

To blocwork (Eastleigh) LLP and Southampton International Airport Limited (SIAL), Hampshire County Council, Eastleigh Borough Council, National Highways

Technical Note

From Steer

Date 2 April 2026

Project Navigator Quarter

Project No. 24733101/02

Navigator Quarter – 20,000 sqm Unfettered Floorspace – Wide Lane Roundabout Junction Modelling Assessment - Technical Note

Introduction

- 1.1 This Technical Note has been prepared in addition to the Navigator Quarter Modelling Technical Note (12 December 2025) which assessed the impacts of the proposed Navigator Quarter development (Ref: O/25/99506) on external highway junctions.
- 1.2 The originally submitted Navigator Quarter TA (June 2025) trip generation assessment and junction modelling assessments within the Navigator Quarter Modelling Technical Note (12 December 2025) were based on the following core scenario and land use splits for the full Navigator Quarter development, with these land use caps agreed in principle for the full scheme (92,000sqm):
 - Original full scheme (92,000sqm) – 13,800sqm (15%) Class E (g) (ii) and (iii), 13,800 (15%) B2, 55,200 (60%) B8 Storage & Distribution - Warehousing and 9,200sqm (10%) B8 Storage & Distribution – Parcel.
- 1.3 The Navigator Quarter Modelling Technical Note (12 December 2025) and junction capacity assessments for the A335/ Wide Lane roundabout, identified the potential for queuing to occur on the northwestern arm of the existing A335/ Wide Lane roundabout, with the queues extending back to the main circulation of M27 Junction 5 as a result of the full proposed development.
- 1.4 As a result HCC requested that the Applicant should fund and deliver a mitigation solution for the junction, that involves replacing the existing roundabout with a full signalised mitigation junction option.
- 1.5 Whilst the applicant considers this request to deliver all the improvements to the Wide Lane junction to be disproportionate, they agree to fund and deliver the Wide Lane junction mitigation improvements. However, due to Freeport funding constraints it will not be viable to deliver this from the outset.
- 1.6 The Applicant's position is that they would only be able to deliver these improvements post the delivery of Phase 1 (20,000sqm) of the proposed development unfettered (whilst not exceeding the core scenario land use specific caps detailed above). This is referred to as "unfettered" subsequently within this Technical Note.
- 1.7 Following these discussions, comments were received by National Highways (NH) on Friday 27 March 2026 that a junction capacity assessment should be undertaken for the A335/ Wide Lane

Roundabout to demonstrate that the delivery of an initial 20,000sqm of unfettered floorspace at the Navigator Quarter development, will not result in queuing on the northwestern arm of the junction back to the M27 J5 main circulation. This is a distance of the 380m from the A335/ Wide Lane Roundabout northwestern arm entry point.

- 1.8 This Technical Note sets out the methodology used to forecast the total vehicle and Heavy Goods Vehicle (HGV) trips associated with the proposed 20,000sqm of unfettered floorspace scenario (Navigator Quarter Phase 1), the distribution of trips through the junction and the junction capacity modelling results, which have been undertaken using JUNCTIONS (J9) software. This assumes the existing A335/ Wide Lane Roundabout layout with no revisions.

Forecast Navigator Quarter Trip Generation – 20,000sqm

Overview

- 1.9 The forecast trip generation of the Navigator Quarter development (20,000sqm of unfettered floorspace) has been assessed based on the same trip rates used in the Navigator Quarter, Southampton – Transport Assessment (TA) – June 2025. These have previously been agreed with HCC but have been replicated in **Tables 1-4** for ease. It should be noted that cyclist trip rates, although presented as part of the TRICS vehicle trip rate outputs, are not included within the ‘Total Vehicles’ trip rate totals.

Table 1: Proposed Class E (g) (ii) R&D and (iii) Industrial Processes (TRICS - Business Park) Vehicle Trip Rates per 100 sqm GIA

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0.011	0.009	0.020	0.003	0.003	0.006	0.047	0.050	0.097
Cyclists	0.132	0.015	0.147	0.019	0.109	0.128	0.478	0.425	0.903
Cars	1.145	0.095	1.240	0.060	0.820	0.880	3.233	3.307	6.540
Motorcycle	0.004	0.001	0.005	0.001	0.007	0.008	0.024	0.018	0.042
PSV	0.004	0.004	0.008	0.003	0.004	0.007	0.026	0.027	0.053
OGV	0.003	0.003	0.006	0.000	0.001	0.001	0.040	0.039	0.079
LGV	0.028	0.018	0.046	0.005	0.014	0.019	0.229	0.232	0.461
Total Vehicles	1.195	0.130	1.325	0.072	0.849	0.921	3.599	3.673	7.272

Table 2: Class B2 General Industrial (TRICS - Industrial Units) – Vehicle Trip Rates per 100 sqm GIA

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.004	0.008
Cyclists	0.012	0.000	0.012	0.000	0.016	0.016	0.031	0.024	0.055
Cars	0.326	0.004	0.330	0.012	0.268	0.280	1.146	1.120	2.266
Motorcycle	0.004	0.000	0.004	0.000	0.004	0.004	0.019	0.012	0.031
PSV	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OGV	0.008	0.004	0.012	0.000	0.000	0.000	0.098	0.085	0.183

LGV	0.058	0.012	0.070	0.000	0.012	0.012	0.337	0.324	0.661
Total Vehicles	0.396	0.020	0.416	0.012	0.284	0.296	1.604	1.545	3.149

Table 3: Class B8 Storage and Distribution (TRICS Warehousing (Commercial)) – Vehicle Trip Rates per 100 sqm GIA

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0.001	0.001	0.002	0.002	0.002	0.004	0.016	0.015	0.031
Cyclists	0.006	0.000	0.006	0.000	0.005	0.005	0.037	0.028	0.065
Cars	0.114	0.026	0.140	0.033	0.110	0.143	0.868	0.921	1.789
Motorcycle	0.001	0.000	0.001	0.000	0.003	0.003	0.021	0.017	0.038
PSV	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OGV	0.036	0.058	0.094	0.060	0.023	0.083	0.556	0.553	1.109
LGV	0.029	0.022	0.051	0.008	0.012	0.020	0.201	0.205	0.406
Total Vehicles	0.181	0.107	0.288	0.103	0.150	0.253	1.662	1.711	3.373

Table 4: Class B8 Storage and Distribution (Parcel Distribution) – Vehicle Trip Rates per 100 sqm GIA

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0.000	0.000	0.000	0.000	0.000	0.000	0.049	0.049	0.098
Cyclists	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cars	0.048	0.048	0.096	0.067	0.152	0.219	1.128	1.020	2.148
Motorcycle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PSV	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OGV	0.038	0.162	0.200	0.152	0.095	0.247	1.722	1.596	3.318
LGV	0.067	0.143	0.210	0.152	0.124	0.276	0.961	0.999	1.960
Total Vehicles	0.153	0.353	0.506	0.371	0.371	0.742	3.860	3.664	7.524

1.10 Based upon a review of the above trip rates, the following two trip generation scenarios have been identified, which generate the highest level of HGV trips and total vehicle trips respectively for 20,000sqm of unfettered floorspace (without exceeding any of the original full scheme core scenario, land use floorspace caps):

- **Scenario 1** - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution - Parcel. This represents the highest HGV trips that would be generated under Phase 1.
- **Scenario 2** - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and 6,200sqm (31%) B8 Storage & Distribution - Parcel. This represents the highest total vehicle trips that would be generated under Phase 1.

Forecast Trip Generation

Scenario 1 - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution – Parcel – Highest HGV Trips

The forecast trip generation generated by this floorspace proportion is detailed in **Tables 5-7** below for the two land uses, and the total floorspace combined.

Table 5: Proposed Development Scenario 1 - 54% (10,800sqm) B8 – Storage and Distribution – Warehousing – Vehicle Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0	0	0	0	0	0	2	2	3
Cyclists	1	0	1	0	1	1	4	3	7
Cars	12	3	15	4	12	15	94	99	193
Motorcycle	0	0	0	0	0	0	2	2	4
OGV	4	6	10	6	2	9	60	60	120
LGV	3	2	6	1	1	2	22	22	44
Total Vehicles	20	12	31	11	16	27	179	185	364
Percentage HGVs	19.9%	54.2%	32.6%	58.3%	15.3%	32.8%	33.5%	32.3%	32.9%

Table 6: Proposed Development Scenario 1 – 46% (9,200 sqm) B8 Storage and Distribution – Parcel Distribution – Vehicle Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0	0	0	0	0	0	5	5	9
Cyclists	0	0	0	0	0	0	0	0	0
Cars	4	4	9	6	14	20	104	94	198
Motorcycle	0	0	0	0	0	0	0	0	0
PSV	0	0	0	0	0	0	0	0	0
OGV	3	15	18	14	9	23	158	147	305
LGV	6	13	19	14	11	25	88	92	180
Total Vehicles	14	32	47	34	34	68	355	337	692
Percentage HGVs	24.8%	45.9%	39.5%	41.0%	25.6%	33.3%	44.6%	43.6%	44.1%

Table 7: Proposed Development Scenario 1 – Total Vehicle Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0	0	0	0	0	0	6	6	12
Cyclists	1	0	1	0	1	1	4	3	7
Cars	17	7	24	10	26	36	198	193	391
Motorcycle	0	0	0	0	0	0	2	2	4
PSV	0	0	0	0	0	0	0	0	0
OGV	7	21	29	20	11	32	218	207	425
LGV	9	16	25	15	13	28	110	114	224
Total Vehicles	34	44	78	45	50	96	535	522	1056
Percentage HGVs	22.0%	48.1%	36.8%	45.2%	22.3%	33.2%	40.9%	39.6%	40.2%

Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and 6,200sqm (31%) B8 Storage & Distribution – Parcel – Highest Total Vehicle Trips

1.11 The forecast trip generation generated by this floorspace proportion is detailed in Tables **8-10** below for the two land uses, and the total floorspace combined.

Table 8: Proposed Development Scenario 2 – 69% (13,800sqm) Class E (g) (ii) R&D and (iii) Industrial Processes Use – Vehicle Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	2	1	3	0	0	1	6	7	13
Cyclists	18	2	20	3	15	18	66	59	125
Cars	158	13	171	8	113	121	446	456	903
Motorcycle	1	0	1	0	1	1	3	2	6
PSV	1	1	1	0	1	1	4	4	7
OGV	0	0	1	0	0	0	6	5	11
LGV	4	2	6	1	2	3	32	32	64
Total Vehicles	165	18	183	10	117	127	497	507	1004
Percentage HGVs	0.6%	5.4%	1.1%	4.2%	0.6%	0.9%	1.8%	1.8%	1.8%

Table 9: Proposed Development Scenario 2 – 31% (6,200 sqm) B8 Storage and Distribution – Parcel Distribution – Vehicle Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	0	0	0	0	0	0	3	3	6
Cyclists	0	0	0	0	0	0	0	0	0
Cars	3	3	6	4	9	14	70	63	133
Motorcycle	0	0	0	0	0	0	0	0	0
PSV	0	0	0	0	0	0	0	0	0
OGV	2	10	12	9	6	15	107	99	206
LGV	4	9	13	9	8	17	60	62	122
Total Vehicles	9	22	31	23	23	46	239	227	466
Percentage HGVs	24.8%	45.9%	39.5%	41.0%	25.6%	33.3%	44.6%	43.6%	44.1%

Table 10: Proposed Development Scenario 2 – Total Vehicle Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00 - 18:00)			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Taxi	2	1	3	0	0	1	10	10	19
Cyclists	18	2	20	3	15	18	66	59	125
Cars	161	16	177	12	123	135	516	520	1036
Motorcycle	1	0	1	0	1	1	3	2	6
PSV	1	1	1	0	1	1	4	4	7
OGV	3	10	13	9	6	15	112	104	217
LGV	8	11	19	10	10	20	91	94	185
Total Vehicles	174	40	214	33	140	173	736	734	1470
Percentage HGVs	1.9%	27.6%	6.7%	29.9%	4.7%	9.5%	15.7%	14.7%	15.2%

Proposed Flow Distribution Diagrams

1.12 The proposed traffic flow distribution assumptions and Passenger Car Unit (PCU) calculation assumptions are identical to those outlined in the June 2025 TA. The following factors were applied to convert vehicle flows to PCU's:

- Cars/ motorcycles, taxis and LGVs = 1 PCU (motorcycles were included as 1 PCU as opposed to 0.4 PCU given the low level of motorcycle flows.
- HGV/ PSV = 2.3 PCUs

1.13 The following Appendices include the vehicle and PCU distribution diagrams.

- **Appendix A** - Total Proposed Development AM and PM peak total vehicle flows (including % HGVs), for both scenarios (Scenarios 1 and 2).
- **Appendix B** - Proposed Development PCU diagrams, for each vehicle mode and total PCU's, for both scenarios.
- **Appendix C** – 2028 Future Baseline (without Development) – vehicle flow diagrams. These are identical to those included in the original June 2025 TA.

- **Appendix D** – 2028 Future Baseline (without Development) – PCU diagrams. These are identical to those included in the original June 2025 TA.
- **Appendix E** – 2028 Future Baseline (with Development) – vehicle flow diagrams for both scenarios.
- **Appendix F** – 2028 Future Baseline (with Development) – PCU diagrams for both scenarios.

Junction Capacity Modelling Assessments

Overview

- 1.14 The junction capacity modelling assessments have been undertaken using the J9 ARCADY industry standard local junction modelling software package.
- 1.15 The assessments have been undertaken for both Scenarios 1 and 2, assuming the existing A335/ Wide Lane Roundabout junction layout:
- **Scenario 1** - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution - Parcel. This represents the highest HGV trips that would be generated under Phase 1.
 - **Scenario 2** - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and 6,200sqm (31%) B8 Storage & Distribution - Parcel. This represents the highest total vehicle trips that would be generated under Phase 1.
- 1.16 The 2028 Baseline (without development) modelling outputs are re-provided for comparison purposes, with the results replicating those previously included in the 12 December 2025 Modelling Technical Note. The full model outputs were included in **Appendix G** of that Technical Note.
- 1.17 The assessments have been undertaken including the Lane Simulation function.

Junction Capacity Assessment Modelling Results

- 1.18 The junction capacity modelling results for the 2028 Baseline and Scenarios 1 and 2 are included In **Table 11** for the AM peak and **Table 12** for the PM peak. These present the Ratio of Flow to Capacity (RFC) and Queue (PCUs).
- 1.19 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% RFC it is considered to be at practical capacity and when it reaches 100%, at theoretical capacity.
- 1.20 The relationship between queues and RFC is such that queues begin to increase significantly at a high RFC (>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% RFC) queues and delays increase at an exponential (non-linear) rate.

Table 11 - Forecast Results –A335/ Wide Lane Roundabout – AM Peak using Lane Simulation

Scenario	Lane	Max RFC	Delay (s)	Max Queue (PCU)
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
	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 – Scenario 1	1/1 - Wide Lane (NE)	0.39	8.16	0.70
	1/2 - Wide Lane (NE)	0.87	44.24	8.00
	2/1 - Wide Lane (S)	0.72	19.31	3.30
	2/2 - Wide Lane (S)	0.77	21.87	3.70
	3/1 - A335 (NW)	1.05	134.38	35.60
	3/2 - A335 (NW)	0.90	46.44	9.90
2028 Baseline + Proposed Development Scenario 2	1/1 - Wide Lane (NE)	0.43	9.32	0.90
	1/2 - Wide Lane (NE)	0.88	45.64	8.90
	2/1 - Wide Lane (S)	0.69	17.70	3.20
	2/2 - Wide Lane (S)	0.78	19.71	3.60
	3/1 - A335 (NW)	1.06	146.43	37.20
	3/2 - A335 (NW)	1.01	100.21	26.30

Table 12: Forecast Results –A335/ Wide Lane Roundabout – PM Peak using Lane Simulation

Scenario	Lane	Max RFC	Delay (s)	Max 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 – Scenario 1	1/1 - Wide Lane (NE)	0.50	9.97	1.10
	1/2 - Wide Lane (NE)	1.07	157.52	40.10
	2/1 - Wide Lane (S)	0.92	52.18	10.30
	2/2 - Wide Lane (S)	0.51	9.76	1.10
	3/1 - A335 (NW)	0.81	21.76	4.40
	3/2 - A335 (NW)	0.81	22.13	5.00
2028 Baseline + Proposed Development Scenario 2	1/1 - Wide Lane (NE)	0.50	9.47	1.10
	1/2 - Wide Lane (NE)	1.06	140.57	35.30
	2/1 - Wide Lane (S)	1.02	110.15	24.80
	2/2 - Wide Lane (S)	0.51	10.24	1.00
	3/1 - A335 (NW)	0.81	23.03	4.40
	3/2 - A335 (NW)	0.78	18.58	3.50

1.21 The HCC Highways response (6 March 2026) confirmed that they regarded the A335/Wide Lane Roundabout north western arm approach to M27 J5 circulation distance to be equivalent to 380m. This equates to 66 PCU's assuming each PCU is 5.75m long. 5.75 PCU is the industry standard accepted unit as stated in Junctions 11 software manual (the default value in the software).

1.22 HCC also stated that the existing flare length on the northwestern arm is approximately 6 PCU long and therefore the queue lengths should be calculated as follows, assuming the combined use of both approach lanes on the northwestern arm and full use of the flare:

Total queue PCU = (Lane 1 queue PCU + Lane 2 queue PCU) – 6 PCU (existing flare length is 6 PCU).

1.23 Applying the above assumptions results in the following queue lengths on the northwestern arm for the various scenarios (see **Table 13**). Note as the PM queues are below the approximate 6 PCU flare length – the PM peak queue length calculations do not assume the above total queue formulae. This reflects the approach applied by HCC in their assessment within the HCC Highways response dated 6 March 2026.

Table 13: Combined Maximum Queue Length on A335/ Wide Lane Roundabout Northwestern Arm (Assuming Traffic Makes Full Use of Approach Flare) – Assuming each PCU = 5.75m

Approach	AM Peak			PM Peak		
	2028 Baseline	2028 Baseline + Dev Sc 1	2028 Baseline + Dev Sc 2	2028 Baseline	2028 Baseline + Dev Sc 1	2028 Baseline + Dev Sc 2
A335 NW Arm	37.5 PCUs (216m)	39.5 PCUs (227m)	57.5 PCUs (331m)	4.2 PCUs (24m)	5.0 PCUs (39m)	4.4 PCUs (25m)

**A335 approach to M25 J5 main circulation (exit) = 63 PCUs (380m)*

- 1.24 This demonstrates in that the highest queue length that will occur on the northwestern arm with 20,000sqm of Navigator Quarter development scenarios tested, will be 331m which is less than the 380m distance from the northwestern A335/ Wide Lane Roundabout entry to the M27 J5 circulation. The maximum queue recorded was for Scenario 2 which was the maximum total vehicle trip generating scenario assuming 20,000sqm of unfettered floorspace (without exceeding any of the agreed full scheme core scenario, land use floorspace caps), so it is considered to be a robust, worse case assessment.
- 1.25 In addition to the above it is also important to note that:
- In the HCC comments (6 March 2026), they advised that the queue could potentially be a rolling queue, which would mean that the end of the queue, is likely to be moving as opposed to being stationary.
 - The A335 exit of the M27 Junction 5, includes a two-lane entry, which subsequently merges into a single lane. The two-lane entry capacity on the exit arm, would be available in reality, but it is not possible to model that layout in Junctions software.
 - Any queuing resulting on the A335/ Wide Lane roundabout is likely to alter some driver behaviour and result in some reassignment of vehicles two other routes, or alternatively other transport modes, which could result in reduced queuing.

Conclusions

- 1.26 This Technical Note forecasts the worse-case total vehicle and HGV trip scenarios associated with the proposed 20,000sqm of unfettered floorspace scenario for the Navigator Quarter development (without exceeding any of the agreed full scheme core scenario, land use floorspace caps) and assesses the impact of these trips on the capacity of the existing A335/ Wide Lane Roundabout layout, and queuing on its northwestern arm.
- 1.27 The junction capacity assessments demonstrate that the highest queue length that will occur on the northwestern arm of the A335/ Wide Lane Roundabout, assuming 20,000sqm of unfettered Navigator Quarter floorspace will be 331m which is less than the 380m distance from the northwestern A335/ Wide Lane Roundabout entry to the M27 J5 circulation.
- 1.28 Therefore, it will be possible to occupy 20,000sqm of Navigator Quarter development, with the existing A335/ Wide Lane Roundabout layout place, without the need to implement the full signalised junction mitigation scheme at that stage.
- 1.29 HCC have also recently commented during discussions that they undertook a high-level assessment and considered that their initial view for the final backstop trigger for implementing the full signalised junction mitigation could be c 46,000sqm of development. However, further modelling would be required post consent to identify the exact final backstop trigger floorspace level. It is proposed to secure that additional work by condition. It is proposed to adopt a monitor

and manage approach post completion of 20,000sqm of the development, involving potential queue length surveys, up until the point the proposed agreed backstop trigger is reached.

Appendices

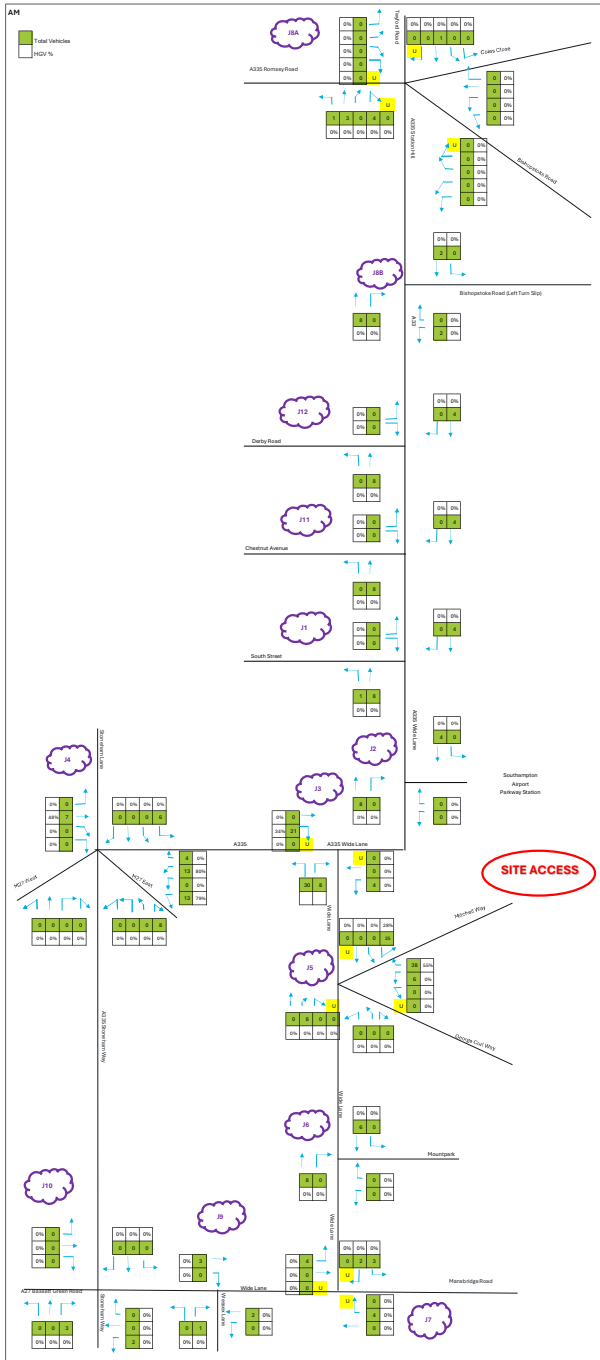
Appendix A - Proposed Development Trips - Vehicle Turning Movement Diagrams

Appendix A1 - Scenario 1 - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution – Parcel – Development Only Vehicle Flows

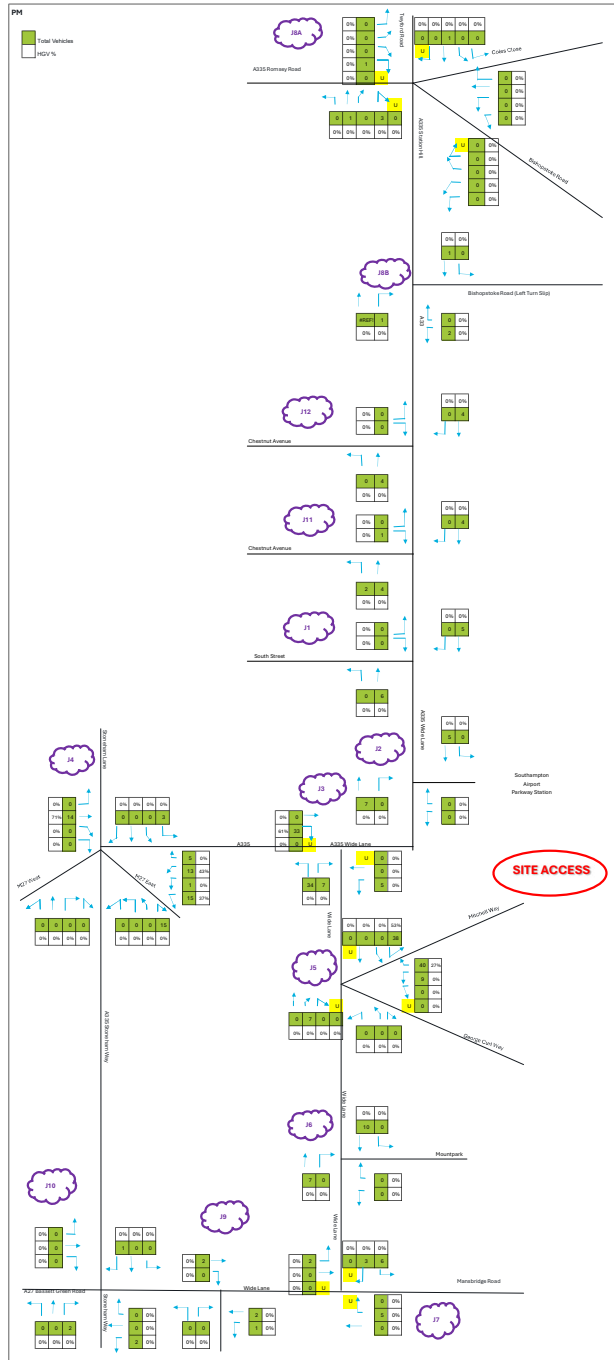
Blowwork & SIAL
24733101 Navigator Quarter Southampton
Scenario 1 - 25,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution - Parcel

Proposed Development Turning Movement Flows

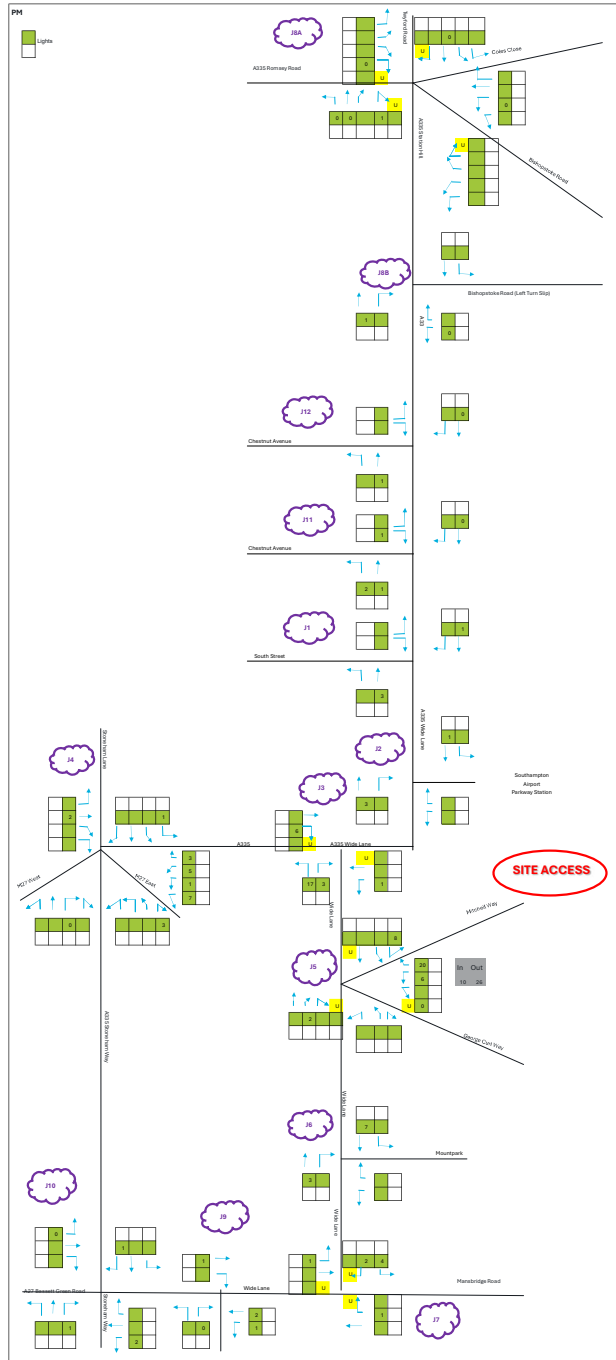
Proposed Development - Total Vehicles



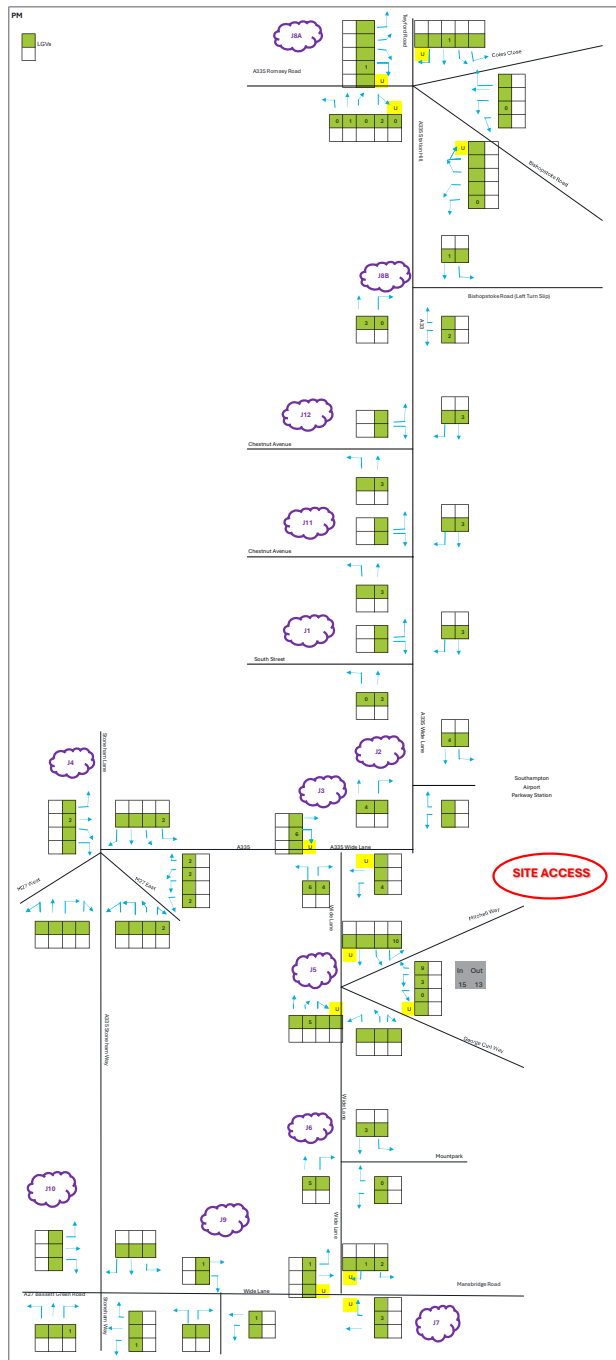
Proposed Development - Total Vehicles



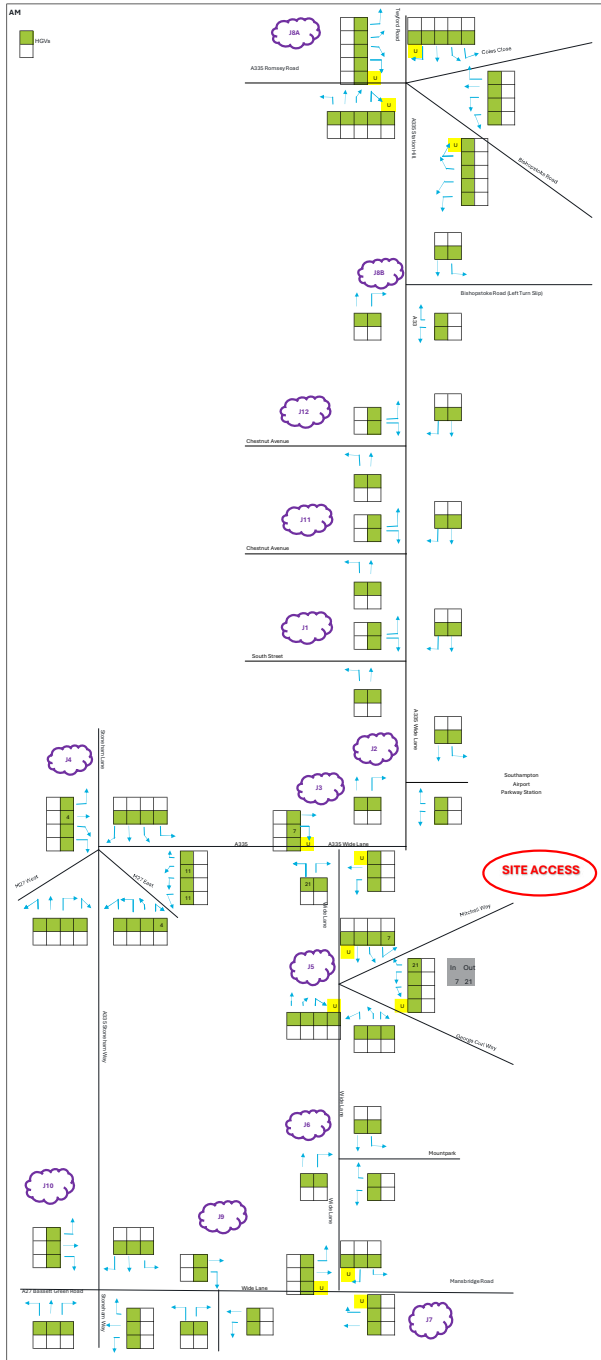
Proposed Development - Light Vehicle Flows (Cars, Motorcycles, Taxis)



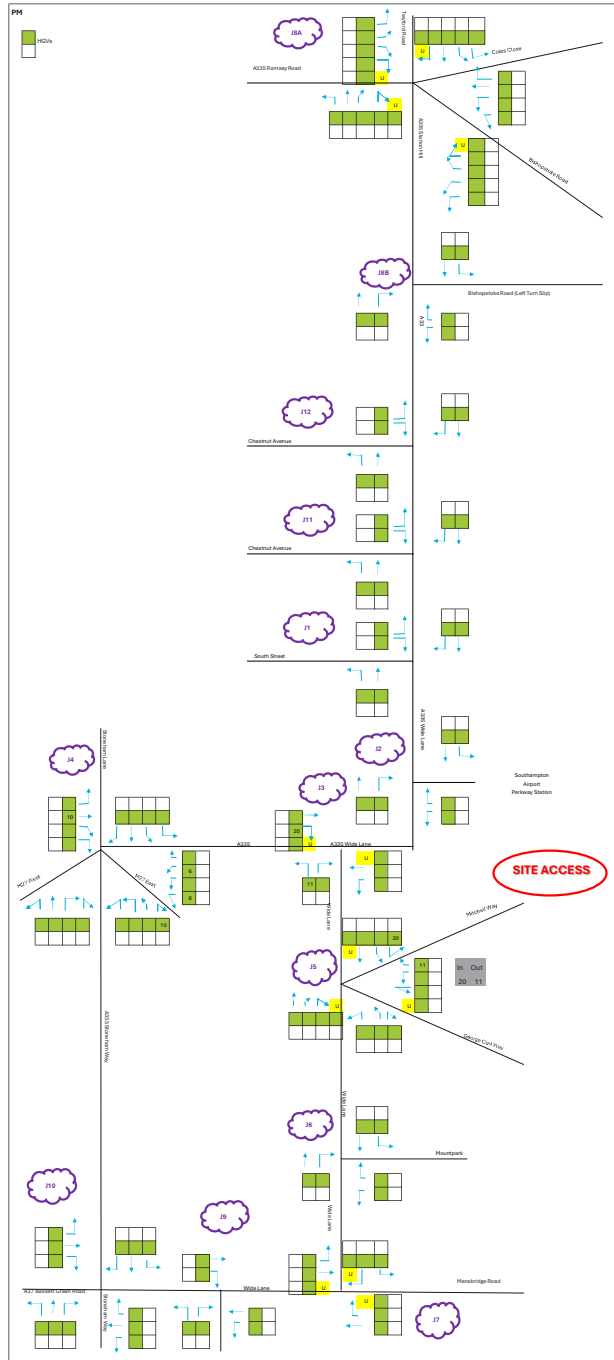
Proposed Development - LGVs



Proposed Development - HGVs



Proposed Development - HGVs



**Appendix A2 - Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and
6,200sqm (31%) B8 Storage & Distribution – Parcel – Development Only Vehicle Flows**

Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and 6,200sqm (31%) B8 Storage & Distribution - Parcel

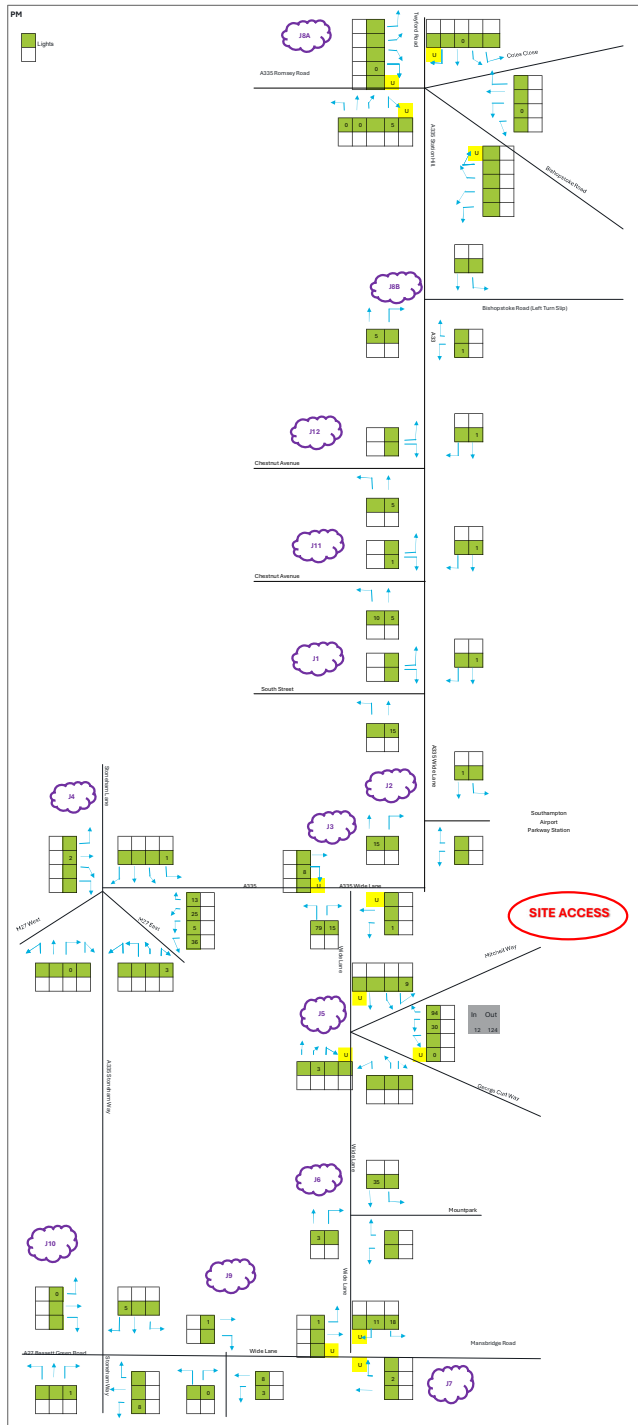
Proposed Development - Total Vehicles



PM

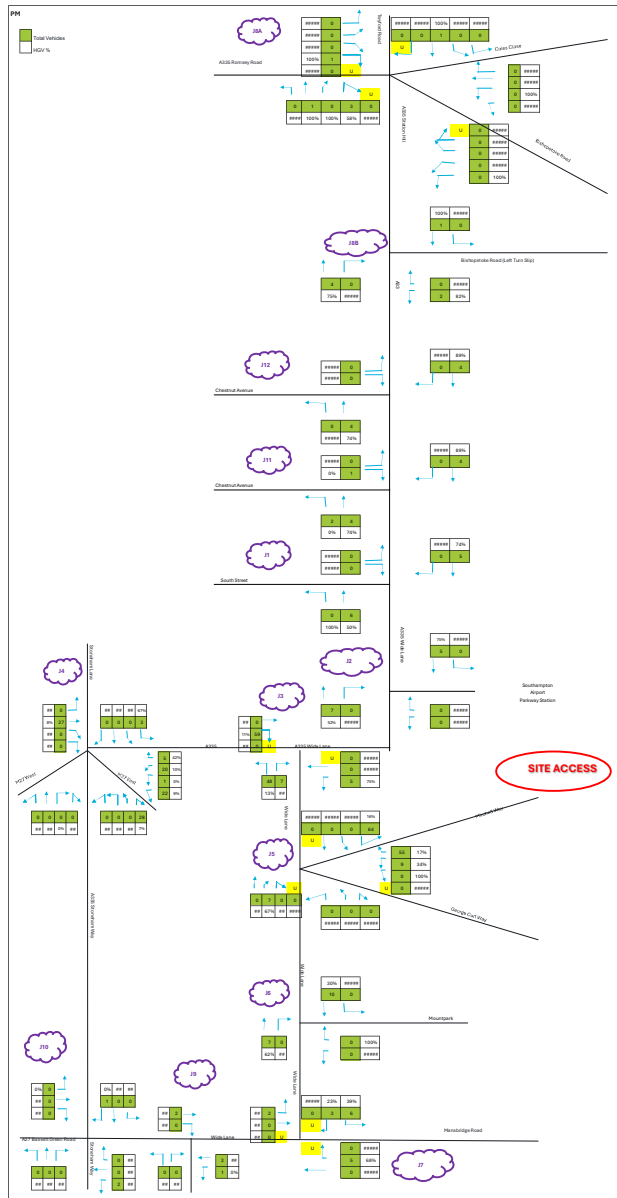
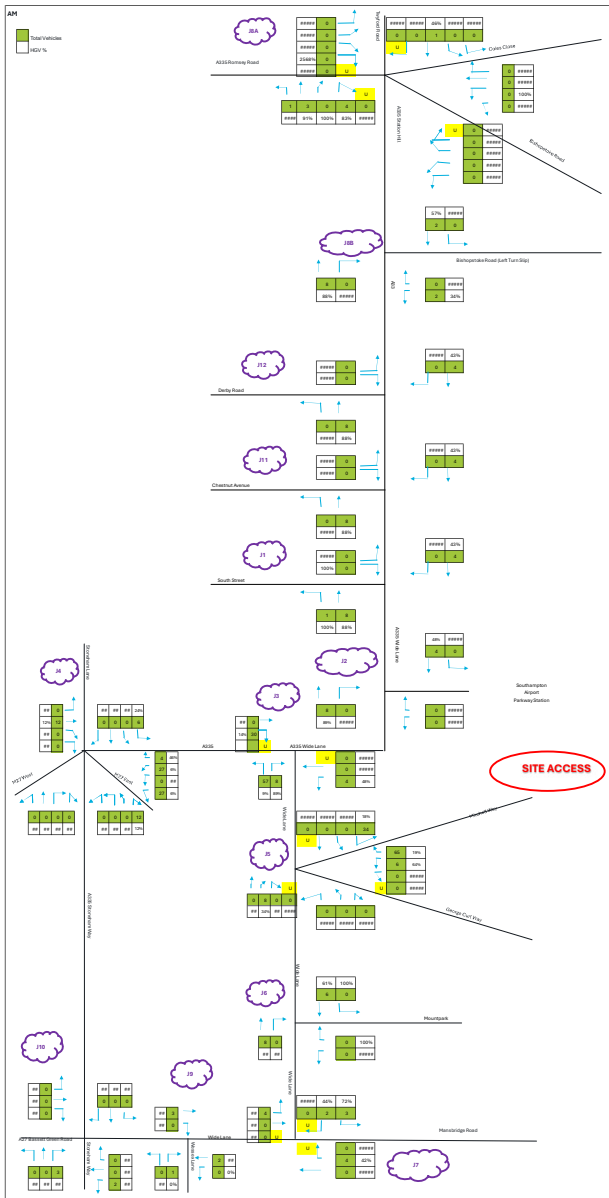


Proposed Development - Light Vehicle Flows (Cars, Motorcycles, Taxis)

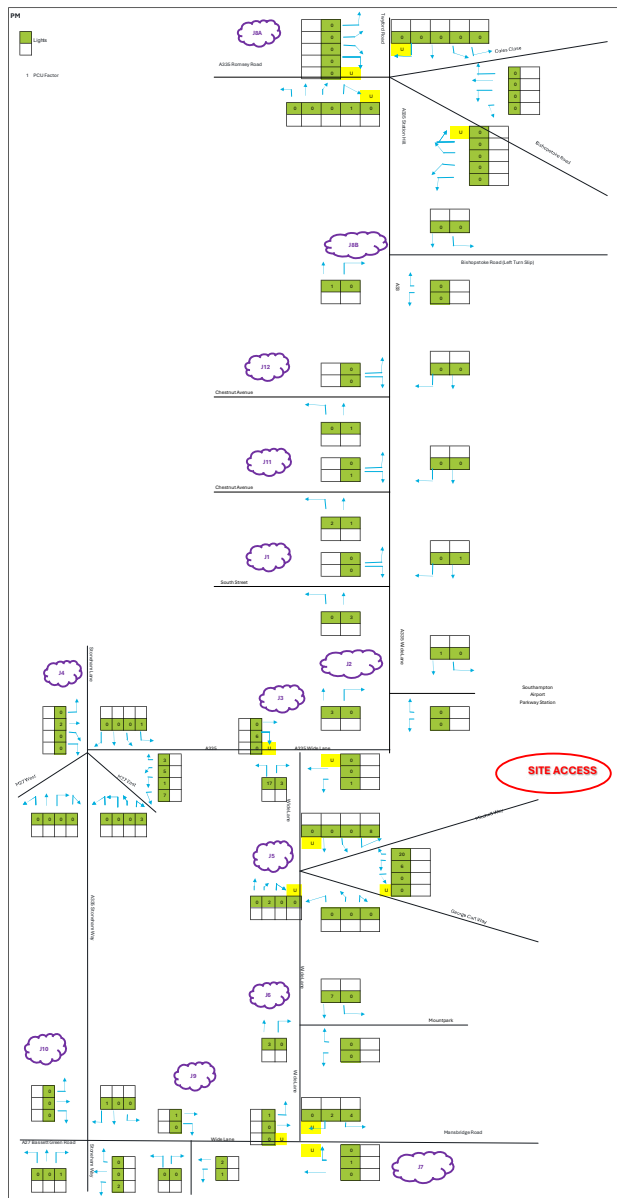


Appendix B – Proposed Development Trips - PCU Turning Movement Diagrams

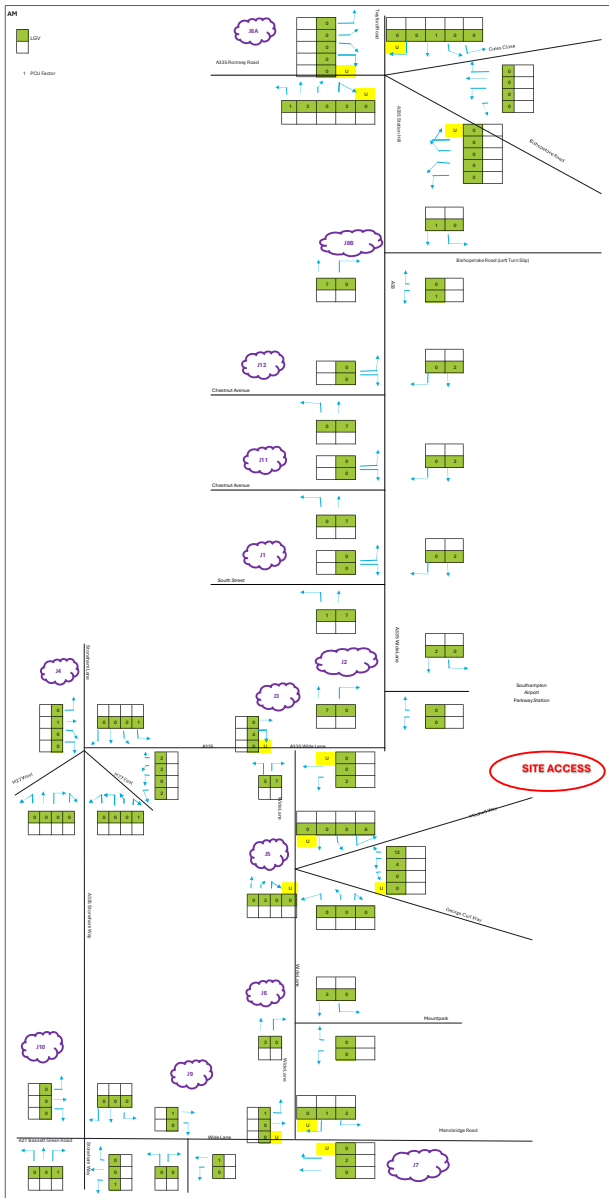
Appendix B1 - Scenario 1 - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution – Parcel – Development Only PCU Flows



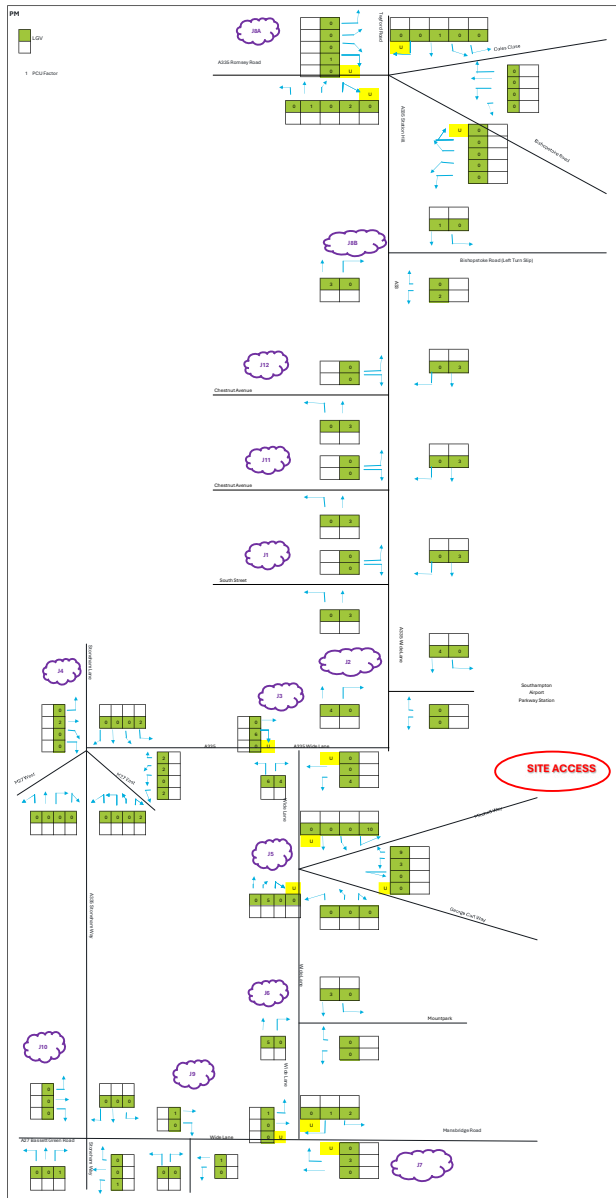
Proposed Development Baseline - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



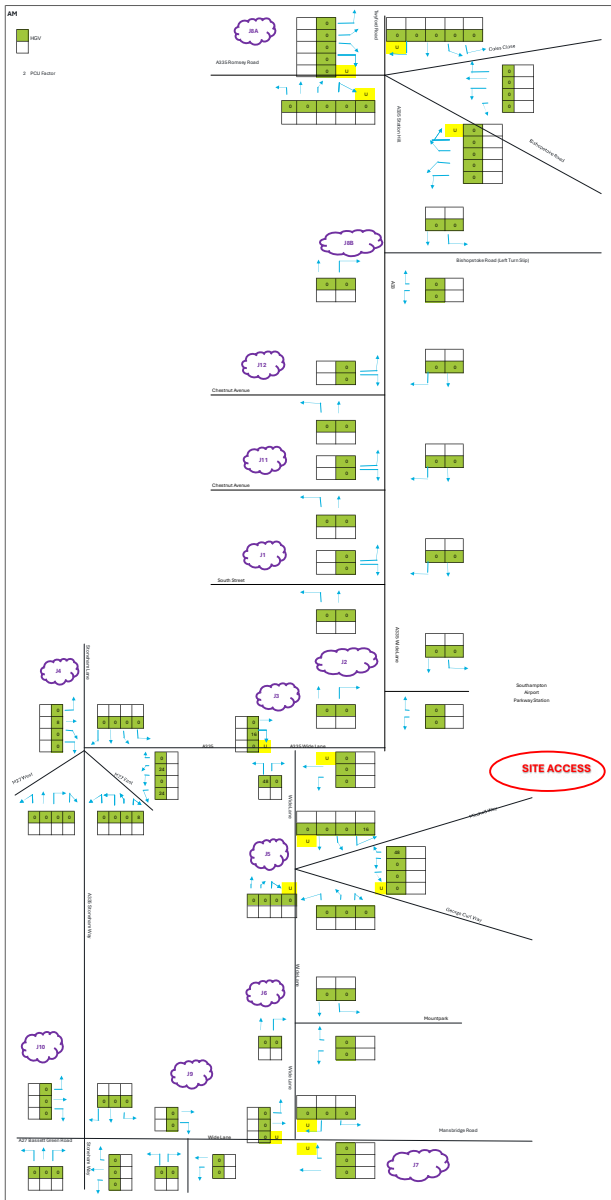
Proposed Development Baseline - LGVs/PCUs



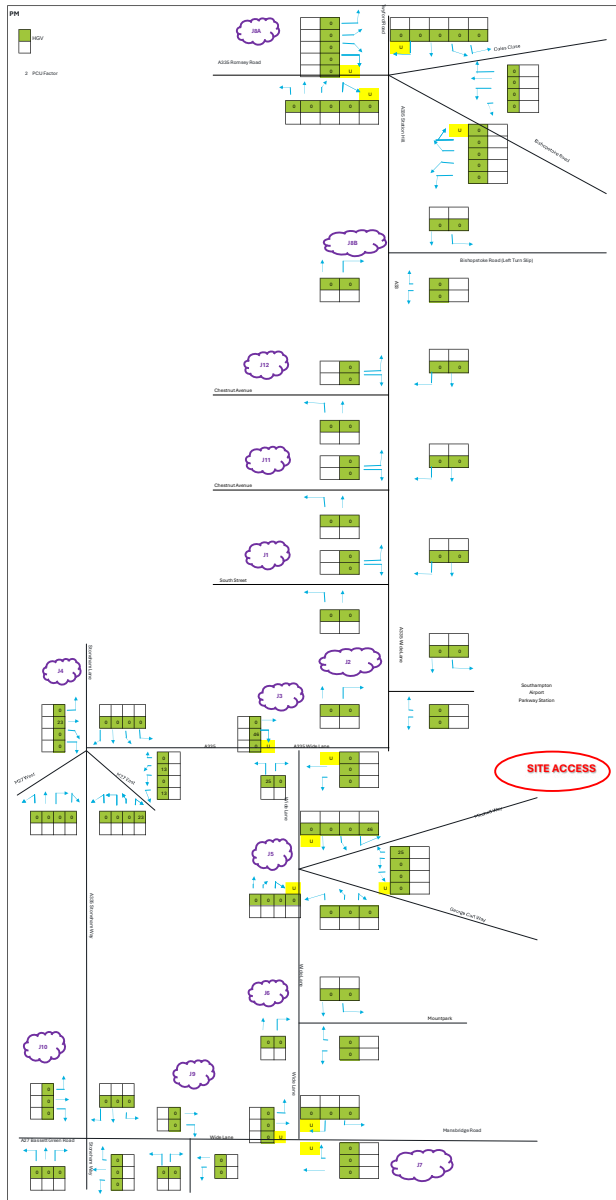
Proposed Development Baseline - LGVs/PCUs



Proposed Development - HDVs PCUS



Proposed Development - HDVs PCUS

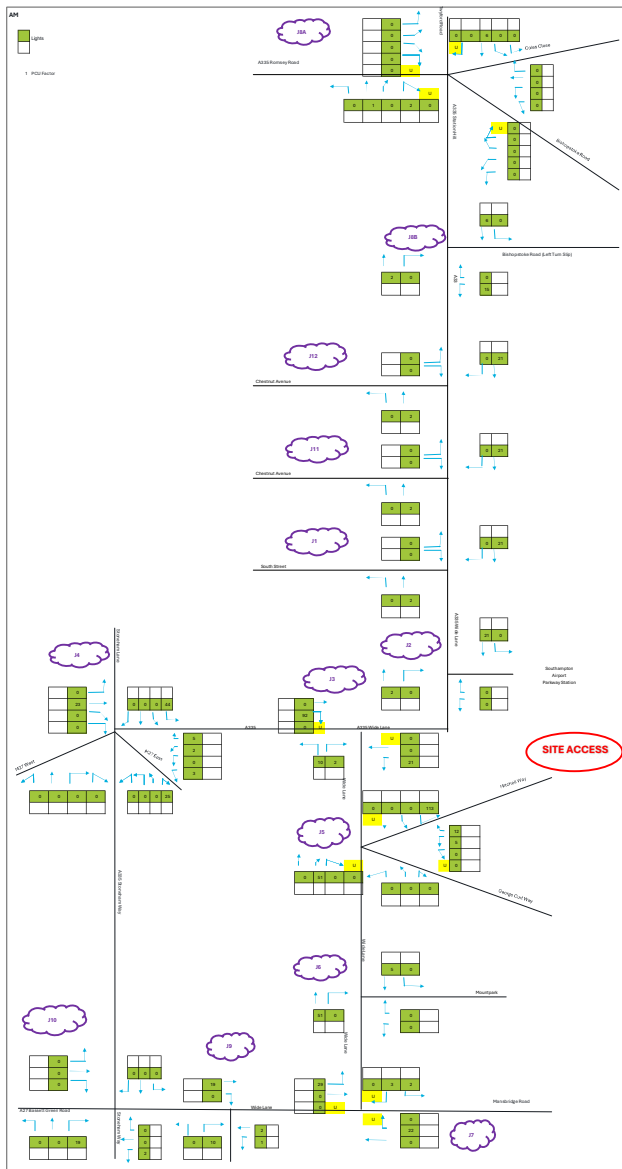


**Appendix B2 - Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and
6,200sqm (31%) B8 Storage & Distribution – Parcel – Development Only PCU Flows**

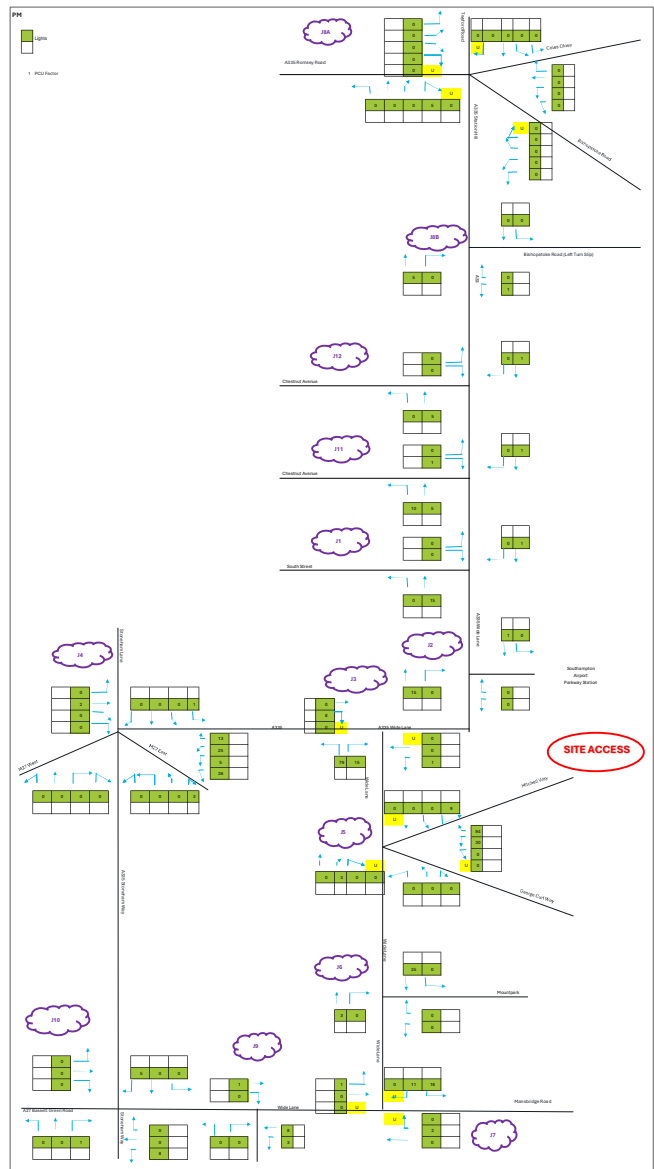
AM



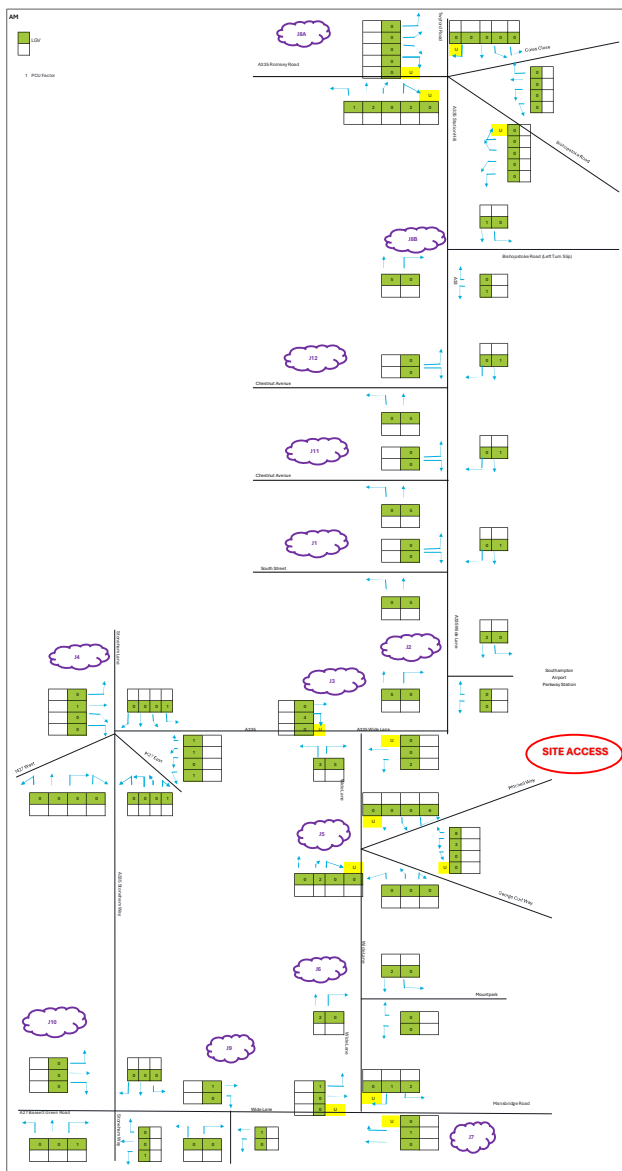
Proposed Development Baseline - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



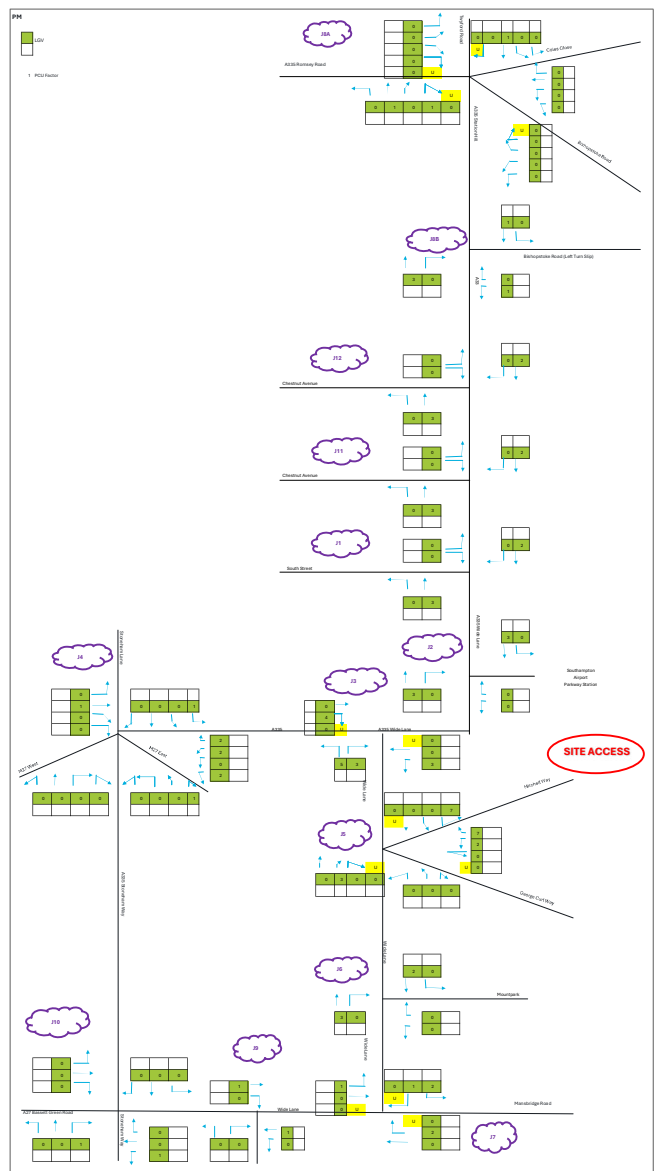
Proposed Development Baseline - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



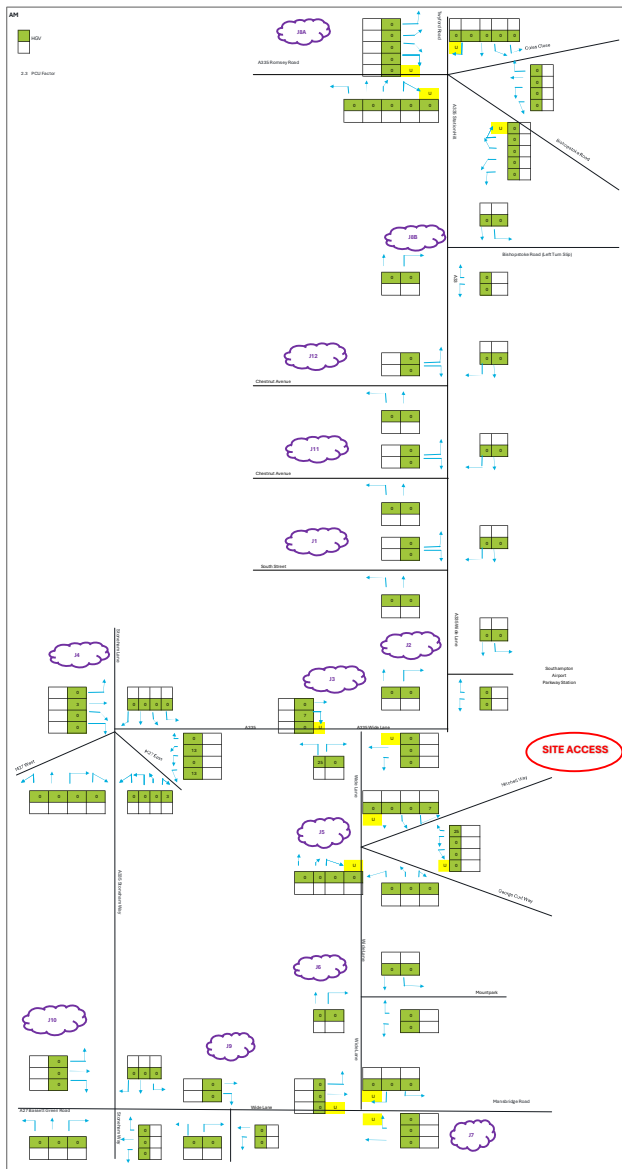
Proposed Development Baseline - LDVs PCUs



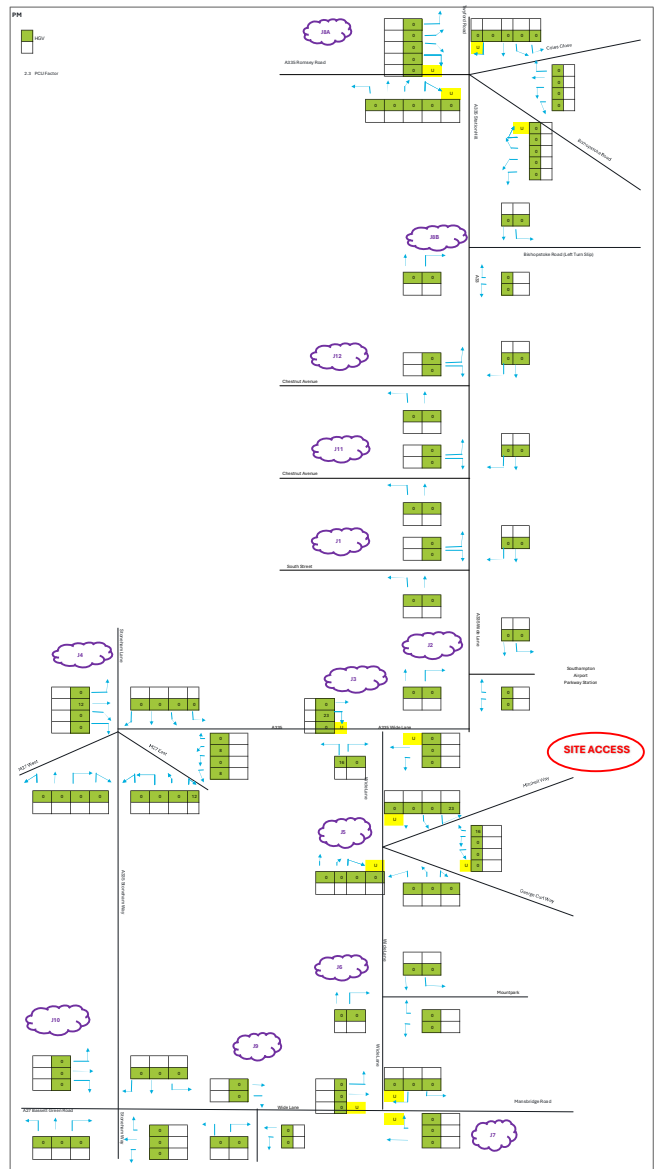
Proposed Development Baseline - LDVs PCUs



Proposed Development - HDVs PCUS



Proposed Development - HDVs PCUS

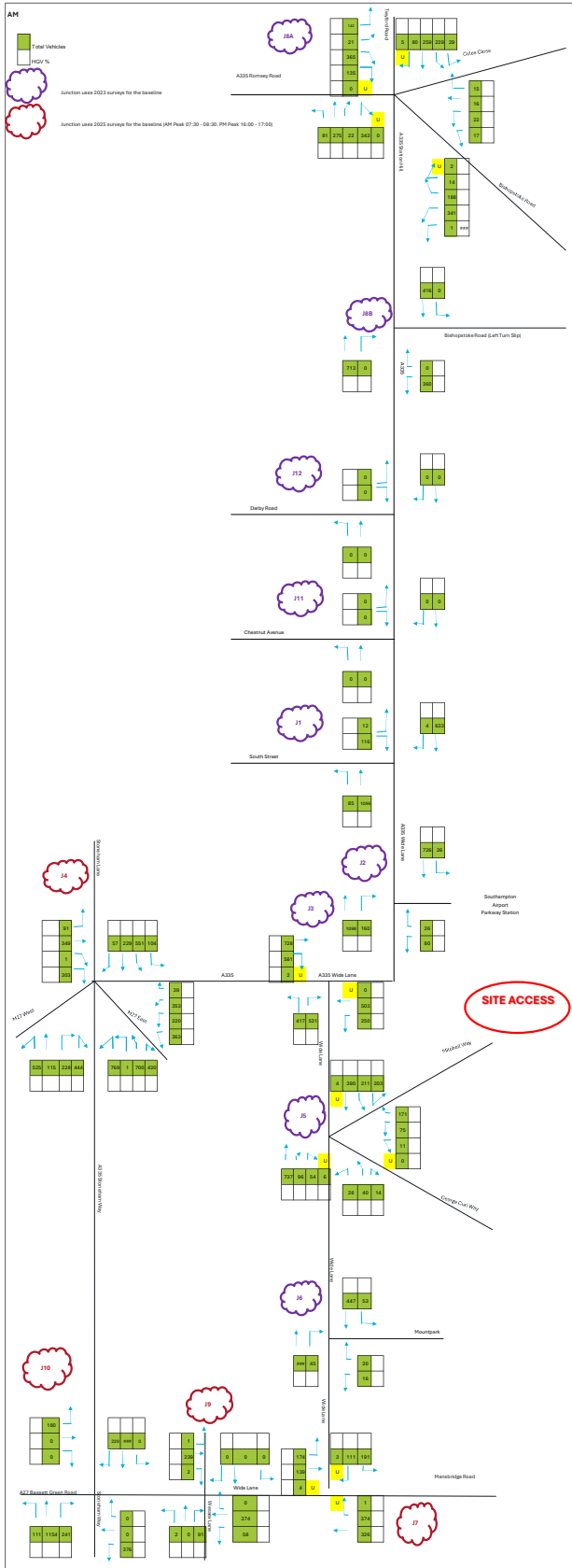


Appendix C – 2028 Baseline - Vehicle Turning Movement Diagrams

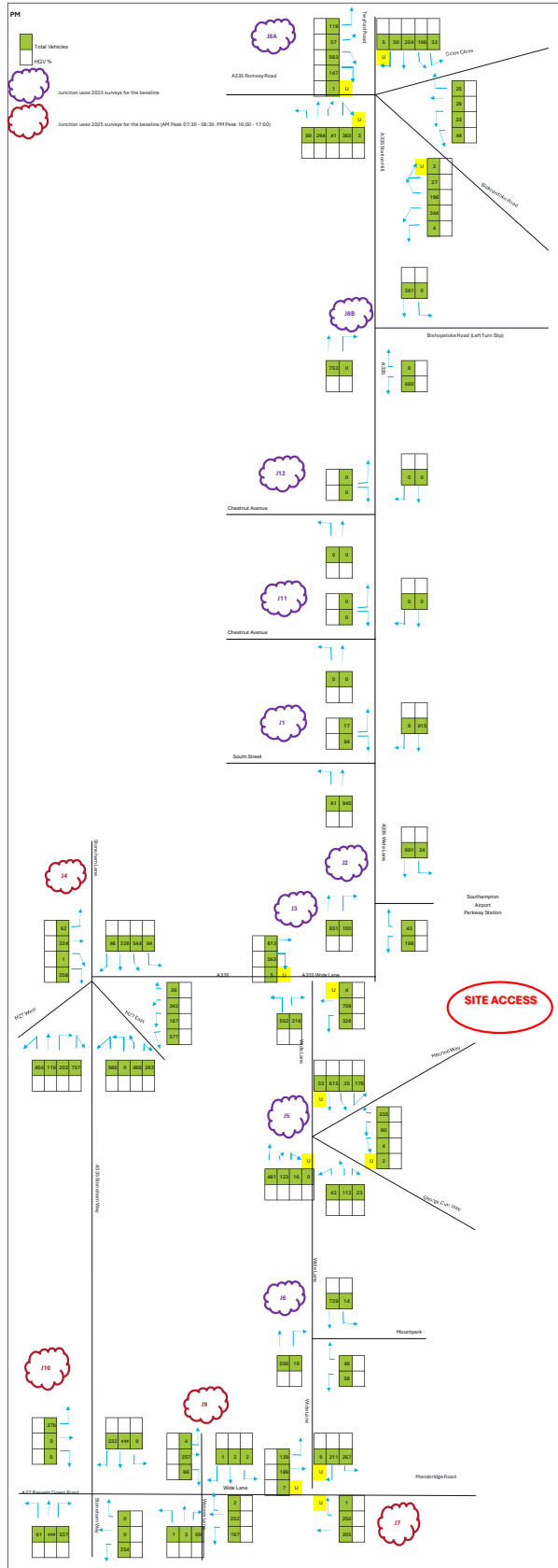
Blowwork & SIAL
24733101 Navigator Quarter Southampton

2028 Baseline Turning Movement Flows - Vehicles

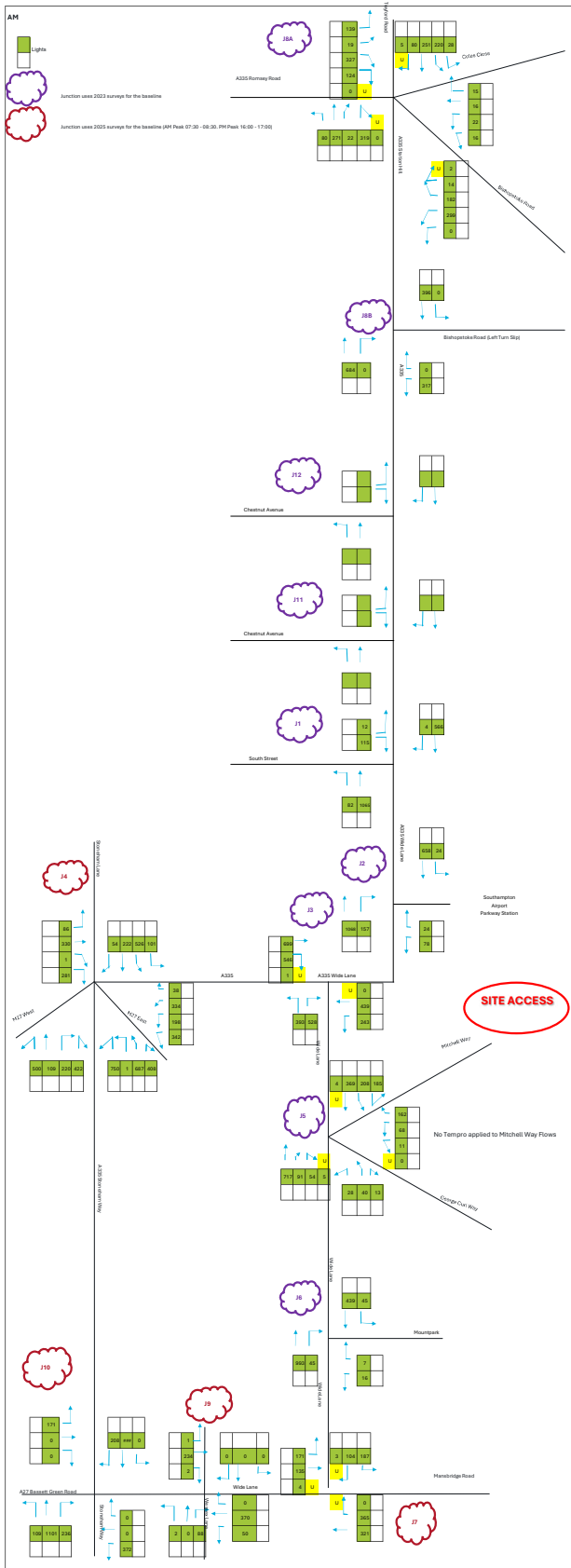
2028 Baseline - Total Vehicles



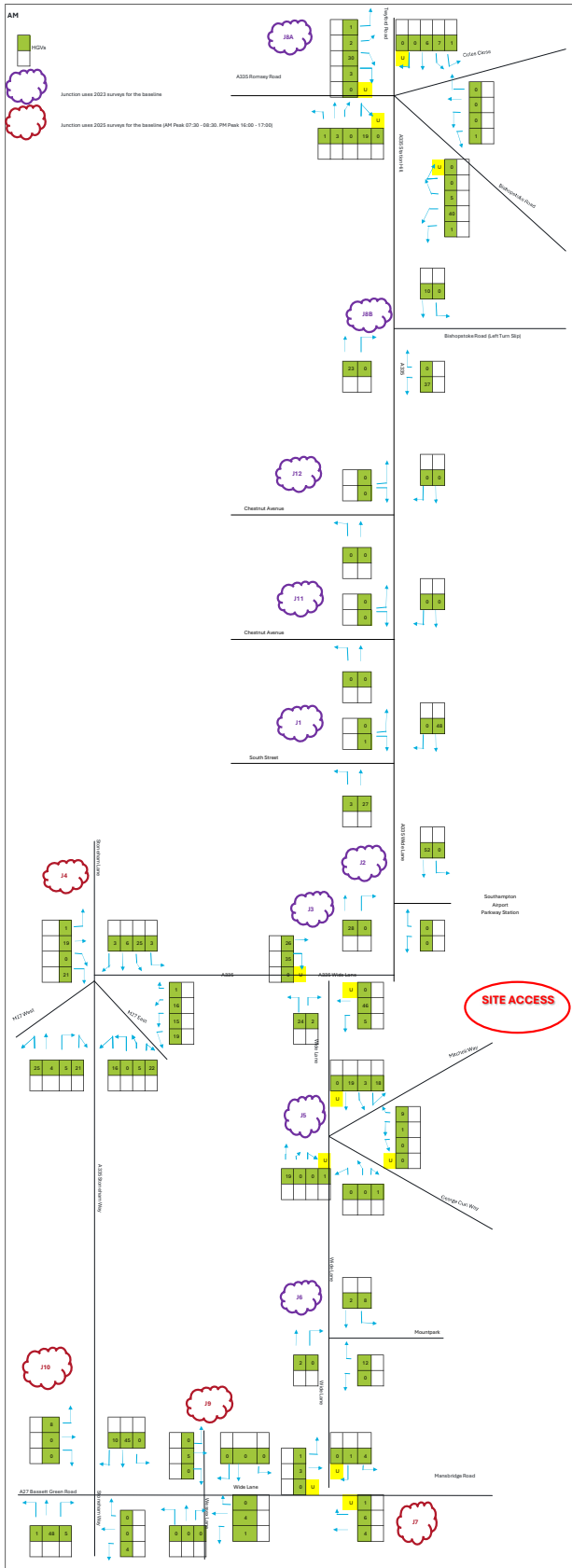
2028 Baseline - Total Vehicles



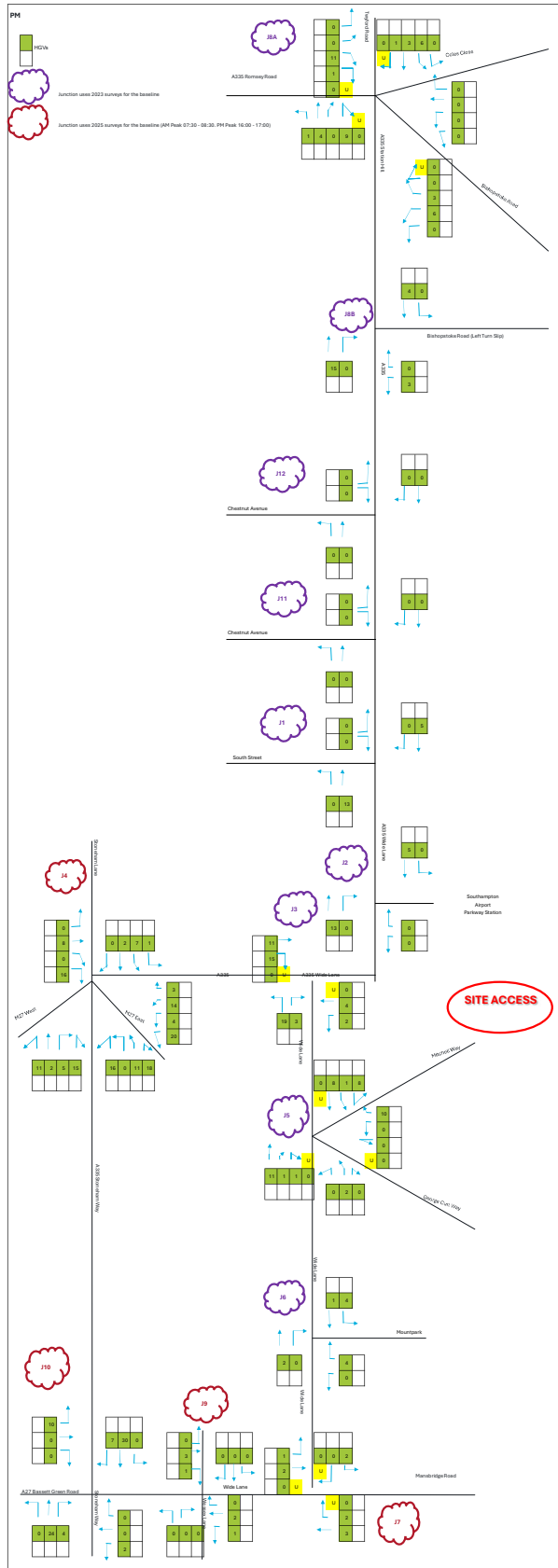
2028 Baseline - Light Vehicle (Cars, Motorcycles, Taxis, LGVs)



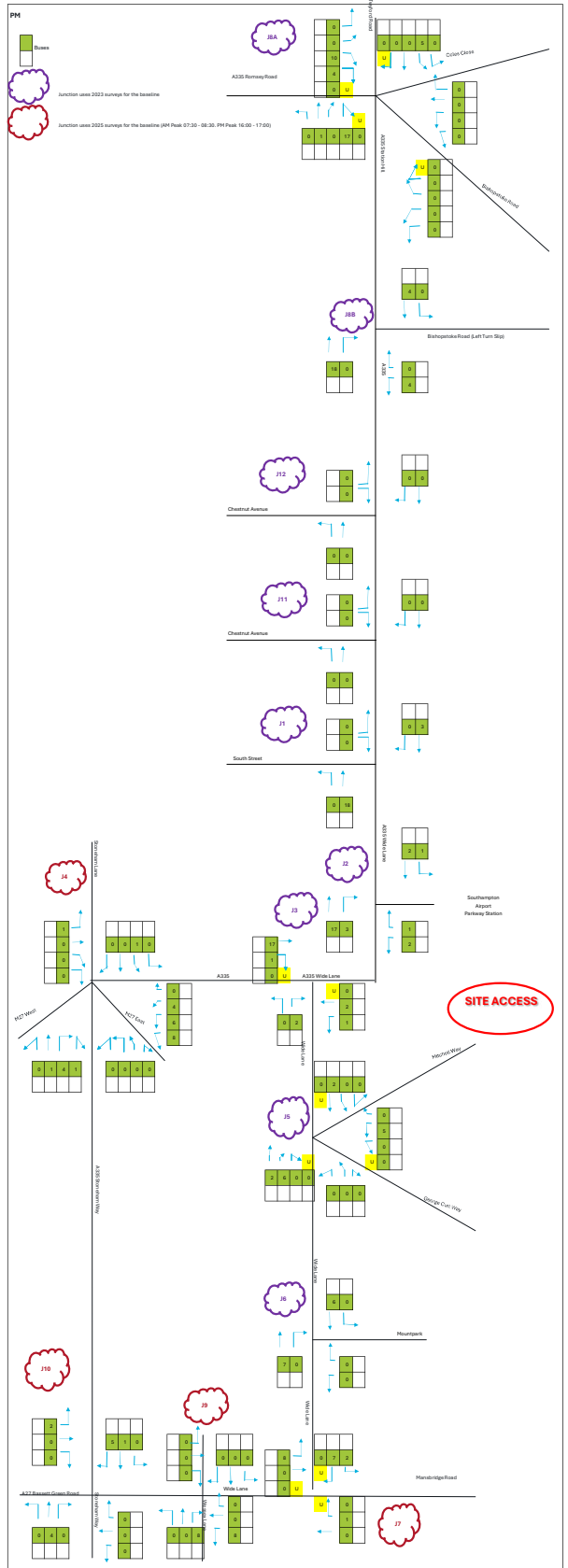
2028 Baseline - HGVs



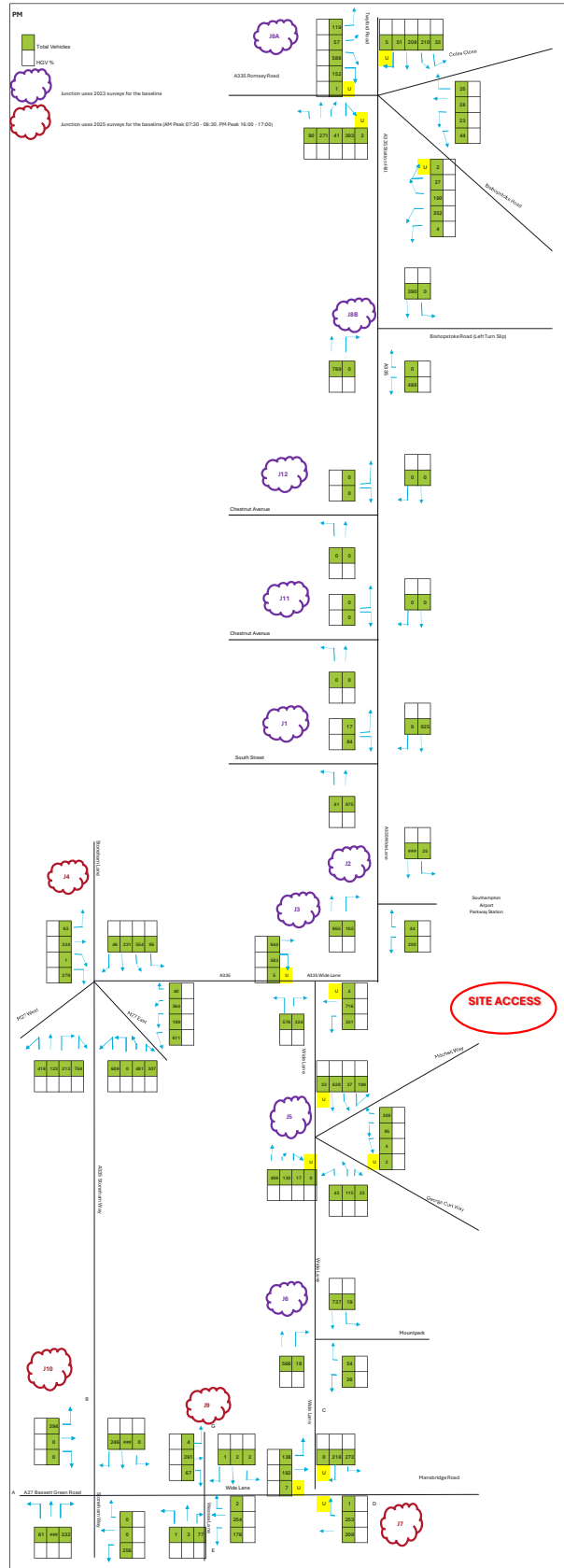
2028 Baseline - HGVs



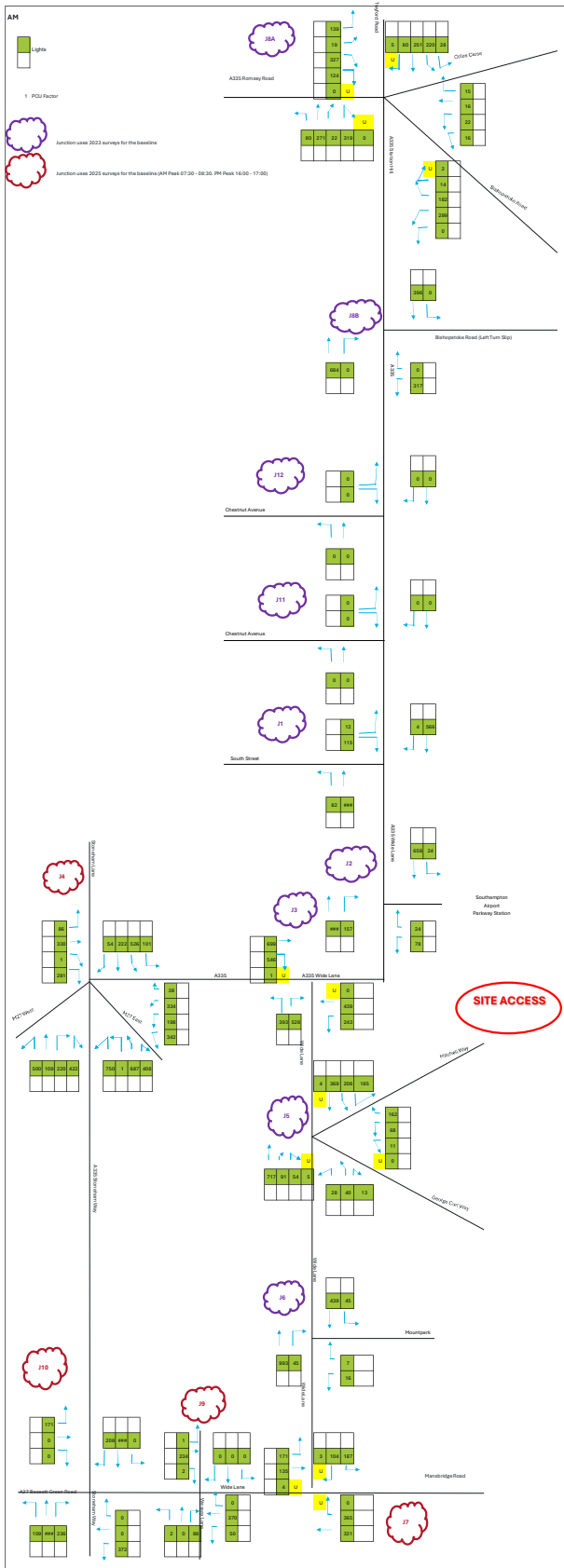
2028 - Baseline Buses



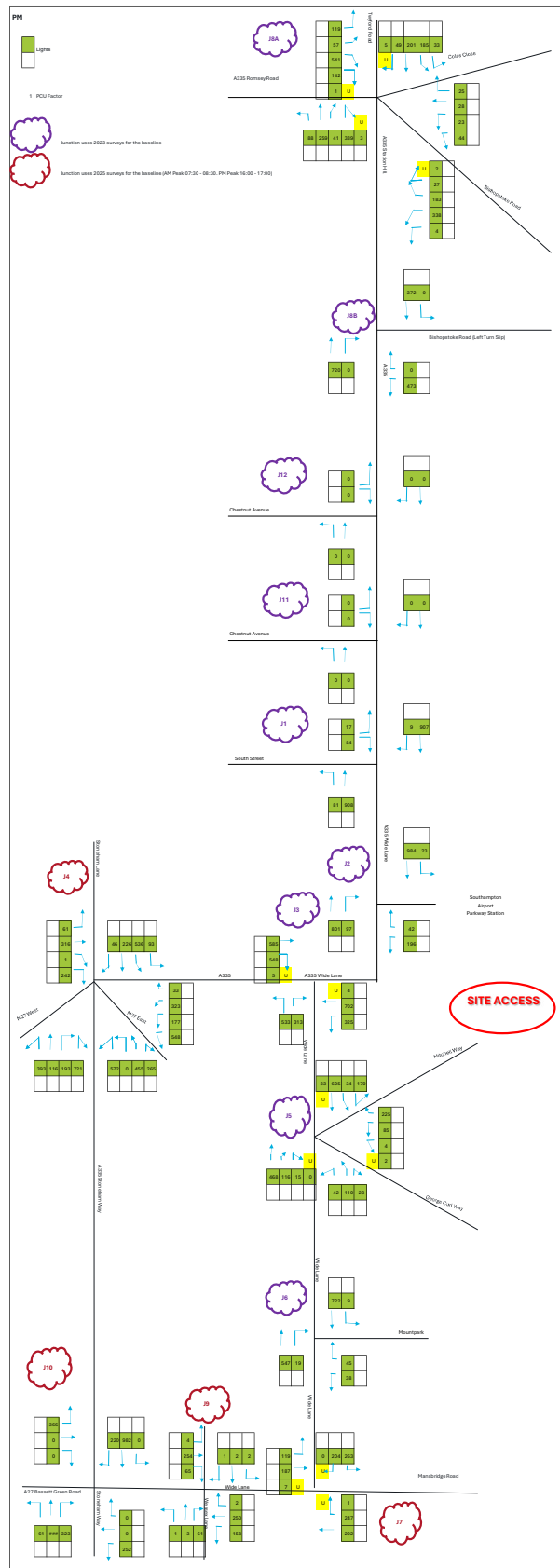
Appendix D – 2028 Baseline – PCU Turning Movement Diagrams



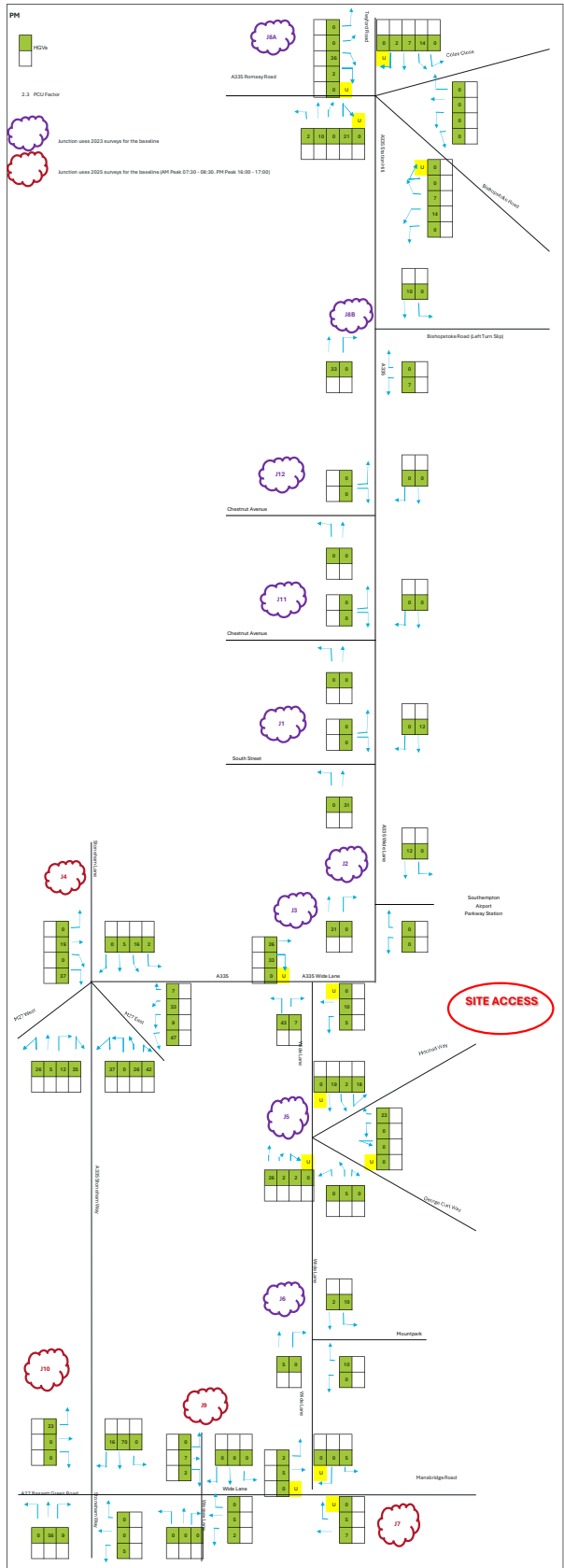
2028 Baseline - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



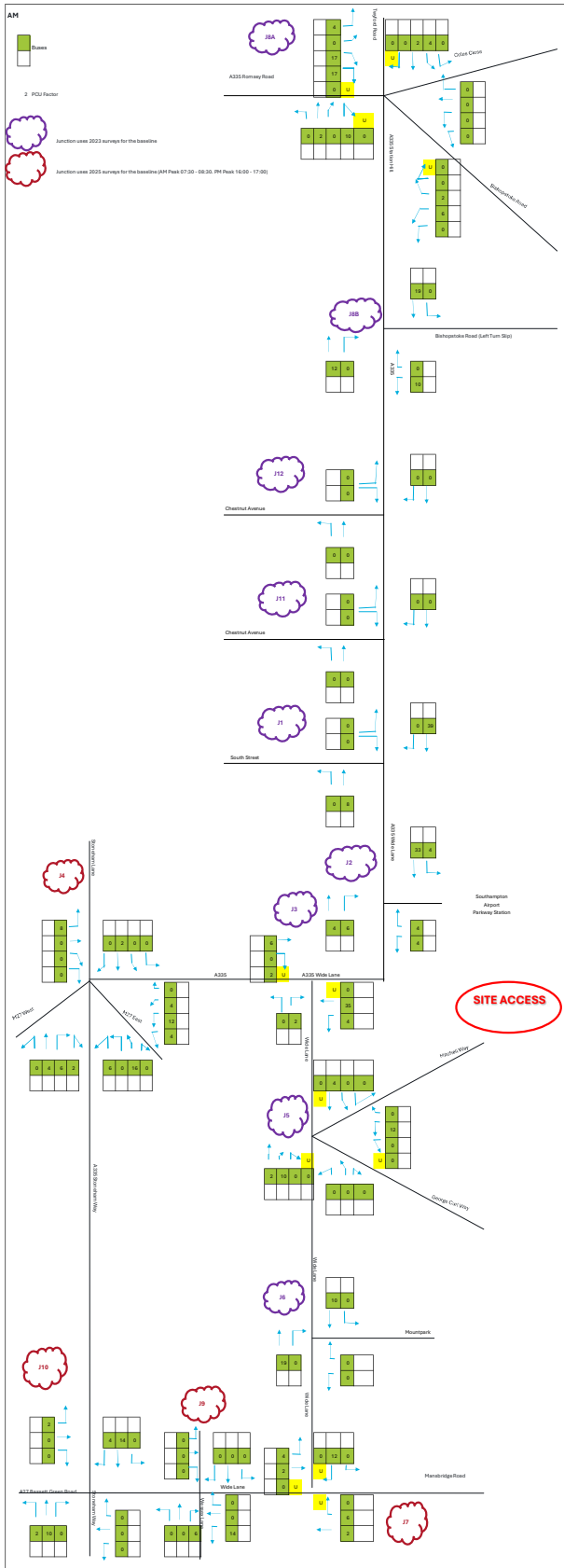
2028 Baseline - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



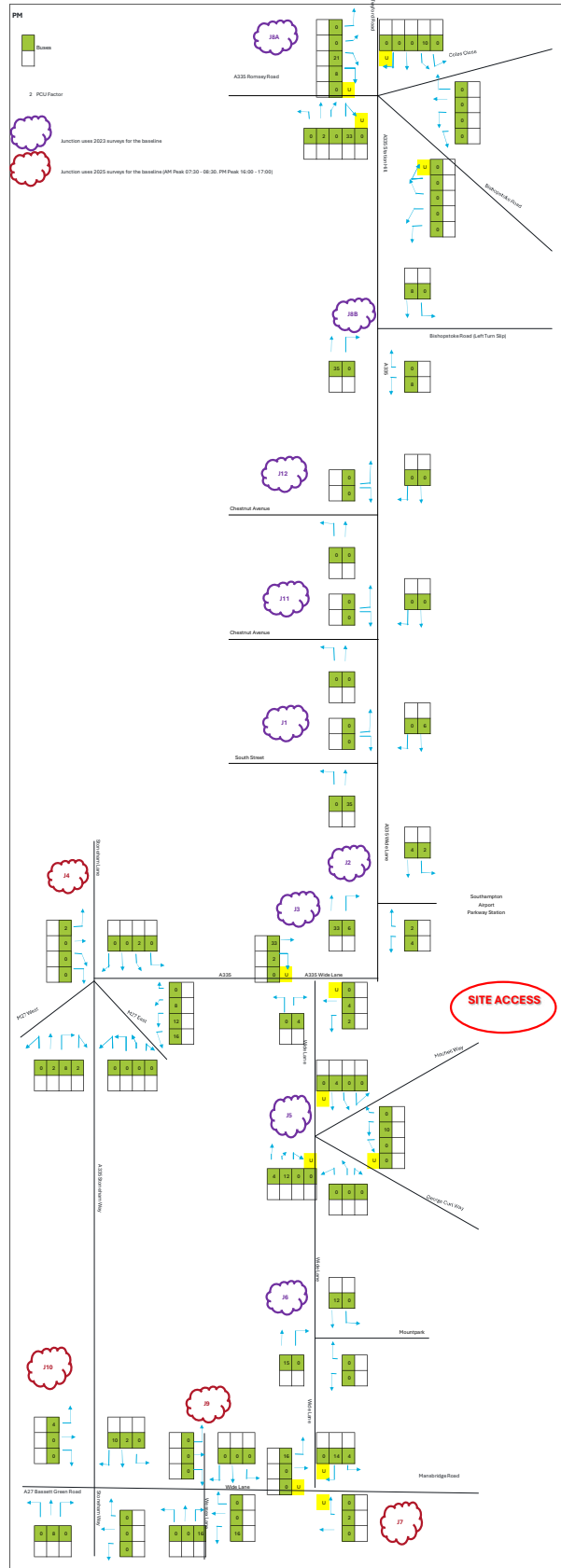
2028 Baseline - HGV PCUs



2028 - Baseline Bus PCUS



2028 - Baseline Bus PCUS



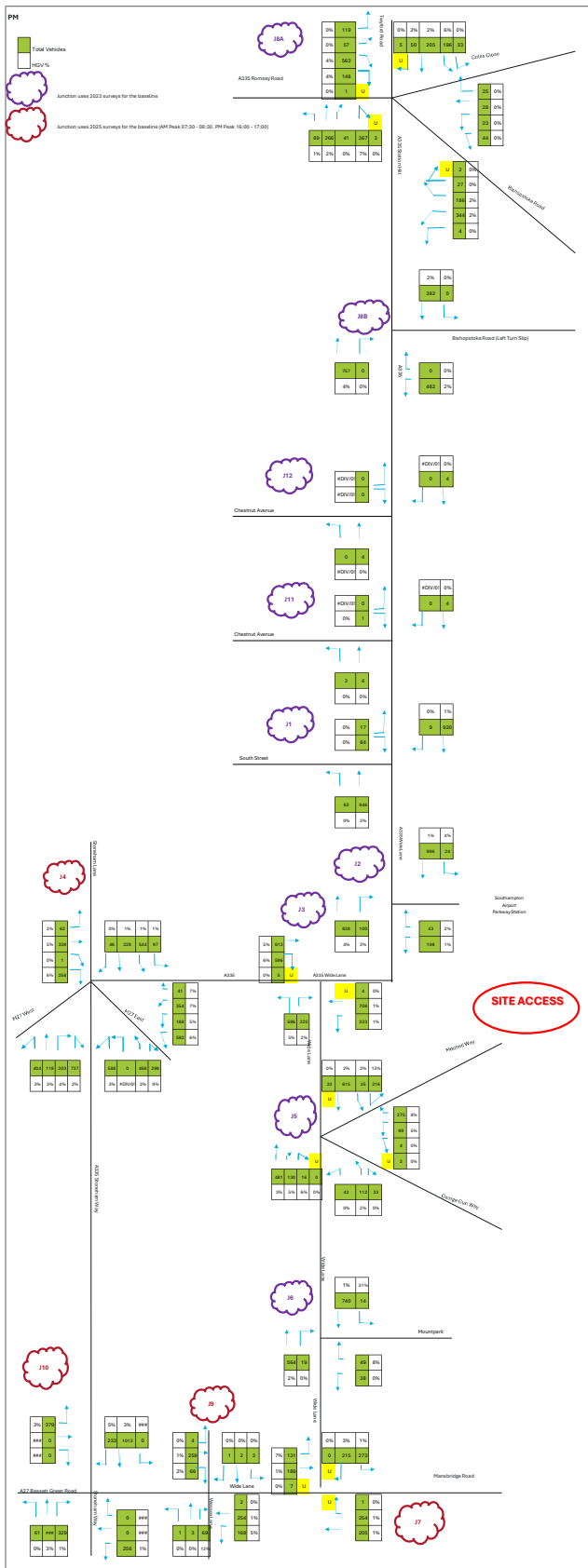
Appendix E – 2028 Baseline + Proposed Development - Vehicle Turning Movement Diagrams

Appendix E1 - Scenario 1 - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution – Parcel

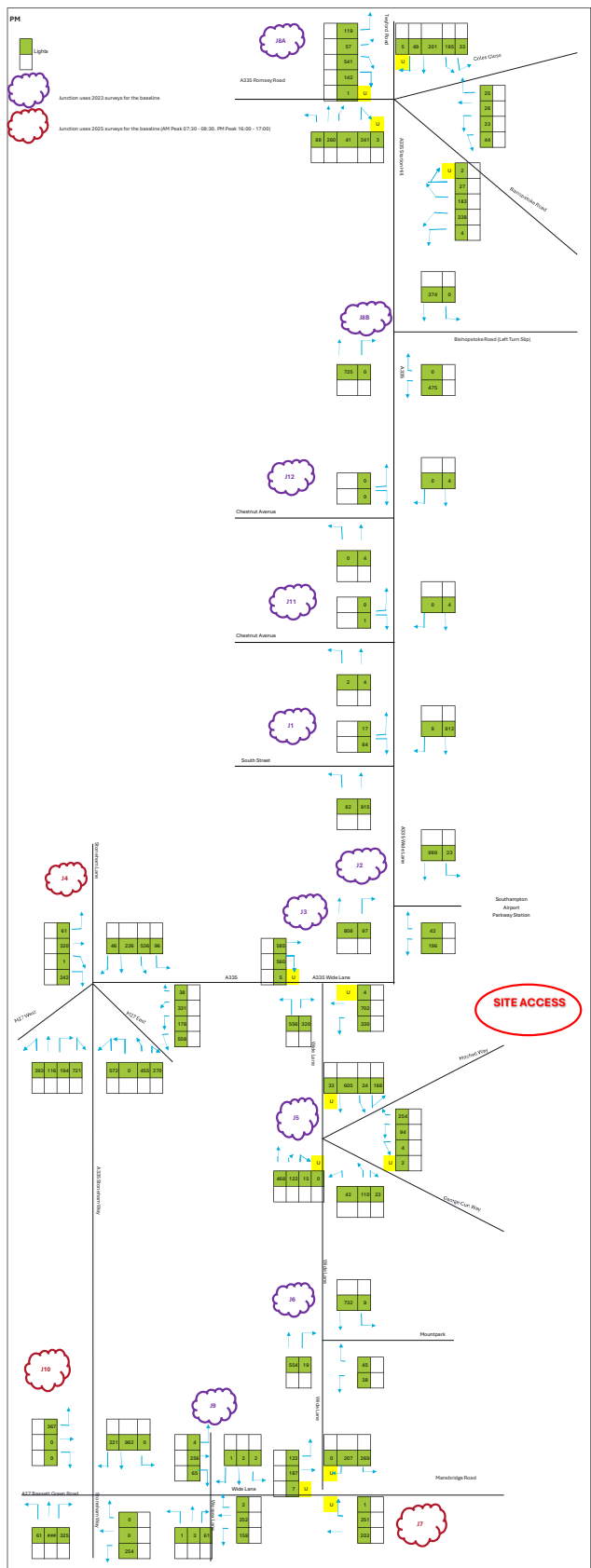
2028 Baseline + Proposed Development Vehicle Flows

2028 Baseline + Proposed Development - Turning Movement Flows - Vehicles

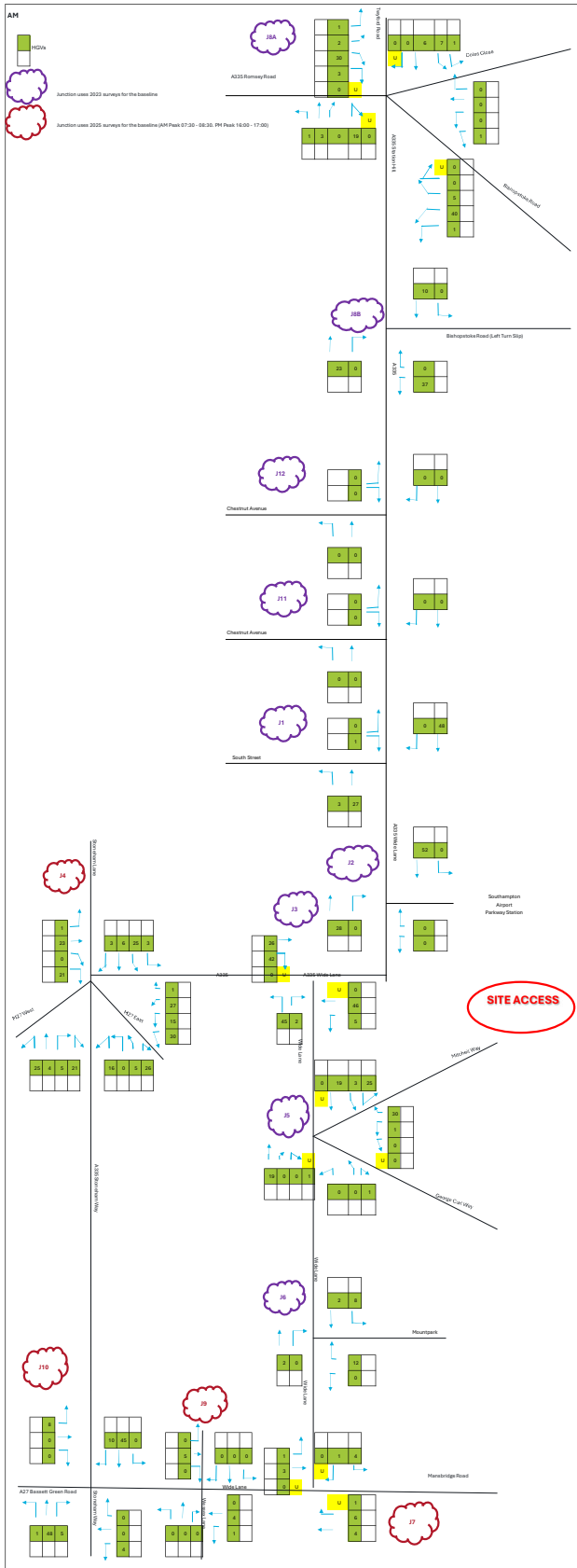
2028 - Baseline + Proposed Development - Total Vehicles



2028 Baseline + Proposed Development - Light Vehicle (Cars, Motorcycles, Taxis, LGVs)



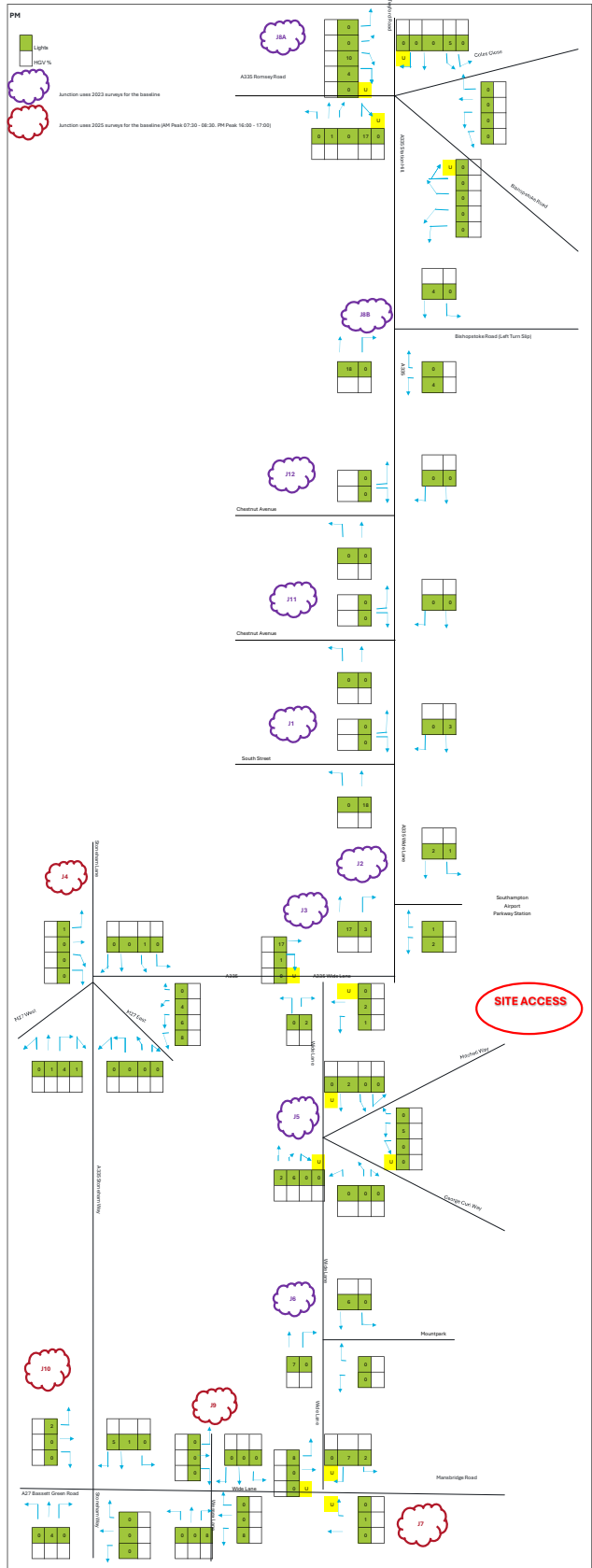
2028 Baseline + Proposed Development - HGVs



2028 Baseline + Proposed Development - HGVs



2028 - Baseline + Proposed Development Buses



**Appendix E2 - Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and
6,200sqm (31%) B8 Storage & Distribution – Parcel
2028 Baseline + Proposed Development Vehicle Flows**

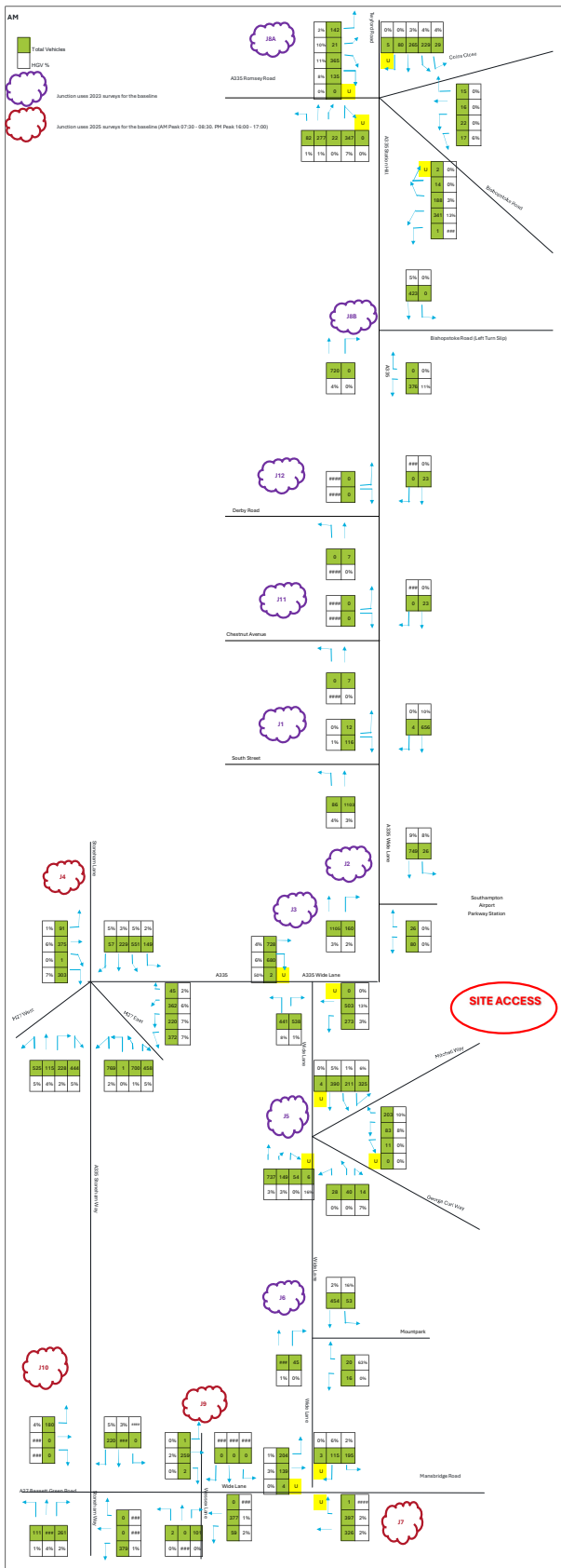
Blocwork & SIAL

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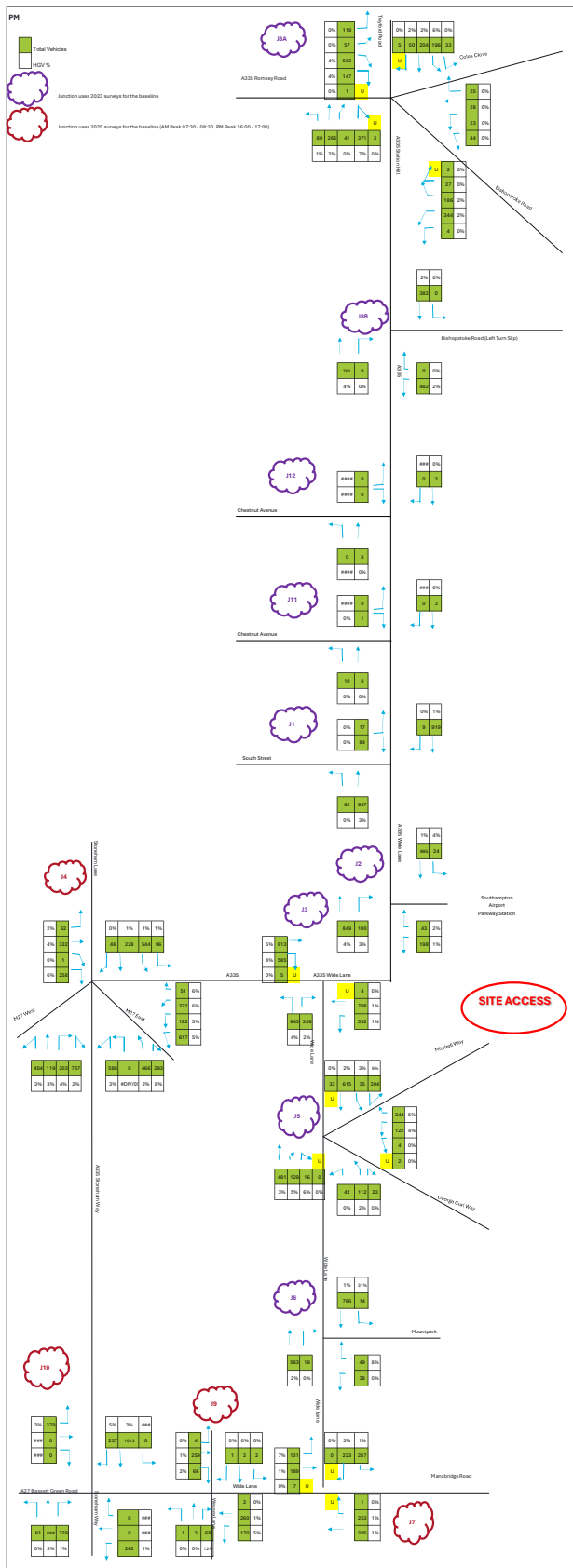
Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (i) and (ii), and 6,200sqm (31%) B8 Storage & Distribution - Parcel

2028 Baseline + Proposed Development - Turning Movement Flows - Vehicles

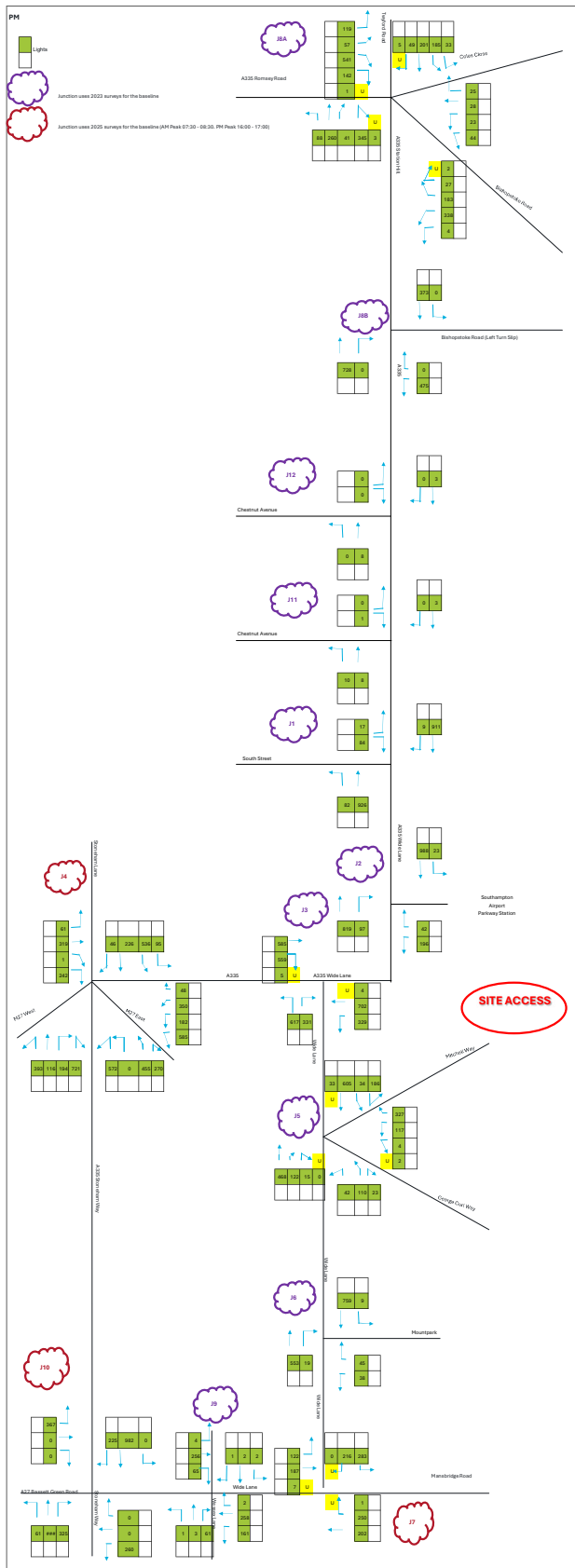
2028 - Baseline + Proposed Development - Total Vehicles



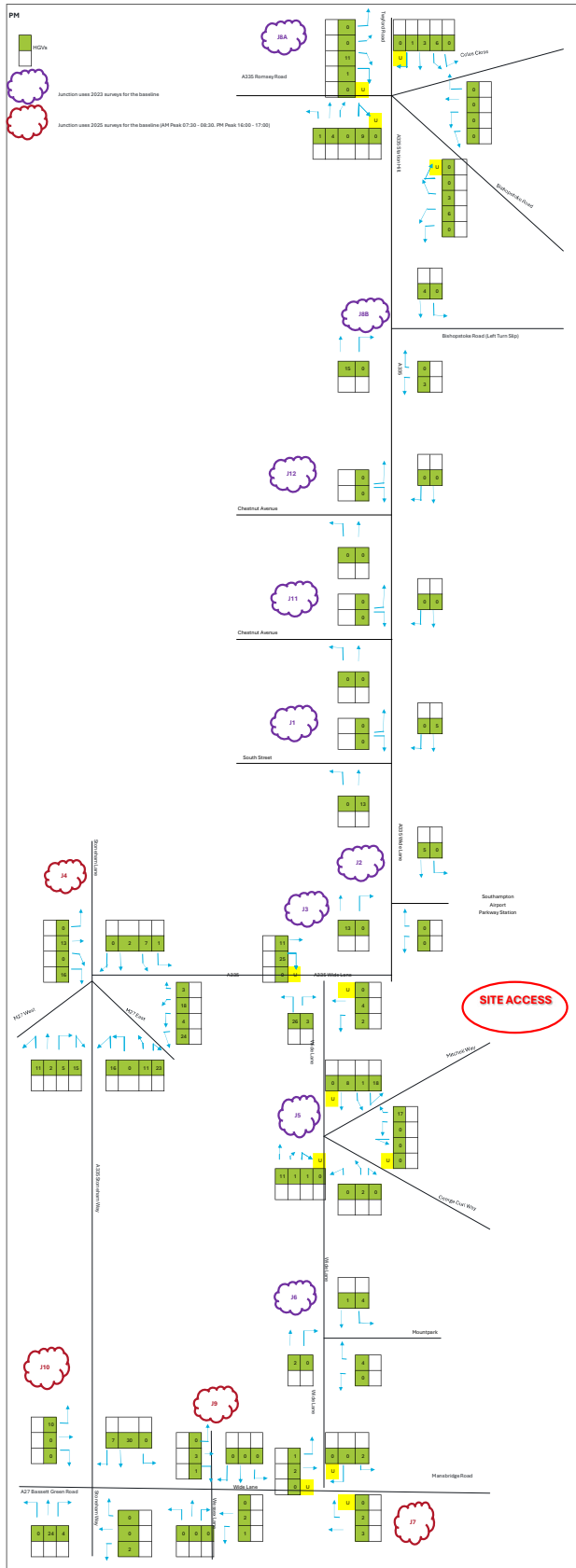
2028 - Baseline + Proposed Development - Total Vehicles



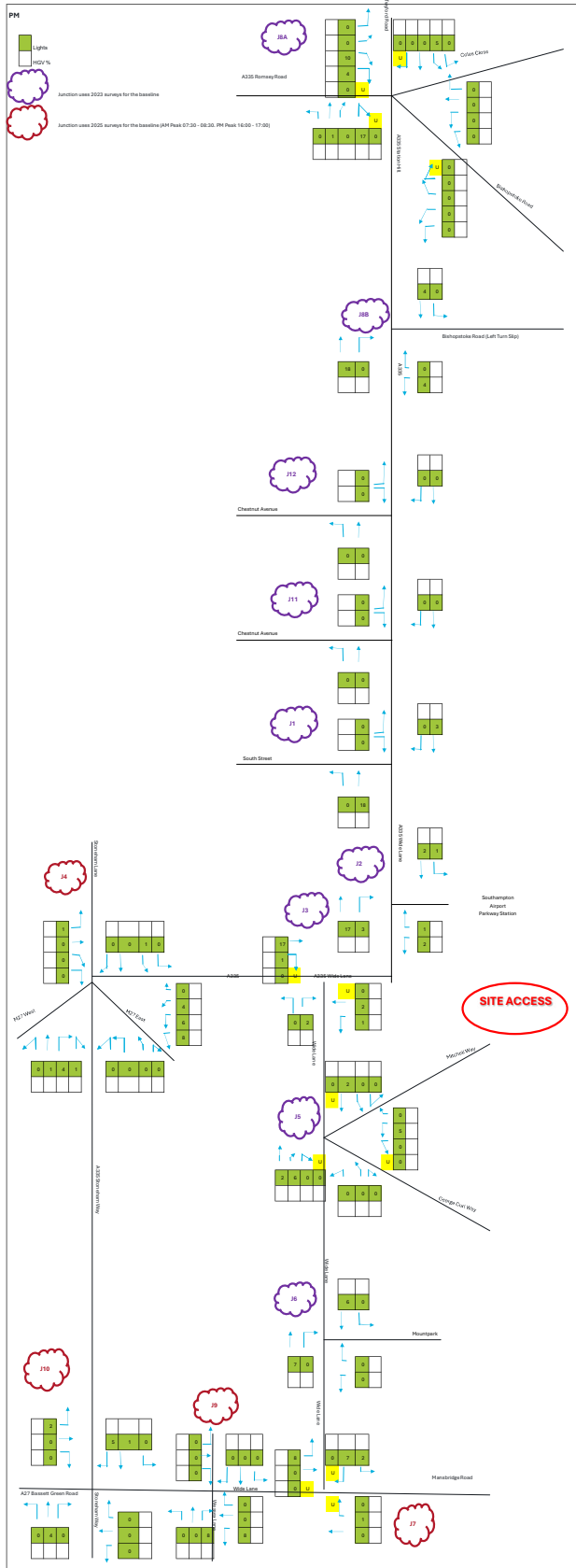
2028 Baseline + Proposed Development - Light Vehicle (Cars, Motorcycles, Taxis, LGVs)



2028 Baseline + Proposed Development - HGVs



2028 - Baseline + Proposed Development Buses



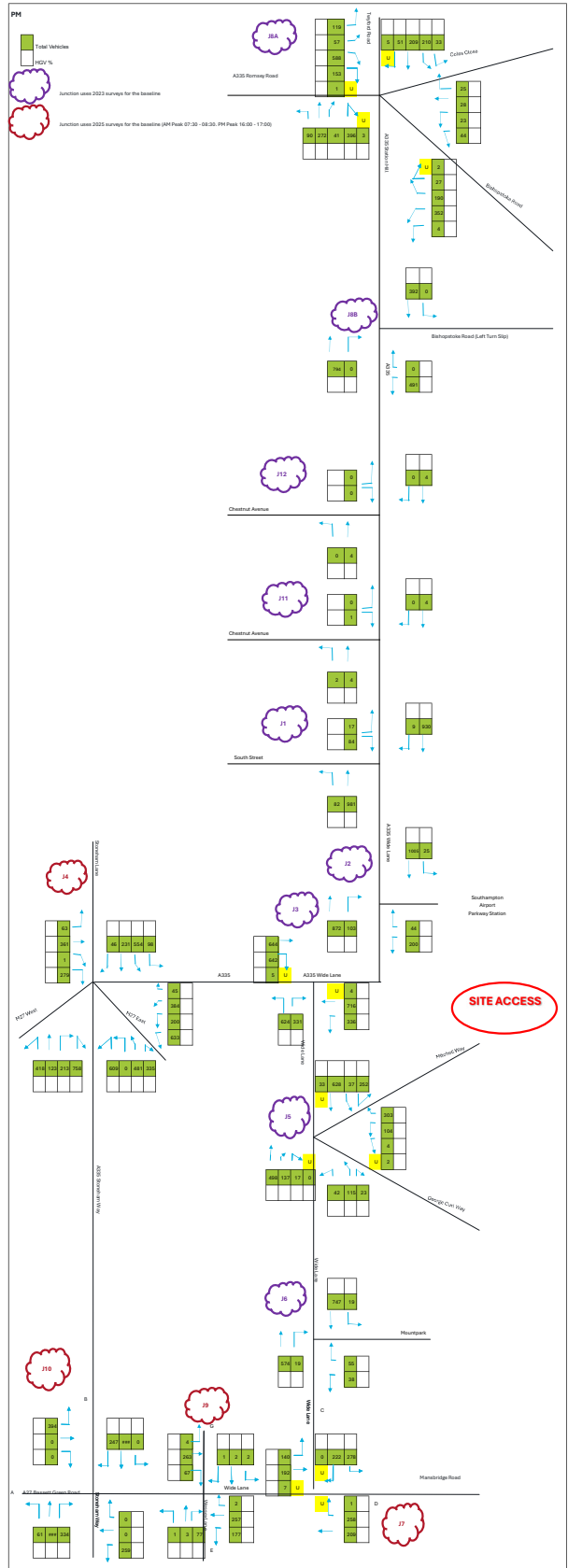
Appendix F – 2028 Baseline + Proposed Development – PCU Turning Movement Diagrams

Appendix F1 - Scenario 1 - 20,000sqm - 10,800sqm (54%) B8 Storage & Distribution - Warehousing and 9,200sqm (46%) B8 Storage & Distribution – Parcel

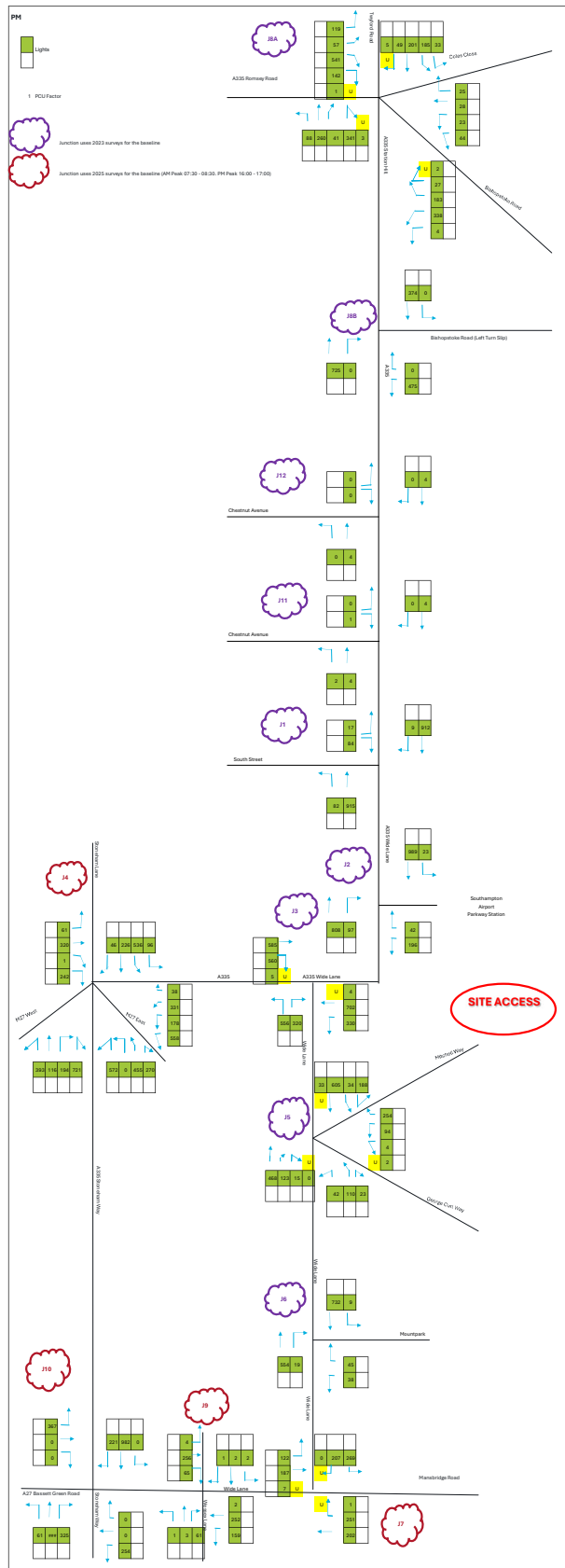
2028 Baseline + Proposed Development PCU Flows

2028 Baseline + Proposed Development - Total Vehicle PCUs

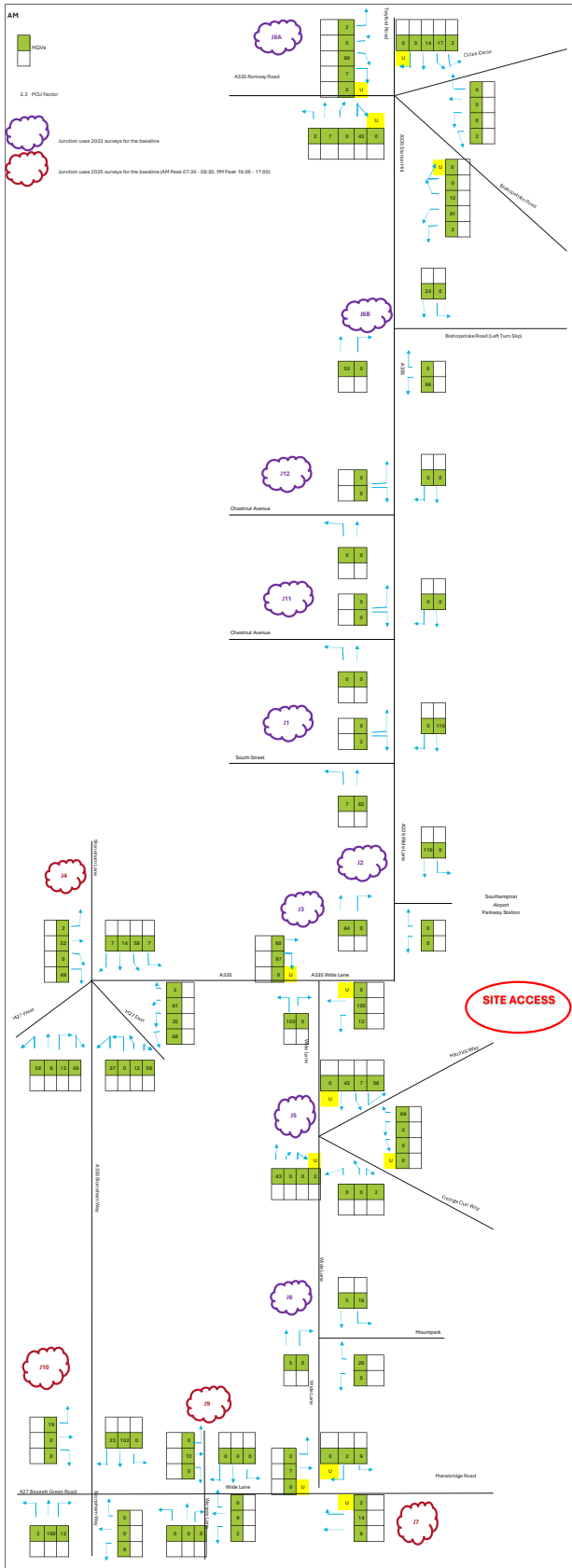
2028 Baseline + Proposed Development - Total Vehicle PCUs



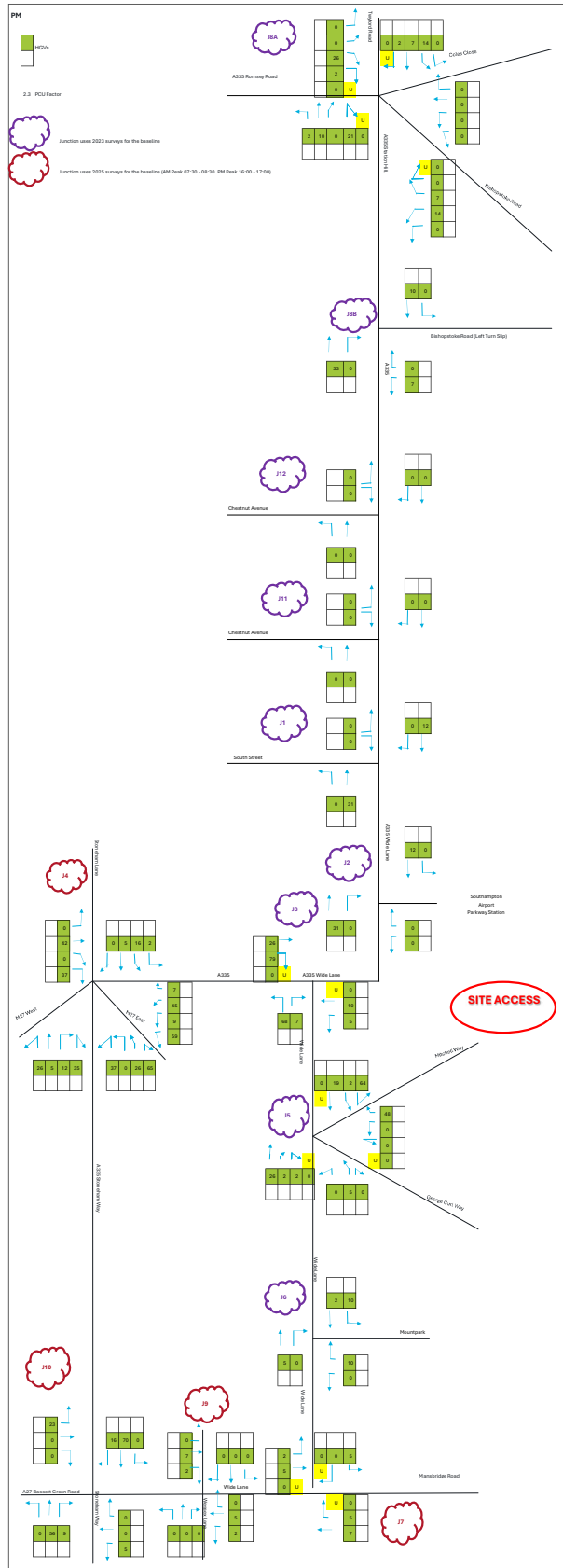
2028 Baseline + Proposed Development - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



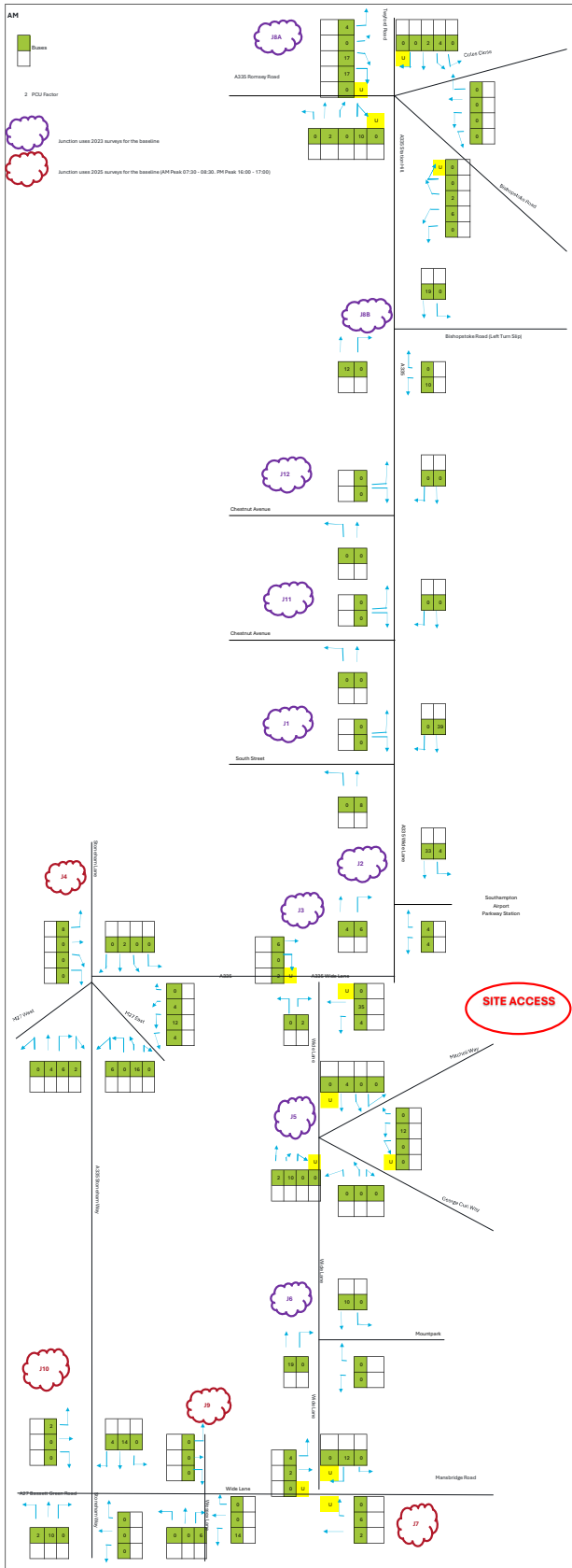
2028 Baseline + Proposed Development - HGV PCUs



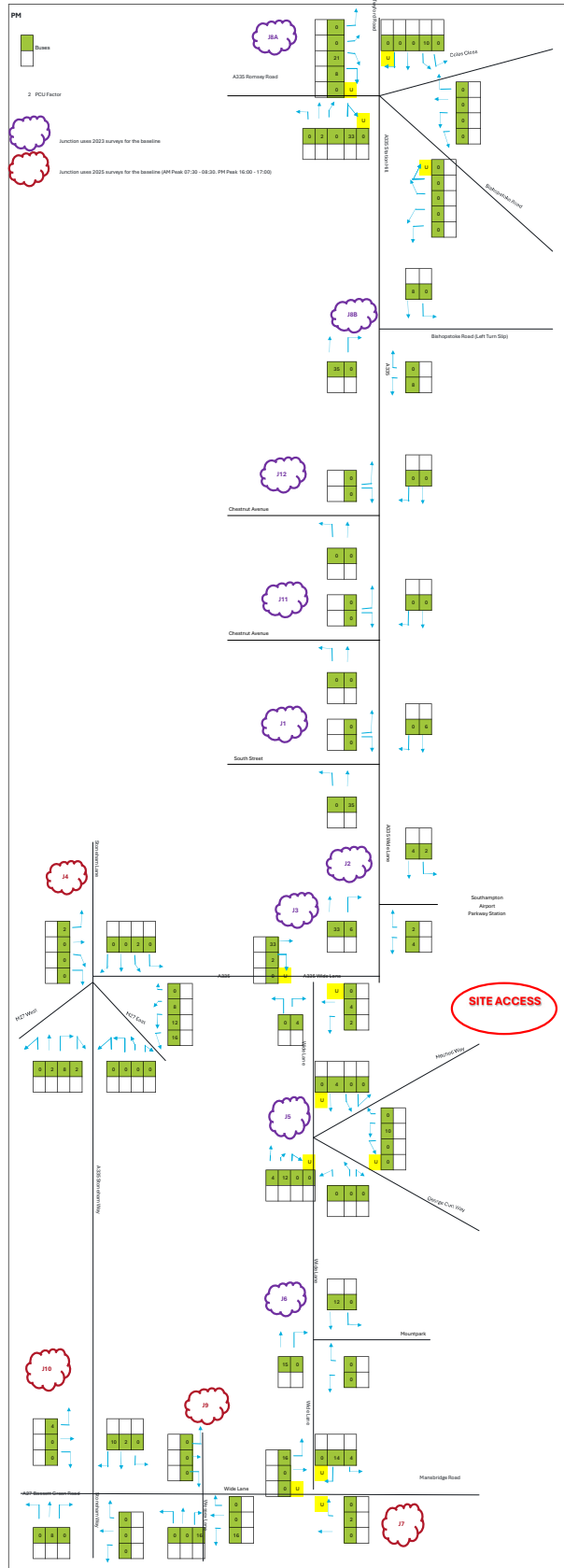
2028 Baseline + Proposed Development - HGV PCUs



2028 Baseline + Proposed Development - Baseline Bus PCUS



2028 Baseline + Proposed Development - Baseline Bus PCUS

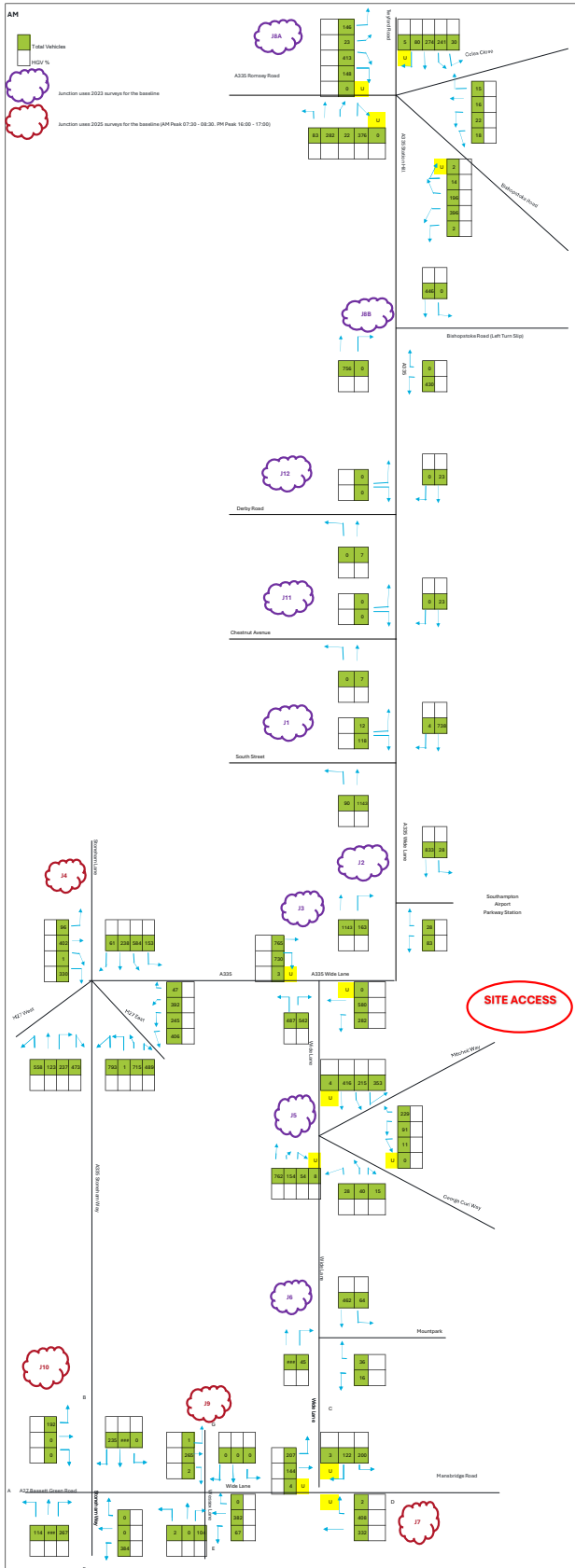


**Appendix F2 - Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (ii) and (iii), and
6,200sqm (31%) B8 Storage & Distribution – Parcel
2028 Baseline + Proposed Development PCU Flows**

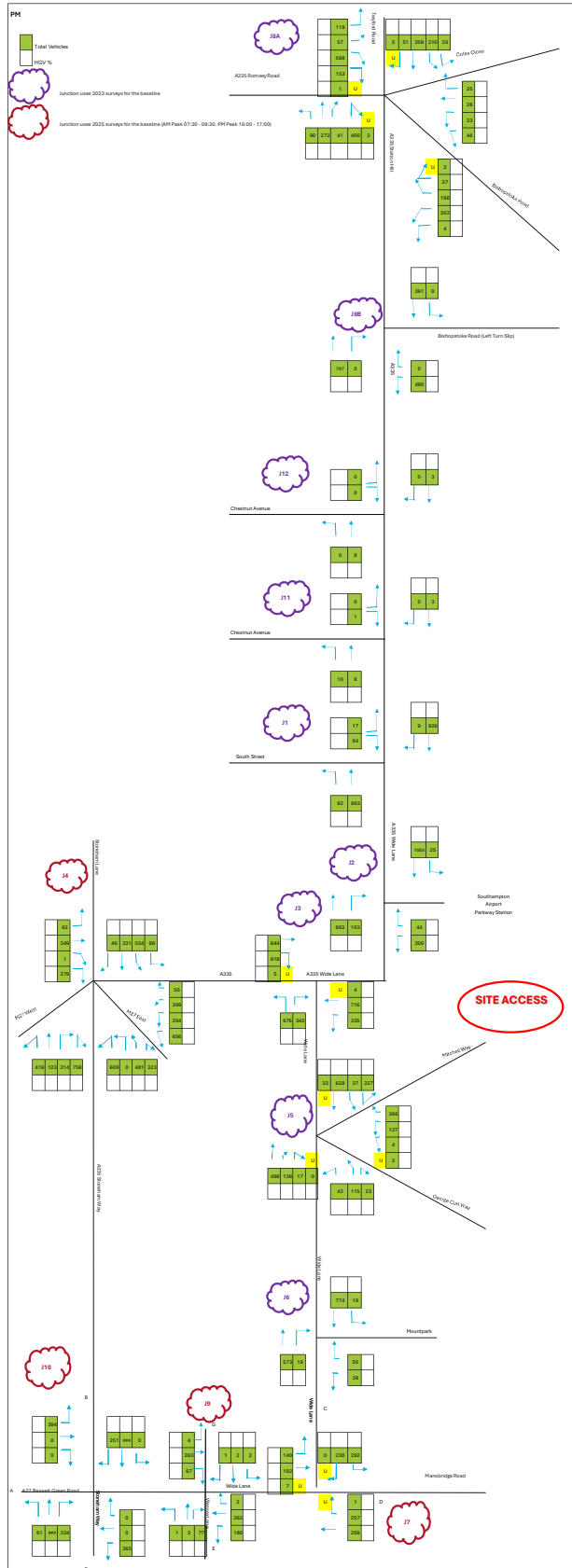
Blowwork & SIAL
 24733101 Navigator Quarter Southampton
 Scenario 2 - 20,000sqm - 13,800sqm (69%) Class E (g) (i) and (ii), and 6,200sqm (31%) B8 Storage & Distribution - Parcel

2028 Baseline + Proposed Development Baseline Turning Movement Flows - PCUs

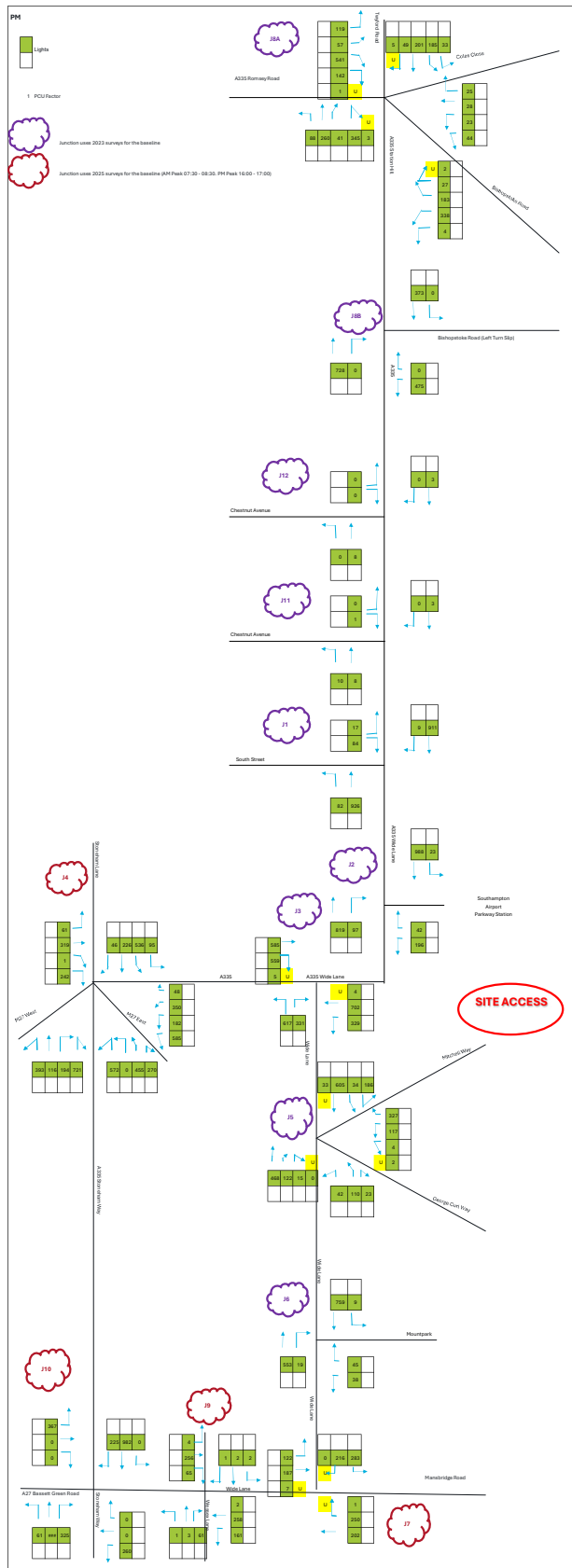
2028 Baseline + Proposed Development - Total Vehicle PCUs



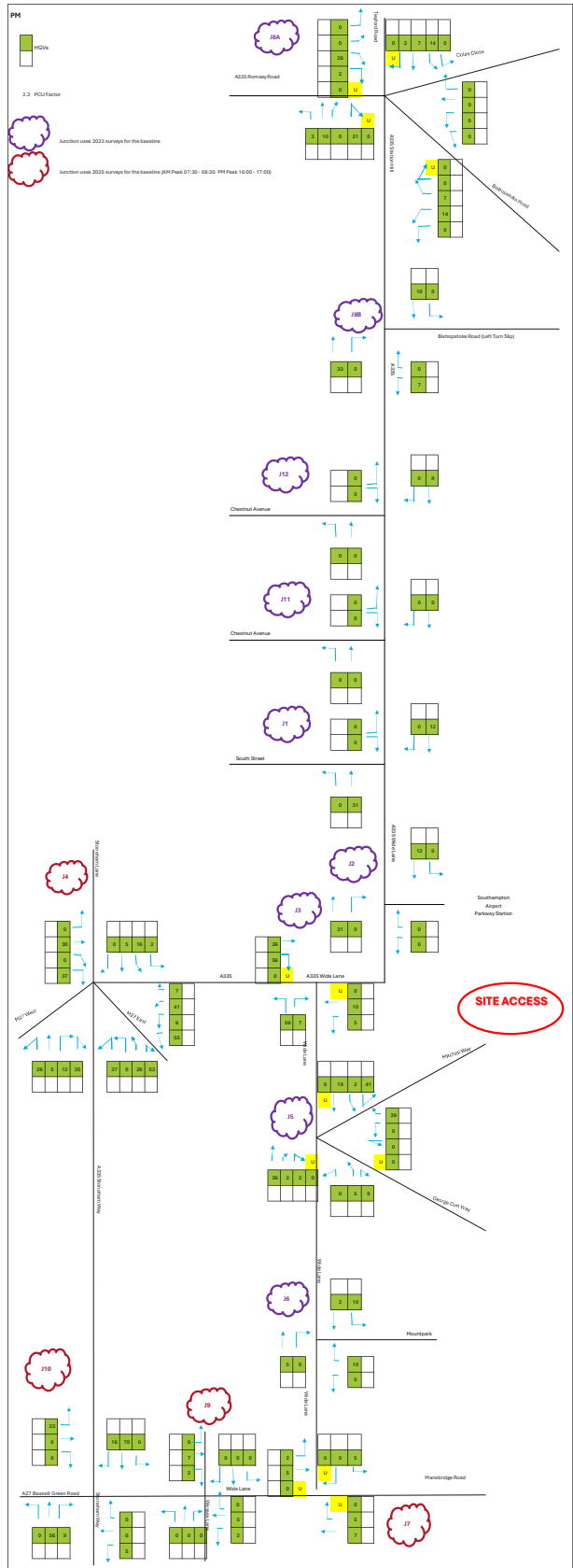
2028 Baseline + Proposed Development - Total Vehicle PCUs



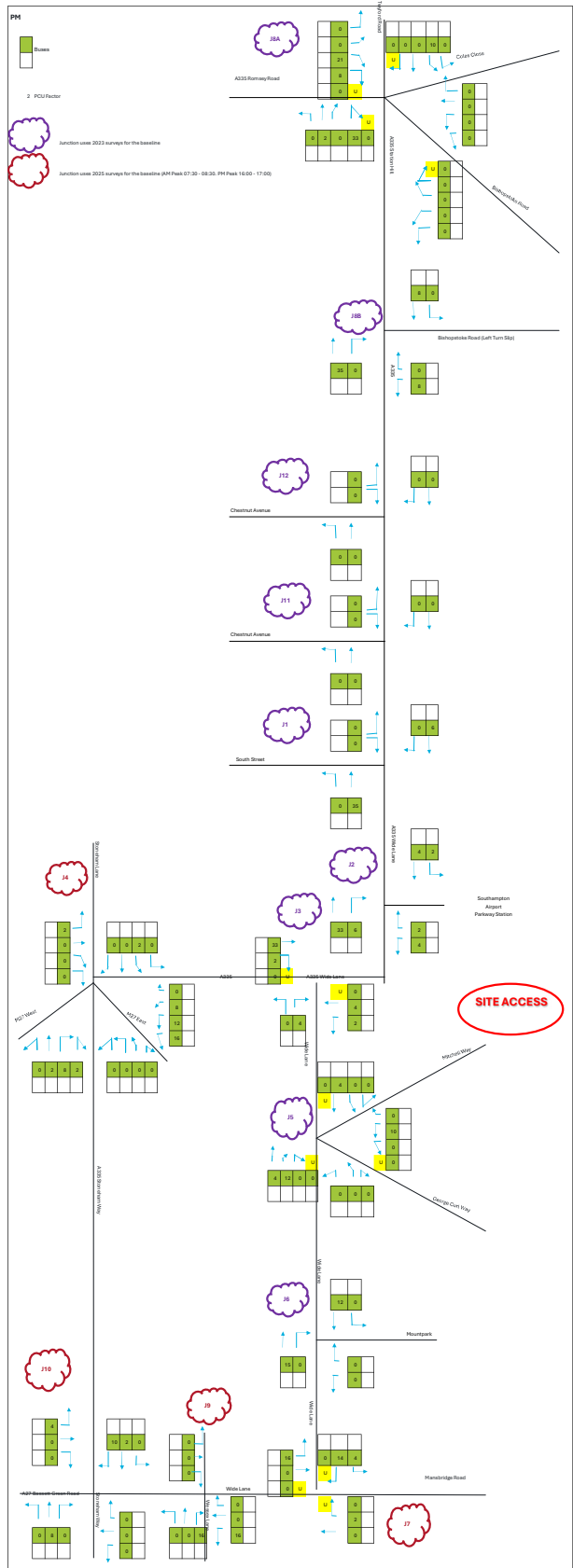
2028 Baseline + Proposed Development - Light Vehicle PCUs (Cars, Motorcycles, Taxis, LGVs)



2028 Baseline + Proposed Development - HGV PCUs



2028 Baseline + Proposed Development - Baseline Bus PCUS



Appendix G - J03 A335/ Wide Lane Roundabout Modelling Results (with Lane Simulation)

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

Filename: J03_A335_WideLn_Lane Simulation - updated scenarios.j9

Path: \\sdgworld.net\Data\London\Projects\247\3\31\01\Model\Junctions\03_Model\J03 junctions files

Report generation date: 02/04/2026 08:44:48

»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
 »DS 2028 [Scenario 1 - 20k sqm], AM
 »DS 2028 [Scenario 1 - 20k sqm], PM
 »DS 2028 [Scenario 2 - 20k sqm], AM
 »DS 2028 [Scenario 2 - 20k sqm], 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)	5.4	19.69		C	15.7	48.37		E
2 - Wide Lane (S)	3.6	12.74		B	3.8	15.63		C
3 - A335 (NW)	21.9	52.18		F	5.0	14.43		B
[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)	13.5	44.29		E	57.5	154.61		F
2 - Wide Lane (S)	10.4	29.28		D	25.7	74.61		F
3 - A335 (NW)	89.3	172.41		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
[Lane Simulation] - DS 2028 [Scenario 1 - 20k sqm]								
1 - Wide Lane (NE)	8.6	32.31		D	41.0	110.28		F
2 - Wide Lane (S)	7.0	20.69		C	11.3	37.31		E
3 - A335 (NW)	45.5	94.37		F	9.4	21.94		C
[Lane Simulation] - DS 2028 [Scenario 2 - 20k sqm]								
1 - Wide Lane (NE)	9.7	33.11		D	36.3	98.99		F
2 - Wide Lane (S)	6.7	18.80		C	25.9	76.19		F
3 - A335 (NW)	63.5	124.05		F	7.8	20.85		C

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	✓			322556591	196	17.51

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	✓
D13	DS 2028 [Scenario 1 - 20k sqm]	AM	ONE HOUR	07:45	09:15	15	✓
D14	DS 2028 [Scenario 1 - 20k sqm]	PM	ONE HOUR	16:45	18:15	15	✓
D15	DS 2028 [Scenario 2 - 20k sqm]	AM	ONE HOUR	07:45	09:15	15	✓
D16	DS 2028 [Scenario 2 - 20k sqm]	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	31.74	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)	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	7.92	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)

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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)	19.69	5.4	C	726	1089
2 - Wide Lane (S)	12.74	3.6	B	797	1196
3 - A335 (NW)	52.18	21.9	F	1170	1754

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)	589	147	409	592	592	929	0.0	1.3	8.372	A
2 - Wide Lane (S)	651	163	414	650	645	586	0.0	1.4	7.319	A
3 - A335 (NW)	962	240	374	964	956	691	0.0	2.8	9.865	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)	715	179	468	713	703	1103	1.3	2.6	10.748	B
2 - Wide Lane (S)	778	195	512	781	775	668	1.4	2.0	8.695	A
3 - A335 (NW)	1130	283	440	1131	1127	854	2.8	4.7	14.405	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)	880	220	600	879	863	1312	2.6	5.4	18.799	C
2 - Wide Lane (S)	960	240	623	955	939	856	2.0	3.6	11.882	B
3 - A335 (NW)	1410	352	536	1376	1355	1042	4.7	16.7	33.775	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)	860	215	595	871	867	1337	5.4	4.3	19.690	C
2 - Wide Lane (S)	945	236	620	953	956	847	3.6	2.8	12.737	B
3 - A335 (NW)	1407	352	535	1398	1390	1038	16.7	21.9	52.182	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)	712	178	477	718	721	1115	4.3	2.0	11.686	B
2 - Wide Lane (S)	790	197	508	787	789	687	2.8	2.2	9.607	A
3 - A335 (NW)	1137	284	441	1151	1201	854	21.9	5.8	29.988	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)	602	150	413	607	604	925	2.0	1.1	8.579	A
2 - Wide Lane (S)	658	164	426	657	658	593	2.2	1.5	7.407	A
3 - A335 (NW)	971	243	362	976	979	721	5.8	2.6	11.281	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	180	848	0.212	179	176	0.0	0.3	5.518	A
			2	3, 1	409	848	0.482	412	415	0.0	1.0	9.693	A
	Exit	1	1		929			929	917	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	277	856	0.324	276	278	0.0	0.6	6.798	A
			2	2, 1	374	856	0.437	374	367	0.0	0.9	7.690	A
	Exit	1	1		586			586	580	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	555	887	0.625	555	550	0.0	1.7	11.078	B
			2	2, 3	407	887	0.459	409	405	0.0	1.0	8.169	A
	Exit	1	1		691			691	695	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	206	828	0.249	204	206	0.3	0.5	5.996	A
			2	3, 1	509	828	0.615	509	497	1.0	2.1	12.897	B
	Exit	1	1		1103			1103	1088	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	340	821	0.414	342	341	0.6	0.7	7.924	A
			2	2, 1	438	821	0.534	440	434	0.9	1.2	9.266	A
	Exit	1	1		668			668	677	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	663	863	0.768	663	653	1.7	3.3	17.493	C
			2	2, 3	467	863	0.541	468	474	1.0	1.4	10.003	B
	Exit	1	1		854			854	840	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	259	782	0.331	259	259	0.5	0.5	7.012	A
			2	3, 1	621	782	0.794	620	604	2.1	4.9	24.223	C
	Exit	1	1		1312			1312	1289	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	422	780	0.540	419	414	0.7	1.4	10.543	B
			2	2, 1	539	780	0.691	536	525	1.2	2.2	12.878	B
	Exit	1	1		856			856	846	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	806	828	0.974	776	764	3.3	13.8	46.208	E
			2	2, 3	604	828	0.729	600	591	1.4	2.9	16.440	C
	Exit	1	1		1042			1042	1021	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	252	784	0.322	254	251	0.5	0.5	6.824	A
			2	3, 1	609	784	0.777	617	616	4.9	3.8	25.486	D
	Exit	1	1		1337			1337	1327	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	414	781	0.529	418	423	1.4	0.9	10.710	B
			2	2, 1	531	781	0.680	535	533	2.2	1.9	14.254	B
	Exit	1	1		847			847	844	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	813	828	0.982	803	794	13.8	19.2	76.721	F
			2	2, 3	594	828	0.717	595	596	2.9	2.7	17.491	C
	Exit	1	1		1038			1038	1043	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	212	825	0.257	213	210	0.5	0.3	5.964	A
			2	3, 1	500	825	0.606	505	511	3.8	1.7	14.317	B
	Exit	1	1		1115			1115	1162	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	344	822	0.418	346	345	0.9	0.8	8.560	A
			2	2, 1	446	822	0.543	441	445	1.9	1.4	10.374	B
	Exit	1	1		687			687	691	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	655	863	0.759	674	718	19.2	4.3	43.445	E
			2	2, 3	482	863	0.558	477	483	2.7	1.5	10.930	B
	Exit	1	1		854			854	859	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	181	847	0.214	183	177	0.3	0.2	5.480	A
			2	3, 1	421	847	0.497	424	427	1.7	0.9	10.000	A
	Exit	1	1		925			925	936	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	295	852	0.346	295	290	0.8	0.7	7.125	A
			2	2, 1	363	852	0.426	362	368	1.4	0.9	7.618	A
	Exit	1	1		593			593	587	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	561	892	0.629	563	568	4.3	1.8	13.336	B
			2	2, 3	411	892	0.460	413	411	1.5	0.8	8.397	A
	Exit	1	1		721			721	719	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	26.32	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)
	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)
	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)	48.37	15.7	E	904	1356
2 - Wide Lane (S)	15.63	3.8	C	704	1055
3 - A335 (NW)	14.43	5.0	B	1044	1565

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)	749	187	398	752	749	677	0.0	1.8	9.405	A
2 - Wide Lane (S)	580	145	532	578	574	617	0.0	1.4	7.735	A
3 - A335 (NW)	866	217	207	868	855	903	0.0	1.4	7.005	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)	895	224	472	898	886	801	1.8	3.4	13.564	B
2 - Wide Lane (S)	676	169	628	673	680	742	1.4	2.0	9.653	A
3 - A335 (NW)	1019	255	254	1019	1011	1048	1.4	2.8	9.041	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)	1084	271	572	1065	1048	989	3.4	13.5	35.108	E
2 - Wide Lane (S)	852	213	745	853	839	891	2.0	3.8	14.446	B
3 - A335 (NW)	1258	315	307	1253	1241	1291	2.8	5.0	13.259	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)	1083	271	571	1068	1072	987	13.5	15.7	48.369	E
2 - Wide Lane (S)	842	210	745	842	835	894	3.8	3.6	15.632	C
3 - A335 (NW)	1245	311	310	1248	1242	1277	5.0	5.0	14.433	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)	873	218	461	891	933	801	15.7	3.8	26.391	D
2 - Wide Lane (S)	692	173	635	695	695	717	3.6	2.0	11.090	B
3 - A335 (NW)	1008	252	253	1009	1031	1078	5.0	2.5	9.484	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)	741	185	396	739	748	683	3.8	2.3	10.020	B
2 - Wide Lane (S)	579	145	519	578	584	617	2.0	1.2	7.923	A
3 - A335 (NW)	864	216	215	864	868	882	2.5	1.8	7.357	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	224	852	0.263	224	226	0.0	0.3	5.849	A
			2	3, 1	525	852	0.617	528	523	0.0	1.5	10.934	B
	Exit	1	1		677			677	673	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	376	813	0.462	374	365	0.0	1.0	8.671	A
			2	2, 1	205	813	0.252	205	208	0.0	0.4	6.123	A
	Exit	1	1		617			617	615	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	470	949	0.496	470	462	0.0	0.9	7.313	A
			2	2, 3	396	949	0.418	398	394	0.0	0.6	6.649	A
	Exit	1	1		903			903	889	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	277	826	0.335	275	271	0.3	0.6	6.511	A
			2	3, 1	618	826	0.749	624	615	1.5	2.9	16.651	C
	Exit	1	1		801			801	801	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	425	778	0.546	423	430	1.0	1.5	11.240	B
			2	2, 1	251	778	0.323	250	249	0.4	0.5	6.966	A
	Exit	1	1		742			742	729	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	549	931	0.589	547	548	0.9	1.7	9.875	A
			2	2, 3	471	931	0.505	472	462	0.6	1.1	8.069	A
	Exit	1	1		1048			1048	1047	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	326	792	0.412	326	325	0.6	0.7	7.772	A
			2	3, 1	758	792	0.957	738	723	2.9	12.8	46.755	E
	Exit	1	1		989			989	979	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	549	736	0.746	550	537	1.5	3.1	18.045	C
			2	2, 1	303	736	0.411	303	302	0.5	0.7	8.101	A
	Exit	1	1		891			891	887	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	690	912	0.756	682	674	1.7	3.3	15.226	C
			2	2, 3	569	912	0.624	572	568	1.1	1.6	10.951	B
	Exit	1	1		1291			1291	1262	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	792	0.416	328	330	0.7	0.7	7.779	A
			2	3, 1	753	792	0.951	740	742	12.8	14.9	66.251	F
	Exit	1	1		987			987	988	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	533	736	0.724	537	532	3.1	2.7	19.716	C
			2	2, 1	309	736	0.420	306	303	0.7	0.9	8.618	A
	Exit	1	1		894			894	885	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	674	911	0.741	677	681	3.3	3.2	17.235	C
			2	2, 3	571	911	0.627	571	560	1.6	1.8	11.095	B
	Exit	1	1		1277			1277	1275	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	260	830	0.314	261	268	0.7	0.4	6.702	A
			2	3, 1	613	830	0.738	630	665	14.9	3.4	34.858	D
	Exit	1	1		801			801	815	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	445	776	0.573	447	448	2.7	1.5	13.209	B
			2	2, 1	248	776	0.319	248	247	0.9	0.5	7.319	A
	Exit	1	1		717			717	730	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	548	932	0.588	548	564	3.2	1.6	10.461	B
			2	2, 3	461	932	0.494	461	467	1.8	1.0	8.333	A
	Exit	1	1		1078			1078	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	225	852	0.264	224	221	0.4	0.4	5.665	A
			2	3, 1	516	852	0.606	515	528	3.4	1.9	11.871	B
	Exit	1	1		683			683	688	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	367	818	0.448	366	372	1.5	0.9	8.887	A
			2	2, 1	212	818	0.259	212	212	0.5	0.3	6.266	A
	Exit	1	1		617			617	612	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	468	946	0.495	468	473	1.6	1.1	7.820	A
			2	2, 3	396	946	0.419	396	395	1.0	0.7	6.813	A
	Exit	1	1		882			882	900	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)
	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)
	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)
	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)
	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)
	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)
	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

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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)
	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)
	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

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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	94.79	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

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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)	44.29	13.5	E	824	1237
2 - Wide Lane (S)	29.28	10.4	D	1031	1547
3 - A335 (NW)	172.41	89.3	F	1407	2111

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)	672	168	548	674	668	1048	0.0	1.9	10.118	B
2 - Wide Lane (S)	839	210	457	839	835	765	0.0	2.1	9.003	A
3 - A335 (NW)	1155	289	443	1153	1138	853	0.0	4.5	13.426	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)	812	203	649	809	799	1258	1.9	3.8	15.001	C
2 - Wide Lane (S)	1013	253	548	1011	1002	910	2.1	3.6	12.132	B
3 - A335 (NW)	1383	346	536	1371	1356	1024	4.5	11.4	25.182	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)	989	247	760	974	960	1424	3.8	11.0	31.684	D
2 - Wide Lane (S)	1239	310	660	1230	1213	1074	3.6	9.6	23.682	C
3 - A335 (NW)	1697	424	647	1537	1521	1242	11.4	53.3	81.710	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)	991	248	764	979	983	1435	11.0	13.5	44.290	E
2 - Wide Lane (S)	1244	311	661	1243	1236	1081	9.6	10.4	29.281	D
3 - A335 (NW)	1683	421	660	1538	1543	1243	53.3	89.3	172.406	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)	810	203	699	819	842	1344	13.5	4.9	28.925	D
2 - Wide Lane (S)	1008	252	560	1009	1033	959	10.4	3.8	16.056	C
3 - A335 (NW)	1380	345	538	1505	1530	1031	89.3	50.9	161.167	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)	672	168	548	674	688	1129	4.9	2.0	12.044	B
2 - Wide Lane (S)	845	211	459	845	852	762	3.8	2.3	9.547	A
3 - A335 (NW)	1144	286	447	1230	1306	857	50.9	11.7	61.906	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	217	800	0.272	217	217	0.0	0.4	6.316	A
			2	3, 1	455	800	0.568	457	451	0.0	1.5	12.108	B
	Exit	1	1		1048			1048	1039	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	395	841	0.470	396	392	0.0	0.9	8.866	A
			2	2, 1	444	841	0.528	443	442	0.0	1.2	9.116	A
	Exit	1	1		765			765	759	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	608	862	0.705	605	596	0.0	2.6	14.323	B
			2	2, 3	547	862	0.635	548	542	0.0	1.9	12.409	B
	Exit	1	1		853			853	843	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	262	765	0.343	261	259	0.4	0.6	7.177	A
			2	3, 1	550	765	0.719	548	539	1.5	3.2	19.086	C
	Exit	1	1		1258			1258	1240	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	475	807	0.588	475	470	0.9	1.6	11.397	B
			2	2, 1	538	807	0.666	536	531	1.2	2.0	12.747	B
	Exit	1	1		910			910	906	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	728	828	0.880	722	709	2.6	6.9	28.608	D
			2	2, 3	655	828	0.791	649	647	1.9	4.5	21.295	C
	Exit	1	1		1024			1024	1010	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	314	727	0.433	315	314	0.6	0.8	8.747	A
			2	3, 1	674	727	0.928	660	646	3.2	10.2	43.441	E
	Exit	1	1		1424			1424	1415	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	582	767	0.759	582	574	1.6	3.6	20.123	C
			2	2, 1	657	767	0.857	647	639	2.0	6.1	26.665	D
	Exit	1	1		1074			1074	1058	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	890	787	1.131	777	776	6.9	34.5	99.883	F
			2	2, 3	807	787	1.026	760	744	4.5	18.8	60.989	F
	Exit	1	1		1242			1242	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	317	725	0.437	318	320	0.8	0.8	9.310	A
			2	3, 1	674	725	0.928	661	664	10.2	12.7	62.480	F
	Exit	1	1		1435			1435	1436	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	584	767	0.762	583	579	3.6	3.8	23.130	C
			2	2, 1	660	767	0.861	660	657	6.1	6.6	34.386	D
	Exit	1	1		1081			1081	1083	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	888	782	1.136	775	779	34.5	61.3	224.726	F
			2	2, 3	795	782	1.017	764	763	18.8	27.9	112.642	F
	Exit	1	1		1243			1243	1243	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	261	748	0.349	260	259	0.8	0.6	7.928	A
			2	3, 1	549	748	0.735	560	584	12.7	4.3	39.718	E
	Exit	1	1		1344			1344	1356	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	470	803	0.586	471	479	3.8	1.7	13.899	B
			2	2, 1	538	803	0.670	538	555	6.6	2.1	17.844	C
	Exit	1	1		959			959	987	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	724	827	0.876	806	802	61.3	42.2	234.766	F
			2	2, 3	656	827	0.793	699	729	27.9	8.7	77.084	F
	Exit	1	1		1031			1031	1063	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	214	800	0.268	215	218	0.6	0.4	6.581	A
			2	3, 1	458	800	0.573	459	470	4.3	1.6	14.901	B
	Exit	1	1		1129			1129	1186	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	397	840	0.473	398	399	1.7	1.1	9.172	A
			2	2, 1	448	840	0.533	447	453	2.1	1.2	9.859	A
	Exit	1	1		762			762	792	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	599	860	0.696	683	733	42.2	9.6	99.783	F
			2	2, 3	545	860	0.634	548	574	8.7	2.1	19.810	C
	Exit	1	1		857			857	869	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)
	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)
	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

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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

From	To			
		1 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	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

DS 2028 [Scenario 1 - 20k sqm], 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	55.35	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
D13	DS 2028 [Scenario 1 - 20k sqm]	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	✓	843	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1049	100.000
3 - A335 (NW)		ONE HOUR	✓	1425	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	263	580
	2 - Wide Lane (S)	543	0	506
	3 - A335 (NW)	765	657	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	10
	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)	32.31	8.6	D	773	1159
2 - Wide Lane (S)	20.69	7.0	C	959	1439
3 - A335 (NW)	94.37	45.5	F	1308	1962

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	490	628	629	979	0.0	1.7	9.351	A
2 - Wide Lane (S)	785	196	433	785	785	685	0.0	1.9	8.417	A
3 - A335 (NW)	1059	265	406	1063	1056	812	0.0	3.4	11.388	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)	759	190	594	757	751	1176	1.7	3.1	12.940	B
2 - Wide Lane (S)	941	235	523	940	937	828	1.9	3.0	10.923	B
3 - A335 (NW)	1283	321	481	1289	1266	982	3.4	7.1	18.848	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)	929	232	713	919	911	1377	3.1	7.9	24.098	C
2 - Wide Lane (S)	1152	288	633	1147	1136	1000	3.0	7.0	18.974	C
3 - A335 (NW)	1573	393	599	1491	1475	1180	7.1	30.5	51.050	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)	933	233	722	937	928	1387	7.9	8.6	32.312	D
2 - Wide Lane (S)	1147	287	649	1144	1151	1010	7.0	6.8	20.688	C
3 - A335 (NW)	1573	393	597	1512	1511	1196	30.5	45.5	94.373	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)	753	188	597	756	777	1247	8.6	2.7	17.075	C
2 - Wide Lane (S)	939	235	521	939	956	832	6.8	3.0	12.654	B
3 - A335 (NW)	1282	320	488	1356	1400	972	45.5	16.4	68.408	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)	637	159	502	636	640	995	2.7	1.8	9.933	A
2 - Wide Lane (S)	790	197	443	789	796	695	3.0	2.0	8.799	A
3 - A335 (NW)	1077	269	408	1089	1126	824	16.4	3.8	19.571	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	820	0.240	197	198	0.0	0.4	6.108	A
			2	3, 1	430	820	0.525	431	432	0.0	1.4	10.970	B
	Exit	1	1		979			979	971	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	378	849	0.445	379	380	0.0	0.9	8.729	A
			2	2, 1	407	849	0.479	406	405	0.0	1.0	8.149	A
	Exit	1	1		685			685	685	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	570	876	0.652	573	566	0.0	2.0	12.279	B
			2	2, 3	489	876	0.558	490	490	0.0	1.4	10.324	B
	Exit	1	1		812			812	814	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	237	784	0.302	237	235	0.4	0.5	6.714	A
			2	3, 1	522	784	0.666	520	516	1.4	2.6	16.033	C
	Exit	1	1		1176			1176	1162	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	458	817	0.561	459	453	0.9	1.5	11.294	B
			2	2, 1	483	817	0.591	481	484	1.0	1.5	10.603	B
	Exit	1	1		828			828	820	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	692	848	0.816	696	678	2.0	4.6	22.134	C
			2	2, 3	591	848	0.697	594	588	1.4	2.5	14.901	B
	Exit	1	1		982			982	972	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	289	743	0.389	289	288	0.5	0.7	8.006	A
			2	3, 1	641	743	0.862	630	623	2.6	7.2	32.062	D
	Exit	1	1		1377			1377	1362	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	552	777	0.711	548	547	1.5	3.2	17.513	C
			2	2, 1	600	777	0.772	599	589	1.5	3.7	20.215	C
	Exit	1	1		1000			1000	986	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	846	804	1.052	778	773	4.6	22.1	66.022	F
			2	2, 3	728	804	0.904	713	702	2.5	8.5	33.136	D
	Exit	1	1		1180			1180	1173	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	290	740	0.392	291	289	0.7	0.6	8.155	A
			2	3, 1	643	740	0.869	646	639	7.2	8.0	44.240	E
	Exit	1	1		1387			1387	1388	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	551	771	0.715	547	554	3.2	3.3	19.308	C
			2	2, 1	596	771	0.773	597	597	3.7	3.6	21.867	C
	Exit	1	1		1010			1010	1006	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	849	805	1.054	791	791	22.1	35.6	134.379	F
			2	2, 3	725	805	0.900	722	720	8.5	9.9	46.435	E
	Exit	1	1		1196			1196	1196	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	238	783	0.303	237	238	0.6	0.4	7.142	A
			2	3, 1	515	783	0.658	519	539	8.0	2.3	22.083	C
	Exit	1	1		1247			1247	1273	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	450	817	0.551	451	460	3.3	1.4	12.481	B
			2	2, 1	489	817	0.598	488	496	3.6	1.6	12.801	B
	Exit	1	1		832			832	858	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	688	845	0.814	759	777	35.6	13.5	105.439	F
			2	2, 3	594	845	0.702	597	623	9.9	2.9	24.263	C
	Exit	1	1		972			972	1002	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	195	816	0.239	195	197	0.4	0.3	6.134	A
			2	3, 1	441	816	0.541	441	443	2.3	1.5	11.802	B
	Exit	1	1		995			995	1032	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	381	846	0.451	381	384	1.4	1.0	9.039	A
			2	2, 1	409	846	0.484	408	412	1.6	1.0	8.594	A
	Exit	1	1		695			695	701	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	574	875	0.656	587	620	13.5	2.2	26.496	D
			2	2, 3	503	875	0.575	502	506	2.9	1.5	11.396	B
	Exit	1	1		824			824	829	0.0	0.0	0.000	A

DS 2028 [Scenario 1 - 20k sqm], 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	54.75	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
D14	DS 2028 [Scenario 1 - 20k sqm]	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	✓	1056	100.000
2 - Wide Lane (S)		ONE HOUR	✓	955	100.000
3 - A335 (NW)		ONE HOUR	✓	1291	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	336	716
	2 - Wide Lane (S)	331	0	624
	3 - A335 (NW)	644	642	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	5
	3 - A335 (NW)	5	6	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)	110.28	41.0	F	975	1462
2 - Wide Lane (S)	37.31	11.3	E	873	1309
3 - A335 (NW)	21.94	9.4	C	1186	1778

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)	797	199	491	799	792	745	0.0	2.5	10.852	B
2 - Wide Lane (S)	711	178	550	713	711	741	0.0	1.9	9.707	A
3 - A335 (NW)	985	246	254	982	972	1009	0.0	2.6	8.713	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)	954	238	588	947	938	892	2.5	5.3	18.200	C
2 - Wide Lane (S)	850	213	648	851	854	887	1.9	3.6	13.896	B
3 - A335 (NW)	1173	293	302	1178	1160	1198	2.6	3.7	12.240	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)	1169	292	709	1099	1095	1088	5.3	24.6	54.189	F
2 - Wide Lane (S)	1055	264	730	1049	1024	1078	3.6	9.6	27.862	D
3 - A335 (NW)	1434	359	376	1421	1400	1404	3.7	9.4	19.721	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)	1165	291	697	1104	1104	1078	24.6	41.0	110.277	F
2 - Wide Lane (S)	1049	262	735	1047	1047	1066	9.6	11.3	37.308	E
3 - A335 (NW)	1406	351	370	1405	1427	1411	9.4	8.0	21.940	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)	959	240	577	1042	1050	873	41.0	16.7	90.734	F
2 - Wide Lane (S)	852	213	736	859	883	883	11.3	4.7	25.590	D
3 - A335 (NW)	1155	289	300	1150	1172	1295	8.0	4.0	12.667	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)	804	201	481	815	857	734	16.7	3.6	26.738	D
2 - Wide Lane (S)	719	180	558	717	733	738	4.7	2.0	11.795	B
3 - A335 (NW)	960	240	253	962	975	1023	4.0	2.4	8.671	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	252	820	0.308	254	251	0.0	0.4	6.490	A
			2	3, 1	545	820	0.665	546	541	0.0	2.0	12.856	B
	Exit	1	1		745			745	735	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	459	807	0.570	462	463	0.0	1.4	11.319	B
			2	2, 1	251	807	0.312	251	248	0.0	0.4	6.752	A
	Exit	1	1		741			741	735	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	489	932	0.525	491	484	0.0	1.1	8.670	A
			2	2, 3	496	932	0.533	491	487	0.0	1.5	8.757	A
	Exit	1	1		1009			1009	1005	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	304	786	0.387	303	300	0.4	0.7	7.270	A
			2	3, 1	649	786	0.826	644	638	2.0	4.6	23.277	C
	Exit	1	1		892			892	881	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	552	771	0.716	553	555	1.4	2.9	17.265	C
			2	2, 1	298	771	0.387	298	299	0.4	0.6	7.763	A
	Exit	1	1		887			887	878	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	589	914	0.644	590	578	1.1	2.0	11.504	B
			2	2, 3	584	914	0.639	588	582	1.5	1.7	12.983	B
	Exit	1	1		1198			1198	1195	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	744	0.504	373	376	0.7	1.1	9.586	A
			2	3, 1	794	744	1.067	726	719	4.6	23.5	75.422	F
	Exit	1	1		1088			1088	1069	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	680	741	0.918	677	658	2.9	8.5	38.118	E
			2	2, 1	375	741	0.506	373	365	0.6	1.1	9.394	A
	Exit	1	1		1078			1078	1071	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	718	886	0.810	712	700	2.0	4.4	19.807	C
			2	2, 3	716	886	0.808	709	700	1.7	5.0	19.635	C
	Exit	1	1		1404			1404	1378	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	372	748	0.497	374	375	1.1	0.9	9.974	A
			2	3, 1	792	748	1.059	730	729	23.5	40.1	157.518	F
	Exit	1	1		1078			1078	1079	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	683	740	0.924	682	684	8.5	10.3	52.183	F
			2	2, 1	366	740	0.494	365	363	1.1	1.0	9.757	A
	Exit	1	1		1066			1066	1085	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	710	889	0.799	708	712	4.4	4.1	21.755	C
			2	2, 3	695	889	0.782	697	715	5.0	3.9	22.127	C
	Exit	1	1		1411			1411	1413	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	790	0.395	311	307	0.9	0.8	7.823	A
			2	3, 1	646	790	0.818	731	742	40.1	15.9	130.094	F
	Exit	1	1		873			873	884	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	554	739	0.750	563	585	10.3	3.9	34.949	D
			2	2, 1	297	739	0.402	296	298	1.0	0.8	8.470	A
	Exit	1	1		883			883	892	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	572	914	0.626	573	582	4.1	1.9	12.688	B
			2	2, 3	583	914	0.637	577	590	3.9	2.1	12.646	B
	Exit	1	1		1295			1295	1328	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	260	823	0.316	260	258	0.8	0.4	6.563	A
			2	3, 1	545	823	0.662	555	599	15.9	3.2	36.250	E
	Exit	1	1		734			734	738	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	469	804	0.584	468	483	3.9	1.5	14.310	B
			2	2, 1	249	804	0.310	249	250	0.8	0.5	7.158	A
	Exit	1	1		738			738	745	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	480	932	0.515	481	484	1.9	1.2	8.639	A
			2	2, 3	481	932	0.516	481	490	2.1	1.1	8.703	A
	Exit	1	1		1023			1023	1082	0.0	0.0	0.000	A

DS 2028 [Scenario 2 - 20k sqm], 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	68.98	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
D15	DS 2028 [Scenario 2 - 20k sqm]	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	✓	862	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1029	100.000
3 - A335 (NW)		ONE HOUR	✓	1498	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	282	580
	2 - Wide Lane (S)	542	0	487
	3 - A335 (NW)	765	730	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	8
	3 - A335 (NW)	4	6	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)	33.11	9.7	D	789	1184
2 - Wide Lane (S)	18.80	6.7	C	943	1415
3 - A335 (NW)	124.05	63.5	F	1373	2060

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)	645	161	545	651	654	1005	0.0	1.5	9.591	A
2 - Wide Lane (S)	785	196	447	785	769	749	0.0	2.1	8.582	A
3 - A335 (NW)	1134	283	419	1131	1113	813	0.0	4.3	12.234	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)	786	196	648	792	768	1175	1.5	3.2	14.128	B
2 - Wide Lane (S)	937	234	538	929	933	901	2.1	3.2	10.732	B
3 - A335 (NW)	1343	336	481	1342	1327	986	4.3	8.5	20.685	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)	946	236	758	949	930	1384	3.2	8.0	26.438	D
2 - Wide Lane (S)	1141	285	639	1134	1113	1068	3.2	6.7	17.655	C
3 - A335 (NW)	1647	412	601	1540	1522	1172	8.5	41.4	65.132	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)	949	237	771	944	943	1420	8.0	9.7	33.114	D
2 - Wide Lane (S)	1132	283	637	1134	1134	1078	6.7	5.8	18.796	C
3 - A335 (NW)	1659	415	602	1590	1572	1169	41.4	63.5	124.051	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)	766	191	710	779	803	1242	9.7	3.4	23.874	C
2 - Wide Lane (S)	900	225	530	900	924	959	5.8	2.7	12.002	B
3 - A335 (NW)	1349	337	477	1475	1533	953	63.5	18.8	86.175	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)	645	161	551	644	658	974	3.4	2.0	10.956	B
2 - Wide Lane (S)	763	191	435	765	770	761	2.7	1.8	8.579	A
3 - A335 (NW)	1109	277	403	1122	1182	797	18.8	4.3	20.443	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	208	801	0.259	207	210	0.0	0.3	6.114	A
			2	3, 1	437	801	0.545	444	444	0.0	1.2	11.396	B
	Exit	1	1		1005			1005	972	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	368	844	0.437	366	365	0.0	1.1	8.794	A
			2	2, 1	417	844	0.494	419	403	0.0	1.0	8.404	A
	Exit	1	1		749			749	752	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	581	871	0.667	587	568	0.0	1.9	12.546	B
			2	2, 3	552	871	0.634	545	545	0.0	2.4	11.902	B
	Exit	1	1		813			813	813	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	254	765	0.332	256	253	0.3	0.4	7.087	A
			2	3, 1	532	765	0.695	536	516	1.2	2.8	17.898	C
	Exit	1	1		1175			1175	1168	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	452	811	0.557	448	445	1.1	1.7	11.329	B
			2	2, 1	485	811	0.598	481	488	1.0	1.6	10.224	B
	Exit	1	1		901			901	898	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	690	848	0.813	694	680	1.9	4.9	22.758	C
			2	2, 3	653	848	0.770	648	648	2.4	3.6	18.435	C
	Exit	1	1		986			986	964	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	315	727	0.433	313	307	0.4	0.9	8.912	A
			2	3, 1	631	727	0.867	637	623	2.8	7.1	35.672	E
	Exit	1	1		1384			1384	1361	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	537	775	0.694	534	525	1.7	3.2	16.991	C
			2	2, 1	604	775	0.779	601	588	1.6	3.6	18.209	C
	Exit	1	1		1068			1068	1054	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	855	804	1.064	783	773	4.9	25.6	75.493	F
			2	2, 3	792	804	0.985	758	749	3.6	15.8	53.811	F
	Exit	1	1		1172			1172	1150	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	311	723	0.430	311	308	0.9	0.8	9.315	A
			2	3, 1	638	723	0.883	633	635	7.1	8.9	45.638	E
	Exit	1	1		1420			1420	1399	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	533	775	0.687	532	536	3.2	2.6	17.698	C
			2	2, 1	600	775	0.773	602	598	3.6	3.3	19.713	C
	Exit	1	1		1078			1078	1075	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	847	804	1.055	819	801	25.6	37.2	146.427	F
			2	2, 3	811	804	1.010	771	771	15.8	26.3	100.209	F
	Exit	1	1		1169			1169	1175	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	249	744	0.335	252	253	0.8	0.4	8.083	A
			2	3, 1	517	744	0.694	527	550	8.9	3.0	32.136	D
	Exit	1	1		1242			1242	1273	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	424	814	0.521	423	437	2.6	1.4	11.537	B
			2	2, 1	476	814	0.584	477	487	3.3	1.3	12.395	B
	Exit	1	1		959			959	997	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	680	849	0.800	765	785	37.2	11.8	104.005	F
			2	2, 3	670	849	0.788	710	748	26.3	7.0	67.609	F
	Exit	1	1		953			953	990	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	213	799	0.267	212	215	0.4	0.5	6.628	A
			2	3, 1	431	799	0.540	433	443	3.0	1.5	13.306	B
	Exit	1	1		974			974	1015	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	361	849	0.425	363	365	1.4	0.9	8.255	A
			2	2, 1	402	849	0.473	403	405	1.3	0.9	8.853	A
	Exit	1	1		761			761	785	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	564	877	0.643	571	610	11.8	2.6	24.478	C
			2	2, 3	545	877	0.622	551	572	7.0	1.8	16.178	C
	Exit	1	1		797			797	810	0.0	0.0	0.000	A

DS 2028 [Scenario 2 - 20k sqm], 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	62.39	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
D16	DS 2028 [Scenario 2 - 20k sqm]	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	✓	1055	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1018	100.000
3 - A335 (NW)		ONE HOUR	✓	1267	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	335	716
	2 - Wide Lane (S)	342	0	676
	3 - A335 (NW)	644	618	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	4	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)	98.99	36.3	F	971	1457
2 - Wide Lane (S)	76.19	25.9	F	933	1399
3 - A335 (NW)	20.85	7.8	C	1166	1749

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	199	465	801	789	747	0.0	2.4	10.551	B
2 - Wide Lane (S)	763	191	555	765	761	711	0.0	2.2	10.491	B
3 - A335 (NW)	951	238	260	952	944	1060	0.0	2.2	8.535	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)	949	237	556	946	941	893	2.4	5.1	16.938	C
2 - Wide Lane (S)	916	229	646	916	908	857	2.2	4.9	16.938	C
3 - A335 (NW)	1139	285	309	1141	1136	1253	2.2	3.5	10.771	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)	1170	293	684	1102	1093	1095	5.1	23.7	51.433	F
2 - Wide Lane (S)	1123	281	737	1078	1069	1048	4.9	18.1	42.831	E
3 - A335 (NW)	1405	351	376	1402	1377	1438	3.5	7.7	18.617	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)	1166	292	697	1110	1112	1099	23.7	36.3	98.989	F
2 - Wide Lane (S)	1116	279	747	1091	1089	1060	18.1	25.9	76.189	F
3 - A335 (NW)	1406	352	377	1419	1402	1461	7.7	7.8	20.852	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)	943	236	564	999	1037	885	36.3	14.1	77.019	F
2 - Wide Lane (S)	912	228	707	954	970	856	25.9	11.7	61.447	F
3 - A335 (NW)	1137	284	310	1138	1153	1351	7.8	3.4	12.098	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)	802	201	470	820	853	747	14.1	2.4	21.425	C
2 - Wide Lane (S)	767	192	569	773	804	721	11.7	2.6	19.368	C
3 - A335 (NW)	956	239	263	954	958	1080	3.4	2.4	8.474	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	829	0.300	250	249	0.0	0.5	6.361	A
			2	3, 1	549	829	0.662	551	540	0.0	1.9	12.470	B
	Exit	1	1		747			747	744	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	507	805	0.630	508	501	0.0	1.8	12.485	B
			2	2, 1	256	805	0.318	257	259	0.0	0.4	6.685	A
	Exit	1	1		711			711	707	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	487	929	0.524	487	482	0.0	1.2	8.850	A
			2	2, 3	464	929	0.499	465	462	0.0	1.0	8.209	A
	Exit	1	1		1060			1060	1042	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	305	797	0.382	305	303	0.5	0.6	7.465	A
			2	3, 1	645	797	0.809	641	638	1.9	4.4	21.367	C
	Exit	1	1		893			893	888	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	612	772	0.793	611	603	1.8	4.2	21.575	C
			2	2, 1	304	772	0.394	305	305	0.4	0.7	7.825	A
	Exit	1	1		857			857	855	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	583	911	0.640	584	580	1.2	1.8	11.147	B
			2	2, 3	556	911	0.610	556	557	1.0	1.7	10.384	B
	Exit	1	1		1253			1253	1242	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	372	753	0.494	370	372	0.6	1.1	9.469	A
			2	3, 1	798	753	1.060	732	722	4.4	22.6	71.153	F
	Exit	1	1		1095			1095	1076	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	752	739	1.018	705	698	4.2	17.1	59.418	F
			2	2, 1	371	739	0.502	373	371	0.7	1.0	10.106	B
	Exit	1	1		1048			1048	1043	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	719	886	0.812	718	701	1.8	4.2	19.816	C
			2	2, 3	686	886	0.774	684	676	1.7	3.5	17.385	C
	Exit	1	1		1438			1438	1421	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	748	0.495	369	369	1.1	1.0	9.452	A
			2	3, 1	795	748	1.063	741	743	22.6	35.3	140.568	F
	Exit	1	1		1099			1099	1098	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	744	735	1.012	718	713	17.1	24.8	110.152	F
			2	2, 1	372	735	0.506	373	375	1.0	1.0	10.238	B
	Exit	1	1		1060			1060	1047	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	715	886	0.807	722	718	4.2	4.4	23.033	C
			2	2, 3	691	886	0.780	697	684	3.5	3.4	18.577	C
	Exit	1	1		1461			1461	1458	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	296	794	0.373	296	302	1.0	0.7	7.710	A
			2	3, 1	646	794	0.814	703	735	35.3	13.4	109.261	F
	Exit	1	1		885			885	897	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	608	750	0.811	648	663	24.8	11.1	88.577	F
			2	2, 1	304	750	0.405	307	307	1.0	0.6	8.571	A
	Exit	1	1		856			856	865	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	573	911	0.629	575	586	4.4	1.7	12.592	B
			2	2, 3	564	911	0.619	564	567	3.4	1.7	11.597	B
	Exit	1	1		1351			1351	1398	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	255	827	0.308	255	256	0.7	0.4	6.521	A
			2	3, 1	547	827	0.662	565	596	13.4	2.0	28.379	D
	Exit	1	1		747			747	749	0.0	0.0	0.000	A
2 - Wide Lane (S)	Entry	1	1	3	507	800	0.634	513	546	11.1	2.1	25.752	D
			2	2, 1	260	800	0.325	260	258	0.6	0.5	7.048	A
	Exit	1	1		721			721	723	0.0	0.0	0.000	A
3 - A335 (NW)	Entry	1	1	1	485	928	0.522	484	487	1.7	1.2	8.844	A
			2	2, 3	472	928	0.508	470	471	1.7	1.2	8.094	A
	Exit	1	1		1080			1080	1144	0.0	0.0	0.000	A