigation at the junction:

- Increases the RFC to 1.22 in the AM peak (further over theoretical capacity) on the northern arm with a queue of 90 PCU (517m) which would queue back across the Wide Lane junction to the north.
- Increases the RFC to 1.43 in the AM peak on the western arm (Wide Lane west – towards Southampton) with a queue of 213 PCU.

5.27 The results also show that the Spitfire Roundabout will be at theoretical capacity (0.98 RFC) on the Wide Lane northern arm in the 2028 Future Base (without development) PM period, and operating over theoretical capacity (1.06 PCU) during the 2036 Future Baseline PM period (without development).

5.28 The addition of Navigator Quarter development trips (2036 Proposed Development scenario) exacerbates this if there is no mitigation at the junction:

- Increases the RFC to 1.07 in the PM peak (further over theoretical capacity) on the northern arm with a queue of 37 PCU.
- Increases the RFC to 1.12 in the PM peak on the western arm (Wide Lane west – towards Southampton) with a queue of 49 PCU.

5.29 Therefore, a series of mitigation options have been tested for this junction and are outlined subsequently within this note.

J04 - Spitfire Roundabout Mitigation Options

J04 – Spitfire Roundabout Mitigation Option 1 – Lane Reallocation

5.30 This mitigation option looked at rebalancing the flows of the lanes on the Wide Lane North and Wide Lane West arms by changing the lane markings as follows:

- Wide Lane North:
  - Lane 1 = Left and Ahead in Base, Left only in Mitigation Option
  - Lane 2 = Right only in Base, Ahead and Right in Mitigation Option
- Wide Lane West:
  - Lane 1 = Left and Ahead in Base, Left only in Mitigation Option
  - Lane 2 = Right only in Base, Ahead and Right in Mitigation Option

5.31 The junction capacity assessment results for this mitigation option in the Proposed 2036 scenario are shown in the table below. See **Appendix M** for full results.

Table 5-14: Spitfire Roundabout Mitigation Option 1 – 2036 Baseline + Development results

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2036 Baseline + Proposed Development AM	1/1 - Wide Lane (N)	0.96	77.66	15.2
	1/2 – Wide Lane (N)	1.05	134.06	29.5
	2/1 - Mitchell Way (E)	0.21	5.91	0.3
	2/2 – Mitchell Way (E)	0.59	12.84	1.7
	3/1 - George Curl Way (S)	0.14	7.73	0.2
	3/2 – George Curl Way (S)	0.04	7.52	0.1
	4/1 - Wide Lane (W)	1.10	186.06	51.0
	4/2 – Wide Lane (W)	0.43	8.11	0.9
2036 Baseline + Proposed Development PM	1/1 - Wide Lane (N)	0.62	16.59	2.1
	1/2 – Wide Lane (N)	1.13	245.80	55.9
	2/1 - Mitchell Way (E)	0.27	6.21	0.4
	2/2 – Mitchell Way (E)	0.80	25.48	4.4
	3/1 - George Curl Way (S)	0.44	16.74	0.9
	3/2 – George Curl Way (S)	0.09	9.67	0.1
	4/1 - Wide Lane (W)	0.84	28.32	5.0
	4/2 – Wide Lane (W)	0.36	7.98	0.6

5.32 The results show some improvement, particularly on Wide Lane (N) Lane 1 in the AM and Wide Lane (W) Lane 1 in the AM and PM. However, Wide Lane (N) Lane 2 is now over theoretical capacity in both AM and PM and Wide Lane (W) Lane 1 remains over theoretical capacity albeit with a 30% reduction in RFC. Therefore, this mitigation option is deemed to be insufficient in addressing capacity issues.

Mitigation Option 2a – Lane Reallocation and Wide Lane (N) Flare Extension retaining the Unsignalised Pedestrian/ Cycle Crossing on the Wide Lane Northern Arm.

5.33 This mitigation option applied the same lane reallocation as described in Mitigation Option 1 as well as a flare extension (to 22m) and entry width extension on the Wide Lane North arm. However, it assumes that the existing pedestrian/ cycle crossing on the Wide Lane northern arm remains unsignalised, with the central pedestrian refuge retained with revisions to its layout. The conceptual junction layout design is included in **Appendix N**.

5.34 The full junction modelling results are also included in **Appendix N.**

Table 5-15: Spitfire Roundabout Mitigation Option 2a – Proposed 2036 results

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2036 Baseline + Proposed Development AM	1/1 - Wide Lane (N)	0.85	29.31	6.40
	1/2 – Wide Lane (N)	0.92	49.13	9.80
	2/1 - Mitchell Way (E)	0.22	6.23	0.40
	2/2 – Mitchell Way (E)	0.60	13.18	2.00
	3/1 - George Curl Way (S)	0.14	7.84	0.20
	3/2 – George Curl Way (S)	0.04	7.49	0.10
	4/1 - Wide Lane (W)	1.12	187.23	51.30
	4/2 – Wide Lane (W)	0.42	8.07	0.90
2036 Baseline + Proposed Development PM	1/1 - Wide Lane (N)	0.54	11.03	1.6
	1/2 – Wide Lane (N)	0.98	85.20	20.8
	2/1 - Mitchell Way (E)	0.28	6.32	0.4
	2/2 – Mitchell Way (E)	0.84	29.69	5.6
	3/1 - George Curl Way (S)	0.44	16.88	0.9
	3/2 – George Curl Way (S)	0.09	10.52	0.1
	4/1 - Wide Lane (W)	0.83	30.31	4.9
	4/2 – Wide Lane (W)	0.35	8.41	0.5

5.35 The results show that this improvement would significantly enhance the performance of the junction:

- Northern arm RFC reduces to 0.98 below theoretical capacity in the 2036 Baseline + Proposed Development PM peak scenario with a queue of 20.8 PCU (119m). This would queue back to the current bend on Wide Lane bridge, but importantly would not extend back to the Wide Lane junction.
- Western arm RFC still operates over theoretical capacity in the 2036 Baseline + Proposed Development AM peak scenario (1.12 RFC) but the queue is c 51m (294m). However, it is important to note that this would not queue back to the Mount Park junction (480m).

Mitigation Option 2b – Lane Reallocation, Wide Lane (N) Flare Extension and Signalised Crossing on Wide Lane North Arm

5.36 This mitigation option applied the same mitigation as described in Mitigation Option 2a but with a flare length of 21m on the Wide Lane northern arm, as well as installing a signalised pedestrian/ cycle crossing on the Wide Lane North arm.

5.37 The conceptual junction layout and modelling output files are included in **Appendix O.**

5.38 A Stage 1 Road Safety Audit will subsequently be undertaken of the mitigation options.

Table 5-16: Spitfire Roundabout Mitigation Option 2b – Proposed 2036 results

Scenario	Lane	RFC	Delay (s)	Queue (PCU)
2036 Baseline + Proposed Development AM	1/1 - Wide Lane (N)	0.73	12.49	2.3
	1/2 – Wide Lane (N)	0.82	13.48	2.50
	1/3 – Wide Lane (N) Crossing	-	279.3	105.50
	2/1 - Mitchell Way (E)	0.19	5.45	0.30
	2/2 – Mitchell Way (E)	0.54	13.39	1.50
	3/1 - George Curl Way (S)	0.13	7.19	0.20
	3/2 – George Curl Way (S)	0.03	6.69	0.00
	4/1 - Wide Lane (W)	1.09	230.01	61.90
	4/2 – Wide Lane (W)	0.43	8.02	0.70
2036 Baseline + Proposed Development PM	1/1 - Wide Lane (N)	0.51	10.04	1.20
	1/2 – Wide Lane (N)	0.91	14.58	3.00
	1/3 – Wide Lane (N) Crossing	-	166.45	64.50
	2/1 - Mitchell Way (E)	0.26	5.94	0.40
	2/2 – Mitchell Way (E)	0.78	30.38	6.50
	3/1 - George Curl Way (S)	0.41	16.63	0.90
	3/2 – George Curl Way (S)	0.09	9.68	0.10
	4/1 - Wide Lane (W)	0.83	41.90	6.30
	4/2 – Wide Lane (W)	0.36	8.18	0.60

5.39 The results show that the addition of the signalised crossing increases the length of queue in the 2036 Baseline + Proposed Development AM scenario on the western arm to 61.9 PCU (356m) but also results in a significantly large queue on the northern arm (105.5 PCU – 607m) – back from the signalised crossing stop line which would extend into and beyond the A335 / Wide Lane junction. It should, however, be noted that the capacity modelling assumes a flat arrival profile of vehicles arriving from the Wide Lane junction to the north. If that junction were to be signalised it could potentially result in a more dispersed arrival profile.

J05 – Wide Lane / Mountpark

5.40 The junction capacity results for this junction are shown in the tables as follows. The full output files are in **Appendix F**.

Table 5-17: Forecast Results – J05 AM Model – Wide Lane/ Mount Park

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	Wide Lane N	40	1.2	5.2
	Mountpark	44	0.8	1.4
	Wide Lane S	68	2.2	10.4
2028 Baseline	Wide Lane N	44	1.4	5.9
	Mountpark	46	0.9	1.4
	Wide Lane S	72	2.5	11.8
2028 Baseline + Proposed Development	Wide Lane N	46	1.5	6.1
	Mountpark	46	0.9	1.4
	Wide Lane S	78	3.3	14.9
2036 Baseline	Wide Lane N	51	1.7	7.1
	Mountpark	49	1.0	1.5
	Wide Lane S	79	3.5	15.4
2036 Baseline + Proposed Development	Wide Lane N	52	1.8	7.4
	Mountpark	49	1.0	1.5
	Wide Lane S	85	4.8	19.7

Table 5-18: Forecast Results – J05 PM Model – Wide Lane/ Mount Park

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	Wide Lane N	77	4.1	11.0
	Mountpark	65	1.5	2.3
	Wide Lane S	44	1.3	4.7
2028 Baseline	Wide Lane N	83	5.1	12.8
	Mountpark	66	1.6	2.3
	Wide Lane S	50	1.5	5.5
2028 Baseline + Proposed Development	Wide Lane N	90	7.5	16.6
	Mountpark	66	1.6	2.4
	Wide Lane S	51	1.6	5.9
2036 Baseline	Wide Lane N	92	8.4	17.7
	Mountpark	70	1.8	2.6
	Wide Lane S	57	2.0	7.0
2036 Baseline + Proposed Development	Wide Lane N	99	17.7	28.5
	Mountpark	71	1.8	2.7
	Wide Lane S	58	2.1	7.2

5.41 The results demonstrate that this junction would perform within capacity within all scenarios, during the AM peak period. However, during the PM peak the junction would be at practical capacity on one arm in the 2028 Proposed Development scenario and going forwards.

5.42 As a result, and as requested by SCC on 29th August 2025, the cycle time has been increased by 24 seconds to 82 seconds in the PM to better reflect how MOVA might operate in reality when flow patterns have changed in the future. The result of this mitigation is shown in **Table 5-19.** This significantly enhances the performance of the junction and ensures that it operates within capacity in all scenarios.

Table 5-19: Wide Lane/ Mount Park Mitigation Option – Forecast PM results

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2025 Baseline	Wide Lane N	77	4.1	11.0
	Mountpark	65	1.5	2.3
	Wide Lane S	44	1.3	4.7
2028 Baseline	Wide Lane N	66	3.2	12.3
	Mountpark	66	1.9	3.0
	Wide Lane S	44	1.3	5.9
2028 Baseline + Proposed Development	Wide Lane N	72	3.8	14.3
	Mountpark	67	1.9	3.0
	Wide Lane S	45	1.3	6.3
2036 Baseline	Wide Lane N	73	4.0	14.9
	Mountpark	71	2.1	3.3
	Wide Lane S	50	1.6	7.3
2036 Baseline + Proposed Development	Wide Lane N	79	4.9	17.5
	Mountpark	71	2.2	3.3
	Wide Lane S	51	1.7	7.7

2025 Model Future Forecast Results

J06 - M27 J5

5.43 The junction capacity results for this junction are shown in the tables below. These results are based on the re-assessment using modified parameters as requested by National Highways (see Table 1.1). The full modelling output files are included in **Appendix G**.

Table 5-20: Forecast Results – J06 AM Model – M27 J5

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline	Stoneham Lane Ahead Left	85.4%	6.3	12.4
	Stoneham Lane Ahead	66.9%	4.5	6.5
	A335 (N) Left	20.4%	0.1	0.1
	A335 (N) Ahead	70.5%	4.2	9.2
	A335 (N) Ahead	45.1%	2.2	5.2
	M27 (E) Off slip Left	40.9%	0.3	0.3
	M27 (E) Off slip Ahead	78.2%	5.3	7.8
	A335 Stoneham Way (S) Ahead Left	101.6%	18.6	57.7
	A335 Stoneham Way (S) Ahead	100.2%	14.5	48.5
	M27 (W) Off slip Ahead Left	42.6%	2.0	4.6
	M27 (W) Off slip Ahead	46.1%	2.2	5.0
	M27 (W) Off slip Ahead	66.5%	3.5	7.6
	NW Circulatory Ahead	66.7%	1.9	7.7
	NW Circulatory Right Ahead	61.5%	1.7	9.0
	NW Circulatory Right	44.2%	0.6	7.0
	NE Circulatory Ahead	55.8%	1.4	11.2
	NE Circulatory Ahead Ahead2	59.1%	1.2	7.2
	NE Circulatory Ahead	26.9%	0.0	0.1
	Eastern Circulatory Ahead	77.7%	2.0	6.0
	Eastern Circulatory Right Ahead	93.7%	2.8	6.5
	Eastern Circulatory Right	45.4%	1.1	5.7

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Southern Circulatory Ahead	10.2%	0.1	0.1
	Southern Circulatory Right Ahead	41.8%	0.4	0.4
	Southern Circulatory Right	26.8%	0.2	0.2
	Western Circulatory Ahead	59.1%	2.5	10.8
	Western Circulatory Right Ahead	64.0%	2.7	10.5
	Western Circulatory Right	54.0%	2.0	7.5
2028 Baseline + Proposed Development	Stoneham Lane Ahead Left	85.2%	6.3	12.8
	Stoneham Lane Ahead	70.0%	5.0	6.7
	A335 (N) Left	23.8%	0.2	0.2
	A335 (N) Ahead	66.3%	3.9	9.0
	A335 (N) Ahead	51.1%	2.7	6.5
	M27 (E) Off slip Left	40.9%	0.3	0.3
	M27 (E) Off slip Ahead	78.4%	5.6	7.9
	A335 Stoneham Way (S) Ahead Left	106.6%	33.5	71.6
	A335 Stoneham Way (S) Ahead	105.5%	25.7	57.8
	M27 (W) Off slip Ahead Left	40.5%	2.0	5.4
	M27 (W) Off slip Ahead	32.7%	1.5	4.1
	M27 (W) Off slip Ahead	46.8%	2.4	6.1
	NW Circulatory Ahead	70.1%	2.5	8.6
	NW Circulatory Right Ahead	71.3%	2.7	9.7
	NW Circulatory Right	45.6%	1.5	8.8

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	NE Circulatory Ahead	50.9%	1.3	9.2
	NE Circulatory Ahead Ahead2	64.9%	0.9	6.6
	NE Circulatory Ahead	30.5%	0.3	5.5
	Eastern Circulatory Ahead	71.1%	2.0	6.6
	Eastern Circulatory Right Ahead	99.9%	2.9	7.1
	Eastern Circulatory Right	57.6%	1.2	7.0
	Southern Circulatory Ahead	10.2%	0.1	0.1
	Southern Circulatory Right Ahead	45.1%	0.4	0.4
	Southern Circulatory Right	30.6%	0.2	0.2
	Western Circulatory Ahead	70.4%	5.4	14.5
	Western Circulatory Right Ahead	73.3%	4.9	13.6
	Western Circulatory Right	76.1%	4.5	13.0
2036 Baseline	Stoneham Lane Ahead Left	82.4%	5.7	11.8
	Stoneham Lane Ahead	67.6%	4.8	6.5
	A335 (N) Left	22.3%	0.1	0.1
	A335 (N) Ahead	63.1%	3.6	8.7
	A335 (N) Ahead	49.0%	2.5	6.3
	M27 (E) Off slip Left	43.0%	0.4	0.4
	M27 (E) Off slip Ahead	81.1%	6.0	8.4
	A335 Stoneham Way (S) Ahead Left	112.0%	53.0	95.1
	A335 Stoneham Way (S) Ahead	111.1%	41.0	73.3

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	M27 (W) Off slip Ahead Left	52.9%	2.5	5.7
	M27 (W) Off slip Ahead	55.1%	2.7	6.0
	M27 (W) Off slip Ahead	73.6%	4.1	8.5
	NW Circulatory Ahead	71.5%	2.0	8.4
	NW Circulatory Right Ahead	66.5%	1.9	10.0
	NW Circulatory Right	47.1%	0.8	8.7
	NE Circulatory Ahead	57.2%	2.0	11.3
	NE Circulatory Ahead Ahead2	66.5%	1.2	6.0
	NE Circulatory Ahead	32.0%	0.3	5.9
	Eastern Circulatory Ahead	73.1%	2.2	6.6
	Eastern Circulatory Right Ahead	100.1%	3.1	7.5
	Eastern Circulatory Right	60.3%	1.3	7.0
	Southern Circulatory Ahead	8.7%	0.0	0.0
	Southern Circulatory Right Ahead	47.1%	0.4	0.4
	Southern Circulatory Right	29.4%	0.2	0.2
	Western Circulatory Ahead	59.4%	2.5	11.0
	Western Circulatory Right Ahead	63.4%	2.6	10.7
	Western Circulatory Right	53.7%	2.0	7.4
2036 Baseline + Proposed Development	Stoneham Lane Ahead Left	85.4%	6.4	12.8
	Stoneham Lane Ahead	76.2%	5.8	8.0

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	A335 (N) Left	25.6%	0.2	0.2
	A335 (N) Ahead	74.4%	4.7	10.7
	A335 (N) Ahead	54.6%	2.9	7.0
	M27 (E) Off slip Left	43.0%	0.4	0.4
	M27 (E) Off slip Ahead	83.5%	6.7	9.1
	A335 Stoneham Way (S) Ahead Left	118.0%	73.5	122.3
	A335 Stoneham Way (S) Ahead	117.9%	56.6	83.9
	M27 (W) Off slip Ahead Left	62.3%	3.1	6.8
	M27 (W) Off slip Ahead	66.8%	3.5	7.4
	M27 (W) Off slip Ahead	77.9%	4.6	8.9
	NW Circulatory Ahead	76.8%	2.7	9.8
	NW Circulatory Right Ahead	68.5%	1.6	10.3
	NW Circulatory Right	50.4%	0.5	2.4
	NE Circulatory Ahead	44.9%	1.5	9.1
	NE Circulatory Ahead Ahead2	72.0%	1.3	5.4
	NE Circulatory Ahead	32.9%	0.5	6.4
	Eastern Circulatory Ahead	91.4%	2.2	6.0
	Eastern Circulatory Right Ahead	91.2%	3.2	9.2
	Eastern Circulatory Right	64.2%	2.2	7.0
	Southern Circulatory Ahead	11.3%	0.1	1.2
	Southern Circulatory Right Ahead	48.7%	0.5	0.5

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Southern Circulatory Right	32.6%	0.2	0.2
	Western Circulatory Ahead	59.6%	3.2	10.1
	Western Circulatory Right Ahead	62.9%	3.2	10.7
	Western Circulatory Right	54.0%	2.5	8.1

Table 5-21: Forecast Results – J06 PM Model – M27 J5

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline	Stoneham Lane Ahead Left	86.0%	6.4	12.5
	Stoneham Lane Ahead	60.5 : 60.5%	3.7	5.8
	A335 (N) Left	32.0%	0.2	0.2
	A335 (N) Ahead	63.4%	3.3	7.3
	A335 (N) Ahead	52.9%	2.6	5.9
	M27 (E) Off slip Left	31.4%	0.2	0.2
	M27 (E) Off slip Ahead	49.6%	2.3	3.8
	A335 Stoneham Way (S) Ahead Left	96.7%	9.2	23.2
	A335 Stoneham Way (S) Ahead	102.3%	20.2	67.2
	M27 (W) Off slip Ahead Left	54.1%	2.4	5.1
	M27 (W) Off slip Ahead	39.4%	1.6	3.5
	M27 (W) Off slip Ahead	62.9%	3.1	6.4
	NW Circulatory Ahead	67.4%	1.4	6.8
	NW Circulatory Right Ahead	61.1%	1.7	7.8
	NW Circulatory Right	43.4%	0.6	2.1
	NE Circulatory Ahead	72.1%	1.5	13.5
	NE Circulatory Ahead Ahead2	48.7%	1.9	6.4
	NE Circulatory Ahead	27.2%	0.3	1.0
	Eastern Circulatory Ahead	86.4%	1.4	4.8

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Eastern Circulatory Right Ahead	86.9%	1.6	6.3
	Eastern Circulatory Right	64.4%	0.7	2.5
	Southern Circulatory Ahead	6.5%	0.0	0.0
	Southern Circulatory Right Ahead	35.1%	0.3	0.3
	Southern Circulatory Right	17.3%	0.1	0.1
	Western Circulatory Ahead	44.3%	2.2	7.0
	Western Circulatory Right Ahead	48.0%	2.3	8.7
	Western Circulatory Right	58.5%	2.4	10.5
2028 Baseline + Proposed Development	Stoneham Lane Ahead Left	86.5%	6.6	12.8
	Stoneham Lane Ahead	60.6%	3.7	5.8
	A335 (N) Left	37.0%	0.3	0.3
	A335 (N) Ahead	62.5%	3.4	8.1
	A335 (N) Ahead	56.6%	3.0	7.1
	M27 (E) Off slip Left	31.4%	0.2	0.2
	M27 (E) Off slip Ahead	52.0%	2.5	4.1
	A335 Stoneham Way (S) Ahead Left	101.4%	17.8	60.0
	A335 Stoneham Way (S) Ahead	110.6%	45.5	89.8
	M27 (W) Off slip Ahead Left	61.0%	2.8	5.7
	M27 (W) Off slip Ahead	55.2%	2.4	5.0
	M27 (W) Off slip Ahead	66.8%	3.3	6.6
	NW Circulatory Ahead	74.6%	1.5	7.6
	NW Circulatory Right Ahead	63.1%	1.6	8.5
	NW Circulatory Right	41.6%	0.5	1.9
	NE Circulatory Ahead	73.8%	1.7	13.0
	NE Circulatory Ahead Ahead2	48.7%	2.3	6.5

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	NE Circulatory Ahead	30.8%	0.6	1.6
	Eastern Circulatory Ahead	83.0%	1.4	5.4
	Eastern Circulatory Right Ahead	99.6%	2.4	7.3
	Eastern Circulatory Right	77.4%	1.1	3.5
	Southern Circulatory Ahead	8.4%	0.0	0.0
	Southern Circulatory Right Ahead	39.0%	0.3	0.3
	Southern Circulatory Right	19.7%	0.1	0.1
	Western Circulatory Ahead	46.8%	2.2	7.6
	Western Circulatory Right Ahead	50.5%	2.4	9.3
	Western Circulatory Right	53.5%	1.9	9.0
2036 Baseline	Stoneham Lane Ahead Left	69.5%	3.9	9.1
	Stoneham Lane Ahead	74.8%	5.1	9.5
	A335 (N) Left	35.0%	0.3	0.3
	A335 (N) Ahead	58.3%	3.2	7.6
	A335 (N) Ahead	49.2%	2.5	6.2
	M27 (E) Off slip Left	33.0%	0.2	0.2
	M27 (E) Off slip Ahead	51.8%	2.5	4.1
	A335 Stoneham Way (S) Ahead Left	105.2%	29.2	74.7
	A335 Stoneham Way (S) Ahead	113.6%	57.2	103.8
	M27 (W) Off slip Ahead Left	57.0%	2.5	5.2
	M27 (W) Off slip Ahead	53.4%	2.3	4.8
	M27 (W) Off slip Ahead	70.1%	3.6	7.2
	NW Circulatory Ahead	73.1%	1.5	6.7
	NW Circulatory Right Ahead	62.6%	1.8	8.3
	NW Circulatory Right	48.9%	1.1	8.3

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	NE Circulatory Ahead	68.1%	2.5	11.3
	NE Circulatory Ahead Ahead2	71.7%	0.9	15.3
	NE Circulatory Ahead	23.7%	1.0	4.0
	Eastern Circulatory Ahead	93.0%	1.9	5.0
	Eastern Circulatory Right Ahead	98.6%	2.3	6.6
	Eastern Circulatory Right	66.8%	0.9	2.9
	Southern Circulatory Ahead	9.1%	0.1	0.1
	Southern Circulatory Right Ahead	36.5%	0.3	0.3
	Southern Circulatory Right	19.1%	0.1	0.1
	Western Circulatory Ahead	44.9%	1.7	7.5
	Western Circulatory Right Ahead	50.0%	1.9	8.3
	Western Circulatory Right	54.5%	2.1	8.5
2036 Baseline + Proposed Development	Stoneham Lane Ahead Left	68.8%	3.9	9.0
	Stoneham Lane Ahead	74.4%	5.1	9.2
	A335 (N) Left	39.9%	0.3	0.3
	A335 (N) Ahead	70.5%	4.3	9.8
	A335 (N) Ahead	54.9%	2.9	7.1
	M27 (E) Off slip Left	33.0%	0.2	0.2
	M27 (E) Off slip Ahead	106.0%	40.0	39.7
	A335 Stoneham Way (S) Ahead Left	110.5%	46.6	83.5
	A335 Stoneham Way (S) Ahead	118.5%	72.0	115.6
	M27 (W) Off slip Ahead Left	61.1%	3.0	6.6
	M27 (W) Off slip Ahead	44.3%	2.0	4.4
	M27 (W) Off slip Ahead	59.3%	2.9	6.4
	NW Circulatory Ahead	81.1%	1.7	10.1

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	NW Circulatory Right Ahead	72.8%	2.5	11.8
	NW Circulatory Right	38.2%	1.0	7.3
	NE Circulatory Ahead	74.9%	2.1	11.3
	NE Circulatory Ahead Ahead2	66.4%	0.5	15.1
	NE Circulatory Ahead	19.8%	1.1	4.5
	Eastern Circulatory Ahead	61.2%	0.4	3.0
	Eastern Circulatory Right Ahead	45.3%	0.7	5.3
	Eastern Circulatory Right	34.8%	0.2	0.9
	Southern Circulatory Ahead	13.6%	0.1	0.1
	Southern Circulatory Right Ahead	36.5%	0.3	0.3
	Southern Circulatory Right	20.4%	0.1	0.1
	Western Circulatory Ahead	48.8%	2.3	7.8
	Western Circulatory Right Ahead	52.4%	2.5	7.4
	Western Circulatory Right	57.3%	2.6	9.4

5.44 The modelling results indicate that the junction generally operates within acceptable capacity limits, in the 2025 and 2028 Baseline AM peak scenarios with most arms/ lanes staying below 90% DoS.

5.45 However, certain key movements experience increasing pressure over time. In the AM peak, DoS values exceed 100% by the 2036 Baseline on the A335 Stoneham Way arm and on the Eastern Circulatory section. In the 2036 Baseline + Proposed Development AM peak scenario, the DoS values exceed 100% on the A335 Stoneham Way S arm and 90% on the Eastern Circulatory.

5.46 In the PM peak, the DoS levels are generally higher than in the AM peak. In the 2028 Baseline PM peak the DoS is forecast to exceed 100% on A335 Stoneham Way S arm and 99% on the Eastern Circulatory. This increases further in the 2028 Baseline + Proposed Development PM peak scenario.

5.47 In the 2036 Baseline PM peak, the A335 Stoneham Way ahead arm is forecast to be at 113% DoS, and the Eastern Circulatory is forecast to be at 98.6% DoS, and therefore the junction will be operating above theoretical capacity even before Proposed Development trips are added. Therefore, the theoretical capacity is also forecast to be exceeded in the 2036 Baseline + Proposed Development scenario on the A335 Stoneham Way S arm (118% DoS) and the DoS also exceeds 90% on the Eastern Circulatory.

J07 - Stoneham Way / Wide Lane / Wessex Lane and Wide Lane / Mansbridge Road

5.48 The junction capacity results for this junction are shown in the tables below.

Table 5-22: Forecast Results – J07 AM Model – Stoneham Way / Wide Lane / Wessex Lane and Wide Lane / Mansbridge Road

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	50.8	2.7	12.4
	Stoneham Way NB Ahead	48.3	2.6	12
	Stoneham Way NB Right	77.3	4.9	9.5
	Wide Lane Left	45.8	0.4	0.5
	Bassett Green Road Left	47.2	2.6	6
	Stoneham Way SB Ahead	79.9	6	25.2
	Stoneham Way SB Right Ahead	72.4	5	8.3
	Wide Lane Right Ahead Left	29.7	1.4	2.4
	Wide Lane Ahead	32.5	0.5	10.3
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	61.3	1.9	3.2
	Wide Lane Ahead Left Right	65.9	4.9	13.5
2028 Baseline		**Mansbridge Roundabout**		
	Wide Lane Right Left	21.5	0.1	0.1
	Mansbridge Road Right Left	42	0.4	0.4
	Mansbridge Road	16.3	0.1	0.1
	Wide Lane Right Left	20.4	0.1	0.1
2028 Baseline + Proposed Development		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	52.1	2.9	12.9
	Stoneham Way NB Ahead	49.7	2.8	12.6

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Stoneham Way NB Right	80.6	5.6	10.9
	Wide Lane Left	48.2	0.5	0.5
	Bassett Green Road Left	44	2.5	5.8
	Stoneham Way SB Ahead	78.1	5.8	23.9
	Stoneham Way SB Right Ahead	70.9	5.1	8.3
	Wide Lane Right Ahead Left	32.7	1.4	2.6
	Wide Lane Ahead	32.9	0.5	10.8
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	62.1	2	3.3
	Wide Lane Ahead Left Right	70.1	5.4	14.3
2028 Baseline + Proposed Development		**Mansbridge Roundabout**		
	Wide Lane Right Left	22.4	0.1	0.1
	Mansbridge Road Right Left	46.9	0.4	0.4
	Mansbridge Road	16.5	0.1	0.1
	Wide Lane Right Left	26.3	0.2	0.2
2036 Baseline		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	54	3	13.8
	Stoneham Way NB Ahead	51.7	2.9	13.3
	Stoneham Way NB Right	83.1	5.9	11.2
	Wide Lane Left	50.7	0.5	0.5
	Bassett Green Road Left	47.9	2.7	6.3
	Stoneham Way SB Ahead	81.1	6.4	26.2
	Stoneham Way SB Right Ahead	75.8	5.7	9
	Wide Lane Right Ahead Left	32.8	1.6	2.8

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Wide Lane Ahead	35.6	0.6	12.2
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	64.5	2.1	3.5
	Wide Lane Ahead Left Right	73	5.9	15.4
		Mansbridge Roundabout		
	Wide Lane Right Left	26.5	0.2	0.2
	Mansbridge Road Right Left	48.1	0.5	0.5
	Mansbridge Road	19.3	0.1	0.1
	Wide Lane Right Left	23.9	0.2	0.2
2036 Baseline + Proposed Development		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	55.4	3.2	14.4
	Stoneham Way NB Ahead	53.1	3.2	13.9
	Stoneham Way NB Right	86.1	6.9	12.8
	Wide Lane Left	53.2	0.6	0.6
	Bassett Green Road Left	44.7	2.6	6.1
	Stoneham Way SB Ahead	85.3	7.8	29.2
	Stoneham Way SB Right Ahead	72.9	5.4	8.5
	Wide Lane Right Ahead Left	35.8	1.7	3
	Wide Lane Ahead	36	0.7	12.6
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	65.3	2.1	3.6
	Wide Lane Ahead Left Right	77.2	6.5	16.3
	Wide Lane Right Left	27.4	0.2	0.2
		Mansbridge Roundabout		

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Mansbridge Road Right Left	52.4	0.5	0.5
	Mansbridge Road	19.5	0.1	0.1
	Wide Lane Right Left	30.1	0.2	0.2

Table 5-23: Forecast Results – J07 PM Model – Stoneham Way / Wide Lane / Wessex Lane and Wide Lane / Mansbridge Road

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	50.8	2.7	12.4
	Stoneham Way NB Ahead	48.3	2.6	12
	Stoneham Way NB Right	77.3	4.9	9.5
	Wide Lane Left	45.8	0.4	0.5
	Bassett Green Road Left	47.2	2.6	6
	Stoneham Way SB Ahead	79.9	6	25.2
	Stoneham Way SB Right Ahead	72.4	5	8.3
	Wide Lane Right Ahead Left	29.7	1.4	2.4
	Wide Lane Ahead	32.5	0.5	10.3
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	61.3	1.9	3.2
	Wide Lane Ahead Left Right	65.9	4.9	13.5
2028 Baseline		**Mansbridge Roundabout**		
	Wide Lane Right Left	21.5	0.1	0.1
	Mansbridge Road Right Left	42	0.4	0.4
	Mansbridge Road	16.3	0.1	0.1
	Wide Lane Right Left	20.4	0.1	0.1

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
2028 Baseline + Proposed Development		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	52.1	2.9	12.9
	Stoneham Way NB Ahead	49.7	2.8	12.6
	Stoneham Way NB Right	80.6	5.6	10.9
	Wide Lane Left	48.2	0.5	0.5
	Bassett Green Road Left	44	2.5	5.8
	Stoneham Way SB Ahead	78.1	5.8	23.9
	Stoneham Way SB Right Ahead	70.9	5.1	8.3
	Wide Lane Right Ahead Left	32.7	1.4	2.6
	Wide Lane Ahead	32.9	0.5	10.8
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	62.1	2	3.3
	Wide Lane Ahead Left Right	70.1	5.4	14.3
2028 Baseline + Proposed Development		**Mansbridge Roundabout**		
	Wide Lane Right Left	22.4	0.1	0.1
	Mansbridge Road Right Left	46.9	0.4	0.4
	Mansbridge Road	16.5	0.1	0.1
	Wide Lane Right Left	26.3	0.2	0.2
2036 Baseline		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	54	3	13.8
	Stoneham Way NB Ahead	51.7	2.9	13.3
	Stoneham Way NB Right	83.1	5.9	11.2
	Wide Lane Left	50.7	0.5	0.5
	Bassett Green Road Left	47.9	2.7	6.3

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Stoneham Way SB Ahead	81.1	6.4	26.2
	Stoneham Way SB Right Ahead	75.8	5.7	9
	Wide Lane Right Ahead Left	32.8	1.6	2.8
	Wide Lane Ahead	35.6	0.6	12.2
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	64.5	2.1	3.5
	Wide Lane Ahead Left Right	73	5.9	15.4
2036 Baseline		**Mansbridge Roundabout**		
	Wide Lane Right Left	26.5	0.2	0.2
	Mansbridge Road Right Left	48.1	0.5	0.5
	Mansbridge Road	19.3	0.1	0.1
	Wide Lane Right Left	23.9	0.2	0.2
2036 Baseline + Proposed Development		**Stoneham Way / Wessex Lane**		
	Stoneham Way NB Ahead Left	55.4	3.2	14.4
	Stoneham Way NB Ahead	53.1	3.2	13.9
	Stoneham Way NB Right	86.1	6.9	12.8
	Wide Lane Left	53.2	0.6	0.6
	Bassett Green Road Left	44.7	2.6	6.1
	Stoneham Way SB Ahead	85.3	7.8	29.2
	Stoneham Way SB Right Ahead	72.9	5.4	8.5
	Wide Lane Right Ahead Left	35.8	1.7	3
	Wide Lane Ahead	36	0.7	12.6
	The Fleming Arms Right Ahead Left	0	0	0
	Wessex Lane Right	65.3	2.1	3.6

Scenario	Lane	DoS (%)	Total Delay (PCU/Hr)	Mean Max Queue
	Wide Lane Ahead Left Right	77.2	6.5	16.3
	Wide Lane Right Left	27.4	0.2	0.2
2036 Baseline + Proposed Development		**Mansbridge Roundabout**		
	Mansbridge Road Right Left	52.4	0.5	0.5
	Mansbridge Road	19.5	0.1	0.1
	Wide Lane Right Left	30.1	0.2	0.2

5.49 The modelling results show that across all scenarios and time periods, the junction operates within acceptable capacity limits, with all lanes remaining below 90% DoS. During the 2036 Baseline PM peak scenario the Stoneham Way northbound right turn lane and Stoneham Way southbound ahead lanes operate at 83% and 81% RFC respectively, with RFC's increasing marginally to 86% on the Stoneham Way northbound right turn lane and 85% on the Stoneham Way southbound lane during the 20236 Baseline + Proposed Development PM peak scenario.

6 Conclusion and Recommendations

6.1 The transport modelling analysis for the Navigator Quarter study area has demonstrated the effectiveness of the Junctions 9 and LinSig models in providing a robust representation of current and future traffic conditions. The base models were validated to an acceptable level of accuracy, confirming their suitability for assessing forecast scenarios.

6.2 Key findings from the base model analysis include:

- **Validation Results:** The base models generally aligned well with observed traffic conditions, with minimal discrepancies. While a few minor validation issues were identified they do not undermine the reliability of the overall models.
- **Operational Challenges:** The analysis highlighted significant existing operational issues at some junctions with the A335 / Wide Lane junction consistently operating above practical capacity during peak periods. Queueing effects at Southampton Airport Parkway contributes to this congestion issue.

6.3 Key findings from the forecast model analysis including junction arms operating at/ above practical capacity in either the AM or PM peaks are identified in **Table 6-1** overleaf. This table excludes mitigation measures.

Table 6-1: Summary of junctions operating at/ above practical capacity in either AM or PM peaks (excluding mitigation).

Junction	Lane	Junctions and arms operating at/ above capacity			
		FB 2028	Proposed 2028	FB 2036	Proposed 2036
J01 - Wide Lane / South Street	Southampton Rd	N	N	N	N
	Wide Lane	Y	Y	Y	Y
	South Street	N	N	Y	Y
J02 - Wide Lane / Southampton Airport Parkway	Wide Lane N	N	N	N	N
	SAP	N	N	N	N
	Wide Lane S	N	N	Y	Y
J03 - A335 / Wide Lane Roundabout	1/1 - Wide Lane (NE)	N	N	N	N
	1/2 - Wide Lane (NE)	Y	Y	Y	Y
	2/1 - Wide Lane (S)	N	N	Y	Y
	2/2 - Wide Lane (S)	N	N	N	N
	3/1 - A335 (NW)	Y	Y	Y	Y
	3/2 - A335 (NW)	N	Y	Y	Y
J04 - Spitfire Roundabout	1/1 - Wide Lane (N)	N	Y	N	Y
	1/2 – Wide Lane (N)	Y	Y	Y	Y
	2/1 - Mitchell Way (E)	N	N	N	N
	2/2 – Mitchell Way (E)	N	N	N	N
	3/1 - George Curl Way (S)	N	N	N	N
	3/2 – George Curl Way (S)	N	N	N	N
	4/1 - Wide Lane (W)	N	Y	Y	Y
	4/2 – Wide Lane (W)	N	N	N	N
J05 - Wide Lane / Mountpark	Wide Lane N	N	Y	Y	Y
	Mountpark	N	N	N	N
	Wide Lane S	N	N	N	N
J06 – M27 J5	Stoneham Lane Ahead Left	N	N	N	N
	Stoneham Lane Ahead	N	N	N	N
	A335 (N) Left	N	N	N	N
	A335 (N) Ahead	N	N	N	N
	A335 (N) Ahead	N	N	N	N
	M27 (E) Off slip Left	N	N	N	N

Junction	Lane	Junctions and arms operating at/ above capacity			
		FB 2028	Proposed 2028	FB 2036	Proposed 2036
	M27 (E) Off slip Ahead	N	N	N	Y
	A335 Stoneham Way (S) Ahead Left	Y	Y	Y	Y
	A335 Stoneham Way (S) Ahead	Y	Y	Y	Y
	M27 (W) Off slip Ahead Left	N	N	N	N
	M27 (W) Off slip Ahead	N	N	N	N
	M27 (W) Off slip Ahead	N	N	N	N
	NW Circulatory Ahead	N	N	N	N
	NW Circulatory Right Ahead	N	N	N	N
	NW Circulatory Right	N	N	N	N
	NE Circulatory Ahead	N	N	N	N
	NE Circulatory Ahead Ahead2	N	N	N	N
	NE Circulatory Ahead	N	N	N	N
	Eastern Circulatory Ahead	N	N	Y	Y
	Eastern Circulatory Right Ahead	Y	Y	Y	Y
	Eastern Circulatory Right	N	N	N	N
	Southern Circulatory Ahead	N	N	N	N
	Southern Circulatory Right Ahead	N	N	N	N
	Southern Circulatory Right	N	N	N	N
	Western Circulatory Ahead	N	N	N	N
	Western Circulatory Right Ahead	N	N	N	N
	Western Circulatory Right	N	N	N	N
J07 – Stoneham Way / Wide Lane / Wessex Lane and Wide Lane / Mansbridge Road	Stoneham Way NB Ahead Left	N	N	N	N
	Stoneham Way NB Ahead	N	N	N	N
	Stoneham Way NB Right	N	N	N	N
	Wide Lane Left	N	N	N	N
	Bassett Green Road Left	N	N	N	N
	Stoneham Way SB Ahead	N	N	N	N

Junction	Lane	Junctions and arms operating at/ above capacity			
		FB 2028	Proposed 2028	FB 2036	Proposed 2036
	Stoneham Way SB Right Ahead	N	N	N	N
	Wide Lane Right Ahead Left	N	N	N	N
	Wide Lane Ahead	N	N	N	N
	The Fleming Arms Right Ahead Left	N	N	N	N
	Wessex Lane Right	N	N	N	N
	Wide Lane Ahead Left Right	N	N	N	N
	Wide Lane Right Left	N	N	N	N
	Mansbridge Road Right Left	N	N	N	N
	Mansbridge Road	N	N	N	N
	Wide Lane Right Left	N	N	N	N

6.4 It is important to note the following points:

- **A335/ Wide Lane Roundabout:**
  - The results show that even in the 2025 Baseline, the junction will be approaching/ at theoretical capacity in both peak periods – 1.0 RFC on A335 NW arm in AM peak and 0.96 RFC on Wide Lane NE arm in PM peak.
  - In both the 2028 and 2036 Baseline scenarios without the development the junction will also exceed theoretical capacity (>1.00 RFC's), with this increasing with the addition of Proposed Development trips.
- **Spitfire Roundabout:**
  - The results show that the Spitfire Roundabout will be over practical capacity (0.94 RFC) on the Wide Lane western arm during the 2036 Baseline AM period (without development).
  - The results also show that the Spitfire Roundabout will be at theoretical capacity (0.98 RFC) on the Wide Lane northern arm in the 2028 Future Base (without development) PM period, and operating over theoretical capacity (1.06 PCU) during the 2036 Future Baseline PM period (without development).

6.5 However, given that the A335/ Wide Lane roundabout and Spitfire Roundabout fall on the key access route to the proposed Navigator Quarter development the following additional mitigation measures have been explored for these junctions. These measures are in addition to mitigation for the Wide Lane/ Mount Park junction. The results of the mitigation measure assessments are summarised below:

- **Signalisation of the A335/ Wide Lane Roundabout** – Although the proposed Signalised Option 2 mitigation would be over theoretical capacity it enhances the performance of the junction compared to the 2036 Baseline (significantly less queuing on the A335 northwestern arm) and 2036 Baseline + Development without mitigation scenarios (significantly less queuing on the A335 northwestern arm) in the AM peak, and importantly prevents queuing back onto M27 J5. Some queues form on other arms, but importantly

these do not queue back to the Spitfire Roundabout or Southampton Airport Parkway signalised junction. During the PM peak the proposed mitigation scenario operates within theoretical capacity and offers a significant improvement even compared to the 2036 Baseline, with significantly less queuing on the Wide Lane northeastern arm and reduced queuing on the Wide Lane southern arm. Signalisation of the junction also offers the benefits of being able to link the junction to the Southampton Airport Parkway Station signals and manage the signals operation in response to variations in on-site traffic conditions.

- **Spitfire Roundabout** – Two mitigation options have been explored for the junction which involve extending the northern flare and better delineating the lane markings on the Wide Lane western arm. This has been tested with and without a signalised toucan crossing on the Wide Lane north arm. The mitigation without the signalised toucan crossing would significantly enhance the performance of the Wide Lane northern arm and reduce queues on this arm and the Wide Lane south arm in the 2036 Proposed Development scenario. The alternative mitigation scenario which includes the toucan crossing on the Wide Lane northern arm would result in increased queuing on the northern arm back and across the Wide Lane junction to the north, although it should be noted that the junction capacity modelling assumes a flat arrival profile of vehicles arriving from the Wide Lane junction to the north. If that junction were to be signalised it could potentially result in a more dispersed arrival profile.
- **Wide Lane/ Mount Park Junction** – The mitigation explored for this junction involved increasing the green time of the Wide Lane northern arm during the PM peak which resulted in the Wide Lane northern arm then operating within capacity.

Appendices

Appendix A - J01 Wide Lane/South Street Junction Modelling Results

Basic Results Summary

User and Project Details

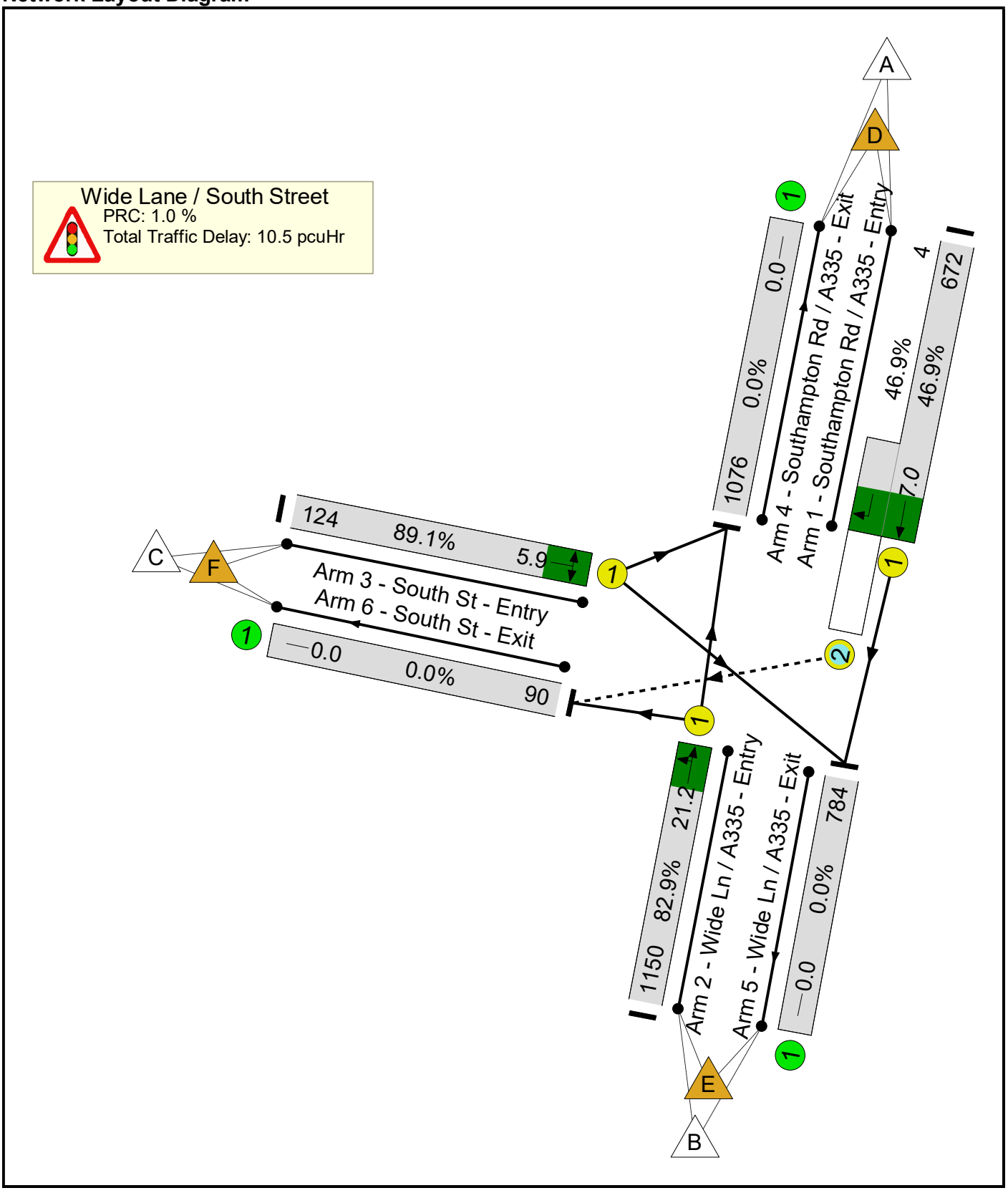
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Author:	
Company:	
Address:	
Linsig Version:	3, 2, 44, 1

Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	Base 2023 AM	Base 2023 AM	Network Control Plan 1	08:00 - 09:00	88	1.0	10.51
2	Base 2023 PM	Base 2023 PM	Network Control Plan 1	17:00 - 18:00	69	19.9	7.30
3	FB 2025 AM	FB 2025 AM	Network Control Plan 1	08:00 - 09:00	88	3.9	10.69
4	FB 2025 PM	FB 2025 PM	Network Control Plan 1	17:00 - 18:00	69	16.1	7.84
5	FB 2028 AM	FB 2028 AM	Network Control Plan 1	08:00 - 09:00	88	0.4	12.18
6	FB 2028 PM	FB 2028 PM	Network Control Plan 1	17:00 - 18:00	69	11.4	8.71
7	Proposed 2028 AM	Proposed 2028 AM	Network Control Plan 1	08:00 - 09:00	88	-1.1	13.23
8	Proposed 2028 PM	Proposed 2028 PM	Network Control Plan 1	17:00 - 18:00	69	7.8	9.35
9	FB 2036 AM	FB 2036 AM	Network Control Plan 1	08:00 - 09:00	88	-7.6	20.26
10	FB 2036 PM	FB 2036 PM	Network Control Plan 1	17:00 - 18:00	69	2.2	11.45
11	Proposed 2036 AM	Proposed 2036 AM	Network Control Plan 1	08:00 - 09:00	88	-9.1	23.46
12	Proposed 2036 PM	Proposed 2036 PM	Network Control Plan 1	17:00 - 18:00	69	-0.8	12.73

Scenario 1: 'Base 2023 AM' (FG1: 'Base 2023 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



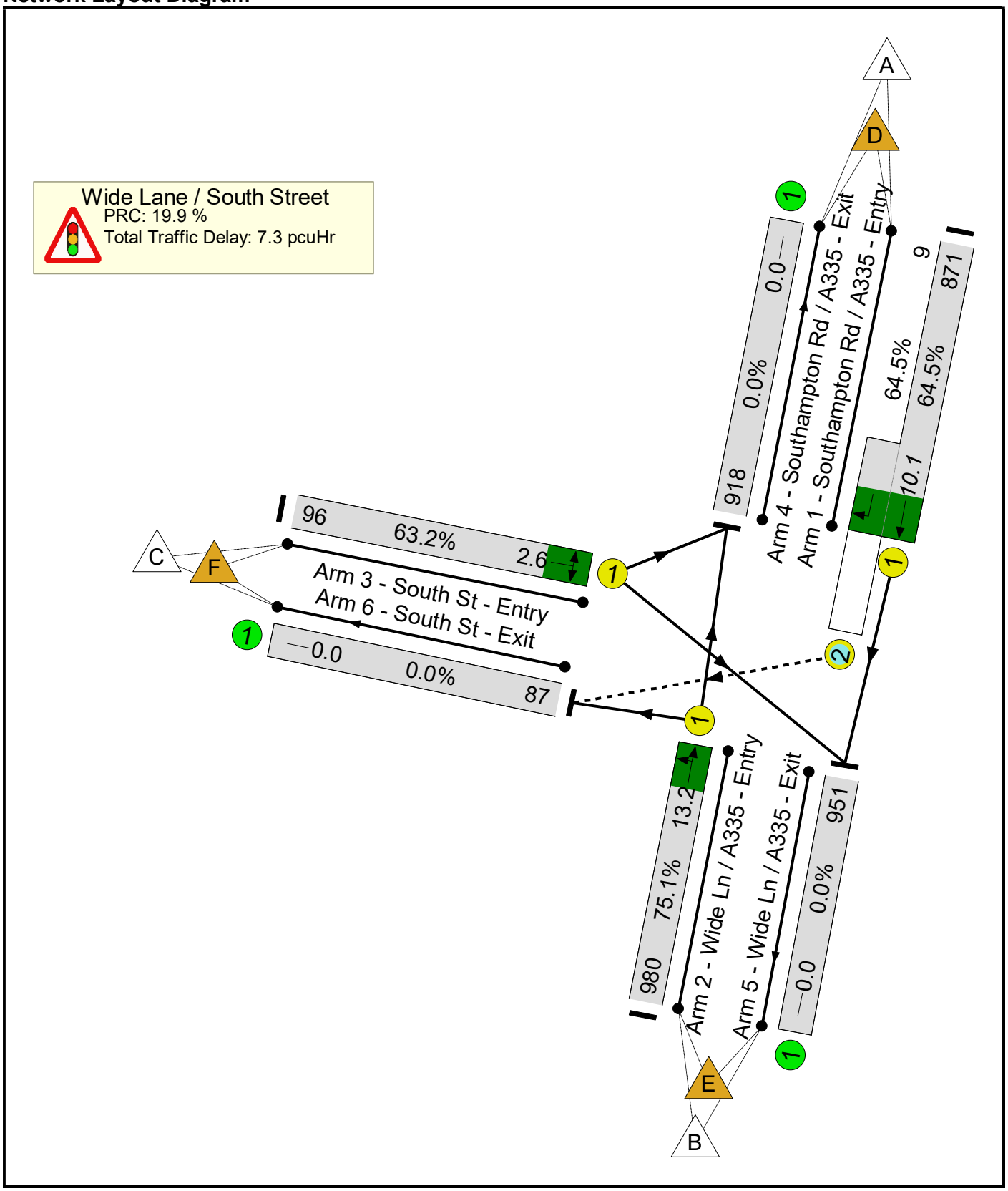
Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**89.1%**	**4**	**0**	**0**	**10.5**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**89.1%**	**4**	**0**	**0**	**10.5**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	51	4	Y:Y	676	1940:1724	1433+9	46.9 : 46.9%	4	0	0	1.3	7.0	7.0
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	41	-	Y	1150	1877	1386	82.9%	-	-	-	4.9	15.2	21.2
3/1	South St - Entry Left Right	U	C		1	7	-	Y	124	1750	139	89.1%	-	-	-	4.3	125.5	5.9

C1 PRC for Signalled Lanes (%): 1.0 Total Delay for Signalled Lanes (pcuHr): 10.51 Cycle Time (s): 88
PRC Over All Lanes (%): 1.0 Total Delay Over All Lanes(pcuHr): 10.51

Scenario 2: 'Base 2023 PM' (FG2: 'Base 2023 PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

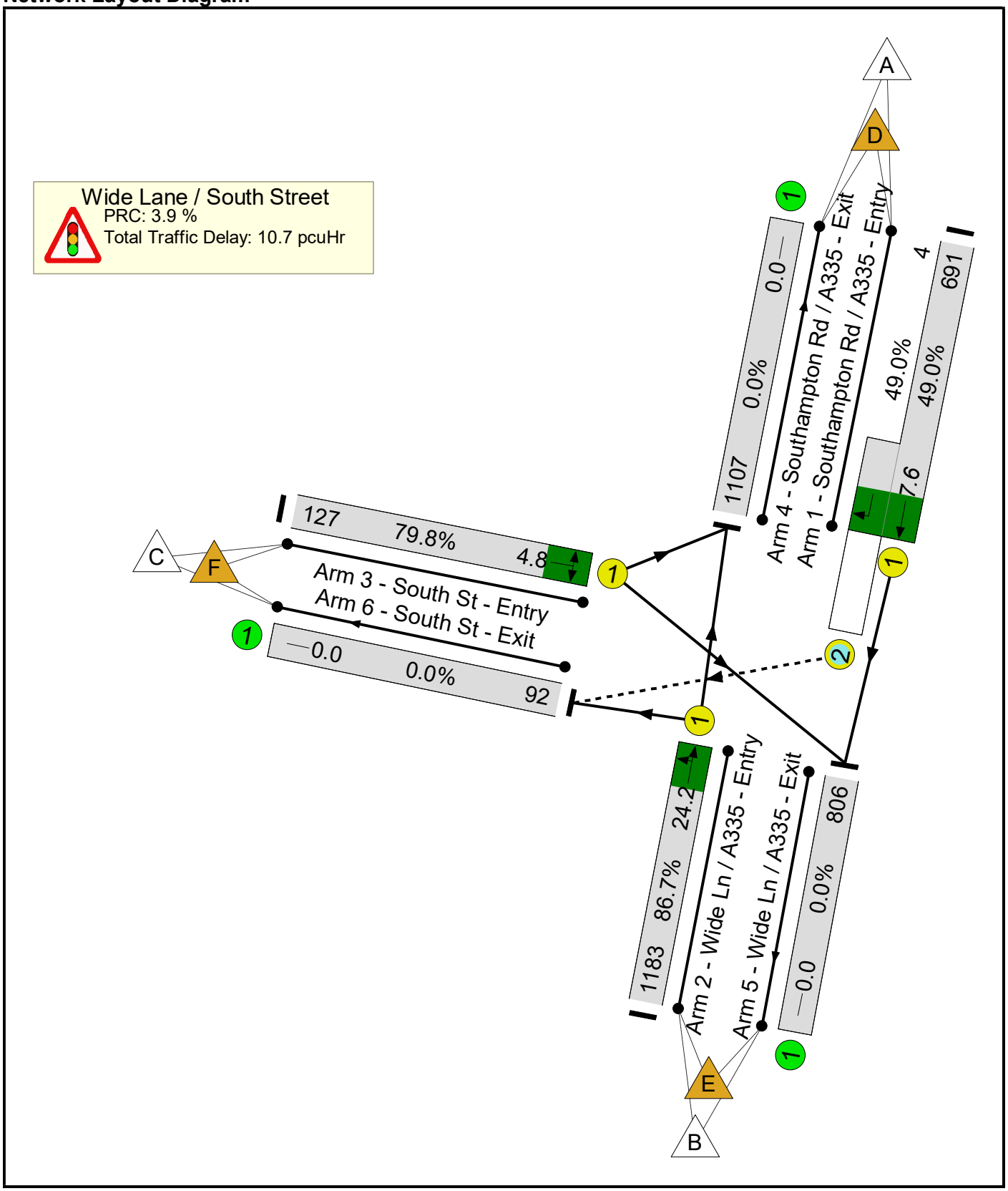


Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**	**9**	**0**	**0**	**7.3**	**-**	**-**
Wide Lane / South Street	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**	**9**	**0**	**0**	**7.3**	**-**	**-**
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	32	4	Y:Y	880	1940:1724	1350+14	64.5 : 64.5%	9	0	0	2.3	9.6	10.1
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	22	-	Y	980	1877	1306	75.1%	-	-	-	3.3	12.2	13.2
3/1	South St - Entry Left Right	U	C		1	7	-	Y	96	1748	152	63.2%	-	-	-	1.6	61.7	2.6

C1 PRC for Signalled Lanes (%): 19.9 Total Delay for Signalled Lanes (pcuHr): 7.30 Cycle Time (s): 69
PRC Over All Lanes (%): 19.9 Total Delay Over All Lanes(pcuHr): 7.30

Scenario 3: 'FB 2025 AM' (FG3: 'FB 2025 AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

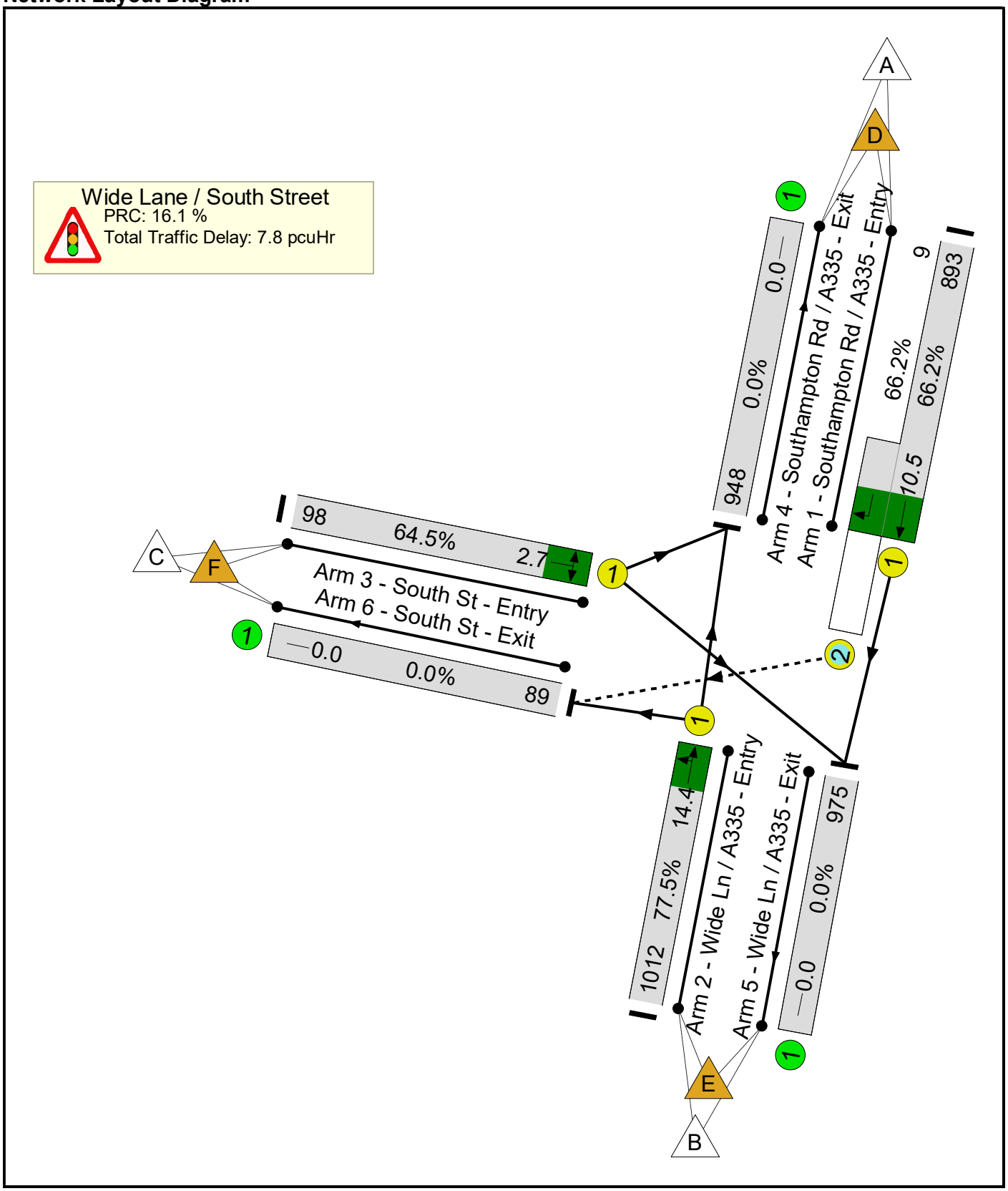


Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**86.7%**	**4**	**0**	**0**	**10.7**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**86.7%**	**4**	**0**	**0**	**10.7**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	50	4	Y:Y	695	1940:1724	1411+8	49.0 : 49.0%	4	0	0	1.5	7.7	7.6
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	40	-	Y	1183	1877	1365	86.7%	-	-	-	6.0	18.4	24.2
3/1	South St - Entry Left Right	U	C		1	8	-	Y	127	1750	159	79.8%	-	-	-	3.2	89.7	4.8

C1 PRC for Signalled Lanes (%): 3.9 Total Delay for Signalled Lanes (pcuHr): 10.69 Cycle Time (s): 88
PRC Over All Lanes (%): 3.9 Total Delay Over All Lanes(pcuHr): 10.69

Scenario 4: 'FB 2025 PM' (FG4: 'FB 2025 PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

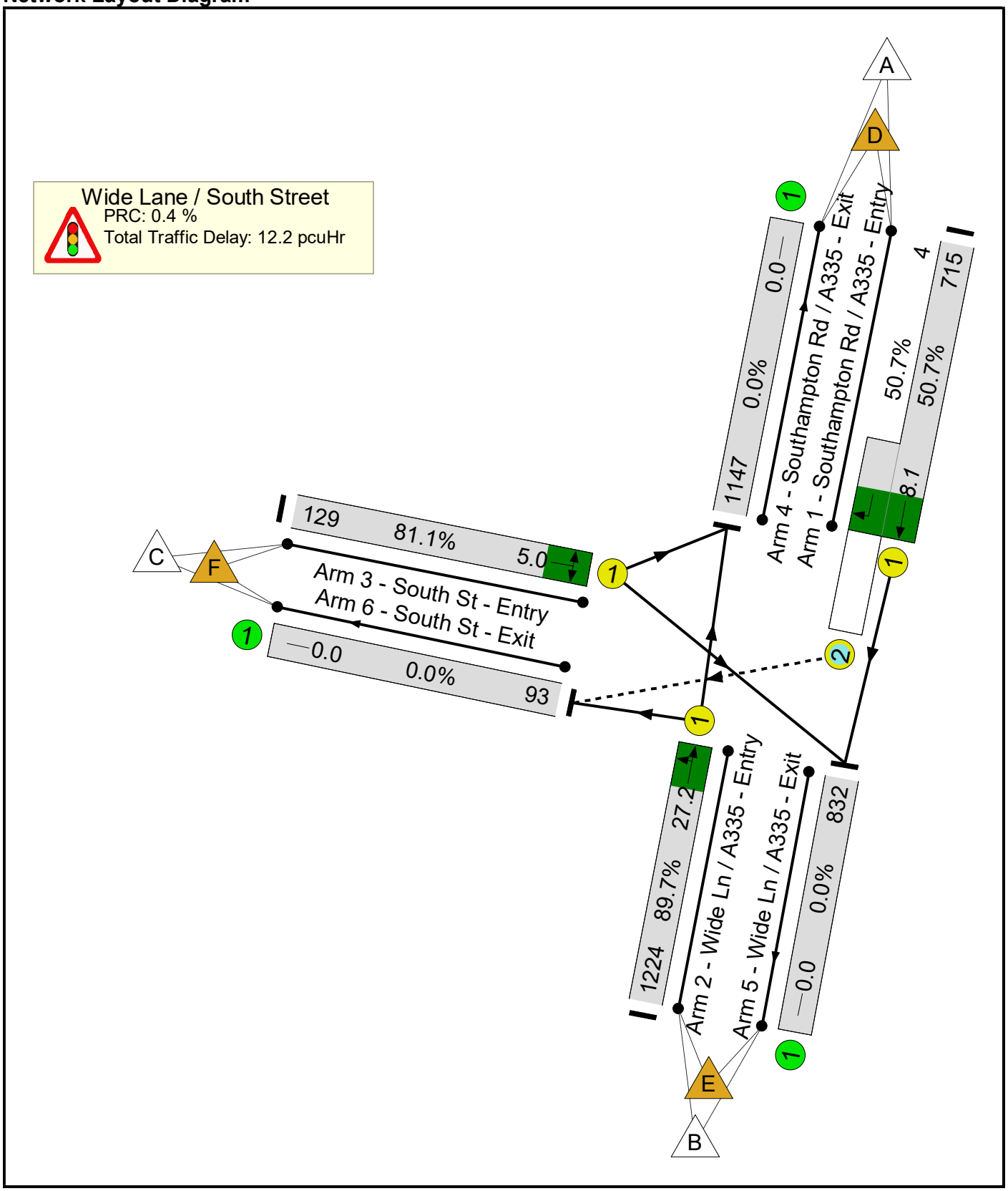


Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**77.5%**	**9**	**0**	**0**	**7.8**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**77.5%**	**9**	**0**	**0**	**7.8**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	32	4	Y:Y	902	1940:1724	1350+14	66.2 : 66.2%	9	0	0	2.5	9.9	10.5
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	22	-	Y	1012	1877	1306	77.5%	-	-	-	3.7	13.0	14.4
3/1	South St - Entry Left Right	U	C		1	7	-	Y	98	1748	152	64.5%	-	-	-	1.7	62.8	2.7

C1 PRC for Signalled Lanes (%): 16.1 Total Delay for Signalled Lanes (pcuHr): 7.84 Cycle Time (s): 69
PRC Over All Lanes (%): 16.1 Total Delay Over All Lanes(pcuHr): 7.84

Scenario 5: 'FB 2028 AM' (FG5: 'FB 2028 AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

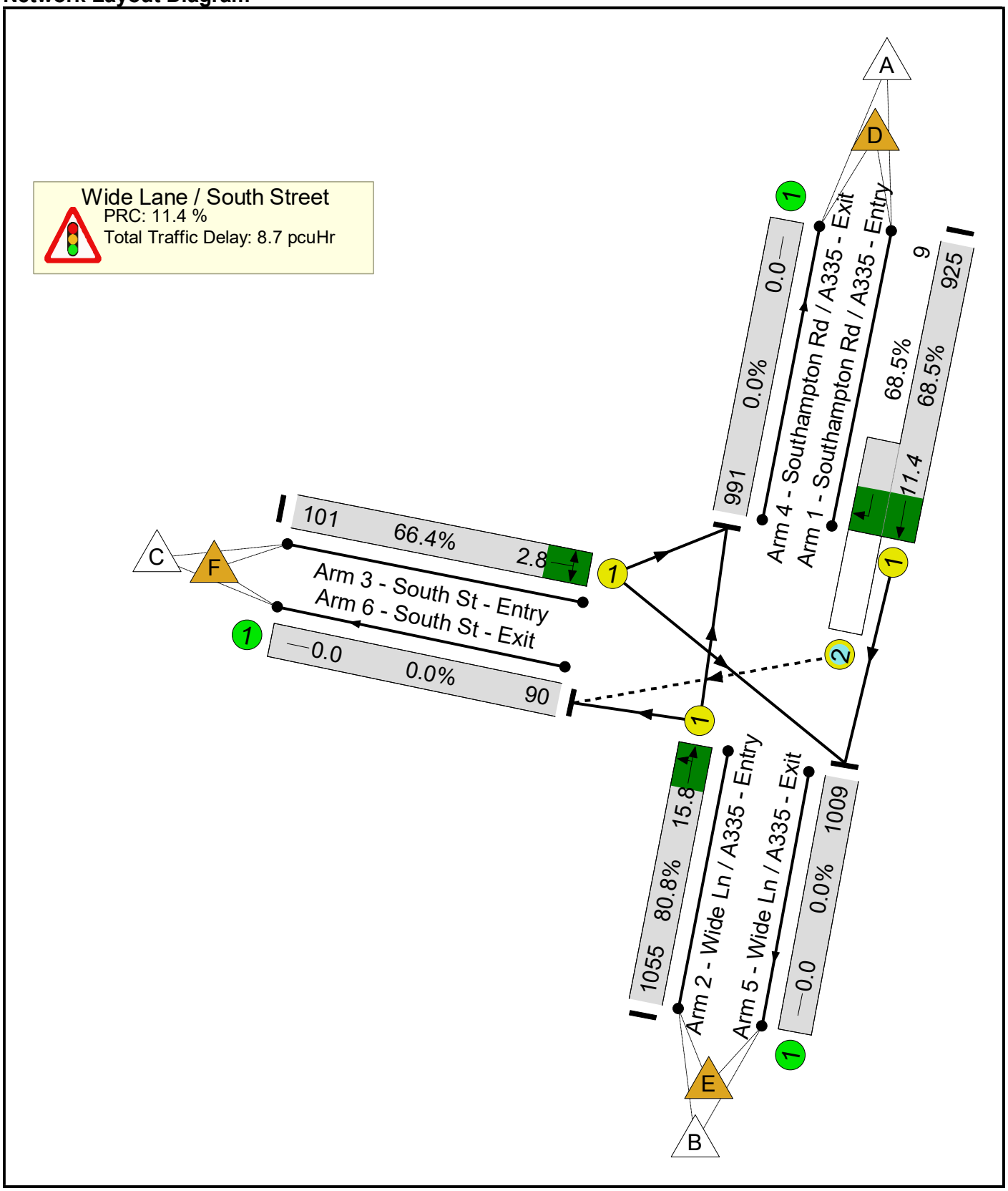


Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89.7%**	**4**	**0**	**0**	**12.2**	**-**	**-**
Wide Lane / South Street	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**89.7%**	**4**	**0**	**0**	**12.2**	**-**	**-**
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	50	4	Y:Y	719	1940:1724	1411+8	50.7 : 50.7%	4	0	0	1.6	7.9	8.1
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	40	-	Y	1224	1877	1365	89.7%	-	-	-	7.3	21.5	27.2
3/1	South St - Entry Left Right	U	C		1	8	-	Y	129	1750	159	81.1%	-	-	-	3.3	92.4	5.0

C1 PRC for Signalled Lanes (%): 0.4 Total Delay for Signalled Lanes (pcuHr): 12.18 Cycle Time (s): 88
PRC Over All Lanes (%): 0.4 Total Delay Over All Lanes(pcuHr): 12.18

Scenario 6: 'FB 2028 PM' (FG6: 'FB 2028 PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



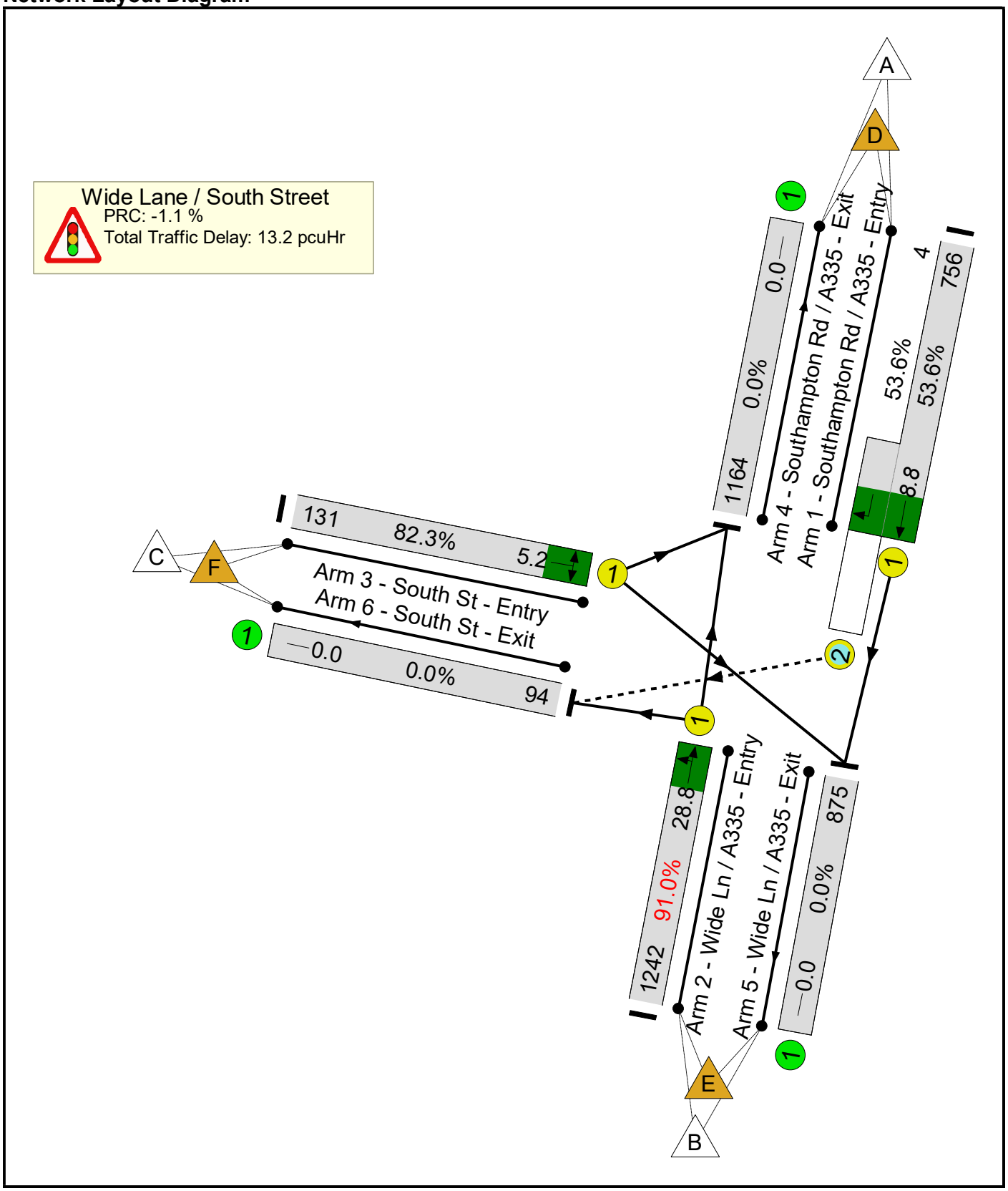
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**80.8%**	**9**	**0**	**0**	**8.7**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**80.8%**	**9**	**0**	**0**	**8.7**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	32	4	Y:Y	934	1940:1724	1350+13	68.5 : 68.5%	9	0	0	2.7	10.4	11.4
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	22	-	Y	1055	1877	1306	80.8%	-	-	-	4.2	14.4	15.8
3/1	South St - Entry Left Right	U	C		1	7	-	Y	101	1748	152	66.4%	-	-	-	1.8	64.6	2.8

C1 PRC for Signalled Lanes (%): 11.4 Total Delay for Signalled Lanes (pcuHr): 8.71 Cycle Time (s): 69
PRC Over All Lanes (%): 11.4 Total Delay Over All Lanes(pcuHr): 8.71

Scenario 7: 'Proposed 2028 AM' (FG7: 'Proposed 2028 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

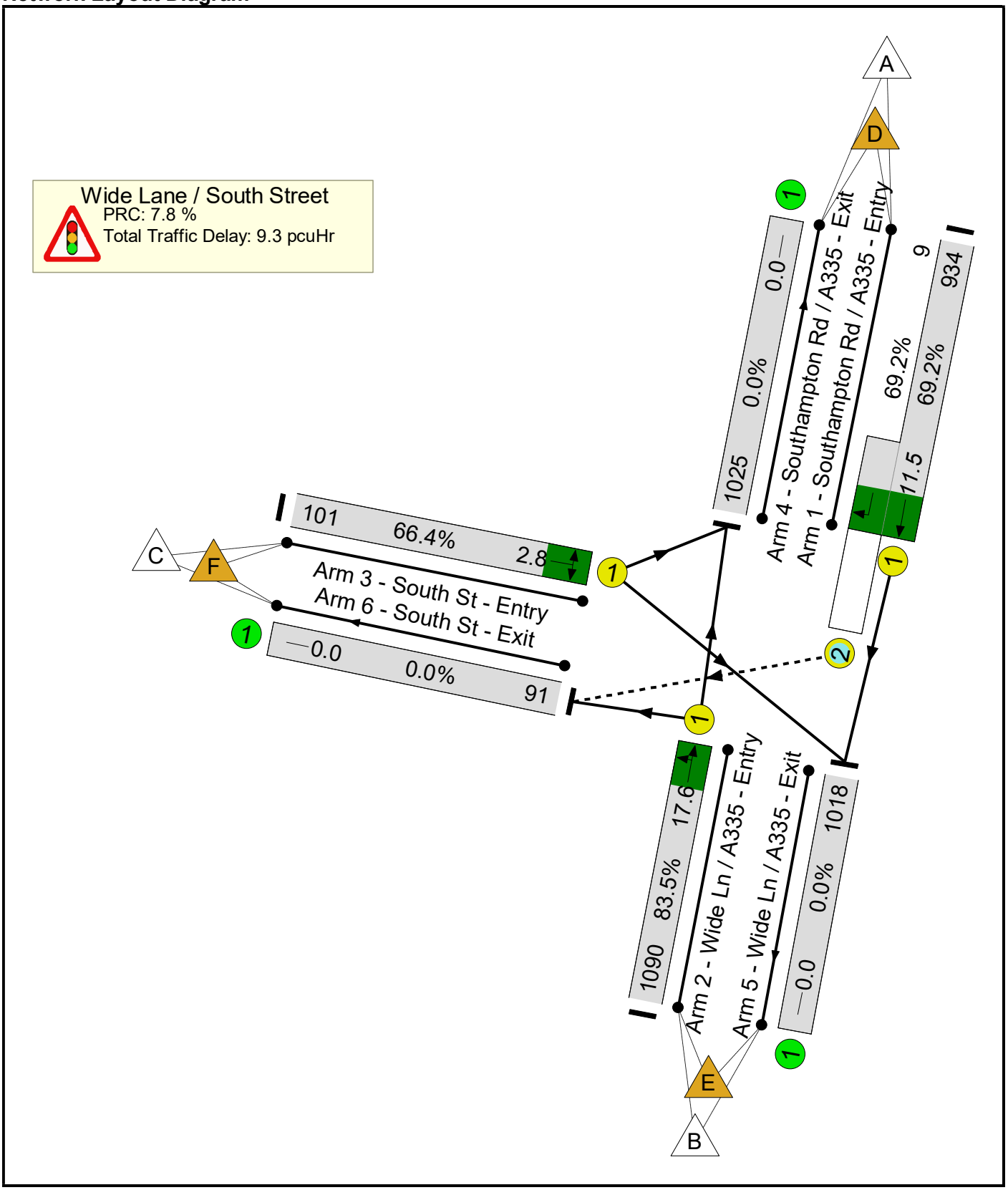
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**91.0%**	**4**	**0**	**0**	**13.2**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**91.0%**	**4**	**0**	**0**	**13.2**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	50	4	Y:Y	760	1940:1724	1411+7	53.6 : 53.6%	4	0	0	1.7	8.2	8.8
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	40	-	Y	1242	1877	1365	91.0%	-	-	-	8.0	23.3	28.8
3/1	South St - Entry Left Right	U	C		1	8	-	Y	131	1750	159	82.3%	-	-	-	3.5	95.3	5.2

C1 PRC for Signalled Lanes (%): -1.1 Total Delay for Signalled Lanes (pcuHr): 13.23 Cycle Time (s): 88
PRC Over All Lanes (%): -1.1 Total Delay Over All Lanes(pcuHr): 13.23

Scenario 8: 'Proposed 2028 PM' (FG8: 'Proposed 2028 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



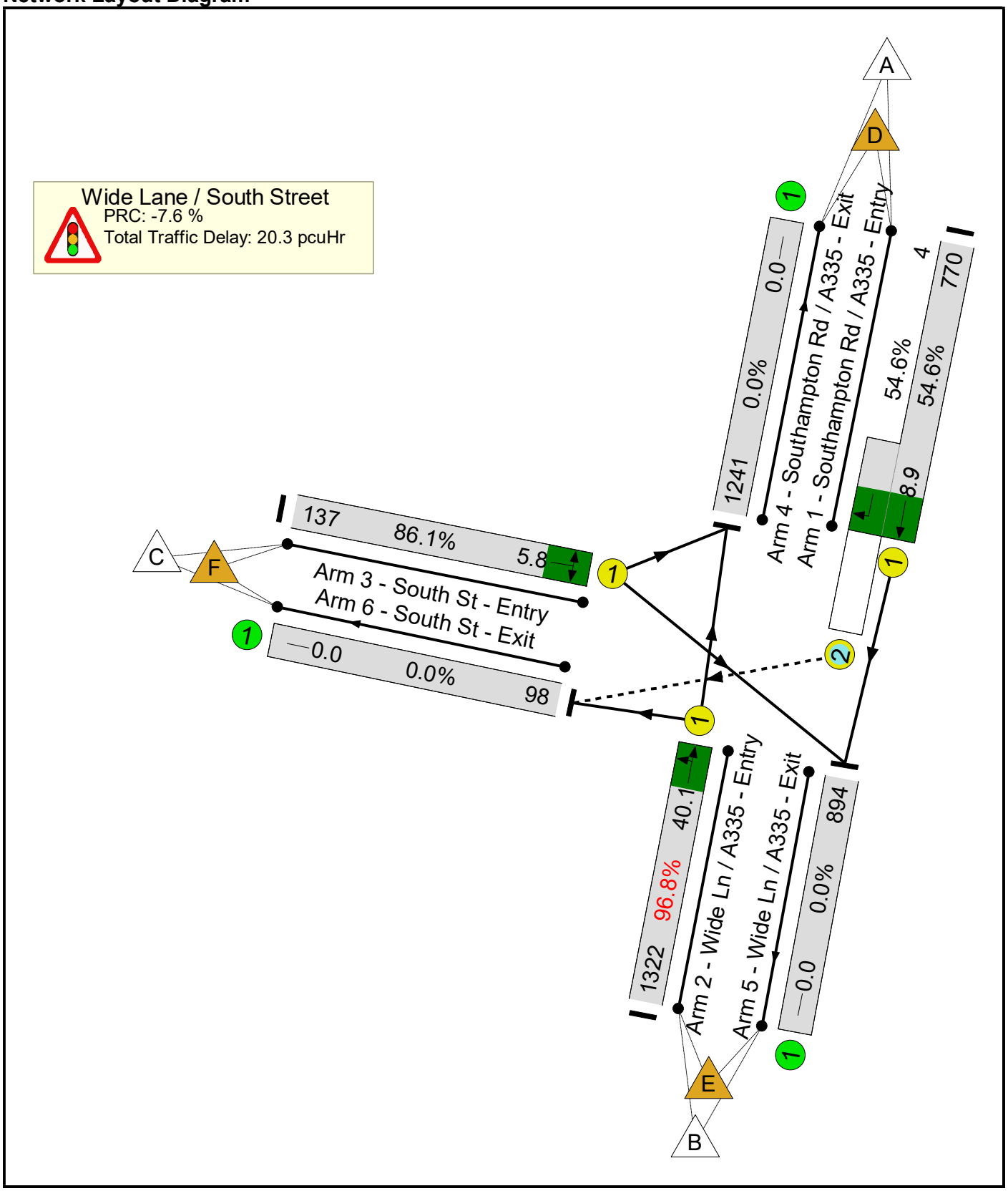
Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**83.5%**	**9**	**0**	**0**	**9.3**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**83.5%**	**9**	**0**	**0**	**9.3**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	32	4	Y:Y	943	1940:1724	1350+13	69.2 : 69.2%	9	0	0	2.8	10.5	11.5
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	22	-	Y	1090	1877	1306	83.5%	-	-	-	4.8	15.8	17.6
3/1	South St - Entry Left Right	U	C		1	7	-	Y	101	1748	152	66.4%	-	-	-	1.8	64.6	2.8

C1 PRC for Signalled Lanes (%): 7.8 Total Delay for Signalled Lanes (pcuHr): 9.35 Cycle Time (s): 69
PRC Over All Lanes (%): 7.8 Total Delay Over All Lanes(pcuHr): 9.35

Scenario 9: 'FB 2036 AM' (FG9: 'FB 2036 AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



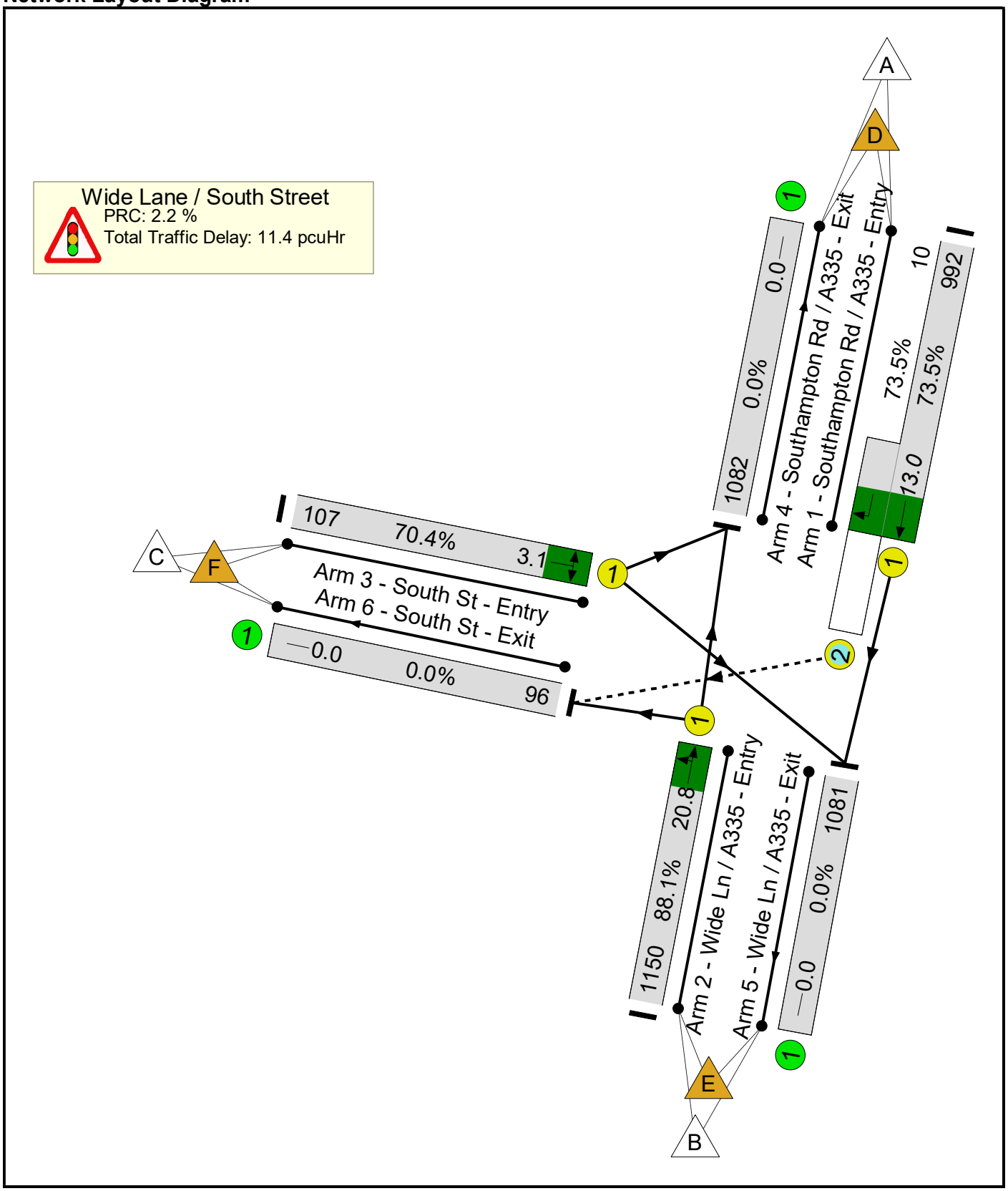
Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**96.8%**	**0**	**0**	**4**	**20.3**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**96.8%**	**0**	**0**	**4**	**20.3**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	50	4	Y:Y	774	1940:1724	1411+7	54.6 : 54.6%	0	0	4	1.8	8.4	8.9
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	40	-	Y	1322	1877	1365	96.8%	-	-	-	14.4	39.3	40.1
3/1	South St - Entry Left Right	U	C		1	8	-	Y	137	1750	159	86.1%	-	-	-	4.0	105.8	5.8

C1 PRC for Signalled Lanes (%): -7.6 Total Delay for Signalled Lanes (pcuHr): 20.26 Cycle Time (s): 88
PRC Over All Lanes (%): -7.6 Total Delay Over All Lanes(pcuHr): 20.26

Scenario 10: 'FB 2036 PM' (FG10: 'FB 2036 PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



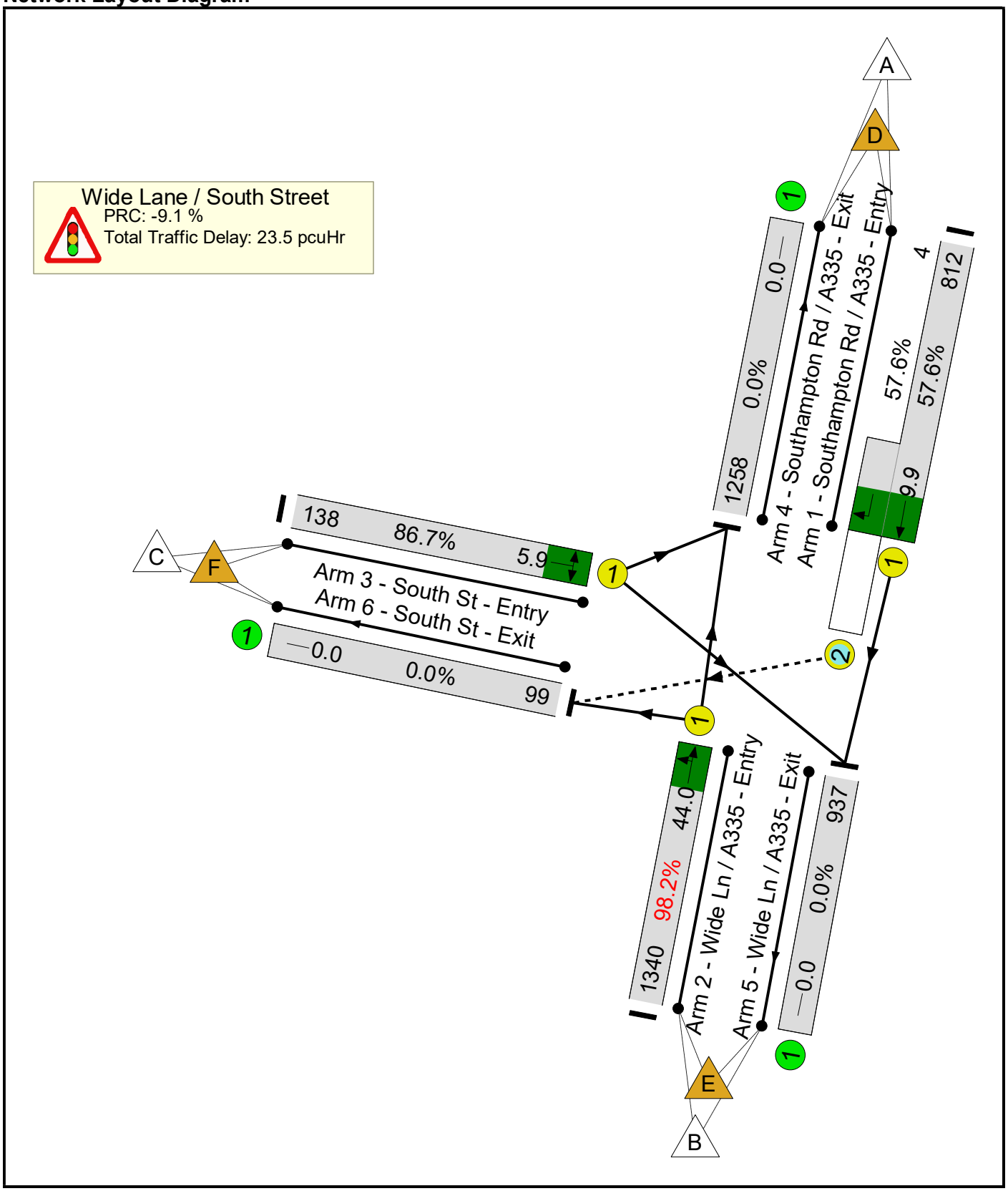
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**88.1%**	**10**	**0**	**0**	**11.4**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**88.1%**	**10**	**0**	**0**	**11.4**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	32	4	Y:Y	1002	1940:1724	1350+14	73.5 : 73.5%	10	0	0	3.2	11.6	13.0
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	22	-	Y	1150	1877	1306	88.1%	-	-	-	6.2	19.3	20.8
3/1	South St - Entry Left Right	U	C		1	7	-	Y	107	1748	152	70.4%	-	-	-	2.0	68.7	3.1

C1 PRC for Signalled Lanes (%): 2.2 Total Delay for Signalled Lanes (pcuHr): 11.45 Cycle Time (s): 69
PRC Over All Lanes (%): 2.2 Total Delay Over All Lanes(pcuHr): 11.45

Scenario 11: 'Proposed 2036 AM' (FG11: 'Proposed 2036 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

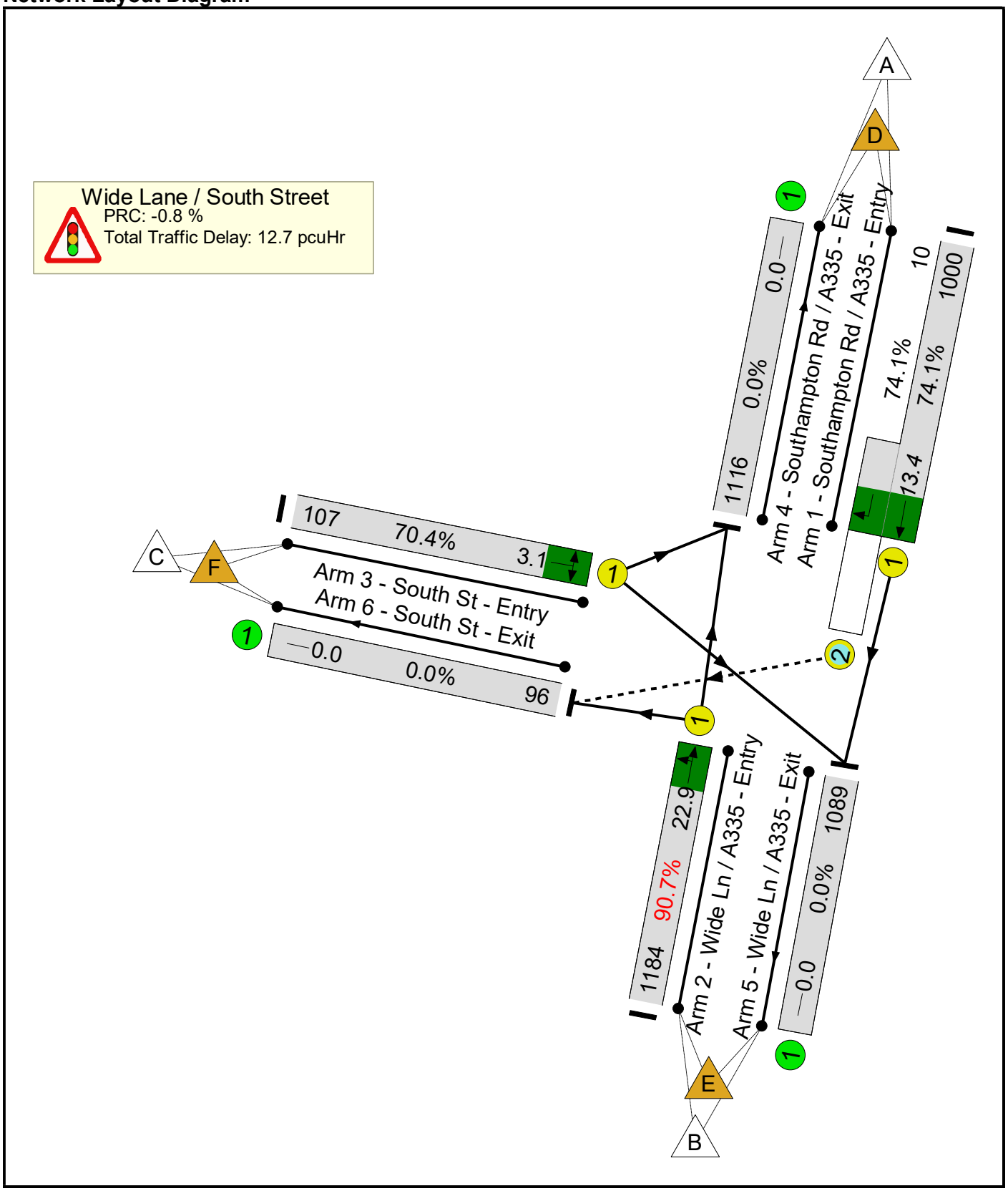
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**98.2%**	**0**	**0**	**4**	**23.5**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**98.2%**	**0**	**0**	**4**	**23.5**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	50	4	Y:Y	816	1940:1724	1411+7	57.6 : 57.6%	0	0	4	2.0	8.8	9.9
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	40	-	Y	1340	1877	1365	98.2%	-	-	-	17.3	46.6	44.0
3/1	South St - Entry Left Right	U	C		1	8	-	Y	138	1750	159	86.7%	-	-	-	4.1	107.8	5.9

C1 PRC for Signalled Lanes (%): -9.1 Total Delay for Signalled Lanes (pcuHr): 23.46 Cycle Time (s): 88
PRC Over All Lanes (%): -9.1 Total Delay Over All Lanes(pcuHr): 23.46

Scenario 12: 'Proposed 2036 PM' (FG12: 'Proposed 2036 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	-	**90.7%**	**10**	**0**	**0**	**12.7**	-	-
Wide Lane / South Street	-	-	-		-	-	-	-	-	-	-	**90.7%**	**10**	**0**	**0**	**12.7**	-	-
1/1+1/2	Southampton Rd / A335 - Entry Ahead Right	U+O	A	E	1	32	4	Y:Y	1010	1940:1724	1350+13	74.1 : 74.1%	10	0	0	3.3	11.8	13.4
2/1	Wide Ln / A335 - Entry Ahead Left	U	B		1	22	-	Y	1184	1877	1306	90.7%	-	-	-	7.4	22.4	22.9
3/1	South St - Entry Left Right	U	C		1	7	-	Y	107	1748	152	70.4%	-	-	-	2.0	68.7	3.1

C1 PRC for Signalled Lanes (%): -0.8 Total Delay for Signalled Lanes (pcuHr): 12.73 Cycle Time (s): 69
PRC Over All Lanes (%): -0.8 Total Delay Over All Lanes(pcuHr): 12.73

Appendix B - J02 Wide Lane/Southampton Airport Parkway Junction Modelling Results

6.6

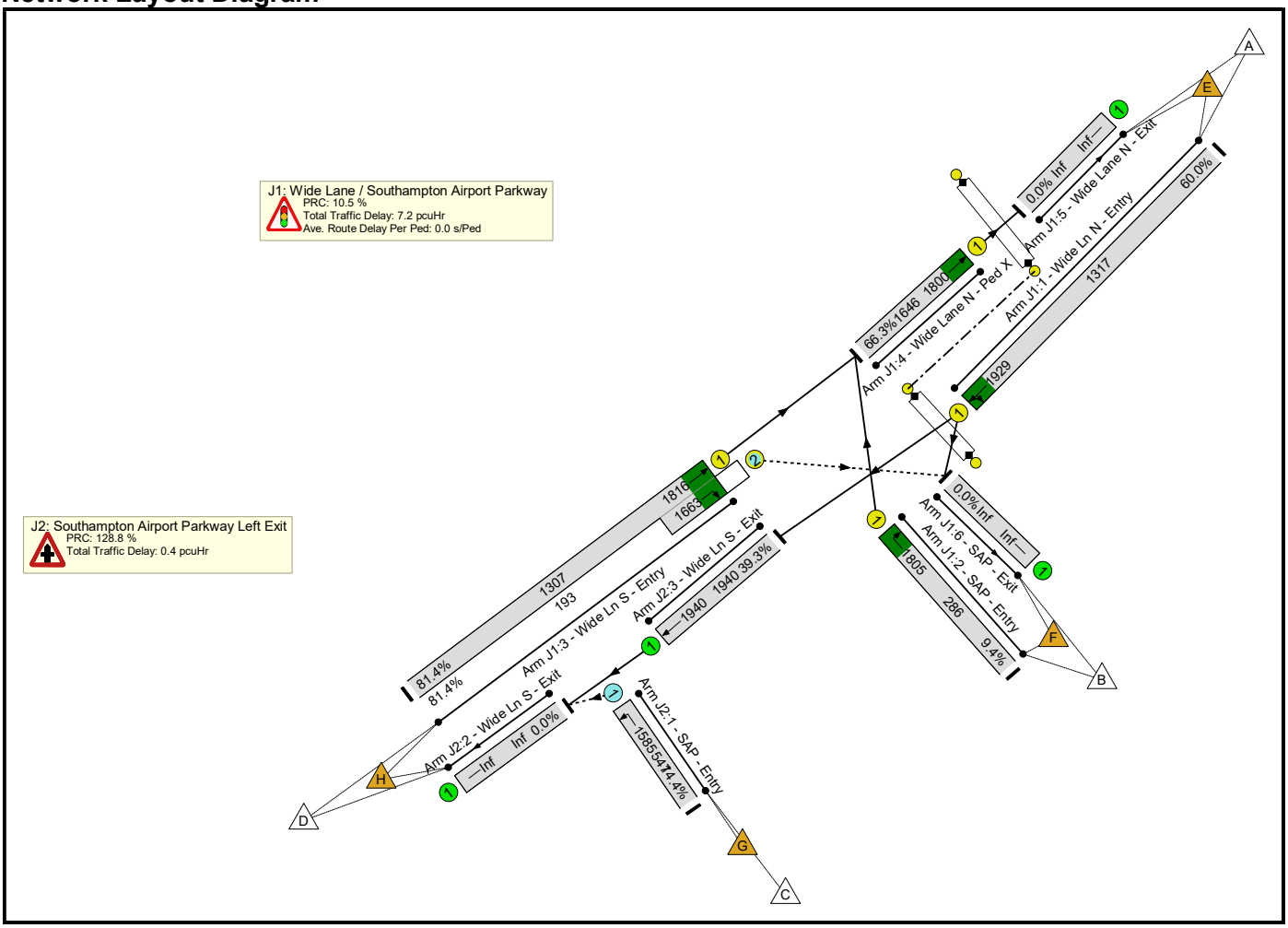
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	J02_WideLn-SAP.lsg3x
Author:	
Company:	
Address:	

Scenario 1: 'Base 2023 AM' (FG1: 'Base 2023 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**81.4%**	**215**	**17**	**4**	**7.6**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**81.4%**	**136**	**17**	**4**	**7.2**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	45	-	790	1929	1317	60.0%	-	-	-	2.3	10.4	10.4
2/1	SAP - Entry Right	U	C		1	15	-	27	1805	286	9.4%	-	-	-	0.3	36.4	0.6
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	56	5	1221	1816:1663	1307+193	81.4 : 81.4%	136	17	4	3.6	10.7	15.7
4/1	Wide Lane N - Ped X Ahead	U	E		1	64	-	1091	1800	1646	66.3%	-	-	-	1.0	3.3	2.5
Ped Link: P1	Unnamed Ped Link	-	F		1	25	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**39.3%**	**79**	**0**	**0**	**0.4**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	79	1585	547	14.4%	79	0	0	0.1	3.8	0.1
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	763	1940	1940	39.3%	-	-	-	0.3	1.5	0.3

C1

PRC for Signalled Lanes (%): 10.5
PRC Over All Lanes (%): 10.5

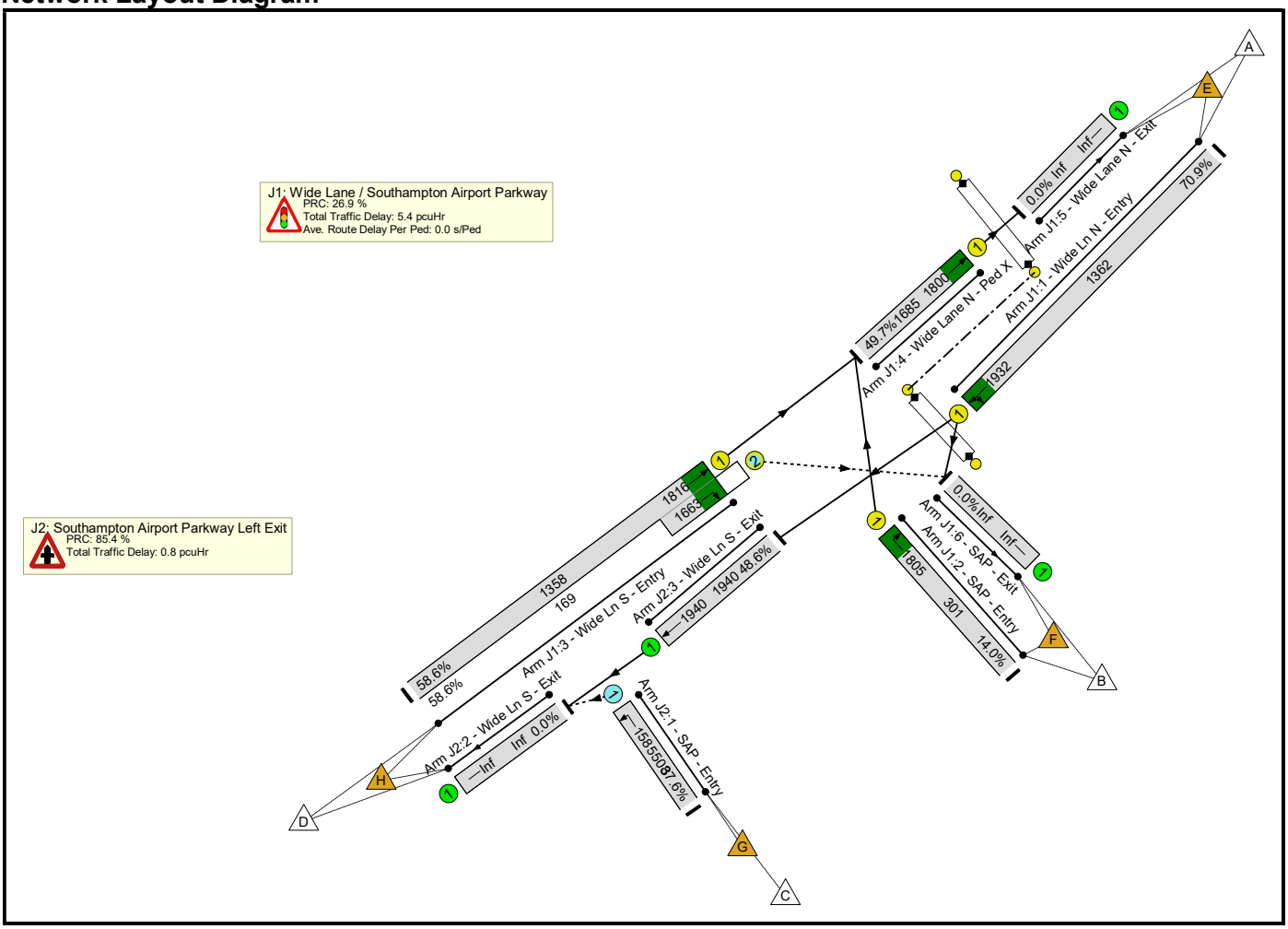
Total Delay for Signalled Lanes (pcuHr): 7.18
Total Delay Over All Lanes(pcuHr): 7.59

Cycle Time (s): 82

Basic Results Summary

Scenario 2: 'Base 2023 PM' (FG2: 'Base 2023 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

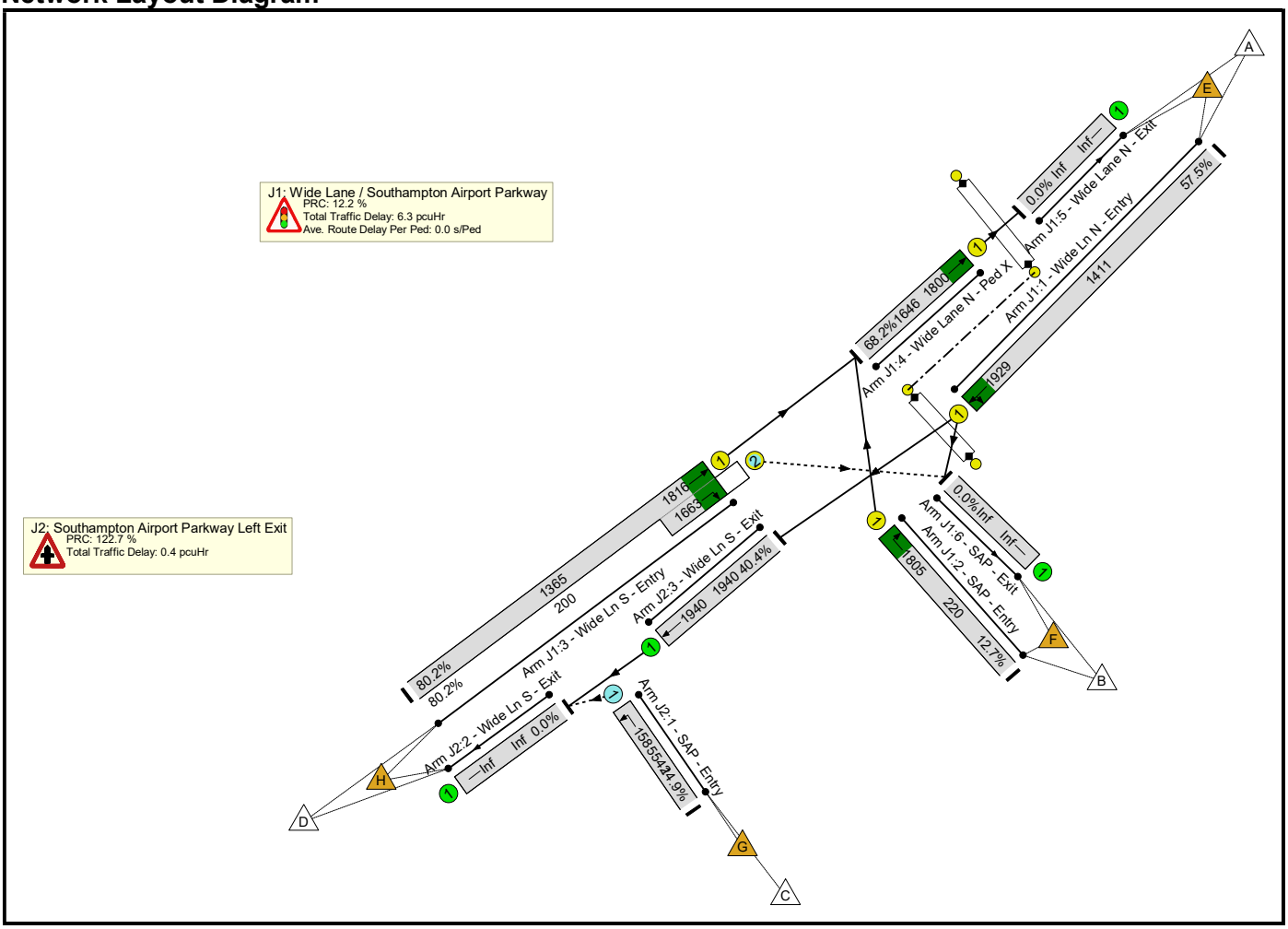
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**70.9%**	**277**	**10**	**3**	**6.2**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**70.9%**	**86**	**10**	**3**	**5.4**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	42	-	966	1932	1362	70.9%	-	-	-	3.0	11.3	13.6
2/1	SAP - Entry Right	U	C		1	15	-	42	1805	301	14.0%	-	-	-	0.4	34.7	0.9
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	52	4	895	1816:1663	1358+169	58.6 : 58.6%	86	10	3	1.4	5.8	6.0
4/1	Wide Lane N - Ped X Ahead	U	E		1	60	-	838	1800	1685	49.7%	-	-	-	0.5	2.2	2.5
Ped Link: P1	Unnamed Ped Link	-	F		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**48.6%**	**191**	**0**	**0**	**0.8**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	191	1585	508	37.6%	191	0	0	0.3	5.7	0.3
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	942	1940	1940	48.6%	-	-	-	0.5	1.8	0.5

C1 PRC for Signalled Lanes (%): 26.9 Total Delay for Signalled Lanes (pcuHr): 5.40 Cycle Time (s): 78
PRC Over All Lanes (%): 26.9 Total Delay Over All Lanes(pcuHr): 6.17

Basic Results Summary

Scenario 3: 'FB 2025 AM' (FG3: 'FB 2025 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**80.2%**	**221**	**16**	**4**	**6.7**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**80.2%**	**140**	**16**	**4**	**6.3**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	49	-	811	1929	1411	57.5%	-	-	-	1.8	8.1	9.0
2/1	SAP - Entry Right	U	C		1	12	-	28	1805	220	12.7%	-	-	-	0.3	41.5	0.6
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	59	4	1255	1816:1663	1365+200	80.2 : 80.2%	140	16	4	3.0	8.7	13.1
4/1	Wide Lane N - Ped X Ahead	U	E		1	64	-	1123	1800	1646	68.2%	-	-	-	1.1	3.5	2.6
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**40.4%**	**81**	**0**	**0**	**0.4**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	81	1585	542	14.9%	81	0	0	0.1	3.9	0.1
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	784	1940	1940	40.4%	-	-	-	0.3	1.6	0.3

C1

PRC for Signalled Lanes (%): 12.2
PRC Over All Lanes (%): 12.2

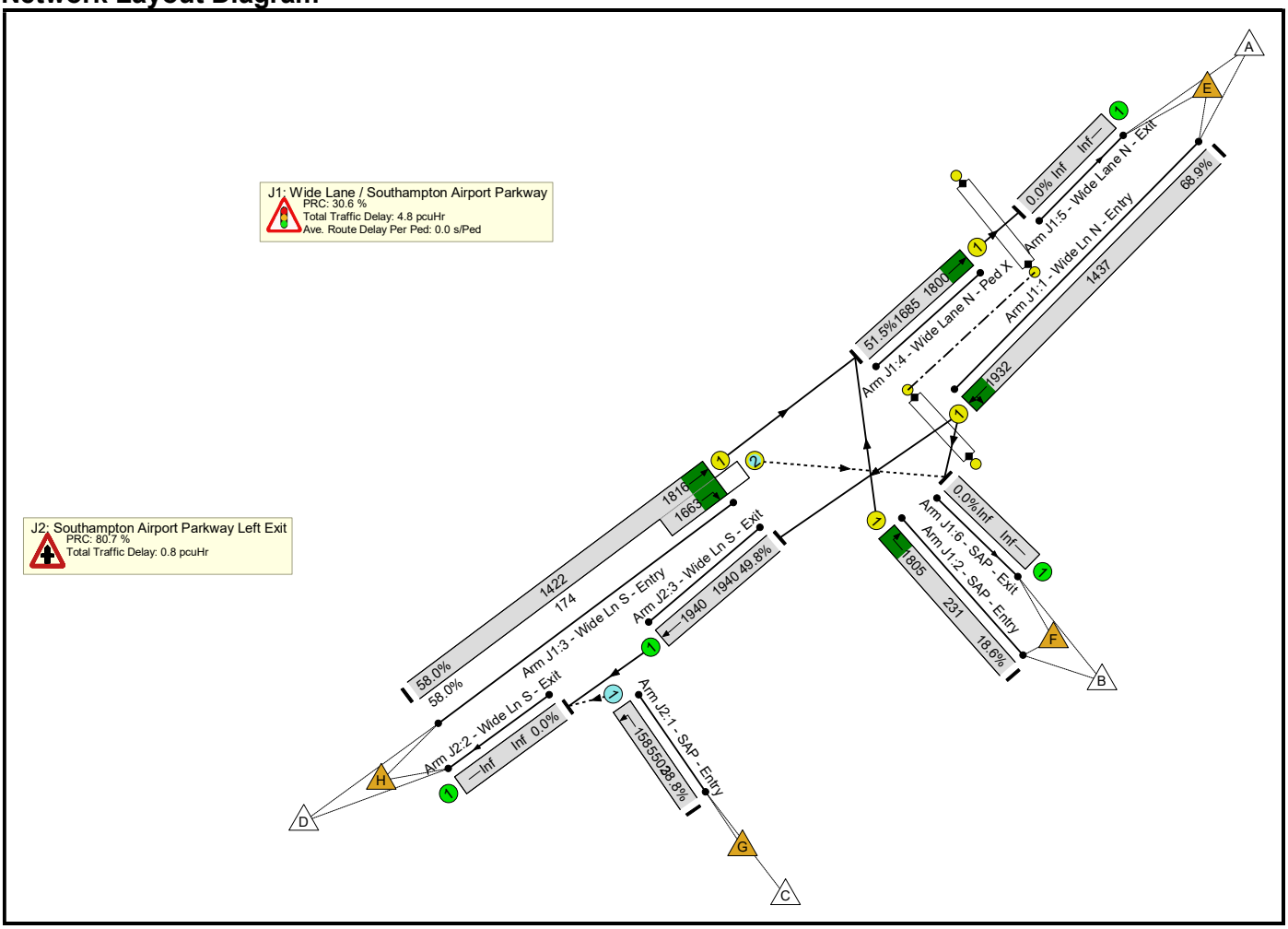
Total Delay for Signalled Lanes (pcuHr): 6.27
Total Delay Over All Lanes(pcuHr): 6.70

Cycle Time (s): 82

Basic Results Summary

Scenario 4: 'FB 2025 PM' (FG4: 'FB 2025 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

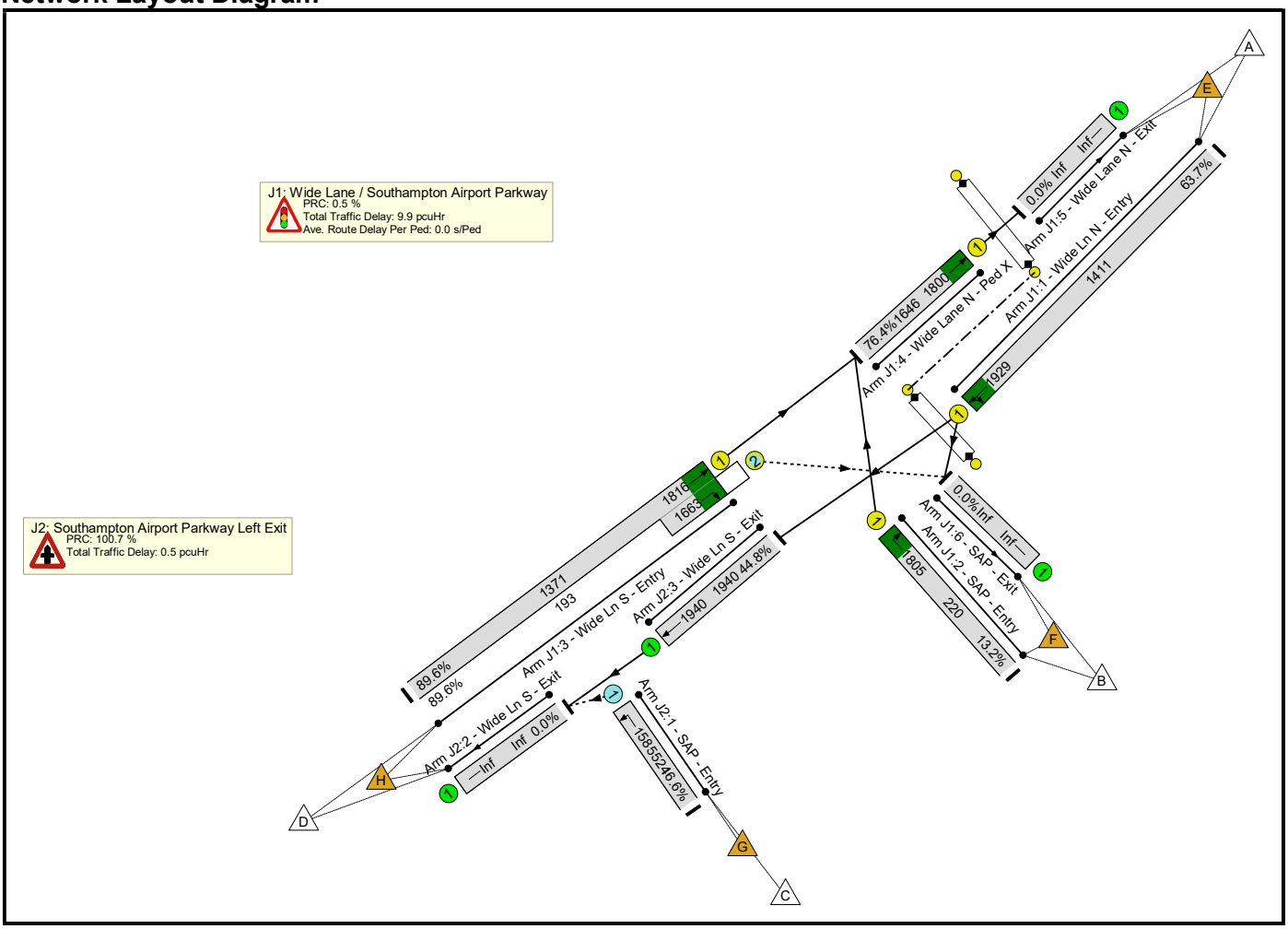
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**68.9%**	**283**	**10**	**3**	**5.6**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**68.9%**	**88**	**10**	**3**	**4.8**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	45	-	990	1932	1437	68.9%	-	-	-	2.5	9.3	12.4
2/1	SAP - Entry Right	U	C		1	12	-	43	1805	231	18.6%	-	-	-	0.5	40.0	0.9
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	55	4	925	1816:1663	1422+174	58.0 : 58.0%	88	10	3	1.2	4.7	4.8
4/1	Wide Lane N - Ped X Ahead	U	E		1	60	-	867	1800	1685	51.5%	-	-	-	0.6	2.3	1.4
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**49.8%**	**195**	**0**	**0**	**0.8**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	195	1585	502	38.8%	195	0	0	0.3	5.8	0.3
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	966	1940	1940	49.8%	-	-	-	0.5	1.8	0.5

C1 PRC for Signalled Lanes (%): 30.6 Total Delay for Signalled Lanes (pcuHr): 4.78 Cycle Time (s): 78
PRC Over All Lanes (%): 30.6 Total Delay Over All Lanes(pcuHr): 5.59

Basic Results Summary

Scenario 5: 'FB 2036 AM' (FG7: 'FB 2036 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**89.6%**	**239**	**17**	**4**	**10.4**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**89.6%**	**152**	**17**	**4**	**9.9**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	49	-	899	1929	1411	63.7%	-	-	-	2.3	9.0	11.1
2/1	SAP - Entry Right	U	C		1	12	-	29	1805	220	13.2%	-	-	-	0.3	41.6	0.7
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	59	4	1401	1816:1663	1371+193	89.6 : 89.6%	152	17	4	5.6	14.5	22.1
4/1	Wide Lane N - Ped X Ahead	U	E		1	64	-	1257	1800	1646	76.4%	-	-	-	1.6	4.7	3.1
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**44.8%**	**87**	**0**	**0**	**0.5**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	87	1585	524	16.6%	87	0	0	0.1	4.1	0.1
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	870	1940	1940	44.8%	-	-	-	0.4	1.7	0.4

C1

PRC for Signalled Lanes (%): 0.5
PRC Over All Lanes (%): 0.5

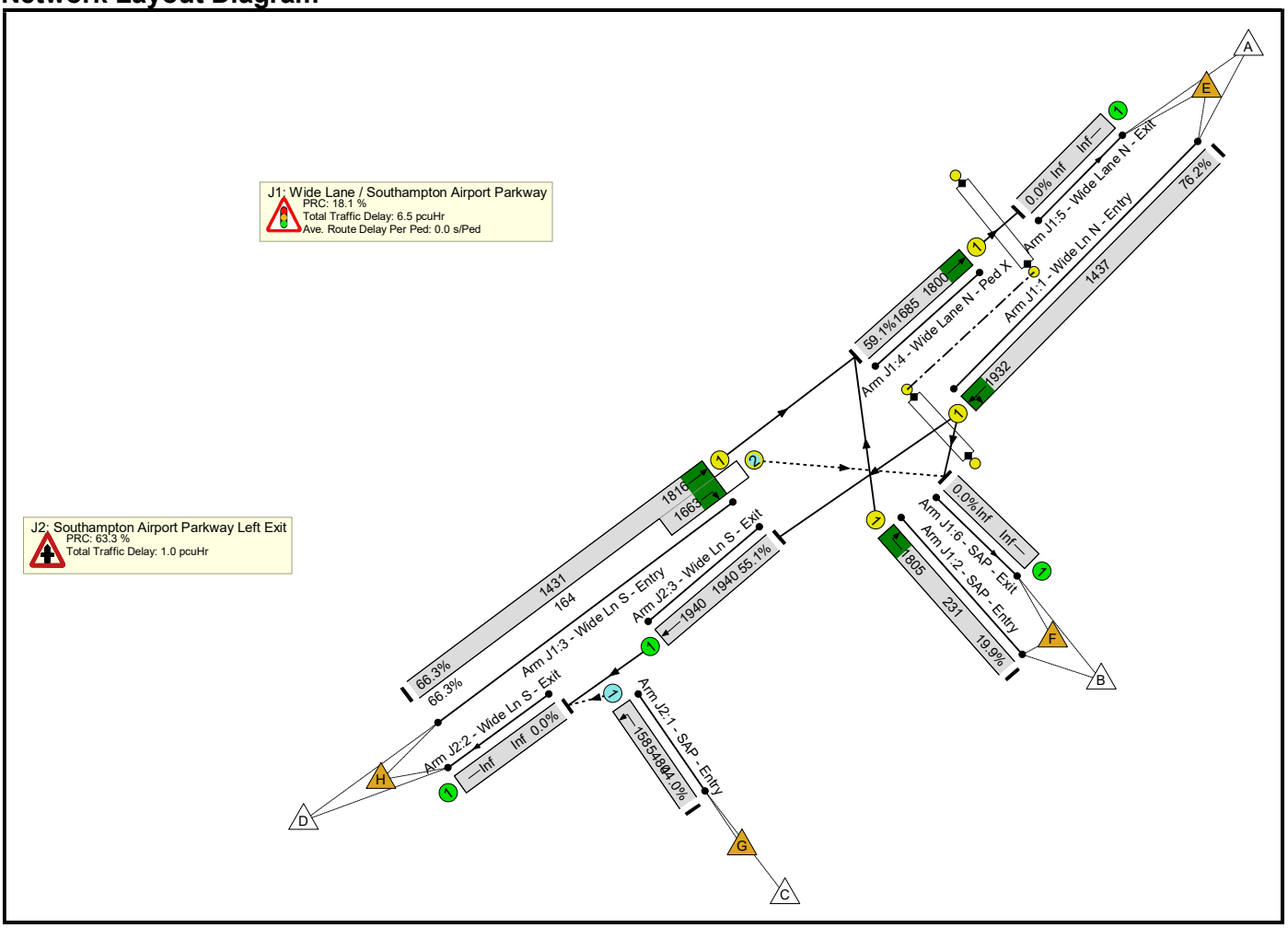
Total Delay for Signalled Lanes (pcuHr): 9.88
Total Delay Over All Lanes(pcuHr): 10.38

Cycle Time (s): 82

Basic Results Summary

Scenario 6: 'FB 2036 PM' (FG8: 'FB 2036 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

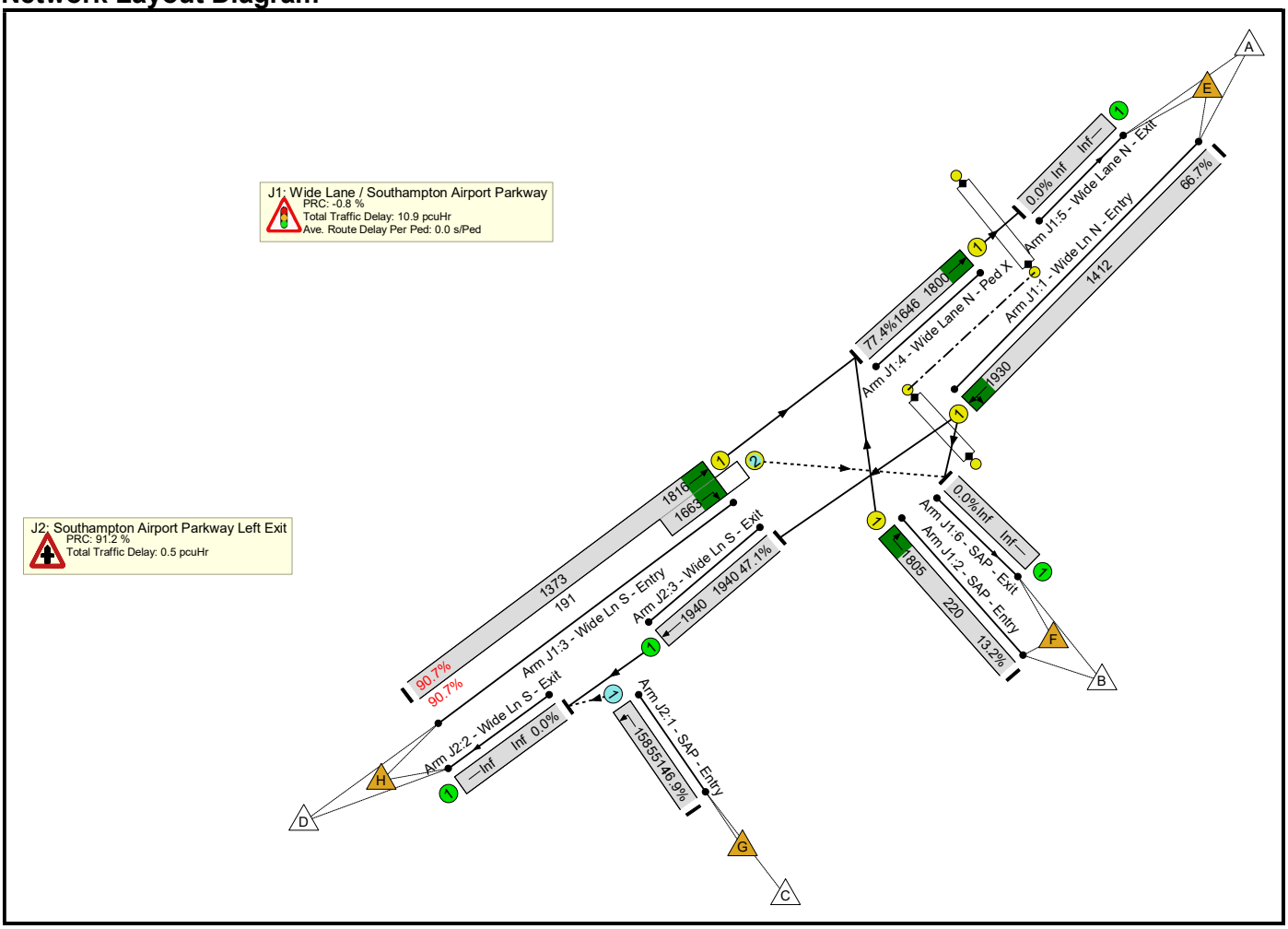
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**76.2%**	**306**	**11**	**3**	**7.5**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**76.2%**	**95**	**11**	**3**	**6.5**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	45	-	1095	1932	1437	76.2%	-	-	-	3.4	11.1	15.6
2/1	SAP - Entry Right	U	C		1	12	-	46	1805	231	19.9%	-	-	-	0.5	40.2	1.0
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	55	4	1058	1816:1663	1431+164	66.3 : 66.3%	95	11	3	1.8	6.1	6.9
4/1	Wide Lane N - Ped X Ahead	U	E		1	60	-	995	1800	1685	59.1%	-	-	-	0.7	2.7	2.2
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**55.1%**	**211**	**0**	**0**	**1.0**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	211	1585	480	44.0%	211	0	0	0.4	6.7	0.4
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	1069	1940	1940	55.1%	-	-	-	0.6	2.1	0.6

C1 PRC for Signalled Lanes (%): 18.1 Total Delay for Signalled Lanes (pcuHr): 6.45 Cycle Time (s): 78
PRC Over All Lanes (%): 18.1 Total Delay Over All Lanes(pcuHr): 7.46

Basic Results Summary

Scenario 7: 'Proposed 2036 AM' (FG5: 'Proposed 2036 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**90.7%**	**239**	**17**	**4**	**11.4**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**90.7%**	**152**	**17**	**4**	**10.9**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	49	-	942	1930	1412	66.7%	-	-	-	2.5	9.6	12.0
2/1	SAP - Entry Right	U	C		1	12	-	29	1805	220	13.2%	-	-	-	0.3	41.6	0.7
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	59	4	1419	1816:1663	1373+191	90.7 : 90.7%	152	17	4	6.3	16.0	23.6
4/1	Wide Lane N - Ped X Ahead	U	E		1	64	-	1275	1800	1646	77.4%	-	-	-	1.7	4.9	3.2
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**47.1%**	**87**	**0**	**0**	**0.5**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	87	1585	514	16.9%	87	0	0	0.1	4.2	0.1
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	913	1940	1940	47.1%	-	-	-	0.4	1.8	0.4

C1

PRC for Signalled Lanes (%): -0.8
PRC Over All Lanes (%): -0.8

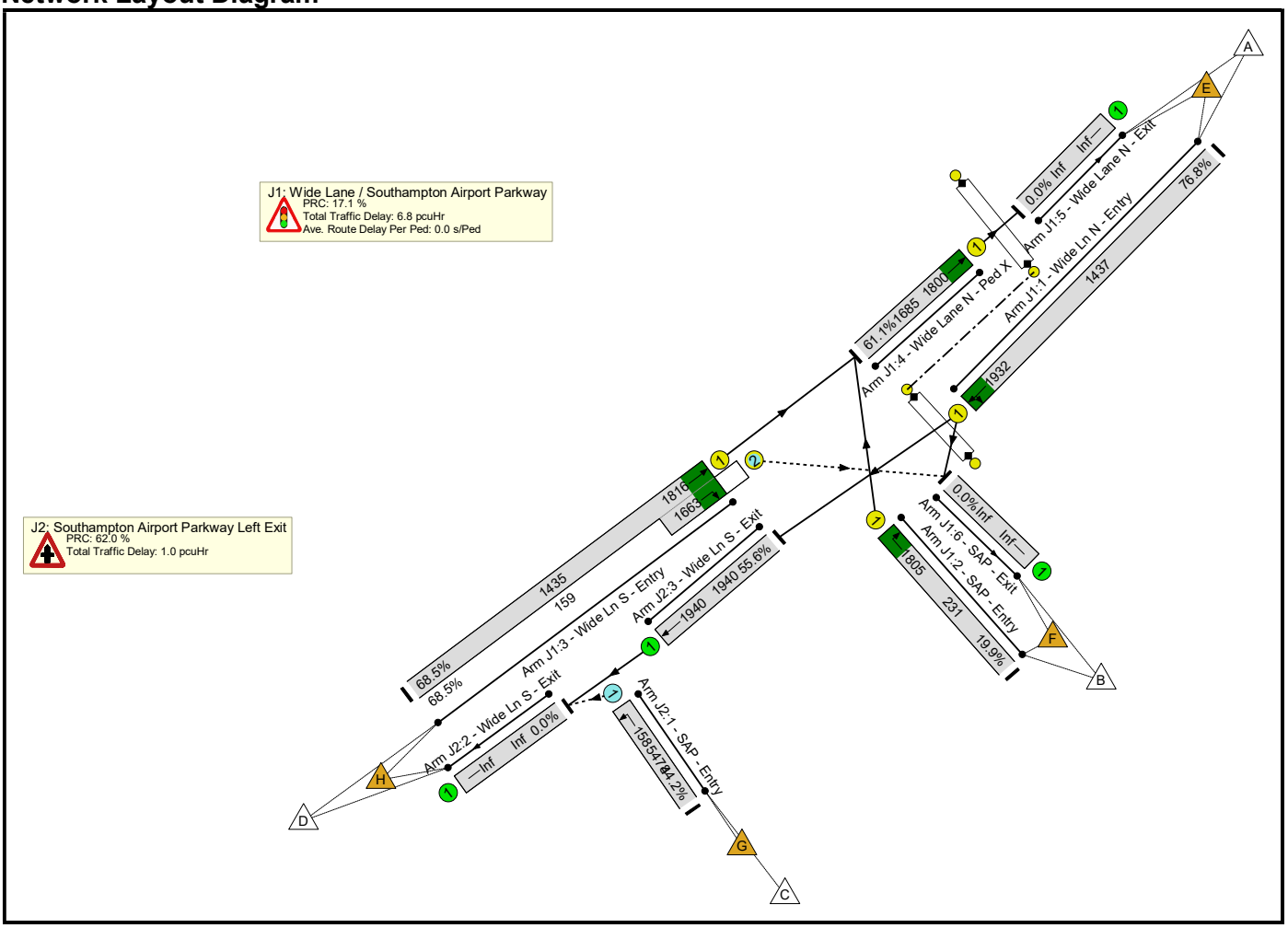
Total Delay for Signalled Lanes (pcuHr): 10.90
Total Delay Over All Lanes(pcuHr): 11.44

Cycle Time (s): 82

Basic Results Summary

Scenario 8: 'Proposed 2036 PM' (FG6: 'Proposed 2036 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**76.8%**	**305**	**12**	**3**	**7.8**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**76.8%**	**94**	**12**	**3**	**6.8**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	45	-	1104	1932	1437	76.8%	-	-	-	3.5	11.3	15.8
2/1	SAP - Entry Right	U	C		1	12	-	46	1805	231	19.9%	-	-	-	0.5	40.2	1.0
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	55	4	1092	1816:1663	1435+159	68.5 : 68.5%	94	12	3	2.0	6.5	7.3
4/1	Wide Lane N - Ped X Ahead	U	E		1	60	-	1029	1800	1685	61.1%	-	-	-	0.8	2.8	2.3
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**55.6%**	**211**	**0**	**0**	**1.0**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	211	1585	478	44.2%	211	0	0	0.4	6.7	0.4
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	1078	1940	1940	55.6%	-	-	-	0.6	2.1	0.6

C1

PRC for Signalled Lanes (%): 17.1
PRC Over All Lanes (%): 17.1

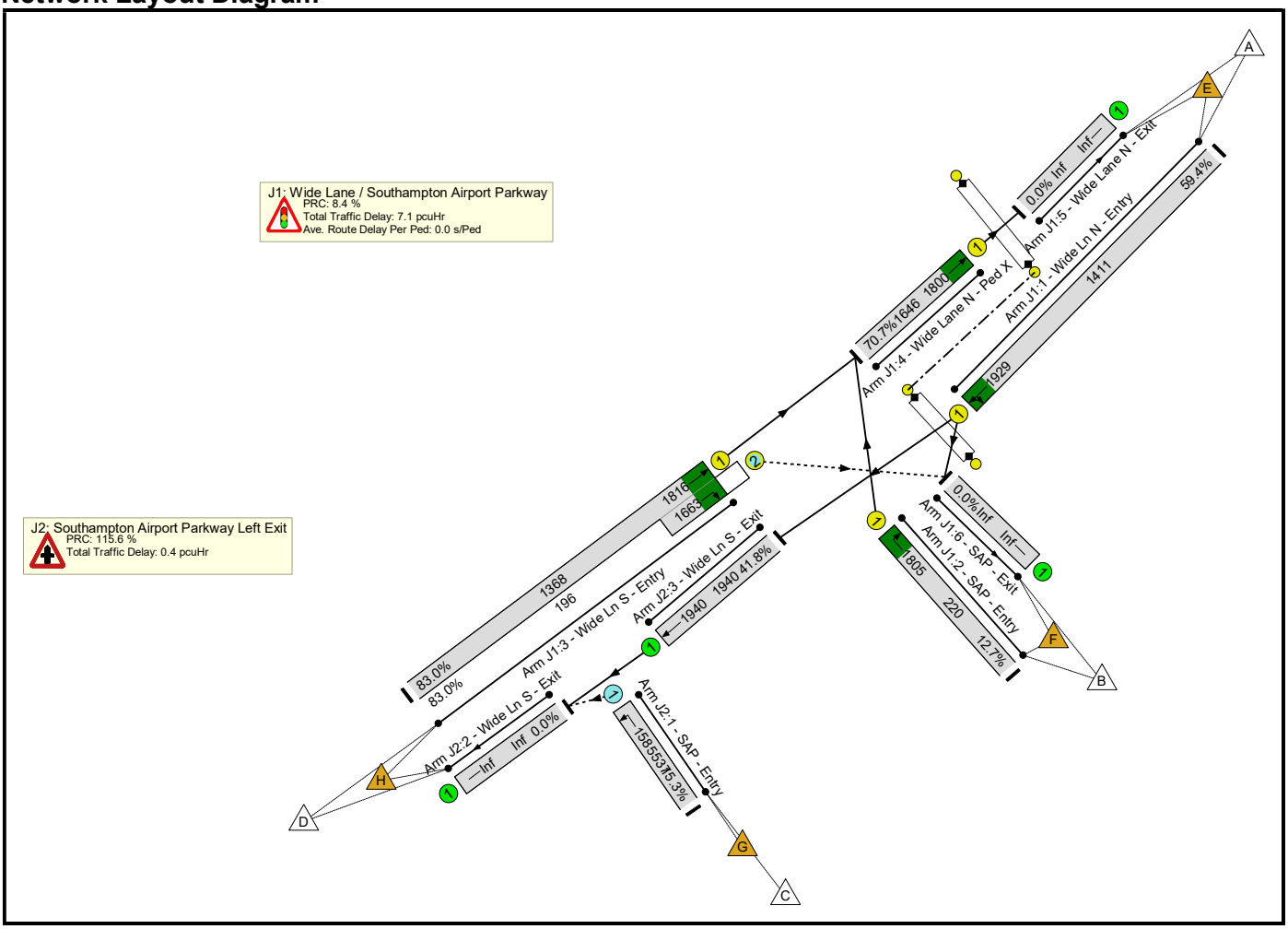
Total Delay for Signalled Lanes (pcuHr): 6.76
Total Delay Over All Lanes(pcuHr): 7.78

Cycle Time (s): 78

Basic Results Summary

Scenario 9: 'FB 2028 AM' (FG9: 'FB 2028 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**83.0%**	**225**	**16**	**4**	**7.5**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**83.0%**	**143**	**16**	**4**	**7.1**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	49	-	838	1929	1411	59.4%	-	-	-	1.9	8.3	9.6
2/1	SAP - Entry Right	U	C		1	12	-	28	1805	220	12.7%	-	-	-	0.3	41.5	0.6
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	59	4	1299	1816:1663	1368+196	83.0 : 83.0%	143	16	4	3.6	9.8	15.4
4/1	Wide Lane N - Ped X Ahead	U	E		1	64	-	1164	1800	1646	70.7%	-	-	-	1.2	3.8	2.7
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**41.8%**	**82**	**0**	**0**	**0.4**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	82	1585	537	15.3%	82	0	0	0.1	4.0	0.1
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	810	1940	1940	41.8%	-	-	-	0.4	1.6	0.4

C1

PRC for Signalled Lanes (%): 8.4
PRC Over All Lanes (%): 8.4

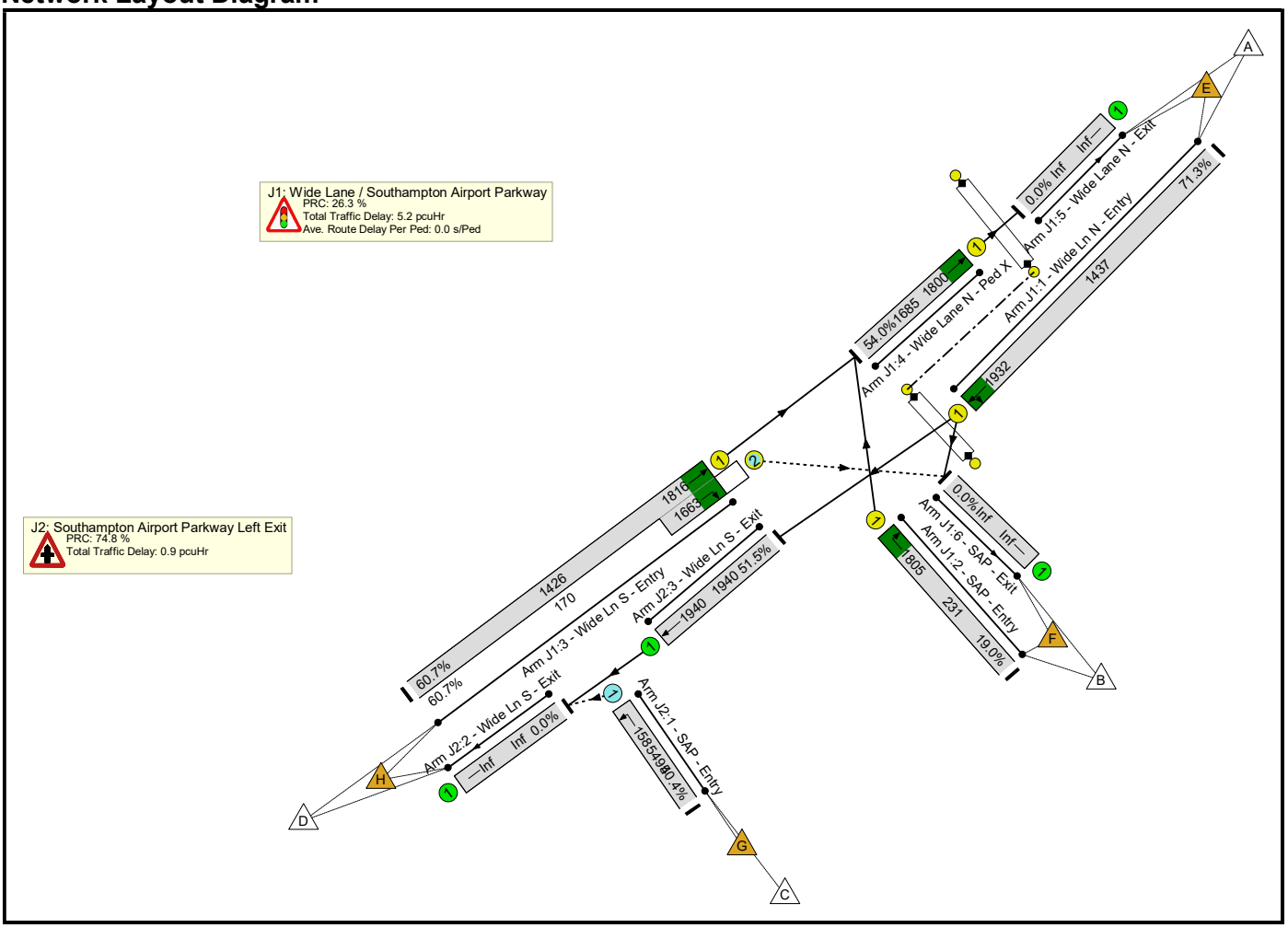
Total Delay for Signalled Lanes (pcuHr): 7.06
Total Delay Over All Lanes(pcuHr): 7.51

Cycle Time (s): 82

Basic Results Summary

Scenario 10: 'FB 2028 PM' (FG10: 'FB 2028 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**71.3%**	**290**	**11**	**3**	**6.1**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**71.3%**	**90**	**11**	**3**	**5.2**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	45	-	1024	1932	1437	71.3%	-	-	-	2.8	9.8	13.2
2/1	SAP - Entry Right	U	C		1	12	-	44	1805	231	19.0%	-	-	-	0.5	40.0	1.0
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	55	4	968	1816:1663	1426+170	60.7 : 60.7%	90	11	3	1.4	5.0	5.3
4/1	Wide Lane N - Ped X Ahead	U	E		1	60	-	909	1800	1685	54.0%	-	-	-	0.6	2.4	2.1
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**51.5%**	**200**	**0**	**0**	**0.9**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	200	1585	495	40.4%	200	0	0	0.3	6.1	0.3
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	999	1940	1940	51.5%	-	-	-	0.5	1.9	0.5

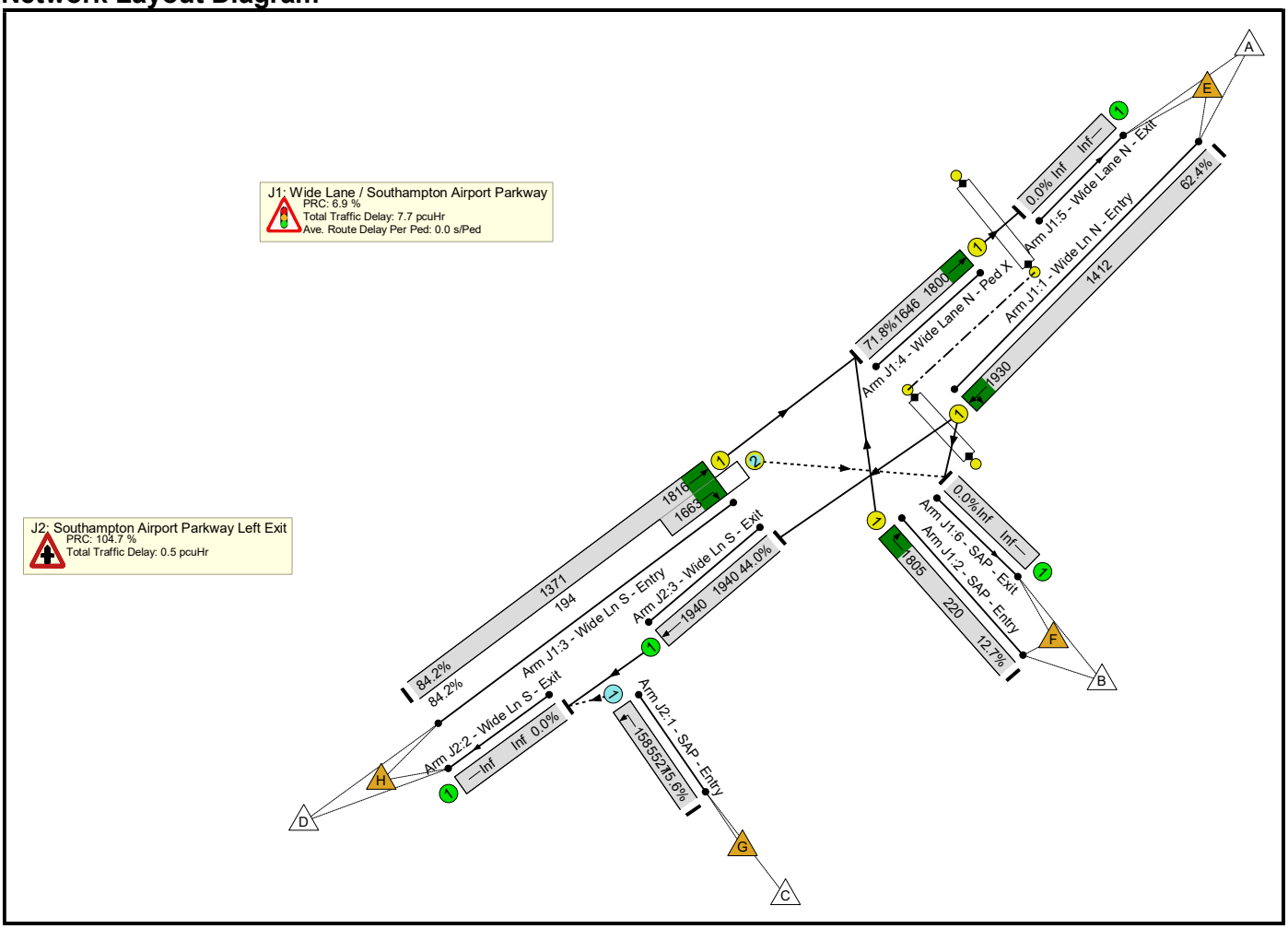
C1

PRC for Signalled Lanes (%): 26.3
PRC Over All Lanes (%): 26.3
Total Delay for Signalled Lanes (pcuHr): 5.24
Total Delay Over All Lanes(pcuHr): 6.11
Cycle Time (s): 78

Basic Results Summary

Scenario 11: 'Proposed 2028 AM' (FG11: 'Proposed 2028 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**84.2%**	**225**	**16**	**4**	**8.1**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**84.2%**	**143**	**16**	**4**	**7.7**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	49	-	881	1930	1412	62.4%	-	-	-	2.2	8.8	10.6
2/1	SAP - Entry Right	U	C		1	12	-	28	1805	220	12.7%	-	-	-	0.3	41.5	0.6
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	59	4	1317	1816:1663	1371+194	84.2 : 84.2%	143	16	4	3.9	10.6	16.2
4/1	Wide Lane N - Ped X Ahead	U	E		1	64	-	1182	1800	1646	71.8%	-	-	-	1.3	4.0	2.8
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**44.0%**	**82**	**0**	**0**	**0.5**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	82	1585	527	15.6%	82	0	0	0.1	4.0	0.1
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	853	1940	1940	44.0%	-	-	-	0.4	1.7	0.4

C1

PRC for Signalled Lanes (%): 6.9
PRC Over All Lanes (%): 6.9

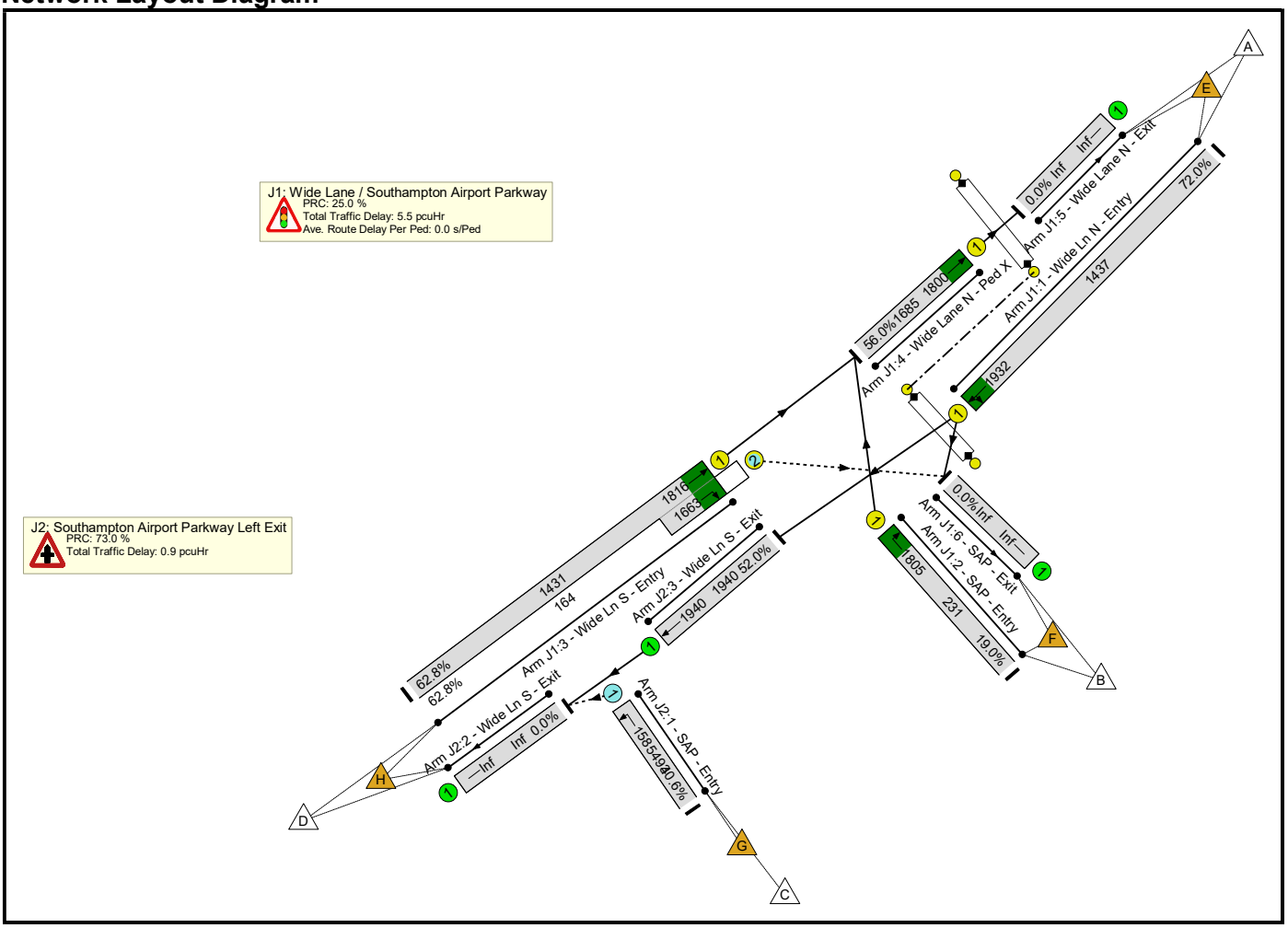
Total Delay for Signalled Lanes (pcuHr): 7.65
Total Delay Over All Lanes(pcuHr): 8.14

Cycle Time (s): 82

Basic Results Summary

Scenario 12: 'Proposed 2028 PM' (FG12: 'Proposed 2028 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**72.0%**	**290**	**11**	**3**	**6.4**	-	-
J1: Wide Lane / Southampton Airport Parkway	-	-	-		-	-	-	-	-	-	**72.0%**	**90**	**11**	**3**	**5.5**	-	-
1/1	Wide Ln N - Entry Left Ahead	U	B		1	45	-	1034	1932	1437	72.0%	-	-	-	2.9	10.0	13.6
2/1	SAP - Entry Right	U	C		1	12	-	44	1805	231	19.0%	-	-	-	0.5	40.0	1.0
3/1+3/2	Wide Ln S - Entry Ahead Right	U+O	A	D	1	55	4	1002	1816:1663	1431+164	62.8 : 62.8%	90	11	3	1.5	5.2	5.6
4/1	Wide Lane N - Ped X Ahead	U	E		1	60	-	943	1800	1685	56.0%	-	-	-	0.7	2.5	2.1
Ped Link: P1	Unnamed Ped Link	-	F		1	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Southampton Airport Parkway Left Exit	-	-	-		-	-	-	-	-	-	**52.0%**	**200**	**0**	**0**	**0.9**	-	-
1/1	SAP - Entry Left	O	-		-	-	-	200	1585	493	40.6%	200	0	0	0.3	6.1	0.3
3/1	Wide Ln S - Exit Ahead	U	-		-	-	-	1009	1940	1940	52.0%	-	-	-	0.5	1.9	0.5

C1 PRC for Signalled Lanes (%): 25.0 Total Delay for Signalled Lanes (pcuHr): 5.47 Cycle Time (s): 78
PRC Over All Lanes (%): 25.0 Total Delay Over All Lanes(pcuHr): 6.35

Appendix C - J03 A335/ Wide Lane Roundabout Without Lane Simulation Junction Modelling Results

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Arm 1_Lane 1.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model
Report generation date: 21/03/2025 09:22:02

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023							
1 - Wide Lane (NE)	0.5	6.89	0.32	A	0.7	7.68	0.41	A
4 - Wide Lane (NE)	3.7	22.43	0.77	C	11.2	56.75	0.95	F
2 - Wide Lane (S)	1.6	6.11	0.61	A	1.4	6.01	0.58	A
3 - A335 (NW)	5.6	14.79	0.85	B	2.3	6.56	0.69	A
	FB 2025							
1 - Wide Lane (NE)	0.5	7.26	0.34	A	0.8	8.11	0.43	A
4 - Wide Lane (NE)	4.4	26.75	0.81	D	16.0	76.99	0.98	F
2 - Wide Lane (S)	1.8	6.70	0.64	A	1.6	6.63	0.61	A
3 - A335 (NW)	7.5	19.42	0.89	C	2.6	7.22	0.71	A
	FB 2028							
1 - Wide Lane (NE)	0.6	8.14	0.39	A	0.9	9.21	0.48	A
4 - Wide Lane (NE)	6.2	37.17	0.86	E	27.8	122.26	1.04	F
2 - Wide Lane (S)	2.4	8.02	0.70	A	2.1	7.89	0.68	A
3 - A335 (NW)	14.4	36.05	0.95	E	3.2	8.74	0.76	A
	DS 2028							
1 - Wide Lane (NE)	1.0	11.36	0.51	B	1.3	12.13	0.56	B
4 - Wide Lane (NE)	15.4	90.41	0.98	F	63.9	270.79	1.17	F
2 - Wide Lane (S)	4.3	12.81	0.81	B	4.9	14.50	0.83	B
3 - A335 (NW)	102.8	184.58	1.12	F	6.3	15.57	0.86	C
	FB 2036							
1 - Wide Lane (NE)	0.8	9.40	0.45	A	1.2	10.85	0.54	B
4 - Wide Lane (NE)	11.8	67.12	0.95	F	63.4	254.55	1.16	F
2 - Wide Lane (S)	4.2	12.53	0.81	B	3.6	11.40	0.78	B
3 - A335 (NW)	73.2	139.51	1.08	F	5.4	13.81	0.85	B
	DS 2036							
1 - Wide Lane (NE)	1.3	12.59	0.56	B	1.6	14.95	0.62	B
4 - Wide Lane (NE)	25.2	134.29	1.03	F	105.5	512.75	1.31	F
2 - Wide Lane (S)	9.4	25.51	0.91	D	10.7	28.86	0.93	D
3 - A335 (NW)	206.5	440.92	1.25	F	14.8	34.89	0.95	D

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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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 segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	13.06	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
4	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	3.00	3.77	15.0	25.0	22.0	31.0	
4 - Wide Lane (NE)	3.00	3.68	11.0	155.0	22.0	31.0	
2 - Wide Lane (S)	3.72	9.60	19.0	69.0	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.545	1116
4 - Wide Lane (NE)	0.557	1123
2 - Wide Lane (S)	0.725	2008
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	232	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	558	100.000
2 - Wide Lane (S)		ONE HOUR	✓	864	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	0	0
	4 - Wide Lane (NE)	0	0	0	558
	2 - Wide Lane (S)	484	0	0	380
	3 - A335 (NW)	737	0	536	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	7
	3 - A335 (NW)	4	0	7	50

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 - Wide Lane (NE)	0.32	6.89	0.5	A	213	319
4 - Wide Lane (NE)	0.77	22.43	3.7	C	512	768
2 - Wide Lane (S)	0.61	6.11	1.6	A	793	1189
3 - A335 (NW)	0.85	14.79	5.6	B	1171	1756

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	175	44	404	896	0.195	174	915	0.0	0.2	5.125	A
4 - Wide Lane (NE)	420	105	404	899	0.468	416	174	0.0	1.0	8.369	A
2 - Wide Lane (S)	650	163	418	1705	0.382	648	401	0.0	0.6	3.517	A
3 - A335 (NW)	961	240	363	1783	0.539	956	703	0.0	1.2	4.559	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	209	52	483	853	0.245	208	1095	0.2	0.3	5.748	A
4 - Wide Lane (NE)	502	125	483	854	0.587	499	208	1.0	1.6	11.381	B
2 - Wide Lane (S)	777	194	502	1644	0.472	776	480	0.6	0.9	4.286	A
3 - A335 (NW)	1147	287	434	1730	0.663	1144	843	1.2	2.0	6.432	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
1 - Wide Lane (NE)	255	64	588	796	0.321	255	1335	0.3	0.5	6.846	A
4 - Wide Lane (NE)	614	154	588	796	0.772	607	255	1.6	3.5	20.686	C
2 - Wide Lane (S)	951	238	610	1566	0.607	949	585	0.9	1.6	6.013	A
3 - A335 (NW)	1405	351	531	1659	0.847	1392	1027	2.0	5.3	13.578	B

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 - Wide Lane (NE)	255	64	593	793	0.322	255	1344	0.5	0.5	6.895	A
4 - Wide Lane (NE)	614	154	593	793	0.775	614	255	3.5	3.7	22.429	C
2 - Wide Lane (S)	951	238	617	1561	0.609	951	590	1.6	1.6	6.110	A
3 - A335 (NW)	1405	351	533	1658	0.848	1404	1035	5.3	5.6	14.788	B

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 - Wide Lane (NE)	209	52	490	849	0.246	209	1107	0.5	0.3	5.801	A
4 - Wide Lane (NE)	502	125	490	850	0.590	510	209	3.7	1.7	12.205	B
2 - Wide Lane (S)	777	194	512	1637	0.475	779	488	1.6	0.9	4.360	A
3 - A335 (NW)	1147	287	437	1728	0.664	1161	855	5.6	2.1	6.833	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
1 - Wide Lane (NE)	175	44	407	894	0.195	175	922	0.3	0.3	5.158	A
4 - Wide Lane (NE)	420	105	407	897	0.469	423	175	1.7	1.0	8.634	A
2 - Wide Lane (S)	650	163	425	1700	0.383	652	405	0.9	0.6	3.558	A
3 - A335 (NW)	961	240	365	1781	0.539	964	712	2.1	1.2	4.660	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	18.50	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	301	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	689	100.000
2 - Wide Lane (S)		ONE HOUR	✓	762	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	0	0
	4 - Wide Lane (NE)	0	0	0	689
	2 - Wide Lane (S)	274	0	0	488
	3 - A335 (NW)	620	0	514	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	2	0	0	4
	3 - A335 (NW)	5	0	3	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 - Wide Lane (NE)	0.41	7.68	0.7	A	276	414
4 - Wide Lane (NE)	0.95	56.75	11.2	F	632	948
2 - Wide Lane (S)	0.58	6.01	1.4	A	699	1049
3 - A335 (NW)	0.69	6.56	2.3	A	1045	1568

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	227	57	389	904	0.251	225	673	0.0	0.3	5.342	A
4 - Wide Lane (NE)	519	130	392	905	0.573	513	222	0.0	1.3	9.169	A
2 - Wide Lane (S)	574	143	520	1631	0.352	571	385	0.0	0.6	3.501	A
3 - A335 (NW)	857	214	208	1896	0.452	854	883	0.0	0.9	3.583	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
1 - Wide Lane (NE)	271	68	466	862	0.314	270	806	0.3	0.5	6.132	A
4 - Wide Lane (NE)	619	155	469	862	0.719	615	267	1.3	2.4	14.455	B
2 - Wide Lane (S)	685	171	623	1557	0.440	684	461	0.6	0.8	4.256	A
3 - A335 (NW)	1024	256	250	1866	0.549	1022	1057	0.9	1.3	4.433	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
1 - Wide Lane (NE)	331	83	570	806	0.411	330	986	0.5	0.7	7.631	A
4 - Wide Lane (NE)	759	190	574	804	0.944	732	326	2.4	9.2	40.501	E
2 - Wide Lane (S)	839	210	742	1471	0.571	837	564	0.8	1.4	5.846	A
3 - A335 (NW)	1254	314	305	1825	0.687	1250	1273	1.3	2.2	6.473	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
1 - Wide Lane (NE)	331	83	571	805	0.412	331	989	0.7	0.7	7.676	A
4 - Wide Lane (NE)	759	190	576	803	0.945	750	327	9.2	11.2	56.755	F
2 - Wide Lane (S)	839	210	760	1457	0.576	839	566	1.4	1.4	6.011	A
3 - A335 (NW)	1254	314	306	1824	0.687	1254	1293	2.2	2.3	6.564	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
1 - Wide Lane (NE)	271	68	468	861	0.314	272	810	0.7	0.5	6.177	A
4 - Wide Lane (NE)	619	155	472	861	0.720	653	268	11.2	2.8	20.027	C
2 - Wide Lane (S)	685	171	661	1529	0.448	687	464	1.4	0.8	4.430	A
3 - A335 (NW)	1024	256	251	1865	0.549	1028	1098	2.3	1.3	4.496	A

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 - Wide Lane (NE)	227	57	391	903	0.251	227	677	0.5	0.3	5.384	A
4 - Wide Lane (NE)	519	130	395	904	0.574	524	224	2.8	1.4	9.713	A
2 - Wide Lane (S)	574	143	531	1623	0.353	575	388	0.8	0.6	3.548	A
3 - A335 (NW)	857	214	210	1895	0.452	859	896	1.3	0.9	3.623	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	16.03	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	241	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	570	100.000
2 - Wide Lane (S)		ONE HOUR	✓	908	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	0	0
	4 - Wide Lane (NE)	0	0	0	570
	2 - Wide Lane (S)	504	0	0	404
	3 - A335 (NW)	752	0	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	6
	3 - A335 (NW)	4	0	7	50

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 - Wide Lane (NE)	0.34	7.26	0.5	A	221	332
4 - Wide Lane (NE)	0.81	26.75	4.4	D	523	785
2 - Wide Lane (S)	0.64	6.70	1.8	A	833	1250
3 - A335 (NW)	0.89	19.42	7.5	C	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	181	45	425	885	0.205	180	941	0.0	0.3	5.258	A
4 - Wide Lane (NE)	429	107	425	886	0.484	425	180	0.0	1.0	8.739	A
2 - Wide Lane (S)	684	171	425	1700	0.402	681	425	0.0	0.7	3.635	A
3 - A335 (NW)	994	248	378	1772	0.561	988	728	0.0	1.3	4.806	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	217	54	509	839	0.258	216	1126	0.3	0.4	5.950	A
4 - Wide Lane (NE)	512	128	509	840	0.610	510	216	1.0	1.7	12.219	B
2 - Wide Lane (S)	816	204	510	1639	0.498	815	509	0.7	1.0	4.501	A
3 - A335 (NW)	1187	297	452	1717	0.691	1183	872	1.3	2.3	7.043	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
1 - Wide Lane (NE)	265	66	617	780	0.340	265	1371	0.4	0.5	7.189	A
4 - Wide Lane (NE)	628	157	617	780	0.805	618	265	1.7	4.1	23.851	C
2 - Wide Lane (S)	1000	250	618	1560	0.641	997	617	1.0	1.8	6.552	A
3 - A335 (NW)	1453	363	553	1643	0.885	1435	1061	2.3	6.9	16.897	C

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 - Wide Lane (NE)	265	66	624	776	0.342	265	1382	0.5	0.5	7.260	A
4 - Wide Lane (NE)	628	157	624	776	0.809	626	265	4.1	4.4	26.745	D
2 - Wide Lane (S)	1000	250	626	1554	0.643	1000	624	1.8	1.8	6.696	A
3 - A335 (NW)	1453	363	555	1642	0.885	1451	1071	6.9	7.5	19.423	C

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 - Wide Lane (NE)	217	54	519	833	0.260	217	1142	0.5	0.4	6.025	A
4 - Wide Lane (NE)	512	128	519	834	0.614	523	217	4.4	1.9	13.460	B
2 - Wide Lane (S)	816	204	523	1629	0.501	819	519	1.8	1.0	4.604	A
3 - A335 (NW)	1187	297	455	1715	0.692	1207	887	7.5	2.4	7.737	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
1 - Wide Lane (NE)	181	45	429	882	0.206	182	949	0.4	0.3	5.298	A
4 - Wide Lane (NE)	429	107	429	884	0.485	432	182	1.9	1.1	9.062	A
2 - Wide Lane (S)	684	171	432	1695	0.403	685	429	1.0	0.7	3.681	A
3 - A335 (NW)	994	248	380	1770	0.561	998	737	2.4	1.4	4.935	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	23.51	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	312	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	703	100.000
2 - Wide Lane (S)		ONE HOUR	✓	810	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	0	0
	4 - Wide Lane (NE)	0	0	0	703
	2 - Wide Lane (S)	291	0	0	519
	3 - A335 (NW)	633	0	536	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	2	0	0	4
	3 - A335 (NW)	5	0	3	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 - Wide Lane (NE)	0.43	8.11	0.8	A	286	429
4 - Wide Lane (NE)	0.98	76.99	16.0	F	645	968
2 - Wide Lane (S)	0.61	6.63	1.6	A	743	1115
3 - A335 (NW)	0.71	7.22	2.6	A	1077	1616

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	235	59	406	895	0.262	233	696	0.0	0.4	5.482	A
4 - Wide Lane (NE)	529	132	409	896	0.591	524	230	0.0	1.4	9.628	A
2 - Wide Lane (S)	610	152	530	1624	0.376	607	402	0.0	0.6	3.648	A
3 - A335 (NW)	884	221	221	1887	0.468	880	916	0.0	0.9	3.707	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
1 - Wide Lane (NE)	280	70	486	852	0.329	280	833	0.4	0.5	6.353	A
4 - Wide Lane (NE)	632	158	489	851	0.743	627	276	1.4	2.7	15.842	C
2 - Wide Lane (S)	728	182	635	1548	0.470	727	481	0.6	0.9	4.521	A
3 - A335 (NW)	1055	264	265	1855	0.569	1054	1097	0.9	1.4	4.665	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
1 - Wide Lane (NE)	344	86	594	793	0.433	342	1018	0.5	0.8	8.052	A
4 - Wide Lane (NE)	774	194	598	790	0.979	737	338	2.7	11.9	49.526	E
2 - Wide Lane (S)	892	223	747	1467	0.608	889	588	0.9	1.6	6.408	A
3 - A335 (NW)	1293	323	324	1811	0.714	1288	1312	1.4	2.5	7.093	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
1 - Wide Lane (NE)	344	86	596	792	0.434	343	1022	0.8	0.8	8.109	A
4 - Wide Lane (NE)	774	194	600	789	0.981	758	339	11.9	16.0	76.987	F
2 - Wide Lane (S)	892	223	768	1452	0.614	892	590	1.6	1.6	6.633	A
3 - A335 (NW)	1293	323	325	1811	0.714	1292	1334	2.5	2.6	7.223	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
1 - Wide Lane (NE)	280	70	489	850	0.330	282	838	0.8	0.5	6.405	A
4 - Wide Lane (NE)	632	158	492	849	0.744	683	278	16.0	3.2	27.398	D
2 - Wide Lane (S)	728	182	692	1507	0.483	731	484	1.6	1.0	4.807	A
3 - A335 (NW)	1055	264	266	1854	0.569	1060	1156	2.6	1.4	4.748	A

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 - Wide Lane (NE)	235	59	408	894	0.263	235	700	0.5	0.4	5.525	A
4 - Wide Lane (NE)	529	132	411	894	0.592	536	232	3.2	1.5	10.327	B
2 - Wide Lane (S)	610	152	543	1615	0.378	611	404	1.0	0.6	3.708	A
3 - A335 (NW)	884	221	223	1886	0.469	886	931	1.4	0.9	3.751	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	25.44	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	259	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	580	100.000
2 - Wide Lane (S)		ONE HOUR	✓	983	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	0	0
	4 - Wide Lane (NE)	0	0	0	580
	2 - Wide Lane (S)	535	0	0	448
	3 - A335 (NW)	765	0	627	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	6
	3 - A335 (NW)	4	0	6	50

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 - Wide Lane (NE)	0.39	8.14	0.6	A	238	356
4 - Wide Lane (NE)	0.86	37.17	6.2	E	532	798
2 - Wide Lane (S)	0.70	8.02	2.4	A	902	1353
3 - A335 (NW)	0.95	36.05	14.4	E	1280	1920

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	195	49	472	859	0.227	194	974	0.0	0.3	5.560	A
4 - Wide Lane (NE)	437	109	472	861	0.507	432	194	0.0	1.1	9.394	A
2 - Wide Lane (S)	740	185	434	1693	0.437	737	469	0.0	0.8	3.873	A
3 - A335 (NW)	1050	263	401	1755	0.599	1044	770	0.0	1.5	5.273	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	233	58	564	809	0.288	232	1165	0.3	0.4	6.425	A
4 - Wide Lane (NE)	521	130	564	809	0.644	518	232	1.1	2.0	13.809	B
2 - Wide Lane (S)	884	221	521	1631	0.542	882	561	0.8	1.2	4.952	A
3 - A335 (NW)	1254	314	480	1697	0.739	1249	923	1.5	2.9	8.339	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
1 - Wide Lane (NE)	285	71	677	747	0.382	284	1409	0.4	0.6	7.992	A
4 - Wide Lane (NE)	639	160	677	746	0.856	625	284	2.0	5.4	30.463	D
2 - Wide Lane (S)	1082	271	628	1553	0.697	1078	674	1.2	2.3	7.748	A
3 - A335 (NW)	1536	384	587	1618	0.949	1499	1119	2.9	12.1	26.110	D

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 - Wide Lane (NE)	285	71	689	741	0.385	285	1426	0.6	0.6	8.139	A
4 - Wide Lane (NE)	639	160	689	739	0.864	636	285	5.4	6.2	37.170	E
2 - Wide Lane (S)	1082	271	639	1545	0.700	1082	686	2.3	2.4	8.016	A
3 - A335 (NW)	1536	384	589	1616	0.950	1527	1132	12.1	14.4	36.048	E

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 - Wide Lane (NE)	233	58	587	797	0.292	234	1196	0.6	0.4	6.597	A
4 - Wide Lane (NE)	521	130	587	797	0.655	537	234	6.2	2.2	16.536	C
2 - Wide Lane (S)	884	221	540	1617	0.547	888	584	2.4	1.3	5.129	A
3 - A335 (NW)	1254	314	483	1694	0.740	1299	945	14.4	3.1	10.614	B

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 - Wide Lane (NE)	195	49	477	856	0.228	195	983	0.4	0.3	5.614	A
4 - Wide Lane (NE)	437	109	477	858	0.509	441	195	2.2	1.2	9.854	A
2 - Wide Lane (S)	740	185	443	1687	0.439	742	475	1.3	0.8	3.939	A
3 - A335 (NW)	1050	263	404	1753	0.599	1056	781	3.1	1.6	5.472	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	34.08	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	335	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	716	100.000
2 - Wide Lane (S)		ONE HOUR	✓	900	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	0	0
	4 - Wide Lane (NE)	0	0	0	716
	2 - Wide Lane (S)	324	0	0	576
	3 - A335 (NW)	644	0	583	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	2	0	0	3
	3 - A335 (NW)	5	0	3	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 - Wide Lane (NE)	0.48	9.21	0.9	A	307	461
4 - Wide Lane (NE)	1.04	122.26	27.8	F	657	986
2 - Wide Lane (S)	0.68	7.89	2.1	A	826	1239
3 - A335 (NW)	0.76	8.74	3.2	A	1131	1696

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	252	63	441	876	0.288	251	729	0.0	0.4	5.796	A
4 - Wide Lane (NE)	539	135	444	876	0.615	533	248	0.0	1.6	10.407	B
2 - Wide Lane (S)	678	169	540	1617	0.419	675	437	0.0	0.7	3.909	A
3 - A335 (NW)	928	232	246	1869	0.496	923	968	0.0	1.0	3.946	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
1 - Wide Lane (NE)	301	75	528	829	0.363	300	872	0.4	0.6	6.872	A
4 - Wide Lane (NE)	644	161	531	828	0.778	637	297	1.6	3.2	18.438	C
2 - Wide Lane (S)	809	202	645	1541	0.525	808	523	0.7	1.1	5.030	A
3 - A335 (NW)	1108	277	294	1833	0.604	1105	1158	1.0	1.6	5.130	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
1 - Wide Lane (NE)	369	92	644	765	0.482	367	1065	0.6	0.9	9.108	A
4 - Wide Lane (NE)	788	197	649	762	1.034	730	363	3.2	17.8	67.445	F
2 - Wide Lane (S)	991	248	740	1472	0.673	987	639	1.1	2.1	7.563	A
3 - A335 (NW)	1356	339	360	1785	0.760	1350	1367	1.6	3.2	8.486	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
1 - Wide Lane (NE)	369	92	647	764	0.483	369	1070	0.9	0.9	9.206	A
4 - Wide Lane (NE)	788	197	652	760	1.037	748	364	17.8	27.8	122.262	F
2 - Wide Lane (S)	991	248	758	1458	0.679	991	642	2.1	2.1	7.888	A
3 - A335 (NW)	1356	339	361	1784	0.760	1356	1388	3.2	3.2	8.739	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
1 - Wide Lane (NE)	301	75	532	827	0.364	303	878	0.9	0.6	6.955	A
4 - Wide Lane (NE)	644	161	535	825	0.780	738	299	27.8	4.2	59.804	F
2 - Wide Lane (S)	809	202	746	1467	0.551	813	527	2.1	1.3	5.674	A
3 - A335 (NW)	1108	277	296	1832	0.605	1114	1263	3.2	1.6	5.265	A

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 - Wide Lane (NE)	252	63	444	874	0.288	253	734	0.6	0.4	5.857	A
4 - Wide Lane (NE)	539	135	447	875	0.616	549	250	4.2	1.7	11.488	B
2 - Wide Lane (S)	678	169	556	1605	0.422	680	440	1.3	0.8	4.000	A
3 - A335 (NW)	928	232	248	1867	0.497	930	988	1.6	1.0	4.004	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	101.52	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	302	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	580	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1140	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	0	0
	4 - Wide Lane (NE)	0	0	0	580
	2 - Wide Lane (S)	553	0	0	587
	3 - A335 (NW)	765	0	855	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	15
	3 - A335 (NW)	4	0	8	50

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 - Wide Lane (NE)	0.51	11.36	1.0	B	277	416
4 - Wide Lane (NE)	0.98	90.41	15.4	F	532	798
2 - Wide Lane (S)	0.81	12.81	4.3	B	1046	1569
3 - A335 (NW)	1.12	184.58	102.8	F	1489	2234

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	227	57	641	767	0.296	226	986	0.0	0.4	6.762	A
4 - Wide Lane (NE)	437	109	641	766	0.570	431	226	0.0	1.5	11.925	B
2 - Wide Lane (S)	858	215	433	1694	0.507	854	639	0.0	1.1	4.592	A
3 - A335 (NW)	1222	305	414	1745	0.700	1212	873	0.0	2.4	7.049	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	271	68	764	700	0.388	271	1177	0.4	0.6	8.531	A
4 - Wide Lane (NE)	521	130	764	698	0.747	515	271	1.5	3.1	21.474	C
2 - Wide Lane (S)	1025	256	518	1633	0.628	1022	761	1.1	1.8	6.320	A
3 - A335 (NW)	1459	365	496	1685	0.866	1444	1044	2.4	6.1	15.023	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	333	83	839	659	0.505	331	1353	0.6	1.0	11.143	B
4 - Wide Lane (NE)	639	160	839	656	0.973	606	331	3.1	11.3	58.597	F
2 - Wide Lane (S)	1255	314	608	1567	0.801	1246	836	1.8	4.1	11.763	B
3 - A335 (NW)	1787	447	604	1605	1.113	1587	1250	6.1	56.0	80.403	F

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 - Wide Lane (NE)	333	83	846	655	0.507	332	1362	1.0	1.0	11.363	B
4 - Wide Lane (NE)	639	160	846	652	0.979	622	332	11.3	15.4	90.412	F
2 - Wide Lane (S)	1255	314	625	1555	0.807	1254	843	4.1	4.3	12.809	B
3 - A335 (NW)	1787	447	608	1602	1.115	1600	1271	56.0	102.8	184.583	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 - Wide Lane (NE)	271	68	879	637	0.426	273	1286	1.0	0.8	10.103	B
4 - Wide Lane (NE)	521	130	879	634	0.823	558	273	15.4	6.3	61.268	F
2 - Wide Lane (S)	1025	256	561	1602	0.640	1034	876	4.3	2.0	6.944	A
3 - A335 (NW)	1459	365	502	1681	0.868	1663	1093	102.8	51.7	168.907	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 - Wide Lane (NE)	227	57	750	708	0.321	228	1086	0.8	0.5	7.680	A
4 - Wide Lane (NE)	437	109	750	706	0.619	454	228	6.3	1.9	17.209	C
2 - Wide Lane (S)	858	215	457	1677	0.512	861	747	2.0	1.1	4.777	A
3 - A335 (NW)	1222	305	418	1742	0.701	1418	901	51.7	2.6	21.196	C

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	66.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	345	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	716	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1142	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	0	0
	4 - Wide Lane (NE)	0	0	0	716
	2 - Wide Lane (S)	359	0	0	783
	3 - A335 (NW)	644	0	724	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	1	0	0	6
	3 - A335 (NW)	5	0	10	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 - Wide Lane (NE)	0.56	12.13	1.3	B	317	475
4 - Wide Lane (NE)	1.17	270.79	63.9	F	657	986
2 - Wide Lane (S)	0.83	14.50	4.9	B	1048	1572
3 - A335 (NW)	0.86	15.57	6.3	C	1260	1890

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	260	65	546	819	0.317	258	754	0.0	0.5	6.461	A
4 - Wide Lane (NE)	539	135	549	818	0.659	532	255	0.0	1.9	12.407	B
2 - Wide Lane (S)	860	215	538	1618	0.531	855	542	0.0	1.2	4.896	A
3 - A335 (NW)	1034	258	272	1850	0.559	1028	1122	0.0	1.3	4.685	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
1 - Wide Lane (NE)	310	78	653	760	0.408	309	902	0.5	0.7	8.046	A
4 - Wide Lane (NE)	644	161	657	757	0.850	632	306	1.9	4.8	26.775	D
2 - Wide Lane (S)	1027	257	640	1544	0.665	1023	649	1.2	2.0	7.165	A
3 - A335 (NW)	1234	309	325	1810	0.682	1231	1338	1.3	2.3	6.637	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
1 - Wide Lane (NE)	380	95	795	683	0.556	378	1098	0.7	1.2	11.817	B
4 - Wide Lane (NE)	788	197	799	678	1.162	668	373	4.8	35.0	123.404	F
2 - Wide Lane (S)	1257	314	677	1517	0.829	1247	789	2.0	4.7	13.400	B
3 - A335 (NW)	1512	378	396	1758	0.860	1497	1528	2.3	5.9	14.091	B

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 - Wide Lane (NE)	380	95	802	679	0.559	380	1108	1.2	1.3	12.127	B
4 - Wide Lane (NE)	788	197	806	674	1.169	673	375	35.0	63.9	270.788	F
2 - Wide Lane (S)	1257	314	683	1513	0.831	1256	796	4.7	4.9	14.498	B
3 - A335 (NW)	1512	378	399	1756	0.861	1510	1540	5.9	6.3	15.568	C

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 - Wide Lane (NE)	310	78	664	755	0.411	312	916	1.3	0.7	8.258	A
4 - Wide Lane (NE)	644	161	667	752	0.856	740	309	63.9	39.8	252.663	F
2 - Wide Lane (S)	1027	257	748	1466	0.700	1036	659	4.9	2.5	8.930	A
3 - A335 (NW)	1234	309	329	1807	0.683	1250	1455	6.3	2.4	7.131	A

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 - Wide Lane (NE)	260	65	551	816	0.318	261	761	0.7	0.5	6.556	A
4 - Wide Lane (NE)	539	135	554	815	0.662	690	258	39.8	2.1	60.844	F
2 - Wide Lane (S)	860	215	696	1503	0.572	864	547	2.5	1.4	5.919	A
3 - A335 (NW)	1034	258	275	1847	0.560	1038	1286	2.4	1.4	4.805	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	76.43	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	289	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	611	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1122	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	0	0
	4 - Wide Lane (NE)	0	0	0	611
	2 - Wide Lane (S)	597	0	0	525
	3 - A335 (NW)	806	0	728	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	5
	3 - A335 (NW)	4	0	5	50

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 - Wide Lane (NE)	0.45	9.40	0.8	A	265	398
4 - Wide Lane (NE)	0.95	67.12	11.8	F	561	841
2 - Wide Lane (S)	0.81	12.53	4.2	B	1030	1544
3 - A335 (NW)	1.08	139.51	73.2	F	1408	2111

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	218	54	544	820	0.265	216	1050	0.0	0.4	6.127	A
4 - Wide Lane (NE)	460	115	544	820	0.561	454	216	0.0	1.4	10.957	B
2 - Wide Lane (S)	845	211	454	1679	0.503	841	544	0.0	1.0	4.395	A
3 - A335 (NW)	1155	289	447	1721	0.671	1147	848	0.0	2.1	6.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	260	65	649	762	0.341	259	1254	0.4	0.5	7.358	A
4 - Wide Lane (NE)	549	137	649	762	0.721	544	259	1.4	2.7	18.233	C
2 - Wide Lane (S)	1009	252	544	1614	0.625	1006	649	1.0	1.7	6.063	A
3 - A335 (NW)	1379	345	535	1656	0.833	1368	1015	2.1	4.8	12.612	B

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 - Wide Lane (NE)	318	80	732	717	0.444	317	1463	0.5	0.8	9.237	A
4 - Wide Lane (NE)	673	168	732	716	0.940	647	317	2.7	9.3	46.929	E
2 - Wide Lane (S)	1235	309	647	1540	0.802	1226	732	1.7	3.9	11.503	B
3 - A335 (NW)	1689	422	653	1570	1.076	1543	1220	4.8	41.4	64.372	F

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 - Wide Lane (NE)	318	80	741	712	0.447	318	1477	0.8	0.8	9.401	A
4 - Wide Lane (NE)	673	168	741	711	0.947	663	318	9.3	11.8	67.124	F
2 - Wide Lane (S)	1235	309	663	1528	0.809	1234	741	3.9	4.2	12.532	B
3 - A335 (NW)	1689	422	657	1567	1.078	1562	1240	41.4	73.2	139.510	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 - Wide Lane (NE)	260	65	773	695	0.374	261	1397	0.8	0.6	8.546	A
4 - Wide Lane (NE)	549	137	773	693	0.792	577	261	11.8	4.9	39.891	E
2 - Wide Lane (S)	1009	252	577	1590	0.634	1018	773	4.2	1.8	6.575	A
3 - A335 (NW)	1379	345	542	1651	0.835	1628	1053	73.2	11.0	98.168	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 - Wide Lane (NE)	218	54	565	809	0.269	219	1076	0.6	0.4	6.294	A
4 - Wide Lane (NE)	460	115	565	809	0.569	473	219	4.9	1.5	12.586	B
2 - Wide Lane (S)	845	211	473	1665	0.507	848	565	1.8	1.1	4.547	A
3 - A335 (NW)	1155	289	451	1718	0.672	1190	870	11.0	2.2	7.590	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	64.71	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	352	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	754	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1054	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	0	0
	4 - Wide Lane (NE)	0	0	0	754
	2 - Wide Lane (S)	380	0	0	674
	3 - A335 (NW)	679	0	652	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	1	0	0	3
	3 - A335 (NW)	5	0	3	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 - Wide Lane (NE)	0.54	10.85	1.2	B	323	485
4 - Wide Lane (NE)	1.16	254.55	63.4	F	692	1038
2 - Wide Lane (S)	0.78	11.40	3.6	B	967	1451
3 - A335 (NW)	0.85	13.81	5.4	B	1226	1839

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	265	66	492	848	0.312	263	796	0.0	0.5	6.197	A
4 - Wide Lane (NE)	568	142	495	848	0.670	560	260	0.0	2.0	12.322	B
2 - Wide Lane (S)	794	198	567	1598	0.497	790	488	0.0	1.0	4.535	A
3 - A335 (NW)	1006	251	288	1838	0.547	1001	1068	0.0	1.2	4.447	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
1 - Wide Lane (NE)	316	79	589	795	0.398	316	953	0.5	0.7	7.567	A
4 - Wide Lane (NE)	678	169	593	793	0.854	666	312	2.0	5.0	26.324	D
2 - Wide Lane (S)	948	237	674	1520	0.624	945	585	1.0	1.7	6.376	A
3 - A335 (NW)	1201	300	344	1796	0.669	1198	1275	1.2	2.1	6.221	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
1 - Wide Lane (NE)	388	97	717	725	0.534	386	1161	0.7	1.1	10.639	B
4 - Wide Lane (NE)	830	208	722	722	1.151	710	381	5.0	35.0	116.970	F
2 - Wide Lane (S)	1160	290	720	1486	0.781	1153	712	1.7	3.5	10.824	B
3 - A335 (NW)	1471	368	420	1741	0.845	1458	1453	2.1	5.2	12.732	B

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 - Wide Lane (NE)	388	97	723	722	0.537	387	1170	1.1	1.2	10.850	B
4 - Wide Lane (NE)	830	208	727	718	1.156	717	383	35.0	63.4	254.546	F
2 - Wide Lane (S)	1160	290	726	1482	0.783	1160	717	3.5	3.6	11.402	B
3 - A335 (NW)	1471	368	423	1739	0.846	1470	1464	5.2	5.4	13.808	B

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 - Wide Lane (NE)	316	79	597	791	0.400	318	965	1.2	0.7	7.722	A
4 - Wide Lane (NE)	678	169	601	789	0.859	776	315	63.4	38.7	237.902	F
2 - Wide Lane (S)	948	237	785	1439	0.658	954	593	3.6	2.0	7.675	A
3 - A335 (NW)	1201	300	347	1794	0.669	1214	1391	5.4	2.2	6.597	A

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 - Wide Lane (NE)	265	66	496	846	0.313	266	803	0.7	0.5	6.279	A
4 - Wide Lane (NE)	568	142	499	845	0.672	714	263	38.7	2.2	56.049	F
2 - Wide Lane (S)	794	198	720	1486	0.534	797	493	2.0	1.2	5.367	A
3 - A335 (NW)	1006	251	290	1836	0.548	1009	1227	2.2	1.3	4.549	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	224.89	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	332	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	611	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1278	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	0	0
	4 - Wide Lane (NE)	0	0	0	611
	2 - Wide Lane (S)	614	0	0	664
	3 - A335 (NW)	806	0	956	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	13
	3 - A335 (NW)	4	0	7	50

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 - Wide Lane (NE)	0.56	12.59	1.3	B	305	457
4 - Wide Lane (NE)	1.03	134.29	25.2	F	561	841
2 - Wide Lane (S)	0.91	25.51	9.4	D	1173	1759
3 - A335 (NW)	1.25	440.92	206.5	F	1617	2425

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	250	62	712	728	0.343	248	1060	0.0	0.5	7.611	A
4 - Wide Lane (NE)	460	115	712	727	0.633	453	248	0.0	1.9	14.470	B
2 - Wide Lane (S)	962	241	453	1680	0.573	956	712	0.0	1.4	5.277	A
3 - A335 (NW)	1327	332	460	1712	0.775	1313	949	0.0	3.5	9.234	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	298	75	836	660	0.452	297	1255	0.5	0.8	10.079	B
4 - Wide Lane (NE)	549	137	836	658	0.835	538	297	1.9	4.8	31.285	D
2 - Wide Lane (S)	1149	287	538	1618	0.710	1144	836	1.4	2.5	8.041	A
3 - A335 (NW)	1584	396	550	1645	0.963	1542	1132	3.5	14.0	29.009	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 - Wide Lane (NE)	366	91	844	656	0.557	364	1377	0.8	1.2	12.488	B
4 - Wide Lane (NE)	673	168	844	653	1.030	624	364	4.8	17.0	80.657	F
2 - Wide Lane (S)	1407	352	624	1556	0.904	1385	844	2.5	8.1	20.236	C
3 - A335 (NW)	1940	485	665	1560	1.243	1556	1343	14.0	110.0	151.673	F

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 - Wide Lane (NE)	366	91	843	657	0.557	365	1384	1.2	1.3	12.594	B
4 - Wide Lane (NE)	673	168	843	654	1.029	640	365	17.0	25.2	134.285	F
2 - Wide Lane (S)	1407	352	640	1544	0.911	1402	843	8.1	9.4	25.506	D
3 - A335 (NW)	1940	485	674	1554	1.248	1554	1369	110.0	206.5	366.681	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 - Wide Lane (NE)	298	75	882	635	0.470	300	1308	1.3	0.9	10.989	B
4 - Wide Lane (NE)	549	137	882	632	0.869	606	300	25.2	11.1	115.991	F
2 - Wide Lane (S)	1149	287	606	1569	0.732	1174	882	9.4	3.0	10.321	B
3 - A335 (NW)	1584	396	564	1635	0.969	1626	1216	206.5	195.9	440.923	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 - Wide Lane (NE)	250	62	921	614	0.407	251	1242	0.9	0.7	10.130	B
4 - Wide Lane (NE)	460	115	921	610	0.754	489	251	11.1	3.9	38.714	E
2 - Wide Lane (S)	962	241	489	1654	0.582	968	921	3.0	1.5	5.660	A
3 - A335 (NW)	1327	332	465	1707	0.777	1698	992	195.9	103.0	318.024	F

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	123.70	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 segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	361	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	754	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1295	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	0	0
	4 - Wide Lane (NE)	0	0	0	754
	2 - Wide Lane (S)	414	0	0	881
	3 - A335 (NW)	679	0	794	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	1	0	0	5
	3 - A335 (NW)	5	0	9	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 - Wide Lane (NE)	0.62	14.95	1.6	B	331	497
4 - Wide Lane (NE)	1.31	512.75	105.5	F	692	1038
2 - Wide Lane (S)	0.93	28.86	10.7	D	1188	1782
3 - A335 (NW)	0.95	34.89	14.8	D	1356	2034

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	272	68	598	790	0.344	270	821	0.0	0.5	6.953	A
4 - Wide Lane (NE)	568	142	601	789	0.720	558	267	0.0	2.4	15.177	C
2 - Wide Lane (S)	975	244	565	1599	0.610	969	594	0.0	1.6	5.864	A
3 - A335 (NW)	1113	278	313	1820	0.612	1106	1221	0.0	1.7	5.355	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
1 - Wide Lane (NE)	325	81	715	727	0.447	323	982	0.5	0.8	8.994	A
4 - Wide Lane (NE)	678	169	719	723	0.937	654	320	2.4	8.5	42.396	E
2 - Wide Lane (S)	1164	291	662	1528	0.762	1158	711	1.6	3.2	9.904	A
3 - A335 (NW)	1329	332	374	1775	0.749	1323	1446	1.7	3.1	8.430	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
1 - Wide Lane (NE)	397	99	860	648	0.614	395	1183	0.8	1.5	14.191	B
4 - Wide Lane (NE)	830	208	864	642	1.293	638	390	8.5	56.4	198.270	F
2 - Wide Lane (S)	1426	356	648	1538	0.927	1400	854	3.2	9.6	23.463	C
3 - A335 (NW)	1627	407	452	1717	0.948	1590	1596	3.1	12.3	25.214	D

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 - Wide Lane (NE)	397	99	874	640	0.621	397	1202	1.5	1.6	14.950	B
4 - Wide Lane (NE)	830	208	879	634	1.309	634	393	56.4	105.5	454.220	F
2 - Wide Lane (S)	1426	356	644	1542	0.925	1421	869	9.6	10.7	28.859	D
3 - A335 (NW)	1627	407	459	1712	0.950	1617	1606	12.3	14.8	34.888	D

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 - Wide Lane (NE)	325	81	743	711	0.456	328	1016	1.6	0.9	9.545	A
4 - Wide Lane (NE)	678	169	747	708	0.958	701	324	105.5	99.8	512.752	F
2 - Wide Lane (S)	1164	291	709	1494	0.779	1192	738	10.7	3.9	13.326	B
3 - A335 (NW)	1329	332	385	1767	0.752	1374	1516	14.8	3.4	10.903	B

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 - Wide Lane (NE)	272	68	605	787	0.346	273	831	0.9	0.5	7.097	A
4 - Wide Lane (NE)	568	142	608	785	0.723	777	270	99.8	47.5	343.923	F
2 - Wide Lane (S)	975	244	784	1440	0.677	981	601	3.9	2.2	8.251	A
3 - A335 (NW)	1113	278	317	1817	0.613	1119	1448	3.4	1.7	5.580	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Arm 1_Lane 2.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model
Report generation date: 21/03/2025 09:23:26

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023							
1 - Wide Lane (NE)	3.7	22.43	0.77	C	11.5	57.85	0.95	F
2 - Wide Lane (S)	1.6	6.11	0.61	A	1.4	6.01	0.58	A
3 - A335 (NW)	5.6	14.79	0.85	B	2.3	6.56	0.69	A
	FB 2025							
1 - Wide Lane (NE)	4.4	26.75	0.81	D	16.5	78.49	0.98	F
2 - Wide Lane (S)	1.8	6.70	0.64	A	1.6	6.63	0.61	A
3 - A335 (NW)	7.5	19.42	0.89	C	2.6	7.22	0.71	A
	FB 2028							
1 - Wide Lane (NE)	6.2	37.17	0.86	E	28.5	124.39	1.04	F
2 - Wide Lane (S)	2.4	8.02	0.70	A	2.1	7.87	0.68	A
3 - A335 (NW)	14.4	36.05	0.95	E	3.2	8.74	0.76	A
	DS 2028							
1 - Wide Lane (NE)	15.4	90.41	0.98	F	64.9	273.65	1.17	F
2 - Wide Lane (S)	4.3	12.81	0.81	B	4.9	14.42	0.83	B
3 - A335 (NW)	102.8	184.58	1.12	F	6.3	15.54	0.86	C
	FB 2036							
1 - Wide Lane (NE)	11.8	67.12	0.95	F	64.4	257.27	1.16	F
2 - Wide Lane (S)	4.2	12.53	0.81	B	3.6	11.36	0.78	B
3 - A335 (NW)	73.2	139.51	1.08	F	5.4	13.78	0.85	B
	DS 2036							
1 - Wide Lane (NE)	25.2	134.29	1.03	F	106.7	517.63	1.31	F
2 - Wide Lane (S)	9.4	25.51	0.91	D	10.6	28.60	0.93	D
3 - A335 (NW)	206.5	440.92	1.25	F	14.8	34.72	0.95	D

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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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 segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	13.59	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	3.00	3.68	11.0	155.0	22.0	31.0	
2 - Wide Lane (S)	3.72	9.60	19.0	69.0	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.557	1123
2 - Wide Lane (S)	0.725	2008
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	558	100.000
2 - Wide Lane (S)		ONE HOUR	✓	864	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	558
	2 - Wide Lane (S)	484	0	380
	3 - A335 (NW)	737	536	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	0.77	22.43	3.7	C	512	768
2 - Wide Lane (S)	0.61	6.11	1.6	A	793	1189
3 - A335 (NW)	0.85	14.79	5.6	B	1171	1756

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	420	105	404	899	0.468	416	915	0.0	1.0	8.369	A
2 - Wide Lane (S)	650	163	418	1705	0.382	648	401	0.0	0.6	3.517	A
3 - A335 (NW)	961	240	363	1783	0.539	956	703	0.0	1.2	4.559	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	502	125	483	854	0.587	499	1095	1.0	1.6	11.381	B
2 - Wide Lane (S)	777	194	502	1644	0.472	776	480	0.6	0.9	4.286	A
3 - A335 (NW)	1147	287	434	1730	0.663	1144	843	1.2	2.0	6.432	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
1 - Wide Lane (NE)	614	154	588	796	0.772	607	1335	1.6	3.5	20.686	C
2 - Wide Lane (S)	951	238	610	1566	0.607	949	585	0.9	1.6	6.013	A
3 - A335 (NW)	1405	351	531	1659	0.847	1392	1027	2.0	5.3	13.578	B

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 - Wide Lane (NE)	614	154	593	793	0.775	614	1344	3.5	3.7	22.429	C
2 - Wide Lane (S)	951	238	617	1561	0.609	951	590	1.6	1.6	6.110	A
3 - A335 (NW)	1405	351	533	1658	0.848	1404	1035	5.3	5.6	14.788	B

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 - Wide Lane (NE)	502	125	490	850	0.590	510	1107	3.7	1.7	12.205	B
2 - Wide Lane (S)	777	194	512	1637	0.475	779	488	1.6	0.9	4.360	A
3 - A335 (NW)	1147	287	437	1728	0.664	1161	855	5.6	2.1	6.833	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
1 - Wide Lane (NE)	420	105	407	897	0.469	423	922	1.7	1.0	8.634	A
2 - Wide Lane (S)	650	163	425	1700	0.383	652	405	0.9	0.6	3.558	A
3 - A335 (NW)	961	240	365	1781	0.539	964	712	2.1	1.2	4.660	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	20.10	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	693	100.000
2 - Wide Lane (S)		ONE HOUR	✓	762	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	0	689
	2 - Wide Lane (S)	274	0	488
	3 - A335 (NW)	620	514	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.95	57.85	11.5	F	636	954
2 - Wide Lane (S)	0.58	6.01	1.4	A	699	1049
3 - A335 (NW)	0.69	6.56	2.3	A	1045	1568

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	522	130	389	907	0.575	516	673	0.0	1.3	9.196	A
2 - Wide Lane (S)	574	143	520	1631	0.352	571	385	0.0	0.6	3.500	A
3 - A335 (NW)	857	214	208	1896	0.452	854	883	0.0	0.9	3.583	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
1 - Wide Lane (NE)	623	156	466	864	0.721	618	806	1.3	2.5	14.538	B
2 - Wide Lane (S)	685	171	623	1557	0.440	684	461	0.6	0.8	4.256	A
3 - A335 (NW)	1024	256	250	1866	0.549	1022	1057	0.9	1.3	4.433	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
1 - Wide Lane (NE)	763	191	570	806	0.947	736	986	2.5	9.3	40.993	E
2 - Wide Lane (S)	839	210	741	1471	0.570	837	564	0.8	1.4	5.842	A
3 - A335 (NW)	1254	314	305	1825	0.687	1250	1273	1.3	2.2	6.472	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
1 - Wide Lane (NE)	763	191	571	805	0.948	754	989	9.3	11.5	57.849	F
2 - Wide Lane (S)	839	210	760	1457	0.576	839	566	1.4	1.4	6.008	A
3 - A335 (NW)	1254	314	306	1824	0.687	1254	1293	2.2	2.3	6.564	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
1 - Wide Lane (NE)	623	156	468	863	0.722	658	810	11.5	2.8	20.386	C
2 - Wide Lane (S)	685	171	662	1528	0.448	687	464	1.4	0.8	4.432	A
3 - A335 (NW)	1024	256	251	1865	0.549	1028	1099	2.3	1.3	4.495	A

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 - Wide Lane (NE)	522	130	391	905	0.576	527	677	2.8	1.4	9.752	A
2 - Wide Lane (S)	574	143	531	1623	0.353	575	388	0.8	0.6	3.548	A
3 - A335 (NW)	857	214	210	1895	0.452	859	896	1.3	0.9	3.623	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	16.78	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	570	100.000
2 - Wide Lane (S)		ONE HOUR	✓	908	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	570
	2 - Wide Lane (S)	504	0	404
	3 - A335 (NW)	752	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	13
	2 - Wide Lane (S)	1	0	6
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	0.81	26.75	4.4	D	523	785
2 - Wide Lane (S)	0.64	6.70	1.8	A	833	1250
3 - A335 (NW)	0.89	19.42	7.5	C	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	429	107	425	886	0.484	425	941	0.0	1.0	8.739	A
2 - Wide Lane (S)	684	171	425	1700	0.402	681	425	0.0	0.7	3.635	A
3 - A335 (NW)	994	248	378	1772	0.561	988	728	0.0	1.3	4.806	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	512	128	509	840	0.610	510	1126	1.0	1.7	12.219	B
2 - Wide Lane (S)	816	204	510	1639	0.498	815	509	0.7	1.0	4.501	A
3 - A335 (NW)	1187	297	452	1717	0.691	1183	872	1.3	2.3	7.043	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
1 - Wide Lane (NE)	628	157	617	780	0.805	618	1371	1.7	4.1	23.851	C
2 - Wide Lane (S)	1000	250	618	1560	0.641	997	617	1.0	1.8	6.552	A
3 - A335 (NW)	1453	363	553	1643	0.885	1435	1061	2.3	6.9	16.897	C

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 - Wide Lane (NE)	628	157	624	776	0.809	626	1382	4.1	4.4	26.745	D
2 - Wide Lane (S)	1000	250	626	1554	0.643	1000	624	1.8	1.8	6.696	A
3 - A335 (NW)	1453	363	555	1642	0.885	1451	1071	6.9	7.5	19.423	C

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 - Wide Lane (NE)	512	128	519	834	0.614	523	1142	4.4	1.9	13.460	B
2 - Wide Lane (S)	816	204	523	1629	0.501	819	519	1.8	1.0	4.604	A
3 - A335 (NW)	1187	297	455	1715	0.692	1207	887	7.5	2.4	7.737	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
1 - Wide Lane (NE)	429	107	429	884	0.485	432	949	1.9	1.1	9.062	A
2 - Wide Lane (S)	684	171	432	1695	0.403	685	429	1.0	0.7	3.681	A
3 - A335 (NW)	994	248	380	1770	0.561	998	737	2.4	1.4	4.935	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	25.77	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	707	100.000
2 - Wide Lane (S)		ONE HOUR	✓	810	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	0	703
	2 - Wide Lane (S)	291	0	519
	3 - A335 (NW)	633	536	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.98	78.49	16.5	F	649	973
2 - Wide Lane (S)	0.61	6.63	1.6	A	743	1115
3 - A335 (NW)	0.71	7.22	2.6	A	1077	1616

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	532	133	406	897	0.593	527	696	0.0	1.4	9.659	A
2 - Wide Lane (S)	610	152	530	1624	0.376	607	402	0.0	0.6	3.648	A
3 - A335 (NW)	884	221	221	1887	0.468	880	916	0.0	0.9	3.707	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
1 - Wide Lane (NE)	636	159	486	853	0.745	630	833	1.4	2.8	15.942	C
2 - Wide Lane (S)	728	182	635	1548	0.470	727	481	0.6	0.9	4.521	A
3 - A335 (NW)	1055	264	265	1855	0.569	1054	1097	0.9	1.4	4.665	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
1 - Wide Lane (NE)	778	195	594	793	0.982	741	1018	2.8	12.2	50.134	F
2 - Wide Lane (S)	892	223	746	1467	0.608	889	588	0.9	1.6	6.401	A
3 - A335 (NW)	1293	323	324	1812	0.714	1288	1312	1.4	2.5	7.091	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
1 - Wide Lane (NE)	778	195	596	792	0.983	761	1022	12.2	16.5	78.492	F
2 - Wide Lane (S)	892	223	767	1452	0.614	892	590	1.6	1.6	6.626	A
3 - A335 (NW)	1293	323	325	1811	0.714	1292	1334	2.5	2.6	7.222	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
1 - Wide Lane (NE)	636	159	488	851	0.747	689	838	16.5	3.2	28.166	D
2 - Wide Lane (S)	728	182	693	1506	0.484	731	484	1.6	1.0	4.814	A
3 - A335 (NW)	1055	264	266	1854	0.569	1060	1157	2.6	1.4	4.747	A

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 - Wide Lane (NE)	532	133	408	896	0.594	539	700	3.2	1.5	10.371	B
2 - Wide Lane (S)	610	152	543	1615	0.378	611	404	1.0	0.6	3.708	A
3 - A335 (NW)	884	221	223	1886	0.469	886	931	1.4	0.9	3.754	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	26.95	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	580	100.000
2 - Wide Lane (S)		ONE HOUR	✓	983	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	580
	2 - Wide Lane (S)	535	0	448
	3 - A335 (NW)	765	627	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	13
	2 - Wide Lane (S)	1	0	6
	3 - A335 (NW)	4	6	50

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 - Wide Lane (NE)	0.86	37.17	6.2	E	532	798
2 - Wide Lane (S)	0.70	8.02	2.4	A	902	1353
3 - A335 (NW)	0.95	36.05	14.4	E	1280	1920

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	437	109	472	861	0.507	432	974	0.0	1.1	9.394	A
2 - Wide Lane (S)	740	185	434	1693	0.437	737	469	0.0	0.8	3.873	A
3 - A335 (NW)	1050	263	401	1755	0.599	1044	770	0.0	1.5	5.273	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	521	130	564	809	0.644	518	1165	1.1	2.0	13.809	B
2 - Wide Lane (S)	884	221	521	1631	0.542	882	561	0.8	1.2	4.952	A
3 - A335 (NW)	1254	314	480	1697	0.739	1249	923	1.5	2.9	8.339	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
1 - Wide Lane (NE)	639	160	677	746	0.856	625	1409	2.0	5.4	30.463	D
2 - Wide Lane (S)	1082	271	628	1553	0.697	1078	674	1.2	2.3	7.748	A
3 - A335 (NW)	1536	384	587	1618	0.949	1499	1119	2.9	12.1	26.110	D

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 - Wide Lane (NE)	639	160	689	739	0.864	636	1426	5.4	6.2	37.170	E
2 - Wide Lane (S)	1082	271	639	1545	0.700	1082	686	2.3	2.4	8.016	A
3 - A335 (NW)	1536	384	589	1616	0.950	1527	1132	12.1	14.4	36.048	E

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 - Wide Lane (NE)	521	130	587	797	0.655	537	1196	6.2	2.2	16.536	C
2 - Wide Lane (S)	884	221	540	1617	0.547	888	584	2.4	1.3	5.129	A
3 - A335 (NW)	1254	314	483	1694	0.740	1299	945	14.4	3.1	10.614	B

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 - Wide Lane (NE)	437	109	477	858	0.509	441	983	2.2	1.2	9.854	A
2 - Wide Lane (S)	740	185	443	1687	0.439	742	475	1.3	0.8	3.939	A
3 - A335 (NW)	1050	263	404	1753	0.599	1056	781	3.1	1.6	5.472	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	37.66	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 segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	720	100.000
2 - Wide Lane (S)		ONE HOUR	✓	900	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	0	716
	2 - Wide Lane (S)	324	0	576
	3 - A335 (NW)	644	583	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	1
	2 - Wide Lane (S)	2	0	3
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	1.04	124.39	28.5	F	661	991
2 - Wide Lane (S)	0.68	7.87	2.1	A	826	1239
3 - A335 (NW)	0.76	8.74	3.2	A	1131	1696

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	542	136	441	878	0.617	536	729	0.0	1.6	10.444	B
2 - Wide Lane (S)	678	169	539	1617	0.419	675	437	0.0	0.7	3.909	A
3 - A335 (NW)	928	232	246	1869	0.496	923	968	0.0	1.0	3.945	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
1 - Wide Lane (NE)	647	162	528	830	0.780	640	872	1.6	3.3	18.568	C
2 - Wide Lane (S)	809	202	645	1541	0.525	808	523	0.7	1.1	5.030	A
3 - A335 (NW)	1108	277	294	1833	0.604	1105	1158	1.0	1.6	5.130	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
1 - Wide Lane (NE)	793	198	644	765	1.037	733	1065	3.3	18.2	68.219	F
2 - Wide Lane (S)	991	248	739	1473	0.673	987	639	1.1	2.1	7.550	A
3 - A335 (NW)	1356	339	359	1785	0.760	1350	1366	1.6	3.2	8.482	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
1 - Wide Lane (NE)	793	198	647	763	1.039	751	1070	18.2	28.5	124.391	F
2 - Wide Lane (S)	991	248	757	1460	0.679	991	642	2.1	2.1	7.871	A
3 - A335 (NW)	1356	339	361	1784	0.760	1356	1387	3.2	3.2	8.736	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
1 - Wide Lane (NE)	647	162	532	827	0.782	744	879	28.5	4.2	62.320	F
2 - Wide Lane (S)	809	202	749	1465	0.552	812	527	2.1	1.3	5.688	A
3 - A335 (NW)	1108	277	297	1831	0.605	1114	1265	3.2	1.6	5.266	A

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 - Wide Lane (NE)	542	136	444	876	0.619	552	734	4.2	1.7	11.555	B
2 - Wide Lane (S)	678	169	556	1605	0.422	680	440	1.3	0.8	4.002	A
3 - A335 (NW)	928	232	248	1867	0.497	930	988	1.6	1.0	4.004	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	109.67	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	580	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1140	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	580
	2 - Wide Lane (S)	553	0	587
	3 - A335 (NW)	765	855	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	13
	2 - Wide Lane (S)	1	0	15
	3 - A335 (NW)	4	8	50

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 - Wide Lane (NE)	0.98	90.41	15.4	F	532	798
2 - Wide Lane (S)	0.81	12.81	4.3	B	1046	1569
3 - A335 (NW)	1.12	184.58	102.8	F	1489	2234

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	437	109	641	766	0.570	431	986	0.0	1.5	11.925	B
2 - Wide Lane (S)	858	215	433	1694	0.507	854	639	0.0	1.1	4.592	A
3 - A335 (NW)	1222	305	414	1745	0.700	1212	873	0.0	2.4	7.049	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	521	130	764	698	0.747	515	1177	1.5	3.1	21.474	C
2 - Wide Lane (S)	1025	256	518	1633	0.628	1022	761	1.1	1.8	6.320	A
3 - A335 (NW)	1459	365	496	1685	0.866	1444	1044	2.4	6.1	15.023	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	639	160	839	656	0.973	606	1353	3.1	11.3	58.597	F
2 - Wide Lane (S)	1255	314	608	1567	0.801	1246	836	1.8	4.1	11.763	B
3 - A335 (NW)	1787	447	604	1605	1.113	1587	1250	6.1	56.0	80.403	F

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 - Wide Lane (NE)	639	160	846	652	0.979	622	1362	11.3	15.4	90.412	F
2 - Wide Lane (S)	1255	314	625	1555	0.807	1254	843	4.1	4.3	12.809	B
3 - A335 (NW)	1787	447	608	1602	1.115	1600	1271	56.0	102.8	184.583	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 - Wide Lane (NE)	521	130	879	634	0.823	558	1286	15.4	6.3	61.268	F
2 - Wide Lane (S)	1025	256	561	1602	0.640	1034	876	4.3	2.0	6.944	A
3 - A335 (NW)	1459	365	502	1681	0.868	1663	1093	102.8	51.7	168.907	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 - Wide Lane (NE)	437	109	750	706	0.619	454	1086	6.3	1.9	17.209	C
2 - Wide Lane (S)	858	215	457	1677	0.512	861	747	2.0	1.1	4.777	A
3 - A335 (NW)	1222	305	418	1742	0.701	1418	901	51.7	2.6	21.196	C

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	72.59	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	720	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1142	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	0	716
	2 - Wide Lane (S)	359	0	783
	3 - A335 (NW)	644	724	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	1
	2 - Wide Lane (S)	1	0	6
	3 - A335 (NW)	5	10	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 - Wide Lane (NE)	1.17	273.65	64.9	F	661	991
2 - Wide Lane (S)	0.83	14.42	4.9	B	1048	1572
3 - A335 (NW)	0.86	15.54	6.3	C	1260	1890

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	542	136	546	819	0.662	534	754	0.0	1.9	12.456	B
2 - Wide Lane (S)	860	215	538	1618	0.531	855	542	0.0	1.2	4.896	A
3 - A335 (NW)	1034	258	272	1850	0.559	1028	1122	0.0	1.3	4.685	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
1 - Wide Lane (NE)	647	162	653	759	0.852	635	902	1.9	4.9	27.018	D
2 - Wide Lane (S)	1027	257	640	1544	0.665	1023	649	1.2	2.0	7.163	A
3 - A335 (NW)	1234	309	325	1810	0.682	1231	1338	1.3	2.3	6.636	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
1 - Wide Lane (NE)	793	198	795	681	1.165	670	1098	4.9	35.5	124.491	F
2 - Wide Lane (S)	1257	314	676	1518	0.828	1247	789	2.0	4.6	13.347	B
3 - A335 (NW)	1512	378	396	1759	0.860	1497	1527	2.3	5.9	14.071	B

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 - Wide Lane (NE)	793	198	802	677	1.171	675	1107	35.5	64.9	273.645	F
2 - Wide Lane (S)	1257	314	681	1515	0.830	1256	796	4.6	4.9	14.423	B
3 - A335 (NW)	1512	378	399	1756	0.861	1510	1538	5.9	6.3	15.539	C

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 - Wide Lane (NE)	647	162	664	754	0.859	742	916	64.9	41.1	257.380	F
2 - Wide Lane (S)	1027	257	747	1467	0.700	1036	659	4.9	2.5	8.903	A
3 - A335 (NW)	1234	309	330	1807	0.683	1250	1453	6.3	2.4	7.137	A

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 - Wide Lane (NE)	542	136	551	817	0.664	698	762	41.1	2.2	65.182	F
2 - Wide Lane (S)	860	215	702	1500	0.573	864	547	2.5	1.4	5.953	A
3 - A335 (NW)	1034	258	276	1847	0.560	1038	1290	2.4	1.4	4.807	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	82.36	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	611	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1122	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	611
	2 - Wide Lane (S)	597	0	525
	3 - A335 (NW)	806	728	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	13
	2 - Wide Lane (S)	1	0	5
	3 - A335 (NW)	4	5	50

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 - Wide Lane (NE)	0.95	67.12	11.8	F	561	841
2 - Wide Lane (S)	0.81	12.53	4.2	B	1030	1544
3 - A335 (NW)	1.08	139.51	73.2	F	1408	2111

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	460	115	544	820	0.561	454	1050	0.0	1.4	10.957	B
2 - Wide Lane (S)	845	211	454	1679	0.503	841	544	0.0	1.0	4.395	A
3 - A335 (NW)	1155	289	447	1721	0.671	1147	848	0.0	2.1	6.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	549	137	649	762	0.721	544	1254	1.4	2.7	18.233	C
2 - Wide Lane (S)	1009	252	544	1614	0.625	1006	649	1.0	1.7	6.063	A
3 - A335 (NW)	1379	345	535	1656	0.833	1368	1015	2.1	4.8	12.612	B

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 - Wide Lane (NE)	673	168	732	716	0.940	647	1463	2.7	9.3	46.929	E
2 - Wide Lane (S)	1235	309	647	1540	0.802	1226	732	1.7	3.9	11.503	B
3 - A335 (NW)	1689	422	653	1570	1.076	1543	1220	4.8	41.4	64.372	F

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 - Wide Lane (NE)	673	168	741	711	0.947	663	1477	9.3	11.8	67.124	F
2 - Wide Lane (S)	1235	309	663	1528	0.809	1234	741	3.9	4.2	12.532	B
3 - A335 (NW)	1689	422	657	1567	1.078	1562	1240	41.4	73.2	139.510	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 - Wide Lane (NE)	549	137	773	693	0.792	577	1397	11.8	4.9	39.891	E
2 - Wide Lane (S)	1009	252	577	1590	0.634	1018	773	4.2	1.8	6.575	A
3 - A335 (NW)	1379	345	542	1651	0.835	1628	1053	73.2	11.0	98.168	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 - Wide Lane (NE)	460	115	565	809	0.569	473	1076	4.9	1.5	12.586	B
2 - Wide Lane (S)	845	211	473	1665	0.507	848	565	1.8	1.1	4.547	A
3 - A335 (NW)	1155	289	451	1718	0.672	1190	870	11.0	2.2	7.590	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	71.60	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	758	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1054	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	0	754
	2 - Wide Lane (S)	380	0	674
	3 - A335 (NW)	679	652	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	1
	2 - Wide Lane (S)	1	0	3
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	1.16	257.27	64.4	F	696	1043
2 - Wide Lane (S)	0.78	11.36	3.6	B	967	1451
3 - A335 (NW)	0.85	13.78	5.4	B	1226	1839

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	571	143	492	849	0.672	563	796	0.0	2.0	12.371	B
2 - Wide Lane (S)	794	198	566	1598	0.497	790	488	0.0	1.0	4.535	A
3 - A335 (NW)	1006	251	288	1838	0.547	1001	1068	0.0	1.2	4.447	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
1 - Wide Lane (NE)	681	170	589	795	0.857	669	953	2.0	5.0	26.558	D
2 - Wide Lane (S)	948	237	674	1520	0.623	945	585	1.0	1.7	6.374	A
3 - A335 (NW)	1201	300	344	1796	0.669	1198	1274	1.2	2.1	6.221	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
1 - Wide Lane (NE)	835	209	717	724	1.153	713	1161	5.0	35.5	118.002	F
2 - Wide Lane (S)	1160	290	718	1488	0.780	1153	712	1.7	3.4	10.788	B
3 - A335 (NW)	1471	368	420	1741	0.845	1458	1452	2.1	5.2	12.716	B

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 - Wide Lane (NE)	835	209	723	721	1.158	719	1169	35.5	64.4	257.271	F
2 - Wide Lane (S)	1160	290	725	1483	0.783	1160	717	3.4	3.6	11.356	B
3 - A335 (NW)	1471	368	422	1739	0.846	1470	1462	5.2	5.4	13.785	B

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 - Wide Lane (NE)	681	170	597	791	0.862	779	965	64.4	40.1	242.419	F
2 - Wide Lane (S)	948	237	783	1440	0.658	954	593	3.6	2.0	7.660	A
3 - A335 (NW)	1201	300	348	1794	0.670	1214	1389	5.4	2.2	6.603	A

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 - Wide Lane (NE)	571	143	496	847	0.674	722	804	40.1	2.3	60.033	F
2 - Wide Lane (S)	794	198	726	1482	0.535	797	493	2.0	1.2	5.398	A
3 - A335 (NW)	1006	251	291	1835	0.548	1009	1231	2.2	1.3	4.550	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	244.19	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	611	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1278	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	611
	2 - Wide Lane (S)	614	0	664
	3 - A335 (NW)	806	956	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	13
	2 - Wide Lane (S)	1	0	13
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	1.03	134.29	25.2	F	561	841
2 - Wide Lane (S)	0.91	25.51	9.4	D	1173	1759
3 - A335 (NW)	1.25	440.92	206.5	F	1617	2425

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	460	115	712	727	0.633	453	1060	0.0	1.9	14.470	B
2 - Wide Lane (S)	962	241	453	1680	0.573	956	712	0.0	1.4	5.277	A
3 - A335 (NW)	1327	332	460	1712	0.775	1313	949	0.0	3.5	9.234	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	549	137	836	658	0.835	538	1255	1.9	4.8	31.285	D
2 - Wide Lane (S)	1149	287	538	1618	0.710	1144	836	1.4	2.5	8.041	A
3 - A335 (NW)	1584	396	550	1645	0.963	1542	1132	3.5	14.0	29.009	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 - Wide Lane (NE)	673	168	844	653	1.030	624	1377	4.8	17.0	80.657	F
2 - Wide Lane (S)	1407	352	624	1556	0.904	1385	844	2.5	8.1	20.236	C
3 - A335 (NW)	1940	485	665	1560	1.243	1556	1343	14.0	110.0	151.673	F

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 - Wide Lane (NE)	673	168	843	654	1.029	640	1384	17.0	25.2	134.285	F
2 - Wide Lane (S)	1407	352	640	1544	0.911	1402	843	8.1	9.4	25.506	D
3 - A335 (NW)	1940	485	674	1554	1.248	1554	1369	110.0	206.5	366.681	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 - Wide Lane (NE)	549	137	882	632	0.869	606	1308	25.2	11.1	115.991	F
2 - Wide Lane (S)	1149	287	606	1569	0.732	1174	882	9.4	3.0	10.321	B
3 - A335 (NW)	1584	396	564	1635	0.969	1626	1216	206.5	195.9	440.923	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 - Wide Lane (NE)	460	115	921	610	0.754	489	1242	11.1	3.9	38.714	E
2 - Wide Lane (S)	962	241	489	1654	0.582	968	921	3.0	1.5	5.660	A
3 - A335 (NW)	1327	332	465	1707	0.777	1698	992	195.9	103.0	318.024	F

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	136.14	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	758	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1295	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	0	754
	2 - Wide Lane (S)	414	0	881
	3 - A335 (NW)	679	794	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	0	1
	2 - Wide Lane (S)	1	0	5
	3 - A335 (NW)	5	9	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 - Wide Lane (NE)	1.31	517.63	106.7	F	696	1043
2 - Wide Lane (S)	0.93	28.60	10.6	D	1188	1782
3 - A335 (NW)	0.95	34.72	14.8	D	1356	2034

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	571	143	598	790	0.722	561	821	0.0	2.5	15.249	C
2 - Wide Lane (S)	975	244	565	1599	0.610	969	594	0.0	1.6	5.863	A
3 - A335 (NW)	1113	278	313	1820	0.612	1106	1221	0.0	1.7	5.355	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
1 - Wide Lane (NE)	681	170	715	725	0.940	657	981	2.5	8.6	42.842	E
2 - Wide Lane (S)	1164	291	661	1529	0.761	1158	711	1.6	3.2	9.896	A
3 - A335 (NW)	1329	332	374	1775	0.749	1323	1446	1.7	3.1	8.428	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
1 - Wide Lane (NE)	835	209	860	645	1.295	641	1182	8.6	57.0	199.722	F
2 - Wide Lane (S)	1426	356	646	1540	0.926	1400	854	3.2	9.6	23.319	C
3 - A335 (NW)	1627	407	451	1718	0.947	1591	1595	3.1	12.3	25.143	D

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 - Wide Lane (NE)	835	209	874	636	1.311	636	1201	57.0	106.7	457.339	F
2 - Wide Lane (S)	1426	356	642	1543	0.924	1422	869	9.6	10.6	28.597	D
3 - A335 (NW)	1627	407	458	1713	0.950	1617	1605	12.3	14.8	34.724	D

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 - Wide Lane (NE)	681	170	743	710	0.960	703	1016	106.7	101.3	517.633	F
2 - Wide Lane (S)	1164	291	708	1495	0.779	1191	738	10.6	3.8	13.247	B
3 - A335 (NW)	1329	332	385	1767	0.752	1374	1514	14.8	3.4	10.887	B

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 - Wide Lane (NE)	571	143	605	786	0.726	779	832	101.3	49.3	350.660	F
2 - Wide Lane (S)	975	244	782	1441	0.677	981	601	3.8	2.2	8.234	A
3 - A335 (NW)	1113	278	318	1816	0.613	1119	1446	3.4	1.7	5.587	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Arm 2_Lane 1.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model
Report generation date: 21/03/2025 09:24:54

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023							
1 - Wide Lane (NE)	1.4	5.64	0.55	A	2.2	7.33	0.69	A
2 - Wide Lane (S)	1.2	10.72	0.54	B	3.3	23.15	0.77	C
4 - Wide Lane (S)	1.2	7.90	0.54	A	0.5	6.08	0.33	A
3 - A335 (NW)	5.6	14.79	0.85	B	2.3	6.56	0.69	A
	FB 2025							
1 - Wide Lane (NE)	1.5	6.03	0.58	A	2.5	8.05	0.71	A
2 - Wide Lane (S)	1.4	11.64	0.58	B	4.6	30.78	0.83	D
4 - Wide Lane (S)	1.3	8.40	0.56	A	0.6	6.37	0.36	A
3 - A335 (NW)	7.5	19.42	0.89	C	2.6	7.22	0.71	A
	FB 2028							
1 - Wide Lane (NE)	1.7	6.80	0.61	A	3.0	9.65	0.75	A
2 - Wide Lane (S)	1.9	14.03	0.65	B	9.6	58.32	0.93	F
4 - Wide Lane (S)	1.5	9.31	0.60	A	0.7	6.91	0.40	A
3 - A335 (NW)	14.4	36.04	0.95	E	3.2	8.74	0.76	A
	DS 2028							
1 - Wide Lane (NE)	2.4	9.21	0.70	A	4.4	13.94	0.82	B
2 - Wide Lane (S)	5.6	33.23	0.84	D	99.2	444.56	1.27	F
4 - Wide Lane (S)	1.6	9.81	0.62	A	0.8	7.37	0.44	A
3 - A335 (NW)	103.1	185.23	1.12	F	6.3	15.59	0.86	C
	FB 2036							
1 - Wide Lane (NE)	2.2	8.25	0.67	A	4.5	13.68	0.82	B
2 - Wide Lane (S)	3.4	21.93	0.77	C	49.5	221.87	1.13	F
4 - Wide Lane (S)	2.1	11.94	0.68	B	0.9	8.15	0.48	A
3 - A335 (NW)	73.4	139.81	1.08	F	5.4	13.82	0.85	B
	DS 2036							
1 - Wide Lane (NE)	3.1	10.85	0.74	B	7.4	22.99	0.89	C
2 - Wide Lane (S)	16.1	82.38	0.98	F	191.4	873.02	1.47	F
4 - Wide Lane (S)	2.3	12.71	0.70	B	1.1	8.88	0.53	A
3 - A335 (NW)	208.0	441.56	1.25	F	15.0	35.39	0.95	E

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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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 segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	10.66	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
4	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	6.00	7.80	13.0	29.0	22.0	62.7	
2 - Wide Lane (S)	3.72	3.72	0.0	41.9	22.0	42.0	
4 - Wide Lane (S)	3.72	4.76	21.0	23.9	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.691	1980
2 - Wide Lane (S)	0.537	1109
4 - Wide Lane (S)	0.581	1352
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0
4 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	790	100.000
2 - Wide Lane (S)		ONE HOUR	✓	380	100.000
4 - Wide Lane (S)		ONE HOUR	✓	484	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	0	558
	2 - Wide Lane (S)	0	0	380	0
	4 - Wide Lane (S)	484	0	0	0
	3 - A335 (NW)	737	536	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	7	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	7	0	50

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 - Wide Lane (NE)	0.55	5.64	1.4	A	725	1087
2 - Wide Lane (S)	0.54	10.72	1.2	B	349	523
4 - Wide Lane (S)	0.54	7.90	1.2	A	444	666
3 - A335 (NW)	0.85	14.79	5.6	B	1171	1756

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	595	149	404	1701	0.350	592	914	0.0	0.6	3.559	A
2 - Wide Lane (S)	286	72	421	883	0.324	284	575	0.0	0.5	6.406	A
4 - Wide Lane (S)	364	91	421	1108	0.329	362	284	0.0	0.5	4.867	A
3 - A335 (NW)	961	240	362	1783	0.539	956	421	0.0	1.2	4.557	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	483	1646	0.431	709	1095	0.6	0.8	4.216	A
2 - Wide Lane (S)	342	85	504	839	0.407	341	689	0.5	0.7	7.720	A
4 - Wide Lane (S)	435	109	504	1059	0.411	434	341	0.5	0.7	5.810	A
3 - A335 (NW)	1147	287	434	1730	0.663	1144	504	1.2	2.0	6.430	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
1 - Wide Lane (NE)	870	217	588	1574	0.553	868	1335	0.8	1.3	5.585	A
2 - Wide Lane (S)	418	105	616	778	0.538	416	839	0.7	1.2	10.584	B
4 - Wide Lane (S)	533	133	616	994	0.536	531	416	0.7	1.1	7.819	A
3 - A335 (NW)	1405	351	531	1659	0.847	1392	616	2.0	5.3	13.568	B

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 - Wide Lane (NE)	870	217	593	1571	0.554	870	1344	1.3	1.4	5.644	A
2 - Wide Lane (S)	418	105	618	778	0.538	418	845	1.2	1.2	10.715	B
4 - Wide Lane (S)	533	133	618	993	0.537	533	418	1.1	1.2	7.900	A
3 - A335 (NW)	1405	351	533	1658	0.848	1404	618	5.3	5.6	14.788	B

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 - Wide Lane (NE)	710	178	490	1641	0.433	712	1107	1.4	0.8	4.267	A
2 - Wide Lane (S)	342	85	506	838	0.408	344	697	1.2	0.7	7.827	A
4 - Wide Lane (S)	435	109	506	1058	0.411	437	344	1.2	0.7	5.869	A
3 - A335 (NW)	1147	287	437	1728	0.664	1161	506	5.6	2.1	6.839	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
1 - Wide Lane (NE)	595	149	407	1699	0.350	596	922	0.8	0.6	3.590	A
2 - Wide Lane (S)	286	72	423	882	0.324	287	580	0.7	0.5	6.482	A
4 - Wide Lane (S)	364	91	423	1106	0.329	365	287	0.7	0.5	4.914	A
3 - A335 (NW)	961	240	365	1781	0.539	964	423	2.1	1.2	4.663	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	9.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	990	100.000
2 - Wide Lane (S)		ONE HOUR	✓	488	100.000
4 - Wide Lane (S)		ONE HOUR	✓	274	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	0	689
	2 - Wide Lane (S)	0	0	488	0
	4 - Wide Lane (S)	274	0	0	0
	3 - A335 (NW)	620	514	0	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	4	0
	4 - Wide Lane (S)	2	0	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.69	7.33	2.2	A	908	1363
2 - Wide Lane (S)	0.77	23.15	3.3	C	448	672
4 - Wide Lane (S)	0.33	6.08	0.5	A	251	377
3 - A335 (NW)	0.69	6.56	2.3	A	1045	1568

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	389	1711	0.436	742	673	0.0	0.8	3.739	A
2 - Wide Lane (S)	367	92	523	828	0.444	364	608	0.0	0.8	8.012	A
4 - Wide Lane (S)	206	52	523	1048	0.197	205	364	0.0	0.2	4.354	A
3 - A335 (NW)	857	214	208	1896	0.452	854	520	0.0	0.9	3.582	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
1 - Wide Lane (NE)	890	222	466	1658	0.537	888	806	0.8	1.2	4.713	A
2 - Wide Lane (S)	439	110	626	773	0.568	437	728	0.8	1.3	11.066	B
4 - Wide Lane (S)	246	62	626	988	0.249	246	437	0.2	0.3	4.946	A
3 - A335 (NW)	1024	256	250	1866	0.549	1022	623	0.9	1.3	4.433	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
1 - Wide Lane (NE)	1090	273	570	1587	0.687	1086	986	1.2	2.2	7.205	A
2 - Wide Lane (S)	537	134	766	698	0.770	530	890	1.3	3.2	21.381	C
4 - Wide Lane (S)	302	75	766	907	0.333	301	530	0.3	0.5	6.053	A
3 - A335 (NW)	1254	314	305	1825	0.687	1250	761	1.3	2.2	6.474	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
1 - Wide Lane (NE)	1090	273	571	1585	0.688	1090	989	2.2	2.2	7.331	A
2 - Wide Lane (S)	537	134	768	697	0.771	537	893	3.2	3.3	23.155	C
4 - Wide Lane (S)	302	75	768	905	0.333	302	537	0.5	0.5	6.081	A
3 - A335 (NW)	1254	314	306	1824	0.687	1254	764	2.2	2.3	6.565	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
1 - Wide Lane (NE)	890	222	468	1657	0.537	894	810	2.2	1.2	4.793	A
2 - Wide Lane (S)	439	110	630	771	0.569	446	732	3.3	1.4	11.793	B
4 - Wide Lane (S)	246	62	630	986	0.250	247	446	0.5	0.3	4.976	A
3 - A335 (NW)	1024	256	251	1865	0.549	1028	627	2.3	1.3	4.494	A

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 - Wide Lane (NE)	745	186	391	1710	0.436	747	677	1.2	0.8	3.784	A
2 - Wide Lane (S)	367	92	527	826	0.445	370	612	1.4	0.8	8.235	A
4 - Wide Lane (S)	206	52	527	1046	0.197	207	370	0.3	0.3	4.378	A
3 - A335 (NW)	857	214	210	1895	0.452	859	524	1.3	0.9	3.623	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	12.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	811	100.000
2 - Wide Lane (S)		ONE HOUR	✓	404	100.000
4 - Wide Lane (S)		ONE HOUR	✓	504	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	0	570
	2 - Wide Lane (S)	0	0	404	0
	4 - Wide Lane (S)	504	0	0	0
	3 - A335 (NW)	752	568	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	6	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	7	0	50

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 - Wide Lane (NE)	0.58	6.03	1.5	A	744	1116
2 - Wide Lane (S)	0.58	11.64	1.4	B	371	556
4 - Wide Lane (S)	0.56	8.40	1.3	A	462	694
3 - A335 (NW)	0.89	19.42	7.5	C	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	611	153	425	1686	0.362	608	940	0.0	0.6	3.660	A
2 - Wide Lane (S)	304	76	427	880	0.346	302	606	0.0	0.6	6.580	A
4 - Wide Lane (S)	379	95	427	1104	0.344	377	302	0.0	0.5	4.992	A
3 - A335 (NW)	994	248	377	1772	0.561	988	427	0.0	1.3	4.804	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	729	182	509	1629	0.448	728	1126	0.6	0.9	4.384	A
2 - Wide Lane (S)	363	91	512	834	0.435	362	725	0.6	0.8	8.061	A
4 - Wide Lane (S)	453	113	512	1055	0.430	452	362	0.5	0.8	6.026	A
3 - A335 (NW)	1187	297	452	1717	0.691	1183	512	1.3	2.3	7.041	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
1 - Wide Lane (NE)	893	223	617	1554	0.575	891	1370	0.9	1.5	5.943	A
2 - Wide Lane (S)	445	111	626	773	0.575	442	882	0.8	1.4	11.455	B
4 - Wide Lane (S)	555	139	626	988	0.562	553	442	0.8	1.3	8.311	A
3 - A335 (NW)	1453	363	553	1643	0.885	1435	626	2.3	6.9	16.883	C

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 - Wide Lane (NE)	893	223	624	1549	0.577	893	1382	1.5	1.5	6.025	A
2 - Wide Lane (S)	445	111	628	772	0.576	445	890	1.4	1.4	11.639	B
4 - Wide Lane (S)	555	139	628	987	0.562	555	445	1.3	1.3	8.405	A
3 - A335 (NW)	1453	363	555	1642	0.885	1451	628	6.9	7.5	19.420	C

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 - Wide Lane (NE)	729	182	519	1621	0.450	731	1143	1.5	0.9	4.455	A
2 - Wide Lane (S)	363	91	514	833	0.436	366	737	1.4	0.8	8.199	A
4 - Wide Lane (S)	453	113	514	1053	0.430	455	366	1.3	0.8	6.098	A
3 - A335 (NW)	1187	297	455	1715	0.692	1207	514	7.5	2.4	7.740	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
1 - Wide Lane (NE)	611	153	429	1683	0.363	612	949	0.9	0.6	3.691	A
2 - Wide Lane (S)	304	76	430	878	0.346	305	611	0.8	0.6	6.669	A
4 - Wide Lane (S)	379	95	430	1102	0.344	380	305	0.8	0.5	5.045	A
3 - A335 (NW)	994	248	380	1770	0.562	998	430	2.4	1.4	4.936	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	11.50	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1015	100.000
2 - Wide Lane (S)		ONE HOUR	✓	519	100.000
4 - Wide Lane (S)		ONE HOUR	✓	291	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	0	703
	2 - Wide Lane (S)	0	0	519	0
	4 - Wide Lane (S)	291	0	0	0
	3 - A335 (NW)	633	536	0	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	4	0
	4 - Wide Lane (S)	2	0	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.71	8.05	2.5	A	931	1397
2 - Wide Lane (S)	0.83	30.78	4.6	D	476	714
4 - Wide Lane (S)	0.36	6.37	0.6	A	267	401
3 - A335 (NW)	0.71	7.22	2.6	A	1077	1616

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	764	191	406	1700	0.450	761	696	0.0	0.8	3.859	A
2 - Wide Lane (S)	391	98	534	823	0.475	387	633	0.0	0.9	8.525	A
4 - Wide Lane (S)	219	55	534	1042	0.210	218	387	0.0	0.3	4.452	A
3 - A335 (NW)	884	221	221	1887	0.468	880	531	0.0	0.9	3.707	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
1 - Wide Lane (NE)	912	228	486	1645	0.555	911	833	0.8	1.2	4.943	A
2 - Wide Lane (S)	467	117	639	766	0.609	464	757	0.9	1.6	12.281	B
4 - Wide Lane (S)	262	65	639	981	0.267	261	464	0.3	0.4	5.101	A
3 - A335 (NW)	1055	264	265	1855	0.569	1054	635	0.9	1.4	4.665	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
1 - Wide Lane (NE)	1118	279	594	1570	0.712	1113	1018	1.2	2.4	7.868	A
2 - Wide Lane (S)	571	143	781	690	0.828	561	926	1.6	4.3	26.906	D
4 - Wide Lane (S)	320	80	781	898	0.357	320	561	0.4	0.6	6.337	A
3 - A335 (NW)	1293	323	324	1811	0.714	1288	776	1.4	2.5	7.095	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
1 - Wide Lane (NE)	1118	279	596	1569	0.712	1117	1022	2.4	2.5	8.048	A
2 - Wide Lane (S)	571	143	784	688	0.830	570	929	4.3	4.6	30.782	D
4 - Wide Lane (S)	320	80	784	896	0.357	320	570	0.6	0.6	6.373	A
3 - A335 (NW)	1293	323	325	1811	0.714	1292	779	2.5	2.6	7.224	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
1 - Wide Lane (NE)	912	228	489	1643	0.555	917	838	2.5	1.3	5.045	A
2 - Wide Lane (S)	467	117	643	764	0.611	478	762	4.6	1.7	13.614	B
4 - Wide Lane (S)	262	65	643	978	0.267	262	478	0.6	0.4	5.135	A
3 - A335 (NW)	1055	264	266	1854	0.569	1060	640	2.6	1.4	4.745	A

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 - Wide Lane (NE)	764	191	408	1698	0.450	766	700	1.3	0.8	3.908	A
2 - Wide Lane (S)	391	98	537	821	0.476	394	637	1.7	1.0	8.824	A
4 - Wide Lane (S)	219	55	537	1040	0.211	219	394	0.4	0.3	4.478	A
3 - A335 (NW)	884	221	223	1886	0.469	886	534	1.4	0.9	3.751	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	20.91	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	839	100.000
2 - Wide Lane (S)		ONE HOUR	✓	448	100.000
4 - Wide Lane (S)		ONE HOUR	✓	535	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	0	580
	2 - Wide Lane (S)	0	0	448	0
	4 - Wide Lane (S)	535	0	0	0
	3 - A335 (NW)	765	627	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	6	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	6	0	50

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 - Wide Lane (NE)	0.61	6.80	1.7	A	770	1155
2 - Wide Lane (S)	0.65	14.03	1.9	B	411	617
4 - Wide Lane (S)	0.60	9.31	1.5	A	491	736
3 - A335 (NW)	0.95	36.04	14.4	E	1280	1920

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	632	158	472	1654	0.382	629	973	0.0	0.7	3.841	A
2 - Wide Lane (S)	337	84	437	875	0.386	335	663	0.0	0.7	7.035	A
4 - Wide Lane (S)	403	101	437	1098	0.367	400	335	0.0	0.6	5.196	A
3 - A335 (NW)	1050	263	400	1755	0.598	1044	437	0.0	1.5	5.270	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	754	189	564	1591	0.474	753	1165	0.7	1.0	4.709	A
2 - Wide Lane (S)	403	101	523	828	0.486	401	794	0.7	1.0	8.913	A
4 - Wide Lane (S)	481	120	523	1048	0.459	480	401	0.6	0.8	6.389	A
3 - A335 (NW)	1254	314	480	1697	0.739	1249	523	1.5	2.9	8.337	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
1 - Wide Lane (NE)	924	231	677	1513	0.611	921	1409	1.0	1.7	6.644	A
2 - Wide Lane (S)	493	123	640	766	0.644	490	958	1.0	1.8	13.660	B
4 - Wide Lane (S)	589	147	640	980	0.601	586	490	0.8	1.5	9.176	A
3 - A335 (NW)	1536	384	586	1618	0.949	1499	640	2.9	12.1	26.097	D

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 - Wide Lane (NE)	924	231	689	1504	0.614	924	1426	1.7	1.7	6.803	A
2 - Wide Lane (S)	493	123	642	765	0.645	493	971	1.8	1.9	14.028	B
4 - Wide Lane (S)	589	147	642	979	0.602	589	493	1.5	1.5	9.315	A
3 - A335 (NW)	1536	384	589	1616	0.950	1527	642	12.1	14.4	36.042	E

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 - Wide Lane (NE)	754	189	587	1575	0.479	757	1196	1.7	1.0	4.846	A
2 - Wide Lane (S)	403	101	526	827	0.487	406	818	1.9	1.0	9.146	A
4 - Wide Lane (S)	481	120	526	1046	0.460	483	406	1.5	0.9	6.491	A
3 - A335 (NW)	1254	314	483	1694	0.740	1299	526	14.4	3.1	10.618	B

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 - Wide Lane (NE)	632	158	477	1651	0.383	633	983	1.0	0.7	3.885	A
2 - Wide Lane (S)	337	84	440	873	0.386	339	670	1.0	0.7	7.162	A
4 - Wide Lane (S)	403	101	440	1096	0.367	404	339	0.9	0.6	5.258	A
3 - A335 (NW)	1050	263	404	1753	0.599	1056	440	3.1	1.6	5.472	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	17.83	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1051	100.000
2 - Wide Lane (S)		ONE HOUR	✓	576	100.000
4 - Wide Lane (S)		ONE HOUR	✓	324	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	0	716
	2 - Wide Lane (S)	0	0	576	0
	4 - Wide Lane (S)	324	0	0	0
	3 - A335 (NW)	644	583	0	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	3	0
	4 - Wide Lane (S)	2	0	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.75	9.65	3.0	A	964	1447
2 - Wide Lane (S)	0.93	58.32	9.6	F	529	793
4 - Wide Lane (S)	0.40	6.91	0.7	A	297	446
3 - A335 (NW)	0.76	8.74	3.2	A	1131	1696

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	791	198	441	1676	0.472	788	728	0.0	0.9	4.078	A
2 - Wide Lane (S)	434	108	543	817	0.530	429	685	0.0	1.1	9.440	A
4 - Wide Lane (S)	244	61	543	1036	0.235	243	429	0.0	0.3	4.627	A
3 - A335 (NW)	928	232	246	1869	0.496	923	540	0.0	1.0	3.945	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
1 - Wide Lane (NE)	945	236	528	1616	0.585	943	872	0.9	1.4	5.387	A
2 - Wide Lane (S)	518	129	650	760	0.681	514	820	1.1	2.1	14.836	B
4 - Wide Lane (S)	291	73	650	974	0.299	291	514	0.3	0.4	5.371	A
3 - A335 (NW)	1108	277	294	1833	0.604	1105	647	1.0	1.6	5.131	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
1 - Wide Lane (NE)	1157	289	644	1535	0.754	1151	1066	1.4	3.0	9.314	A
2 - Wide Lane (S)	634	159	794	683	0.928	611	1001	2.1	7.9	42.196	E
4 - Wide Lane (S)	357	89	794	891	0.401	356	611	0.4	0.7	6.852	A
3 - A335 (NW)	1356	339	360	1785	0.760	1350	790	1.6	3.2	8.492	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
1 - Wide Lane (NE)	1157	289	647	1533	0.755	1157	1070	3.0	3.0	9.648	A
2 - Wide Lane (S)	634	159	798	681	0.932	627	1006	7.9	9.6	58.325	F
4 - Wide Lane (S)	357	89	798	888	0.402	357	627	0.7	0.7	6.908	A
3 - A335 (NW)	1356	339	361	1784	0.760	1356	794	3.2	3.2	8.740	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
1 - Wide Lane (NE)	945	236	532	1613	0.586	951	878	3.0	1.4	5.545	A
2 - Wide Lane (S)	518	129	656	757	0.684	547	827	9.6	2.4	19.787	C
4 - Wide Lane (S)	291	73	656	971	0.300	292	547	0.7	0.4	5.421	A
3 - A335 (NW)	1108	277	296	1832	0.605	1114	653	3.2	1.6	5.264	A

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 - Wide Lane (NE)	791	198	444	1674	0.473	793	733	1.4	0.9	4.142	A
2 - Wide Lane (S)	434	108	547	815	0.532	438	690	2.4	1.2	9.951	A
4 - Wide Lane (S)	244	61	547	1034	0.236	244	438	0.4	0.3	4.655	A
3 - A335 (NW)	928	232	247	1868	0.497	930	544	1.6	1.0	4.003	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	91.55	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	882	100.000
2 - Wide Lane (S)		ONE HOUR	✓	587	100.000
4 - Wide Lane (S)		ONE HOUR	✓	553	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	0	580
	2 - Wide Lane (S)	0	0	587	0
	4 - Wide Lane (S)	553	0	0	0
	3 - A335 (NW)	765	855	0	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	0	13
	2 - Wide Lane (S)	0	0	15	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	8	0	50

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 - Wide Lane (NE)	0.70	9.21	2.4	A	809	1214
2 - Wide Lane (S)	0.84	33.23	5.6	D	539	808
4 - Wide Lane (S)	0.62	9.81	1.6	A	507	761
3 - A335 (NW)	1.12	185.23	103.1	F	1489	2234

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	664	166	641	1537	0.432	661	985	0.0	0.8	4.459	A
2 - Wide Lane (S)	442	110	437	875	0.505	437	865	0.0	1.1	9.371	A
4 - Wide Lane (S)	416	104	437	1098	0.379	414	437	0.0	0.6	5.294	A
3 - A335 (NW)	1222	305	414	1745	0.700	1212	437	0.0	2.4	7.049	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	793	198	764	1453	0.546	791	1177	0.8	1.3	5.912	A
2 - Wide Lane (S)	528	132	523	828	0.637	525	1032	1.1	1.9	13.478	B
4 - Wide Lane (S)	497	124	523	1048	0.474	496	525	0.6	0.9	6.571	A
3 - A335 (NW)	1459	365	496	1685	0.866	1444	523	2.4	6.1	15.029	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	971	243	839	1401	0.693	967	1354	1.3	2.4	8.945	A
2 - Wide Lane (S)	646	162	639	766	0.843	633	1167	1.9	5.2	28.707	D
4 - Wide Lane (S)	609	152	639	981	0.621	606	633	0.9	1.6	9.626	A
3 - A335 (NW)	1787	447	606	1604	1.114	1586	639	6.1	56.3	80.738	F

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 - Wide Lane (NE)	971	243	846	1396	0.696	971	1363	2.4	2.4	9.215	A
2 - Wide Lane (S)	646	162	641	765	0.845	644	1175	5.2	5.6	33.226	D
4 - Wide Lane (S)	609	152	641	979	0.622	609	644	1.6	1.6	9.806	A
3 - A335 (NW)	1787	447	609	1602	1.116	1600	641	56.3	103.1	185.232	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 - Wide Lane (NE)	793	198	880	1372	0.578	797	1285	2.4	1.5	6.860	A
2 - Wide Lane (S)	528	132	527	826	0.639	542	1150	5.6	2.1	15.203	C
4 - Wide Lane (S)	497	124	527	1046	0.475	500	542	1.6	0.9	6.694	A
3 - A335 (NW)	1459	365	500	1682	0.868	1665	527	103.1	51.7	169.130	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 - Wide Lane (NE)	664	166	750	1462	0.454	666	1086	1.5	0.9	4.944	A
2 - Wide Lane (S)	442	110	441	872	0.507	446	975	2.1	1.2	9.779	A
4 - Wide Lane (S)	416	104	441	1096	0.380	418	446	0.9	0.6	5.369	A
3 - A335 (NW)	1222	305	418	1742	0.701	1418	441	51.7	2.6	21.170	C

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	108.20	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1061	100.000
2 - Wide Lane (S)		ONE HOUR	✓	783	100.000
4 - Wide Lane (S)		ONE HOUR	✓	359	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	0	716
	2 - Wide Lane (S)	0	0	783	0
	4 - Wide Lane (S)	359	0	0	0
	3 - A335 (NW)	644	724	0	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	6	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	5	10	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 - Wide Lane (NE)	0.82	13.94	4.4	B	974	1460
2 - Wide Lane (S)	1.27	444.56	99.2	F	718	1078
4 - Wide Lane (S)	0.44	7.37	0.8	A	329	494
3 - A335 (NW)	0.86	15.59	6.3	C	1260	1890

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	799	200	546	1603	0.498	795	754	0.0	1.0	4.478	A
2 - Wide Lane (S)	589	147	543	818	0.721	579	798	0.0	2.6	15.410	C
4 - Wide Lane (S)	270	68	543	1036	0.261	269	579	0.0	0.4	4.728	A
3 - A335 (NW)	1034	258	272	1850	0.559	1028	540	0.0	1.3	4.686	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
1 - Wide Lane (NE)	954	238	653	1529	0.624	951	903	1.0	1.6	6.265	A
2 - Wide Lane (S)	704	176	650	760	0.926	681	955	2.6	8.2	40.130	E
4 - Wide Lane (S)	323	81	650	974	0.331	322	681	0.4	0.5	5.571	A
3 - A335 (NW)	1234	309	326	1810	0.682	1231	646	1.3	2.3	6.641	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
1 - Wide Lane (NE)	1168	292	795	1431	0.816	1158	1101	1.6	4.2	12.862	B
2 - Wide Lane (S)	862	216	791	684	1.260	680	1162	8.2	53.8	179.623	F
4 - Wide Lane (S)	395	99	791	892	0.443	394	680	0.5	0.8	7.283	A
3 - A335 (NW)	1512	378	398	1757	0.861	1497	787	2.3	6.0	14.160	B

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 - Wide Lane (NE)	1168	292	802	1426	0.819	1167	1108	4.2	4.4	13.942	B
2 - Wide Lane (S)	862	216	798	681	1.266	680	1172	53.8	99.2	403.476	F
4 - Wide Lane (S)	395	99	798	888	0.445	395	680	0.8	0.8	7.371	A
3 - A335 (NW)	1512	378	400	1756	0.861	1510	793	6.0	6.3	15.590	C

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 - Wide Lane (NE)	954	238	664	1522	0.627	964	914	4.4	1.7	6.642	A
2 - Wide Lane (S)	704	176	659	755	0.932	747	969	99.2	88.4	444.556	F
4 - Wide Lane (S)	323	81	659	969	0.333	324	747	0.8	0.5	5.647	A
3 - A335 (NW)	1234	309	328	1809	0.682	1250	655	6.3	2.4	7.119	A

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 - Wide Lane (NE)	799	200	551	1600	0.499	802	761	1.7	1.0	4.573	A
2 - Wide Lane (S)	589	147	548	815	0.723	805	805	88.4	34.4	277.930	F
4 - Wide Lane (S)	270	68	548	1034	0.261	271	805	0.5	0.4	4.769	A
3 - A335 (NW)	1034	258	274	1848	0.559	1038	545	2.4	1.4	4.800	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	67.64	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	900	100.000
2 - Wide Lane (S)		ONE HOUR	✓	525	100.000
4 - Wide Lane (S)		ONE HOUR	✓	597	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	0	611
	2 - Wide Lane (S)	0	0	525	0
	4 - Wide Lane (S)	597	0	0	0
	3 - A335 (NW)	806	728	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	13
	2 - Wide Lane (S)	0	0	5	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	5	0	50

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 - Wide Lane (NE)	0.67	8.25	2.2	A	826	1239
2 - Wide Lane (S)	0.77	21.93	3.4	C	482	723
4 - Wide Lane (S)	0.68	11.94	2.1	B	548	822
3 - A335 (NW)	1.08	139.81	73.4	F	1408	2111

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	678	169	544	1604	0.422	674	1049	0.0	0.8	4.228	A
2 - Wide Lane (S)	395	99	458	863	0.458	392	761	0.0	0.9	7.957	A
4 - Wide Lane (S)	449	112	458	1086	0.414	447	392	0.0	0.7	5.662	A
3 - A335 (NW)	1155	289	447	1721	0.671	1147	458	0.0	2.1	6.457	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	809	202	649	1532	0.528	807	1254	0.8	1.2	5.435	A
2 - Wide Lane (S)	472	118	548	815	0.579	470	909	0.9	1.4	10.885	B
4 - Wide Lane (S)	537	134	548	1033	0.519	535	470	0.7	1.1	7.275	A
3 - A335 (NW)	1379	345	535	1656	0.833	1368	548	2.1	4.8	12.609	B

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 - Wide Lane (NE)	991	248	732	1475	0.672	987	1464	1.2	2.2	8.027	A
2 - Wide Lane (S)	578	145	670	749	0.771	571	1049	1.4	3.2	20.357	C
4 - Wide Lane (S)	657	164	670	963	0.683	653	571	1.1	2.1	11.600	B
3 - A335 (NW)	1689	422	653	1569	1.076	1542	670	4.8	41.5	64.504	F

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 - Wide Lane (NE)	991	248	741	1468	0.675	991	1477	2.2	2.2	8.251	A
2 - Wide Lane (S)	578	145	673	748	0.773	577	1059	3.2	3.4	21.934	C
4 - Wide Lane (S)	657	164	673	961	0.684	657	577	2.1	2.1	11.941	B
3 - A335 (NW)	1689	422	657	1566	1.078	1561	673	41.5	73.4	139.809	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 - Wide Lane (NE)	809	202	773	1446	0.559	812	1397	2.2	1.4	6.255	A
2 - Wide Lane (S)	472	118	552	813	0.580	480	1034	3.4	1.5	11.574	B
4 - Wide Lane (S)	537	134	552	1032	0.520	541	480	2.1	1.1	7.469	A
3 - A335 (NW)	1379	345	541	1652	0.835	1629	552	73.4	11.0	98.280	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 - Wide Lane (NE)	678	169	565	1590	0.426	680	1076	1.4	0.8	4.345	A
2 - Wide Lane (S)	395	99	462	861	0.459	398	783	1.5	0.9	8.193	A
4 - Wide Lane (S)	449	112	462	1084	0.415	451	398	1.1	0.7	5.759	A
3 - A335 (NW)	1155	289	451	1718	0.672	1190	462	11.0	2.2	7.584	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	53.27	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1106	100.000
2 - Wide Lane (S)		ONE HOUR	✓	674	100.000
4 - Wide Lane (S)		ONE HOUR	✓	380	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	0	754
	2 - Wide Lane (S)	0	0	674	0
	4 - Wide Lane (S)	380	0	0	0
	3 - A335 (NW)	679	652	0	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	3	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.82	13.68	4.5	B	1015	1522
2 - Wide Lane (S)	1.13	221.87	49.5	F	618	928
4 - Wide Lane (S)	0.48	8.15	0.9	A	349	523
3 - A335 (NW)	0.85	13.82	5.4	B	1226	1839

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	833	208	492	1640	0.508	829	796	0.0	1.0	4.458	A
2 - Wide Lane (S)	507	127	572	802	0.632	501	749	0.0	1.7	12.034	B
4 - Wide Lane (S)	286	72	572	1020	0.281	285	501	0.0	0.4	4.935	A
3 - A335 (NW)	1006	251	288	1838	0.547	1001	569	0.0	1.2	4.447	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
1 - Wide Lane (NE)	994	249	589	1573	0.632	992	953	1.0	1.7	6.222	A
2 - Wide Lane (S)	606	151	684	742	0.817	597	897	1.7	4.0	24.097	C
4 - Wide Lane (S)	342	85	684	954	0.358	341	597	0.4	0.6	5.920	A
3 - A335 (NW)	1201	300	345	1796	0.669	1198	680	1.2	2.1	6.223	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
1 - Wide Lane (NE)	1218	304	717	1485	0.820	1207	1162	1.7	4.3	12.660	B
2 - Wide Lane (S)	742	186	833	662	1.121	647	1092	4.0	27.8	105.748	F
4 - Wide Lane (S)	418	105	833	868	0.482	417	647	0.6	0.9	8.036	A
3 - A335 (NW)	1471	368	421	1740	0.846	1458	829	2.1	5.2	12.765	B

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 - Wide Lane (NE)	1218	304	723	1481	0.822	1217	1170	4.3	4.5	13.679	B
2 - Wide Lane (S)	742	186	840	659	1.127	656	1100	27.8	49.5	221.872	F
4 - Wide Lane (S)	418	105	840	864	0.484	418	656	0.9	0.9	8.154	A
3 - A335 (NW)	1471	368	423	1739	0.846	1470	835	5.2	5.4	13.815	B

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 - Wide Lane (NE)	994	249	597	1568	0.634	1005	964	4.5	1.8	6.582	A
2 - Wide Lane (S)	606	151	693	737	0.822	722	909	49.5	20.5	178.653	F
4 - Wide Lane (S)	342	85	693	949	0.360	343	722	0.9	0.6	6.013	A
3 - A335 (NW)	1201	300	347	1795	0.669	1214	690	5.4	2.1	6.594	A

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 - Wide Lane (NE)	833	208	496	1637	0.509	836	803	1.8	1.1	4.551	A
2 - Wide Lane (S)	507	127	576	800	0.634	582	755	20.5	1.9	22.990	C
4 - Wide Lane (S)	286	72	576	1017	0.281	287	582	0.6	0.4	4.983	A
3 - A335 (NW)	1006	251	290	1836	0.548	1009	573	2.1	1.3	4.545	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	213.60	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	943	100.000
2 - Wide Lane (S)		ONE HOUR	✓	664	100.000
4 - Wide Lane (S)		ONE HOUR	✓	614	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	0	611
	2 - Wide Lane (S)	0	0	664	0
	4 - Wide Lane (S)	614	0	0	0
	3 - A335 (NW)	806	956	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	0	13
	2 - Wide Lane (S)	0	0	13	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	4	7	0	50

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 - Wide Lane (NE)	0.74	10.85	3.1	B	865	1298
2 - Wide Lane (S)	0.98	82.38	16.1	F	609	914
4 - Wide Lane (S)	0.70	12.71	2.3	B	563	845
3 - A335 (NW)	1.25	441.56	208.0	F	1617	2425

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	177	712	1488	0.477	706	1060	0.0	1.0	4.986	A
2 - Wide Lane (S)	500	125	457	864	0.579	494	961	0.0	1.5	10.835	B
4 - Wide Lane (S)	462	116	457	1086	0.426	459	494	0.0	0.7	5.774	A
3 - A335 (NW)	1327	332	459	1712	0.775	1313	457	0.0	3.5	9.229	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	848	212	836	1402	0.604	845	1256	1.0	1.6	7.001	A
2 - Wide Lane (S)	597	149	548	815	0.732	591	1134	1.5	2.9	17.740	C
4 - Wide Lane (S)	552	138	548	1034	0.534	550	591	0.7	1.1	7.495	A
3 - A335 (NW)	1584	396	550	1645	0.963	1542	548	3.5	14.1	29.063	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 - Wide Lane (NE)	1038	260	842	1399	0.742	1033	1381	1.6	3.0	10.554	B
2 - Wide Lane (S)	731	183	669	750	0.975	694	1206	2.9	12.0	53.536	F
4 - Wide Lane (S)	676	169	669	963	0.702	671	694	1.1	2.3	12.275	B
3 - A335 (NW)	1940	485	671	1556	1.247	1552	669	14.1	111.1	153.374	F

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 - Wide Lane (NE)	1038	260	842	1398	0.742	1038	1386	3.0	3.1	10.854	B
2 - Wide Lane (S)	731	183	673	748	0.977	715	1208	12.0	16.1	82.376	F
4 - Wide Lane (S)	676	169	673	961	0.703	676	715	2.3	2.3	12.714	B
3 - A335 (NW)	1940	485	676	1553	1.249	1552	673	111.1	208.0	369.626	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 - Wide Lane (NE)	848	212	885	1369	0.619	853	1303	3.1	1.8	7.673	A
2 - Wide Lane (S)	597	149	553	813	0.735	648	1186	16.1	3.4	30.623	D
4 - Wide Lane (S)	552	138	553	1031	0.535	557	648	2.3	1.2	7.737	A
3 - A335 (NW)	1584	396	557	1640	0.966	1632	553	208.0	196.0	441.564	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 - Wide Lane (NE)	710	177	922	1343	0.528	712	1241	1.8	1.2	6.231	A
2 - Wide Lane (S)	500	125	461	861	0.580	507	1173	3.4	1.6	11.701	B
4 - Wide Lane (S)	462	116	461	1084	0.426	464	507	1.2	0.8	5.883	A
3 - A335 (NW)	1327	332	464	1708	0.776	1699	461	196.0	102.9	317.914	F

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 4, 3	218.82	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1115	100.000
2 - Wide Lane (S)		ONE HOUR	✓	881	100.000
4 - Wide Lane (S)		ONE HOUR	✓	414	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	0	754
	2 - Wide Lane (S)	0	0	881	0
	4 - Wide Lane (S)	414	0	0	0
	3 - A335 (NW)	679	794	0	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	4 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	0	1
	2 - Wide Lane (S)	0	0	5	0
	4 - Wide Lane (S)	1	0	0	0
	3 - A335 (NW)	5	9	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 - Wide Lane (NE)	0.89	22.99	7.4	C	1023	1535
2 - Wide Lane (S)	1.47	873.02	191.4	F	808	1213
4 - Wide Lane (S)	0.53	8.88	1.1	A	380	570
3 - A335 (NW)	0.95	35.39	15.0	E	1356	2034

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	839	210	598	1567	0.536	835	821	0.0	1.2	4.935	A
2 - Wide Lane (S)	663	166	571	803	0.827	646	861	0.0	4.3	22.184	C
4 - Wide Lane (S)	312	78	571	1020	0.306	310	646	0.0	0.4	5.108	A
3 - A335 (NW)	1113	278	313	1819	0.612	1106	568	0.0	1.7	5.357	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
1 - Wide Lane (NE)	1002	251	715	1486	0.674	999	983	1.2	2.0	7.406	A
2 - Wide Lane (S)	792	198	683	742	1.067	719	1031	4.3	22.5	84.492	F
4 - Wide Lane (S)	372	93	683	955	0.390	371	719	0.4	0.6	6.222	A
3 - A335 (NW)	1329	332	375	1774	0.749	1323	680	1.7	3.1	8.445	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
1 - Wide Lane (NE)	1228	307	859	1387	0.885	1210	1188	2.0	6.6	18.858	C
2 - Wide Lane (S)	970	242	828	665	1.459	664	1241	22.5	99.0	342.551	F
4 - Wide Lane (S)	456	114	828	871	0.523	454	664	0.6	1.1	8.681	A
3 - A335 (NW)	1627	407	458	1712	0.950	1589	823	3.1	12.6	25.732	D

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 - Wide Lane (NE)	1228	307	874	1376	0.892	1224	1203	6.6	7.4	22.993	C
2 - Wide Lane (S)	970	242	838	659	1.471	659	1261	99.0	176.7	725.544	F
4 - Wide Lane (S)	456	114	838	865	0.527	456	659	1.1	1.1	8.878	A
3 - A335 (NW)	1627	407	460	1711	0.951	1618	833	12.6	15.0	35.395	E

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 - Wide Lane (NE)	1002	251	744	1467	0.683	1023	1010	7.4	2.2	8.558	A
2 - Wide Lane (S)	792	198	700	733	1.080	733	1066	176.7	191.4	873.021	F
4 - Wide Lane (S)	372	93	700	945	0.394	374	733	1.1	0.7	6.384	A
3 - A335 (NW)	1329	332	378	1772	0.750	1375	696	15.0	3.3	10.806	B

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 - Wide Lane (NE)	839	210	605	1562	0.537	844	830	2.2	1.2	5.090	A
2 - Wide Lane (S)	663	166	577	799	0.830	795	871	191.4	158.5	792.959	F
4 - Wide Lane (S)	312	78	577	1017	0.307	313	795	0.7	0.5	5.170	A
3 - A335 (NW)	1113	278	316	1817	0.612	1119	574	3.3	1.7	5.571	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Arm 2_Lane 2.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model
Report generation date: 21/03/2025 09:26:21

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023							
1 - Wide Lane (NE)	1.4	5.64	0.55	A	2.4	7.97	0.69	A
2 - Wide Lane (S)	1.3	9.07	0.57	A	0.5	6.59	0.36	A
3 - A335 (NW)	5.6	14.78	0.85	B	2.3	6.65	0.69	A
	FB 2025							
1 - Wide Lane (NE)	1.5	6.03	0.58	A	2.5	8.05	0.71	A
2 - Wide Lane (S)	1.5	9.74	0.60	A	0.6	7.07	0.38	A
3 - A335 (NW)	7.4	19.41	0.89	C	2.6	7.22	0.71	A
	FB 2028							
1 - Wide Lane (NE)	1.7	6.80	0.61	A	3.0	9.65	0.75	A
2 - Wide Lane (S)	1.8	10.97	0.64	B	0.8	7.74	0.43	A
3 - A335 (NW)	14.4	36.00	0.95	E	3.2	8.74	0.76	A
	DS 2028							
1 - Wide Lane (NE)	2.4	9.21	0.70	A	4.4	13.94	0.82	B
2 - Wide Lane (S)	1.9	11.66	0.66	B	0.9	8.33	0.48	A
3 - A335 (NW)	103.0	184.97	1.12	F	6.3	15.59	0.86	C
	FB 2036							
1 - Wide Lane (NE)	2.2	8.25	0.67	A	4.5	13.68	0.82	B
2 - Wide Lane (S)	2.6	14.76	0.73	B	1.1	9.33	0.52	A
3 - A335 (NW)	73.2	139.38	1.08	F	5.4	13.81	0.85	B
	DS 2036							
1 - Wide Lane (NE)	3.1	10.86	0.74	B	7.4	22.99	0.89	C
2 - Wide Lane (S)	2.9	15.95	0.75	C	1.3	10.29	0.56	B
3 - A335 (NW)	207.7	441.44	1.25	F	15.0	35.37	0.95	E

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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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 segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	10.87	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	6.00	7.80	13.0	29.0	22.0	62.7	
2 - Wide Lane (S)	3.72	4.46	21.0	23.9	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.691	1980
2 - Wide Lane (S)	0.567	1284
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	790	100.000
2 - Wide Lane (S)		ONE HOUR	✓	484	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	558
	2 - Wide Lane (S)	484	0	0
	3 - A335 (NW)	737	536	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	0.55	5.64	1.4	A	725	1087
2 - Wide Lane (S)	0.57	9.07	1.3	A	444	666
3 - A335 (NW)	0.85	14.78	5.6	B	1171	1756

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	595	149	404	1701	0.350	592	914	0.0	0.6	3.559	A
2 - Wide Lane (S)	364	91	421	1045	0.349	362	575	0.0	0.5	5.307	A
3 - A335 (NW)	961	240	362	1783	0.539	956	421	0.0	1.2	4.557	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	483	1646	0.431	709	1095	0.6	0.8	4.216	A
2 - Wide Lane (S)	435	109	504	998	0.436	434	689	0.5	0.8	6.435	A
3 - A335 (NW)	1147	287	434	1730	0.663	1144	504	1.2	2.0	6.429	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
1 - Wide Lane (NE)	870	217	588	1574	0.553	868	1335	0.8	1.3	5.585	A
2 - Wide Lane (S)	533	133	616	934	0.570	531	839	0.8	1.3	8.959	A
3 - A335 (NW)	1405	351	531	1659	0.847	1392	616	2.0	5.3	13.556	B

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 - Wide Lane (NE)	870	217	593	1571	0.554	870	1344	1.3	1.4	5.643	A
2 - Wide Lane (S)	533	133	618	934	0.571	533	845	1.3	1.3	9.067	A
3 - A335 (NW)	1405	351	533	1658	0.847	1404	618	5.3	5.6	14.784	B

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 - Wide Lane (NE)	710	178	490	1641	0.433	712	1108	1.4	0.8	4.265	A
2 - Wide Lane (S)	435	109	506	997	0.436	437	697	1.3	0.8	6.521	A
3 - A335 (NW)	1147	287	437	1728	0.664	1161	506	5.6	2.1	6.842	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
1 - Wide Lane (NE)	595	149	407	1699	0.350	596	922	0.8	0.6	3.590	A
2 - Wide Lane (S)	364	91	423	1044	0.349	365	580	0.8	0.5	5.367	A
3 - A335 (NW)	961	240	365	1781	0.539	964	423	2.1	1.2	4.661	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	7.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	990	100.000
2 - Wide Lane (S)		ONE HOUR	✓	274	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	689
	2 - Wide Lane (S)	274	0	0
	3 - A335 (NW)	620	514	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	0	0	7
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	0.69	7.97	2.4	A	908	1363
2 - Wide Lane (S)	0.36	6.59	0.5	A	251	377
3 - A335 (NW)	0.69	6.65	2.3	A	1045	1568

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	389	1711	0.436	742	673	0.0	0.8	4.062	A
2 - Wide Lane (S)	206	52	523	987	0.209	205	608	0.0	0.3	4.598	A
3 - A335 (NW)	857	214	208	1896	0.452	854	520	0.0	0.9	3.631	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
1 - Wide Lane (NE)	890	222	466	1658	0.537	888	806	0.8	1.3	5.119	A
2 - Wide Lane (S)	246	62	626	929	0.265	246	728	0.3	0.4	5.271	A
3 - A335 (NW)	1024	256	250	1866	0.549	1022	623	0.9	1.3	4.493	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
1 - Wide Lane (NE)	1090	273	570	1587	0.687	1086	986	1.3	2.3	7.817	A
2 - Wide Lane (S)	302	75	765	850	0.355	301	890	0.4	0.5	6.549	A
3 - A335 (NW)	1254	314	305	1825	0.687	1250	761	1.3	2.3	6.559	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
1 - Wide Lane (NE)	1090	273	571	1585	0.688	1090	989	2.3	2.4	7.966	A
2 - Wide Lane (S)	302	75	768	848	0.356	302	893	0.5	0.5	6.587	A
3 - A335 (NW)	1254	314	306	1824	0.687	1254	764	2.3	2.3	6.654	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
1 - Wide Lane (NE)	890	222	468	1657	0.537	894	810	2.4	1.3	5.211	A
2 - Wide Lane (S)	246	62	631	926	0.266	247	732	0.5	0.4	5.307	A
3 - A335 (NW)	1024	256	251	1865	0.549	1028	627	2.3	1.3	4.556	A

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 - Wide Lane (NE)	745	186	391	1710	0.436	747	677	1.3	0.9	4.111	A
2 - Wide Lane (S)	206	52	527	985	0.209	207	612	0.4	0.3	4.627	A
3 - A335 (NW)	857	214	210	1895	0.452	859	524	1.3	0.9	3.672	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	13.44	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	811	100.000
2 - Wide Lane (S)		ONE HOUR	✓	504	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	570
	2 - Wide Lane (S)	504	0	0
	3 - A335 (NW)	752	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	0.58	6.03	1.5	A	744	1116
2 - Wide Lane (S)	0.60	9.74	1.5	A	462	694
3 - A335 (NW)	0.89	19.41	7.4	C	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	611	153	425	1686	0.362	608	940	0.0	0.6	3.660	A
2 - Wide Lane (S)	379	95	427	1042	0.364	377	606	0.0	0.6	5.454	A
3 - A335 (NW)	994	248	377	1772	0.561	988	427	0.0	1.3	4.803	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	729	182	509	1629	0.448	728	1126	0.6	0.9	4.385	A
2 - Wide Lane (S)	453	113	512	994	0.456	452	725	0.6	0.8	6.698	A
3 - A335 (NW)	1187	297	452	1717	0.691	1183	512	1.3	2.3	7.040	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
1 - Wide Lane (NE)	893	223	617	1554	0.575	891	1370	0.9	1.5	5.943	A
2 - Wide Lane (S)	555	139	626	929	0.597	552	882	0.8	1.5	9.592	A
3 - A335 (NW)	1453	363	552	1643	0.884	1435	626	2.3	6.9	16.862	C

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 - Wide Lane (NE)	893	223	624	1549	0.577	893	1382	1.5	1.5	6.025	A
2 - Wide Lane (S)	555	139	628	928	0.598	555	890	1.5	1.5	9.737	A
3 - A335 (NW)	1453	363	555	1642	0.885	1451	628	6.9	7.4	19.414	C

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 - Wide Lane (NE)	729	182	519	1621	0.450	731	1143	1.5	0.9	4.455	A
2 - Wide Lane (S)	453	113	514	992	0.457	456	737	1.5	0.9	6.806	A
3 - A335 (NW)	1187	297	456	1715	0.692	1207	514	7.4	2.4	7.743	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
1 - Wide Lane (NE)	611	153	429	1683	0.363	612	949	0.9	0.6	3.694	A
2 - Wide Lane (S)	379	95	430	1040	0.365	381	611	0.9	0.6	5.521	A
3 - A335 (NW)	994	248	381	1770	0.562	998	430	2.4	1.4	4.939	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	7.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1015	100.000
2 - Wide Lane (S)		ONE HOUR	✓	291	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	703
	2 - Wide Lane (S)	291	0	0
	3 - A335 (NW)	633	536	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.71	8.05	2.5	A	931	1397
2 - Wide Lane (S)	0.38	7.07	0.6	A	267	401
3 - A335 (NW)	0.71	7.22	2.6	A	1077	1616

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	764	191	406	1700	0.450	761	696	0.0	0.8	3.859	A
2 - Wide Lane (S)	219	55	534	981	0.223	218	633	0.0	0.3	4.804	A
3 - A335 (NW)	884	221	221	1887	0.468	880	531	0.0	0.9	3.706	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
1 - Wide Lane (NE)	912	228	486	1645	0.555	911	833	0.8	1.2	4.943	A
2 - Wide Lane (S)	262	65	639	922	0.284	261	757	0.3	0.4	5.556	A
3 - A335 (NW)	1055	264	265	1855	0.569	1054	635	0.9	1.4	4.665	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
1 - Wide Lane (NE)	1118	279	594	1570	0.712	1113	1018	1.2	2.4	7.868	A
2 - Wide Lane (S)	320	80	781	841	0.381	320	926	0.4	0.6	7.028	A
3 - A335 (NW)	1293	323	324	1811	0.714	1288	776	1.4	2.5	7.093	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
1 - Wide Lane (NE)	1118	279	596	1569	0.712	1117	1022	2.4	2.5	8.048	A
2 - Wide Lane (S)	320	80	784	839	0.382	320	929	0.6	0.6	7.074	A
3 - A335 (NW)	1293	323	325	1811	0.714	1292	779	2.5	2.6	7.224	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
1 - Wide Lane (NE)	912	228	489	1643	0.555	917	838	2.5	1.3	5.045	A
2 - Wide Lane (S)	262	65	643	919	0.285	262	762	0.6	0.4	5.599	A
3 - A335 (NW)	1055	264	266	1854	0.569	1060	640	2.6	1.4	4.748	A

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 - Wide Lane (NE)	764	191	408	1698	0.450	766	700	1.3	0.8	3.908	A
2 - Wide Lane (S)	219	55	537	979	0.224	220	637	0.4	0.3	4.838	A
3 - A335 (NW)	884	221	223	1886	0.469	886	534	1.4	0.9	3.751	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	22.32	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	839	100.000
2 - Wide Lane (S)		ONE HOUR	✓	535	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	580
	2 - Wide Lane (S)	535	0	0
	3 - A335 (NW)	765	627	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	4	6	50

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 - Wide Lane (NE)	0.61	6.80	1.7	A	770	1155
2 - Wide Lane (S)	0.64	10.97	1.8	B	491	736
3 - A335 (NW)	0.95	36.00	14.4	E	1280	1920

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	632	158	472	1654	0.382	629	973	0.0	0.7	3.841	A
2 - Wide Lane (S)	403	101	437	1036	0.389	400	663	0.0	0.6	5.696	A
3 - A335 (NW)	1050	263	400	1755	0.598	1044	437	0.0	1.5	5.269	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	754	189	564	1591	0.474	753	1165	0.7	1.0	4.709	A
2 - Wide Lane (S)	481	120	523	987	0.487	480	794	0.6	0.9	7.148	A
3 - A335 (NW)	1254	314	480	1697	0.739	1249	523	1.5	2.9	8.335	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
1 - Wide Lane (NE)	924	231	677	1512	0.611	921	1408	1.0	1.7	6.645	A
2 - Wide Lane (S)	589	147	640	921	0.640	586	958	0.9	1.7	10.746	B
3 - A335 (NW)	1536	384	586	1619	0.949	1499	640	2.9	12.1	26.042	D

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 - Wide Lane (NE)	924	231	689	1504	0.614	924	1426	1.7	1.7	6.803	A
2 - Wide Lane (S)	589	147	642	920	0.640	589	971	1.7	1.8	10.973	B
3 - A335 (NW)	1536	384	589	1616	0.950	1526	642	12.1	14.4	36.002	E

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 - Wide Lane (NE)	754	189	587	1575	0.479	757	1197	1.7	1.0	4.847	A
2 - Wide Lane (S)	481	120	526	986	0.488	484	818	1.8	1.0	7.298	A
3 - A335 (NW)	1254	314	484	1694	0.741	1299	526	14.4	3.1	10.625	B

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 - Wide Lane (NE)	632	158	477	1651	0.383	633	983	1.0	0.7	3.886	A
2 - Wide Lane (S)	403	101	440	1034	0.389	404	670	1.0	0.7	5.779	A
3 - A335 (NW)	1050	263	404	1752	0.599	1056	440	3.1	1.6	5.474	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	8.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1051	100.000
2 - Wide Lane (S)		ONE HOUR	✓	324	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	716
	2 - Wide Lane (S)	324	0	0
	3 - A335 (NW)	644	583	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.75	9.65	3.0	A	964	1447
2 - Wide Lane (S)	0.43	7.74	0.8	A	297	446
3 - A335 (NW)	0.76	8.74	3.2	A	1131	1696

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	791	198	441	1676	0.472	788	728	0.0	0.9	4.078	A
2 - Wide Lane (S)	244	61	543	976	0.250	243	685	0.0	0.3	4.999	A
3 - A335 (NW)	928	232	246	1869	0.496	923	540	0.0	1.0	3.945	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
1 - Wide Lane (NE)	945	236	528	1616	0.585	943	872	0.9	1.4	5.387	A
2 - Wide Lane (S)	291	73	650	915	0.318	291	820	0.3	0.5	5.876	A
3 - A335 (NW)	1108	277	294	1833	0.604	1105	647	1.0	1.6	5.130	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
1 - Wide Lane (NE)	1157	289	644	1535	0.754	1151	1066	1.4	3.0	9.314	A
2 - Wide Lane (S)	357	89	794	834	0.428	356	1001	0.5	0.8	7.663	A
3 - A335 (NW)	1356	339	360	1785	0.760	1350	790	1.6	3.2	8.490	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
1 - Wide Lane (NE)	1157	289	647	1533	0.755	1157	1070	3.0	3.0	9.648	A
2 - Wide Lane (S)	357	89	798	831	0.429	357	1006	0.8	0.8	7.735	A
3 - A335 (NW)	1356	339	361	1784	0.760	1356	794	3.2	3.2	8.740	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
1 - Wide Lane (NE)	945	236	532	1613	0.586	951	878	3.0	1.4	5.548	A
2 - Wide Lane (S)	291	73	656	912	0.319	292	827	0.8	0.5	5.938	A
3 - A335 (NW)	1108	277	296	1832	0.605	1114	653	3.2	1.6	5.264	A

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 - Wide Lane (NE)	791	198	444	1674	0.473	793	734	1.4	0.9	4.142	A
2 - Wide Lane (S)	244	61	547	974	0.251	244	690	0.5	0.3	5.042	A
3 - A335 (NW)	928	232	248	1867	0.497	930	544	1.6	1.0	4.004	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	102.94	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	882	100.000
2 - Wide Lane (S)		ONE HOUR	✓	553	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	580
	2 - Wide Lane (S)	553	0	0
	3 - A335 (NW)	765	855	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	13
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	4	8	50

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 - Wide Lane (NE)	0.70	9.21	2.4	A	809	1214
2 - Wide Lane (S)	0.66	11.66	1.9	B	507	761
3 - A335 (NW)	1.12	184.97	103.0	F	1489	2234

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	664	166	641	1537	0.432	661	985	0.0	0.8	4.459	A
2 - Wide Lane (S)	416	104	437	1036	0.402	414	865	0.0	0.7	5.816	A
3 - A335 (NW)	1222	305	414	1745	0.700	1212	437	0.0	2.4	7.047	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	793	198	764	1453	0.546	791	1177	0.8	1.3	5.912	A
2 - Wide Lane (S)	497	124	523	987	0.503	496	1032	0.7	1.0	7.375	A
3 - A335 (NW)	1459	365	496	1685	0.866	1444	523	2.4	6.1	15.021	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	971	243	839	1401	0.693	967	1353	1.3	2.4	8.949	A
2 - Wide Lane (S)	609	152	639	922	0.661	605	1167	1.0	1.9	11.363	B
3 - A335 (NW)	1787	447	605	1604	1.114	1587	639	6.1	56.2	80.584	F

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 - Wide Lane (NE)	971	243	846	1396	0.696	971	1363	2.4	2.4	9.215	A
2 - Wide Lane (S)	609	152	641	920	0.662	609	1175	1.9	1.9	11.659	B
3 - A335 (NW)	1787	447	609	1602	1.115	1600	641	56.2	103.0	184.970	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 - Wide Lane (NE)	793	198	880	1372	0.578	797	1285	2.4	1.5	6.858	A
2 - Wide Lane (S)	497	124	527	985	0.505	501	1149	1.9	1.0	7.559	A
3 - A335 (NW)	1459	365	501	1681	0.868	1664	527	103.0	51.7	169.058	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 - Wide Lane (NE)	664	166	750	1462	0.454	666	1086	1.5	0.9	4.944	A
2 - Wide Lane (S)	416	104	441	1034	0.403	418	975	1.0	0.7	5.914	A
3 - A335 (NW)	1222	305	418	1742	0.701	1418	441	51.7	2.6	21.191	C

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	14.03	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1061	100.000
2 - Wide Lane (S)		ONE HOUR	✓	359	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	716
	2 - Wide Lane (S)	359	0	0
	3 - A335 (NW)	644	724	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	5	10	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 - Wide Lane (NE)	0.82	13.94	4.4	B	974	1460
2 - Wide Lane (S)	0.48	8.33	0.9	A	329	494
3 - A335 (NW)	0.86	15.59	6.3	C	1260	1890

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	799	200	546	1603	0.498	795	754	0.0	1.0	4.478	A
2 - Wide Lane (S)	270	68	543	976	0.277	269	798	0.0	0.4	5.130	A
3 - A335 (NW)	1034	258	272	1850	0.559	1028	540	0.0	1.3	4.685	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
1 - Wide Lane (NE)	954	238	653	1529	0.624	951	903	1.0	1.6	6.265	A
2 - Wide Lane (S)	323	81	650	915	0.353	322	955	0.4	0.5	6.123	A
3 - A335 (NW)	1234	309	326	1810	0.682	1231	646	1.3	2.3	6.641	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
1 - Wide Lane (NE)	1168	292	795	1431	0.816	1158	1100	1.6	4.2	12.862	B
2 - Wide Lane (S)	395	99	791	835	0.473	394	1162	0.5	0.9	8.214	A
3 - A335 (NW)	1512	378	398	1757	0.861	1497	787	2.3	6.0	14.155	B

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 - Wide Lane (NE)	1168	292	802	1426	0.819	1167	1108	4.2	4.4	13.942	B
2 - Wide Lane (S)	395	99	798	832	0.475	395	1172	0.9	0.9	8.330	A
3 - A335 (NW)	1512	378	400	1756	0.861	1510	793	6.0	6.3	15.588	C

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 - Wide Lane (NE)	954	238	664	1522	0.627	964	914	4.4	1.7	6.645	A
2 - Wide Lane (S)	323	81	659	910	0.355	324	969	0.9	0.6	6.220	A
3 - A335 (NW)	1234	309	328	1808	0.683	1250	655	6.3	2.4	7.120	A

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 - Wide Lane (NE)	799	200	551	1600	0.499	802	761	1.7	1.0	4.572	A
2 - Wide Lane (S)	270	68	548	973	0.278	271	805	0.6	0.4	5.181	A
3 - A335 (NW)	1034	258	274	1848	0.559	1038	545	2.4	1.4	4.802	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	75.90	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	900	100.000
2 - Wide Lane (S)		ONE HOUR	✓	597	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	611
	2 - Wide Lane (S)	597	0	0
	3 - A335 (NW)	806	728	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	4	5	50

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 - Wide Lane (NE)	0.67	8.25	2.2	A	826	1239
2 - Wide Lane (S)	0.73	14.76	2.6	B	548	822
3 - A335 (NW)	1.08	139.38	73.2	F	1408	2111

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	678	169	544	1604	0.422	674	1049	0.0	0.8	4.228	A
2 - Wide Lane (S)	449	112	458	1024	0.439	446	761	0.0	0.8	6.258	A
3 - A335 (NW)	1155	289	446	1721	0.671	1147	458	0.0	2.1	6.454	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	809	202	649	1532	0.528	807	1254	0.8	1.2	5.435	A
2 - Wide Lane (S)	537	134	548	973	0.552	535	909	0.8	1.2	8.265	A
3 - A335 (NW)	1379	345	535	1656	0.833	1368	548	2.1	4.8	12.600	B

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 - Wide Lane (NE)	991	248	732	1474	0.672	987	1463	1.2	2.2	8.031	A
2 - Wide Lane (S)	657	164	670	904	0.727	652	1049	1.2	2.5	14.140	B
3 - A335 (NW)	1689	422	652	1570	1.076	1543	670	4.8	41.3	64.260	F

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 - Wide Lane (NE)	991	248	741	1468	0.675	991	1477	2.2	2.2	8.252	A
2 - Wide Lane (S)	657	164	673	902	0.728	657	1059	2.5	2.6	14.764	B
3 - A335 (NW)	1689	422	657	1566	1.078	1561	673	41.3	73.2	139.378	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 - Wide Lane (NE)	809	202	772	1447	0.559	812	1397	2.2	1.4	6.254	A
2 - Wide Lane (S)	537	134	552	971	0.553	542	1033	2.6	1.3	8.578	A
3 - A335 (NW)	1379	345	542	1651	0.835	1628	552	73.2	11.0	98.170	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 - Wide Lane (NE)	678	169	565	1590	0.426	680	1077	1.4	0.8	4.345	A
2 - Wide Lane (S)	449	112	462	1022	0.440	451	783	1.3	0.8	6.392	A
3 - A335 (NW)	1155	289	451	1718	0.672	1190	462	11.0	2.2	7.594	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	13.16	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1106	100.000
2 - Wide Lane (S)		ONE HOUR	✓	380	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	754
	2 - Wide Lane (S)	380	0	0
	3 - A335 (NW)	679	652	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	5	3	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 - Wide Lane (NE)	0.82	13.68	4.5	B	1015	1522
2 - Wide Lane (S)	0.52	9.33	1.1	A	349	523
3 - A335 (NW)	0.85	13.81	5.4	B	1226	1839

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	833	208	492	1640	0.508	829	796	0.0	1.0	4.458	A
2 - Wide Lane (S)	286	72	572	960	0.298	284	749	0.0	0.4	5.371	A
3 - A335 (NW)	1006	251	287	1838	0.547	1001	569	0.0	1.2	4.446	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
1 - Wide Lane (NE)	994	249	589	1573	0.632	992	953	1.0	1.7	6.222	A
2 - Wide Lane (S)	342	85	684	896	0.381	341	897	0.4	0.6	6.540	A
3 - A335 (NW)	1201	300	344	1796	0.669	1198	680	1.2	2.1	6.223	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
1 - Wide Lane (NE)	1218	304	717	1485	0.820	1207	1162	1.7	4.3	12.662	B
2 - Wide Lane (S)	418	105	833	811	0.516	417	1092	0.6	1.1	9.168	A
3 - A335 (NW)	1471	368	421	1740	0.845	1458	829	2.1	5.2	12.755	B

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 - Wide Lane (NE)	1218	304	723	1481	0.822	1217	1170	4.3	4.5	13.679	B
2 - Wide Lane (S)	418	105	840	808	0.518	418	1100	1.1	1.1	9.332	A
3 - A335 (NW)	1471	368	423	1739	0.846	1470	835	5.2	5.4	13.814	B

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 - Wide Lane (NE)	994	249	597	1568	0.634	1005	964	4.5	1.8	6.580	A
2 - Wide Lane (S)	342	85	693	891	0.384	343	909	1.1	0.6	6.663	A
3 - A335 (NW)	1201	300	347	1794	0.669	1214	690	5.4	2.1	6.596	A

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 - Wide Lane (NE)	833	208	496	1637	0.509	836	803	1.8	1.1	4.552	A
2 - Wide Lane (S)	286	72	576	957	0.299	287	755	0.6	0.4	5.432	A
3 - A335 (NW)	1006	251	290	1836	0.548	1009	573	2.1	1.3	4.545	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	240.39	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	943	100.000
2 - Wide Lane (S)		ONE HOUR	✓	614	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	611
	2 - Wide Lane (S)	614	0	0
	3 - A335 (NW)	806	956	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	13
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	4	7	50

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 - Wide Lane (NE)	0.74	10.86	3.1	B	865	1298
2 - Wide Lane (S)	0.75	15.95	2.9	C	563	845
3 - A335 (NW)	1.25	441.44	207.7	F	1617	2425

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	177	712	1488	0.477	706	1059	0.0	1.0	4.986	A
2 - Wide Lane (S)	462	116	457	1024	0.451	459	961	0.0	0.8	6.393	A
3 - A335 (NW)	1327	332	459	1712	0.775	1313	457	0.0	3.5	9.224	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	848	212	836	1402	0.605	845	1255	1.0	1.6	7.001	A
2 - Wide Lane (S)	552	138	548	973	0.567	550	1134	0.8	1.3	8.551	A
3 - A335 (NW)	1584	396	550	1645	0.963	1542	548	3.5	14.1	29.031	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 - Wide Lane (NE)	1038	260	843	1398	0.743	1033	1380	1.6	3.0	10.566	B
2 - Wide Lane (S)	676	169	669	904	0.747	670	1206	1.3	2.8	15.129	C
3 - A335 (NW)	1940	485	670	1557	1.246	1553	669	14.1	110.8	152.947	F

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 - Wide Lane (NE)	1038	260	842	1398	0.742	1038	1386	3.0	3.1	10.855	B
2 - Wide Lane (S)	676	169	673	902	0.749	676	1208	2.8	2.9	15.955	C
3 - A335 (NW)	1940	485	676	1553	1.249	1552	673	110.8	207.7	368.998	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 - Wide Lane (NE)	848	212	885	1369	0.619	853	1304	3.1	1.8	7.664	A
2 - Wide Lane (S)	552	138	553	971	0.569	558	1185	2.9	1.4	8.946	A
3 - A335 (NW)	1584	396	558	1639	0.966	1631	553	207.7	196.0	441.445	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 - Wide Lane (NE)	710	177	922	1343	0.528	712	1241	1.8	1.2	6.233	A
2 - Wide Lane (S)	462	116	461	1022	0.452	464	1173	1.4	0.8	6.540	A
3 - A335 (NW)	1327	332	464	1708	0.777	1699	461	196.0	102.9	317.983	F

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	27.33	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1115	100.000
2 - Wide Lane (S)		ONE HOUR	✓	414	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	754
	2 - Wide Lane (S)	414	0	0
	3 - A335 (NW)	679	794	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	1	0	0
	3 - A335 (NW)	5	9	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 - Wide Lane (NE)	0.89	22.99	7.4	C	1023	1535
2 - Wide Lane (S)	0.56	10.29	1.3	B	380	570
3 - A335 (NW)	0.95	35.37	15.0	E	1356	2034

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	839	210	598	1567	0.536	835	821	0.0	1.2	4.935	A
2 - Wide Lane (S)	312	78	571	960	0.325	310	861	0.0	0.5	5.577	A
3 - A335 (NW)	1113	278	313	1820	0.612	1106	568	0.0	1.7	5.356	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
1 - Wide Lane (NE)	1002	251	715	1486	0.674	999	983	1.2	2.0	7.406	A
2 - Wide Lane (S)	372	93	683	896	0.415	371	1031	0.5	0.7	6.915	A
3 - A335 (NW)	1329	332	375	1774	0.749	1323	680	1.7	3.1	8.443	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
1 - Wide Lane (NE)	1228	307	859	1387	0.885	1210	1188	2.0	6.6	18.859	C
2 - Wide Lane (S)	456	114	828	815	0.560	454	1241	0.7	1.3	10.015	B
3 - A335 (NW)	1627	407	458	1713	0.950	1589	823	3.1	12.6	25.701	D

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 - Wide Lane (NE)	1228	307	874	1376	0.892	1224	1203	6.6	7.4	22.993	C
2 - Wide Lane (S)	456	114	838	809	0.564	456	1261	1.3	1.3	10.292	B
3 - A335 (NW)	1627	407	460	1711	0.951	1618	833	12.6	15.0	35.370	E

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 - Wide Lane (NE)	1002	251	744	1467	0.683	1023	1010	7.4	2.2	8.559	A
2 - Wide Lane (S)	372	93	700	887	0.420	374	1066	1.3	0.7	7.123	A
3 - A335 (NW)	1329	332	378	1772	0.750	1375	696	15.0	3.3	10.812	B

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 - Wide Lane (NE)	839	210	605	1562	0.537	844	830	2.2	1.2	5.088	A
2 - Wide Lane (S)	312	78	577	956	0.326	313	871	0.7	0.5	5.657	A
3 - A335 (NW)	1113	278	316	1817	0.612	1119	574	3.3	1.7	5.572	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Arm 3_Lane 1.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model
Report generation date: 21/03/2025 09:27:43

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023							
1 - Wide Lane (NE)	1.4	5.64	0.55	A	2.2	7.33	0.69	A
2 - Wide Lane (S)	1.6	6.12	0.61	A	1.4	6.07	0.58	A
3 - A335 (NW)	14.1	65.67	0.96	F	2.5	13.39	0.71	B
4 - A335 (NW)	2.5	15.46	0.70	C	1.5	9.42	0.59	A
	FB 2025							
1 - Wide Lane (NE)	1.5	6.03	0.58	A	2.5	8.05	0.71	A
2 - Wide Lane (S)	1.8	6.70	0.64	A	1.7	6.78	0.62	A
3 - A335 (NW)	20.0	88.03	1.00	F	2.8	14.64	0.73	B
4 - A335 (NW)	3.1	18.66	0.75	C	1.7	10.32	0.62	B
	FB 2028							
1 - Wide Lane (NE)	1.7	6.82	0.61	A	3.0	9.64	0.75	A
2 - Wide Lane (S)	2.4	8.06	0.70	A	2.3	8.41	0.69	A
3 - A335 (NW)	29.8	122.57	1.04	F	3.2	16.66	0.76	C
4 - A335 (NW)	5.6	30.82	0.85	D	2.3	12.87	0.69	B
	DS 2028							
1 - Wide Lane (NE)	2.3	8.58	0.68	A	4.3	13.85	0.82	B
2 - Wide Lane (S)	4.5	13.35	0.81	B	6.9	20.90	0.88	C
3 - A335 (NW)	33.4	135.48	1.05	F	3.5	18.26	0.78	C
4 - A335 (NW)	80.7	301.75	1.18	F	6.9	32.95	0.88	D
	FB 2036							
1 - Wide Lane (NE)	2.3	8.50	0.68	A	4.5	13.66	0.82	B
2 - Wide Lane (S)	4.3	12.87	0.81	B	4.7	15.19	0.83	C
3 - A335 (NW)	64.7	242.91	1.15	F	4.7	23.96	0.83	C
4 - A335 (NW)	27.8	120.57	1.03	F	4.0	20.48	0.80	C
	DS 2036							
1 - Wide Lane (NE)	2.7	9.48	0.72	A	6.9	21.55	0.88	C
2 - Wide Lane (S)	10.9	29.82	0.93	D	33.1	80.50	1.02	F
3 - A335 (NW)	68.3	257.09	1.16	F	5.1	25.81	0.84	D
4 - A335 (NW)	170.6	714.03	1.37	F	19.1	79.98	0.99	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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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 segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	22.69	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	
4	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	6.00	7.80	13.0	29.0	22.0	62.7	
2 - Wide Lane (S)	3.72	9.60	19.0	69.0	22.0	42.0	
3 - A335 (NW)	3.80	3.80	0.0	25.3	22.0	38.5	
4 - A335 (NW)	3.80	3.80	0.0	25.6	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.691	1980
2 - Wide Lane (S)	0.725	2008
3 - A335 (NW)	0.540	1129
4 - A335 (NW)	0.540	1130

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	790	100.000
2 - Wide Lane (S)		ONE HOUR	✓	864	100.000
3 - A335 (NW)		ONE HOUR	✓	737	100.000
4 - A335 (NW)		ONE HOUR	✓	539	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	558	0
	2 - Wide Lane (S)	484	0	380	0
	3 - A335 (NW)	0	0	0	737
	4 - A335 (NW)	0	536	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13	0
	2 - Wide Lane (S)	1	0	7	0
	3 - A335 (NW)	0	0	0	4
	4 - A335 (NW)	0	7	50	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 - Wide Lane (NE)	0.55	5.64	1.4	A	725	1087
2 - Wide Lane (S)	0.61	6.12	1.6	A	793	1189
3 - A335 (NW)	0.96	65.67	14.1	F	676	1014
4 - A335 (NW)	0.70	15.46	2.5	C	495	742

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	595	149	403	1702	0.349	592	363	0.0	0.6	3.557	A
2 - Wide Lane (S)	650	163	421	1703	0.382	648	574	0.0	0.6	3.523	A
3 - A335 (NW)	555	139	363	933	0.594	549	706	0.0	1.5	9.596	A
4 - A335 (NW)	406	101	363	934	0.435	403	549	0.0	0.8	7.220	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	483	1647	0.431	709	434	0.6	0.8	4.215	A
2 - Wide Lane (S)	777	194	504	1643	0.473	776	688	0.6	0.9	4.292	A
3 - A335 (NW)	663	166	434	895	0.740	657	845	1.5	2.8	15.427	C
4 - A335 (NW)	485	121	434	895	0.541	483	657	0.8	1.2	9.319	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
1 - Wide Lane (NE)	870	217	589	1573	0.553	868	531	0.8	1.3	5.589	A
2 - Wide Lane (S)	951	238	616	1562	0.609	949	840	0.9	1.6	6.055	A
3 - A335 (NW)	811	203	531	842	0.963	779	1033	2.8	11.0	44.622	E
4 - A335 (NW)	593	148	531	843	0.704	589	779	1.2	2.4	14.909	B

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 - Wide Lane (NE)	870	217	593	1570	0.554	870	533	1.3	1.4	5.644	A
2 - Wide Lane (S)	951	238	618	1561	0.610	951	845	1.6	1.6	6.118	A
3 - A335 (NW)	811	203	533	842	0.964	799	1036	11.0	14.1	65.670	F
4 - A335 (NW)	593	148	533	842	0.705	593	799	2.4	2.5	15.461	C

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 - Wide Lane (NE)	710	178	489	1642	0.432	712	437	1.4	0.8	4.262	A
2 - Wide Lane (S)	777	194	506	1642	0.473	779	696	1.6	0.9	4.336	A
3 - A335 (NW)	663	166	437	894	0.741	706	849	14.1	3.2	23.797	C
4 - A335 (NW)	485	121	437	894	0.542	489	706	2.5	1.3	9.641	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
1 - Wide Lane (NE)	595	149	408	1699	0.350	596	365	0.8	0.6	3.591	A
2 - Wide Lane (S)	650	163	423	1702	0.382	652	580	0.9	0.6	3.553	A
3 - A335 (NW)	555	139	365	932	0.595	561	710	3.2	1.6	10.267	B
4 - A335 (NW)	406	101	365	933	0.435	408	561	1.3	0.8	7.373	A

Base 2023, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	8.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	990	100.000
2 - Wide Lane (S)		ONE HOUR	✓	762	100.000
3 - A335 (NW)		ONE HOUR	✓	620	100.000
4 - A335 (NW)		ONE HOUR	✓	519	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	689	0
	2 - Wide Lane (S)	274	0	488	0
	3 - A335 (NW)	0	0	0	620
	4 - A335 (NW)	0	514	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1	0
	2 - Wide Lane (S)	2	0	4	0
	3 - A335 (NW)	0	0	0	5
	4 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.69	7.33	2.2	A	908	1363
2 - Wide Lane (S)	0.58	6.07	1.4	A	699	1049
3 - A335 (NW)	0.71	13.39	2.5	B	569	853
4 - A335 (NW)	0.59	9.42	1.5	A	476	714

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	388	1712	0.435	742	208	0.0	0.8	3.736	A
2 - Wide Lane (S)	574	143	523	1629	0.352	571	607	0.0	0.6	3.508	A
3 - A335 (NW)	467	117	208	1017	0.459	463	886	0.0	0.9	6.788	A
4 - A335 (NW)	391	98	208	1017	0.384	388	463	0.0	0.6	5.870	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
1 - Wide Lane (NE)	890	222	466	1659	0.537	888	250	0.8	1.2	4.711	A
2 - Wide Lane (S)	685	171	626	1554	0.441	684	728	0.6	0.8	4.268	A
3 - A335 (NW)	557	139	250	995	0.560	556	1061	0.9	1.3	8.577	A
4 - A335 (NW)	467	117	250	995	0.469	466	556	0.6	0.9	6.986	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
1 - Wide Lane (NE)	1090	273	569	1587	0.687	1086	305	1.2	2.2	7.200	A
2 - Wide Lane (S)	839	210	766	1453	0.577	837	889	0.8	1.4	6.007	A
3 - A335 (NW)	683	171	305	965	0.708	678	1297	1.3	2.4	12.996	B
4 - A335 (NW)	571	143	305	965	0.592	569	678	0.9	1.5	9.313	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
1 - Wide Lane (NE)	1090	273	571	1585	0.688	1090	306	2.2	2.2	7.331	A
2 - Wide Lane (S)	839	210	768	1451	0.578	839	893	1.4	1.4	6.072	A
3 - A335 (NW)	683	171	306	964	0.708	682	1301	2.4	2.5	13.389	B
4 - A335 (NW)	571	143	306	964	0.592	571	682	1.5	1.5	9.425	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
1 - Wide Lane (NE)	890	222	469	1656	0.537	894	251	2.2	1.2	4.793	A
2 - Wide Lane (S)	685	171	630	1551	0.442	687	732	1.4	0.8	4.314	A
3 - A335 (NW)	557	139	251	994	0.561	562	1067	2.5	1.4	8.836	A
4 - A335 (NW)	467	117	251	994	0.469	469	562	1.5	0.9	7.082	A

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 - Wide Lane (NE)	745	186	392	1709	0.436	747	210	1.2	0.8	3.785	A
2 - Wide Lane (S)	574	143	527	1626	0.353	575	612	0.8	0.6	3.537	A
3 - A335 (NW)	467	117	210	1016	0.459	469	892	1.4	0.9	6.926	A
4 - A335 (NW)	391	98	210	1017	0.384	392	469	0.9	0.6	5.946	A

FB 2025, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	28.88	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	811	100.000
2 - Wide Lane (S)		ONE HOUR	✓	908	100.000
3 - A335 (NW)		ONE HOUR	✓	752	100.000
4 - A335 (NW)		ONE HOUR	✓	568	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	570	0
	2 - Wide Lane (S)	504	0	404	0
	3 - A335 (NW)	0	0	0	752
	4 - A335 (NW)	0	568	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13	0
	2 - Wide Lane (S)	1	0	6	0
	3 - A335 (NW)	0	0	0	4
	4 - A335 (NW)	0	7	50	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 - Wide Lane (NE)	0.58	6.03	1.5	A	744	1116
2 - Wide Lane (S)	0.64	6.70	1.8	A	833	1250
3 - A335 (NW)	1.00	88.03	20.0	F	690	1035
4 - A335 (NW)	0.75	18.66	3.1	C	521	782

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	611	153	424	1687	0.362	608	378	0.0	0.6	3.657	A
2 - Wide Lane (S)	684	171	427	1698	0.402	681	605	0.0	0.7	3.641	A
3 - A335 (NW)	566	142	378	925	0.612	560	730	0.0	1.6	10.077	B
4 - A335 (NW)	428	107	378	926	0.462	424	560	0.0	0.9	7.624	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	729	182	509	1629	0.448	728	452	0.6	0.9	4.383	A
2 - Wide Lane (S)	816	204	512	1637	0.499	815	725	0.7	1.0	4.508	A
3 - A335 (NW)	676	169	452	885	0.764	670	874	1.6	3.1	16.917	C
4 - A335 (NW)	511	128	452	885	0.577	509	670	0.9	1.4	10.163	B

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 - Wide Lane (NE)	893	223	619	1553	0.575	891	553	0.9	1.5	5.951	A
2 - Wide Lane (S)	1000	250	626	1554	0.643	997	884	1.0	1.8	6.618	A
3 - A335 (NW)	828	207	553	831	0.997	783	1069	3.1	14.3	54.064	F
4 - A335 (NW)	625	156	553	831	0.753	619	783	1.4	3.0	17.642	C

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 - Wide Lane (NE)	893	223	625	1548	0.577	893	555	1.5	1.5	6.030	A
2 - Wide Lane (S)	1000	250	628	1553	0.644	1000	890	1.8	1.8	6.705	A
3 - A335 (NW)	828	207	555	830	0.998	805	1072	14.3	20.0	88.027	F
4 - A335 (NW)	625	156	555	830	0.753	625	805	3.0	3.1	18.661	C

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 - Wide Lane (NE)	729	182	517	1623	0.449	731	455	1.5	0.9	4.446	A
2 - Wide Lane (S)	816	204	514	1636	0.499	819	735	1.8	1.0	4.569	A
3 - A335 (NW)	676	169	455	884	0.765	741	879	20.0	3.7	34.786	D
4 - A335 (NW)	511	128	455	884	0.578	517	741	3.1	1.5	10.675	B

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 - Wide Lane (NE)	611	153	430	1683	0.363	612	380	0.9	0.6	3.692	A
2 - Wide Lane (S)	684	171	430	1697	0.403	685	612	1.0	0.7	3.675	A
3 - A335 (NW)	566	142	380	924	0.613	574	735	3.7	1.7	10.942	B
4 - A335 (NW)	428	107	380	924	0.463	430	574	1.5	0.9	7.823	A

FB 2025, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	9.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1015	100.000
2 - Wide Lane (S)		ONE HOUR	✓	810	100.000
3 - A335 (NW)		ONE HOUR	✓	633	100.000
4 - A335 (NW)		ONE HOUR	✓	541	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	703	0
	2 - Wide Lane (S)	291	0	519	0
	3 - A335 (NW)	0	0	0	633
	4 - A335 (NW)	0	536	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1	0
	2 - Wide Lane (S)	2	0	4	0
	3 - A335 (NW)	0	0	0	5
	4 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.71	8.05	2.5	A	931	1397
2 - Wide Lane (S)	0.62	6.78	1.7	A	743	1115
3 - A335 (NW)	0.73	14.64	2.8	B	581	871
4 - A335 (NW)	0.62	10.32	1.7	B	496	745

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	764	191	405	1701	0.449	761	221	0.0	0.8	3.856	A
2 - Wide Lane (S)	610	152	534	1621	0.376	607	632	0.0	0.6	3.657	A
3 - A335 (NW)	477	119	221	1010	0.472	473	920	0.0	0.9	6.992	A
4 - A335 (NW)	407	102	221	1010	0.403	405	473	0.0	0.7	6.093	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
1 - Wide Lane (NE)	912	228	485	1645	0.555	911	265	0.8	1.2	4.941	A
2 - Wide Lane (S)	728	182	639	1545	0.471	727	757	0.6	0.9	4.538	A
3 - A335 (NW)	569	142	265	986	0.577	567	1101	0.9	1.4	8.974	A
4 - A335 (NW)	486	122	265	987	0.493	485	567	0.7	1.0	7.371	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
1 - Wide Lane (NE)	1118	279	593	1571	0.712	1113	324	1.2	2.4	7.862	A
2 - Wide Lane (S)	892	223	781	1442	0.618	889	925	0.9	1.6	6.684	A
3 - A335 (NW)	697	174	324	955	0.730	692	1346	1.4	2.7	14.107	B
4 - A335 (NW)	596	149	324	955	0.624	593	692	1.0	1.7	10.164	B

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 - Wide Lane (NE)	1118	279	596	1569	0.712	1117	325	2.4	2.5	8.047	A
2 - Wide Lane (S)	892	223	784	1440	0.619	892	929	1.6	1.7	6.778	A
3 - A335 (NW)	697	174	325	954	0.731	697	1351	2.7	2.8	14.641	B
4 - A335 (NW)	596	149	325	954	0.624	596	697	1.7	1.7	10.323	B

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 - Wide Lane (NE)	912	228	489	1642	0.556	917	266	2.5	1.3	5.047	A
2 - Wide Lane (S)	728	182	643	1542	0.472	731	763	1.7	0.9	4.603	A
3 - A335 (NW)	569	142	266	986	0.577	574	1108	2.8	1.5	9.301	A
4 - A335 (NW)	486	122	266	986	0.493	489	574	1.7	1.0	7.500	A

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 - Wide Lane (NE)	764	191	409	1698	0.450	766	223	1.3	0.8	3.909	A
2 - Wide Lane (S)	610	152	537	1619	0.377	611	637	0.9	0.6	3.695	A
3 - A335 (NW)	477	119	223	1009	0.472	479	926	1.5	1.0	7.151	A
4 - A335 (NW)	407	102	223	1010	0.403	409	479	1.0	0.7	6.179	A

FB 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	39.42	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 segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	839	100.000
2 - Wide Lane (S)		ONE HOUR	✓	983	100.000
3 - A335 (NW)		ONE HOUR	✓	765	100.000
4 - A335 (NW)		ONE HOUR	✓	630	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	580	0
	2 - Wide Lane (S)	535	0	448	0
	3 - A335 (NW)	0	0	0	765
	4 - A335 (NW)	0	627	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13	0
	2 - Wide Lane (S)	1	0	6	0
	3 - A335 (NW)	0	0	0	4
	4 - A335 (NW)	0	6	50	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 - Wide Lane (NE)	0.61	6.82	1.7	A	770	1155
2 - Wide Lane (S)	0.70	8.06	2.4	A	902	1353
3 - A335 (NW)	1.04	122.57	29.8	F	702	1053
4 - A335 (NW)	0.85	30.82	5.6	D	578	867

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	632	158	470	1656	0.382	629	401	0.0	0.7	3.837	A
2 - Wide Lane (S)	740	185	437	1691	0.438	737	662	0.0	0.8	3.881	A
3 - A335 (NW)	576	144	401	913	0.631	569	773	0.0	1.7	10.689	B
4 - A335 (NW)	474	119	401	913	0.519	470	569	0.0	1.1	8.536	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	754	189	563	1591	0.474	753	480	0.7	1.0	4.706	A
2 - Wide Lane (S)	884	221	523	1629	0.543	882	793	0.8	1.2	4.964	A
3 - A335 (NW)	688	172	480	870	0.790	680	925	1.7	3.6	18.996	C
4 - A335 (NW)	566	142	480	871	0.651	563	680	1.1	1.9	12.307	B

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 - Wide Lane (NE)	924	231	681	1510	0.612	921	587	1.0	1.7	6.673	A
2 - Wide Lane (S)	1082	271	640	1544	0.701	1078	962	1.2	2.4	7.885	A
3 - A335 (NW)	842	211	587	813	1.036	780	1131	3.6	19.1	67.538	F
4 - A335 (NW)	694	173	587	813	0.853	681	780	1.9	5.1	26.596	D

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 - Wide Lane (NE)	924	231	692	1502	0.615	924	589	1.7	1.7	6.823	A
2 - Wide Lane (S)	1082	271	642	1543	0.701	1082	974	2.4	2.4	8.056	A
3 - A335 (NW)	842	211	589	811	1.038	799	1135	19.1	29.8	122.573	F
4 - A335 (NW)	694	173	589	812	0.855	692	799	5.1	5.6	30.816	D

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 - Wide Lane (NE)	754	189	580	1579	0.478	757	483	1.7	1.0	4.820	A
2 - Wide Lane (S)	884	221	526	1627	0.543	888	811	2.4	1.2	5.063	A
3 - A335 (NW)	688	172	483	868	0.792	788	931	29.8	4.7	64.472	F
4 - A335 (NW)	566	142	483	869	0.652	580	788	5.6	2.1	13.855	B

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 - Wide Lane (NE)	632	158	478	1650	0.383	633	404	1.0	0.7	3.888	A
2 - Wide Lane (S)	740	185	440	1689	0.438	742	671	1.2	0.8	3.929	A
3 - A335 (NW)	576	144	404	911	0.632	587	778	4.7	1.8	11.932	B
4 - A335 (NW)	474	119	404	912	0.520	478	587	2.1	1.2	8.877	A

FB 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	11.31	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1051	100.000
2 - Wide Lane (S)		ONE HOUR	✓	900	100.000
3 - A335 (NW)		ONE HOUR	✓	644	100.000
4 - A335 (NW)		ONE HOUR	✓	588	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	716	0
	2 - Wide Lane (S)	324	0	576	0
	3 - A335 (NW)	0	0	0	644
	4 - A335 (NW)	0	583	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1	0
	2 - Wide Lane (S)	2	0	3	0
	3 - A335 (NW)	0	0	0	5
	4 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.75	9.64	3.0	A	964	1447
2 - Wide Lane (S)	0.69	8.41	2.3	A	826	1239
3 - A335 (NW)	0.76	16.66	3.2	C	591	886
4 - A335 (NW)	0.69	12.87	2.3	B	540	809

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	791	198	439	1677	0.472	788	246	0.0	0.9	4.074	A
2 - Wide Lane (S)	678	169	543	1614	0.420	675	684	0.0	0.7	3.920	A
3 - A335 (NW)	485	121	246	997	0.487	481	972	0.0	1.0	7.274	A
4 - A335 (NW)	443	111	246	997	0.444	439	481	0.0	0.8	6.611	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
1 - Wide Lane (NE)	945	236	527	1616	0.585	943	294	0.9	1.4	5.384	A
2 - Wide Lane (S)	809	202	650	1537	0.526	808	819	0.7	1.1	5.055	A
3 - A335 (NW)	579	145	294	970	0.597	577	1164	1.0	1.5	9.549	A
4 - A335 (NW)	529	132	294	971	0.544	527	577	0.8	1.2	8.321	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
1 - Wide Lane (NE)	1157	289	643	1536	0.753	1151	360	1.4	3.0	9.299	A
2 - Wide Lane (S)	991	248	794	1433	0.692	986	1000	1.1	2.2	8.200	A
3 - A335 (NW)	709	177	360	935	0.758	703	1421	1.5	3.1	15.843	C
4 - A335 (NW)	647	162	360	936	0.692	643	703	1.2	2.2	12.509	B

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 - Wide Lane (NE)	1157	289	647	1533	0.755	1157	361	3.0	3.0	9.644	A
2 - Wide Lane (S)	991	248	798	1430	0.693	991	1006	2.2	2.3	8.409	A
3 - A335 (NW)	709	177	361	934	0.759	709	1428	3.1	3.2	16.657	C
4 - A335 (NW)	647	162	361	935	0.693	647	709	2.2	2.3	12.866	B

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 - Wide Lane (NE)	945	236	533	1612	0.586	951	297	3.0	1.5	5.551	A
2 - Wide Lane (S)	809	202	656	1533	0.528	814	828	2.3	1.2	5.169	A
3 - A335 (NW)	579	145	297	969	0.597	585	1173	3.2	1.6	10.001	B
4 - A335 (NW)	529	132	297	970	0.545	533	585	2.3	1.3	8.560	A

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 - Wide Lane (NE)	791	198	444	1673	0.473	793	248	1.5	0.9	4.144	A
2 - Wide Lane (S)	678	169	547	1611	0.420	679	690	1.2	0.8	3.970	A
3 - A335 (NW)	485	121	248	996	0.487	487	979	1.6	1.0	7.466	A
4 - A335 (NW)	443	111	248	996	0.444	444	487	1.3	0.8	6.741	A

DS 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	105.71	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	882	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1140	100.000
3 - A335 (NW)		ONE HOUR	✓	765	100.000
4 - A335 (NW)		ONE HOUR	✓	858	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	580	0
	2 - Wide Lane (S)	553	0	587	0
	3 - A335 (NW)	0	0	0	765
	4 - A335 (NW)	0	855	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	13	0
	2 - Wide Lane (S)	1	0	15	0
	3 - A335 (NW)	0	0	0	4
	4 - A335 (NW)	0	8	50	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 - Wide Lane (NE)	0.68	8.58	2.3	A	809	1214
2 - Wide Lane (S)	0.81	13.35	4.5	B	1046	1569
3 - A335 (NW)	1.05	135.48	33.4	F	702	1053
4 - A335 (NW)	1.18	301.75	80.7	F	787	1181

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	664	166	636	1541	0.431	661	414	0.0	0.8	4.441	A
2 - Wide Lane (S)	858	215	437	1692	0.507	854	860	0.0	1.1	4.606	A
3 - A335 (NW)	576	144	414	906	0.636	569	876	0.0	1.8	10.901	B
4 - A335 (NW)	646	161	414	906	0.713	636	569	0.0	2.5	13.922	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	793	198	754	1459	0.543	791	496	0.8	1.3	5.853	A
2 - Wide Lane (S)	1025	256	523	1629	0.629	1022	1022	1.1	1.8	6.359	A
3 - A335 (NW)	688	172	496	862	0.798	680	1049	1.8	3.7	19.764	C
4 - A335 (NW)	771	193	496	862	0.895	754	680	2.5	6.9	31.759	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 - Wide Lane (NE)	971	243	794	1431	0.678	967	604	1.3	2.2	8.383	A
2 - Wide Lane (S)	1255	314	639	1545	0.812	1245	1123	1.8	4.3	12.515	B
3 - A335 (NW)	842	211	604	803	1.049	774	1280	3.7	20.7	72.228	F
4 - A335 (NW)	945	236	604	804	1.176	794	774	6.9	44.5	131.397	F

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 - Wide Lane (NE)	971	243	800	1428	0.680	971	609	2.2	2.3	8.581	A
2 - Wide Lane (S)	1255	314	641	1543	0.813	1254	1129	4.3	4.5	13.348	B
3 - A335 (NW)	842	211	609	801	1.052	791	1287	20.7	33.4	135.479	F
4 - A335 (NW)	945	236	609	801	1.179	800	791	44.5	80.7	288.312	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 - Wide Lane (NE)	793	198	847	1395	0.568	796	502	2.3	1.5	6.589	A
2 - Wide Lane (S)	1025	256	527	1627	0.630	1035	1117	4.5	1.9	6.677	A
3 - A335 (NW)	688	172	502	858	0.801	801	1060	33.4	5.2	79.803	F
4 - A335 (NW)	771	193	502	859	0.898	847	801	80.7	61.7	301.745	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 - Wide Lane (NE)	664	166	878	1374	0.483	666	418	1.5	1.0	5.556	A
2 - Wide Lane (S)	858	215	441	1689	0.508	861	1103	1.9	1.1	4.704	A
3 - A335 (NW)	576	144	418	904	0.637	589	884	5.2	1.9	12.372	B
4 - A335 (NW)	646	161	418	904	0.714	878	589	61.7	3.7	135.795	F

DS 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	20.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1061	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1142	100.000
3 - A335 (NW)		ONE HOUR	✓	644	100.000
4 - A335 (NW)		ONE HOUR	✓	729	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	716	0
	2 - Wide Lane (S)	359	0	783	0
	3 - A335 (NW)	0	0	0	644
	4 - A335 (NW)	0	724	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1	0
	2 - Wide Lane (S)	1	0	6	0
	3 - A335 (NW)	0	0	0	5
	4 - A335 (NW)	0	10	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 - Wide Lane (NE)	0.82	13.85	4.3	B	974	1460
2 - Wide Lane (S)	0.88	20.90	6.9	C	1048	1572
3 - A335 (NW)	0.78	18.26	3.5	C	591	886
4 - A335 (NW)	0.88	32.95	6.9	D	669	1003

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	799	200	543	1605	0.498	795	272	0.0	1.0	4.468	A
2 - Wide Lane (S)	860	215	543	1615	0.533	855	795	0.0	1.2	4.917	A
3 - A335 (NW)	485	121	272	983	0.493	481	1126	0.0	1.0	7.474	A
4 - A335 (NW)	549	137	272	983	0.558	543	481	0.0	1.4	8.897	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
1 - Wide Lane (NE)	954	238	652	1530	0.623	951	325	1.0	1.6	6.251	A
2 - Wide Lane (S)	1027	257	650	1537	0.668	1023	953	1.2	2.1	7.262	A
3 - A335 (NW)	579	145	325	954	0.607	577	1348	1.0	1.6	9.962	A
4 - A335 (NW)	655	164	325	954	0.687	652	577	1.4	2.3	12.912	B

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 - Wide Lane (NE)	1168	292	787	1437	0.813	1158	394	1.6	4.1	12.646	B
2 - Wide Lane (S)	1257	314	791	1434	0.877	1240	1154	2.1	6.4	17.935	C
3 - A335 (NW)	709	177	394	917	0.774	702	1637	1.6	3.3	17.086	C
4 - A335 (NW)	803	201	394	917	0.875	787	702	2.3	6.2	27.625	D

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 - Wide Lane (NE)	1168	292	800	1428	0.818	1167	399	4.1	4.3	13.849	B
2 - Wide Lane (S)	1257	314	798	1430	0.879	1255	1170	6.4	6.9	20.900	C
3 - A335 (NW)	709	177	399	914	0.776	708	1654	3.3	3.5	18.259	C
4 - A335 (NW)	803	201	399	914	0.878	800	708	6.2	6.9	32.945	D

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 - Wide Lane (NE)	954	238	673	1515	0.629	964	332	4.3	1.7	6.713	A
2 - Wide Lane (S)	1027	257	659	1531	0.671	1046	978	6.9	2.2	8.038	A
3 - A335 (NW)	579	145	332	950	0.609	586	1372	3.5	1.7	10.585	B
4 - A335 (NW)	655	164	332	950	0.690	673	586	6.9	2.6	15.061	C

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 - Wide Lane (NE)	799	200	553	1598	0.500	802	275	1.7	1.0	4.584	A
2 - Wide Lane (S)	860	215	548	1611	0.534	864	807	2.2	1.2	5.054	A
3 - A335 (NW)	485	121	275	981	0.494	487	1137	1.7	1.0	7.695	A
4 - A335 (NW)	549	137	275	982	0.559	553	487	2.6	1.4	9.338	A

FB 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	85.96	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	900	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1122	100.000
3 - A335 (NW)		ONE HOUR	✓	806	100.000
4 - A335 (NW)		ONE HOUR	✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	611	0
	2 - Wide Lane (S)	597	0	525	0
	3 - A335 (NW)	0	0	0	806
	4 - A335 (NW)	0	728	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13	0
	2 - Wide Lane (S)	1	0	5	0
	3 - A335 (NW)	0	0	0	4
	4 - A335 (NW)	0	5	50	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 - Wide Lane (NE)	0.68	8.50	2.3	A	826	1239
2 - Wide Lane (S)	0.81	12.87	4.3	B	1030	1544
3 - A335 (NW)	1.15	242.91	64.7	F	740	1109
4 - A335 (NW)	1.03	120.57	27.8	F	668	1002

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	678	169	542	1606	0.422	674	447	0.0	0.8	4.220	A
2 - Wide Lane (S)	845	211	458	1676	0.504	841	758	0.0	1.0	4.409	A
3 - A335 (NW)	607	152	447	888	0.683	598	851	0.0	2.1	12.582	B
4 - A335 (NW)	548	137	447	888	0.617	542	598	0.0	1.6	10.712	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	809	202	647	1533	0.528	807	535	0.8	1.2	5.426	A
2 - Wide Lane (S)	1009	252	548	1611	0.626	1006	907	1.0	1.7	6.093	A
3 - A335 (NW)	725	181	535	840	0.862	712	1019	2.1	5.4	26.711	D
4 - A335 (NW)	654	164	535	841	0.778	647	712	1.6	3.4	18.898	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	991	248	744	1467	0.676	987	652	1.2	2.2	8.155	A
2 - Wide Lane (S)	1235	309	670	1523	0.811	1226	1061	1.7	4.1	12.085	B
3 - A335 (NW)	887	222	652	777	1.142	765	1243	5.4	36.0	112.758	F
4 - A335 (NW)	802	200	652	778	1.031	744	765	3.4	17.9	67.029	F

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 - Wide Lane (NE)	991	248	762	1454	0.682	991	657	2.2	2.3	8.504	A
2 - Wide Lane (S)	1235	309	673	1521	0.812	1235	1080	4.1	4.3	12.872	B
3 - A335 (NW)	887	222	657	775	1.146	773	1250	36.0	64.7	242.906	F
4 - A335 (NW)	802	200	657	775	1.034	762	773	17.9	27.8	120.574	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 - Wide Lane (NE)	809	202	748	1463	0.553	813	542	2.3	1.4	6.098	A
2 - Wide Lane (S)	1009	252	552	1608	0.627	1019	1009	4.3	1.8	6.385	A
3 - A335 (NW)	725	181	542	837	0.866	823	1028	64.7	40.0	230.182	F
4 - A335 (NW)	654	164	542	837	0.782	748	823	27.8	4.4	59.786	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 - Wide Lane (NE)	678	169	559	1594	0.425	680	451	1.4	0.8	4.325	A
2 - Wide Lane (S)	845	211	462	1674	0.505	848	777	1.8	1.1	4.497	A
3 - A335 (NW)	607	152	451	886	0.685	757	858	40.0	2.5	57.820	F
4 - A335 (NW)	548	137	451	886	0.618	559	757	4.4	1.8	11.882	B

FB 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	17.40	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1106	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1054	100.000
3 - A335 (NW)		ONE HOUR	✓	679	100.000
4 - A335 (NW)		ONE HOUR	✓	657	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	754	0
	2 - Wide Lane (S)	380	0	674	0
	3 - A335 (NW)	0	0	0	679
	4 - A335 (NW)	0	652	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1	0
	2 - Wide Lane (S)	1	0	3	0
	3 - A335 (NW)	0	0	0	5
	4 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.82	13.66	4.5	B	1015	1522
2 - Wide Lane (S)	0.83	15.19	4.7	C	967	1451
3 - A335 (NW)	0.83	23.96	4.7	C	623	935
4 - A335 (NW)	0.80	20.48	4.0	C	603	904

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	833	208	490	1641	0.507	829	288	0.0	1.0	4.451	A
2 - Wide Lane (S)	794	198	572	1594	0.498	789	747	0.0	1.0	4.554	A
3 - A335 (NW)	511	128	288	974	0.525	507	1073	0.0	1.1	8.011	A
4 - A335 (NW)	495	124	288	974	0.508	490	507	0.0	1.0	7.596	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
1 - Wide Lane (NE)	994	249	588	1574	0.632	992	344	1.0	1.7	6.215	A
2 - Wide Lane (S)	948	237	684	1512	0.627	945	896	1.0	1.7	6.456	A
3 - A335 (NW)	610	153	344	943	0.647	608	1285	1.1	1.9	11.152	B
4 - A335 (NW)	591	148	344	944	0.626	588	608	1.0	1.7	10.344	B

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 - Wide Lane (NE)	1218	304	715	1486	0.819	1208	419	1.7	4.3	12.608	B
2 - Wide Lane (S)	1160	290	833	1404	0.826	1149	1090	1.7	4.5	13.866	B
3 - A335 (NW)	748	187	419	903	0.828	737	1564	1.9	4.4	21.526	C
4 - A335 (NW)	723	181	419	904	0.801	715	737	1.7	3.8	18.863	C

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 - Wide Lane (NE)	1218	304	723	1481	0.822	1217	422	4.3	4.5	13.661	B
2 - Wide Lane (S)	1160	290	839	1400	0.829	1160	1100	4.5	4.7	15.186	C
3 - A335 (NW)	748	187	422	901	0.829	746	1577	4.4	4.7	23.963	C
4 - A335 (NW)	723	181	422	902	0.802	723	746	3.8	4.0	20.476	C

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 - Wide Lane (NE)	994	249	599	1566	0.635	1005	349	4.5	1.8	6.597	A
2 - Wide Lane (S)	948	237	693	1506	0.629	959	911	4.7	1.8	6.878	A
3 - A335 (NW)	610	153	349	941	0.649	621	1303	4.7	2.0	12.214	B
4 - A335 (NW)	591	148	349	941	0.628	599	621	4.0	1.8	11.108	B

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 - Wide Lane (NE)	833	208	497	1637	0.509	836	290	1.8	1.1	4.557	A
2 - Wide Lane (S)	794	198	576	1590	0.499	796	757	1.8	1.0	4.656	A
3 - A335 (NW)	511	128	290	973	0.526	514	1083	2.0	1.2	8.309	A
4 - A335 (NW)	495	124	290	973	0.508	497	514	1.8	1.1	7.841	A

DS 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	235.22	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	943	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1278	100.000
3 - A335 (NW)		ONE HOUR	✓	806	100.000
4 - A335 (NW)		ONE HOUR	✓	956	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	611	0
	2 - Wide Lane (S)	614	0	664	0
	3 - A335 (NW)	0	0	0	806
	4 - A335 (NW)	0	956	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	13	0
	2 - Wide Lane (S)	1	0	13	0
	3 - A335 (NW)	0	0	0	4
	4 - A335 (NW)	0	7	50	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 - Wide Lane (NE)	0.72	9.48	2.7	A	865	1298
2 - Wide Lane (S)	0.93	29.82	10.9	D	1173	1759
3 - A335 (NW)	1.16	257.09	68.3	F	740	1109
4 - A335 (NW)	1.37	714.03	170.6	F	877	1316

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	177	703	1495	0.475	706	460	0.0	1.0	4.947	A
2 - Wide Lane (S)	962	241	457	1677	0.574	956	951	0.0	1.4	5.303	A
3 - A335 (NW)	607	152	460	881	0.689	598	954	0.0	2.2	12.851	B
4 - A335 (NW)	720	180	460	882	0.816	703	598	0.0	4.2	20.009	C

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 - Wide Lane (NE)	848	212	800	1428	0.594	845	550	1.0	1.6	6.702	A
2 - Wide Lane (S)	1149	287	548	1611	0.713	1144	1097	1.4	2.6	8.160	A
3 - A335 (NW)	725	181	550	833	0.870	711	1142	2.2	5.7	27.973	D
4 - A335 (NW)	859	215	550	833	1.032	800	711	4.2	19.2	68.183	F

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 - Wide Lane (NE)	1038	260	770	1448	0.717	1034	663	1.6	2.7	9.363	A
2 - Wide Lane (S)	1407	352	670	1523	0.924	1379	1134	2.6	9.6	23.298	C
3 - A335 (NW)	887	222	663	772	1.150	760	1386	5.7	37.4	117.456	F
4 - A335 (NW)	1053	263	663	772	1.363	770	760	19.2	89.7	266.942	F

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 - Wide Lane (NE)	1038	260	766	1451	0.715	1038	673	2.7	2.7	9.481	A
2 - Wide Lane (S)	1407	352	673	1521	0.925	1402	1131	9.6	10.9	29.824	D
3 - A335 (NW)	887	222	673	766	1.159	764	1401	37.4	68.3	257.089	F
4 - A335 (NW)	1053	263	673	766	1.374	766	764	89.7	161.4	582.154	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 - Wide Lane (NE)	848	212	823	1412	0.600	852	568	2.7	1.7	7.047	A
2 - Wide Lane (S)	1149	287	552	1608	0.714	1182	1123	10.9	2.8	9.672	A
3 - A335 (NW)	725	181	568	823	0.881	811	1166	68.3	46.8	255.796	F
4 - A335 (NW)	859	215	568	823	1.044	823	811	161.4	170.6	714.027	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 - Wide Lane (NE)	710	177	873	1377	0.516	712	465	1.7	1.2	5.912	A
2 - Wide Lane (S)	962	241	461	1674	0.575	967	1124	2.8	1.5	5.485	A
3 - A335 (NW)	607	152	465	878	0.691	784	964	46.8	2.6	80.671	F
4 - A335 (NW)	720	180	465	879	0.819	873	784	170.6	132.2	624.893	F

DS 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3, 4	53.94	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1115	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1295	100.000
3 - A335 (NW)		ONE HOUR	✓	679	100.000
4 - A335 (NW)		ONE HOUR	✓	799	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	754	0
	2 - Wide Lane (S)	414	0	881	0
	3 - A335 (NW)	0	0	0	679
	4 - A335 (NW)	0	794	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)	4 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1	0
	2 - Wide Lane (S)	1	0	5	0
	3 - A335 (NW)	0	0	0	5
	4 - A335 (NW)	0	9	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 - Wide Lane (NE)	0.88	21.55	6.9	C	1023	1535
2 - Wide Lane (S)	1.02	80.50	33.1	F	1188	1782
3 - A335 (NW)	0.84	25.81	5.1	D	623	935
4 - A335 (NW)	0.99	79.98	19.1	F	733	1100

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	839	210	594	1570	0.535	835	313	0.0	1.1	4.919	A
2 - Wide Lane (S)	975	244	571	1594	0.612	969	858	0.0	1.6	5.907	A
3 - A335 (NW)	511	128	313	961	0.532	507	1227	0.0	1.2	8.243	A
4 - A335 (NW)	602	150	313	961	0.626	594	507	0.0	1.8	10.510	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1002	251	712	1489	0.673	999	374	1.1	2.0	7.370	A
2 - Wide Lane (S)	1164	291	683	1513	0.770	1157	1027	1.6	3.3	10.308	B
3 - A335 (NW)	610	153	374	928	0.658	607	1467	1.2	1.9	11.684	B
4 - A335 (NW)	718	180	374	928	0.774	712	607	1.8	3.4	17.577	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1228	307	838	1401	0.876	1211	437	2.0	6.2	17.789	C
2 - Wide Lane (S)	1426	356	829	1408	1.013	1353	1221	3.3	21.5	44.050	E
3 - A335 (NW)	748	187	437	893	0.837	737	1745	1.9	4.7	22.652	C
4 - A335 (NW)	880	220	437	894	0.984	838	737	3.4	13.8	50.373	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 - Wide Lane (NE)	1228	307	858	1387	0.885	1224	445	6.2	6.9	21.551	C
2 - Wide Lane (S)	1426	356	838	1401	1.018	1379	1245	21.5	33.1	80.495	F
3 - A335 (NW)	748	187	445	889	0.841	746	1772	4.7	5.1	25.810	D
4 - A335 (NW)	880	220	445	889	0.989	858	746	13.8	19.1	79.980	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 - Wide Lane (NE)	1002	251	776	1444	0.694	1021	413	6.9	2.4	8.938	A
2 - Wide Lane (S)	1164	291	699	1502	0.775	1281	1098	33.1	3.8	25.178	D
3 - A335 (NW)	610	153	413	906	0.674	622	1567	5.1	2.3	13.773	B
4 - A335 (NW)	718	180	413	907	0.792	776	622	19.1	4.7	37.975	E

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 - Wide Lane (NE)	839	210	613	1557	0.539	844	317	2.4	1.2	5.134	A
2 - Wide Lane (S)	975	244	578	1589	0.613	984	879	3.8	1.7	6.245	A
3 - A335 (NW)	511	128	317	958	0.534	515	1244	2.3	1.2	8.617	A
4 - A335 (NW)	602	150	317	958	0.628	613	515	4.7	1.9	11.688	B

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Arm 3_Lane 2.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model
Report generation date: 21/03/2025 09:28:46

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023							
1 - Wide Lane (NE)	1.4	5.64	0.55	A	2.2	7.33	0.69	A
2 - Wide Lane (S)	1.6	6.12	0.61	A	1.4	6.07	0.58	A
3 - A335 (NW)	2.5	15.51	0.71	C	1.5	9.45	0.59	A
	FB 2025							
1 - Wide Lane (NE)	1.5	6.03	0.58	A	2.5	8.05	0.71	A
2 - Wide Lane (S)	1.8	6.70	0.64	A	1.7	6.78	0.62	A
3 - A335 (NW)	3.1	18.73	0.75	C	1.7	10.35	0.62	B
	FB 2028							
1 - Wide Lane (NE)	1.7	6.82	0.61	A	3.0	9.64	0.75	A
2 - Wide Lane (S)	2.4	8.06	0.70	A	2.3	8.41	0.69	A
3 - A335 (NW)	5.6	30.99	0.86	D	2.3	12.91	0.69	B
	DS 2028							
1 - Wide Lane (NE)	2.3	8.57	0.68	A	4.3	13.85	0.82	B
2 - Wide Lane (S)	4.5	13.35	0.81	B	6.9	20.90	0.88	C
3 - A335 (NW)	81.1	303.98	1.18	F	6.9	33.15	0.88	D
	FB 2036							
1 - Wide Lane (NE)	2.3	8.50	0.68	A	4.5	13.66	0.82	B
2 - Wide Lane (S)	4.3	12.87	0.81	B	4.7	15.19	0.83	C
3 - A335 (NW)	28.0	121.50	1.04	F	4.0	20.57	0.80	C
	DS 2036							
1 - Wide Lane (NE)	2.7	9.47	0.72	A	6.9	21.52	0.88	C
2 - Wide Lane (S)	10.9	29.82	0.93	D	33.1	80.50	1.02	F
3 - A335 (NW)	171.3	717.08	1.38	F	19.3	80.66	0.99	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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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 segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	8.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	

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 - Wide Lane (NE)	6.00	7.80	13.0	29.0	22.0	62.7	
2 - Wide Lane (S)	3.72	9.60	19.0	69.0	22.0	42.0	
3 - A335 (NW)	3.80	3.80	0.0	25.0	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.691	1980
2 - Wide Lane (S)	0.725	2008
3 - A335 (NW)	0.540	1129

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	790	100.000
2 - Wide Lane (S)		ONE HOUR	✓	864	100.000
3 - A335 (NW)		ONE HOUR	✓	539	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	558
	2 - Wide Lane (S)	484	0	380
	3 - A335 (NW)	0	536	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	0	7	50

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 - Wide Lane (NE)	0.55	5.64	1.4	A	725	1087
2 - Wide Lane (S)	0.61	6.12	1.6	A	793	1189
3 - A335 (NW)	0.71	15.51	2.5	C	495	742

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	595	149	403	1702	0.349	592	363	0.0	0.6	3.557	A
2 - Wide Lane (S)	650	163	421	1703	0.382	648	574	0.0	0.6	3.523	A
3 - A335 (NW)	406	101	363	933	0.435	403	706	0.0	0.8	7.232	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	483	1647	0.431	709	434	0.6	0.8	4.215	A
2 - Wide Lane (S)	777	194	504	1643	0.473	776	688	0.6	0.9	4.292	A
3 - A335 (NW)	485	121	434	894	0.542	483	845	0.8	1.2	9.336	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
1 - Wide Lane (NE)	870	217	589	1573	0.553	868	531	0.8	1.3	5.589	A
2 - Wide Lane (S)	951	238	616	1562	0.609	949	840	0.9	1.6	6.055	A
3 - A335 (NW)	593	148	531	842	0.705	589	1033	1.2	2.4	14.952	B

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 - Wide Lane (NE)	870	217	593	1570	0.554	870	533	1.3	1.4	5.644	A
2 - Wide Lane (S)	951	238	618	1561	0.610	951	845	1.6	1.6	6.118	A
3 - A335 (NW)	593	148	533	841	0.705	593	1036	2.4	2.5	15.509	C

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 - Wide Lane (NE)	710	178	489	1642	0.432	712	437	1.4	0.8	4.264	A
2 - Wide Lane (S)	777	194	506	1642	0.473	779	696	1.6	0.9	4.338	A
3 - A335 (NW)	485	121	437	893	0.543	489	849	2.5	1.3	9.664	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
1 - Wide Lane (NE)	595	149	408	1699	0.350	596	365	0.8	0.6	3.588	A
2 - Wide Lane (S)	650	163	423	1702	0.382	652	580	0.9	0.6	3.556	A
3 - A335 (NW)	406	101	365	932	0.436	408	710	1.3	0.8	7.388	A

Base 2023, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	7.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	990	100.000
2 - Wide Lane (S)		ONE HOUR	✓	762	100.000
3 - A335 (NW)		ONE HOUR	✓	519	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	689
	2 - Wide Lane (S)	274	0	488
	3 - A335 (NW)	0	514	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.69	7.33	2.2	A	908	1363
2 - Wide Lane (S)	0.58	6.07	1.4	A	699	1049
3 - A335 (NW)	0.59	9.45	1.5	A	476	714

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	388	1712	0.435	742	208	0.0	0.8	3.736	A
2 - Wide Lane (S)	574	143	523	1629	0.352	571	607	0.0	0.6	3.508	A
3 - A335 (NW)	391	98	208	1016	0.384	388	886	0.0	0.6	5.879	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
1 - Wide Lane (NE)	890	222	466	1659	0.537	888	250	0.8	1.2	4.711	A
2 - Wide Lane (S)	685	171	626	1554	0.441	684	728	0.6	0.8	4.268	A
3 - A335 (NW)	467	117	250	994	0.469	466	1061	0.6	0.9	6.999	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
1 - Wide Lane (NE)	1090	273	569	1587	0.687	1086	305	1.2	2.2	7.200	A
2 - Wide Lane (S)	839	210	766	1453	0.577	837	889	0.8	1.4	6.007	A
3 - A335 (NW)	571	143	305	964	0.593	569	1297	0.9	1.5	9.334	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
1 - Wide Lane (NE)	1090	273	571	1585	0.688	1090	306	2.2	2.2	7.331	A
2 - Wide Lane (S)	839	210	768	1451	0.578	839	893	1.4	1.4	6.072	A
3 - A335 (NW)	571	143	306	964	0.593	571	1301	1.5	1.5	9.446	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
1 - Wide Lane (NE)	890	222	469	1656	0.537	894	251	2.2	1.2	4.793	A
2 - Wide Lane (S)	685	171	630	1551	0.442	687	732	1.4	0.8	4.315	A
3 - A335 (NW)	467	117	251	993	0.470	469	1067	1.5	0.9	7.097	A

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 - Wide Lane (NE)	745	186	392	1709	0.436	747	210	1.2	0.8	3.782	A
2 - Wide Lane (S)	574	143	527	1626	0.353	575	612	0.8	0.6	3.540	A
3 - A335 (NW)	391	98	210	1016	0.385	392	892	0.9	0.7	5.955	A

FB 2025, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	9.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	811	100.000
2 - Wide Lane (S)		ONE HOUR	✓	908	100.000
3 - A335 (NW)		ONE HOUR	✓	568	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	570
	2 - Wide Lane (S)	504	0	404
	3 - A335 (NW)	0	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	6
	3 - A335 (NW)	0	7	50

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 - Wide Lane (NE)	0.58	6.03	1.5	A	744	1116
2 - Wide Lane (S)	0.64	6.70	1.8	A	833	1250
3 - A335 (NW)	0.75	18.73	3.1	C	521	782

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	611	153	424	1687	0.362	608	378	0.0	0.6	3.657	A
2 - Wide Lane (S)	684	171	427	1698	0.402	681	605	0.0	0.7	3.641	A
3 - A335 (NW)	428	107	378	925	0.462	424	730	0.0	0.9	7.638	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	729	182	509	1629	0.448	728	452	0.6	0.9	4.383	A
2 - Wide Lane (S)	816	204	512	1637	0.499	815	725	0.7	1.0	4.508	A
3 - A335 (NW)	511	128	452	885	0.577	509	874	0.9	1.4	10.183	B

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 - Wide Lane (NE)	893	223	619	1553	0.575	891	553	0.9	1.5	5.950	A
2 - Wide Lane (S)	1000	250	626	1554	0.643	997	884	1.0	1.8	6.618	A
3 - A335 (NW)	625	156	553	830	0.753	619	1069	1.4	3.0	17.703	C

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 - Wide Lane (NE)	893	223	625	1548	0.577	893	555	1.5	1.5	6.030	A
2 - Wide Lane (S)	1000	250	628	1553	0.644	1000	890	1.8	1.8	6.705	A
3 - A335 (NW)	625	156	555	829	0.754	625	1072	3.0	3.1	18.730	C

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 - Wide Lane (NE)	729	182	517	1623	0.449	731	455	1.5	0.9	4.446	A
2 - Wide Lane (S)	816	204	514	1636	0.499	819	735	1.8	1.0	4.569	A
3 - A335 (NW)	511	128	455	883	0.578	517	879	3.1	1.5	10.703	B

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 - Wide Lane (NE)	611	153	430	1683	0.363	612	380	0.9	0.6	3.695	A
2 - Wide Lane (S)	684	171	430	1697	0.403	685	612	1.0	0.7	3.675	A
3 - A335 (NW)	428	107	380	924	0.463	430	735	1.5	0.9	7.839	A

FB 2025, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	8.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1015	100.000
2 - Wide Lane (S)		ONE HOUR	✓	810	100.000
3 - A335 (NW)		ONE HOUR	✓	541	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	703
	2 - Wide Lane (S)	291	0	519
	3 - A335 (NW)	0	536	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.71	8.05	2.5	A	931	1397
2 - Wide Lane (S)	0.62	6.78	1.7	A	743	1115
3 - A335 (NW)	0.62	10.35	1.7	B	496	745

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	764	191	405	1701	0.449	761	221	0.0	0.8	3.856	A
2 - Wide Lane (S)	610	152	534	1621	0.376	607	632	0.0	0.6	3.657	A
3 - A335 (NW)	407	102	221	1009	0.404	405	920	0.0	0.7	6.103	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
1 - Wide Lane (NE)	912	228	485	1645	0.555	911	265	0.8	1.2	4.941	A
2 - Wide Lane (S)	728	182	639	1545	0.471	727	757	0.6	0.9	4.538	A
3 - A335 (NW)	486	122	265	986	0.493	485	1101	0.7	1.0	7.385	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
1 - Wide Lane (NE)	1118	279	593	1571	0.712	1113	324	1.2	2.4	7.862	A
2 - Wide Lane (S)	892	223	781	1442	0.618	889	925	0.9	1.6	6.684	A
3 - A335 (NW)	596	149	324	954	0.624	593	1346	1.0	1.7	10.189	B

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 - Wide Lane (NE)	1118	279	596	1569	0.712	1117	325	2.4	2.5	8.047	A
2 - Wide Lane (S)	892	223	784	1440	0.619	892	929	1.6	1.7	6.778	A
3 - A335 (NW)	596	149	325	953	0.625	596	1351	1.7	1.7	10.348	B

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 - Wide Lane (NE)	912	228	489	1642	0.556	917	266	2.5	1.3	5.047	A
2 - Wide Lane (S)	728	182	643	1542	0.472	731	763	1.7	0.9	4.603	A
3 - A335 (NW)	486	122	266	985	0.494	489	1108	1.7	1.0	7.515	A

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 - Wide Lane (NE)	764	191	409	1698	0.450	766	223	1.3	0.8	3.908	A
2 - Wide Lane (S)	610	152	537	1619	0.377	611	637	0.9	0.6	3.695	A
3 - A335 (NW)	407	102	223	1009	0.404	409	926	1.0	0.7	6.189	A

FB 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	13.53	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	839	100.000
2 - Wide Lane (S)		ONE HOUR	✓	983	100.000
3 - A335 (NW)		ONE HOUR	✓	630	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	580
	2 - Wide Lane (S)	535	0	448
	3 - A335 (NW)	0	627	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	6
	3 - A335 (NW)	0	6	50

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 - Wide Lane (NE)	0.61	6.82	1.7	A	770	1155
2 - Wide Lane (S)	0.70	8.06	2.4	A	902	1353
3 - A335 (NW)	0.86	30.99	5.6	D	578	867

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	632	158	470	1656	0.382	629	401	0.0	0.7	3.837	A
2 - Wide Lane (S)	740	185	437	1691	0.438	737	662	0.0	0.8	3.881	A
3 - A335 (NW)	474	119	401	912	0.520	470	773	0.0	1.1	8.551	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	754	189	563	1591	0.474	753	480	0.7	1.0	4.706	A
2 - Wide Lane (S)	884	221	523	1629	0.543	882	793	0.8	1.2	4.964	A
3 - A335 (NW)	566	142	480	870	0.651	563	925	1.1	1.9	12.340	B

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 - Wide Lane (NE)	924	231	681	1510	0.612	921	587	1.0	1.7	6.672	A
2 - Wide Lane (S)	1082	271	640	1544	0.701	1078	962	1.2	2.4	7.885	A
3 - A335 (NW)	694	173	587	812	0.854	681	1131	1.9	5.2	26.713	D

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 - Wide Lane (NE)	924	231	692	1502	0.615	924	589	1.7	1.7	6.823	A
2 - Wide Lane (S)	1082	271	642	1543	0.701	1082	974	2.4	2.4	8.056	A
3 - A335 (NW)	694	173	589	811	0.855	692	1135	5.2	5.6	30.989	D

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 - Wide Lane (NE)	754	189	581	1579	0.478	757	483	1.7	1.0	4.821	A
2 - Wide Lane (S)	884	221	526	1627	0.543	888	812	2.4	1.2	5.061	A
3 - A335 (NW)	566	142	483	868	0.653	581	931	5.6	2.1	13.907	B

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 - Wide Lane (NE)	632	158	478	1650	0.383	633	404	1.0	0.7	3.889	A
2 - Wide Lane (S)	740	185	440	1689	0.438	742	671	1.2	0.8	3.929	A
3 - A335 (NW)	474	119	404	911	0.521	478	778	2.1	1.2	8.897	A

FB 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	9.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1051	100.000
2 - Wide Lane (S)		ONE HOUR	✓	900	100.000
3 - A335 (NW)		ONE HOUR	✓	588	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	716
	2 - Wide Lane (S)	324	0	576
	3 - A335 (NW)	0	583	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	3
	3 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.75	9.64	3.0	A	964	1447
2 - Wide Lane (S)	0.69	8.41	2.3	A	826	1239
3 - A335 (NW)	0.69	12.91	2.3	B	540	809

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	791	198	439	1677	0.472	788	246	0.0	0.9	4.074	A
2 - Wide Lane (S)	678	169	543	1614	0.420	675	684	0.0	0.7	3.920	A
3 - A335 (NW)	443	111	246	996	0.444	439	972	0.0	0.8	6.622	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
1 - Wide Lane (NE)	945	236	527	1616	0.585	943	294	0.9	1.4	5.384	A
2 - Wide Lane (S)	809	202	650	1537	0.526	808	819	0.7	1.1	5.055	A
3 - A335 (NW)	529	132	294	970	0.545	527	1164	0.8	1.2	8.338	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
1 - Wide Lane (NE)	1157	289	643	1536	0.753	1151	360	1.4	3.0	9.299	A
2 - Wide Lane (S)	991	248	794	1433	0.692	986	1000	1.1	2.2	8.200	A
3 - A335 (NW)	647	162	360	935	0.693	643	1421	1.2	2.2	12.545	B

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 - Wide Lane (NE)	1157	289	647	1533	0.755	1157	361	3.0	3.0	9.644	A
2 - Wide Lane (S)	991	248	798	1430	0.693	991	1006	2.2	2.3	8.409	A
3 - A335 (NW)	647	162	361	934	0.693	647	1428	2.2	2.3	12.905	B

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 - Wide Lane (NE)	945	236	533	1612	0.586	951	297	3.0	1.5	5.551	A
2 - Wide Lane (S)	809	202	656	1533	0.528	814	828	2.3	1.2	5.169	A
3 - A335 (NW)	529	132	297	969	0.546	533	1173	2.3	1.3	8.577	A

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 - Wide Lane (NE)	791	198	444	1673	0.473	793	248	1.5	0.9	4.142	A
2 - Wide Lane (S)	678	169	547	1611	0.420	679	690	1.2	0.8	3.970	A
3 - A335 (NW)	443	111	248	995	0.445	444	979	1.3	0.8	6.753	A

DS 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	98.47	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 segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	882	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1140	100.000
3 - A335 (NW)		ONE HOUR	✓	858	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	580
	2 - Wide Lane (S)	553	0	587
	3 - A335 (NW)	0	855	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	13
	2 - Wide Lane (S)	1	0	15
	3 - A335 (NW)	0	8	50

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 - Wide Lane (NE)	0.68	8.57	2.3	A	809	1214
2 - Wide Lane (S)	0.81	13.35	4.5	B	1046	1569
3 - A335 (NW)	1.18	303.98	81.1	F	787	1181

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	664	166	636	1541	0.431	661	414	0.0	0.8	4.441	A
2 - Wide Lane (S)	858	215	437	1692	0.507	854	860	0.0	1.1	4.606	A
3 - A335 (NW)	646	161	414	905	0.714	636	876	0.0	2.6	13.961	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	793	198	754	1459	0.543	791	496	0.8	1.3	5.852	A
2 - Wide Lane (S)	1025	256	523	1629	0.629	1022	1022	1.1	1.8	6.359	A
3 - A335 (NW)	771	193	496	861	0.896	754	1049	2.6	6.9	31.919	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 - Wide Lane (NE)	971	243	794	1432	0.678	967	604	1.3	2.2	8.374	A
2 - Wide Lane (S)	1255	314	639	1545	0.812	1245	1122	1.8	4.3	12.515	B
3 - A335 (NW)	945	236	604	803	1.177	794	1280	6.9	44.7	132.035	F

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 - Wide Lane (NE)	971	243	799	1428	0.680	971	609	2.2	2.3	8.571	A
2 - Wide Lane (S)	1255	314	641	1543	0.813	1254	1129	4.3	4.5	13.348	B
3 - A335 (NW)	945	236	609	800	1.180	799	1287	44.7	81.1	289.838	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 - Wide Lane (NE)	793	198	846	1395	0.568	796	502	2.3	1.5	6.581	A
2 - Wide Lane (S)	1025	256	527	1627	0.630	1035	1116	4.5	1.9	6.674	A
3 - A335 (NW)	771	193	502	858	0.899	846	1060	81.1	62.3	303.982	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 - Wide Lane (NE)	664	166	880	1372	0.484	666	418	1.5	1.0	5.566	A
2 - Wide Lane (S)	858	215	441	1689	0.508	861	1105	1.9	1.1	4.704	A
3 - A335 (NW)	646	161	418	903	0.715	880	884	62.3	3.8	138.358	F

DS 2028, 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	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	21.39	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1061	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1142	100.000
3 - A335 (NW)		ONE HOUR	✓	729	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	716
	2 - Wide Lane (S)	359	0	783
	3 - A335 (NW)	0	724	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	1	0	6
	3 - A335 (NW)	0	10	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 - Wide Lane (NE)	0.82	13.85	4.3	B	974	1460
2 - Wide Lane (S)	0.88	20.90	6.9	C	1048	1572
3 - A335 (NW)	0.88	33.15	6.9	D	669	1003

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	799	200	543	1605	0.498	795	272	0.0	1.0	4.468	A
2 - Wide Lane (S)	860	215	543	1615	0.533	855	795	0.0	1.2	4.917	A
3 - A335 (NW)	549	137	272	982	0.559	543	1126	0.0	1.4	8.916	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
1 - Wide Lane (NE)	954	238	652	1530	0.623	951	325	1.0	1.6	6.251	A
2 - Wide Lane (S)	1027	257	650	1537	0.668	1023	953	1.2	2.1	7.262	A
3 - A335 (NW)	655	164	325	953	0.688	652	1348	1.4	2.3	12.949	B

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 - Wide Lane (NE)	1168	292	787	1437	0.813	1158	394	1.6	4.1	12.646	B
2 - Wide Lane (S)	1257	314	791	1434	0.877	1240	1154	2.1	6.4	17.935	C
3 - A335 (NW)	803	201	394	916	0.876	787	1637	2.3	6.2	27.759	D

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 - Wide Lane (NE)	1168	292	800	1428	0.818	1167	399	4.1	4.3	13.847	B
2 - Wide Lane (S)	1257	314	798	1430	0.879	1255	1170	6.4	6.9	20.900	C
3 - A335 (NW)	803	201	399	913	0.879	800	1654	6.2	6.9	33.153	D

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 - Wide Lane (NE)	954	238	673	1515	0.629	964	332	4.3	1.7	6.717	A
2 - Wide Lane (S)	1027	257	659	1531	0.671	1046	978	6.9	2.2	8.038	A
3 - A335 (NW)	655	164	332	949	0.690	673	1372	6.9	2.6	15.122	C

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 - Wide Lane (NE)	799	200	553	1598	0.500	802	275	1.7	1.0	4.582	A
2 - Wide Lane (S)	860	215	548	1611	0.534	864	807	2.2	1.2	5.054	A
3 - A335 (NW)	549	137	275	981	0.560	553	1137	2.6	1.4	9.360	A

FB 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	40.20	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 segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	900	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1122	100.000
3 - A335 (NW)		ONE HOUR	✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	611
	2 - Wide Lane (S)	597	0	525
	3 - A335 (NW)	0	728	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	5
	3 - A335 (NW)	0	5	50

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 - Wide Lane (NE)	0.68	8.50	2.3	A	826	1239
2 - Wide Lane (S)	0.81	12.87	4.3	B	1030	1544
3 - A335 (NW)	1.04	121.50	28.0	F	668	1002

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	678	169	542	1606	0.422	674	447	0.0	0.8	4.220	A
2 - Wide Lane (S)	845	211	458	1676	0.504	841	758	0.0	1.0	4.409	A
3 - A335 (NW)	548	137	447	887	0.618	542	851	0.0	1.6	10.736	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	809	202	647	1533	0.528	807	535	0.8	1.2	5.426	A
2 - Wide Lane (S)	1009	252	548	1611	0.626	1006	907	1.0	1.7	6.093	A
3 - A335 (NW)	654	164	535	840	0.779	647	1019	1.6	3.4	18.967	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	991	248	743	1467	0.676	987	652	1.2	2.2	8.152	A
2 - Wide Lane (S)	1235	309	670	1523	0.811	1226	1060	1.7	4.1	12.085	B
3 - A335 (NW)	802	200	652	777	1.032	743	1243	3.4	18.0	67.394	F

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 - Wide Lane (NE)	991	248	761	1454	0.681	991	657	2.2	2.3	8.498	A
2 - Wide Lane (S)	1235	309	673	1521	0.812	1235	1080	4.1	4.3	12.873	B
3 - A335 (NW)	802	200	657	774	1.035	761	1250	18.0	28.0	121.500	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 - Wide Lane (NE)	809	202	749	1463	0.553	813	542	2.3	1.4	6.104	A
2 - Wide Lane (S)	1009	252	552	1608	0.627	1019	1010	4.3	1.8	6.385	A
3 - A335 (NW)	654	164	542	836	0.783	749	1028	28.0	4.4	60.761	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 - Wide Lane (NE)	678	169	559	1594	0.425	680	451	1.4	0.8	4.324	A
2 - Wide Lane (S)	845	211	462	1674	0.505	848	777	1.8	1.1	4.497	A
3 - A335 (NW)	548	137	451	885	0.619	559	858	4.4	1.8	11.920	B

FB 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	15.84	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1106	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1054	100.000
3 - A335 (NW)		ONE HOUR	✓	657	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	754
	2 - Wide Lane (S)	380	0	674
	3 - A335 (NW)	0	652	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	1	0	3
	3 - A335 (NW)	0	3	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 - Wide Lane (NE)	0.82	13.66	4.5	B	1015	1522
2 - Wide Lane (S)	0.83	15.19	4.7	C	967	1451
3 - A335 (NW)	0.80	20.57	4.0	C	603	904

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	833	208	490	1641	0.507	829	288	0.0	1.0	4.451	A
2 - Wide Lane (S)	794	198	572	1594	0.498	789	747	0.0	1.0	4.554	A
3 - A335 (NW)	495	124	288	974	0.508	490	1073	0.0	1.0	7.610	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
1 - Wide Lane (NE)	994	249	588	1574	0.632	992	344	1.0	1.7	6.215	A
2 - Wide Lane (S)	948	237	684	1512	0.627	945	896	1.0	1.7	6.456	A
3 - A335 (NW)	591	148	344	943	0.626	588	1285	1.0	1.7	10.370	B

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 - Wide Lane (NE)	1218	304	715	1486	0.819	1208	419	1.7	4.3	12.605	B
2 - Wide Lane (S)	1160	290	833	1404	0.826	1149	1090	1.7	4.5	13.866	B
3 - A335 (NW)	723	181	419	903	0.801	715	1564	1.7	3.8	18.938	C

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 - Wide Lane (NE)	1218	304	723	1481	0.822	1217	422	4.3	4.5	13.661	B
2 - Wide Lane (S)	1160	290	839	1400	0.829	1160	1100	4.5	4.7	15.186	C
3 - A335 (NW)	723	181	422	901	0.803	723	1577	3.8	4.0	20.569	C

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 - Wide Lane (NE)	994	249	599	1566	0.635	1005	349	4.5	1.8	6.599	A
2 - Wide Lane (S)	948	237	693	1506	0.629	959	911	4.7	1.8	6.878	A
3 - A335 (NW)	591	148	349	940	0.628	599	1303	4.0	1.8	11.138	B

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 - Wide Lane (NE)	833	208	497	1637	0.509	836	290	1.8	1.1	4.555	A
2 - Wide Lane (S)	794	198	576	1590	0.499	796	757	1.8	1.0	4.656	A
3 - A335 (NW)	495	124	290	972	0.509	497	1083	1.8	1.1	7.856	A

DS 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	230.59	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	943	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1278	100.000
3 - A335 (NW)		ONE HOUR	✓	956	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	611
	2 - Wide Lane (S)	614	0	664
	3 - A335 (NW)	0	956	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	2	13
	2 - Wide Lane (S)	1	0	13
	3 - A335 (NW)	0	7	50

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 - Wide Lane (NE)	0.72	9.47	2.7	A	865	1298
2 - Wide Lane (S)	0.93	29.82	10.9	D	1173	1759
3 - A335 (NW)	1.38	717.08	171.3	F	877	1316

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	177	703	1495	0.475	706	460	0.0	1.0	4.946	A
2 - Wide Lane (S)	962	241	457	1677	0.574	956	951	0.0	1.4	5.303	A
3 - A335 (NW)	720	180	460	881	0.817	703	954	0.0	4.2	20.083	C

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 - Wide Lane (NE)	848	212	799	1428	0.594	845	550	1.0	1.6	6.698	A
2 - Wide Lane (S)	1149	287	548	1611	0.713	1144	1097	1.4	2.6	8.160	A
3 - A335 (NW)	859	215	550	832	1.033	799	1142	4.2	19.3	68.575	F

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 - Wide Lane (NE)	1038	260	770	1448	0.717	1034	663	1.6	2.7	9.352	A
2 - Wide Lane (S)	1407	352	670	1523	0.924	1379	1134	2.6	9.6	23.297	C
3 - A335 (NW)	1053	263	663	771	1.365	770	1386	19.3	90.0	268.188	F

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 - Wide Lane (NE)	1038	260	765	1452	0.715	1038	673	2.7	2.7	9.469	A
2 - Wide Lane (S)	1407	352	673	1521	0.925	1402	1131	9.6	10.9	29.824	D
3 - A335 (NW)	1053	263	673	765	1.375	765	1401	90.0	161.9	584.453	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 - Wide Lane (NE)	848	212	822	1412	0.600	852	568	2.7	1.7	7.043	A
2 - Wide Lane (S)	1149	287	552	1608	0.714	1182	1122	10.9	2.8	9.671	A
3 - A335 (NW)	859	215	568	822	1.045	822	1166	161.9	171.3	717.083	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 - Wide Lane (NE)	710	177	873	1377	0.515	712	465	1.7	1.2	5.905	A
2 - Wide Lane (S)	962	241	461	1674	0.575	967	1123	2.8	1.5	5.487	A
3 - A335 (NW)	720	180	465	878	0.820	873	964	171.3	133.1	628.651	F

DS 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	60.05	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1115	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1295	100.000
3 - A335 (NW)		ONE HOUR	✓	799	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	754
	2 - Wide Lane (S)	414	0	881
	3 - A335 (NW)	0	794	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	1	0	5
	3 - A335 (NW)	0	9	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 - Wide Lane (NE)	0.88	21.52	6.9	C	1023	1535
2 - Wide Lane (S)	1.02	80.50	33.1	F	1188	1782
3 - A335 (NW)	0.99	80.66	19.3	F	733	1100

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	839	210	594	1570	0.535	835	313	0.0	1.1	4.919	A
2 - Wide Lane (S)	975	244	571	1594	0.612	969	858	0.0	1.6	5.907	A
3 - A335 (NW)	602	150	313	960	0.627	594	1227	0.0	1.8	10.534	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1002	251	712	1489	0.673	999	374	1.1	2.0	7.370	A
2 - Wide Lane (S)	1164	291	683	1513	0.770	1157	1027	1.6	3.3	10.308	B
3 - A335 (NW)	718	180	374	927	0.775	712	1467	1.8	3.5	17.641	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1228	307	838	1401	0.876	1211	437	2.0	6.2	17.773	C
2 - Wide Lane (S)	1426	356	829	1408	1.013	1353	1221	3.3	21.5	44.052	E
3 - A335 (NW)	880	220	437	893	0.985	838	1745	3.5	13.9	50.666	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 - Wide Lane (NE)	1228	307	858	1388	0.885	1225	445	6.2	6.9	21.523	C
2 - Wide Lane (S)	1426	356	838	1401	1.018	1379	1245	21.5	33.1	80.499	F
3 - A335 (NW)	880	220	445	888	0.990	858	1772	13.9	19.3	80.657	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 - Wide Lane (NE)	1002	251	777	1444	0.694	1021	413	6.9	2.4	8.946	A
2 - Wide Lane (S)	1164	291	699	1502	0.775	1281	1099	33.1	3.8	25.178	D
3 - A335 (NW)	718	180	413	906	0.793	777	1567	19.3	4.7	38.484	E

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 - Wide Lane (NE)	839	210	613	1557	0.539	844	317	2.4	1.2	5.135	A
2 - Wide Lane (S)	975	244	578	1589	0.613	984	879	3.8	1.7	6.245	A
3 - A335 (NW)	602	150	317	957	0.628	613	1244	4.7	1.9	11.725	B

Appendix D - J03 A335/ Wide Lane Roundabout With Lane Simulation Junction Modelling Results

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J03_A335_WideLn_Lane Simulation.j9
Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model\J03 junctions files
Report generation date: 23/10/2025 11:41:21

»Base 2023, AM
»Base 2023, PM
»FB 2025, AM
»FB 2025, PM
»FB 2028, AM
»FB 2028, PM
»DS 2028, AM
»DS 2028, PM
»FB 2036, AM
»FB 2036, PM
»DS 2036, AM
»DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - Base 2023							
1 - Wide Lane (NE)	5.5	21.66		C	15.7	50.95		F
2 - Wide Lane (S)	3.8	13.35		B	3.4	14.29		B
3 - A335 (NW)	23.3	56.85		F	5.2	15.12		C
	[Lane Simulation] - FB 2025							
1 - Wide Lane (NE)	6.0	23.40		C	21.8	60.15		F
2 - Wide Lane (S)	4.2	14.40		B	4.9	17.97		C
3 - A335 (NW)	29.0	67.79		F	5.5	15.24		C
	[Lane Simulation] - FB 2028							
1 - Wide Lane (NE)	9.1	30.78		D	29.5	84.43		F
2 - Wide Lane (S)	5.0	17.23		C	7.8	26.32		D
3 - A335 (NW)	43.4	94.76		F	7.1	18.46		C
	[Lane Simulation] - DS 2028							
1 - Wide Lane (NE)	12.8	42.98		E	49.4	137.20		F
2 - Wide Lane (S)	8.9	25.54		D	68.6	210.25		F
3 - A335 (NW)	114.2	208.13		F	16.3	36.81		E
	[Lane Simulation] - FB 2036							
1 - Wide Lane (NE)	12.1	44.37		E	57.5	154.61		F
2 - Wide Lane (S)	10.2	28.03		D	25.7	74.61		F
3 - A335 (NW)	94.0	182.72		F	11.9	28.16		D
	[Lane Simulation] - DS 2036							
1 - Wide Lane (NE)	16.6	54.06		F	78.1	257.93		F
2 - Wide Lane (S)	21.1	51.02		F	141.7	444.00		F
3 - A335 (NW)	218.0	494.16		F	40.6	82.74		F

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
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

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			632776426	212	18.90

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	34.57	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	6.00	7.92	11.0	30.0	22.0	62.7	
2 - Wide Lane (S)	3.72	9.66	19.0	69.0	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.691	1978
2 - Wide Lane (S)	0.726	2013
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Wide Lane (NE)	Evenly split	10.00
2 - Wide Lane (S)	Evenly split	10.00
3 - A335 (NW)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Wide Lane (NE)	Entry	1	1	2		Infinity		0	99999	
			2	3, 1		Infinity		0	99999	
	Exit	1	1			Infinity				
2 - Wide Lane (S)	Entry	1	1	3		Infinity		0	99999	
			2	2, 1		Infinity		0	99999	
	Exit	1	1			Infinity				
3 - A335 (NW)	Entry	1	1	1		Infinity		0	99999	
			2	2, 3		Infinity		0	99999	
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	Entry	1	1	0.345	989
			2	0.345	989
2 - Wide Lane (S)	Entry	1	1	0.363	1006
			2	0.363	1006
3 - A335 (NW)	Entry	1	1	0.368	1025
			2	0.368	1025

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			Wide Lane (S)	A335 (NW)	Wide Lane (NE)
2 - Wide Lane (S)	1	1		✓	
		2	✓		✓
3 - A335 (NW)	1	1			✓
		2	✓	✓	
1 - Wide Lane (NE)	1	1	✓		
		2		✓	✓

Traffic Demand

Demand Set Details

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	790	100.000
2 - Wide Lane (S)		ONE HOUR	✓	864	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	558
	2 - Wide Lane (S)	484	0	380
	3 - A335 (NW)	737	536	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	21.66	5.5	C	722	1082
2 - Wide Lane (S)	13.35	3.8	B	793	1190
3 - A335 (NW)	56.85	23.3	F	1174	1761

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	598	149	409	601	586	927	0.0	1.4	8.336	A
2 - Wide Lane (S)	650	162	430	650	647	580	0.0	1.3	7.158	A
3 - A335 (NW)	970	242	364	972	950	716	0.0	2.6	9.774	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	706	176	488	709	707	1095	1.4	2.3	11.089	B
2 - Wide Lane (S)	774	193	503	773	770	693	1.3	2.0	8.834	A
3 - A335 (NW)	1140	285	437	1146	1138	840	2.6	4.7	14.988	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	859	215	586	858	848	1311	2.3	4.9	17.417	C
2 - Wide Lane (S)	966	242	606	962	943	838	2.0	3.5	12.096	B
3 - A335 (NW)	1412	353	535	1362	1350	1033	4.7	18.3	34.314	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	871	218	593	879	871	1341	4.9	5.5	21.656	C
2 - Wide Lane (S)	953	238	627	951	953	846	3.5	3.8	13.347	B
3 - A335 (NW)	1411	353	534	1400	1386	1043	18.3	23.3	56.846	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	708	177	486	710	721	1121	5.5	2.2	12.851	B
2 - Wide Lane (S)	776	194	504	776	789	692	3.8	1.8	9.450	A
3 - A335 (NW)	1145	286	434	1173	1206	847	23.3	6.5	31.936	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	588	147	408	589	594	915	2.2	1.4	8.494	A
2 - Wide Lane (S)	642	160	415	643	652	582	1.8	1.2	7.177	A
3 - A335 (NW)	967	242	360	964	983	698	6.5	2.9	11.071	B

Lane Results

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

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	174	848	0.206	174	174	0.0	0.3	5.542	A
			2	3, 1	423	848	0.499	427	412	0.0	1.1	9.627	A
	Exit	1	1		927			927	911	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	287	850	0.337	286	285	0.0	0.6	6.771	A
			2	2, 1	363	850	0.427	364	363	0.0	0.7	7.445	A
	Exit	1	1		580			580	574	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	560	891	0.629	563	548	0.0	1.5	10.959	B
			2	2, 3	410	891	0.460	409	402	0.0	1.1	8.112	A
	Exit	1	1		716			716	699	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	209	821	0.254	208	208	0.3	0.4	6.013	A
			2	3, 1	497	821	0.606	501	500	1.1	1.9	13.400	B
	Exit	1	1		1095			1095	1085	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	335	824	0.406	336	336	0.6	0.8	7.952	A
			2	2, 1	439	824	0.533	437	434	0.7	1.3	9.478	A
	Exit	1	1		693			693	692	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	654	864	0.757	658	652	1.5	3.3	18.270	C
			2	2, 3	486	864	0.562	488	486	1.1	1.4	10.420	B
	Exit	1	1		840			840	838	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	253	787	0.321	255	257	0.4	0.5	7.076	A
			2	3, 1	606	787	0.771	603	590	1.9	4.5	22.267	C
	Exit	1	1		1311			1311	1294	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	426	787	0.542	427	415	0.8	1.1	10.116	B
			2	2, 1	540	787	0.686	535	528	1.3	2.4	13.559	B
	Exit	1	1		838			838	838	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	825	828	0.996	776	766	3.3	15.2	47.305	E
			2	2, 3	588	828	0.710	586	584	1.4	3.1	15.854	C
	Exit	1	1		1033			1033	1008	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	256	784	0.327	256	257	0.5	0.5	7.041	A
			2	3, 1	615	784	0.784	623	614	4.5	5.0	28.372	D
	Exit	1	1		1341			1341	1324	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	414	779	0.532	416	419	1.1	1.3	11.113	B
			2	2, 1	539	779	0.692	534	534	2.4	2.5	14.997	B
	Exit	1	1		846			846	850	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	811	828	0.979	807	790	15.2	20.1	85.350	F
			2	2, 3	601	828	0.725	593	596	3.1	3.2	16.964	C
	Exit	1	1		1043			1043	1035	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	209	821	0.255	209	208	0.5	0.4	5.993	A
			2	3, 1	499	821	0.607	501	513	5.0	1.9	15.970	C
	Exit	1	1		1121			1121	1160	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	342	823	0.416	343	346	1.3	0.8	8.440	A
			2	2, 1	433	823	0.526	434	443	2.5	1.1	10.199	B
	Exit	1	1		692			692	694	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	661	865	0.764	687	717	20.1	5.1	46.673	E
			2	2, 3	484	865	0.559	486	489	3.2	1.4	11.258	B
	Exit	1	1		847			847	861	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	176	848	0.208	176	176	0.4	0.2	5.542	A
			2	3, 1	412	848	0.486	413	418	1.9	1.2	9.875	A
	Exit	1	1		915			915	936	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	283	856	0.331	283	288	0.8	0.6	6.673	A
			2	2, 1	359	856	0.419	360	364	1.1	0.7	7.553	A
	Exit	1	1		582			582	585	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	558	893	0.625	556	571	5.1	1.8	12.951	B
			2	2, 3	409	893	0.459	408	411	1.4	1.0	8.431	A
	Exit	1	1		698			698	708	0.0	0.0	0.000	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	27.17	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	990	100.000
2 - Wide Lane (S)		ONE HOUR	✓	762	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	689
	2 - Wide Lane (S)	274	0	488
	3 - A335 (NW)	620	514	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	50.95	15.7	F	905	1357
2 - Wide Lane (S)	14.29	3.4	B	696	1045
3 - A335 (NW)	15.12	5.2	C	1042	1564

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	745	186	385	737	739	667	0.0	2.4	9.184	A
2 - Wide Lane (S)	566	141	522	567	571	600	0.0	1.0	7.493	A
3 - A335 (NW)	843	211	209	843	849	879	0.0	1.7	7.010	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	890	222	460	886	888	808	2.4	3.8	14.482	B
2 - Wide Lane (S)	690	173	625	693	687	722	1.0	1.9	9.692	A
3 - A335 (NW)	1015	254	258	1010	1010	1059	1.7	2.8	9.275	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1077	269	569	1069	1055	959	3.8	13.1	35.820	E
2 - Wide Lane (S)	826	206	756	825	828	882	1.9	3.4	14.156	B
3 - A335 (NW)	1243	311	290	1239	1234	1292	2.8	5.0	13.070	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1089	272	579	1075	1068	992	13.1	15.7	50.952	F
2 - Wide Lane (S)	854	213	753	858	847	901	3.4	3.3	14.289	B
3 - A335 (NW)	1259	315	311	1261	1261	1301	5.0	5.2	15.121	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	895	224	469	910	942	810	15.7	4.1	27.549	D
2 - Wide Lane (S)	675	169	645	678	686	734	3.3	1.8	11.086	B
3 - A335 (NW)	1029	257	252	1027	1037	1072	5.2	2.8	9.688	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	735	184	392	738	746	679	4.1	1.9	10.493	B
2 - Wide Lane (S)	569	142	523	569	577	608	1.8	1.1	7.775	A
3 - A335 (NW)	866	216	211	860	861	880	2.8	2.1	7.387	A

Lane Results

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

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	219	856	0.256	218	223	0.0	0.4	5.895	A
			2	3, 1	526	856	0.614	519	516	0.0	2.0	10.597	B
	Exit	1	1		667			667	667	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	359	817	0.440	360	365	0.0	0.7	8.377	A
			2	2, 1	206	817	0.253	207	206	0.0	0.3	5.960	A
	Exit	1	1		600			600	610	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	458	948	0.484	458	458	0.0	1.0	7.393	A
			2	2, 3	384	948	0.406	385	391	0.0	0.7	6.569	A
	Exit	1	1		879			879	882	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	266	830	0.320	266	264	0.4	0.4	6.547	A
			2	3, 1	624	830	0.752	620	624	2.0	3.4	17.819	C
	Exit	1	1		808			808	803	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	438	780	0.562	439	436	0.7	1.5	11.447	B
			2	2, 1	252	780	0.323	253	251	0.3	0.4	6.701	A
	Exit	1	1		722			722	722	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	551	930	0.593	550	547	1.0	1.6	10.557	B
			2	2, 3	464	930	0.499	460	462	0.7	1.2	7.786	A
	Exit	1	1		1059			1059	1060	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	318	793	0.401	320	323	0.4	0.6	7.805	A
			2	3, 1	759	793	0.958	749	732	3.4	12.5	47.621	E
	Exit	1	1		959			959	963	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	538	732	0.735	539	535	1.5	2.6	17.547	C
			2	2, 1	288	732	0.394	286	292	0.4	0.8	8.057	A
	Exit	1	1		882			882	884	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	673	918	0.733	670	666	1.6	3.0	14.958	B
			2	2, 3	570	918	0.621	569	568	1.2	2.0	10.887	B
	Exit	1	1		1292			1292	1270	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	329	789	0.417	328	322	0.6	0.7	7.881	A
			2	3, 1	759	789	0.962	747	746	12.5	15.0	69.266	F
	Exit	1	1		992			992	999	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	549	733	0.749	552	540	2.6	2.7	17.713	C
			2	2, 1	304	733	0.415	307	306	0.8	0.6	8.335	A
	Exit	1	1		901			901	888	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	675	911	0.741	682	689	3.0	3.2	18.033	C
			2	2, 3	584	911	0.641	579	572	2.0	2.0	11.690	B
	Exit	1	1		1301			1301	1289	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	269	827	0.325	269	271	0.7	0.5	6.489	A
			2	3, 1	626	827	0.756	641	670	15.0	3.6	36.661	E
	Exit	1	1		810			810	810	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	427	772	0.554	431	444	2.7	1.2	13.171	B
			2	2, 1	247	772	0.320	247	242	0.6	0.6	7.383	A
	Exit	1	1		734			734	740	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	559	932	0.599	558	564	3.2	1.8	11.219	B
			2	2, 3	470	932	0.504	469	473	2.0	1.0	7.900	A
	Exit	1	1		1072			1072	1114	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	217	854	0.254	219	222	0.5	0.3	6.021	A
			2	3, 1	518	854	0.607	519	524	3.6	1.6	12.416	B
	Exit	1	1		679			679	678	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	360	817	0.440	360	369	1.2	0.7	8.667	A
			2	2, 1	209	817	0.256	209	208	0.6	0.4	6.227	A
	Exit	1	1		608			608	613	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	471	947	0.498	468	466	1.8	1.3	8.001	A
			2	2, 3	394	947	0.417	392	394	1.0	0.8	6.677	A
	Exit	1	1		880			880	894	0.0	0.0	0.000	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	39.96	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 segment length (min)	Run automatically
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	811	100.000
2 - Wide Lane (S)		ONE HOUR	✓	908	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	570
	2 - Wide Lane (S)	504	0	404
	3 - A335 (NW)	752	568	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	23.40	6.0	C	746	1118
2 - Wide Lane (S)	14.40	4.2	B	836	1254
3 - A335 (NW)	67.79	29.0	F	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	612	153	426	612	611	941	0.0	1.7	8.464	A
2 - Wide Lane (S)	686	172	430	685	678	607	0.0	1.5	7.492	A
3 - A335 (NW)	985	246	377	989	988	738	0.0	2.7	10.049	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	731	183	515	724	723	1125	1.7	2.7	11.138	B
2 - Wide Lane (S)	811	203	510	810	814	730	1.5	2.2	9.443	A
3 - A335 (NW)	1182	296	453	1187	1168	867	2.7	5.6	16.658	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	902	226	630	896	882	1346	2.7	5.8	19.960	C
2 - Wide Lane (S)	1019	255	630	1016	999	896	2.2	4.2	13.688	B
3 - A335 (NW)	1458	364	561	1415	1391	1085	5.6	22.2	42.068	E

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	885	221	632	888	888	1348	5.8	6.0	23.398	C
2 - Wide Lane (S)	1002	250	631	1000	998	889	4.2	4.0	14.401	B
3 - A335 (NW)	1452	363	552	1428	1424	1079	22.2	29.0	67.795	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	735	184	509	733	743	1162	6.0	2.6	14.030	B
2 - Wide Lane (S)	810	203	513	813	825	729	4.0	2.2	10.222	B
3 - A335 (NW)	1192	298	450	1222	1267	876	29.0	9.2	42.296	E

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	609	152	435	610	611	940	2.6	1.6	8.807	A
2 - Wide Lane (S)	688	172	434	687	691	610	2.2	1.5	7.694	A
3 - A335 (NW)	999	250	378	997	1018	743	9.2	3.1	12.842	B

Lane Results

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

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	182	842	0.216	181	180	0.0	0.3	5.474	A
			2	3, 1	431	842	0.511	430	432	0.0	1.3	9.821	A
	Exit	1	1		941			941	936	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	309	850	0.363	308	305	0.0	0.7	7.181	A
			2	2, 1	378	850	0.444	377	373	0.0	0.8	7.731	A
	Exit	1	1		607			607	605	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	560	886	0.632	563	563	0.0	1.6	11.304	B
			2	2, 3	425	886	0.480	426	425	0.0	1.0	8.333	A
	Exit	1	1		738			738	737	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	215	811	0.265	215	216	0.3	0.4	6.250	A
			2	3, 1	516	811	0.636	510	507	1.3	2.3	13.408	B
	Exit	1	1		1125			1125	1118	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	358	821	0.436	357	360	0.7	0.9	8.707	A
			2	2, 1	454	821	0.552	453	454	0.8	1.2	9.994	A
	Exit	1	1		730			730	721	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	670	858	0.781	672	664	1.6	4.0	20.427	C
			2	2, 3	512	858	0.597	515	504	1.0	1.5	11.497	B
	Exit	1	1		867			867	866	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	266	772	0.345	266	265	0.4	0.5	7.181	A
			2	3, 1	636	772	0.824	630	618	2.3	5.2	25.872	D
	Exit	1	1		1346			1346	1325	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	455	778	0.585	455	445	0.9	1.5	11.291	B
			2	2, 1	564	778	0.725	561	554	1.2	2.7	15.492	C
	Exit	1	1		896			896	885	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	832	818	1.016	785	771	4.0	18.6	58.284	F
			2	2, 3	626	818	0.765	630	620	1.5	3.7	20.016	C
	Exit	1	1		1085			1085	1063	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	259	771	0.336	257	264	0.5	0.6	7.288	A
			2	3, 1	626	771	0.812	631	624	5.2	5.4	30.874	D
	Exit	1	1		1348			1348	1352	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	449	777	0.577	448	443	1.5	1.6	11.580	B
			2	2, 1	553	777	0.712	552	554	2.7	2.4	16.535	C
	Exit	1	1		889			889	891	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	814	822	0.990	796	797	18.6	25.1	102.019	F
			2	2, 3	638	822	0.776	632	627	3.7	4.0	21.580	C
	Exit	1	1		1079			1079	1068	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	219	813	0.269	220	218	0.6	0.4	6.519	A
			2	3, 1	516	813	0.634	513	525	5.4	2.2	17.520	C
	Exit	1	1		1162			1162	1210	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	363	820	0.443	363	365	1.6	0.9	9.076	A
			2	2, 1	447	820	0.545	450	460	2.4	1.2	11.087	B
	Exit	1	1		729			729	735	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	683	859	0.794	713	750	25.1	7.5	63.686	F
			2	2, 3	509	859	0.592	509	517	4.0	1.7	12.891	B
	Exit	1	1		876			876	890	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	176	839	0.210	176	180	0.4	0.3	5.591	A
			2	3, 1	433	839	0.516	434	431	2.2	1.3	10.287	B
	Exit	1	1		940			940	973	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	307	849	0.362	309	307	0.9	0.5	7.122	A
			2	2, 1	380	849	0.448	378	384	1.2	1.0	8.126	A
	Exit	1	1		610			610	609	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	564	886	0.637	562	589	7.5	2.0	15.873	C
			2	2, 3	435	886	0.491	435	430	1.7	1.1	8.705	A
	Exit	1	1		743			743	738	0.0	0.0	0.000	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	31.17	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1015	100.000
2 - Wide Lane (S)		ONE HOUR	✓	810	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	703
	2 - Wide Lane (S)	291	0	519
	3 - A335 (NW)	633	536	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	60.15	21.8	F	929	1393
2 - Wide Lane (S)	17.97	4.9	C	739	1109
3 - A335 (NW)	15.24	5.5	C	1076	1614

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	756	189	416	753	755	709	0.0	2.4	9.749	A
2 - Wide Lane (S)	607	152	532	606	608	637	0.0	1.4	7.704	A
3 - A335 (NW)	904	226	219	905	885	918	0.0	1.8	7.574	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	908	227	489	913	904	827	2.4	3.4	14.385	B
2 - Wide Lane (S)	717	179	648	714	722	753	1.4	2.4	10.191	B
3 - A335 (NW)	1061	265	260	1055	1048	1102	1.8	3.4	9.554	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1112	278	583	1091	1069	1005	3.4	13.9	34.558	D
2 - Wide Lane (S)	883	221	762	878	882	912	2.4	4.9	17.365	C
3 - A335 (NW)	1273	318	311	1277	1279	1328	3.4	5.5	15.242	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1116	279	588	1089	1087	1015	13.9	21.8	60.150	F
2 - Wide Lane (S)	899	225	758	897	895	919	4.9	4.6	17.969	C
3 - A335 (NW)	1277	319	329	1274	1280	1326	5.5	5.3	14.845	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	905	226	489	939	974	828	21.8	6.1	40.970	E
2 - Wide Lane (S)	726	182	675	721	739	753	4.6	2.4	12.006	B
3 - A335 (NW)	1056	264	262	1055	1058	1135	5.3	3.0	10.276	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	773	193	407	773	783	699	6.1	2.3	12.095	B
2 - Wide Lane (S)	604	151	533	607	615	647	2.4	1.2	8.536	A
3 - A335 (NW)	886	222	219	887	889	921	3.0	1.9	8.016	A

Lane Results

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

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	225	846	0.266	225	230	0.0	0.5	5.930	A
			2	3, 1	531	846	0.628	528	525	0.0	1.9	11.413	B
	Exit	1	1		709			709	700	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	390	813	0.480	390	389	0.0	1.0	8.706	A
			2	2, 1	216	813	0.266	216	220	0.0	0.4	5.960	A
	Exit	1	1		637			637	633	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	490	944	0.519	489	478	0.0	1.1	7.947	A
			2	2, 3	414	944	0.438	416	408	0.0	0.8	7.145	A
	Exit	1	1		918			918	914	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	271	820	0.330	270	277	0.5	0.5	6.606	A
			2	3, 1	638	820	0.777	643	627	1.9	3.0	17.799	C
	Exit	1	1		827			827	827	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	459	771	0.595	458	464	1.0	1.7	11.880	B
			2	2, 1	258	771	0.335	256	258	0.4	0.7	7.206	A
	Exit	1	1		753			753	755	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	570	929	0.614	566	566	1.1	2.0	10.766	B
			2	2, 3	491	929	0.528	489	482	0.8	1.4	8.159	A
	Exit	1	1		1102			1102	1092	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	333	788	0.423	335	334	0.5	0.8	8.325	A
			2	3, 1	779	788	0.989	756	735	3.0	13.2	45.871	E
	Exit	1	1		1005			1005	1011	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	575	730	0.788	570	563	1.7	4.4	22.439	C
			2	2, 1	307	730	0.421	308	318	0.7	0.6	8.383	A
	Exit	1	1		912			912	918	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	692	910	0.760	694	689	2.0	3.4	18.212	C
			2	2, 3	581	910	0.639	583	590	1.4	2.1	11.819	B
	Exit	1	1		1328			1328	1300	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	336	786	0.427	335	341	0.8	0.9	8.453	A
			2	3, 1	781	786	0.993	754	746	13.2	20.8	82.906	F
	Exit	1	1		1015			1015	1014	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	574	731	0.785	572	572	4.4	3.9	23.016	C
			2	2, 1	325	731	0.444	325	323	0.6	0.7	9.265	A
	Exit	1	1		919			919	929	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	691	904	0.764	686	687	3.4	3.4	17.364	C
			2	2, 3	587	904	0.649	588	593	2.1	1.9	11.975	B
	Exit	1	1		1326			1326	1319	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	269	820	0.327	269	277	0.9	0.5	6.841	A
			2	3, 1	636	820	0.776	671	697	20.8	5.6	55.698	F
	Exit	1	1		828			828	836	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	466	761	0.612	462	476	3.9	1.6	14.440	B
			2	2, 1	261	761	0.342	259	263	0.7	0.7	7.747	A
	Exit	1	1		753			753	760	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	565	928	0.609	566	570	3.4	1.8	11.695	B
			2	2, 3	491	928	0.529	489	488	1.9	1.2	8.663	A
	Exit	1	1		1135			1135	1175	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	244	849	0.287	244	233	0.5	0.4	5.957	A
			2	3, 1	530	849	0.624	529	550	5.6	1.9	14.782	B
	Exit	1	1		699			699	701	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	388	813	0.477	391	397	1.6	0.8	9.730	A
			2	2, 1	216	813	0.265	216	218	0.7	0.4	6.411	A
	Exit	1	1		647			647	639	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	479	944	0.507	480	480	1.8	1.0	8.909	A
			2	2, 3	407	944	0.431	407	409	1.2	0.9	6.991	A
	Exit	1	1		921			921	947	0.0	0.0	0.000	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	54.47	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 segment length (min)	Run automatically
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	839	100.000
2 - Wide Lane (S)		ONE HOUR	✓	983	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	580
	2 - Wide Lane (S)	535	0	448
	3 - A335 (NW)	765	627	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	30.78	9.1	D	767	1150
2 - Wide Lane (S)	17.23	5.0	C	902	1352
3 - A335 (NW)	94.76	43.4	F	1284	1926

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	627	157	485	624	622	967	0.0	1.9	9.127	A
2 - Wide Lane (S)	731	183	430	730	736	678	0.0	1.9	7.980	A
3 - A335 (NW)	1057	264	391	1060	1040	769	0.0	3.3	11.328	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	747	187	576	753	751	1173	1.9	2.6	12.257	B
2 - Wide Lane (S)	887	222	528	888	880	802	1.9	2.4	10.143	B
3 - A335 (NW)	1261	315	486	1264	1233	930	3.3	6.5	17.385	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	921	230	693	909	898	1378	2.6	7.4	22.541	C
2 - Wide Lane (S)	1073	268	631	1073	1069	971	2.4	5.0	16.132	C
3 - A335 (NW)	1547	387	588	1483	1443	1116	6.5	29.6	50.880	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	925	231	681	907	915	1399	7.4	9.1	30.784	D
2 - Wide Lane (S)	1093	273	628	1100	1087	960	5.0	4.9	17.231	C
3 - A335 (NW)	1520	380	596	1483	1477	1132	29.6	43.4	94.765	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	751	188	564	757	775	1236	9.1	2.8	16.866	C
2 - Wide Lane (S)	882	220	525	883	895	795	4.9	2.4	11.639	B
3 - A335 (NW)	1254	314	479	1321	1364	930	43.4	15.5	65.209	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	628	157	475	626	638	1006	2.8	2.1	10.019	B
2 - Wide Lane (S)	744	186	432	740	742	669	2.4	2.0	8.112	A
3 - A335 (NW)	1063	266	407	1073	1094	765	15.5	4.2	19.066	C

Lane Results

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

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	197	822	0.239	195	192	0.0	0.4	5.804	A
			2	3, 1	430	822	0.524	428	430	0.0	1.5	10.749	B
	Exit	1	1		967			967	967	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	339	850	0.399	339	338	0.0	0.8	7.599	A
			2	2, 1	392	850	0.461	391	398	0.0	1.1	8.285	A
	Exit	1	1		678			678	661	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	574	881	0.652	576	569	0.0	2.0	12.607	B
			2	2, 3	483	881	0.548	485	471	0.0	1.3	9.732	A
	Exit	1	1		769			769	770	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	229	790	0.289	229	234	0.4	0.4	6.636	A
			2	3, 1	519	790	0.657	524	517	1.5	2.1	15.028	C
	Exit	1	1		1173			1173	1152	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	401	815	0.492	402	400	0.8	1.0	9.716	A
			2	2, 1	486	815	0.596	486	480	1.1	1.4	10.479	B
	Exit	1	1		802			802	792	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	687	846	0.812	687	672	2.0	4.2	20.480	C
			2	2, 3	573	846	0.678	576	561	1.3	2.3	13.542	B
	Exit	1	1		930			930	920	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	279	750	0.373	280	281	0.4	0.6	8.075	A
			2	3, 1	642	750	0.856	628	618	2.1	6.8	29.547	D
	Exit	1	1		1378			1378	1354	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	492	777	0.633	484	484	1.0	2.3	13.745	B
			2	2, 1	581	777	0.747	588	584	1.4	2.6	18.001	C
	Exit	1	1		971			971	951	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	854	808	1.056	790	770	4.2	23.2	67.886	F
			2	2, 3	693	808	0.858	693	673	2.3	6.4	29.413	D
	Exit	1	1		1116			1116	1105	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	283	754	0.376	282	285	0.6	0.6	8.089	A
			2	3, 1	642	754	0.851	625	631	6.8	8.5	41.875	E
	Exit	1	1		1399			1399	1378	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	497	779	0.639	504	499	2.3	1.9	15.691	C
			2	2, 1	595	779	0.764	596	588	2.6	3.0	18.461	C
	Exit	1	1		960			960	968	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	830	806	1.030	803	791	23.2	34.9	139.971	F
			2	2, 3	690	806	0.856	681	686	6.4	8.6	38.491	E
	Exit	1	1		1132			1132	1133	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	234	795	0.295	235	236	0.6	0.5	7.149	A
			2	3, 1	516	795	0.650	522	538	8.5	2.3	21.734	C
	Exit	1	1		1236			1236	1265	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	402	816	0.493	404	405	1.9	0.9	10.335	B
			2	2, 1	480	816	0.588	479	489	3.0	1.4	12.659	B
	Exit	1	1		795			795	821	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	695	849	0.819	757	776	34.9	13.2	101.598	F
			2	2, 3	560	849	0.659	564	588	8.6	2.3	19.360	C
	Exit	1	1		930			930	947	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	196	825	0.238	197	194	0.5	0.3	5.965	A
			2	3, 1	431	825	0.523	429	444	2.3	1.7	11.967	B
	Exit	1	1		1006			1006	1024	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	335	850	0.394	333	338	0.9	1.0	7.823	A
			2	2, 1	409	850	0.481	407	404	1.4	1.0	8.341	A
	Exit	1	1		669			669	666	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	586	875	0.669	599	620	13.2	2.7	26.391	D
			2	2, 3	478	875	0.546	475	474	2.3	1.5	9.853	A
	Exit	1	1		765			765	785	0.0	0.0	0.000	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	42.58	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 segment length (min)	Run automatically
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1051	100.000
2 - Wide Lane (S)		ONE HOUR	✓	900	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	716
	2 - Wide Lane (S)	324	0	576
	3 - A335 (NW)	644	583	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	84.43	29.5	F	969	1453
2 - Wide Lane (S)	26.32	7.8	D	823	1235
3 - A335 (NW)	18.46	7.1	C	1126	1689

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	788	197	441	793	787	731	0.0	2.0	10.259	B
2 - Wide Lane (S)	677	169	546	677	672	687	0.0	1.6	8.693	A
3 - A335 (NW)	921	230	243	929	924	981	0.0	1.9	8.141	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	948	237	535	946	938	866	2.0	4.9	16.340	C
2 - Wide Lane (S)	804	201	652	804	801	828	1.6	2.7	11.944	B
3 - A335 (NW)	1101	275	294	1107	1099	1162	1.9	3.1	10.384	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1167	292	648	1114	1099	1065	4.9	20.4	45.911	E
2 - Wide Lane (S)	986	247	756	979	967	1006	2.7	7.3	22.507	C
3 - A335 (NW)	1349	337	362	1351	1339	1373	3.1	6.7	17.420	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1160	290	649	1121	1121	1060	20.4	29.5	84.429	F
2 - Wide Lane (S)	982	245	760	982	985	1011	7.3	7.8	26.319	D
3 - A335 (NW)	1351	338	358	1351	1351	1383	6.7	7.1	18.463	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	953	238	528	1006	1023	871	29.5	10.8	62.939	F
2 - Wide Lane (S)	818	205	711	821	831	824	7.8	3.5	16.819	C
3 - A335 (NW)	1102	276	299	1100	1122	1232	7.1	3.3	11.561	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	798	199	443	801	825	733	10.8	2.5	17.568	C
2 - Wide Lane (S)	672	168	560	676	686	683	3.5	1.6	9.818	A
3 - A335 (NW)	930	233	244	931	935	992	3.3	2.0	8.191	A

Lane Results

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

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	249	837	0.298	250	248	0.0	0.4	6.253	A
			2	3, 1	539	837	0.644	543	539	0.0	1.6	12.093	B
	Exit	1	1		731			731	727	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	436	808	0.539	437	431	0.0	1.2	10.022	B
			2	2, 1	241	808	0.298	240	240	0.0	0.4	6.343	A
	Exit	1	1		687			687	684	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	483	935	0.517	488	484	0.0	1.1	8.604	A
			2	2, 3	438	935	0.468	441	440	0.0	0.8	7.640	A
	Exit	1	1		981			981	971	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	295	804	0.367	297	299	0.4	0.5	7.089	A
			2	3, 1	653	804	0.811	648	639	1.6	4.4	20.602	C
	Exit	1	1		866			866	866	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	514	770	0.667	513	510	1.2	2.1	14.441	B
			2	2, 1	290	770	0.377	291	291	0.4	0.6	7.640	A
	Exit	1	1		828			828	822	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	571	917	0.623	572	572	1.1	1.9	11.023	B
			2	2, 3	530	917	0.578	535	527	0.8	1.2	9.702	A
	Exit	1	1		1162			1162	1150	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	363	765	0.474	363	363	0.5	0.9	8.740	A
			2	3, 1	804	765	1.050	750	736	4.4	19.5	62.911	F
	Exit	1	1		1065			1065	1059	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	625	732	0.854	620	612	2.1	6.2	29.867	D
			2	2, 1	361	732	0.493	358	355	0.6	1.1	9.780	A
	Exit	1	1		1006			1006	996	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	700	892	0.785	703	700	1.9	4.0	20.227	C
			2	2, 3	649	892	0.728	648	639	1.2	2.7	14.400	B
	Exit	1	1		1373			1373	1351	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	368	765	0.481	368	366	0.9	0.9	9.101	A
			2	3, 1	792	765	1.035	753	755	19.5	28.6	119.223	F
	Exit	1	1		1060			1060	1070	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	628	731	0.859	627	626	6.2	6.9	35.623	E
			2	2, 1	354	731	0.484	354	359	1.1	0.9	10.264	B
	Exit	1	1		1011			1011	1004	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	706	893	0.791	702	708	4.0	4.2	20.464	C
			2	2, 3	645	893	0.722	649	643	2.7	2.9	16.304	C
	Exit	1	1		1383			1383	1382	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	301	807	0.373	301	300	0.9	0.6	7.475	A
			2	3, 1	652	807	0.808	706	723	28.6	10.2	88.480	F
	Exit	1	1		871			871	882	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	524	749	0.701	526	538	6.9	2.9	21.619	C
			2	2, 1	294	749	0.393	295	292	0.9	0.6	8.393	A
	Exit	1	1		824			824	832	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	574	915	0.627	573	585	4.2	1.9	12.362	B
			2	2, 3	528	915	0.577	528	536	2.9	1.4	10.704	B
	Exit	1	1		1232			1232	1261	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	246	836	0.295	245	247	0.6	0.5	6.250	A
			2	3, 1	551	836	0.659	556	577	10.2	2.0	22.738	C
	Exit	1	1		733			733	734	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	432	803	0.537	435	442	2.9	1.2	11.573	B
			2	2, 1	240	803	0.299	241	244	0.6	0.4	6.744	A
	Exit	1	1		683			683	691	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	490	935	0.524	489	487	1.9	1.2	8.399	A
			2	2, 3	441	935	0.471	443	448	1.4	0.9	7.969	A
	Exit	1	1		992			992	1020	0.0	0.0	0.000	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	3 - A335 (NW) - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	110.68	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 segment length (min)	Run automatically
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	882	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1140	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	580
	2 - Wide Lane (S)	553	0	587
	3 - A335 (NW)	765	855	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	42.98	12.8	E	810	1215
2 - Wide Lane (S)	25.54	8.9	D	1051	1576
3 - A335 (NW)	208.13	114.2	F	1481	2221

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	665	166	638	663	661	988	0.0	2.3	10.733	B
2 - Wide Lane (S)	846	212	438	841	839	864	0.0	2.1	8.624	A
3 - A335 (NW)	1221	305	417	1210	1195	861	0.0	5.9	13.646	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	801	200	750	801	797	1181	2.3	3.4	14.747	B
2 - Wide Lane (S)	1040	260	533	1049	1029	1018	2.1	3.1	12.627	B
3 - A335 (NW)	1444	361	498	1433	1416	1085	5.9	12.7	27.201	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	979	245	807	975	957	1401	3.4	10.9	33.587	D
2 - Wide Lane (S)	1240	310	652	1248	1233	1130	3.1	8.5	22.696	C
3 - A335 (NW)	1793	448	608	1599	1579	1292	12.7	63.3	91.987	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	967	242	775	961	965	1424	10.9	12.8	42.979	E
2 - Wide Lane (S)	1270	317	627	1271	1263	1110	8.5	8.9	25.542	D
3 - A335 (NW)	1778	444	618	1582	1591	1280	63.3	114.2	204.849	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	796	199	848	799	827	1251	12.8	4.9	26.087	D
2 - Wide Lane (S)	1046	261	534	1040	1039	1113	8.9	4.0	14.311	B
3 - A335 (NW)	1437	359	512	1587	1610	1062	114.2	73.7	208.131	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	655	164	771	652	662	1009	4.9	2.9	13.527	B
2 - Wide Lane (S)	861	215	430	857	861	993	4.0	2.3	9.403	A
3 - A335 (NW)	1211	303	423	1357	1428	864	73.7	23.4	96.708	F

Lane Results

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

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	225	769	0.293	226	225	0.0	0.4	6.732	A
			2	3, 1	440	769	0.572	437	435	0.0	2.0	13.003	B
	Exit	1	1		988			988	975	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	427	848	0.504	423	428	0.0	1.2	9.392	A
			2	2, 1	420	848	0.495	417	411	0.0	0.9	7.865	A
	Exit	1	1		864			864	854	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	578	871	0.663	572	565	0.0	2.0	10.965	B
			2	2, 3	644	871	0.739	638	630	0.0	3.9	16.088	C
	Exit	1	1		861			861	866	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	272	730	0.372	272	270	0.4	0.7	7.882	A
			2	3, 1	529	730	0.725	530	527	2.0	2.7	18.607	C
	Exit	1	1		1181			1181	1160	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	547	813	0.673	552	539	1.2	1.8	13.887	B
			2	2, 1	493	813	0.606	498	490	0.9	1.3	11.317	B
	Exit	1	1		1018			1018	1013	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	679	842	0.806	683	670	2.0	4.0	21.064	C
			2	2, 3	765	842	0.909	750	747	3.9	8.7	32.805	D
	Exit	1	1		1085			1085	1069	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	322	711	0.453	327	334	0.7	0.7	9.856	A
			2	3, 1	657	711	0.925	648	623	2.7	10.2	46.910	E
	Exit	1	1		1401			1401	1386	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	630	770	0.818	640	626	1.8	5.1	26.087	D
			2	2, 1	610	770	0.793	608	607	1.3	3.4	19.370	C
	Exit	1	1		1130			1130	1130	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	845	801	1.055	792	779	4.0	19.6	61.675	F
			2	2, 3	948	801	1.183	807	800	8.7	43.7	120.034	F
	Exit	1	1		1292			1292	1253	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	335	721	0.465	336	335	0.7	0.9	9.823	A
			2	3, 1	632	721	0.875	625	630	10.2	11.9	62.190	F
	Exit	1	1		1424			1424	1403	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	654	779	0.839	652	653	5.1	5.6	30.557	D
			2	2, 1	616	779	0.791	618	610	3.4	3.3	20.464	C
	Exit	1	1		1110			1110	1130	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	847	797	1.062	807	793	19.6	34.1	125.411	F
			2	2, 3	931	797	1.168	775	798	43.7	80.1	278.724	F
	Exit	1	1		1280			1280	1286	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	269	696	0.386	267	270	0.9	0.7	8.989	A
			2	3, 1	527	696	0.757	532	557	11.9	4.2	35.670	E
	Exit	1	1		1251			1251	1279	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	535	813	0.658	529	530	5.6	2.4	15.385	C
			2	2, 1	511	813	0.629	512	508	3.3	1.6	13.265	B
	Exit	1	1		1113			1113	1107	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	676	837	0.808	739	771	34.1	12.5	98.892	F
			2	2, 3	761	837	0.910	848	839	80.1	61.2	308.823	F
	Exit	1	1		1062			1062	1090	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	225	723	0.311	226	225	0.7	0.6	7.558	A
			2	3, 1	429	723	0.593	426	437	4.2	2.3	16.972	C
	Exit	1	1		1009			1009	1041	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	437	850	0.513	434	441	2.4	1.2	9.538	A
			2	2, 1	425	850	0.500	423	420	1.6	1.0	9.270	A
	Exit	1	1		993			993	1028	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	576	869	0.663	586	622	12.5	1.8	24.518	C
			2	2, 3	636	869	0.731	771	806	61.2	21.5	167.616	F
	Exit	1	1		864			864	882	0.0	0.0	0.000	A

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	2 - Wide Lane (S) - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	121.99	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1061	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1142	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	716
	2 - Wide Lane (S)	359	0	783
	3 - A335 (NW)	644	724	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	137.20	49.4	F	972	1458
2 - Wide Lane (S)	210.25	68.6	F	1048	1572
3 - A335 (NW)	36.81	16.3	E	1260	1889

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	798	200	546	793	789	756	0.0	2.9	11.183	B
2 - Wide Lane (S)	856	214	546	854	847	794	0.0	3.7	13.347	B
3 - A335 (NW)	1027	257	271	1030	1022	1129	0.0	2.6	9.269	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	952	238	655	947	941	911	2.9	5.8	20.186	C
2 - Wide Lane (S)	1024	256	641	1022	1006	960	3.7	9.2	27.562	D
3 - A335 (NW)	1239	310	330	1236	1224	1333	2.6	5.0	13.627	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1173	293	778	1086	1079	1102	5.8	29.0	64.055	F
2 - Wide Lane (S)	1266	316	710	1154	1140	1155	9.2	39.8	84.549	F
3 - A335 (NW)	1510	378	404	1476	1468	1460	5.0	14.6	27.094	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1157	289	793	1072	1080	1109	29.0	49.4	137.197	F
2 - Wide Lane (S)	1257	314	704	1142	1140	1160	39.8	68.6	181.216	F
3 - A335 (NW)	1509	377	399	1502	1501	1447	14.6	16.3	36.806	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	954	238	663	1030	1031	906	49.4	30.6	135.202	F
2 - Wide Lane (S)	1020	255	731	1063	1069	963	68.6	57.8	210.254	F
3 - A335 (NW)	1234	308	330	1240	1281	1465	16.3	5.0	20.051	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	797	199	545	849	896	772	30.6	5.5	50.302	F
2 - Wide Lane (S)	864	216	599	978	995	796	57.8	25.3	122.980	F
3 - A335 (NW)	1038	260	275	1042	1044	1302	5.0	2.8	10.048	B

Lane Results

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

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	250	801	0.313	251	255	0.0	0.4	6.671	A
			2	3, 1	548	801	0.684	542	534	0.0	2.5	13.319	B
	Exit	1	1		756			756	755	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	590	808	0.730	587	578	0.0	3.2	16.378	C
			2	2, 1	266	808	0.329	267	269	0.0	0.5	6.885	A
	Exit	1	1		794			794	791	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	482	925	0.521	484	482	0.0	1.1	8.766	A
			2	2, 3	544	925	0.588	546	539	0.0	1.5	9.708	A
	Exit	1	1		1129			1129	1112	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	310	763	0.406	309	307	0.4	0.6	7.714	A
			2	3, 1	643	763	0.842	637	635	2.5	5.2	26.131	D
	Exit	1	1		911			911	900	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	697	774	0.901	695	683	3.2	8.5	36.587	E
			2	2, 1	327	774	0.422	327	322	0.5	0.7	8.277	A
	Exit	1	1		960			960	953	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	581	903	0.643	581	574	1.1	1.9	11.769	B
			2	2, 3	658	903	0.728	655	651	1.5	3.0	15.228	C
	Exit	1	1		1333			1333	1318	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	381	720	0.529	381	376	0.6	1.1	10.257	B
			2	3, 1	792	720	1.100	705	703	5.2	27.9	89.720	F
	Exit	1	1		1102			1102	1094	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	866	749	1.157	753	748	8.5	38.6	119.014	F
			2	2, 1	400	749	0.534	401	392	0.7	1.2	10.178	B
	Exit	1	1		1155			1155	1141	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	706	876	0.806	698	698	1.9	4.7	19.854	C
			2	2, 3	804	876	0.917	778	770	3.0	9.9	33.397	D
	Exit	1	1		1460			1460	1452	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	371	715	0.518	373	373	1.1	1.0	10.756	B
			2	3, 1	787	715	1.100	698	708	27.9	48.3	196.794	F
	Exit	1	1		1109			1109	1104	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	861	751	1.147	747	747	38.6	67.5	260.613	F
			2	2, 1	396	751	0.527	395	393	1.2	1.1	10.528	B
	Exit	1	1		1160			1160	1161	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	710	878	0.809	709	707	4.7	4.8	23.290	C
			2	2, 3	799	878	0.910	793	794	9.9	11.5	48.526	E
	Exit	1	1		1447			1447	1456	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	303	760	0.398	303	308	1.0	0.7	8.598	A
			2	3, 1	651	760	0.857	728	723	48.3	29.9	195.055	F
	Exit	1	1		906			906	921	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	697	741	0.941	738	743	67.5	57.1	305.344	F
			2	2, 1	323	741	0.436	325	326	1.1	0.8	9.108	A
	Exit	1	1		963			963	994	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	576	904	0.638	577	591	4.8	1.8	13.449	B
			2	2, 3	658	904	0.728	663	691	11.5	3.1	25.752	D
	Exit	1	1		1465			1465	1466	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	256	801	0.319	254	256	0.7	0.5	6.658	A
			2	3, 1	542	801	0.676	595	640	29.9	5.0	71.248	F
	Exit	1	1		772			772	766	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	593	789	0.751	706	721	57.1	24.8	182.068	F
			2	2, 1	272	789	0.344	272	274	0.8	0.5	7.571	A
	Exit	1	1		796			796	808	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	496	924	0.538	497	489	1.8	1.2	9.338	A
			2	2, 3	542	924	0.587	545	555	3.1	1.6	10.667	B
	Exit	1	1		1302			1302	1362	0.0	0.0	0.000	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	3 - A335 (NW) - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	99.19	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	900	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1122	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	611
	2 - Wide Lane (S)	597	0	525
	3 - A335 (NW)	806	728	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	44.37	12.1	E	825	1238
2 - Wide Lane (S)	28.03	10.2	D	1026	1540
3 - A335 (NW)	182.72	94.0	F	1416	2124

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	681	170	565	681	671	1060	0.0	2.3	9.945	A
2 - Wide Lane (S)	842	211	463	842	838	783	0.0	2.1	9.045	A
3 - A335 (NW)	1173	293	451	1174	1147	855	0.0	4.6	13.763	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	802	200	645	808	801	1251	2.3	3.5	15.022	C
2 - Wide Lane (S)	998	249	547	1003	996	906	2.1	3.4	12.152	B
3 - A335 (NW)	1380	345	533	1363	1347	1017	4.6	12.2	26.249	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1000	250	759	978	966	1430	3.5	11.5	32.894	D
2 - Wide Lane (S)	1222	305	653	1225	1213	1084	3.4	8.6	22.992	C
3 - A335 (NW)	1695	424	649	1540	1512	1229	12.2	56.7	87.806	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	975	244	770	979	985	1449	11.5	12.1	44.366	E
2 - Wide Lane (S)	1240	310	666	1234	1230	1083	8.6	10.2	28.032	D
3 - A335 (NW)	1716	429	654	1565	1545	1246	56.7	94.0	182.717	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	807	202	701	822	844	1364	12.1	4.0	24.912	C
2 - Wide Lane (S)	1013	253	562	1017	1038	961	10.2	3.8	16.417	C
3 - A335 (NW)	1376	344	545	1520	1535	1034	94.0	55.7	172.288	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	685	171	556	684	681	1145	4.0	2.0	11.725	B
2 - Wide Lane (S)	844	211	458	841	849	781	3.8	2.3	9.545	A
3 - A335 (NW)	1157	289	443	1257	1328	856	55.7	14.8	70.750	F

Lane Results

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

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	218	794	0.275	218	216	0.0	0.4	6.243	A
			2	3, 1	463	794	0.583	463	455	0.0	1.9	11.846	B
	Exit	1	1		1060			1060	1044	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	392	838	0.468	392	392	0.0	1.0	8.551	A
			2	2, 1	450	838	0.537	451	446	0.0	1.1	9.456	A
	Exit	1	1		783			783	764	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	611	859	0.711	609	598	0.0	2.6	14.199	B
			2	2, 3	562	859	0.655	565	548	0.0	2.1	13.272	B
	Exit	1	1		855			855	847	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	260	767	0.339	261	259	0.4	0.6	7.484	A
			2	3, 1	542	767	0.707	547	542	1.9	2.9	18.965	C
	Exit	1	1		1251			1251	1236	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	469	808	0.581	470	466	1.0	1.6	11.703	B
			2	2, 1	528	808	0.654	533	531	1.1	1.8	12.523	B
	Exit	1	1		906			906	902	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	728	829	0.878	718	705	2.6	7.7	31.085	D
			2	2, 3	652	829	0.787	645	642	2.1	4.5	20.709	C
	Exit	1	1		1017			1017	1008	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	323	727	0.444	325	317	0.6	0.8	9.195	A
			2	3, 1	677	727	0.931	653	649	2.9	10.7	45.087	E
	Exit	1	1		1430			1430	1413	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	578	769	0.751	575	570	1.6	3.5	19.173	C
			2	2, 1	644	769	0.837	649	643	1.8	5.1	26.163	D
	Exit	1	1		1084			1084	1060	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	884	786	1.125	781	769	7.7	37.3	110.040	F
			2	2, 3	810	786	1.031	759	743	4.5	19.4	62.493	F
	Exit	1	1		1229			1229	1219	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	314	723	0.434	313	317	0.8	0.8	9.150	A
			2	3, 1	661	723	0.914	666	668	10.7	11.3	62.711	F
	Exit	1	1		1449			1449	1434	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	580	765	0.758	580	574	3.5	3.6	21.897	C
			2	2, 1	660	765	0.863	654	656	5.1	6.6	33.050	D
	Exit	1	1		1083			1083	1083	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	903	784	1.151	795	778	37.3	65.7	243.395	F
			2	2, 3	813	784	1.036	770	766	19.4	28.3	113.242	F
	Exit	1	1		1246			1246	1242	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	258	747	0.346	260	261	0.8	0.5	7.687	A
			2	3, 1	549	747	0.735	562	582	11.3	3.6	33.811	D
	Exit	1	1		1364			1364	1360	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	471	802	0.587	472	486	3.6	1.6	13.735	B
			2	2, 1	542	802	0.676	545	552	6.6	2.2	18.680	C
	Exit	1	1		961			961	989	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	730	824	0.886	819	807	65.7	46.3	251.439	F
			2	2, 3	645	824	0.783	701	728	28.3	9.4	81.321	F
	Exit	1	1		1034			1034	1068	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	226	797	0.283	225	222	0.5	0.5	6.812	A
			2	3, 1	460	797	0.576	458	459	3.6	1.5	14.380	B
	Exit	1	1		1145			1145	1201	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	397	840	0.473	398	398	1.6	1.0	9.345	A
			2	2, 1	447	840	0.532	443	451	2.2	1.4	9.712	A
	Exit	1	1		781			781	801	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	610	862	0.708	702	749	46.3	12.9	116.946	F
			2	2, 3	547	862	0.635	556	579	9.4	1.9	19.461	C
	Exit	1	1		856			856	857	0.0	0.0	0.000	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	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 segment length (min)	Run automatically
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1106	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1054	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	754
	2 - Wide Lane (S)	380	0	674
	3 - A335 (NW)	679	652	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	154.61	57.5	F	1012	1518
2 - Wide Lane (S)	74.61	25.7	F	970	1455
3 - A335 (NW)	28.16	11.9	D	1228	1841

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	827	207	498	831	818	809	0.0	2.5	11.657	B
2 - Wide Lane (S)	800	200	576	796	786	752	0.0	2.6	10.481	B
3 - A335 (NW)	1018	254	294	1012	1001	1078	0.0	3.0	9.226	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	988	247	586	984	971	963	2.5	6.7	21.209	C
2 - Wide Lane (S)	956	239	680	949	934	889	2.6	5.2	17.304	C
3 - A335 (NW)	1205	301	346	1203	1188	1283	3.0	4.4	12.294	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1206	301	722	1110	1111	1167	6.7	32.6	69.655	F
2 - Wide Lane (S)	1174	293	741	1112	1110	1090	5.2	20.2	44.672	E
3 - A335 (NW)	1475	369	423	1465	1443	1430	4.4	11.2	23.693	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1217	304	717	1115	1114	1159	32.6	57.5	154.598	F
2 - Wide Lane (S)	1164	291	743	1142	1141	1090	20.2	25.7	74.610	F
3 - A335 (NW)	1469	367	420	1457	1467	1465	11.2	11.9	28.164	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	998	249	589	1082	1080	954	57.5	37.3	154.609	F
2 - Wide Lane (S)	936	234	774	979	1003	896	25.7	11.8	60.846	F
3 - A335 (NW)	1208	302	344	1199	1230	1408	11.9	4.8	15.267	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	836	209	483	896	950	794	37.3	8.4	62.201	F
2 - Wide Lane (S)	790	197	642	802	829	737	11.8	3.2	22.168	C
3 - A335 (NW)	990	248	288	988	1012	1156	4.8	2.7	9.471	A

Lane Results

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

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	257	817	0.314	258	256	0.0	0.4	6.506	A
			2	3, 1	570	817	0.698	573	563	0.0	2.0	13.981	B
	Exit	1	1		809			809	800	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	509	797	0.639	505	498	0.0	1.9	12.446	B
			2	2, 1	291	797	0.364	291	288	0.0	0.6	7.122	A
	Exit	1	1		752			752	744	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	518	917	0.566	515	509	0.0	1.7	9.508	A
			2	2, 3	499	917	0.545	498	492	0.0	1.3	8.940	A
	Exit	1	1		1078			1078	1062	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	309	787	0.393	308	309	0.4	0.7	7.583	A
			2	3, 1	679	787	0.863	675	661	2.0	6.0	27.449	D
	Exit	1	1		963			963	947	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	613	759	0.807	606	597	1.9	4.4	22.247	C
			2	2, 1	343	759	0.451	342	337	0.6	0.8	8.575	A
	Exit	1	1		889			889	886	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	617	898	0.688	617	607	1.7	2.4	13.035	B
			2	2, 3	588	898	0.655	586	581	1.3	2.0	11.535	B
	Exit	1	1		1283			1283	1260	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	375	740	0.507	373	379	0.7	1.1	9.770	A
			2	3, 1	831	740	1.123	737	733	6.0	31.6	96.914	F
	Exit	1	1		1167			1167	1152	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	754	737	1.022	693	693	4.4	18.7	63.789	F
			2	2, 1	420	737	0.570	419	418	0.8	1.5	11.234	B
	Exit	1	1		1090			1090	1087	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	749	869	0.862	744	731	2.4	6.3	25.218	D
			2	2, 3	726	869	0.835	722	713	2.0	5.0	22.151	C
	Exit	1	1		1430			1430	1426	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	377	742	0.508	378	377	1.1	1.0	10.374	B
			2	3, 1	840	742	1.132	737	737	31.6	56.5	219.381	F
	Exit	1	1		1159			1159	1169	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	751	737	1.019	726	720	18.7	24.6	110.800	F
			2	2, 1	413	737	0.561	417	421	1.5	1.1	11.698	B
	Exit	1	1		1090			1090	1094	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	748	870	0.859	740	744	6.3	6.9	31.284	D
			2	2, 3	722	870	0.829	717	723	5.0	5.1	25.001	D
	Exit	1	1		1465			1465	1459	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	313	786	0.398	312	316	1.0	0.6	8.053	A
			2	3, 1	685	786	0.871	769	765	56.5	36.7	221.803	F
	Exit	1	1		954			954	976	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	597	726	0.823	639	659	24.6	10.9	90.357	F
			2	2, 1	339	726	0.467	340	344	1.1	0.9	9.975	A
	Exit	1	1		896			896	914	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	615	898	0.685	610	627	6.9	2.7	17.201	C
			2	2, 3	593	898	0.660	589	603	5.1	2.1	13.308	B
	Exit	1	1		1408			1408	1425	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	259	822	0.315	258	262	0.6	0.6	6.517	A
			2	3, 1	577	822	0.702	639	688	36.7	7.8	88.203	F
	Exit	1	1		794			794	811	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	505	773	0.653	517	541	10.9	2.6	30.206	D
			2	2, 1	285	773	0.368	285	287	0.9	0.6	8.240	A
	Exit	1	1		737			737	750	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	506	919	0.551	505	520	2.7	1.4	10.066	B
			2	2, 3	484	919	0.527	483	492	2.1	1.3	8.857	A
	Exit	1	1		1156			1156	1230	0.0	0.0	0.000	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	3 - A335 (NW) - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	247.09	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	943	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1278	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	611
	2 - Wide Lane (S)	614	0	664
	3 - A335 (NW)	806	956	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	13
	2 - Wide Lane (S)	1	0	7
	3 - A335 (NW)	4	7	50

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	54.06	16.6	F	868	1302
2 - Wide Lane (S)	51.02	21.1	F	1173	1759
3 - A335 (NW)	494.16	218.0	F	1609	2413

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	710	178	718	713	699	1057	0.0	2.3	11.667	B
2 - Wide Lane (S)	964	241	464	966	957	967	0.0	2.8	10.836	B
3 - A335 (NW)	1316	329	459	1316	1288	971	0.0	9.2	20.962	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	842	211	795	842	837	1265	2.3	5.0	18.186	C
2 - Wide Lane (S)	1160	290	550	1156	1136	1087	2.8	5.7	16.342	C
3 - A335 (NW)	1576	394	549	1510	1493	1157	9.2	30.0	51.026	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1046	261	789	1017	1002	1446	5.0	14.3	37.632	E
2 - Wide Lane (S)	1412	353	654	1379	1354	1152	5.7	18.0	35.624	E
3 - A335 (NW)	1927	482	676	1559	1564	1357	30.0	121.7	183.305	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1037	259	778	1034	1024	1441	14.3	16.6	54.062	F
2 - Wide Lane (S)	1397	349	670	1387	1387	1142	18.0	21.1	51.020	F
3 - A335 (NW)	1921	480	668	1551	1554	1389	121.7	218.0	408.554	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	859	215	819	872	894	1342	16.6	7.0	35.518	E
2 - Wide Lane (S)	1145	286	568	1167	1205	1122	21.1	6.4	29.716	D
3 - A335 (NW)	1584	396	549	1612	1603	1187	218.0	212.7	494.156	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	712	178	855	713	726	1163	7.0	3.4	17.581	C
2 - Wide Lane (S)	959	240	465	960	981	1103	6.4	2.9	12.026	B
3 - A335 (NW)	1328	332	461	1558	1598	965	212.7	145.0	298.390	F

Lane Results

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

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	250	741	0.337	249	247	0.0	0.7	7.450	A
			2	3, 1	460	741	0.621	464	453	0.0	1.7	14.175	B
	Exit	1	1		1057			1057	1049	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	504	838	0.602	507	499	0.0	1.6	12.060	B
			2	2, 1	460	838	0.549	459	457	0.0	1.3	9.572	A
	Exit	1	1		967			967	942	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	598	856	0.698	598	592	0.0	2.7	14.324	B
			2	2, 3	719	856	0.840	718	696	0.0	6.5	26.678	D
	Exit	1	1		971			971	952	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	292	715	0.409	292	299	0.7	0.7	8.808	A
			2	3, 1	551	715	0.770	550	537	1.7	4.2	23.798	C
	Exit	1	1		1265			1265	1248	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	607	807	0.753	607	592	1.6	3.3	18.588	C
			2	2, 1	552	807	0.684	549	544	1.3	2.5	14.032	B
	Exit	1	1		1087			1087	1088	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	726	823	0.882	716	704	2.7	7.5	30.820	D
			2	2, 3	850	823	1.032	795	789	6.5	22.4	68.634	F
	Exit	1	1		1157			1157	1129	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	366	717	0.510	363	363	0.7	1.3	10.733	B
			2	3, 1	680	717	0.949	654	639	4.2	13.0	53.714	F
	Exit	1	1		1446			1446	1428	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	735	769	0.956	703	695	3.3	11.7	41.836	E
			2	2, 1	676	769	0.879	676	659	2.5	6.3	29.290	D
	Exit	1	1		1152			1152	1158	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	881	776	1.135	770	770	7.5	35.9	106.316	F
			2	2, 3	1046	776	1.348	789	795	22.4	85.9	249.957	F
	Exit	1	1		1357			1357	1334	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	363	720	0.504	363	360	1.3	1.0	10.566	B
			2	3, 1	674	720	0.935	670	664	13.0	15.5	79.499	F
	Exit	1	1		1441			1441	1446	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	726	763	0.952	718	717	11.7	14.2	65.705	F
			2	2, 1	671	763	0.879	668	671	6.3	7.0	36.046	E
	Exit	1	1		1142			1142	1139	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	874	779	1.122	773	775	35.9	64.1	239.575	F
			2	2, 3	1047	779	1.344	778	779	85.9	153.9	555.454	F
	Exit	1	1		1389			1389	1381	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	306	706	0.433	304	304	1.0	0.9	9.175	A
			2	3, 1	553	706	0.782	568	591	15.5	6.1	51.403	F
	Exit	1	1		1342			1342	1359	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	600	800	0.750	619	639	14.2	4.2	39.753	E
			2	2, 1	545	800	0.681	549	567	7.0	2.2	19.353	C
	Exit	1	1		1122			1122	1114	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	725	823	0.880	794	793	64.1	47.0	251.968	F
			2	2, 3	859	823	1.044	819	811	153.9	165.8	704.243	F
	Exit	1	1		1187			1187	1229	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	250	694	0.360	248	249	0.9	0.7	8.356	A
			2	3, 1	462	694	0.666	465	477	6.1	2.7	23.045	C
	Exit	1	1		1163			1163	1218	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	498	837	0.595	499	514	4.2	1.6	13.397	B
			2	2, 1	461	837	0.551	461	467	2.2	1.3	10.620	B
	Exit	1	1		1103			1103	1096	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	614	855	0.718	703	751	47.0	11.0	110.422	F
			2	2, 3	714	855	0.834	855	847	165.8	134.0	585.374	F
	Exit	1	1		965			965	991	0.0	0.0	0.000	A

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	1 - Wide Lane (NE) - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	2 - Wide Lane (S) - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 2, 3	253.33	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	1115	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1295	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	754
	2 - Wide Lane (S)	414	0	881
	3 - A335 (NW)	679	794	5

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	1	1
	2 - Wide Lane (S)	2	0	4
	3 - A335 (NW)	5	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	257.93	78.1	F	1029	1544
2 - Wide Lane (S)	444.00	141.7	F	1189	1784
3 - A335 (NW)	82.74	40.6	F	1357	2035

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	840	210	591	834	823	823	0.0	3.8	13.751	B
2 - Wide Lane (S)	982	246	575	969	960	850	0.0	6.0	17.813	C
3 - A335 (NW)	1099	275	319	1095	1099	1225	0.0	3.9	10.940	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1011	253	725	985	979	978	3.8	11.1	31.250	D
2 - Wide Lane (S)	1142	286	675	1107	1107	1036	6.0	18.9	45.520	E
3 - A335 (NW)	1328	332	367	1337	1310	1415	3.9	7.3	18.137	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1248	312	831	1097	1099	1209	11.1	46.7	101.320	F
2 - Wide Lane (S)	1446	362	704	1217	1209	1224	18.9	77.0	159.042	F
3 - A335 (NW)	1637	409	467	1573	1546	1454	7.3	31.0	50.826	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	1232	308	844	1089	1098	1232	46.7	78.1	219.550	F
2 - Wide Lane (S)	1433	358	703	1208	1198	1230	77.0	133.3	346.192	F
3 - A335 (NW)	1652	413	473	1602	1592	1438	31.0	40.6	82.736	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	987	247	766	1025	1031	985	78.1	70.4	257.931	F
2 - Wide Lane (S)	1169	292	717	1117	1129	1074	133.3	141.7	443.999	F
3 - A335 (NW)	1320	330	382	1369	1432	1452	40.6	14.9	58.692	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	859	215	606	992	992	820	70.4	34.4	157.116	F
2 - Wide Lane (S)	962	241	725	1053	1054	874	141.7	119.9	304.482	F
3 - A335 (NW)	1105	276	316	1111	1152	1462	14.9	4.1	18.639	C

Lane Results

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

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	263	785	0.334	263	268	0.0	0.5	7.065	A
			2	3, 1	577	785	0.735	571	555	0.0	3.2	16.932	C
	Exit	1	1		823			823	821	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	666	798	0.834	652	647	0.0	5.4	22.776	C
			2	2, 1	317	798	0.397	316	313	0.0	0.7	7.501	A
	Exit	1	1		850			850	859	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	507	907	0.558	504	505	0.0	1.8	9.431	A
			2	2, 3	593	907	0.653	591	594	0.0	2.1	12.196	B
	Exit	1	1		1225			1225	1203	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	316	739	0.428	315	322	0.5	1.0	8.765	A
			2	3, 1	695	739	0.940	671	657	3.2	10.1	41.894	E
	Exit	1	1		978			978	979	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	779	761	1.024	744	735	5.4	18.0	62.920	F
			2	2, 1	363	761	0.477	363	372	0.7	0.8	9.532	A
	Exit	1	1		1036			1036	1025	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	608	890	0.683	611	603	1.8	2.3	13.662	B
			2	2, 3	720	890	0.809	725	708	2.1	5.0	21.820	C
	Exit	1	1		1415			1415	1392	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	397	702	0.566	398	396	1.0	1.2	12.241	B
			2	3, 1	851	702	1.212	699	703	10.1	45.5	143.159	F
	Exit	1	1		1209			1209	1191	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	986	751	1.313	754	750	18.0	75.2	229.266	F
			2	2, 1	461	751	0.614	463	459	0.8	1.8	13.436	B
	Exit	1	1		1224			1224	1208	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	756	853	0.886	742	729	2.3	8.2	30.206	D
			2	2, 3	881	853	1.033	831	817	5.0	22.8	67.948	F
	Exit	1	1		1454			1454	1455	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	389	698	0.558	391	391	1.2	1.2	12.583	B
			2	3, 1	843	698	1.208	698	707	45.5	77.0	316.377	F
	Exit	1	1		1232			1232	1217	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	964	751	1.284	739	736	75.2	131.7	508.785	F
			2	2, 1	469	751	0.624	470	462	1.8	1.6	13.147	B
	Exit	1	1		1230			1230	1226	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	764	851	0.898	759	752	8.2	7.7	35.474	E
			2	2, 3	888	851	1.044	844	840	22.8	32.9	122.167	F
	Exit	1	1		1438			1438	1445	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	312	725	0.430	313	322	1.2	0.7	9.460	A
			2	3, 1	675	725	0.931	712	708	77.0	69.7	375.270	F
	Exit	1	1		985			985	1014	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	790	746	1.059	739	749	131.7	140.6	656.764	F
			2	2, 1	379	746	0.508	378	379	1.6	1.1	10.280	B
	Exit	1	1		1074			1074	1118	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	606	884	0.685	603	631	7.7	2.5	18.176	C
			2	2, 3	714	884	0.807	766	801	32.9	12.4	92.456	F
	Exit	1	1		1452			1452	1460	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	Entry	1	1	2	272	780	0.349	271	271	0.7	0.7	7.708	A
			2	3, 1	586	780	0.752	721	721	69.7	33.7	237.422	F
	Exit	1	1		820			820	831	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	651	743	0.875	742	741	140.6	119.2	561.670	F
			2	2, 1	312	743	0.419	311	314	1.1	0.7	8.656	A
	Exit	1	1		874			874	905	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	511	909	0.563	504	513	2.5	1.7	10.182	B
			2	2, 3	594	909	0.653	606	639	12.4	2.4	25.721	D
	Exit	1	1		1462			1462	1461	0.0	0.0	0.000	A